Motto: If you qualify for the Registry of Professional Archaeologists, get along with live people as well as you get along with dead ones, and find field archaeology great fun, Archaeological Ecotourism provides a professional career niche you should explore.

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### OUTLINE OF LOWER VERDE BASIN CULTURE HISTORY

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### BASIC PRINCIPLES

1. **Client satisfaction is paramount**

   Clients take the tour with the expectation of an enjoyable, entertaining, possibly thrilling experience. Your paramount professional responsibility is to do all you can to accommodate that expectation, within the bounds of legal and ethical responsibilities. Keep it light and have fun, and your clients will too.

2. **Technical mastery is critical**

   The clients expect and trust your mastery of the basic technical requirements of the type of tour involved; e.g. horsemanship, photography, river running, jeeping, camping, hiking, etc. Though you’ve been hired for your archaeological expertise, you
must be a reliable, alert and helpful member of the tour as a whole, rather than simply an expert appendage to it.

3. Client relations

   The members of the tour are not your clients, but clients of the tour director. Your behavior must never threaten expectations the director has developed in the clients, and must never denigrate or undermine the relationship the director has established or desires to establish with the clients. Your behavior towards the clients should be modeled on the tour director's behavior with them.

4. Professional objectives

   Your professional objective is to educate the members of the tour about:
   (a) The character of the archaeological site/research activity they will observe/undertake on the tour,
   (b) The nature of archaeological work, including the reasons it is pursued as a scientific endeavor and the rationales for the legal and ethical constraints professional archaeologists impose on their activities,
   (c) The culture historical position of the population who created the archaeological record observed, and a sketch reconstruction of the lifeways of that population,
   (d) The evidence and logic that supports the reconstructed lifeways and the identification of the group's culture historical position should be as clearly communicated as the statements about the culture history and lifeways themselves, so the tour clients develop some appreciation of how the goals of archaeology are fulfilled through application of the scientific method, and how new information can sometimes cause dramatic modification of older conclusions.
5. “Doing archaeology”

Seek ways to involve the members of the tour in some sort of legally acceptable, non-destructive, archaeological field activity. The idea is to learn-by-doing that though the practice of archaeological research may be demanding in its precision, it is fun and it leads to sharpening one’s observation and analysis skills as well as generating bodies of information about the character of the archaeological record which may one day be keys to understanding more about ancient populations. Site mapping and rock art recording are the field activities permitted on the Tonto Forest sites we will visit during the 1999-2000 season. You may also find opportunity to discuss “doing archaeology” through involvement with local amateur societies, site stewardship programs, membership in national organizations such as AIA, and the availability of semi-popular and professional journals such as Discovering Archaeology, Kiva, etc.

PLANNING AND PREPARATION

1. Equipment
2. Route
3. Schedule and timing
4. Information prep

EXPLAINING THE LAW

The idea that archaeological sites are a source of information about how people once managed to overcome social and survival problems has a long intellectual history, almost paralleling the idea that knowledge of history is relevant to present-day life as well as inherently interesting. Preservation of sites as repositories of a potentially-useful archaeological record became an idea fixed into law in the United States during Theodore Roosevelt’s administration in 1912, along with other conservation measures such as the establishment of National Parks. The rationale for site preservation was
that sites were information repository resources, and thoughtful and wise people conserved resources for future needs. Only archaeological sites that occurred on Federally-owned or -managed lands were eligible for legal protection, since these properties "belonged" to the citizenry in common, but to no corporate entity (e.g. a state) or individual. Corporate entities and individuals were encouraged to follow Federal leadership in applying principles of conservative management to their resources, but the law did not require it.

This approach is distinctively American in perspective. Most of the nations of the world identify archaeological sites within their territorial boundaries as locales which contain and display the characteristics of a national patrimony, so are properties which are owned by the state. Most nations have had laws prohibiting damage to sites or removal of archaeological materials from them irrespective of the political, corporate or individual entity that "owns" the site property unless authorized by a national permit since the early 19th century. Until 1912, no protection existed at all for archaeological sites in the US, and then only for archaeological sites and materials that happened to repose on Federal land. Some states quickly followed the federal lead with respect to protecting archaeological sites and materials on state lands. Arizona was one of the first.

Though rarely enforced, these laws required permits for survey or excavation at sites on federal and state lands, and for removal of any items from them. Permits were granted on the basis of the prospect that collected information and items would be accessible to the citizenry to whom it belonged in common. Most permits were thus granted to people with professional archaeological credentials who were affiliated with a museum or other institution where recovered materials and records could be stored and archived and available for study.

Looting of sites in blatant disregard of the law was prevalent in the west, especially on state or federal lands leased for mining and grazing. Because the first archaeological sites deemed impressive enough to be set aside as National
Monuments, such as Casa Grande N.M., were both large and spectacular, and because no sense of a prehistoric national patrimony exists in this country, judges and juries treated the rare cases of looting of non-spectacular sites that were brought before them as pranks or misdemeanors as late as the 1980's.

Public recognition of the values of the information content of even minor sorts of archaeological sites grew in the 20's as professional anthropological archaeologists began working through museums and universities, and especially in the 30's as tens of thousands of Americans came to be employed to excavate and record sites under professional supervision on WPA programs. In 1935, a Historic Preservation Act was passed that gave added protection to Historic Properties on federal land or potentially affected by federally-funded or federally-licensed programs. Though the law was clearly designed to provide protection to buildings and items created since the founding of the American colonies, Historic Properties were defined to include sites or items “important in prehistory”, and the law allowed nomination of such sites to a National Register of Historic Properties, and additional protections to nominated properties deemed sufficiently significant to qualify for “Landmark Site” status.

After World War II, Congress passed the GI Bill of Rights, which provided subsidies and stipends for veterans who wished to attend college and graduate school. Among other effects, the number of professionally trained archaeologists increased geometrically. And when Sputnik demonstrated Russian superiority in Science during the Cold War years of the mid-50's, Congress increased the scholarship and research budgets of the National Academy of Science. The growth curve of professional archaeologists accelerated even further. The archaeologists professionally trained between 1946 and 1970 took on the “Salvage Archaeology” projects required as Bureau of Reclamation dam construction programs and highway construction programs boomed in the 50's and 60's, and as the robust post-war economy accommodated the development of local and state museum positions and anthropology curricula at American colleges and universities.
As its membership grew, and the experience of archaeologists was increasingly focused on salvaging archaeological data prior to its destruction, the Society for American Archaeology established a committee to develop a report on the destruction of archaeological remains in the continental United States. It concluded that at the 1950's rate of looting and destruction, the known archaeological record of the nation would be damaged beyond foreseeable salvage by 1990. This report came out about the same time as Rachel Carson’s book *The Silent Spring*, which invigorated growth of the environmental movement in the early 60's.

In the mid-60's the National Historic Preservation Act of 1935 was strengthened, particularly by the delegation of authority to the National Park Service to support establishment of State Historic Preservation Offices in each state. SHPO officers, appointed by their governors, would take leadership roles in historic preservation activities allowed under the 1935 act. Importantly, this law required federal agencies responsible for management of historic properties on federal lands to consult with SHPO's in cases of potential effects of management decisions on historic properties. An Archaeological Advisory Council was established to advise the President (the Chief Officer of the Executive Branch of Government) of appropriate actions if SHPO's and agency officers could not agree on appropriate actions. Interestingly, the Society for American Archaeology had absolutely no input into the development of this legislation.

It also had no input into the legislation which was the climactic outcome of the environmentalist movement of the 60's: the National Environmental Policy Act (NEPA) of 1969. Said to be the product of a deal arranged between Hubert Humphrey and Abbie Hoffman to quiet the rioting mobs at the Democratic Nominating Convention of 1968 in Chicago, NEPA is one of the very few policy formulations passed into US law. It identifies conservation and preservation of the “natural, social and cultural resources” of the nation to be a matter of public policy with which all divisions of the Legislative, Judicial and Executive branches of government are obligated to comply, and it established the Environmental Protection Agency to oversee all governmental actions to
insure the policy was enforced. Because of previous legislative history, legal analysts
decided that the term “cultural resources” (which Congress had not defined when it
passed the law) was properly identified with the “Historic Properties” (which included
Landmark archaeological sites) and the archaeological national monuments already
under legal protection. But since sites with the potential of being “important in
prehistory” fit the definition of Historic Properties, NEPA effectively awarded protected
status to all sites on federal property or any site that might be affected by a project that
required a federal license or federal subsidy. Thus NEPA gave protection to
archaeological sites affected by highway construction projects that spent federal
highway/gasoline tax dollars, sites affected by the renewal of Forest Service or BLM
grazing leases or timber cutting permits, and sites affected by housing developments
that were backed by Housing and Urban Development mortgage support.

By the mid-1970’s archaeology had become a sufficient problem to federal
agencies that they began to hire their own archaeologists to keep track of sites on land
under their jurisdictions and advise them on projects they wanted to undertake that
might have an “adverse impact” on protected archaeological and historic properties. A
group of “private sector” archaeological firms also sprang up, selling expertise on a
contract basis to anyone who needed it, from utility companies to housing developers.
Today, more graduate degree-holding professional archaeologists are employed in
government agency and private sector positions than by universities and museums.

The law that most directly affects the ecotours you will guide this season is the
Archaeological Resources Protection Act. This federal law was essentially written by a
Forest Service archaeologist (an ASU Ph.D., by the way, Dee Green) to better define
exactly what protection is afforded archaeological remains on lands managed by federal
agencies. It recognizes that though archaeological sites on public lands may be freely
visited, and single specimens of arrowheads recovered from the surface may be kept,
any activity that would significantly disturb the information potential of sites is forbidden
and subject to severe penalty. Excavation cannot be undertaken without a permit, nor
removal of any other form of artifact, or even transportation of any artifactual material from one part of the site to another. If you want to pick something up to look at it, this law requires you to replace it roughly where you found it. If it’s stuck in the ground, you must leave it alone because this law makes it illegal to excavate it from its location. Vandalism of such sites, and also of rock art, is a problem you should discuss with the clients on your tour.

PHYSIOGRAPHY AND PHYSICAL GEOGRAPHY

The map identifies the three physiographic provinces of the state. Note that the sites we’ll focus on this season lie within the Transition Zone, while the routes of travel to them, to the point we shift to horseback, mainly lie within the Basin and Range Province. The Basin and Range Province tends to be lower in elevation, less rugged, and its mountain masses trend NW-SE. Transition Zone mountains trend more N-S (compare the Superstition or McDowell ranges with the Mazatsals or Sierra Anchas), the topography is more rugged, and there is a wider range of diversity of substrates.

Substrate diversity is greater in the Transition Zone because of its structural geology. Basically, the Province has the structural geology of the Colorado Plateau (think of the vertical stratigraphy exposed in Grand Canyon) that has been deformed by Basin and Range Province uplifts and faulting, complicated by headward erosion up basins north of the Salt towards the Mogollon Rim. The rugged topography, with its rapid elevational and aspect changes over short distances, and the variety of rock types as sources for plant substrates, creates more microenvironmental diversity in the Transition Zone than elsewhere in Arizona.

The Transition Zone’s physiography and topography set the parameters for the existence of three classes of ecosystems: Mountain range ecosystems, intermontane basin ecosystems and river valley ecosystems. River valley systems are identified by the floodplains of permanent streams, mountain systems by massifs, and intermontane basin systems by the basins of intermittent drainages tributary to the river systems.
Mountain massifs reach elevational extremes and affect weather patterns sufficiently that they create a separate class of ecosystems. The ecosystems of the river valleys and the intermontane basins differ because the former are defined by the floodplains of permanent streams and the latter by the drainage nets of impermanent streams. Each class of ecosystems in the Transition Zone contains a number of interrelated subsystems.

The river valley ecosystem in the area of our tours is the Verde River system. This system is composed of three major subsystems, the Upper Verde from the headwaters at Sullivan Lake to Sycamore Creek, the Middle Verde from that point downstream to the mouth of Fossil Creek, and the Lower Verde from that point to the confluence of the Verde and Salt Rivers. The Lower Verde subsystem, however, is itself composed of subsystems, called “regions”: the Northern Region from Fossil Creek beyond the East Verde River confluence south to Tangle Creek, the Horshoe Region from that point south to KA Ranch, the Bartlett Region from that point through the narrowest part of the system to the mouth of Camp Creek, and the Confluence Region from Camp Creek to the junction with the Salt River system. Our tours intersect the Lower Verde subsystem of the Verde River ecosystem in the Horshoe Basin Region. Specifically, in the southern section of that region, which is the section of the Lower Verde subsystem with the broadest expanse of alluvium suitable for floodplain or irrigation farming.

Mostly, your tours will be along trails in the intermontane basin ecosystem drainages tributary to the Lower Verde river valley subsystem, such as the Camp Creek subsystem/drainage, Lime Creek subsystem/drainage, Davenport Wash subsystem/drainage, etc. The ecological character of each drainage/subsystem is distinctively affected by the placement of its hills, ridges, mesas, slopes and bottoms relative to prevailing winds, hours of sunlight in different seasons, subsurface water expressed as springs, etc.

BIOTIC VARIATIONS
The Intermontane Basin ecosystem supports three biomes in the areas of your tours. These biomes, often referred to as Life Zones in popular literature, are organized as systems whose characteristics are principally controlled by temperature and precipitation. Factors which affect the amounts of sunlight to which plants are exposed (such as slope aspect and surface reflection of light), or the amount of rainwater they obtain (such as the rockiness of the surface or the absorptive character of the substrate) are therefore critical to establishing biome characteristics. The nutrient characteristics of the substrate are also important. Thus biome systems tend to cross-cut the ecosystems defined by physiographic factors, and occur within elevational parameters. The biome systems are composed of the component subsystems recognized as plant communities by ecologists. Plant communities are abstractions defined through analysis of the attributes of floral associations, rather like archaeological cultures are abstractions defined through analysis of the attributes of the archaeological records of sites. Thus one does not observe plant communities, one analyzes what one sees and determines if it has the characteristics which define the community. What you observe in the field are plant associations. Though characterizing plant associations provides the raw data required for proper analysis, it is the plant communities which are the subsystems of the biome systems. Thus identification of the plant community is necessary for analysis of the biotic character of the landscape or territory being observed. A mechanical analog is to the component subsystems of the class of transportation system we call an automobile. You cannot observe a car's electrical subsystem; you only observe the associated elements of battery, wire, sparkplug, etc. Analysis of those elements and their interrelationship reveals the electrical subsystem, which you must recognize as an entity if you're ever to figure out how/why a car fulfills its function. If you do not recognize the plant community, you cannot figure out how/why the biome is adapted to that landscape.

There are three biome/systems encompassed within the area of your tours: the
Interior (not California-Coastal) Chapparal biome, the Semidesert Grassland biome, and the Sonoran Desert biome. Well, not quite. Only the Arizona Upland Division of the Sonoran Desert biome occurs in this area, and only the Mixed Grassland-Scrub Division of the Semidesert Grassland biome. Each of these divisions and biome/systems has its own series of component plant communities/subsystems. The problem in this area, however, is that plant associations which are diagnostic elements of the plant communities of one biome also occur in one or both other biomes. So you may observe, for example, a jojoba association—normally characteristic of a plant community of the Desert biome— which is actually occurring as a non-characteristic association of a plant community of the Interior Chapparal biome!

Because such classification problems are not limited to our tour area, and because the plant community concept does not incorporate consideration of geographic scale, the concept has come under fire in some quarters, and some of your sophisticated clients may argue with your use of it. They may point out that it is an old-fashioned, outdated, concept, like the concept of plant succession. Recognizing that all scientific disciplines face this problem with classificatory abstractions (in Anthropology right now, some say that the concept of culture is outdated), my position is that though the plant community concept may not reflect biotic reality perfectly, it works quite well as a heuristic device that helps us explain the adaptive relationships of organisms in biomes. So I’m not throwing the baby out with the bathwater.

Plant communities (like cultures) are dynamic in both time and space, because their characteristics necessarily change as the demographics of their populations of organisms change over time and because there is a continuous distribution of the controlling factors of temperature and precipitation over the community’s geographic range. Thus in the Upland Sonoran division of the Sonoran Desert biome, which ranges from about 800 to about 2000 feet elevation, different plant communities are more commonly adapted to the lower part of the range, with its lesser rainfall and higher temperatures, than to the upper part of the range, with its greater rainfall and lower
temperatures. In addition, localized conditions occurring within the range of this biome may mimic conditions characteristic of another biome to sufficient degree that they will support a plant community which is not “normal” to the biome. While confusing from a classificatory standpoint, understanding the reasons for such anomalies, and understanding how the dynamics of adaptive relations amongst biome populations are ‘skewed” in such situations, provides great insight into the ways biomes operate and functions as systems.

Just as the plant communities are subsystems of the biomes, plant associations are subsystems (equally dynamic over time and space) of the plant communities. The taxa of plant associations are represented along the rare-occasional-common-subdominant-dominant continuum.

SONORAN DESERT BIOME, UPLAND DIVISION PLANT COMMUNITIES

1. **Paloverde** (*Cercidium*)-**bursage** (*Franseria/Ambrosia*) **associations.** The degree to which bursage is common in these associations expresses the degree of the community’s adaptation to aridity; the degree to which paloverde is common expresses the degree to which it is adapted to less xeric conditions. Creosote (*Larrea*) or various cacti may actually be dominant. If paloverde is limited to drainage routes, you’re looking at a creosote-bursage association typical of a plant community of the Lower Colorado Division of the Sonoran Desert. If it occurs within the elevational range of the Upland Division it reflects an anomalously xeric habitat.

2. **Paloverde** (*Cercidium*)-**brittlebush** (*Encelia*) **associations.** Cacti and/or *Acacia* (catclaw) may be well represented, and brittlebush may be replaced by snakeweed (*Gutterizia*) where overgrazed. Frequency of creosote relative to *Acacia* in the association indicates relative xeric or mesic adaptation.

3. **Crucifixion Thorn** (*Canotia*) **associations.** Where crucifixion thorn is a common
taxon you must take note of the elevation and associated plants to properly identify the biome. If above 1500’ associated plants (oak, juniper, buckbrush /Ceanothus, agave) may indicate you’re in Interior Chapparal or (if grasses, prickly pear, yucca) in Desert Grassland biome. If paloverde, saguaro or brittlebush are occasional or even rare, you’re definitely in the crucifixion thorn plant community of the Upland Sonoran division of the Sonoran Desert biome, as these are indicators of its drier side. If jojoba or mesquite occur, but not agave, oak or juniper, you’re on the wetter side of the crucifixion thorn plant community of the biome.

4. **Jojoba (Simondsia) associations.** Jojoba is usually only common, subdominant or dominant in this plant community of the Upland Sonoran Division of the Sonoran Desert biome, but it can get pretty obvious in plant communities of the Interior Chapparal biome. Note the occasional/rare members of the association (cacti or crucifixion thorn suggest the desert biome, oak, buckbrush or agave suggest chapparal) to be sure. Jojoba is a good talking-tasting plant: upright leaves as adaptations to strong sunlight; use of dried fruit ground up for coffee substitute (hence common name coffee plant); mature nuts significant fodder for larger native mammals (hence common name deer nut); nuts edible raw, though tastier if parched; oil from nuts used in hair products, as an industrial wax; grown commercially by Gila River O’otam.

5. **Mesquite (Prosopis) associations.** If in the Upland Sonoran division of the Sonoran Desert biome barrel or columnar cacti, paloverde or crucifixion thorn will usually be occassionals in the association. Otherwise, may be plant community of another biome. In the Desert biome, the mesquite plant community usually indicates alluvial (overbank) substrate marginal to a riparian community.

6. **Riparian associations.** Substrate type, water table depth, flow rate and flow frequency are some of the factors affecting what sort of riparian association you
encounter. Desert biome riparian floras are often marked by species of trees, e.g. cottonwood (*Populus*), willow (*Salix*), hackberry (*Celtis*), elderberry (*Sambucus*) or ironwood (*Olneya*).

There are a number of divisions of the Semidesert Grassland biome which occur in the state. I’m assuming only one will occur along our trails, but there may be communities of the Bear Grass (*Nolina*) - Scrub, the Desert Grassland or the Shrub-Grass Disclimax divisions. The Bear Grass-Scrub division is the only one in which *Nolina* occurs as a common plant. The Desert Grassland division is characterized by dominance of gamma (also called gramma) grass. The disclimax divisions of the biome contain communities which are responses to overgrazing and erosion. They are identifiable by the common occurrence of snakeweed (*Gutterizia*) or goldenweed (*Haplopappus*). The other shrubs of a disclimax community usually allow one to identify what sort of Mixed Grassland-Scrub community was there before the damage.

MIXED SCRUB GRASSLAND DIVISION OF THE SEMIDEsert GRASSLAND BIOME PLANT COMMUNITIES

1. **Mixed grasses-Ocotillo (*Fouqueria*) associations.** Where ocotillo is the dominant or subdominant woody plant, deciding whether the association should be classified as a plant community of the desert or grassland biomes may not be easy. Ocotillo identifies a moderately mesic community in the desert biome, but the most xeric community of this division of the grassland biome.

2. **Mixed grasses-prickly pear (*Opuntia*) associations.**

3. **Mixed grasses-yucca (*Yucca*) associations.** Careful. If agave is more frequent than yucca you’re in a chapparal plant community.
4. **Mixed grasses-mixed shrubs associations.** These are difficult to distinguish from examples of the mixed shrubs associations plant community which occurs in the chapparal biome, though are usually less dense,

5. **Mixed grasses-mesquite** (*Prosopis*) **associations.** These associations identify the most mesic plant community of the biome.

**INTERIOR CHAPPARAL BIOME PLANT COMMUNITIES**

You might observe any of five “evergreen (non-deciduous) sclerophyll (arid-adapted leaved)” plant communities in this biome. Note that the elevational parameters of the Grassland and Chapparal biomes essentially overlap (both range from about 2000 to about 4500 feet). This strongly suggests that substrate characteristics -- particularly the quantity of organic nutrients/ degree of soil development -- play an unusually critical role. For this reason, it is thought that the Chapparal biome is more widely distributed today than it was prior to Euro-American introduction of livestock, which probably overgrazed much Grassland biome to the degree that topsoil erosion was intensified over wide areas.

The name “chapparal” was coined by Spanish-speaking vaqueros, who recognized that one could not ride horseback through plant communities of this biome without chaps to protect oneself and the horse.

1. **Buckbrush** (*Ceanothus*) **associations.**

2. **Mountain mahogany** (*Cercocarpus*) **associations.**

3. **Shrub live oak** (*Quercus turbinella*) **associations.** Shrub live oak has glaucous (hairy) undersides to its leaves,
4. **Mixed shrub associations.** Usually a number of taxa about equally common. Sometimes juniper or some other woody shrub is more common than typical chapparal taxa, but recognition of the plant community can be based on density.

5. **Manzanita (Arctostaphyllos) associations.** Indicates most mesic habitats of this biome.

**OUTLINE OF LOWER VERDE BASIN CULTURE HISTORY**

The basic chronology consists of the Late Archaic (2500 BC - ca. 1 AD), the Early (ca. 1 - 700 AD), the Middle (700 - 1125 AD), the Late (1125 - 1450 AD), the Yavapai-Apache (? - 1874 AD) and the Euro-American Historic periods. Some of these are subdivided.

Though some radiocarbon and archaeomagnetic dates exist for excavated contexts in the area, the dates for periods of prehistory are largely based on cross-dated imported ceramic styles and what can be inferred from our better controlled knowledge of the cultural history of Hohokam populations to the southwest, Southern Sinagua populations of the Middle Verde basin, and Salado populations to the east. Part of our lack of chronological control derives from the paucity of excavated data, part from the fact that the recent LVAP (Lower Verde Archaeological Project) effort did not attempt to evaluate the chronological value of surface survey information in Tonto National Forest files, and mostly from the fact that there was no indigenous tradition of decorated pottery manufacture in this area.

**Late Archaic**

There is no dated subsurface evidence for occupation of the LV basin and no Archaic sites are identified for the area in Mabry’s recent survey. Chiricahua point sites
and Late Holocene Early Agricultural sites are recorded elsewhere in the Transition Zone, however (especially in the Middle Verde Basin and headwaters of the Tonto and Agua Fria drainages). These records, the likelihood that the LV basin was a transportation corridor between Archaic populations at the northern margins of the Phoenix area at Cave Creek and Pinnacle Peak and those of the Middle Verde and Upper Tonto Creek drainages, and the evidence of higher effective moisture and aggrading floodplain conditions throughout the Southwest in the 3300 - 600 BC period, all make occupation and use of the LV basin during the Late Archaic very likely. Outstanding floodplain farming sites probably were far fewer at this time in the LV basin than the MV basin or Upper Tonto basin areas, but probably not so few that the territory was avoided by groups who supplemented hunted-gathered resources with maize and squash. Certainly, there are examples of the Western Archaic rockart style in the area.

**Early Period**

An excavated site in the LV Confluence Region (la Escuela Cuba) and one in the Tonto Basin (Eagle Ridge) suggest variability in house forms and site layouts at Transition Zone villages of this time. It seems most likely that villages with pithouses and larger communal structures of this antiquity occur in the LV basin, but they are thought possibly to have been seasonally occupied and far less common than temporary camps. The plain brownware characteristic of the Red Mountain Phase of the Hohokam sequence (AD 1 - 300), which is recovered just west of the Confluence Region on the eastern margin of Pre-Colonial Hohokam territory, has not been collected from excavated contexts in the LV basin.

The consensus opinion is that by this time if not before, the LV basin was principally occupied on a seasonal basis by family-sized groups following the subsistence-settlement pattern of the Historic Yavapai, possibly supplementing their diet by maize gardening or by trading for maize. Larger, multi-family, communities may also have existed, though they may mainly have served as gathering places for kindred
and allied kin at one or more particular times of the year.

**Middle Period I** (also called “Colonial”): AD 700 - 950

Temporary encampments of family-size groups probably also make up the vast majority of sites of this period, but research to date has focussed on village-size communities. At those sites, pottery is not actually very frequent at all, so many smaller sites of the period may have insufficient pottery on their surfaces for diagnostic dating. At the village sites, sand tempered plain brownware predominates over phyllite tempered plain brownware by a substantial margin. The small amount of decorated pottery that occurs is 98% non-local red-on-buff Hohokam Colonial Period stuff (Snaketown, Gila Butte, Santa Cruz and Sacaton R/Buff), but some Deadman’s B/G and Anasazi B/W sherds have shown up.

Subrectangular to oval pithouses with vestibule doorways arranged in loose courtyard arrangements are found at villages; some sites have ballcourts. Judging by housetypes, decorated pottery, and the phyllite tempered (non-local) plainware, LV basin populations are linked to Hohokam populations of the Phoenix area. Their lesser reliance on ceramic technology, however, leads to the suggestion that they were either culturally distinct, or a population culturally marginal to those Hohokam whose lifeway was tied to canal irrigation. Seasonal occupation of the LV basin is not ruled out.

**Middle Period Hiatus: AD 950 - 1000**

The hiatus is evidence at the Middle Period village site excavated in the Horsehoe Region and the one excavated in the Bartlett Region. It is not wholly clear if this is a widespread abandonment of the LV basin, or perhaps other districts in the Transition Zone, but other LV basin Middle Period villages seem also to have been abandoned and material culture is different at LV sites dated after AD 1000.

**Middle Period II** (also called Sacaton): AD 1000 - 1125
Houses of this period were not distinctive architecturally, except for greater use of stone to support elevated floors than use of wooden posts., but courtyard group patterns changed somewhat. Occupations of village sites “seem more intermittent” and houses were aggregated into smaller areas at previously occupied sites. Ballcourt use was abandoned, and pit-urn cremation burial practiced at the beginning of the period seems to have been totally replaced by extended inhumation by the end of it.

In this period more of the plain brownware is phyllite tempered (>60% as compared to <40%) and the fraction of non-local decorated pottery is about 10% at village sites. Anasazi B/W’s and Tsegi Orange make up a larger fraction of the decorateds, but Sacaton R/Buff is 89%.

The Confluence and Bartlett Reservoir Regions are believed to have more Middle Period settlements than the Horshoe Reservoir Region, which is thought to have more occupation during the succeeding Late Period. Since so many of the sites in all LV basin regions are small and contain no ceramic evidence for dating, though, this inference may be no more than demonstration of the bias archaeologists have for drawing their conclusions from excavation data, and their reluctance to excavate sites unlikely to produce ceramic or lithic goodies. But the perception that the Confluence Region reached its demographic climax before 1125 is widespread, and Wilcox goes so far as to suggest that it was totally abandoned by 1100 and formed a “no man’s land” between the Salt Valley Hohokam and the Tonto Basin Salado Classic Period populations.

General Comments on the Late Period

The archaeological diagnostic of Late Period (also called “Classic”) sites in the LV basin is the dramatic shift in utility pottery. At Preclassic sites, plain brownware makes up 85% of the sherds. At Classic sites, red-slipped pottery makes up more than 40%, much more of the red or brown plainware is smudged or polished on one or both sides, and phyllite tempered sherds account for not more than 15% of the ceramic
assemblage. There is no Hohokam Classic Period R/Buff, and less imported decorated pottery of other sorts than at Preclassic sites.

I'd emphasize to clients that the Late Period sites they will see are the archaeological manifestation of something unusual in the long prehistory of this area. As far as we can tell, the great majority of earlier residents of the LV basin lived most of the time in small family-centered groups at temporary camps and farmsteads, moving around after weeks or months at one location throughout large territories. A minority lived in villages, which tended to be small and which may not have been occupied throughout the year. Most of the residents of villages may have been members of closely related families. Over the duration of the Late Period we seem to be seeing a shift from village residence being relevant to a minority to it being the normal situation for the majority of people. To social scientists, which is what archaeologists are, this isn't just a curious happening. It signifies that some very basic and very significant changes took place in the character and structure of LV basin social relationships. Changes equivalent in scale to the sort of social change that occurred in our own culture as the Industrial Revolution took place. The transformation of our residence patterns from rural to urban was of the same order as the change in settlement that took place in the Horshoe Region of the LV basin.

And just as the change from rural to urban was accompanied by economic changes and technological changes in our culture's case, the shift to more aggregated communities was accompanied by a change in the degree of economic reliance on maize, and technological changes in the LV basin case. The technological changes are most clearly evidenced in differences in both pottery (now more widely utilized, and probably produced by local specialist artisans rather than imported) and the construction of masonry pueblo communities. We haven't got a credible scientifically supported theory of what the changes in society actually were and why they came about. But there are some ideas up for discussion, and there are research archaeologists who are devoting their careers as social scientists trying to reconstruct
such things.

The impression one gets when viewing the archaeological record of this period as a whole is that the people who inhabited the LV basin were drawing inwards to protect themselves from outside influences and forces. Throughout this period we see the establishment of walled sites in elevated positions. Some show no evidence of habitation, but are within lines of sight of other walled sites which could be signaled by smoke or fire. Other walled sites and unwalled sites were intensively occupied. One idea is that LV basin groups were under threat of warfare from groups outside their territory, so alliances were developed that allowed residents of unwalled villages to be warned and protected by retreating to walled villages, and regiments and battalions of warriors could be massed for defensive or offensive maneuvers by allied communities.

It is probably not simply coincidental that equivalent cultural changes were taking place all over the Southwest during these centuries. Nearby, Salt River and Gila River Hohokam groups established intensively occupied walled communities also (to be observed at Pueblo Grande and Casa Grande National Monuments) and the structure of ceremonial activities (centered on ballcourt and burial rituals) changed. Aggregated residence became a general pattern in the Middle and Upper Verde basins, too. You can see these communities at Tuzigoot and Montezuma’s Castle National Monument. Hohokam culture communities in the Tonto Basin were superseded by Salado culture communities, which evolved into defensive sites such as Tonto National Monument and aggregated communities such as Beshbagoa at Globe. This is the era during which the “Great Houses” of the Chacoan-influenced were abandoned, cliff dwelling architecture was developed, and population movements resulted in the abandonment of many territories in the Anasazi area.

Were major social and political events in other areas of the Americas also linked to those of the Southwest? The inception of the Late Period is the time of the beginning of the greatest expansion of the Toltec Empire (which was three times the size of the Aztec Empire conquered by Spain), the beginning of socially complex development in
Mississippian culture in the Eastern Woodlands and the beginning of the development of forms of chiefly (as opposed to tribal) societies in Californian and NW Coast prehistory. Are there connections? Or is it just that preservation of the archaeological record is inversely related to time. Younger sites are better preserved, so we can observe more attributes that decay or deteriorate as sites get older. Were earlier social and political affairs and events really less complex and co-ordinated, or is it just that the archaeological evidence for such things is more difficult to recognize the further one goes back in time?

**Early Late Period: 1125 - 1175**

The Confluence Region of the LV basin is abandoned at this time, creating a “no man’s land” between Phoenix area Hohokam and LV basin populations. Walled defensive sites appear not only in the Bartlett and Horshoe Regions of the LV basin, but westward along the northern periphery of the Phoenix district to the Agua Fria, and in the Prescott area, the Middle Verde basin and the Mazatsals. Wilcox argues that reorganization of Hohokam society led to their ability to field warrior armies which only alliances of smaller Transition Zone groups could resist.

In the Northern, Horsehoe and Bartlett regions of the LV basin, population increase apparently occurs at this time, but mostly in the form of farmstead and hamlet sites. The residence pattern in villages that continue to be occupied changes, to the effect that courtyard groups seem smaller (perhaps occupied by less extended families), more distant from each other, and perhaps only intermittently occupied. Residence is still in pithouses, but they tend to be more similar to the oval Southern Sinagua style of the Middle Verde Basin, and Southern Sinagua imported pottery continues to show up though Hohokam pottery does not.

**Middle Late Period: AD 1175-1300**

This is the time when aggregated communities begin to be common, though
there are many more small than large villages and residence in hamlets and farmsteads is not rare. Villages may have pitrooms as well as masonry rooms, both may be oval or rectangular. Earlier wall construction patterns in this period consist of parallel rows of upright siltstone slabs filled with earth or small cobbles and capped with additional slabs. Doorways often were lined with vertical slabs. Many LV basin villages of this period (also true in the Cave Creek, Lower Agua Fria and Payson districts) seem to have begun as isolated rooms enclosed by a compound wall, then more rooms added within and beside the wall. Though multifamily compounds are more common than in the early middle late period, single family walled compounds occur too. Some single and multiple family compounds are grouped into dispersed site complexes similar to Tonto Basin Roosevelt Phase dispersed villages. No platform mound sites replace the earlier ballcourt sites, as is true in the Tonto Basin.

Cremation burial is wholly abandoned in favor of extended inhumation burial in cemeteries placed in courtyards and patios. Recognition that LV basin sites with surface scatters of red-slipped pottery and masonry rooms may have extended burials and accompanying grave goods probably accounts for the intensity with which such sites are vandalized.

**Final Late Period: AD 1300 - ?1450**

In the LV basin, as in the Phoenix and Tonto basin districts, population size seems to have been decreasing after 1250 as aggregation intensified. Such slow decline was not the normal pattern in Central Arizona and the Transition Zone. Some districts, for example the Agua Fria basin, the Payson area and the Mazatsals, were abandoned by 1300. In others, for example Perry Mesa and the Middle Verde basin, population size increased at the same time large aggregated communities became the rule.

While earlier Late Period villages often were located where dry farming,
intermittant stream floodplain farming and ak-chin farming might be practised, final Late Period villages of aggregated roomblocks all cluster around the relatively largest expanses of alluvium, in the Northern and Horshoe Regions of the LV basin. The prehistoric irrigation canals shown on the map are thought to date from this time. The agricultural intensification suggested by these data is probably both a factor in the establishment of more complex society in the LV basin and a response to it. The impression one gets from the archaeological record, however, is continuance of the pattern of inward withdrawal and severance of exterior relationships that began at the Middle/Late Period chronological boundary, finalized by abandonment of the LV basin in the 14th century. The rare recovery of Gila Poly sherds at some of the Lowland and hilltop habitation sites in the Horshoe region is the basis for dating occupation of the LV basin after 1300.

Yavapai and Apache Occupation: pre-1530 - 1874

The northern border of the territory of the Southeastern Band of Yavapai speakers (who called themselves the Kewevkapaya) ran from the modern town of Cave Creek east to the mouth of Camp Creek, swung north along the east bank of the Verde to the mouth of the East Verde River and continued further east to the northern tip of the Mazatsals. The eastern boundary ran south along the crest of the Mazatsals and Southeast across the Salt to the junction of the Gila and San Pedro Rivers. The western boundary ran Northwest from that point to cross the Salt River on the western border of the Confluence Region and further to Cave Creek. The Middle Agua Fria basin, Upper New River basin and Lime Creek basin were within the territory of the Central Band of Yavapai-speakers, who called themselves Wipukpaya.

Where Yavapai bands were politically independent, Apache bands were politically organized into groups related through clan ties. The Mazatsal Band of the Southern Tonto Group were the Apache band that claimed the territory on the Southeastern Yavapai’s northeastern border, while it was the Arivaipa Band of the San
Carlos Group that claimed the territory on their southeast border. The members of family units that regularly used sub-territories on either side of the border were normally bilingual and often intermarried. Both the Yavapai and Apache reckoned descent, and thus political affiliation, through the maternal line though intermarriage provided kin relations in both political entities. The confusion of the US military was thus not wholly unjustified for, as they approached Yavapai territory from the east it seemed they were encountering an Apache-speaking people who had Apache kindred but called themselves Yavapai. Thus, when the Fort McDowell “Yavapai Apache” Reservation was establish, it was identified as the future home of the Southeastern Band of the Yavapai and a number of families of Southern Tonto group Apaches.

Yavapai and Apache economic patterns were basically similar, though (like many Apache residence groups) the Southeastern Yavapai are thought not to have farmed at all. They apparently followed a seasonal round in family-size residence groups collecting sufficient supplies of their two most significant plant foods -- mescal and acorns -- in the Grassland and Chapparal biomes from October to July to sustain them until cactus fruit and mesquite pods were harvestable in the Desert biome from July to October. Mescal was roasted, pounded to pulp on a metate, dried into cakes marked for ownership, and stored in pits or on pole platforms. Dried mescal required soaking to be edible, but mescal water was a favored beverage.

Caves and rockshelters were favored winter (upland) habitations because they could be heated easily and allowed for secure food storage in cists or buried ceramic jars. When caves were not available, winter dwellings were domed wikiups. Old houses were not re-used; a house in which someone had died was normally pulled down after the body and its personal belongings were burned. If death occurred in a cave, the body and belongings were cremated in a brush fire outside the cave and food cached within it was abandoned.

Prior to their settlement on the Fort McDowell Reservation, the most dramatic known event of Southeastern Band Yavapai history was the massacre at Skeleton (also
Skull) Cave on December 28, 1872. Led to this locale in a canyon on the north side of a minor trib of the Salt by an Indian scout, 100 Yavapai men, women and children were surprised at dawn by two companies of US Cavalry, 98 Pima and 38 Apache scouts and an unknown number of mule packers and civilian scouts. Yavapai defenders shooting from behind boulders on a terrace below the rockshelter were driven back into the shelter by troops hurling rocks from above. Volley after volley was then poured into the shelter from both sides of the canyon. 76 Yavapai were counted dead, 18 or 20 were taken captive and a few escaped. One Pima scout was killed, no US troops were killed or even injured. The bodies were left where they lay, and the Indian scouts were allowed to take what they pleased of Yavapai supplies.

Skeletal material and other debris were—and still are—illegally removed from the cave whenever newspaper articles (there have been at least three such in the past decade alone) about the massacre revealed its location.

Human remains at the cave were not collected for reburial until 1922, when a party of Yavapai recovered some and returned with them to Fort McDowell. The party may have been led by Carlos Montezuma -- a historical figure worth commenting on. Montezema was captured as a child by Pimas, who had him baptized in Florence on November 17, 1871. He joined a Pima family living 7 miles west of Florence at Adamsville, but they were unable to support him and sold him to an Italian immigrant itinerant photographer. Ultimately educated in New York and Illinois, he earned an MD at Chicago Medical College and returned to Fort McDowell to publish a newspaper that advocated BIA reform and Native American rights from 1916 to 1922.

**Euro-American Period: AD 1539? - 1950**

No evidence of Spanish or Mexican exploration/use of the LV basin is known, though some authors reconstruct Fray Marcos de Niza’s route to Zuni in 1539, and Coronado’s a year later, through the Tonto Basin. Espejo's 1853 and Onate’s 1604 expeditions crossed the Transition Zone east to west through the Middle Verde basin.
Mountain men expeditions trapped beaver pelts along the Lower Verde and the Salt from the mid 1820's through the 1830's.

Captain Sitgreaves was sent west in 1851 to locate a wagon route across New Mexico Territory that would allow California gold to reach Santa Fe. Two years later, Lieutenant Whipple was sent to find a practical railway route. Sitgreaves route followed the Indian trail west from Hopi country to Flagstaff. Whipple also chose a northerly fork of that trail, rather than the southerly one which would have brought him to the Lower Verde basin down the East Verde River. Because he did not survey the latter route through Central Arizona, Sheridan considers him to have estimated its cost as $75 million too high. So the railway goes west through Flagstaff and Kingman, not Castle Hot Springs and Blythe.

34 degrees north, the boundary of the Gadsden Purchase, crosses the LV basin at the mouth of Davenport Wash. When the United States took possession in 1856, what would become Arizona was still New Mexico Territory. As a major wagon trail to California passed through Tucson and Yuma, Jefferson Davis annexed the Gadsden Purchase area for the Confederacy in January 1862. What's now Horshoe Reservoir was thus divided into Arizona Territory to south of Davenport Wash and New Mexico Territory north of it.

The Confederacy’s act stirred the Union Congress into action. Less than a month later, after protracted debate, Congress established the dividing line between Arizona and New Mexico Territories at 109 degrees west. If the Union had not won the Civil War, the Howard Ruin on Lime Creek would lie in Arizona, but Davenport Ruin on Davenport Wash would be in New Mexico.

Copper and gold mining communities in the Prescott area and the Middle Verde basin attracted Yavapai and Apache raids in the 1860's that precipitated the wars devoted to Apache and Yavapai extermination. The Lower Verde had no American settlement, thus no raiding, when Fort McDowell was established 7 miles north of the confluence with the Salt across from the mouth of Sycamore Creek. This fort was not
built to protect settlers, but to provide a staging area in a plan to contain the Tonto Apache east and south of the confluence of the San Pedro and Gila. Pacification and confinement of Yavapai and Apache to reservations was achieved by 1874. This removed the block to American settlement of the Lower Verde, but it was soon discovered that the 160 acres allowed by the homestead law of 1862 were insufficient to generate a livelihood for farm families in this area. The Desert Land act of 1877 permitted a homesteader to claim 320 acres of desert land provided 1/8 of it (40 acres) was irrigated within 3 years. That was better, but suitable land not already within the Fort McDowell Reservation only existed in the LV basin in the Horshoe Region.

Cattle ranching only required enough space and water for a ranch’s headquarters, however, as the animals roamed open range and were just rounded up for branding and transport. It began in earnest in the LV basin in the mid 1870's and expanded so rapidly in the ‘80's that by the time of the droughts of 1891-93 and the crash in beef prices due to oversupply that accompanied the depression of 1893-97, the range was terribly degraded. In the LV basin, sheep “ranching” involved flocks brought down for winter desert grazing from their summer pastures on the Colorado Plateau. Conflicts between cattlemen and sheep men over use of open range erupted in the 1890’s, exacerbated by the prohibition of all grazing on public lands in 1894 and the exclusion of sheep (but not cattle) grazing on forest reserve lands in 1897. After the turn of the century, Tonto Forest established sheep grazing allotments and driveways in the LV basin. Sheep bridge was constructed at the north end of Ister Flat (in the Northern Region of the LV basin) in 1943 to allow sheep that had spent the winter grazing on allotments on the west side of the Verde access to sheep driveways to Colorado Plateau ranges on the east side. The original swinging wooden suspension bridge had deteriorated so badly by 1988 that it had to be demolished. Because Sheep Bridge had been placed on the National Register of Historic Places in 1978, however, it couldn’t simply be torn down. A reconstruction was built by the Forest Service the same year the original was removed.
Sheep ranching reached its peak in the LV basin soon after World War II. Cattle ranching gradually took over from it as synthetic fiber production and rising labor costs took their toll.

The Salt River Valley Water Users Association (now Salt River Project) was the ultimate winner of political battles over the rights to Lower Verde River Basin water that began in the 1890 with a scheme to transport water from the Verde west to Paradise Valley. Once in control, SRP began pre-construction work on Bartlett Dam by building the road in 1934 and a camp for construction workers in 1935. Construction began in 1937 and was finished under budget in 1939. Horshoe Dam was built for Salt River Project by Phelps Dodge Corporation (the mining company) in return for rights to water in the Upper Salt River basin above Roosevelt Lake. Actually, Phelps Dodge didn’t pay the construction costs either, as it was financed by the Department of Defense as an “emergency war measure” so Phelps Dodge could increase its production of copper. That the deal worked out in 1943-44 was made irrelevant when construction started on the dam after the war was over in 1945 doesn’t seem to have stopped the money flow.