

CPTG Interpretation Training Module – Art Chesmore

"Through interpretation, understanding; through understanding, appreciation; through appreciation, protection." (from NPS Administrative Manual)

"Interpreting our Heritage" by Freeman Tilden – Required Reading

"Interpreting for Park Visitors" by William J Lewis – **Recommended Reading**

"Interpretation should capitalize mere curiosity for the enrichment of the human mind and spirit."

Interpretation is the educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information."

"The purpose of interpretation is to stimulate the hearer/tourist toward a desire to widen his horizon of interest and knowledge, and to gain an understanding of the greater truths that lie behind any statement of facts."

The provocation to the visitor to search out, meanings for himself, and join in the expedition like a fellow discover."

Freeman Tilden

Six Principles of Interpretation

- 1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
- 2. Information, as such, is not interpretation. Interpretation is revelation based upon information. But they are entirely different things. However, all interpretation includes information.
- 3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is in some degree teachable.
- 4. The chief aim of interpretation is not instruction, but provocation.
- 5. Interpretation should aim to present a whole rather than a part and must address itself to the whole man rather than any phase.
- 6. Interpretation addressed to children (say up to the age of twelve) should not be a dilution of the presentations to adults but should follow a fundamentally different approach. To be at its best it will require a separate program.



Choose an Interpretation Topic

Examples:

Water in the Mojave Desert

Adaptation by Desert Plant and Animals

Landscapes of Southwest USA

National Park Service -1916-2016

Ice Age Megafauna

Hoover Dam

Architecture in _____

Ancient Civilizations in North America

Las Vegas Tourism Industry

Gaming and Hospitality in Las Vegas

Choose an Interpretation Theme

The Theme is the key idea of any presentation. Themes should be stated as a short, simple complete sentence. The Theme should contain one idea. The Theme should reveal the purpose of the program or activity.

A theme is the central or key idea of any presentation.

Themes should be short, simple and complete sentence; contain one idea; reveal the overall purpose of the program or activity; be interestingly and motivationally worded.

Examples:

Tourism to Las Vegas and Nevada is highly influenced by three government legislative acts in 1931.

Repeal of prohibition on gaming in Nevada,

Liberalization of marriage and divorce requirements in Nevada, and

Financial appropriation for the Boulder Dam Project.



Las Vegas and Nevada hospitality & gaming were highly influenced by three individuals.

Kirk Kerkorian, Steven Wynn and Sheldon Adelson

Tourism in Las Vegas and Southern Nevada (Clark County) was influenced by three attractions opened in 1935.

Completion of Boulder Dam,

Opening of the Lost City Museum of Archaeology, and

Opening of the first Nevada State Park, Valley of Fire State Park.

Become a good Storyteller

Become an Interpreter, rather than a Guide.

Tell a story, rather than recite.

People (tourists) are mainly seeking enjoyment, not instruction.

The Art of Interpretation

Inform – Inspire – Stimulate - Entertain

Goal: Facilitate an emotional response within the client.

Outcome: Enhancing Experiences – Facilitating Appreciation – Influencing Behavior.

Interpretation is connecting people with their environment: People – Places – Concepts.

Interpretation is providing access to and enhancing experiences: Intellectual – Emotional.

"Do not tell people what they must do, but what they can do."

"Do not tell people what they must be, but what they can be."

People learn better when they are actively involved in the learning process.



Interpret through Senses

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Involve clients. Encourage and demonstrate through the use of senses: Sight – Touch – Smell – Taste – Hearing.

Appeal to the Senses

What does it look like; feel like; sound like; taste like, smell like?

People learn better when they are using as many senses as possible.

Examples:

Sight – Crossbedding; Leaf of Desert Scrub Oak and Desert Holly; Fiber of Mojave and Banana Yucca, and Joshua Tree; Bean of Mesquite Tree; Single leaf needle of Pinyon Pine; Berry of Juniper Tree; Adaptation to change by desert plants; Grand Staircase, elevation change between Paunsaugunt Plateau and Aquarius Plateau.

Touch - Wash sediment is soft, like talc, similar to use in ancient pottery; coarse volcanic rock used as aggregate.

Smell - Creosote Bush, Sagebrush;

Taste - Salt Pan brine water and salt crystals

Hearing – Raven, songbirds.

Provoke; Relate; Reveal.

Provoke

The chief aim of interpretation is provocation, not instruction.

Stimulate creative and provocative thinking.

Ask Questions - Who; What; Where; When; Why and How.

Examples:

Who Lives Here.

Who Visits Here.

What Is in the Water.

Why Are the Pools Green.

Why Is Sandstone Red.



Use Superlatives

Examples:

Largest – Giant Sequoia is the largest tree in USA;

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Smallest - Calliope Hummingbird is smallest bird in North America;

Highest – Mount Whitney is the highest elevation in California, and Continental USA;

Lowest - Badwater Salt Pan is the lowest elevation in California and in North America;

Tallest - California Coastal Redwood is the tallest tree in USA;

Oldest – Bristlecone Pine Tree is the oldest living thing.

Relate to Clients/Guests

When possible, relate interpretation to where clients live, their occupation, their interests, and other vacation experiences.

Relate to historical and well know events:

Examples:

Escalante passed through Southwest in 1776, the same year as the United States Declaration of Independence.

Gold was discovered in California in 1848, the same year that our present Southwest USA land was ceded from the Republic of Mexico.

In 1935, Boulder Dam was completed; the Lost City Museum of Archaeology was opened; and Valley of Fire State Park was established.

In 1931, US Congress appropriated funds for construction of Boulder Dam Project; Nevada Legislature repealed the prohibition of gaming; and Nevada Legislature liberalized marriage and divorce laws. All three pieces of legislation contribute to the current tourism industry in Southern Nevada.

At 660 feet, the base of Hoover Dam is equivalent to the length of two football fields placed end to end.



Speak of environmental issues and species interrelationships

Examples:

Preservation.

Restoration.

Micro Environments.

Oases and Natural Springs.

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Climate Change.

Adaptation of Desert Plants, Animals, and Micro Organisms.

INTERPRETATION VS. PRESENTATION

Description

Presenters Recycle

Interpreters Create Own Content

Research new facts daily.

Keep a record of each fact to incorporate into future interpretations.

Beginning your Interpretive Tour

Introduce yourself - Brief bio of personal experience; how long guiding; expertise and interests;

Ask Clients – Where is home; What is your occupation; What are your interests; First or return visit;

Outline their pending experience: Where they will go; What they will see/do; When they will return; Regulations and restrictions; Trail conditions;

Ask about disabilities and aids; Request group to remain close together; Request someone to be the tail;

Invite Questions - Surest way to interpret what clients want to know.



When to make Presentations

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We all make presentations. It is the way to deliver volumes of facts, figures and trivia as we drive highway speed along the Interstate.

Carefully selected facts can be: Supportive, Illustrative and Illuminating.

DVD's provide supporting info.

Examples:

Transportation Corridors through Southern Nevada – Name and describe the parallel orientation of the Old Spanish Trail, the Mormon Corridor or Mormon Road, the San Pedro, Los Angeles and Salt Lake Railroad, the Arrowhead Trail, US Highway 91, and Interstate Highway 15.

Geologic Landforms – Describe and point out a plateau, a mesa, a butte, a spire, a sand dune, a cinder cone, lava rock, faulting, a playa, an alluvial fan, a Bajada.

Interpret Small

Make multiple stops;

Develop multiple themes.

Examples:

Wash or Playa for examples of early potters; Joshua Tree and Pinyon-Juniper Forest; compare cacti and succulents; show transition of plants as identified by Merriam's Environmental Life Zones. Walk along Grand Canyon rim.

Observe

Clients sightsee; they take in the big picture;

Interpreters constantly observe, scanning for the rare visual and photo opportunity, wildlife, plant or geologic landform.

Examples:

Animals - roadrunner, coyote, bighorn sheep, pronghorn, American bison,

Birds - American bald eagle, California condor,

Reptile - desert tortoise, rattlesnake,

Plants - blooming cacti, desert four-spot,

Geologic - fault line, cinder cone, anticline, volcano neck



Make an Outline

Develop the opening, the message, and the closing.

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Focus on the theme.

Ask Questions

Examples: What is absent? What is different? What is similar? Interpret 21^{st} C to living during the 19^{th} C.

Natural Resources - Geology, Fauna, Flora, Climate, Water

Death Valley once beneath 600 feet of water, is now the driest place in North America, and the hottest place on the Planet.

Human Resources – Compare lodging for Archaic, and Ancestral Puebloan at Lost City Museum of Archaeology;

Pioneer transportation for settlers of Las Vegas at the Old Las Vegas Mormon Fort State Historical Park; Compare modes of transportation and travel time of pioneers to 21c.

Compare Technology, Equipment and Safety Standards during construction of Boulder Dam.

Suggested Resources

US Government Agencies – National Park Service; U.S. Fish and Wildlife Service; Bureau of Land Management; Bureau of Reclamation; National Forest Service.

Bibliography

Freeman Tilden - Interpreting our Heritage.

Sam H. Ham - Interpretation, Making a difference on Purpose.

National Association for Interpretation.



Interpretation – Natural History

The geologic sequence creating the Grand Canyon can be remembered by the western term DUDE. D = Deposition; U = Uplift; D = Down cutting; E = Erosion

Plateau stratification can be visualized by stirring salt/sugar in a glass. What doesn't dissolve will settle to the bottom, horizontal to the water table above.

Petrified wood (trees) can be seen in Valley of Fire State Park; Petrified Forest National Park and Painted Desert.

In describing alluvium, the more angular the rocks, the closer the sediment is to its source. Stratified sediments in nature exhibit older depositions below younger depositions. Alluvial fans exhibit a sediment mix of the younger depositions.

Volcano Necks can be seen along old Route 66 south of Oatman Az; along AZ Hwy 95 north of Lake Havasau; and along Az Hwy 163 north of Kayenta, south of Monument Valley.

As the Colorado Plateau rose, it fractured into seven plateaus (Grand Staircase) with elevations ranging from approximately 4,500 ft to over 11,000 ft. above sea level.

Las Vegas Metropolitan Area sits in a bowl surrounded by mountains; Spring Mountain, Sheep Mountain, Sunrise Mountain, Frenchman Mountain, and McCullough Range.

Spring Mountain is a "Sky Island" surrounded by desert. Mt Charleston, 11,919', is the highest elevation in Southern Nevada.

Volcanoes are located to the East and Southeast, in Henderson, Boulder City and along the shore of Lake Mead.

Faults are located throughout Las Vegas Metropolitan Area: Valley View Blvd at Charleston Blvd, Ann Rd at Decatur Blvd, Cheyenne Ave at Revere St, Sunset Rd at Arroyo Grande Blvd.

Sand Dunes are located north of Nellis AFB and along Eastern Avenue between Sunset and Warm Springs. Major sand dunes are located in the Mojave National Preserve and in Death Valley National Park.

Playas are located bordering US 93 South of Boulder City; bordering I-15 North of US 93; and bordering I-15 South of Primm.



Rocks in the Frenchman Mountain have been correlated with identical rocks East of Lake Mead near the Grand Wash Cliffs bordering Grand Canyon.

The "Great Unconformity" interpretive site is located along Lake Mead Blvd East of Nellis Blvd. Exposed rocks range in age from 1.7 billion years to 5 million years.

The Keystone Fault in the Spring Mountain is the result of tectonic plate movements.

The Range and Basin Province is evident throughout Southern Nevada. Mountains trend Northwest/Southeast.

North American Deserts – Mojave, Great Basin, Sonoran, Chihuahuan.

Limestone and Sandstone are the primary sedimentary rocks in the Las Vegas area.

Merriam's Environmental Life Zones – (only the Rainforest is not found) is exhibited by flora found from Lake Mead to Mount Charleston peak in the Spring Mountain Range. This is similar to a journey from Las Vegas to Yukon Territory.

Crossbedding is found in Valley of Fire State Park, in Red Rock Canyon National Conservation Area, and in Zion National Park.

Natural springs and seeps (approximately 50) are located in the Spring Mountain Range.

Minerals such as iron give sandstone its red and pink color.

Tule Springs Fossil Beds National Monument was established December 2014.

Climate and Weather – Las Vegas

Las Vegas - 3.5-4.0" precipitation/year

Desert -Arid <10" precipitation/year, Nevada driest state, +/- 9.5" /year

Temperature - Annual range 30F-105F; several consecutive days above 110F; occasional days 115-120F.

Temperature varies 3-4 degrees/1,000' change in elevation, or 300 miles change in longitude.

Mojave Desert temperatures may vary 25-40 degrees in a 24-hour period because its dry or arid environment.

Water - Life Blood, Seeps and Springs, Rivers - large and small

Adaptation – Arid and Dry, Wet and Cold. Plants adapt to heat, drought, shifting sand



Most common and identifiable Fauna and Flora around Las Vegas. Choose to be a naturalist if you wish, however clients generally cannot identify with sub-species.

Mammals – Big Horn Sheep, Mule Deer, Coyote, Fox, Rabbit, Squirrel

Raptors - Bald Eagle, Golden Eagle, Hawks, Owls

Scavengers - Turkey Vulture, Raven, California Condor

Creepers & Crawlers - Lizards, Spiders, Scorpions, Tarantulas

Reptiles – Desert Tortoise; Rattlesnakes – Mohave Green, Western Diamondback, Sidewinder

Scrub – Creosote, Blackbrush, Manzanita, Indigo, Sage, Rabbit Brush

Cactus - Prickly pear, Beavertail, Barrel, Hedgehog, Cholla

Yucca – Mohave, Banana

Agave, Century Plant

Trees - Joshua Tree, Cottonwood, Mesquite, Desert Willow, Catclaw, Palo Verde, Pinyon Pine Juniper, Desert Live Oak

Flowers – Brittlebush, Globemallow, Penstemon, Indian Paintbrush, Aster, Sacred Datura, Four-spot, Phacelia, Desert Gold, Rock Nettle, Desert Holly

Rocks are classified as Igneous, Metamorphic, or Sedimentary.

Life Cycle of Rock – Begins as a grain of sand, cemented into escarpments, erosion returns it to a grain of sand.

Erosion of Landforms – a Plateau is reduced to a Mesa; a Mesa is reduced to a Butte; a Butte is reduced to a Pinnacle or Spire; a Spire is reduced to Mound.

Erosion begins with water, either liquid or frozen. Water dissolves minerals that bond grains of sand. When water freezes, expansion causes stress causing rock to fault.

Examples:

When the root of trees growing in rock landforms enlarges, expansion causes stress causing rock to fault;

When Desert Big Horn Sheep run along rock landforms, they dislodge rock layers, causing rock to fracture into smaller units;

Windblown sand acts like sandpaper, reducing rock landforms; Water borne silt acts like liquid sandpaper, causing canyons to widen and deepen.



Interpretation Comparisons - Natural History

Relate to historical and well-known events, and to natural resources familiar to clients and guests:

Death Valley was once covered by 600 feet of water.

Characteristics of the Jimsonweed or Sacred Datura is similar to morning glory; each open their trumpet shaped flower during cool mornings and evenings, and wilt during mid-day heat.

Traveling from Las Vegas Strip to Mt Charleston, a distance of 35 miles, you pass through the same environmental life zones as travel between Las Vegas and Yukon Territory.

The relief between the Strip (2,250 ft) and Mt Charleston (11,919 ft) is nearly two vertical miles.

The relief between the Strip (2,250 ft) and Mt Charleston (11,919 ft) is nearly twice the depth of Grand Canyon (5,000 ft).

Boundary Peak (13,147ft), the highest summit in Nevada, is nearly twice the elevation of Mt Mitchell (6,684ft), the highest peak east of the Mississippi River.

Leaves of Desert Scrub Oak and Desert Holly resemble the leaf of American Holly.

Pinyon Pine differs from Eastern varieties of pine trees - Pinyon Pine has a single leaf; Red Pine has a cluster two leaves; Yellow Pine has a cluster of three leaves, and White Pine has a cluster of five leaves.

Juniper trees bear berries, differing from their Eastern cousins Red and White Cedar which bear cones.

Playas and Dry Lake Beds in Southern Nevada are similar to the Great Salt Lake Playa, Rogers Playa at Edwards Air Force Base) used to land Space Shuttles), and Groom Lake at Area 51 (US Government Research Site).

Desert sand grains are soft like talc powder vs. coarse sharp beach sand.

Fine sand in a wash, or along a roadside drainage ditch is similar to sand and clay used by early Americans for making pottery.

Desert plants must adapt to changes in their environment – wind moves sand exposing roots, and windblown sand covers branches and leaves.



Small coated leaves of the creosote bush help reduce loss of moisture to evaporation vs large Oak and Maple leaves of the deciduous tree.

Lake Mead shoreline totals 550 miles, comparable to North Carolina's Lake Norman shoreline of 550 miles.

Desert Big Horn Sheep – both sexes of sheep have horns for life, compared to male Deer, Elk, Caribou, Moose that have antlers that shed annually.

Desert creatures are primarily nocturnal, hunting after dark.

Desert pavement, compacted and cemented by evaporated minerals, is similar to asphalt and cement surfaces in that water runs off or remains on the surface until evaporated.

Talk about how ground freezes in winter vs. year-round thaw in the desert. No potholes or breakup of pavement in the Mojave Desert.

Snow melt on plateaus and mesas that seep into formation cracks expands when frozen, causing stress and resulting in separation. Compare to water freezing in pipes in a home causing cracks and breakage.

Explain how artifacts made from plants by Early Civilizations are preserved in dry desert climates.

Look for Concretions (Indian Marbles) beneath sandstone landforms at the Beehive in Valley of Fire State Park.

Look for rock formations that resemble animals – Elephant Rock, Poodle Dog, Tortoise, Pig Rock in Valley of Fire State Park.

Demonstrate how to use the dark blue North sky for contrast for photos.

Demonstrate the "wait-a-minute" plant, the thorns of Cat Claw.

Point out Mistletoe and Dodder, two parasites in the Mojave Desert.

Point out relationship of flora to elevation changes while driving.

Compare Mojave Desert dry heat to high humidity along the East Coast.

Compare light pollution above Las Vegas Strip to clear dark skies above Bryce Canyon, Death Valley or Grand Canyon NP. The cloudless Mojave Desert sky with low moisture is good for star gazing.

Hypothermia is possible in the desert. With greater variance in daily temperatures in desert, hikers should dress in layers, and be prepared for dropping temperatures as the sun sets over the high mountains to the west, and for the possibility of precipitation that will wick heat from the body.



Interpretation - Human History

Created from Utah Territory in 1861, Nevada Territory boundary was extended east in 1862. Following Statehood in 1864 the boundary was again extended east in 1866. In 1867, land annexed from Arizona Territory added what is now Clark County and Las Vegas.

The Old Spanish Trail Association, organized in 1994, protects, interprets and promotes the 1829-1848 caravan trading route between New Mexico and California. Chapters are chartered in New Mexico, Colorado, Utah, Arizona, Nevada and California. The 20th Anniversary Conference was held in Las Vegas October 2014.

The Old Spanish Trail was designated a National Historic Trail by Congress in December 2002.

The Old Spanish Trail Park is located at 8150 Tara Ave, east of W. Sahara Ave and south of S. Durango Dr.

Major settlements along the Mormon Corridor were spaced approximately 45 miles apart because that was the maximum distance a telegraph message could be transmitted without installing a repeater station. Las Vegas to St Thomas, to Mesquite, to St George, to Cedar City is 180 miles.

St. Thomas (1865-1935) a Mormon settlement was the only community displaced by the filling of Lake Mead.

The Old Las Vegas Mormon Fort State Historic Park, established in 1991, is listed in the National Register of Historic Places, and is designated Nevada Historic Marker #35.

Interpretation Comparisons - Human History

Relate to historical and well known events, and to natural resources familiar to clients and guests:

Francisco Garces, and The Dominguez-Escalante expedition, passed through Southwest North America in 1776, the same year as the signing of the Declaration of Independence in United States.

Gold was discovered in California in 1848, the same year that Southwest lands were ceded from Mexico.

In 1931, US Congress appropriate funds for construction of the Boulder Dam Project; Nevada Legislature repealed the prohibition of gaming; and Nevada Legislature liberalized marriage and divorce laws. All three pieces of legislation contribute to the current tourism industry in Southern Nevada.



In 1935, Boulder Dam was completed; the Lost City Museum of Archaeology was opened; and Valley of Fire State Park was established.

At 660 feet, the base of Hoover Dam is equivalent to the length of two football fields placed end to end.

There is enough concrete in the Hoover Dam to pave a two-lane highway from New York to California.

Interstate Highway 15 parallels earlier transportation corridors, including the Old Spanish Trail, the Mormon Corridor, the San Pedro, Los Angeles and Salt Lake Railroad, the Arrowhead Trail, and Highway 91.

Compare 1850's transportation along the Mormon Corridor to 21st C travel along Interstate 15. Pioneers traveled 10-12 miles per day over desert rutted pavement, aboard buckboards and in covered wagons, carrying food and water for families and livestock. Today, we travel a mile per minute on smooth asphalt, carrying bottled water in enclosed vehicles equipped with suspension systems and air conditioning.

Ancient civilizations were "Snowbird" pioneers, traveling between summer in the tall pines, and winter in the Mojave Desert.



Interpretation - Native American Culture

Lost City Museum – Dwellings – Pit House, AD 655; Pueblos – 13 c. Grass and twig woven baskets; sandals, decoys; pottery; metate and rock used to grind mesquite beans.

Wash (one-mile south of LCM) – clay and sand substrate similar to material used by Ancestral Puebloans' in pottery. Note: Following a heavy water flow through the wash the deposition will dry to a smooth surface. Lifting a section, you'll find the clay underside is soft like talc and finer than beach sand.

Valley of Fire State Park – Rock Art can be seen at the Cabins, Atlatl Rock and Mouse's Tank. Atlatl throwing demonstrations are held each spring (consult VOF Ranger). Plants were used for food and medicine.

Red Rock Canyon National Conservation Area – Rock Art at Willow Springs. Plants were used for food and medicine. Agave roasting pits or ovens.

Grand Canyon National Park (South Rim) – Tusayan Museum – Artifacts and Archaeological site of Ancestral Puebloans.

Grand Canyon West Rim – Hualapai Reservation – Examples of lodging used by Hualapai, Havasupai, Navajo, Hopi and Plains Native Americans. Hand-made crafts.

Navajo and Hopi Reservations – Hand-made crafted weavings, silver and beaded jewelry; hogans and sandstone dwellings; sweat lodges and earthen ovens.

Death Valley National Park – Adobe dwellings. Arrowood used for arrows.

Agua Caliente Reservation – East of Palm Springs, in the midst of a stand of old mesquite trees you can show large boulders used by generations of Native Americans to grind mesquite beans.

Cliff Dwellings and Pueblos – Mesa Verde National Park, Canyon de Chelly National Monument, Chaco Culture National Historic Park, Navajo National Monument, Acoma Sky City Pueblo, Taos Pueblo.

Interpretation - Tourism and Hospitality

Boulder City and Panaca are the only Nevada communities that do not have legalized gaming.