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Hilltop Enclosures and Hohokam Influencers in the Arizona Uplands

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Hilltop Enclosures and Hohokam Influencers in the Arizona Uplands.



**Thank you to Scott Wood for
valuable knowledge shared and
many enjoyable conversations.**

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Mike Golio**



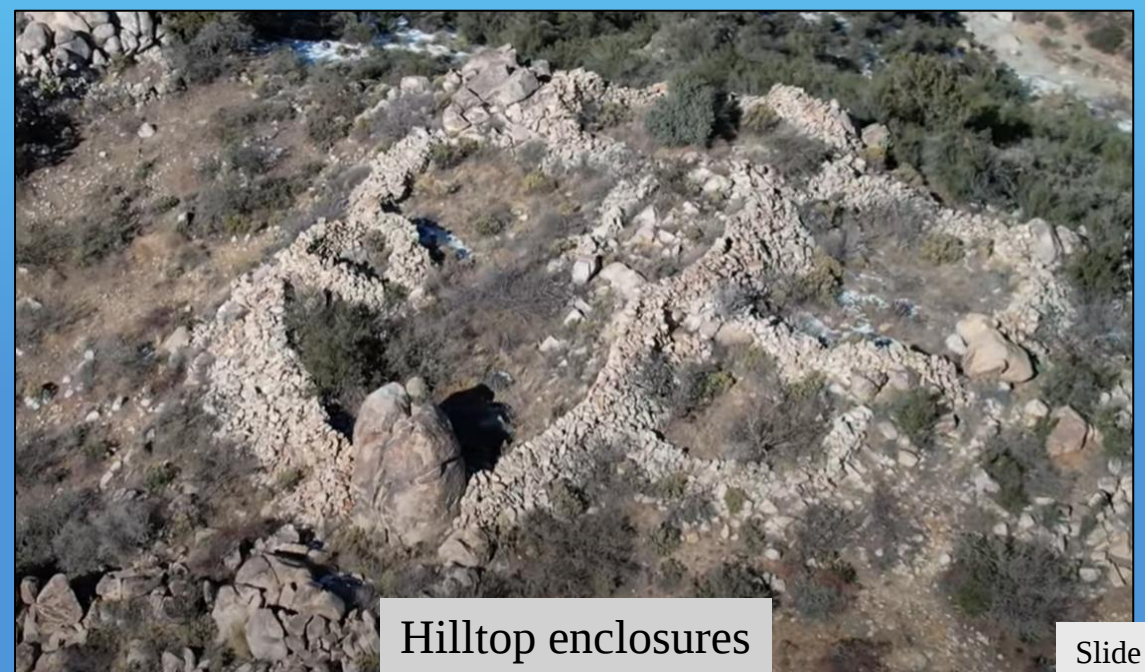
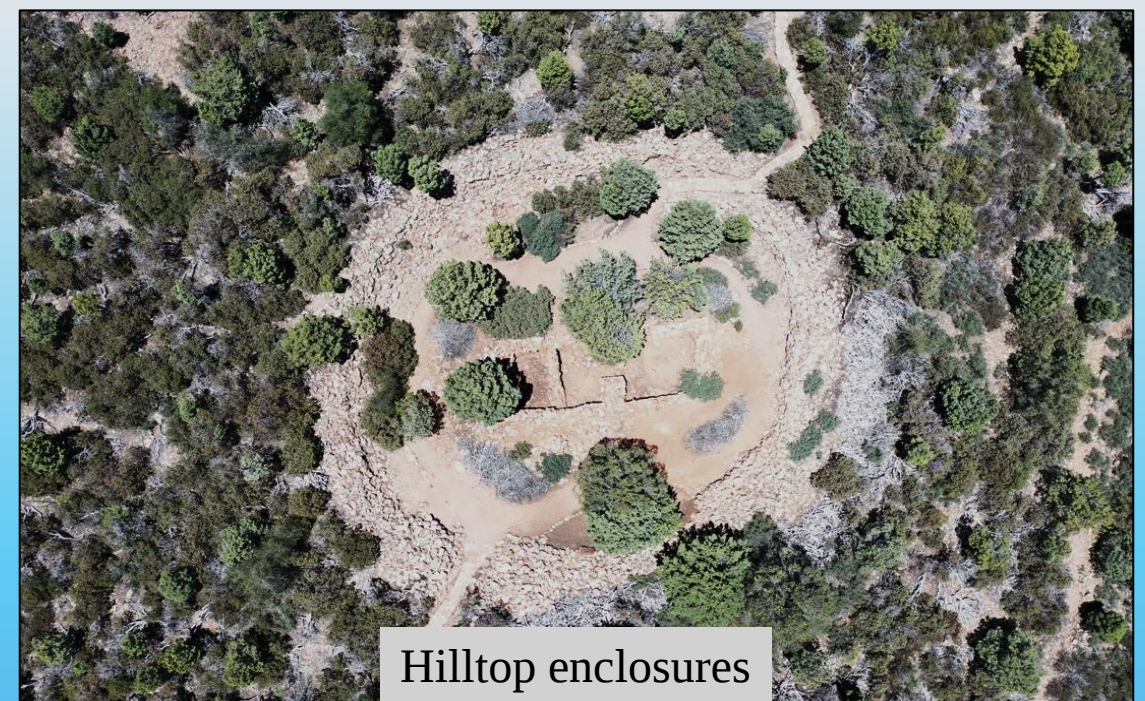
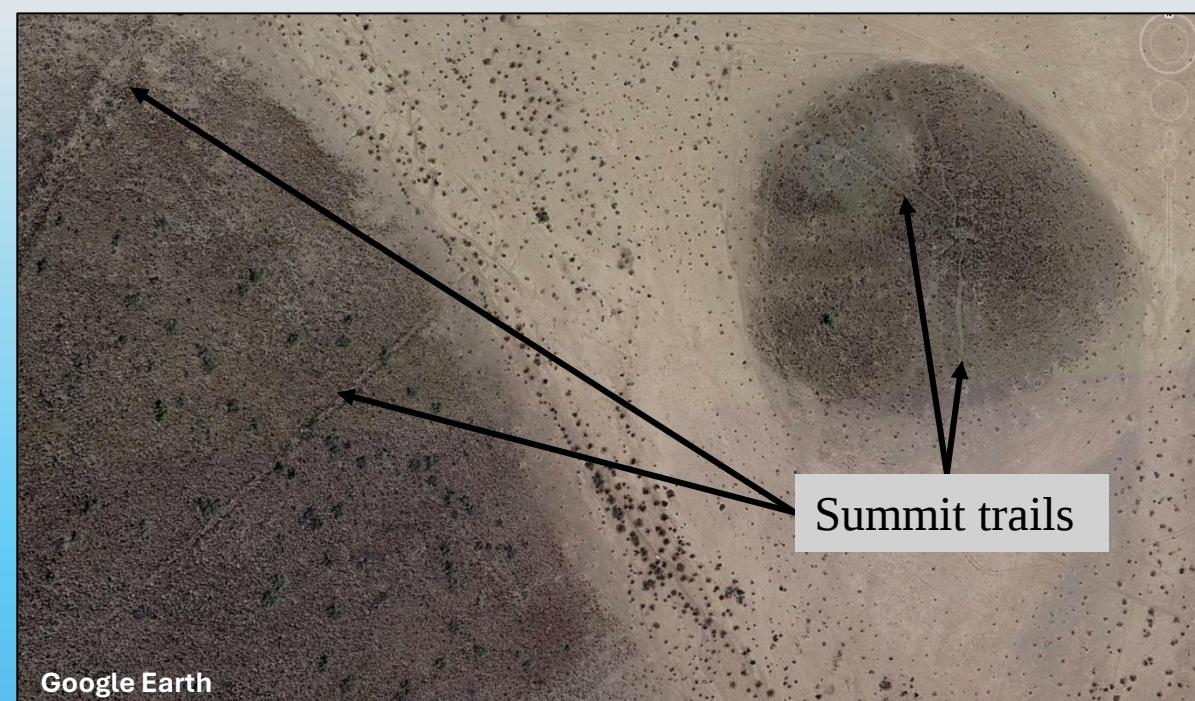
Teresa Rodrigues

Slide 1:

Good morning.

In the American Southwest four structure types are generally considered to be the essential ceremonial structures, these are Kivas, Great Rooms, Ballcourts and Platform mounds. Each of these structures is a physical reflection of the beliefs and rituals of the builders. The spatial and temporal distribution of these structures informs us of the distribution of different philosophies, ideologies and religions.

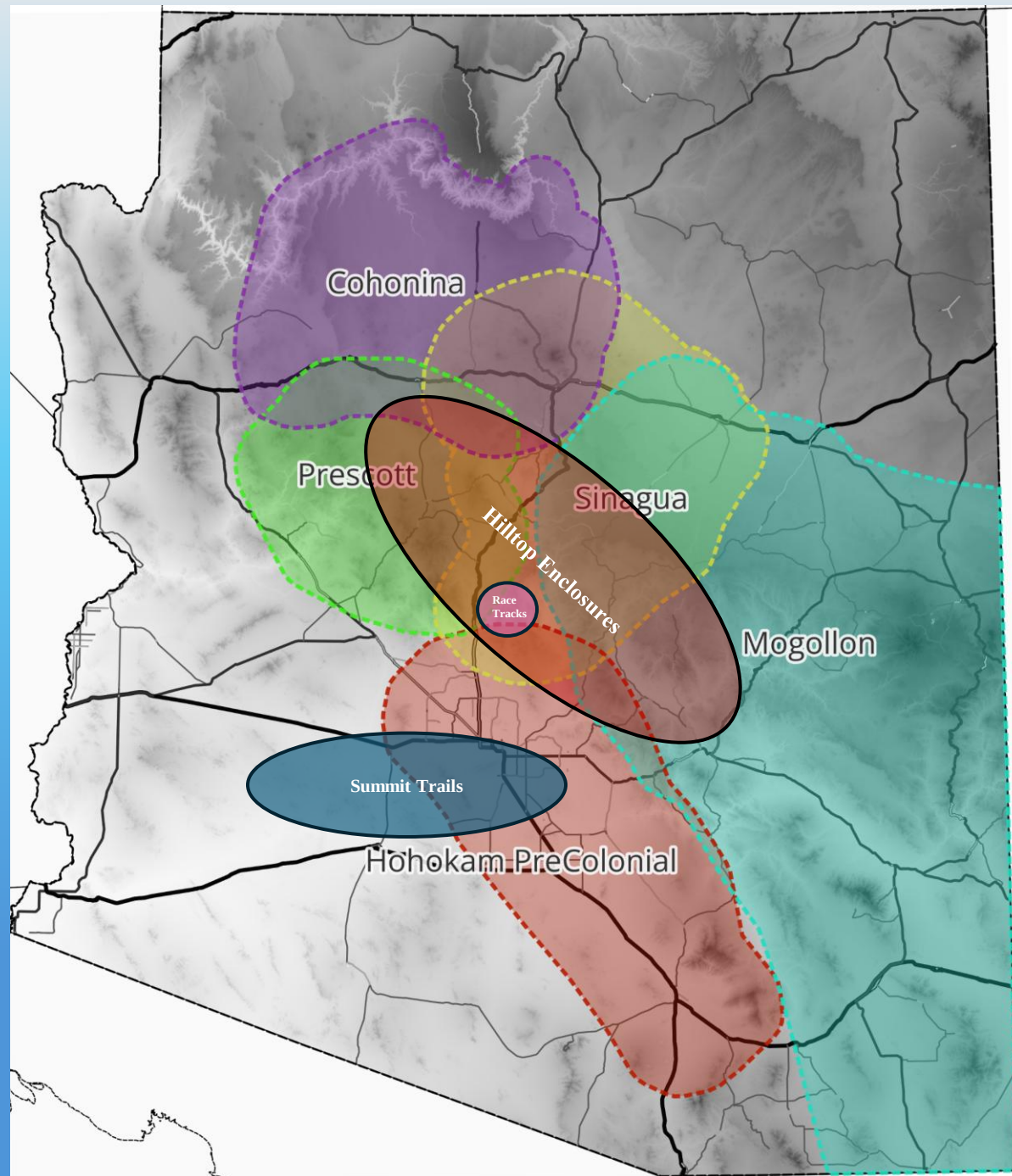
There are, however, other ceremonial structures in the American Southwest, which have been documented but are not as well known. We want to share with you some preliminary results of an on-going study of precontact ceremonial landscape structures distributed throughout central and southern Arizona.



Slide 2

The other ceremonial structures types included in our study are summit trails, racetracks, and hilltop enclosures.

Our presentation today focuses on the hilltop enclosures. We are interpreting these structures to be ceremonial in nature, though other interpretations have been offered in the past.



Slide 3

Hilltop enclosures occur within central Arizona; they are located primarily within the Arizona physiographic Transition Zone . This is a rugged area of complex topography covering about one quarter of the state; it contains over thirty mountain ranges and thousands of hills and valleys. Hundreds of the hilltops in this area are crowned by prehistoric masonry structures.

The hilltop sites addressed in this talk are present in an area that stretches roughly from the Chino Valley on the NW to Globe on the SE, from Cave Creek to the top of the Mogollon Rim.

These sites are found across multiple cultural areas: Patayan on the far NW, Sinagua, Cohonina, Prescott Culture, the general Central Arizona Tradition area, and occurring in the Mogollon/Salado cultural areas on the SE with Hohokam to the south.

Also, note the locations of the other ceremonial features we are studying in Arizona: Summit trails extend along the lower end of the Middle Gila and upper end of the Lower Gila and racetracks are limited in distribution to the Perry Mesa area.



Hilltop sites were originally recorded as forts

As Euroamericans moved into Arizona soon after the Civil War and engaged in war with the Apache and other indigenous people they saw every wall on a hilltop as a fort.

Archaeologists followed suit and generated a large body of literature and scholarship attempting to figure out who was fighting with whom , why, and when: Haas and Creamer (1996); Lambert (2002); LeBlanc (1999, 2000); LeBlanc and Rice (2001); Solometo (2006); Spoerl (1979); van Waarden (1984); Wilcox and Haas (1994); Wilcox et al. (2000); Wilcox et al. (2001a, 2001b).

Recent work has suggested a variety of functions for these sites: Abbott and Spielman (2014), Kwiatkowski (2021). Kellett (2022), Schaafsma et al. (2023; 2024; 2025).

Slide 4

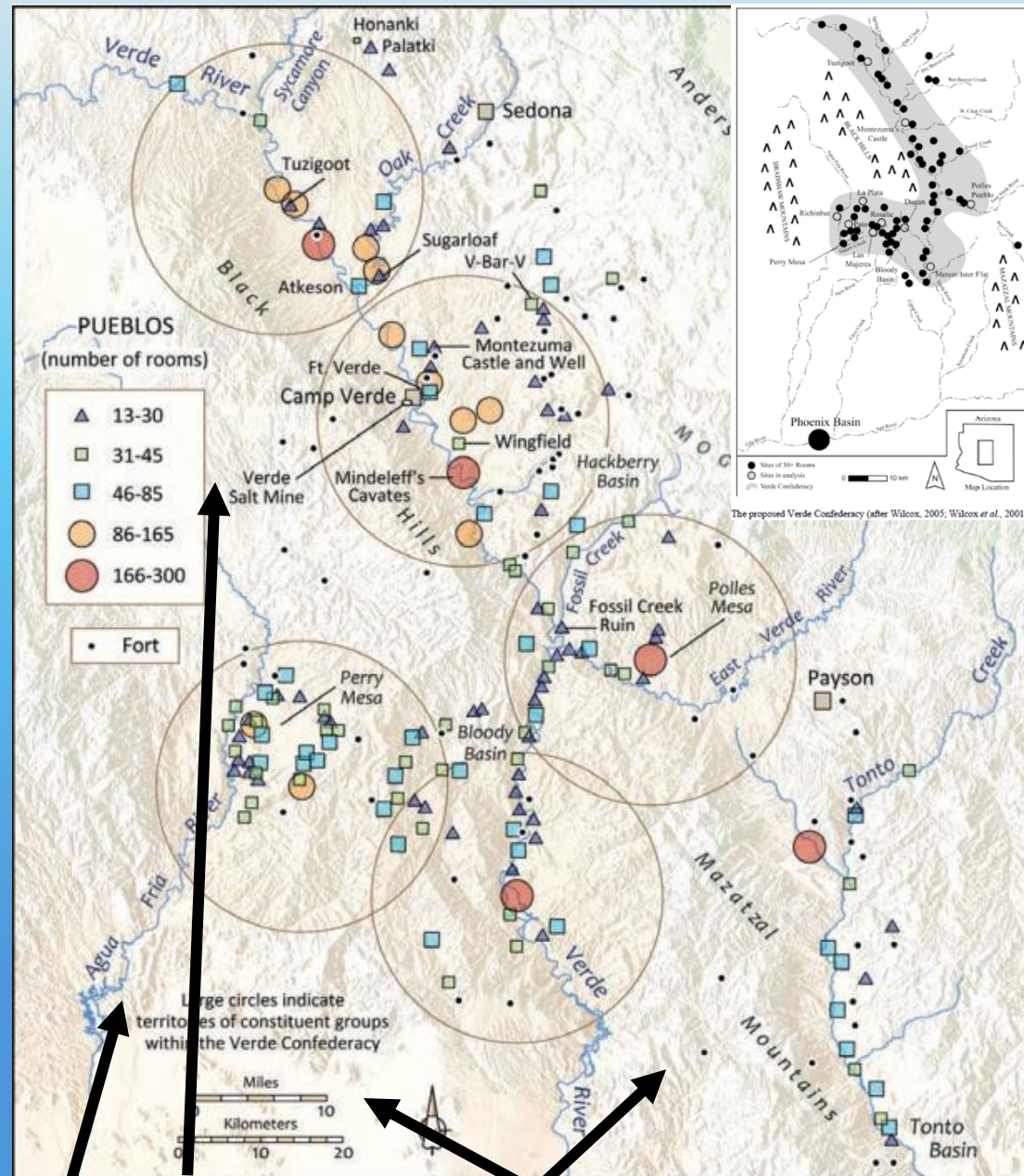
Many of these hilltop enclosure sites are well known and were originally recorded as fortified locations; this sparked the idea that there was regional warfare between cultural groups in Arizona.

This idea of region wide conflict got stamped on the landscape as Euroamericans moved into what is now Arizona in the late 1800s. Many of the early American settlers in Arizona had been soldiers in the recently defeated Confederate Army. These were people who moved here soon after fighting in the Civil War and when arriving in Arizona engaged in war with the Apache and other indigenous people. These people of war saw every wall on a hilltop as a fort and named them accordingly with names such as Indian Fort, Fort Mountain, Anderson Fort, etc.

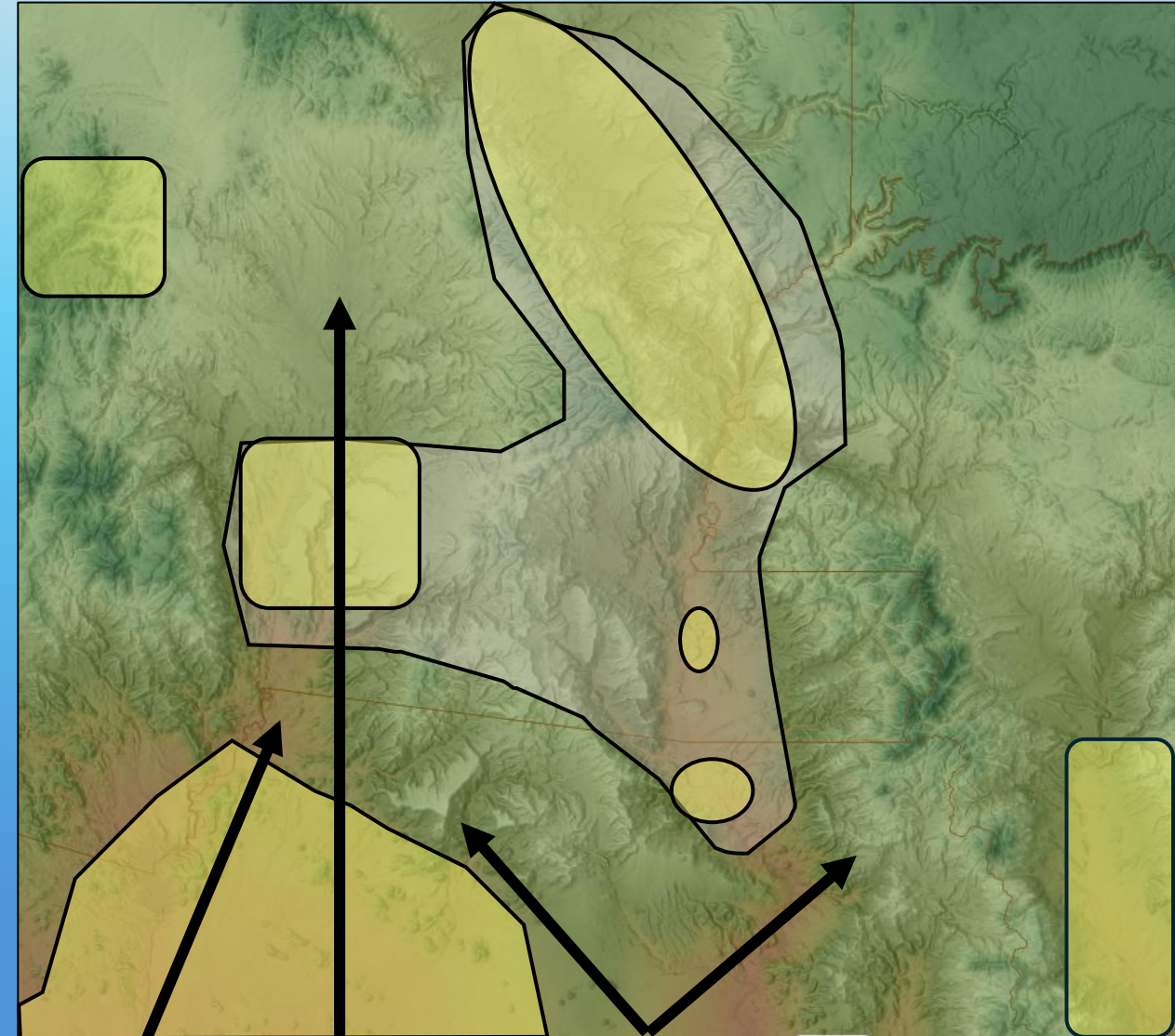
Archaeologists followed suit and generated a large body of literature and scholarship attempting to figure out who was fighting with whom , why, and when.

Current research of these structures is offering a different view of these sites and the intentions of the people who built and used them. We will explore some of these.

Verde Confederacy hypothesis



Areas surveyed per AZSite shown in yellow



No archaeological surveys conducted in this area at the time the Verde Confederacy was hypothesized

Slide 5

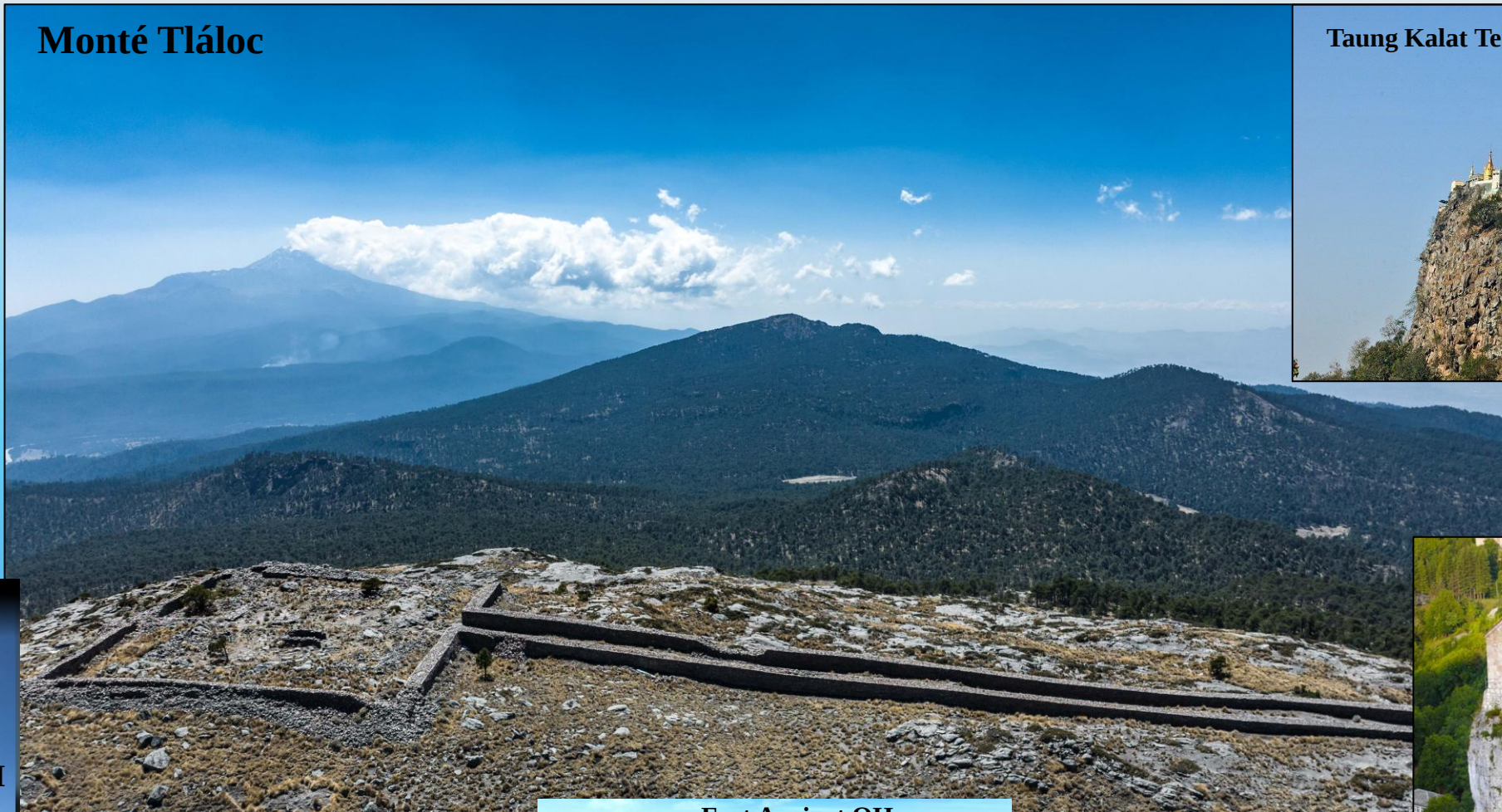
The Landscape of war describes confederacies and alliances bound through various treaties and obligations. On the left is the map of the hypothesized Verde Confederacy. One of the elements that supported this idea was vast swaths of allegedly uninhabited lands between the combating groups. The land surrounding the Confederacy was supposed to be empty of sites to form a “cultural buffer zone”. However, a review of these buffer zones, right side map, reveals that these ‘buffer zones’ correspond well to are areas that have had very few if any archaeological surveys conducted in them---therefore little archaeological site recording.

The buffer zones begin to fill in.

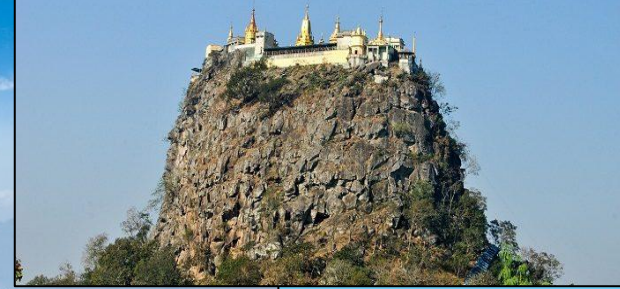
Interestingly, in the past five years we have conducted some large, 6,000 acre+, surveys in these areas and have found many sites that date to all time periods—just the same as in the confederacy territories.

As Schrodinger’s Cat warns us, reality changes if we peer into the box, or in this case, the buffer zone.

Monté Tlálloc



Taung Kalat Temple Myanmar



Turkey



El Cerro de Tomé, NM



Fort Ancient OH



Slide 6

Fort Ancient is one of a large complex of hilltop shrines that were also thought to be a system of forts. Interestingly, these Ohio shrines have multiple ornate decorative architectural elements such as walls of different colored clays that created red walls inside and yellow walls from the outside.

Some shrines go out of their way to be isolated, such as this one on the lower left in Turkey built on a pinnacle of rock.

Similarly, the shrine in the upper right located in Myanmar where about 12 monks live at the shrine.

In the center is a photo of the primary shrine to Tlaloc built on a mountain top just east of Tenochtitlan. This has many similarities to the hilltop enclosures we are talking about here today. That said, I want to be very clear—I am not suggesting any connection with Tlaloc or Mesoamerica and the Arizona hilltop enclosures—any more than I'd suggest the hilltop temple in Myanmar influenced the local hilltop structures.

So—Forts vs Sacred space. One difference is that many temples and shrines have no space for living, or only enough for a few monk-like folks; note the Myanmar and Turkey examples here—house for one and housing for about a dozen. No housing at the Tlaloc shrine or Cerro de Tome in NM.



Hilltop forts

These tend to have habitation sites inside the walls along with large storage facilities that served a dual purpose: general storage during regular times and for a food and water supply to keep folks fed during a siege.



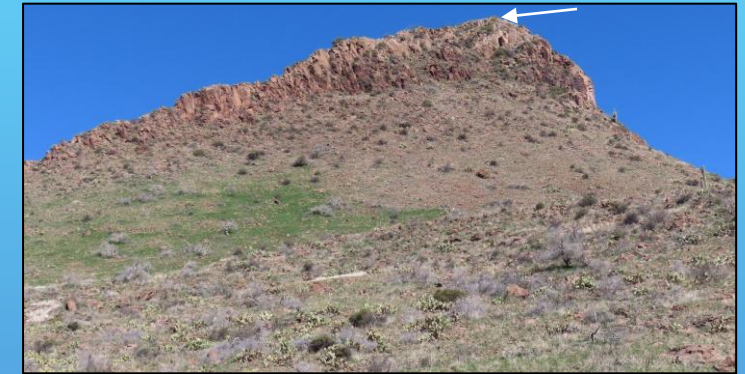
Slide 7

Hilltop sacred spaces differ markedly from hilltop walled fortified sites. The latter tend to have habitation features inside the walls along with large storage facilities that served a dual purpose: general storage during regular peaceful times and for a food and water supply to keep folks fed within the walls during a siege.

Topographic locations:



Hilltop enclosures are commonly located on hilltops (by definition), often on dramatic heights with commanding views. But many are also on low rolling hills that don't have as commanding a view of the surrounding landscape.



Slide 8

So, what are the hilltop enclosures of central Arizona?

Where are they are found and how they are built?

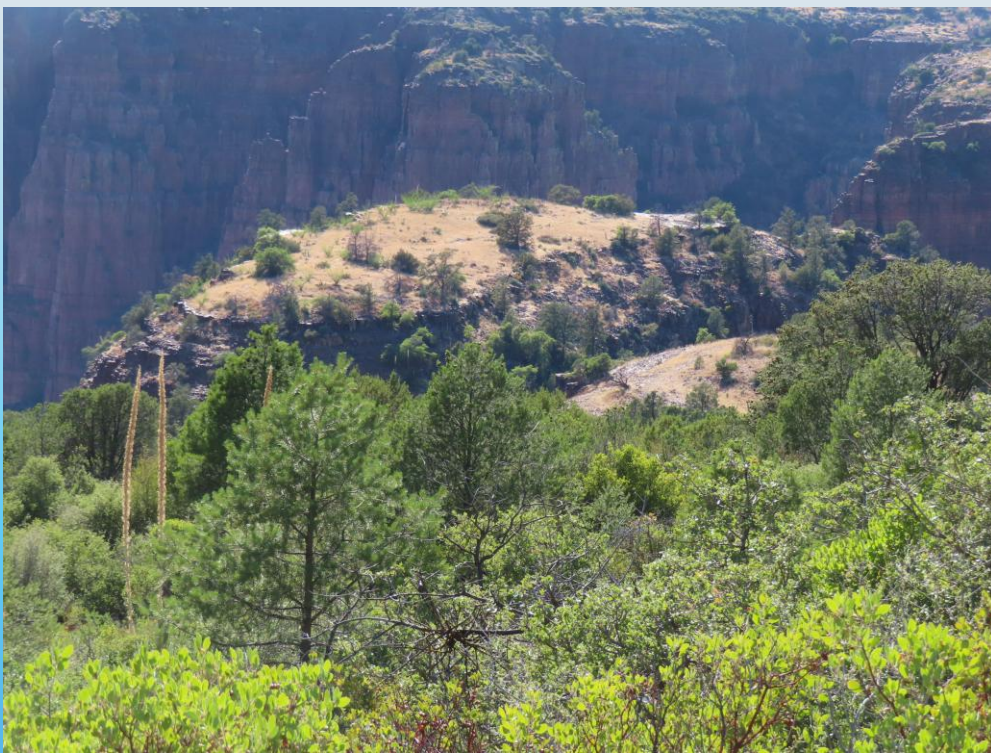
In the simplest form Hilltop enclosures consist of a masonry wall enclosing an area, generally larger than 10m by 10m, though they can be as large as 60m by 150m. These structures are most commonly located on hilltops, often on dramatic heights above the surrounding land, but many are also on low rolling hills that often don't have a commanding view of the surrounding landscape. They are also located on a variety of other landforms.

One aspect of these structures is that unlike almost any other cultural features, there are very few artifacts ever found in association with these sites. What is normally found, even on large enclosures, is a handful of sherds. These are almost always plainware. The few ceramics that are temporally diagnostic all point to construction and use between AD 800 and AD 1100. Occasionally a piece of chipped stone or ground stone is found at these sites. Many sites are built right on bedrock and so have no depth of soil and therefore no more artifacts to be uncovered. Results from the few hilltop enclosures that have been excavated show that these features were not habitation sites or forts. Rather they appear to have been places of astronomical observation, and or places where ceremonies and rituals were carried out. The extreme lack of artifacts suggests that they may have been used infrequently, perhaps only once or twice a year for specific ceremonies.

Again—using the Tlaloc shrine as an example only—we know from Spanish records made at the time of contact that the Tlaloc shrine was used only a few times per year, with one large annual ceremony involving numerous towns folk, pilgrims, and priests. Other, smaller ceremonies were also conducted there, these were mostly attended by priests with few other attendees if any.

Topographic locations:

Ritual enclosures are also located on small 'island' mesas, buttes and promontories.



Slide 9

Topographic locations:

But not all are on hilltops, some are on small mesas, or buttes off the edges of mesas, and promontories.

Topographic locations:

Ritual enclosures can also be located on ridges, edges of mesas, even in saddles between hilltops.

The prime takeaway regarding the locations is an elevated and isolated location.

In some cases, habitation sites are present near the base of the hills, but in many cases the nearest habitation sites are up to a mile or two away.



Slide 10

Topographic locations:

Ritual enclosures can also be located on ridges, edges of mesas, even in saddles between hilltops.

The prime takeaway regarding the locations is an elevated and isolated location.

In some cases, habitation sites are present near the base of the hills, but in many cases the nearest habitation sites are up to a mile or two away.

Shape of Enclosures:

While their structure, shape and internal details vary, their shapes fall into three general categories:

1. Rectangular
2. Oval
3. Irregular

Rectangular enclosures



Slide 11

Shape of Enclosures: Rectangular

While their structure, shape and internal details vary, their shapes fall into three general categories: rectangular, oval, and irregular.

Rectangular enclosures are most often located on ridges, saddles or the edges of mesas, some are also located on hilltops.

Rectangular structures are generally constructed using rubble core/veneer walls.

Shape of Enclosures:

Oval to Circular



Slide 12

Shape of Enclosures: Oval or circular

Oval or circular enclosures are most often located on hilltops. The walls are both wide rubble walls and core/veneer walls. In some cases, the wide rubble walls are faced on the inside of the enclosure, see the upper left photo here.

Shape of Enclosures:

**Terrain Conforming
Irregular Enclosures**



Slide 13

Shape of Enclosures: Terrain Conforming Irregular Enclosures

The irregular shaped enclosures are most often on hilltops and incorporate and or enclose natural stone outcroppings.

At several of these sites standing natural monoliths have been incorporated into the structures.

These irregular shaped features conform to and enhance natural features of the landscape.

The construction of the walls is more varied, including core-veneer, mounded rubble, and often incorporate portions of the natural rock into the structure.



Structure using cliff and boulder as ends—open to the north



Structure using cliff as one end--open to the south



Ceremonial structure built of cottonwood branches. Note that it is open on one side. Walled enclosure may have had similar temporary wall, on not.



Structure using cliff as one side



Intermittent wall using edge of hill to define space

Slide 14

Shape of Enclosures: Open sided enclosures

Not all enclosures are fully enclosed by masonry, in some cases a cliff edge or other natural feature is used to form part of the wall.

In other cases, one wall is simply not present, and the enclosed space is open on one side.

We speculate that the open side may have been enclosed by a temporary brush wall while in use, but further excavations will be needed to confirm or deny this hypothesis.

**Wall construction technique:
most common is core-veneer type
construction.**



Slide 15

Wall construction technique:

Walls vary in construction technique but are most often core-veneer type construction as seen here.

Wall construction technique:

Rubble mound construction



Slide 16

Wall construction technique:

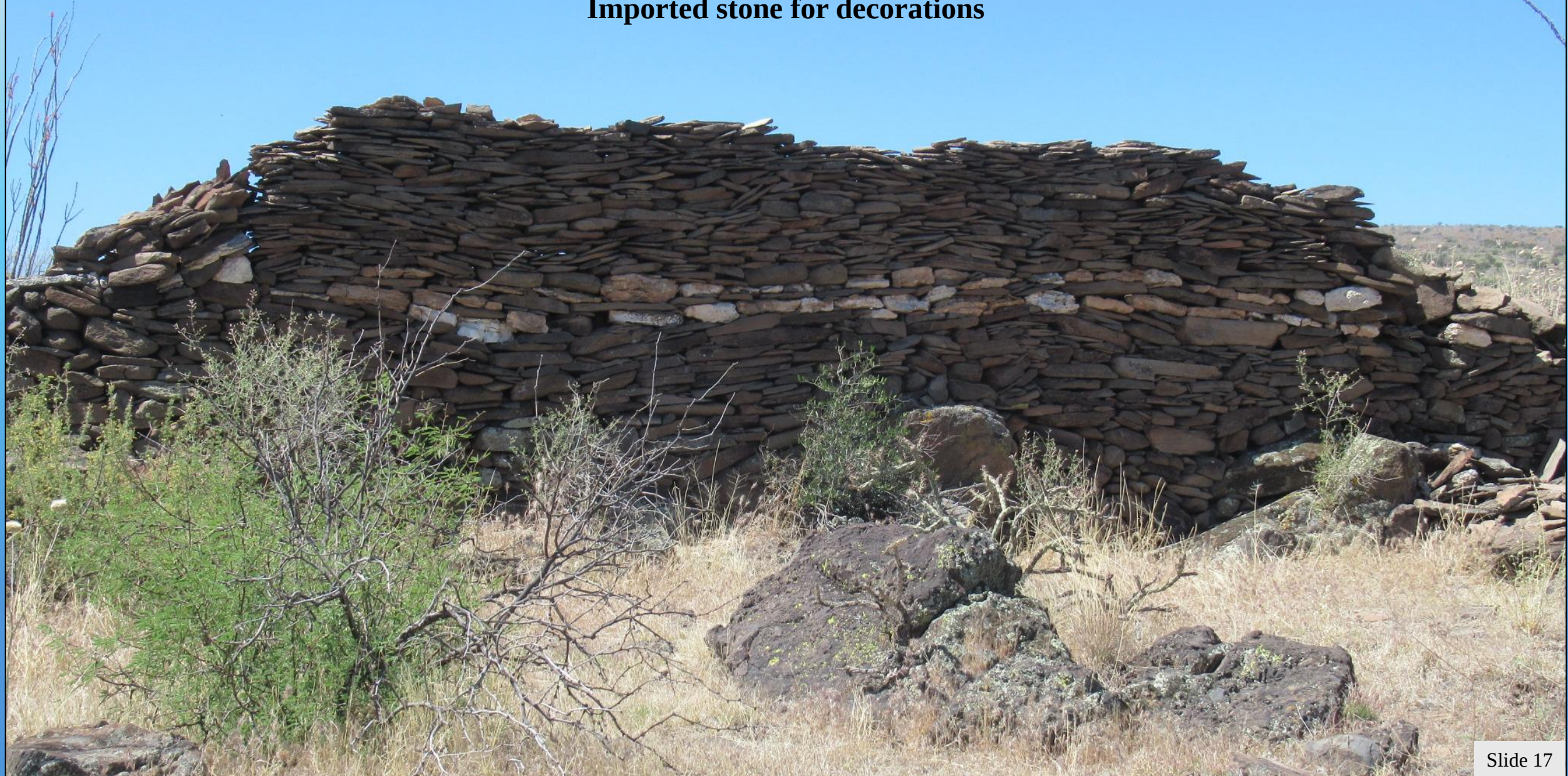
Rubble walls were formed by wide rubble mounds. In Some cases, the interior side of the wall is faced, on the upper left, while in others the rubble is simply mounded as a low linear mound. Note on the lower left that a large bedrock outcrop was included as part of the wall.

These are not fallen walls.

Also note that a variety of rock shapes are used in construction, rounded cobbles, blocky stones or flagstone.

These reflect the fact that the structures are mostly constructed of the locally available stone.

**Wall construction technique:
Imported stone for decorations**



Slide 17

Imported Stone

Though there are exceptions where non-local rock was carried in (up to a mile in some cases) to create decorative architecture, such as in this wall where the white stone was carried up from the bottom of the hill, quite a climb with all that stone.

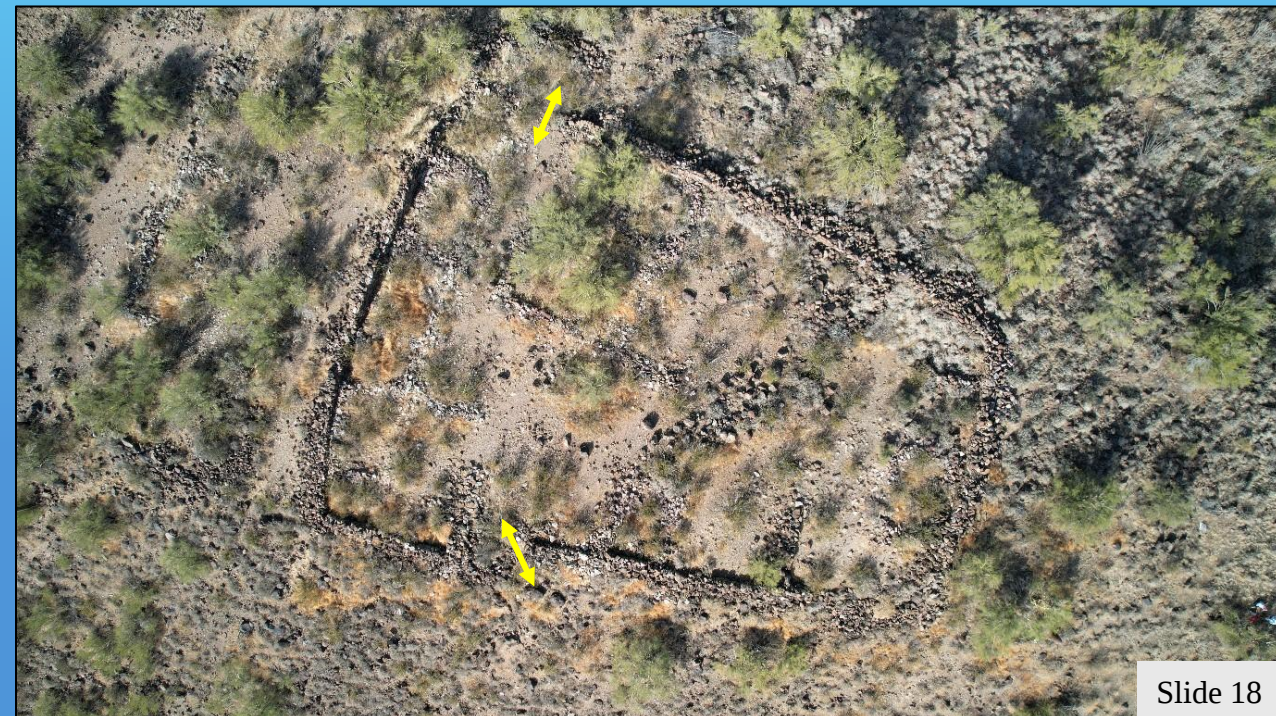
At this site rough calculations on the volume of white stone carried up from the bottom of the hill indicate that roughly 6 tones of rock were hand carried up to make this decorative addition to the walls.

We have also recently noted that there are non-local stones scattered around at least several of the enclosures. As this is a recent observation, we don't have solid numbers, but these seem to occur at many of the enclosures. At this time, we have no good ideas as to what purpose these imported stones served.



Structural details:

**Enclosures often
have openings on
two opposite sides.**



Slide 18

Structural details:

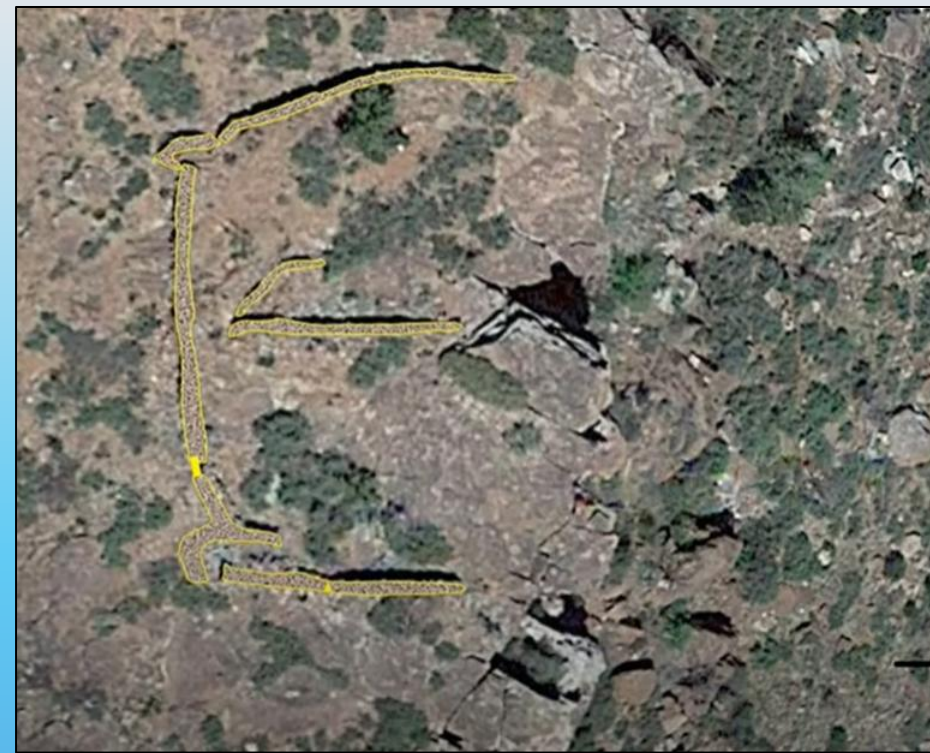
Now that we have a looked at the basic structural types, we will examine some of the interesting structural details that make these structures even more interesting in our opinions.

Also, some of the features that we have been finding in conjunction with the enclosures.

Enclosures often have openings on two opposite sides.

Structural details:

Some enclosures have a dividing wall, usually creating two roughly equal halves. Often the builders incorporated a natural feature such as elevation change (blow left) or natural outcrop to form the dividing wall.



Slide 19

Structural details:

Some enclosures are divided into two spaces by a wall and or a natural topographic feature. In some cases, there is both, a wall in the middle and an elevational change, or other natural feature that the builders took advantage of.

Structural details:

Walls built to mimic or enhance the natural shapes present in the landscape.



View ports



Slide 20

Structural details:

It is possible that undulating shapes in walls were intended to reflect either the local topography on which they are built, or the mountains seen on the horizon, or both.

Note that neither of the walls in these images have wall fall either side of the wall. This shape we are seeing is what had been built.

Many walls have ‘view ports’ built in, the purpose of these is unclear, some are right at ground level while others look out over a cliff or into a rockface. Some provide a view of a larger landscape.

These holes in the walls have often been used by proponents of the ‘fort’ interpretation of these structures. They refer to them as ‘loopholes’ used by archers to shoot through.

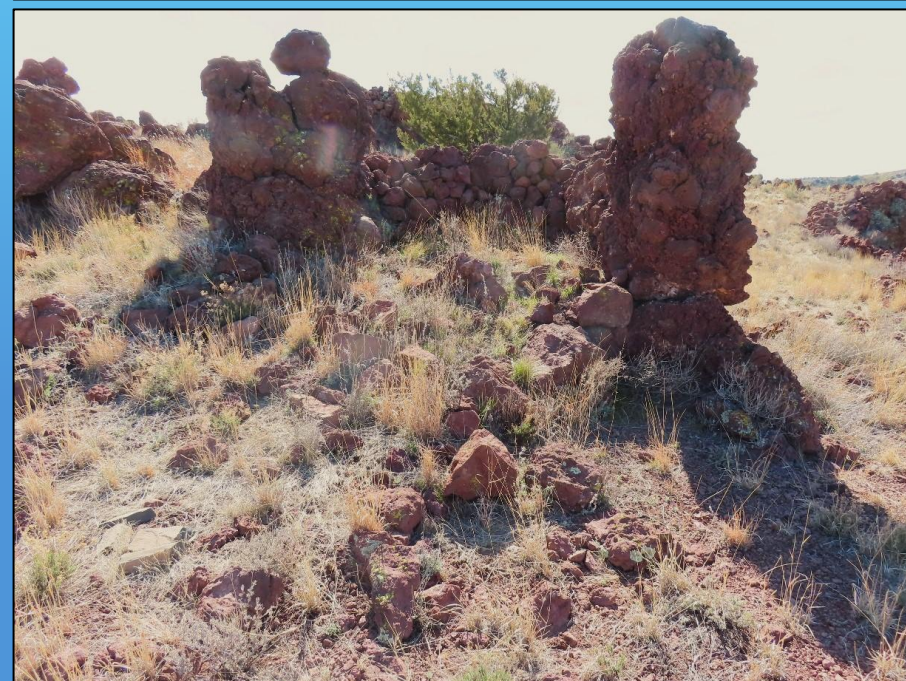


Slide 21

Side note here about the so-called loopholes found in many hilltop walls. Those built for archers such as this one in the wall of Corfe Castle in southern England. These were designed to afford the archer a wide field of view and room to aim in multiple directions covering a wide field of fire and protection from incoming arrows.

The holes in the walls found in the hilltop enclosures are consistently narrow through the width of the wall affording a very narrow view and even more limited range of fire. Further, many are located inches from the ground or looking out on a nearby stone or cliff.

We don't have a good interpretation of just how the loopholes were used. Some ideas include location to place prayer sticks, places where an observer could look out at a specific spot on the landscape where people, or items were located during the celebration. Some may have been used to convey voices or instrumental sounds from the other side of the wall during certain ceremonies. We are open to suggestions.



Some irregular shaped enclosures incorporate natural megaliths.

At least one enclosure site has two constructed megaliths—lower right photo.



Slide 22

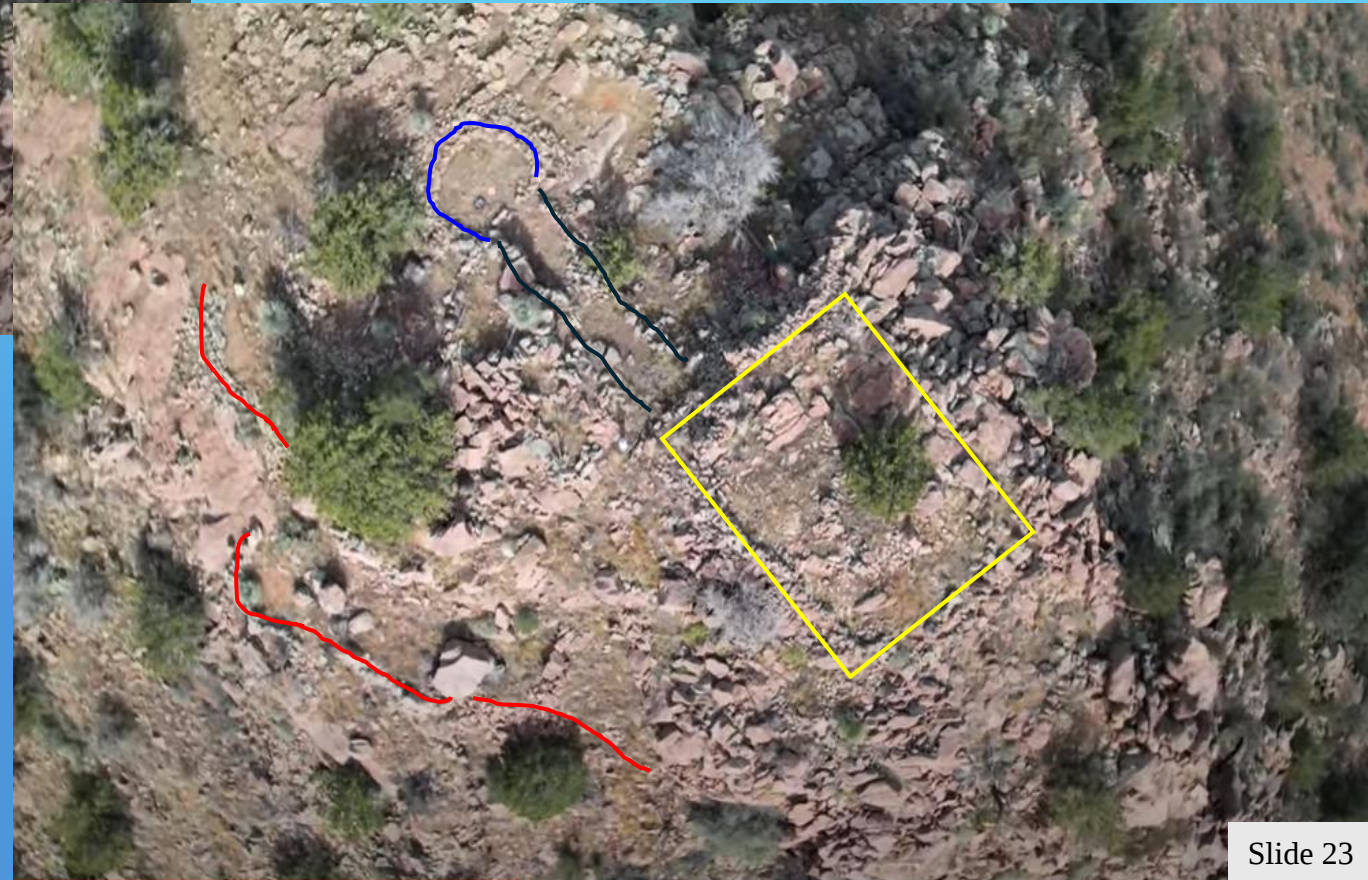
Structural details:

Some irregular shaped enclosures incorporate natural megaliths.

At least one enclosure site has two constructed megaliths that were put in place by the builders—lower right photo.



Complex site with circular and rectangular components connected by a built ramped corridor.



Slide 23

Structural details:

Some sites, such as this one with multiple levels and variously shaped enclosed spaces suggest possible ritual use as participants may have processed up the built ramp between the two enclosures.



Decorative Elements of the Architecture



Decorative architecture appears in some of these sites, the decorative elements take multiple forms, including:

- Striped walls
- boulder/cobble walls capped with flagstone
- Bi-colored walls
- Polychrome walls
- Connecting cobbles placed over bedrock or large natural boulders
- Crenulations
- Monoliths, natural and placed
- Bedrock shapes incorporated into built walls



Slide 24

Decorative Elements of the Architecture

A couple other aspects of the ritual enclosures that speak to the complexity of the cultural events that were being conducted at these sites include decorative architecture, which we covered at the 2023 Pecos Conference, but will give a quick overview of here.

**Striped walls have several variations:
Stripes made of contrasting colored
stones such as this dramatic white stripe
in a dark gray wall.**

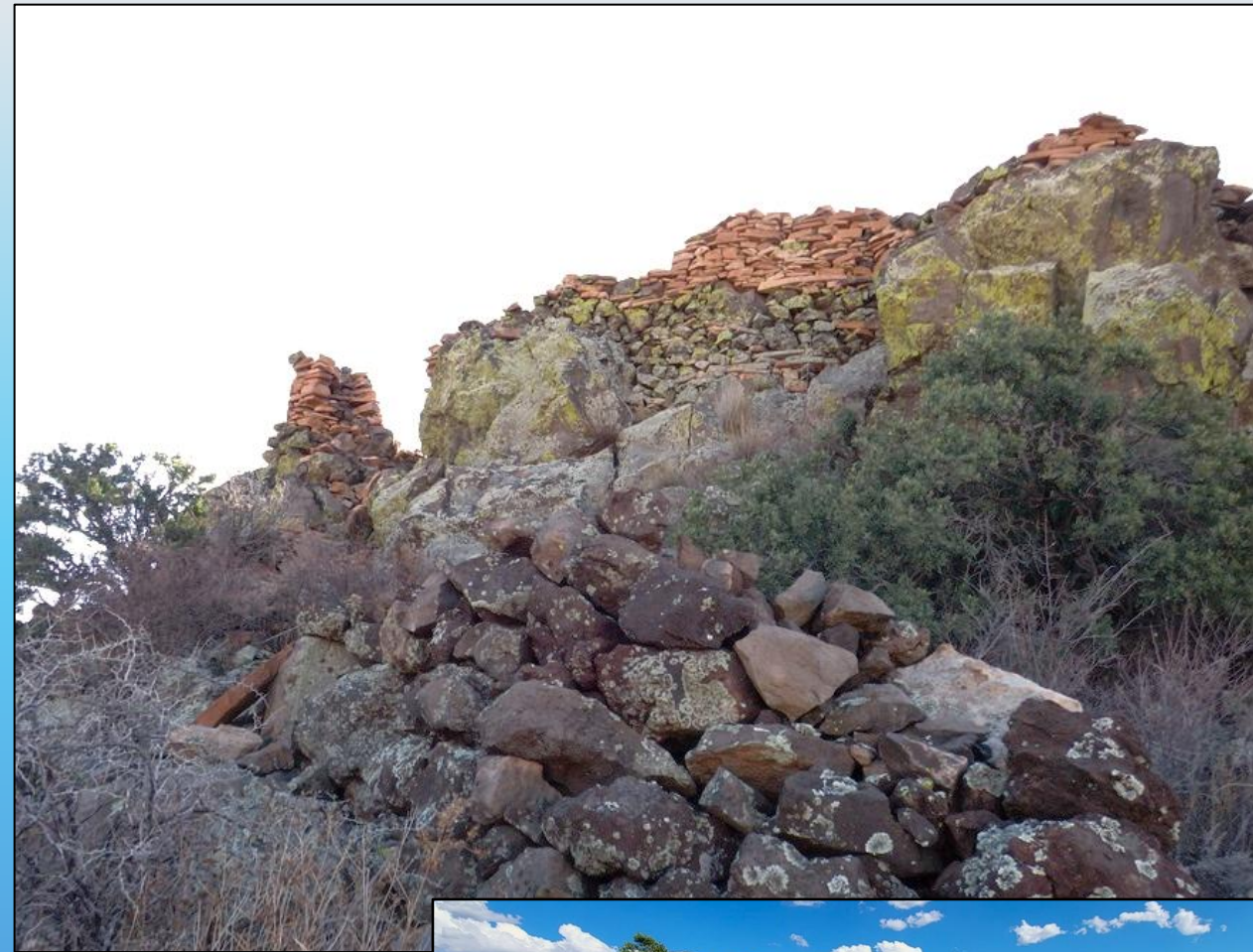


Slide 25

No notes: see slide

Bicolored walls:

Upper half of upper rooms constructed of red sandstone cobbles forming a striking contrast with the local black basalt.



Slide 26

No notes: see slide

Polychrome walls:

To date we know of one site where three colors of cobble were used to construct a room. Black basalt, red sandstone, and white/light gray limestone.

Unfortunately, none of the wall that incorporated the colored stones remains standing so we don't know what the design would have been.



Slide 27

No notes: see slide



In all cases the primary walls were built of stone available at the tops of the hills they are constructed on. In the sites with multicolored stone, the colored stone is not available on the hilltops and had to be transported up to the top. In most cases the colored stones are available near the foot of the hills, however in one case the nearest colored stone we could find was over a half mile from the foot of the hill. In all cases several tons of stone were necessary to complete the decorations.



Slide 28

No notes: see slide

Anchorites



Slide 29

Anchorites

The other interesting aspect of these sites is the presence of what we are calling anchorites. These anchoritic features are present near the larger enclosures—that is generally within less than two miles. The locations may be to some degree determined by the topographic features available in the vicinity, but we really do not know the criterion used for selecting sites—other than that they appear to need to be difficult to get to.

Of note is the fact that these small anchoritic sites have small middens and other evidence of light habitation—this is unlike the enclosures, which have no signs of habitation.

Anchorites likely served as small abodes for religious practitioners to retreat into for meditations or other spiritual activities. These consist of small rooms built on high pillars of rock. These would have been difficult to get to and likely there were support staff, bringing food and water to the folks in retreat atop these high towers.

It is known that periods of time prior to large events such as the Shalako, a ceremony held once a year at Zuni, the participants retreat for meditation and instruction. In the case of the Shalako, the period of time is 40 days.



Some enclosures have rooms within that may have served as ritual rooms used during ceremonies.

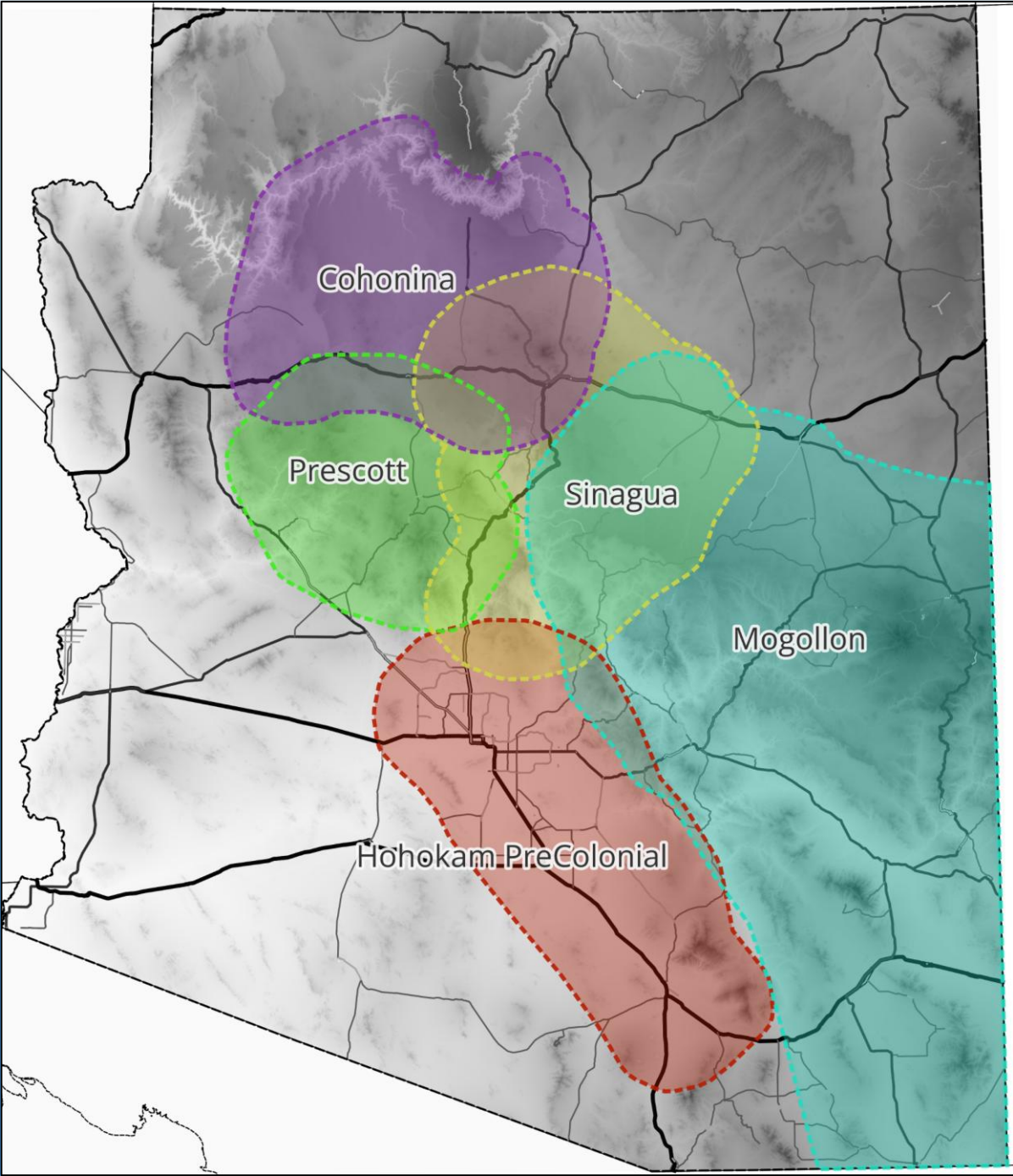
Slide 30

Anchorites

There are some enclosures that have rooms within. We speculate that these were also only used during ceremonies due to the lack of middens associated with these internal rooms. We suggest that ritual practitioners would use these rooms during ceremonies only rather than live in them.

The emerging image is of multiple elements that begin to form a complex but comprehensive narrative.

**Cultural groups of
Central Arizona roughly
AD 700**

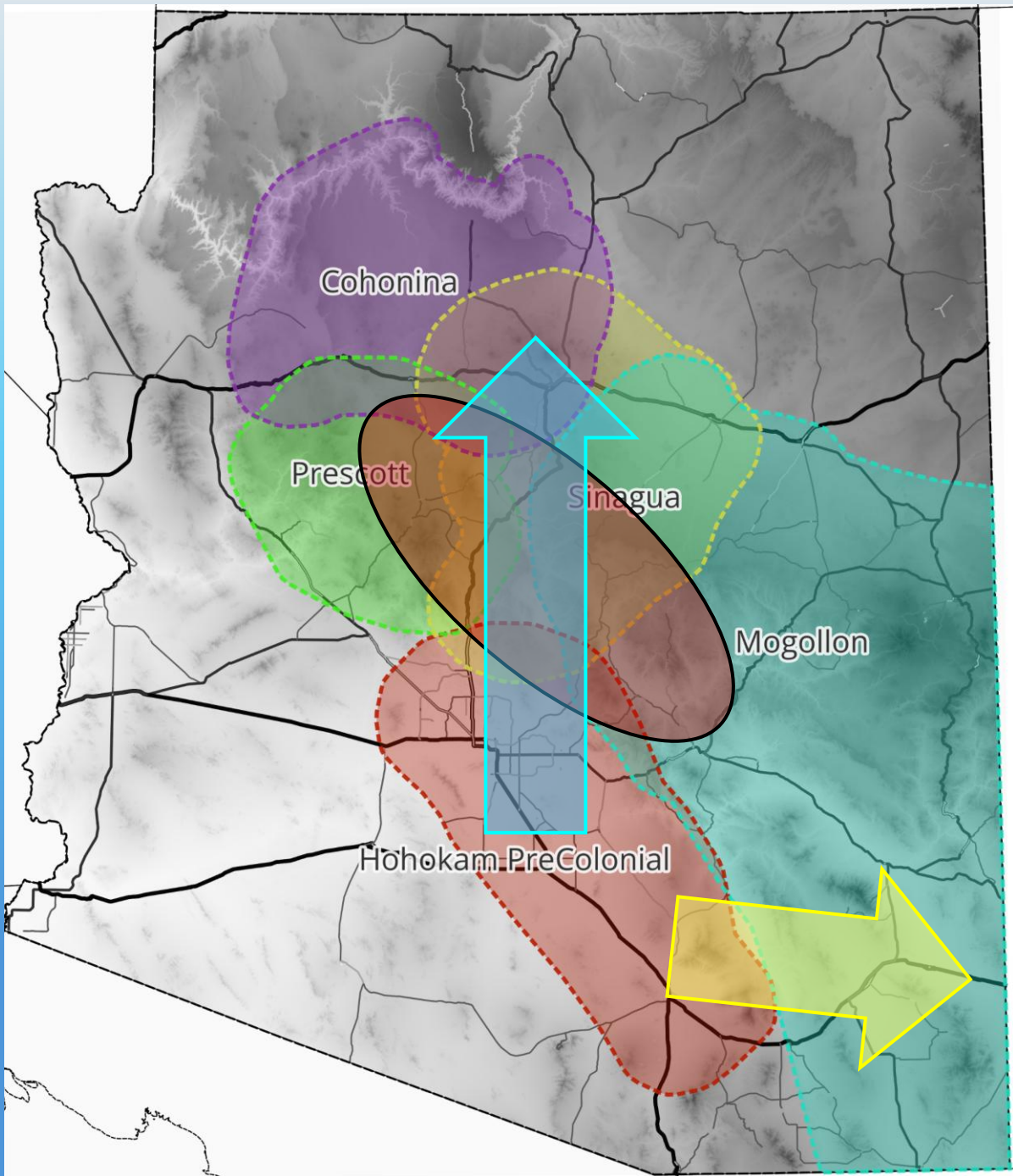


Slide 31

Cultural Context

So, with that review of the features, we will turn back to looking at them in the larger context of history.

Once again, the map of cultural groups in central Arizona in about AD 700



YEAR	PERIOD		PHASE	
A.D. 1900	HISTORIC	Late	American Era	Blackwater
A.D. 1800		Early	Hispanic Era	
A.D. 1700	PROTOHISTORIC		-	Bachi
A.D. 1600				
A.D. 1500	Boundary not well defined			
A.D. 1400	POST-CLASSIC		Polvorón	
A.D. 1300	CLASSIC		Civano	
A.D. 1200			Soho	
A.D. 1100	SEDENTARY		Sacaton	
A.D. 1000				
A.D. 900				
A.D. 800	COLONIAL		Santa Cruz	
			Gila Butte	
A.D. 700	PIONEER		Snaketown	
A.D. 600			Estrella/Sweetwater	
A.D. 500	EARLY CERAMIC		Vahki	
A.D. 400				
A.D. 300				
A.D. 200				
A.D. 100				
			Red Mountain	

Hohokam time-line

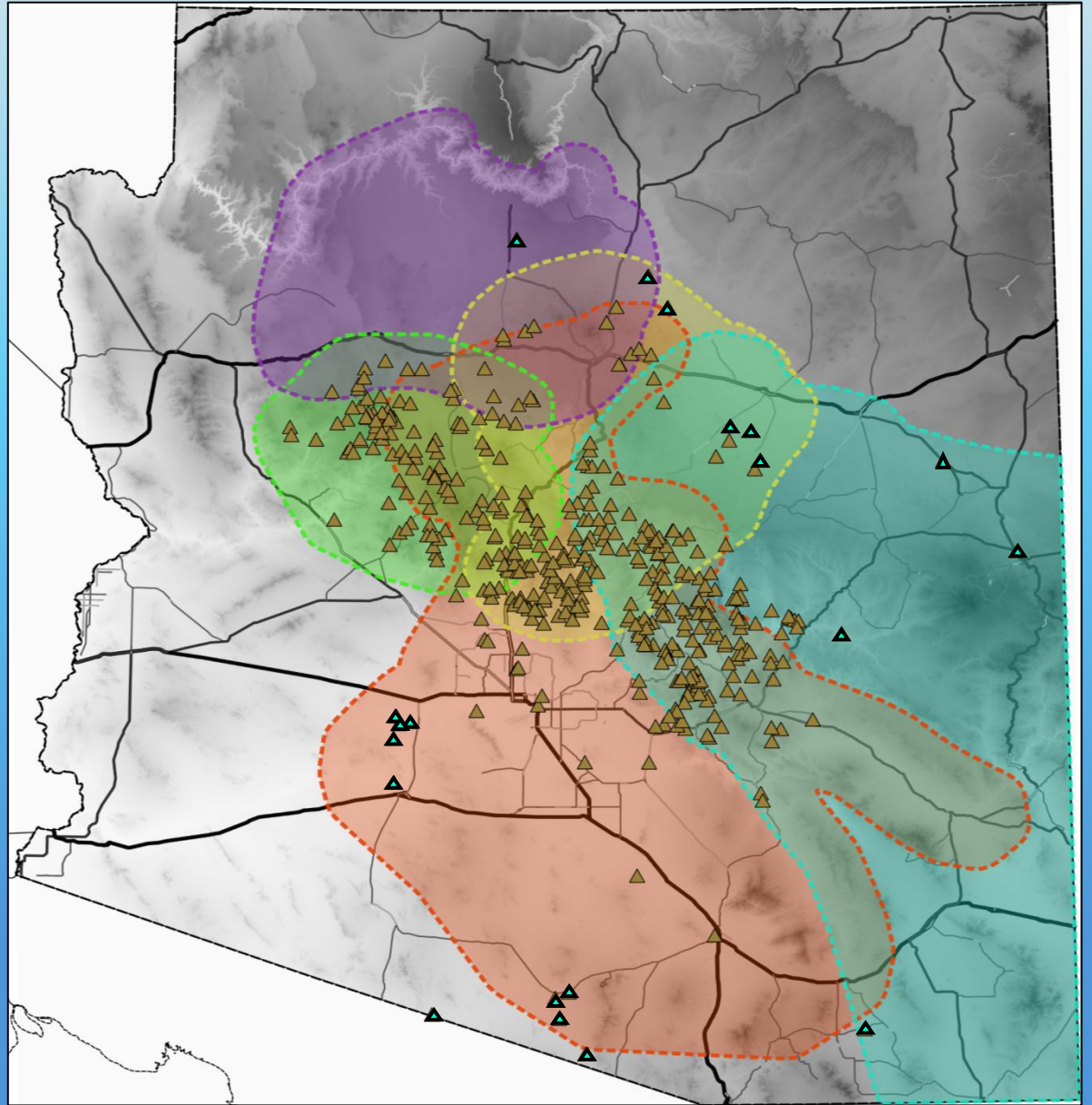
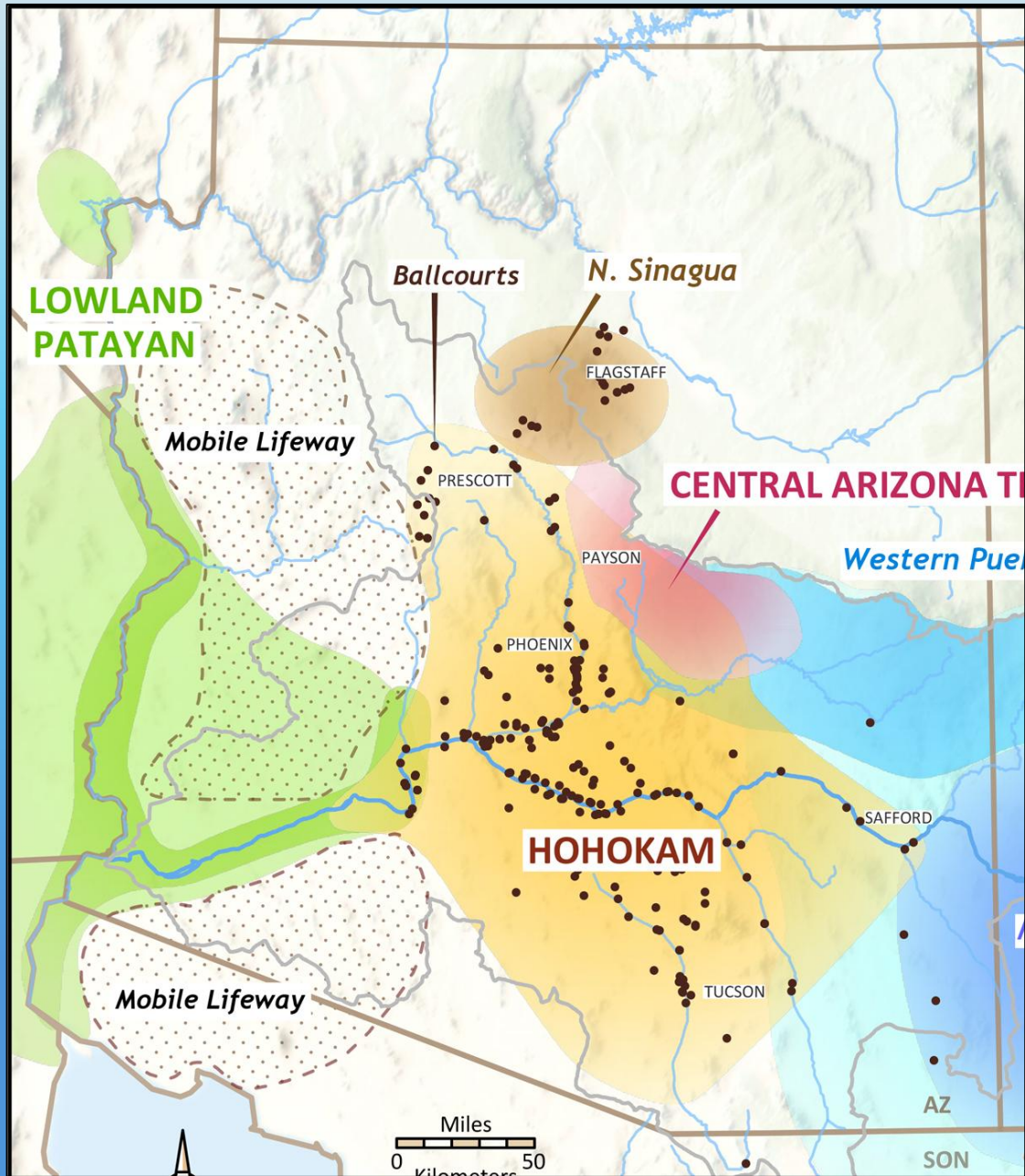
Slide 32

Cultural Context

Beginning in the Pioneer Period Hohokam people began to settle areas beyond the Salt, Gila, and Santa Cruz river basins. By AD 800 recognizably Hohokam settlements were present amongst at least five different archaeologically recognized cultural groups north of the Phoenix Basin.

All evidence supports the idea that these in-migrating Hohokam were welcomed and combined to some degree with the local cultures. The emergence of the hilltop enclosures suggests a synthesis of the local and Hohokam cultures that resulted in an ideology that incorporated the desire to have ceremonial spaces atop hills and other high places.

Note that the Hohokam also expanded east, interestingly, these eastern interactions did not appear to result in construction of hilltop enclosures.



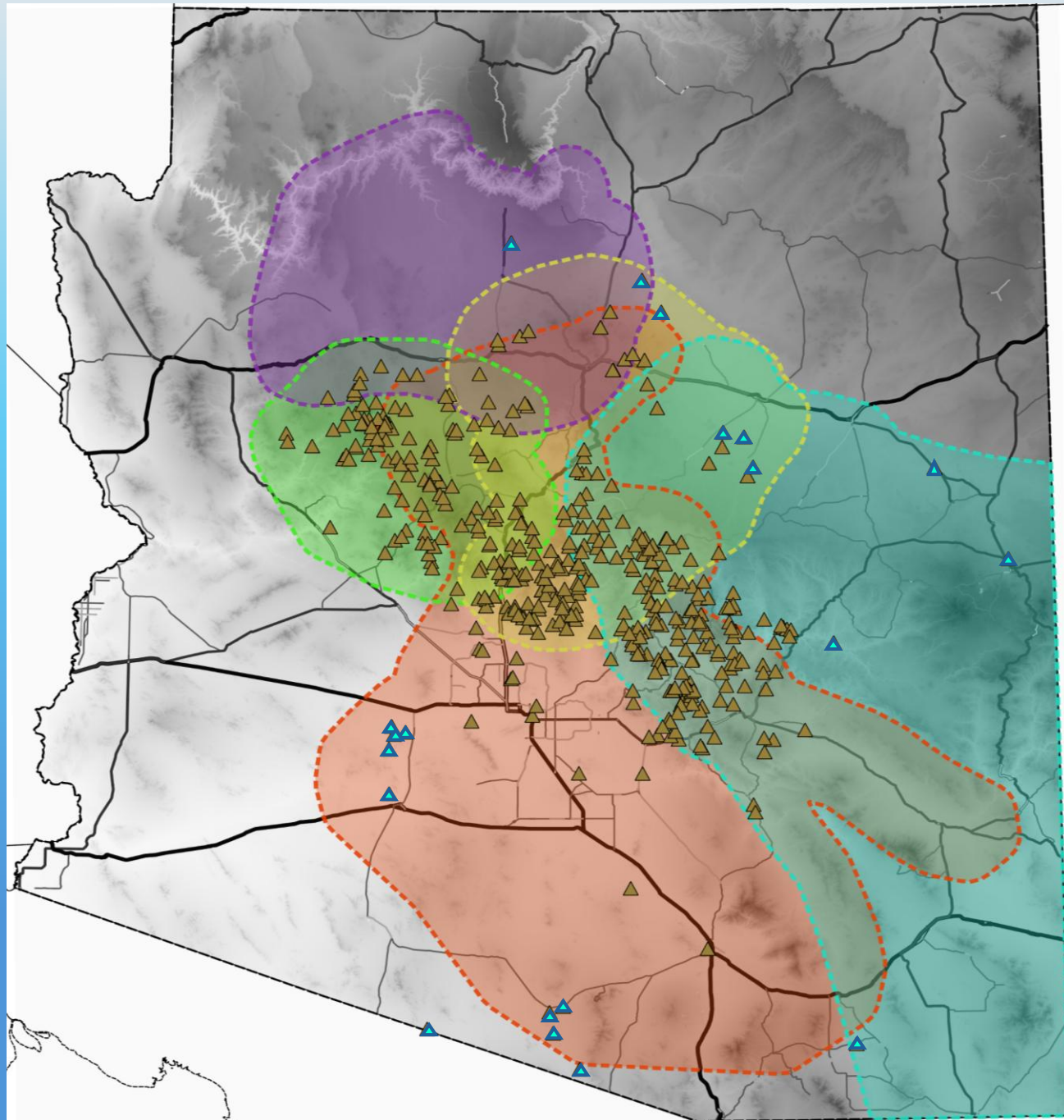
Slide 33

Cultural Context

One of the signs of cultural integration is the construction of Hohokam ballcourts in the northern areas. The map on the left shows the locations where ballcourts were built; the map on the right shows the locations of hilltop enclosures. (the blue triangles are other hilltop features, that are not the enclosures being discussed here.)

There is a coincidence of ballcourts, hilltop enclosures and Hohokam people settling with northern cultural groups.

Throughout the range of ballcourt construction evidence of feasting and material exchange suggests that ballcourts played a role in connecting and integrating regional communities in both inter and intra-cultural contexts (Hill 1999; O'Hara 2015). The presence of Ballcourts indicates the locations to be hubs of regional trade, they served as socially integrative facilities. There is every indication that the hilltop enclosures are part of this integration of cultures.



Slide 34

Current Conclusions

The hilltop enclosures appear to be an emergent architectural feature that reflects the ceremonial activities of people who were mixing and sharing local and Hohokam traditions.

All indications are that the Hohokam got along well with whomever they settled amongst. These were **not interactions of conflict and war, rather we are seeing in this architecture the reflections through time of multicultural peoples who met and shared their cultures, traded and surely intermarried and taught each other their traditions and wisdom.**



Thank you!