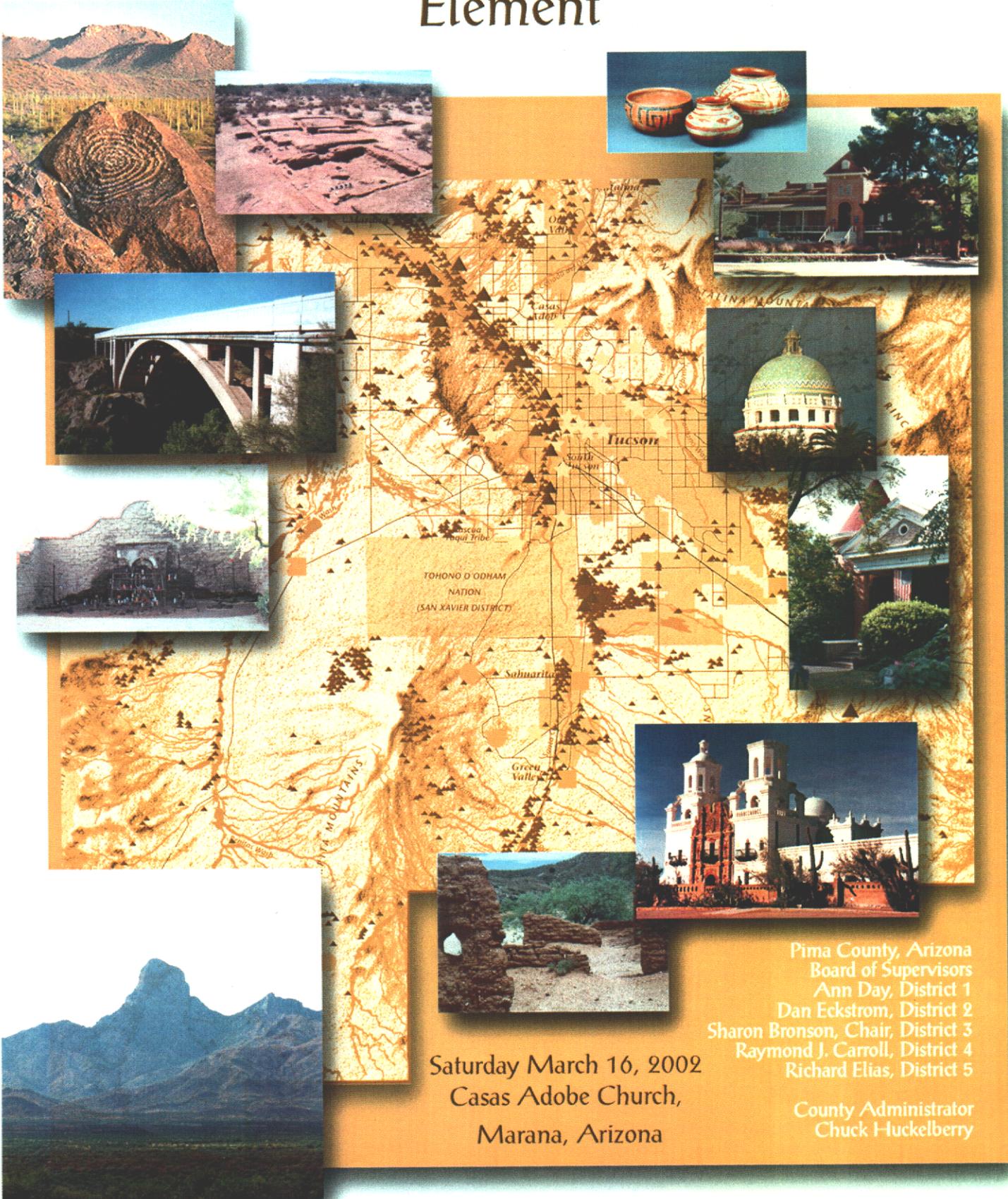


Report to the Sonoran Desert Conservation Plan Steering Committee:

The Cultural Resources Element



Saturday March 16, 2002
Casas Adobe Church,
Marana, Arizona

Pima County, Arizona
Board of Supervisors
Ann Day, District 1
Dan Eckstrom, District 2
Sharon Bronson, Chair, District 3
Raymond J. Carroll, District 4
Richard Elias, District 5

County Administrator
Chuck Huckelberry

**SONORAN DESERT CONSERVATION PLAN
STEERING COMMITTEE**

STUDY SESSION

**March 16, 2002 (8:30 a.m)
Casas Adobes Baptist Church
10801 N. La Cholla Blvd.**

CULTURAL RESOURCE ELEMENT AND THE PAST THREE YEARS

David Cushman

I'm Dave Cushman and I'm a Cultural Resources staff person with Pima County. Unfortunately, Dr. Paul Fish who was the Chair of the Technical Advisory Team is unable to be here this morning but he's asked me to give a presentation. He's actually on an archaeological dig this morning, the lucky fellow, and he's unable to break away from that at the moment. So I'm going to go ahead and give this Powerpoint presentation that we've prepared for you all today.

I'm going to talk about the cultural resources element and what we've been doing over the last three years. I'm going to touch on the process that we've gone through in collecting information and I'm going to talk about the data that we've collected. I will compare the cultural resources data to other kinds of information that has been collected during the course of the planning for the Conservation Plan and I will leave you with some conclusions and recommendations.

Slide: Community Values

First, we need to start at the beginning. The reason why we have a cultural resources element in the Conservation Plan is because the citizens of Pima County value their cultural heritage. The County has had a long commitment to preserving Cultural Resources, really since the early 1970's. Starting in about the mid 1980's, the County has had land use regulations that apply to development and that require protections of cultural resources. So this is really the reason why we're doing what we're doing.

Slide: Cultural Resources

These the kinds of cultural resources that we've been examining: Archaeological sites, both prehistoric and historic in age; historic buildings and structures including engineer features and bridges, roads, things of that nature, as well as historic landscapes and parks, streetscapes, and other kinds of historic resources; and traditional cultural places which are places that are

important to the cultural practices or beliefs of living communities that are rooted in the community's history and culture.

**Slide: Cultural and Historical Technical Advisory Team
Mission Statement**

The Cultural and Historical Technical Advisory Team was created in June of 1999 to assist the County in developing the Cultural Resources element for the Conservation Plan. One of the first things that we did was to define the mission statement for the Technical Team which is presented here.

Slide: Advisory Team Participants

These are the Advisory Team participants. Just about every major federal land management agency as well as some state agencies are represented on the team. These are the organizations that have the in-house technical capability. They are archaeologists, historians and architects and experts in historic preservation. These are the people that we've gone to and these are the organizations that have participated in the technical team.

Slide: Support Teams

We've also created five support teams. These are teams that were put together on an ad hoc basis to solve particular problems and have been working very closely with the Technical Advisory Team. We actually have someone here, Terry Majewski who was a member of one of the Technical Support Teams. So in all, we have about twenty-six people. About twenty-six experts in the fields of history, archaeology, architecture and historic preservation have been principally involved in this effort. We've also consulted with ten experts outside of the teams to get their input on this. The staff has produced nine technical reports and five other reports have been prepared on contract to Pima County. So we've amassed just a huge amount of information and in all, about fifty individuals have participated in this process.

Slide: Information Sources

Here are the main information sources that we've utilized in the process.

Slide: Project Phases

The project has really evolved in four phases. We've gone through the first two phases, we're in the third phase right now and we're shooting for the fourth.

Slide: Phase 1 - Data Collection

The process really began by just collecting baseline information. We needed to know what was known about the kinds of resources that we're interested in. Information has been collected over the last century and we needed to compile that information and present it in a comprehensive manner so that we could understand what we know versus what it is that

we don't know. So the first step of this was to produce baseline information and here are the covers of two early reports that we prepared.

Slide: Archaeological Sites and Surveys

Here's one of the data layers. The maps that were produced through our GIS system shows the extent of archaeological sites represented in the small red dots. Surveyed space, areas that have been formally investigated by archaeologists, are represented in the yellow there. And as you can see, there are very large sections of Eastern Pima County that have never been formally investigated and which potentially contain large numbers of high value archaeological sites.

Slide: Archaeological Sensitivity Model

To get a handle on that potential, we asked one of our support teams to actually model the distribution of archaeological sites, in particular. This is a sensitivity model where the highest sensitivity are indicated in red and those that are more moderate are in this very light blue. Then areas with low archaeological sensitivity are indicated in the white. Not surprisingly, our experts believe that where we can expect to find the highest concentrations of archaeological sites, is along the riparian areas in proximity to water, which makes perfect sense in a desert environment. So this covers all time periods and all types of archaeological sites.

Slide: Historic Resources

We also looked at historic resources, historic communities, ghost towns, properties that are formally listed on the National Register of Historic Places in Washington, D.C., and historic trails, and we mapped all of those things out.

Slide: Summary Stats - Archaeology

Here are some of the summary statistics for this first phase of the data collection. This really pertains to Eastern Pima County. That's where we have the information and that's really been the focus of our effort. Over the years there have been over 2,400 archaeological survey investigations and a little over 12 percent of Eastern Pima County has been inspected. Over 3,500 sites are known; we're finding one archaeological site every 84 acres.

Slide: Summary Stats - Historic Resources

Here are some statistics on the Historic Resources. There are 4,000 historic buildings that have been recorded, most in the Tucson Metro area, and 96 properties are listed on the National Register. We actually have 26 historic districts now because the downtown portion of Ajo was just included on the National Register of Historic Places. We have 13 historic communities, 10 ghost towns and three historic trails. This is a wonderful picture of the Valley Bank Building, now BankOne. If you've never gone inside the foyer of this place it's really a treat.

Slide: Summary Stats - Traditional Cultural Places

Here are the five traditional cultural places that we've identified. We really didn't go much beyond this very preliminary assessment of traditional cultural places. We didn't make more of an effort to find more of these places because it involves dealing with and working with traditional communities who are often very reluctant to talk about these places. They are highly sensitive in nature and the last thing that they want to do is to put them on a map. It is something that we need to do in the future, but we really didn't pursue it beyond just identifying the ones that were well-known. Here's a picture of Baboquivari Peak which is really probably one of the most sacred areas for the Tohono O'Odham Nation, that's sort of the center of their universe.

Slide: Conservation Potential

Then we assess the conservation potential for cultural resources by looking at a combination of resource abundance, level of disturbance and threat to those resources. The areas with the highest conservation value are in red and go from there to white. On the eastern side of things you see the San Pedro, the Cienega Valley and the Avra Valley are considered areas that have very high conservation potential and then it kind of goes down from there. The Altar Valley and then the Upper Santa Cruz, the Tortolita Fan area and then the Middle Santa Cruz which, of course, has been most heavily impacted by urban development.

Slide: Phase 2 - Priority Cultural Resources

So then we entered into the second phase of the process and the Technical Team thought that it was important to tell the County which of the thousands of known cultural resources were the most important so that these places could be considered for conservation. As such, the team defined priority cultural resources, or the acronym is PCRs, as places of such extraordinary importance to the history and culture of the citizens of Pima County that their protection is warranted in the public interest. And that's really what we focused on after this point.

Slide: Priority Cultural Resources - Archaeological Sites

So 70 archaeological sites were selected out of the 3,500. They represent about 3,000 years of human history in Eastern Pima County and both prehistoric and historic sites were selected. Here's just an example of the range of functions that are represented in this assemblage of priority archaeological sites. They include places like Los Morteros and Romero Ruin which may be relatively well-known and other places like the pig farm site and Quito Boquito out in Western Pima County that are less well-known. Some of the historic sites include Fort Lowell, Greaterville and Solomon Warner's Mill, just to give you an example of some of the one's that we selected.

Slide: Los Morteros A.D 900 - A.D. 1150

Here is an example of one of the sites that we think is really important. This is Los Morteros. It was a large primary village that was occupied by the Hohokam Indians between 900 and 1150 A.D. It's a ball court village which we believe means that it was a central place, a primary village in the Hohokam settlement system. It has a very unusual hillside component to it, called a trincheras settlement, right here which is very intriguing and also quite rare. Now about half of this site has been impacted by Continental Ranch. This is located up on the west side of the Santa Cruz River right by the end of the Tucson Mountains. A very intensive archaeological data recovery program was conducted at that portion of the site, but the northern portion of the site is still intact and it would be nice if we could protect it.

Slide: Photo of Bedrock Mortars

This is an example of the bedrock mortars that give the site its name and someone is actually using the bedrock mortars to pound mesquite pods there. It's kind of interesting.

Slide: Artists Renditions of a Ball Court Village

This is just an artists rendition of what we think life might have looked like at one of these ball court villages. I'm really taken by this image because it kind of gives you that aerial view of, you know, Saturday morning downtown at the big village and we've got the ball game going, and who knows what that was all about, and then we've got some kind of trade thing happening here and people are going back and forth and it was obviously a real hot place to be.

Slide: Priority Cultural Resources - Archaeological Complexes

Then we looked on a larger scale, a broader scale. Instead of looking at individual sites we wanted to identify those places in the landscape that have been repeatedly settled over hundreds, even thousands of years and they do exist. There are particular places where people keep coming back again and again and again to the exclusion of other parts of the landscape. And so we wanted to know where those places are too. We were able to capture over 3,000 known archaeological sites within 29 areas which we call archaeological complexes. And these areas contain archaeological materials that span about 7,000 years of time. The thing about these kinds of resources is that they are very large. If you notice the median size is over 5,000 acres and collectively, they cover about 181,000 acres, which is about seven percent of Eastern Pima County.

Slide: Marana Mound Complex A.D. 1150 - 1300

Here's an example of one of them. This is the Marana Mound Complex, which is really the archaeological remains of an intact, prehistoric village community. There are 99 sites that were a part of this community that covers an area of 56 square miles, up right next to the Tortolita Mountains, in an area that's just been recently annexed by Marana. That gives us some concern. There was a central platform mound right there, multiple residence compounds and also lots of terraces and fields. This was investigated by the University of Arizona/Arizona State Museum in the early 1980's and they did a complete total survey

coverage of many hundreds of square miles in this area, and it's one of the few places that have given us really, really high quality information about how people lived 1,000 years ago.

Slide: Photo of a Site in the Marana Mound Complex

Here's an example of one of the sites in that complex that was excavated.

Slide: Artists Rendition of a Mound in the Marana Mound Complex

This is a classic period compound which we think looked like this. That's how people lived 800 years ago. The sites have had these platform mounds on them. We believe they were the primary villages. The ball courts no longer were used and whatever integrative purpose the ball courts had were replaced by these kinds of structures.

Slide: Priority Cultural Resources - Historic Sites

Then we looked at historic sites. 138 of these were selected. These are largely structures and buildings that have been constructed over the last 200 years or thereabouts, and there's a wide range of functional types that are included in this assemblage of high priority historic sites.

Slide: Photos of 19th C. Sonoran Residential

Here's an examples of those. This is the Cordova house on the left built in 1848, the Convent Street streetscape up on the right, and then we have the Velasco House built between the 1850's and the 1890's. These are real typical of the kinds of houses that were built in the early 19th Century.

Slide: Photos of 19th C. Anglo Residential

Then we have examples of structures that were built towards the late part of the 19th Century and early 20th Century. We have the Lee Cutler House. This is a Queen Anne Revival style that was built in 1910. You have the Kitt House which is a Greek Revival style that was built in 1899, and then the Corbett House which is a Mission Revival style that was built in 1907.

Slide: Photos of Ranches

We also have ranches. We have Robles Ranch on the left; Canoa Ranch here on the right; and then a wonderful black and white photo of the Bellota Ranch. All of these were established in the 19th Century and are still in existence. We're happy to say that Pima County owns the Robles Ranch and has just acquired the Canoa Ranch. The Bellota Ranch is on the A7 property that the City of Tucson purchased some years ago.

Slide: Photos of Religious Sites

St. Phillips Church in the Hills is in the foothills here on the left. We have the Benedictine Monastery that was designed by Josiah Joesler, up here in the right hand corner. In the lower right is San Xavier, the quintessential example of Spanish Colonial Ecclesiastical Architecture, known the world over as one of the finest examples of that architectural style. And then we have El Tiradito here in Tucson which has long been used by the local Hispanic and Mexican-American population.

Slide: Transportation

Here are some transportation related sites. We have the Fourth Street Underpass built in 1916. This great art deco gas station on Stone Avenue, I don't know if anybody of you have actually stopped to look closely at this thing but it's really wonderful, that was built in 1936 and it's still with us. And then we have the bridge over the Cienega Creek built in 1921.

Slide: Priority Cultural Resources - All Sites

Here's a map that shows all the Priority Cultural Resources that we selected in the second phase of our work. It's kind of hard to see here, but the archaeological sites largely follow the Santa Cruz River - those are in those light blue triangles. The archaeological complexes are these beige areas here and all along the Santa Cruz. Then the historic sites are in the pink or magenta and not surprisingly, most of them concentrate right in the Tucson area which, of course, is the oldest historic settlement in the region.

Slide: Phase 3 - Comparison with Natural Resources

So now we're transitioning. We're taking all of this information that we've collected and we're looking at the distribution of these resources in relation to information on natural resources. As a basis for that comparison, we're using the Conservation Land System Map, which has recently been released. And as you are aware, the Conservation Land System identifies areas with varying degrees of conservation values. By comparing the location of high value cultural resources with high value natural resources we can get an understanding of where they correspond and where they don't and where the opportunities and challenges for cultural resources conservation lie.

Slide: Conservation Land System with Archaeological Sites and Surveys

Here is just basic information about the distribution of archaeological sites and survey areas against the Conservation Land System Map. The sites are in blue and the surveyed areas are in beige. Again you get the sense that there's a high correlation between where we know archeological sites are located and the major drainages in the area.

Slide: Conservation Land System with Archaeological Sensitivity Zones

This is the archeological modeling. Our sensitivity zones are overlaid on top of the Conservation Land System Map here. The areas of high sensitivity have this sort of left sided hatching. Then the more moderate areas are in right sided hatching. But I think you get

the overall impression that we have reason to believe that there is fairly high correlation between where we expect archaeological sites to be located and these darker green and lighter green areas. The darker green areas are the biological core and the lighter green areas are the high value habitat locations and then the important riparian areas are represented in the blue there.

Slide: Conservation Lands System with Priority Cultural Resource Archaeological Sites

These are the priority archaeological sites distributed against the Conservation Lands System Map. Again, there are high concentrations in the urban core here, and lesser but important concentrations in other drainages, the San Pedro, the Cienega, and then up here along the Brawley Wash, and the Altar Wash.

Slide: Conservation Lands System with Archaeological Site Complexes

Then these are the archaeological complexes in yellow. It's kind of hard to see but there's one right in a biological core area, here's another one, and another one in the Cienega area. There are several that overlap here within the national monument on the east side and then a large band of complexes running along the Santa Cruz there. The one thing that is important to point out, if we can go back to the archaeological slide. These areas have a low biological value now because this is the urban core. But these areas have a very high cultural resources value. And the point that I want to make is that the archaeological record is the only record that contains information on human interaction with the environment over long periods of time. There is no other source for that information. It exists here so the point that I'm trying to make is that in areas where there are correspondence with natural, high value natural resources and cultural resources well obviously, those are places that we should be looking at for conservation purposes. But there are other areas that have very high cultural resource value where the biological values are low and so we have to figure out other means of protecting those resources.

Slide: Conservation Land System and Historic Sites

Here are the historic sites. Again, high concentration in the urban core with a few examples in the outlying areas. This is the Robles Ranch. There's the Bellota Ranch. We have Canoa Ranch here. And this is one of my favorites, the Titan II Missile Silo. The Manning Cabin, Kentucky Camp - they are here outside of the urban core.

Slide: Conservation Land System with All Priority Cultural Resources

Then here are all of the priority cultural resources together mapped against the Conservation Land System Map. So again, you get the sense that there are high concentrations of these resources in the areas that have lower biological value. But nonetheless, there are still very important resources that are located outside the urban core.

Slide: Conclusions - The Future of the Past

And now, the conclusions. The future or the past? This is this wonderful image that Adrial Heisey took over Rancho Vistoso, which I think really accurately sums up the conflict between meeting human needs and protecting the environment.

Slide: Conclusion 1 - Cultural Resources are Old

The first conclusion: Cultural resources in Pima County are really old. Every major time period since the end of the ice age is represented in Pima County.

Slide: Conclusion 2 - Cultural Resources have Value

These resources have value: Scientific, educational, recreational, aesthetic and even spiritual values. This is a picture of the ruins of the mining camp up in Helvetia in the Santa Rita Mountains.

Slide: Conclusion 3 - Cultural Resources are Worth Saving

Cultural resources are worth saving. These are the touchstones to our collective heritage. This is a photo of archaeologists excavating the Presidio Wall in the Pima County Courthouse in mid 1990's. And you know, we're the latest travelers here in the arch of history and we're connected to the people who came before us, whether we're consciously aware of that or not. And it's important to remember that connection and this is how we do that.

Slide: Conclusion 4 - Cultural Resources are Fragile and Finite

Cultural resources are fragile and finite. I tried to get a picture of the El Conquistador Hotel and to juxtapose that with the El Con Mall, which I think would drive home the point, but this is a good one too. This is the Convento in 1881. By the 1950's, this site had been effectively destroyed. It was used for a brickyard and then the pit was filled with garbage, and today, it's a weed infested lot covered with glass and metal and that's all that's left. There are no other vestiges of the Convento. Archaeological work done for the Rio Nuevo project discovered that the entire foundation was removed. I think that's a sad testimony and it's an ignominious end to the symbol of our Spanish Colonial past.

Slide: Conclusion 5 - Conservation will Require a Variety of Measures

Conservation will require using a variety of measures. The truth is that most, but not all, cultural resources are privately owned or on private land, and some are also jointly owned between private landowners and public entities. And because of that reality, it's very clear that Pima County is going to have to develop incentive based programs to encourage private landowners to work to protect these cultural resources. But we also need to be using at the same time, reactive land use regulations which control land use that adversely affects cultural resources. So it's really the combination of both of those things that's needed. Right now, we have the regulation but we don't have the incentive programs, and that's one of the things that we need to develop in order to make this possible.

Slide: Conclusion 6 - Conservation Requires Cooperation

Here's another reality. These areas are the incorporated towns in Eastern Pima County over which Pima County has no political control and as you can see, here is Sahuarita, the City of Tucson, Oro Valley and Marana. These areas contain some of the highest numbers of these priority cultural resources that we've identified. And what that means is that other local governments must also make cultural resources a priority and their conservation must become a priority as well. So conservation will require the cooperative efforts of multiple federal, state and local government entities working with private landowners and the public at large in order to achieve common conservation goals.

Slide: Summary

So in summary, there are a lot of cultural resources in Pima County. We've learned that there's an abundance, and we're very lucky in a way to have such a rich historic and archaeological record. The values of those resources are very high. It's also clear that the threat to those resources is regional in scope and so it requires responding on that level, on that scale. But the problem is that we've been dealing with one little archaeological site at a time when it's being impacted by a single, individual subdivision. It's a completely reactive posture that is largely ineffective because we're sort of looking at the elephant with a microscope. If you see what I'm saying. We need to be taking a big picture look and combining both proactive and reactive measures to solve the conservation problem and it's very apparent that we're going to need to be developing an adaptive management strategy in order to make this work over the next 30 to 40 years. So conservation is achievable as a long term, large scale cooperative effort.

Slide: The End

And that's it, thank you.

QUESTIONS AND ANSWERS

Q: On the protection measures, I'm a site steward and I've taken a keen interest in rock art. My problem with rock art is that when I investigated the state records or all the best records that are available on where rock art is, all that really is known by anyone is possibly a location, not even a GPS location on where these sites are. Nobody has gone in and recorded the rock art sites at all or even documented them, you know, or even gotten GPS locations and these are being plundered at a phenomenal rate right now. I'm sort of suggesting that the County come up with a means of maybe a volunteer program to record known sites, working with a rock art recording association or Rock Art Research Association.

A: DAVID CUSHMAN

That's an excellent idea and because as you have pointed out, they are being lost and we can't manage what it is we don't know about so that's an excellent idea. Pima County has been working with the Site Steward Program to get people on the ground to monitor cultural

resources that are on County land, but it's the kind of thing that needs to be done on other public lands as well and to involve private landowners who are willing. Other questions?

Q: (Inaudible)

A: DAVID CUSHMAN

Well, that's a good point. The location of our archaeological sites, in particular, are protected under state law because so many of them have been vandalized. And all it takes is one person to do the damage even though, you know, thousands of people may want to save something, if one person acts irresponsibly then the resource is lost. What's going to be required is finding the balance between letting people know about these things and inviting them to participate in protecting them and keeping some of that information withheld from others. I'm not entirely sure how we do that. But I think that what you can do, is you can inspire people to work with the County, in this instance, to protect these places, through the Site Steward Program. But what you don't want to do is to broadcast the location of these things publicly because then you end up losing the resource that you are trying to save. Another question?

Q: What I'd like to know, is it still the U.S. Forest Service policy to destroy historical sites like they did at Lowery and at Harshaw and several other mining camps?

A: DAVID CUSHMAN

Gee, I don't know, I would be very surprised. I don't dispute that. There may have been some circumstance where the forest needed....

Q: (inaudible) everything is standard, they bulldozed it out.

A: DAVID CUSHMAN

Well, if that's the case, if that's what the Forest Service is doing, they are required by federal law to go through a process of recording the cultural resources before they are destroyed. That doesn't really solve our problem though because we want to keep these places in existence. Something else?

Q: Yes, I find your maps correlating the priority cultural resources to the biological recommendations to be of particular use to the Steering Committee? Even more important I think for us at the phase that we're entering now, will be what I understand is the fourth phase of your project that you guys really haven't gotten to yet? Private development and implementation of recommendations?

A: DAVID CUSHMAN

Right.

Q: So my set of questions to you is when can we expect that? And can we expect that in a form that will be really useful to us in correlating with the biological, in particular, setting recommended levels of use or use restrictions and recommended management structures?

A: DAVID CUSHMAN

Right. Well, we can provide this information to you in a number of different ways. One of the easiest ways, of course, is to print out large scale paper maps which show in even greater detail the information that's presented here on these slides and that's something that, you know, we can make available to the Steering Committee, and mount them on boards or give them to you rolled up, that's one way of doing it. The other way of doing it is to put that kind of information on CDs and make it available to you to see on computer screens, on laptops and things like that. So whatever your pleasure is, but it's important for you to have this information.

Q: Any (inaudible) what you've just shown us?

A: DAVID CUSHMAN
Right.

Q: For the next step which would be the recommended use, levels of use and management structures?

A: DAVID CUSHMAN
No, what I've just shown you. I mean as you pointed out, we're going into the next phase and I think that's something that we want to do in cooperation with the Steering Committee.

Any other Steering Committee members with a question?

Q: Is there anything the county can do to compel Marana and the State to protect the sites in the Tortolita Mountains area?

A: DAVID CUSHMAN
Well I don't know if we can compel them to do anything, but I think we can inform them of the value of the lands and because of that we can encourage them to view these areas with greater sensitivity than might otherwise be the case.

Q: There's no laws or anything to keep them from turning archaeological sites into golf courses?

A: DAVID CUSHMAN
No there really aren't. I mean there are laws that would require that excavations be done and information be gathered, etc., etc., but that's not conservation. That's just another kind of consumption turning archaeological sites into reports that sit on shelves. We're talking about keeping these places intact and on the ground. There are a wide variety of things that can be done to facilitate conservation and development at the same time and those are the kinds of things that we'd be happy to talk about with Marana and the state, if they are interested.

DAVID CUSHMAN
Was there a quick question?

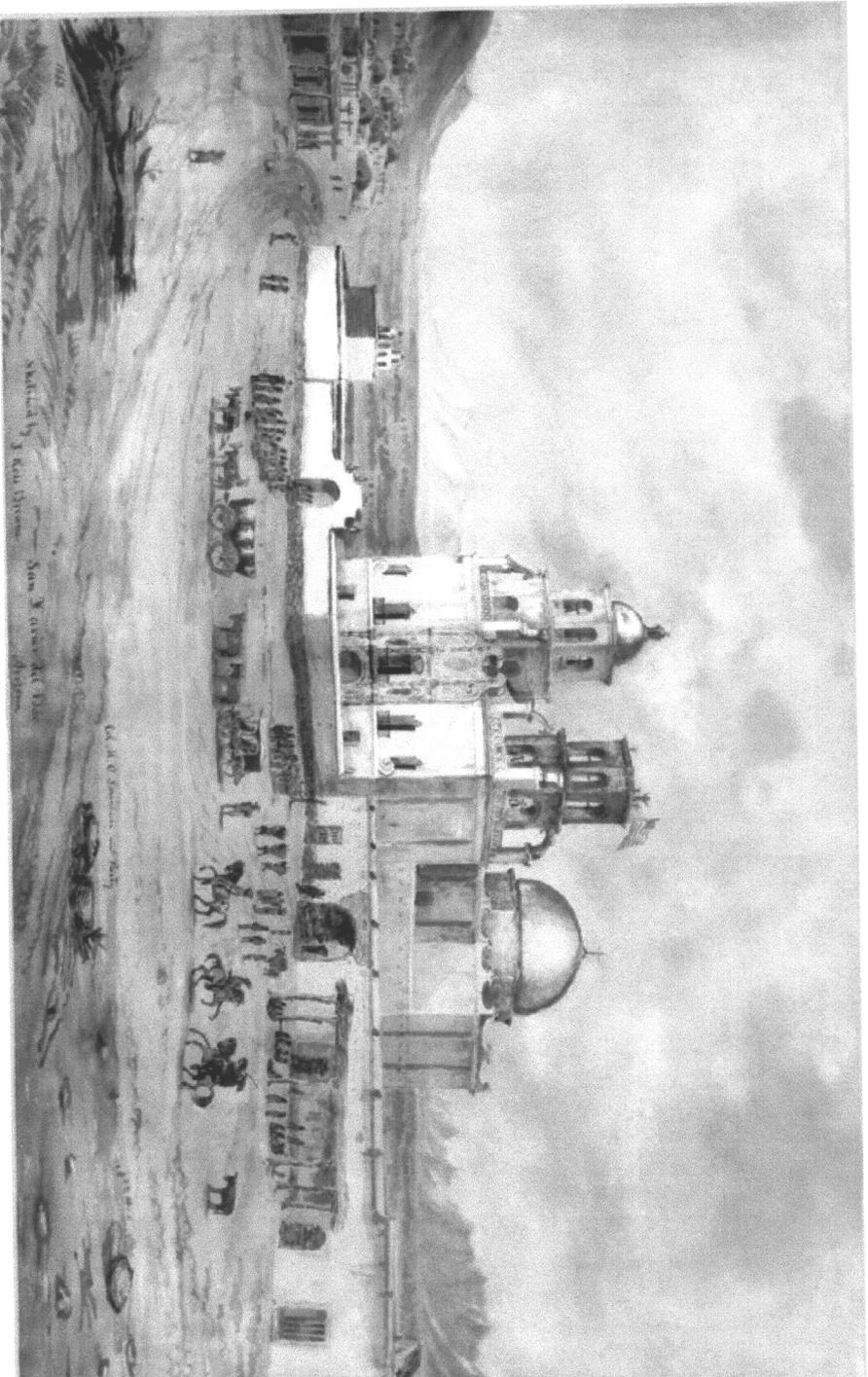
Q: Well (inaudible) I live in the Northern Tucson Mountains about a mile north of Saguaro

National Park's north boundary, literally with the Tucson Mountains as my west boundary. I've been there for about s16 or 17 years and my job, when my family came as caretakers to the property, was to keep pot hunters off the property. There were trucks with kids and shovels in the back that would pull into the driveway every weekend and people had a history of just kind of going on any little dirt road where there wasn't a house and you probably know this, you have (inaudible) experience too. And you know, that's kind of how the whole area up there in the Tucson Mountains all the way to the Santa Cruz River has been kind of a really delicate area that has been having lots and lots and lots of impact for years and years and years for recreational collection. Thanks.

A: DAVID CUSHMAN

Okay, thank you for those comments.

SDCP Cultural Resources Element



Community Values

- Pima County has a diverse cultural heritage
- The citizens of Pima County value their heritage.
- An important part of this heritage is manifest in the physical remains of the past.
- County government has been committed to preserving cultural resources since the early 1970s.
- Existing law and regulation requires appropriate means of treatment when preservation is not possible.

Cultural Resources

- **Archaeological Sites**
- **Historic Buildings and Structures**
- **Traditional Cultural Places**

Cultural and Historical Technical Advisory Team

“To facilitate the preservation of Pima County’s cultural and historical resources through the preparation of the Sonoran Desert Conservation Plan in order to protect their educational, scientific, recreational, aesthetic and spiritual values for the benefit of the citizens of Pima County.”

Advisory Team Participants

- Arizona State Museum
- U.S. Forest Service
- Bureau of Land Management
- National Park Service
- Tohono O'odham Nation
- Arizona Historical Society
- City of Tucson
- Pima County
- Local experts in archaeology, architecture, history, and historic preservation

Support Teams

- Archaeological Sensitivity Team
- TAT Subcommittee on Priority Cultural Resources (PCRs)
- PCR Archaeological Team
- PCR Archaeological Complex Team
- PCR Historic Sites Team

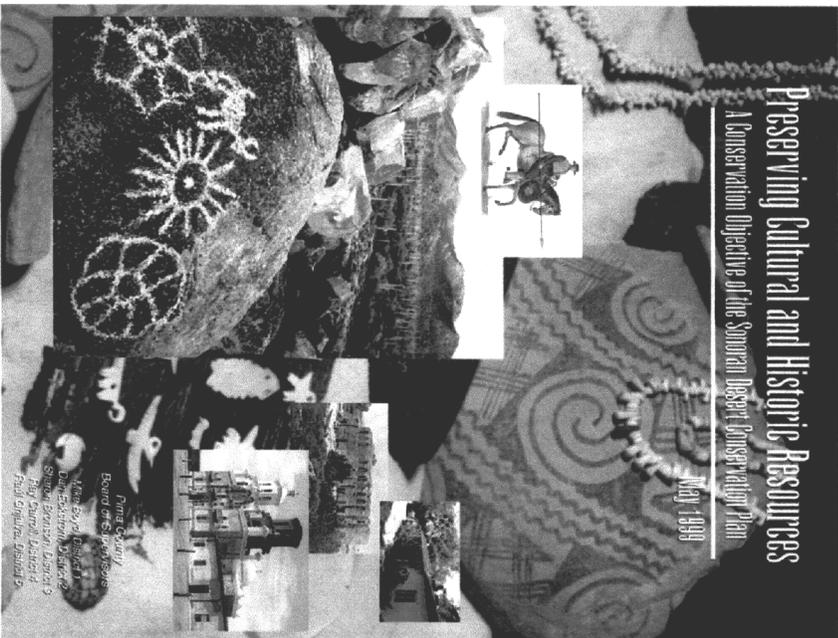
Information Sources

- Arizona State Museum
- Arizona Historical Society
- State Historic Preservation Office
- Reports and Manuscripts
- Professional Expertise
- Pima County GIS Database
- Pima County Records

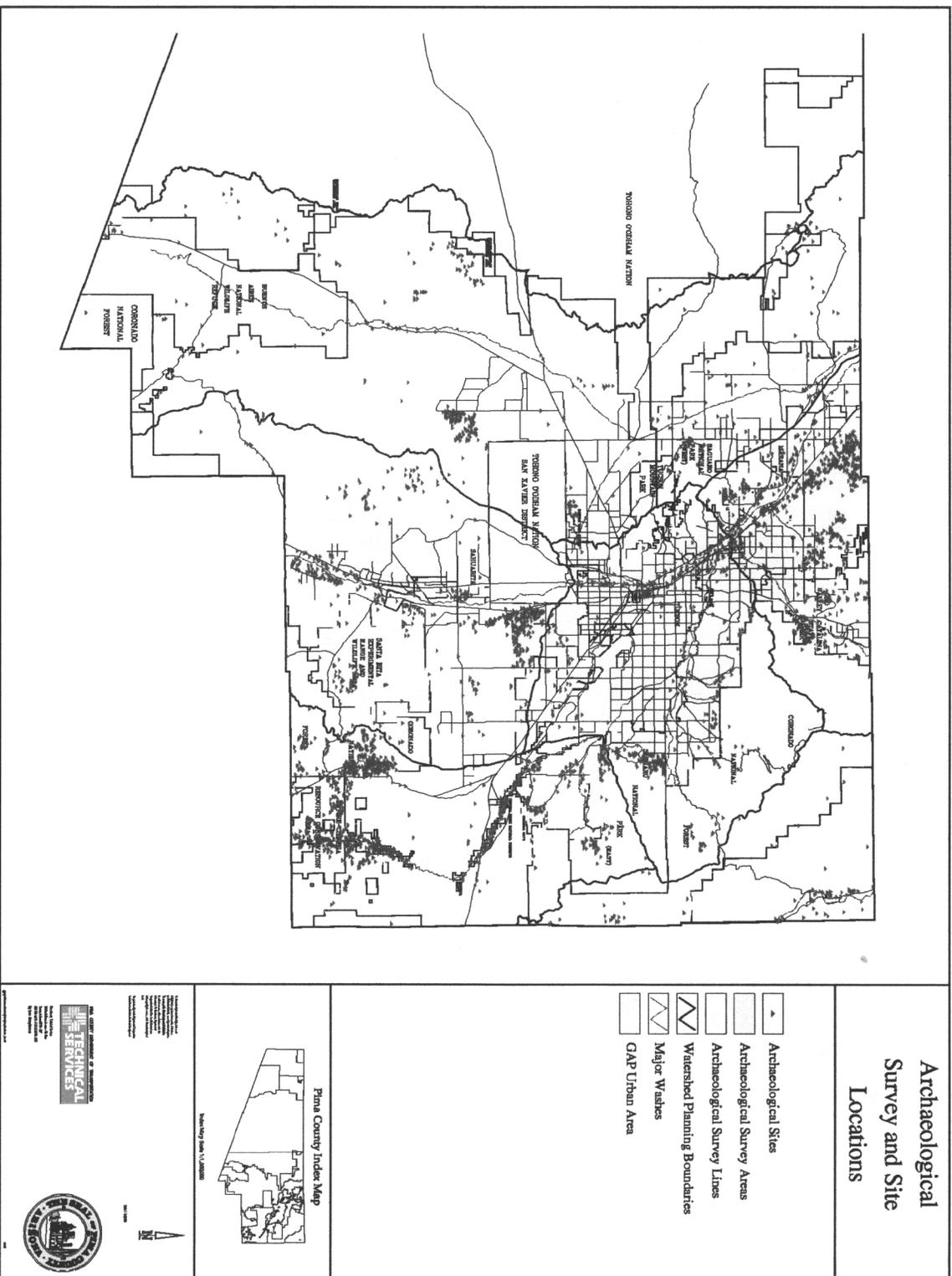
Project Phases

1. **Collect Data on Cultural Resources.**
2. **Refine Data and Identify Priorities Sites.**
3. **Evaluate Priority Sites Against Natural Resources Data.**
4. **Develop/Implement Conservation Recommendations.**

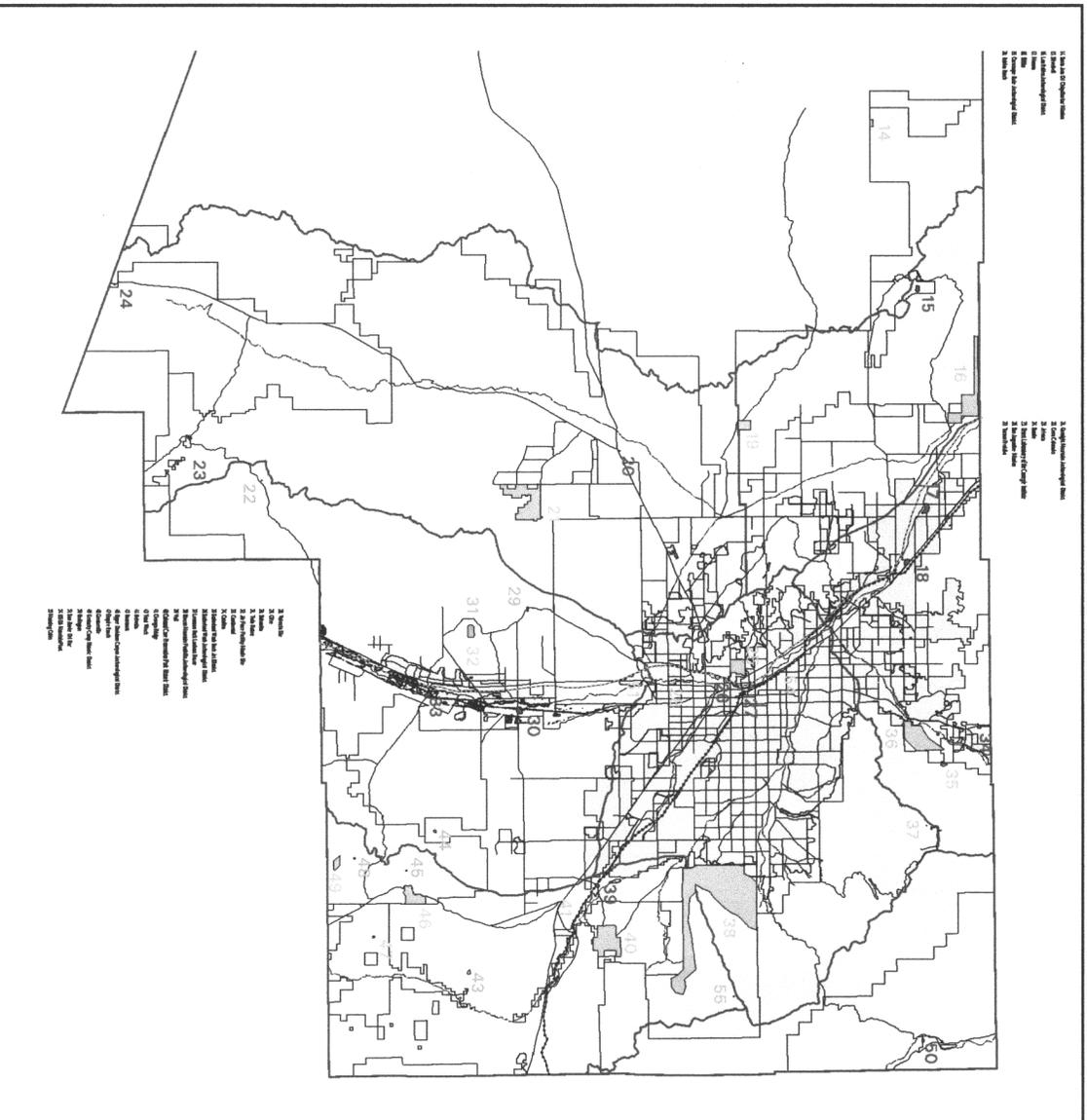
Phase 1 – Data Collection



Archaeological Sites and Surveys



Historic Resources



1. National Register Historic Place
 2. Ghost Town
 3. Historic Community
 4. National Parks/Monuments/Preserves
 5. Tribal Nations
 6. Incorporated Cities
 7. Urban Area from GAP Vegetation
 8. Anza Trail Route
 9. Butterfield Overland Trail Route
 10. Major Roads
 11. Planning Unit Boundaries

12. San Pedro Valley
 13. Cienega-Rincon Valley
 14. Upper Santa Cruz Valley
 15. Middle Santa Cruz Valley
 16. Tortolita Fan
 17. Altar Valley
 18. Arva Valley
 19. Tohono O'odham
 20. Western Pima County

21. San Pedro Valley
 22. Cienega-Rincon Valley
 23. Upper Santa Cruz Valley
 24. Middle Santa Cruz Valley
 25. Tortolita Fan
 26. Altar Valley
 27. Arva Valley
 28. Tohono O'odham
 29. Western Pima County

Historic Resources in Eastern Pima County

- National Register Historic Place
- Ghost Town
- Historic Community
- National Parks/Monuments/Preserves
- Tribal Nations
- Incorporated Cities
- Urban Area from GAP Vegetation
- Anza Trail Route
- Butterfield Overland Trail Route
- Major Roads
- Planning Unit Boundaries

- Planning Units**
1. San Pedro Valley
 2. Cienega-Rincon Valley
 3. Upper Santa Cruz Valley
 4. Middle Santa Cruz Valley
 5. Tortolita Fan
 - 6a. Altar Valley
 - 6b. Arva Valley
 7. Tohono O'odham
 8. Western Pima County



TECHNICAL SERVICES

Summary Stats - Archaeology

- 2466 surveys
- 463.5 square miles = 12.1 %
- 3541 sites
- Site Density = 7.6 sites per square mile
- One site every 84 acres



Summary Stats – Historic Resources

- 4000 Historic Buildings
- 96 National Register Properties
- 25 Historic Districts
- 13 Historic Communities
- 10 Ghost Towns
- 3 Historic Trails



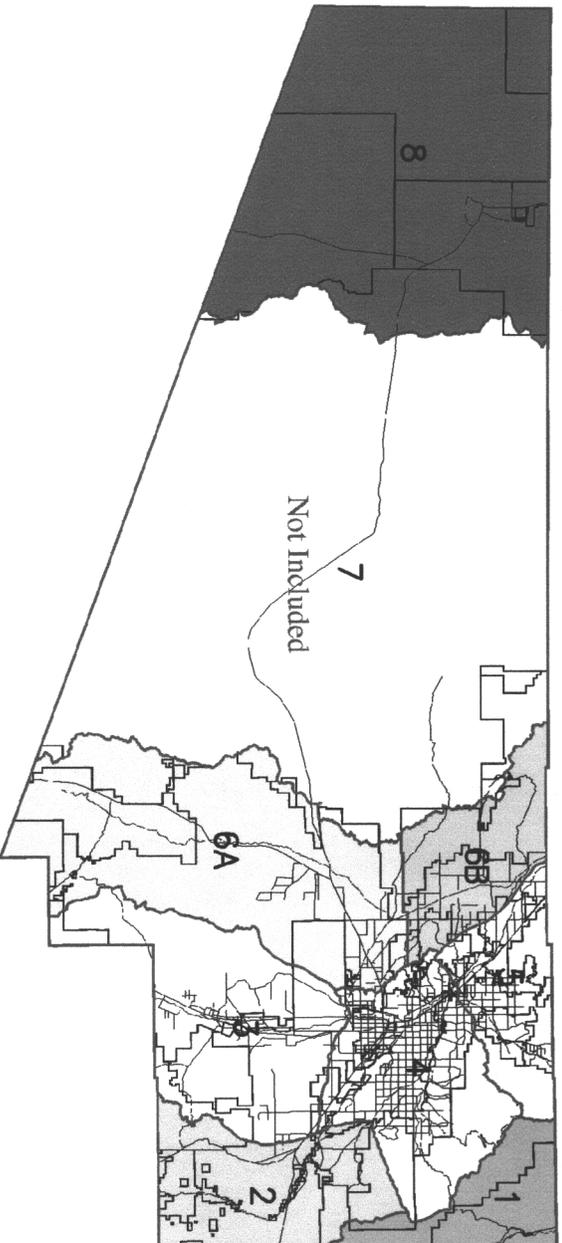
Summary Stats – Traditional Cultural Places

- El Tiradito
- Cocoraque Butte
- Baboquivari Peak
- I'toi Mo'ó
- Quitobaquito
Spring
- Others



Conservation Potential

Conservation Potential



PIMA COUNTY DEPARTMENT OF MANAGEMENT
TECHNICAL SERVICES
 200 North Main Street
 Suite 100
 Tucson, Arizona 85701
 Phone: (520) 795-3333
 Fax: (520) 795-3334
 Website: www.pima.gov

- Highest Potential for Land Conservation**
- 1 Western Pima County
 - 2 San Pedro Valley
 - 3 Cienega-Rincon Valley
 - 4 Avra Valley
 - 5 Altar Valley
 - 6 Upper Santa Cruz Valley
 - 7 Tornillo Run
 - 8 Middle Santa Cruz Valley



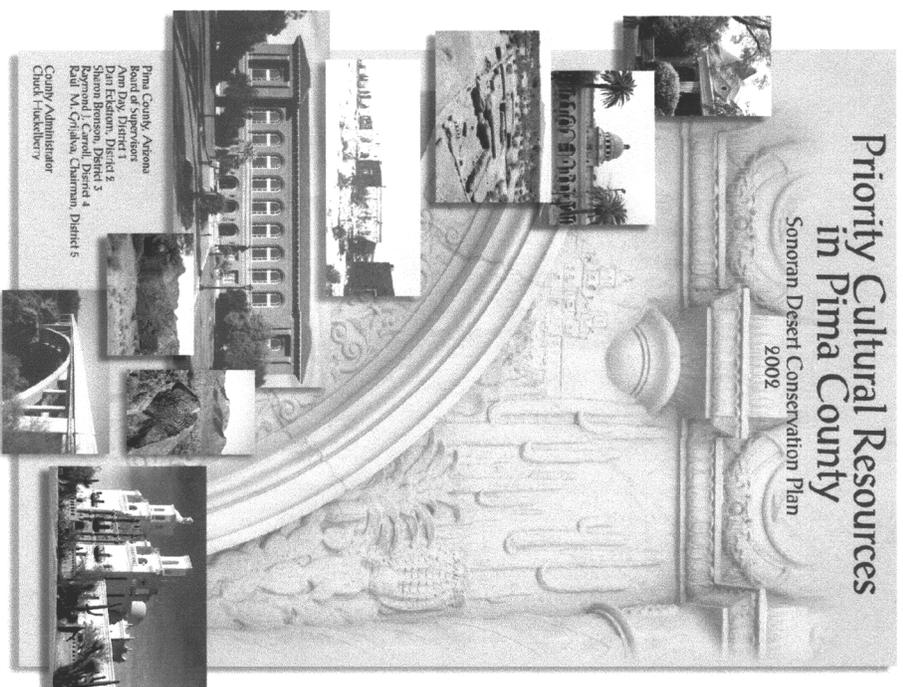
Scale: 1 inch = 1 mile
 Date: 10/2003



SCALE



Phase 2 – Priority Cultural Resources

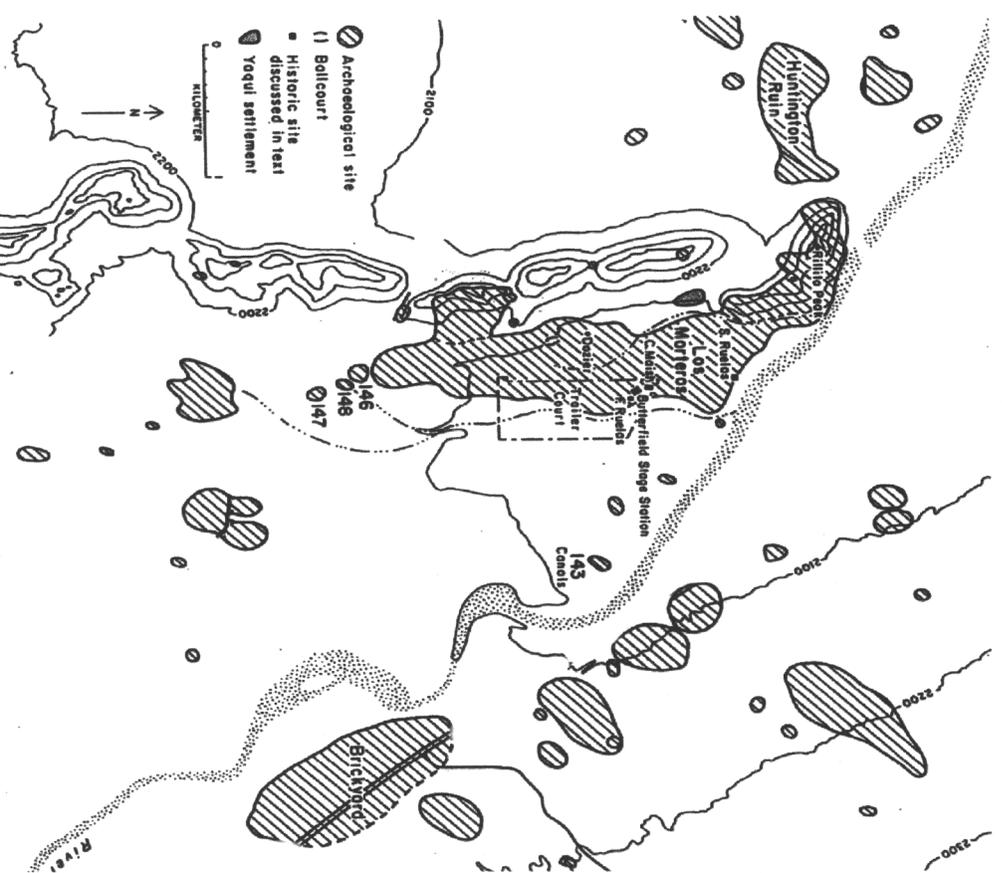


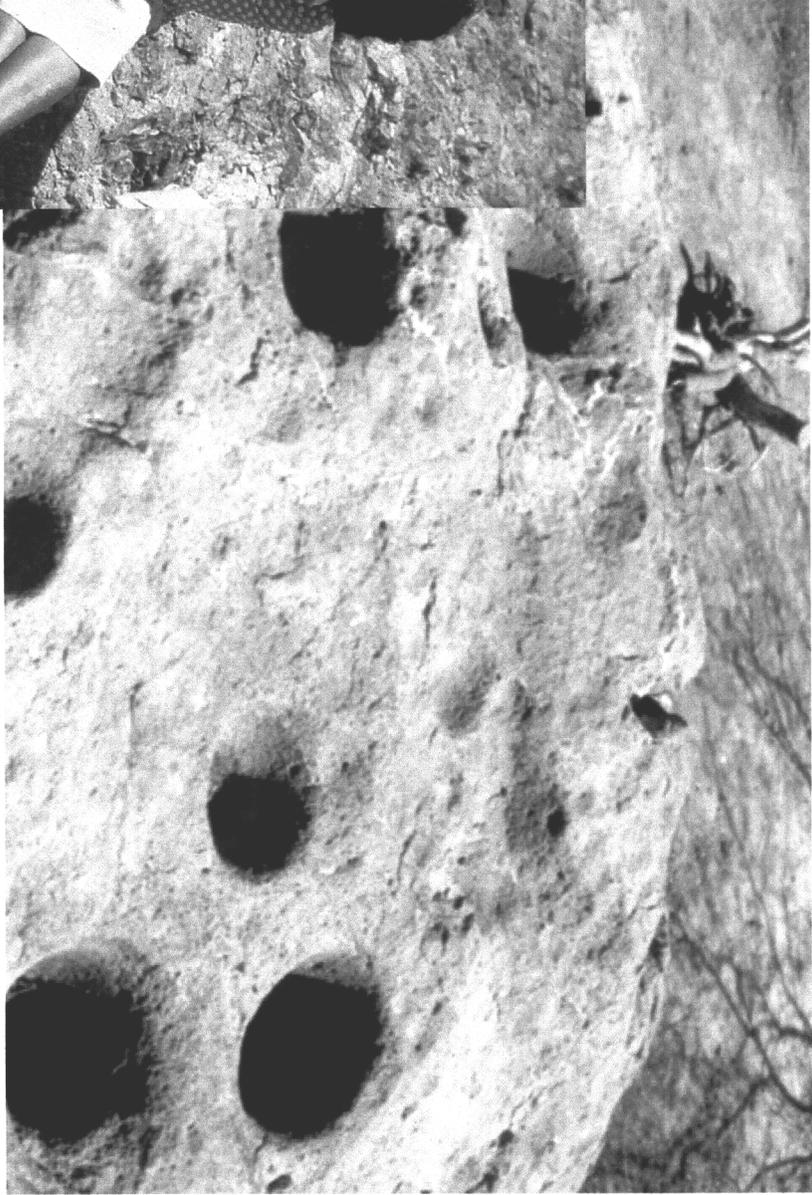
PCR – Archaeological Sites

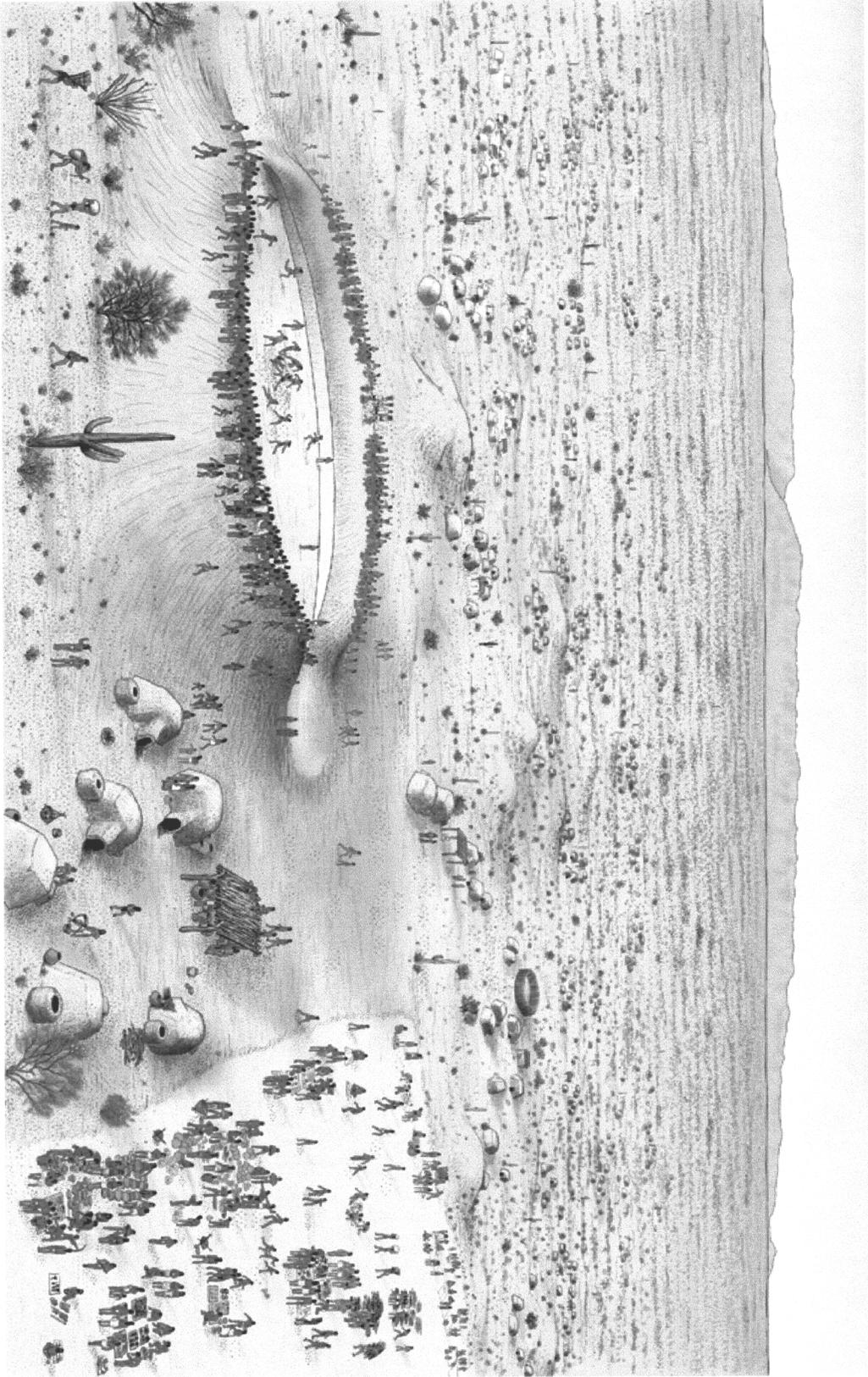
- 70 Sites selected
- Periods: Archaic, Hohokam, Historic
- Time Range: 2000 B.C. - A.D. 1900s
- Prehistoric Function: Habitation, Agricultural, Rock Art
- Historic Function: Habitation, Cemetery, Military, Religion, Transportation, Mining, Industrial, etc.

LOS MORTEROS A.D. 900 – A.D. 1150

- Hohokam Village
- 1,075 Acres
- Central Ballcourt
- 100s of Pithouses
- Multiple Trash Mounds
- Hillside Settlement (Trincheras)





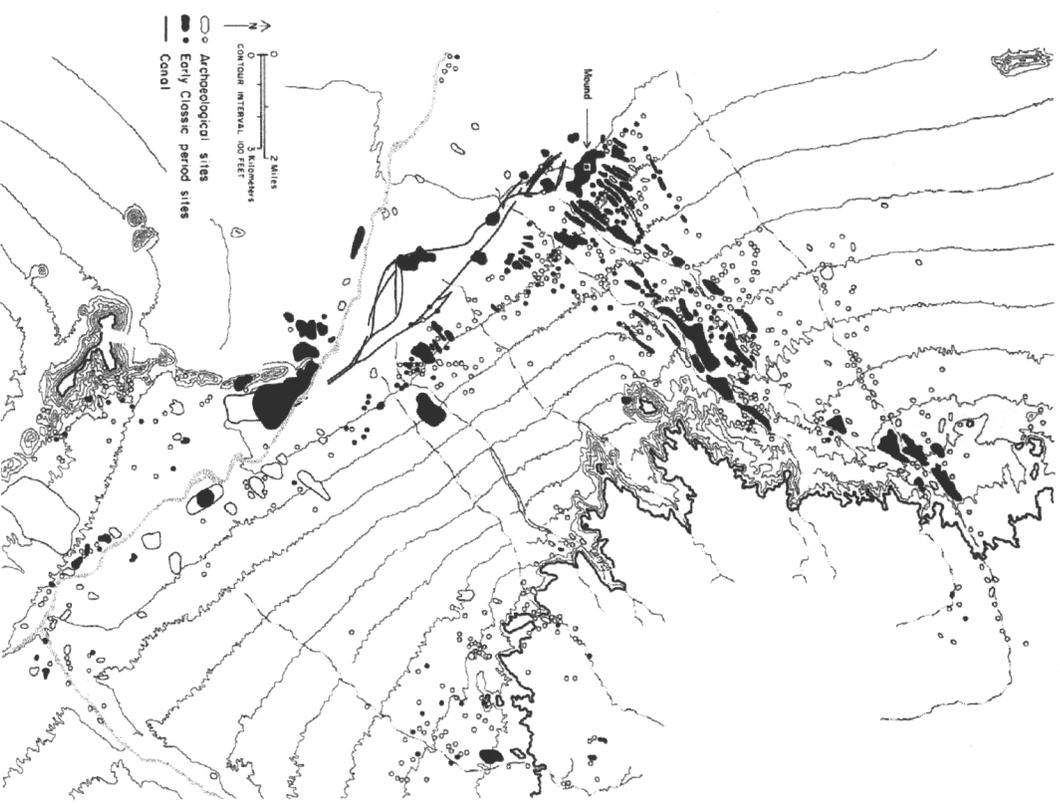


PCR – Archaeological Complexes

- 29 Complexes Selected
- Contain 3035 sites (85% of sites in EPC)
- Periods: Early/Middle Archaic, Late Archaic, Ceramic/Hohokam, Historic
- Time Range: 5000 B.C – A.D 1800s
- Coverage: 181,411 acres
- Median size: 5,635 acres

Marana Mound Complex A.D. 1150 - 1300

- 99 Archaeological Sites
- 56 Square Miles
- Central Platform Mound
- Multiple Residential compounds
- Terraces, fields

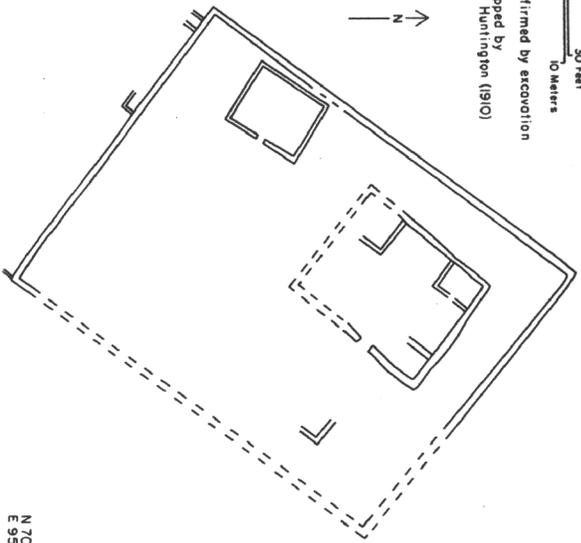


Platform Mound and Compound

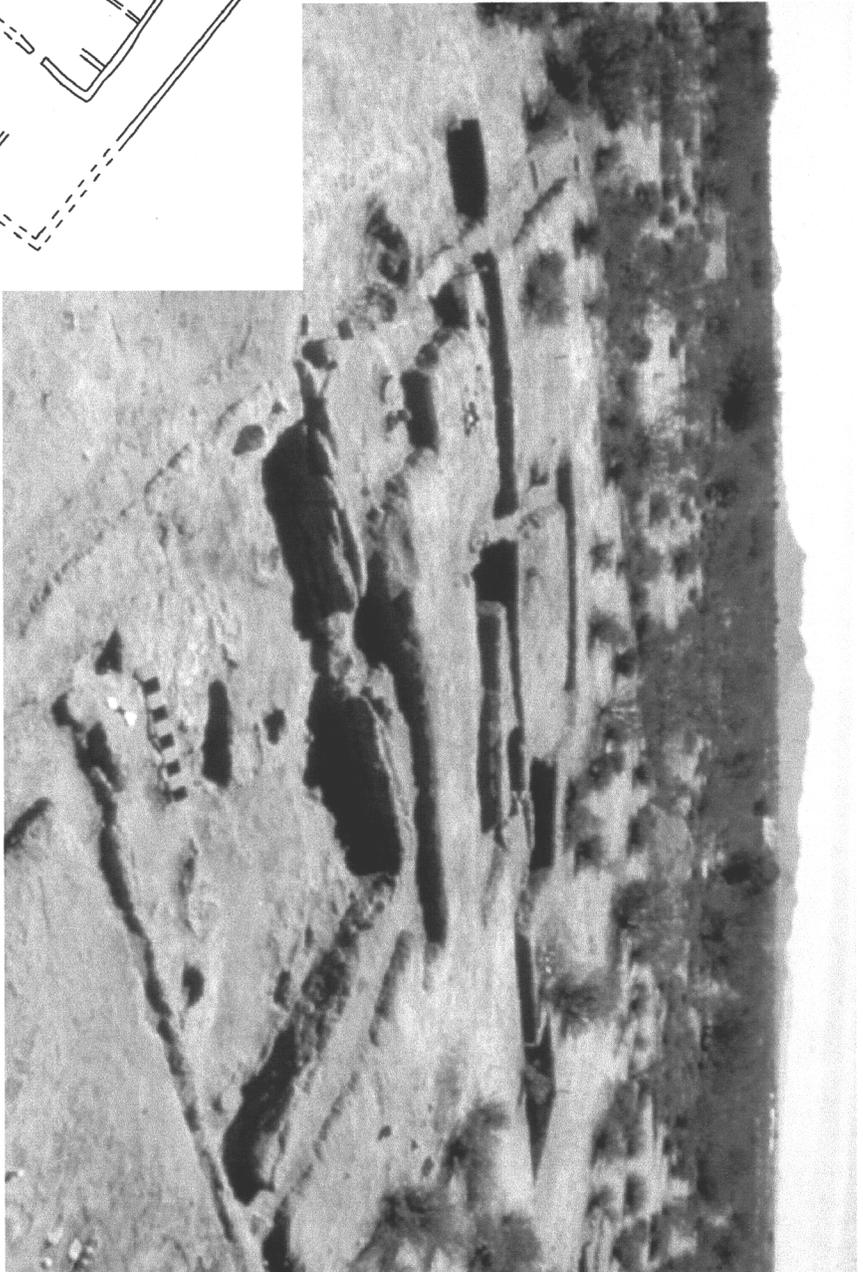
0 30 Feet
0 10 Meters

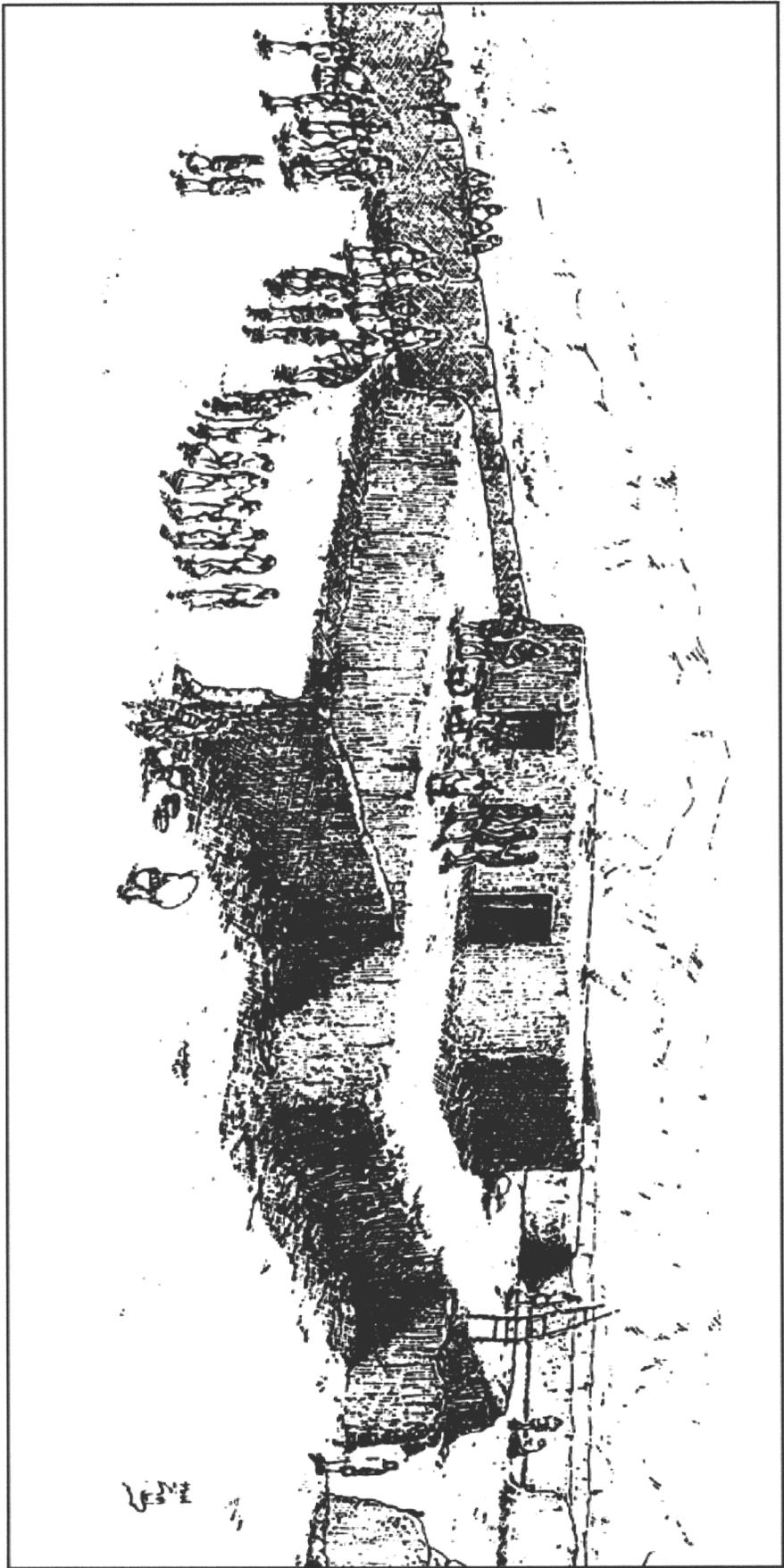
== Walls confirmed by excavation
- - - - Walls mapped by
Elisworth Huntington (1910)

T 720
E 680
N



N 700
E 950

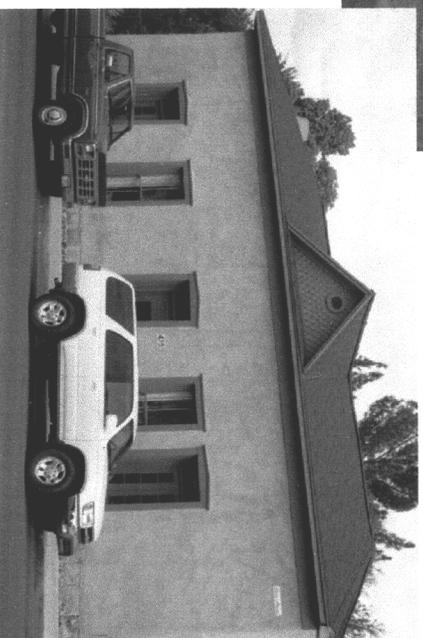
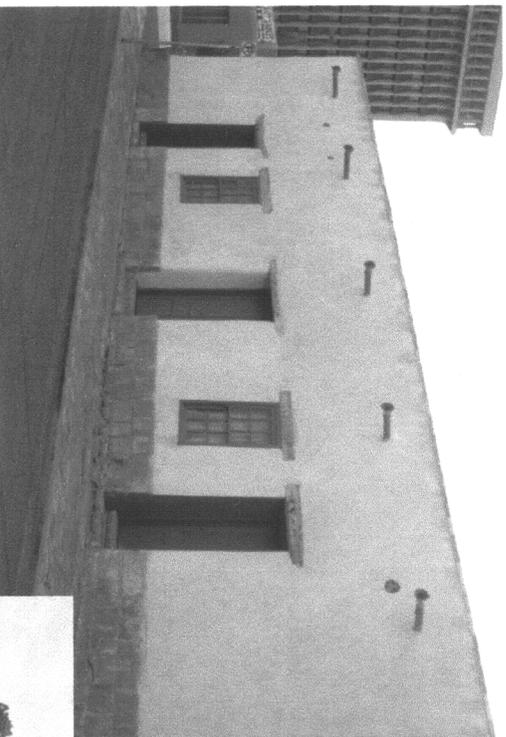




PCR – Historic Sites

- 138 Selected
- Periods: Spanish Colonial, Mexican, Territorial, Statehood
- Time Range: 1780s – Present
- Functional Range: Residential, Education, Religion, Commercial, Recreation, Hotel, Transportation, Agriculture, Military, etc.

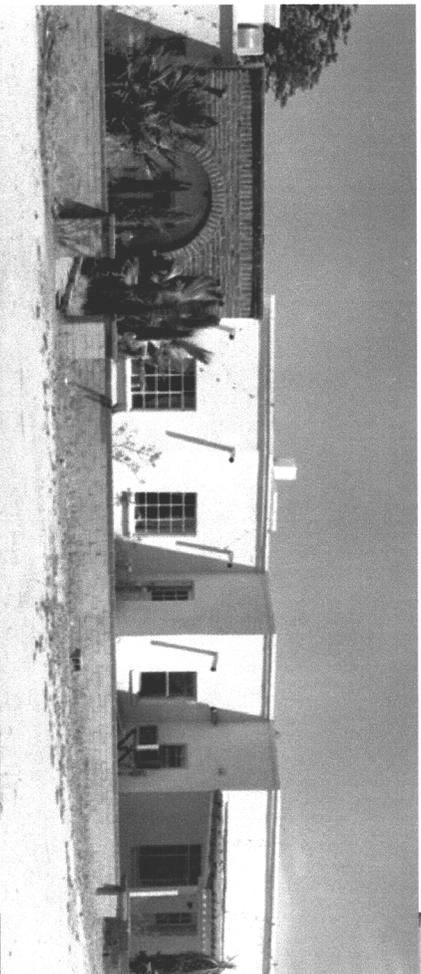
19th C. Sonoran Residential



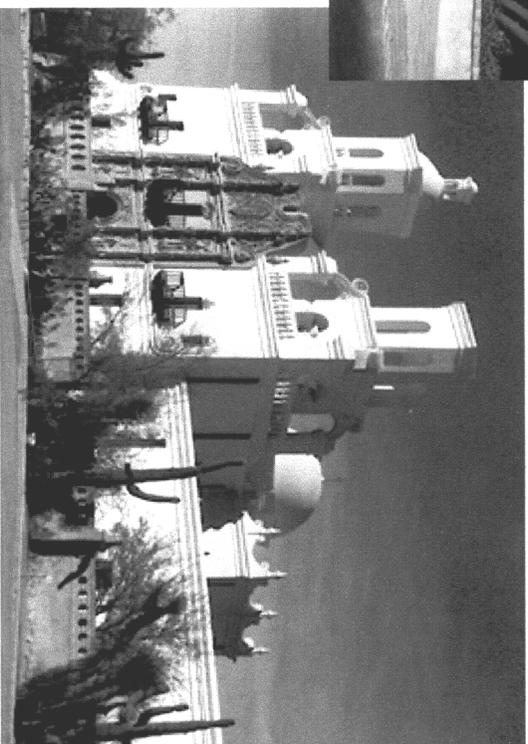
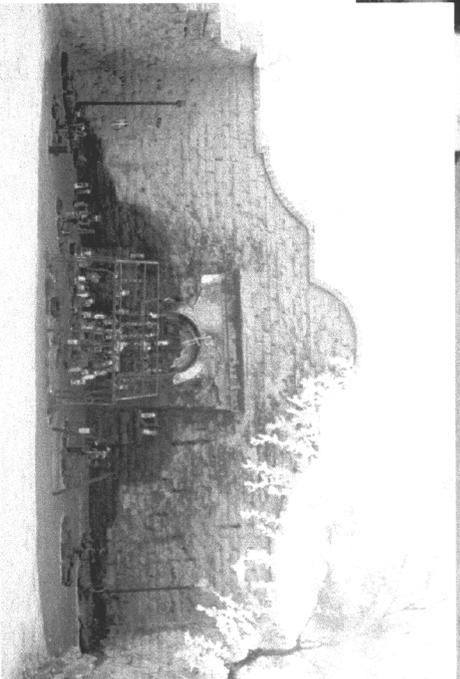
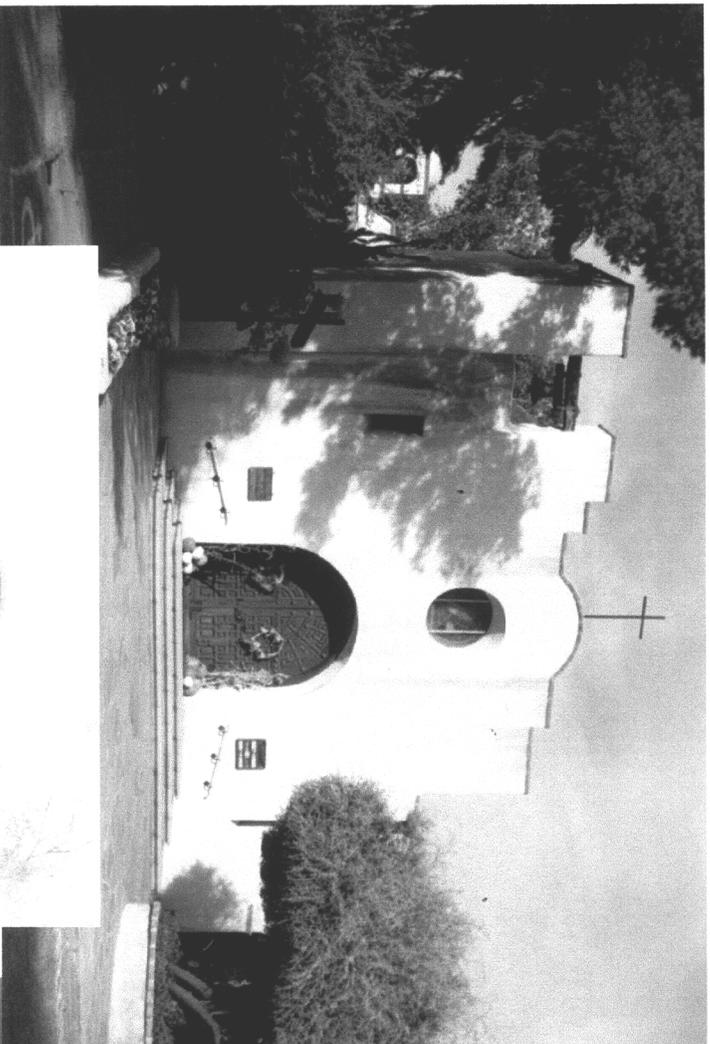
19th C. Anglo Residential



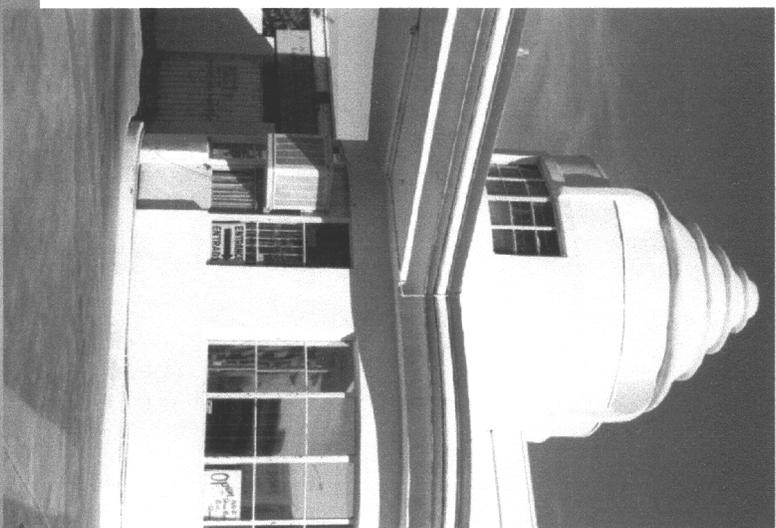
Ranches



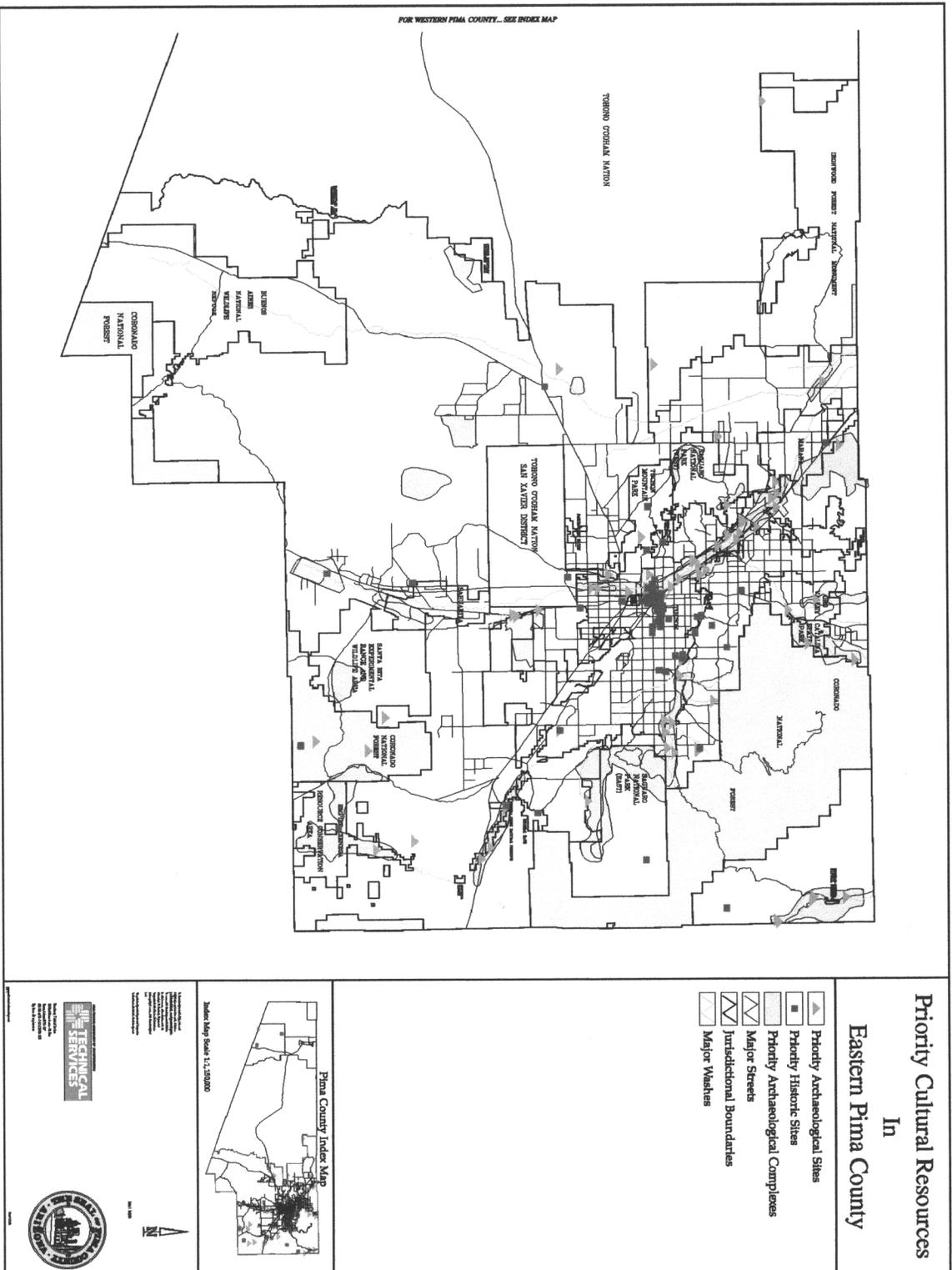
Religious Sites



Transportation



PCR – All Sites

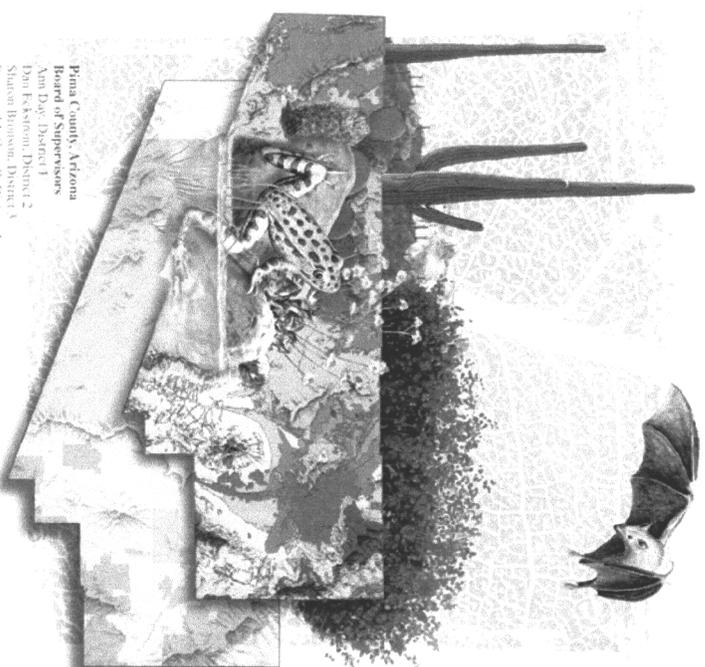


Phase 3. Comparison with Natural Resources

Priority Conservation Areas

Sonoran Desert Conservation Plan

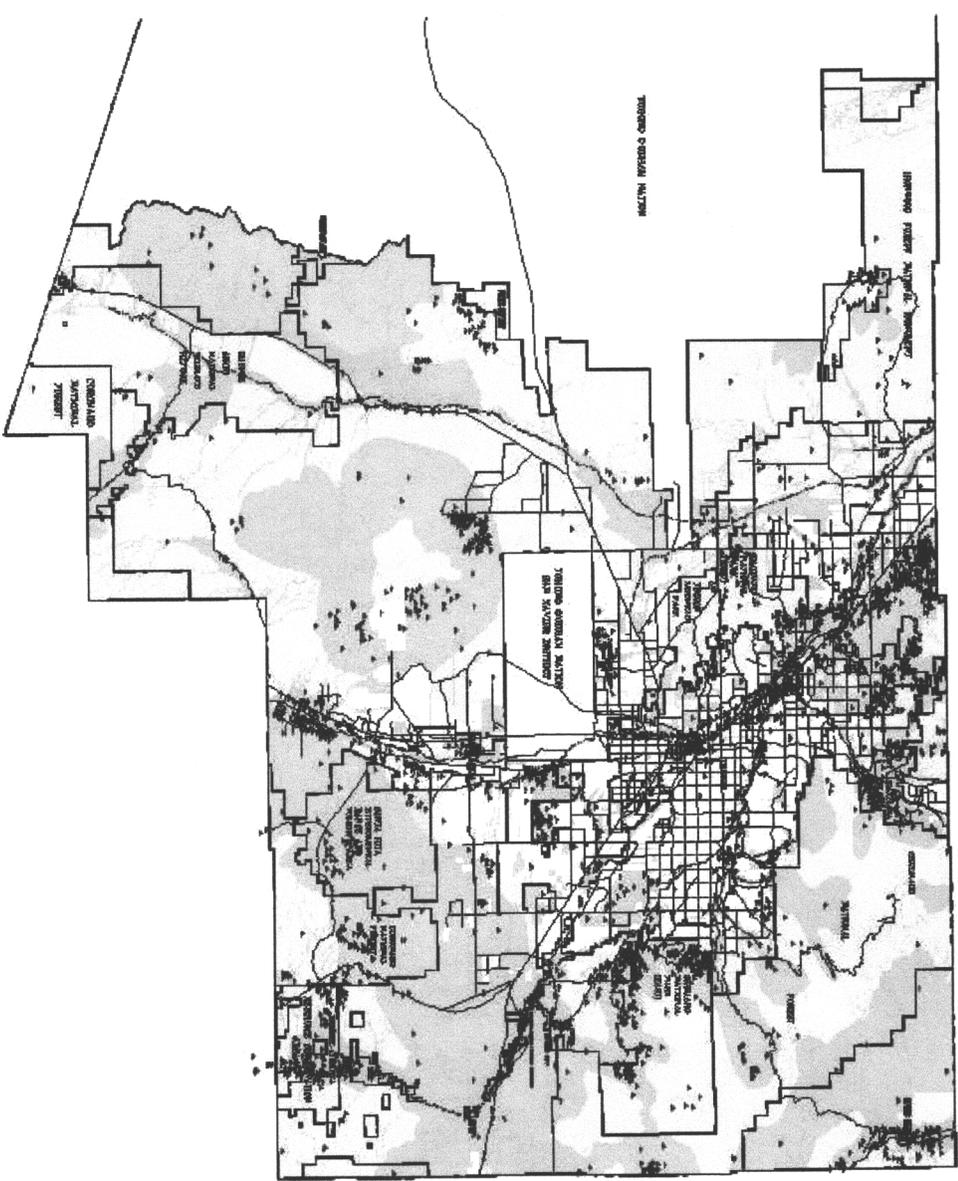
April 2001



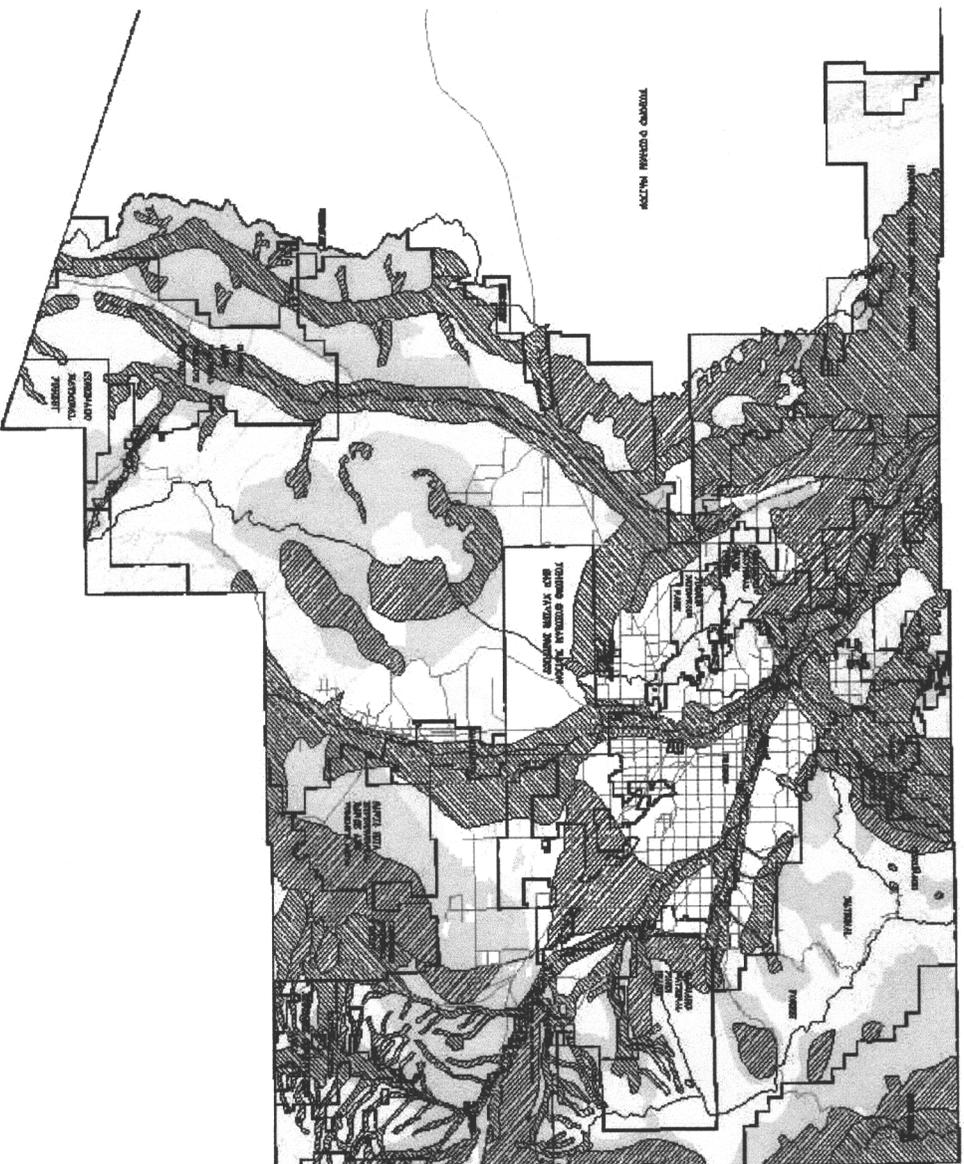
Pima County, Arizona
Board of Supervisors
Ann Day, District 1
Don Eskstrom, District 2
Sharon Henson, District 3
Raymond J. Carroll, District 4
Rudolf M. Korolovsk, Chairman, District 5

County Administrator
Chuck B. Hockebery

CLS with Archaeological Sites and Surveys



CLS with Archaeological Sensitivity Zones



Conclusions – The Future of the Past



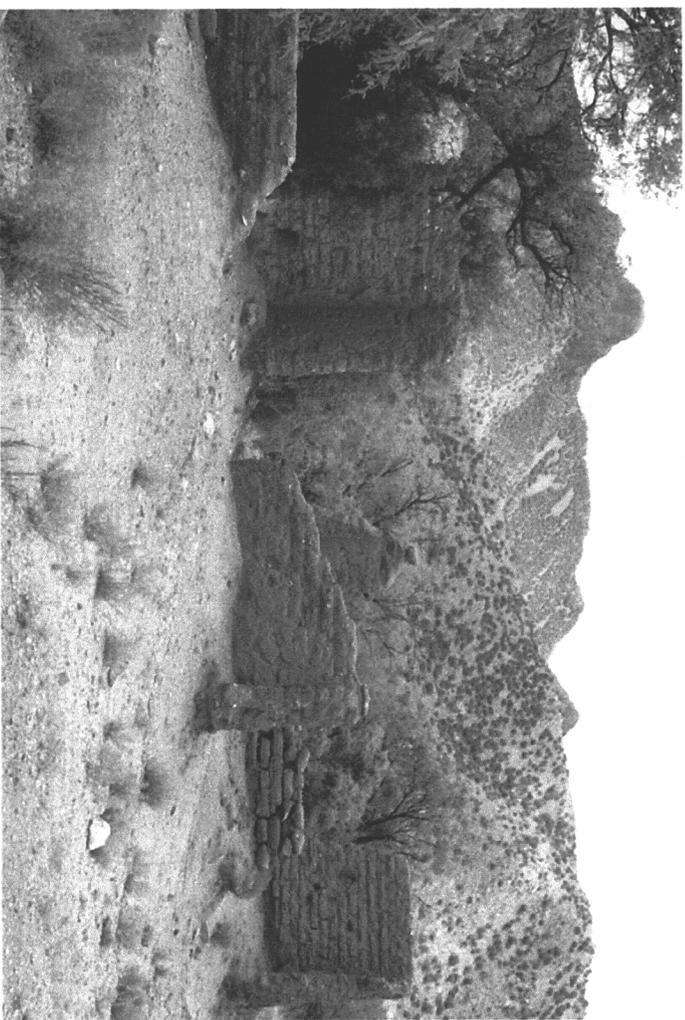
Conclusion 1 - Cultural Resources are Old

- Cultural Resources in Pima County span the last 12,000 years.



Conclusion 2 - Cultural Resources Have Value

- Scientific
- Educational
- Recreational
- Aesthetic
- Spiritual



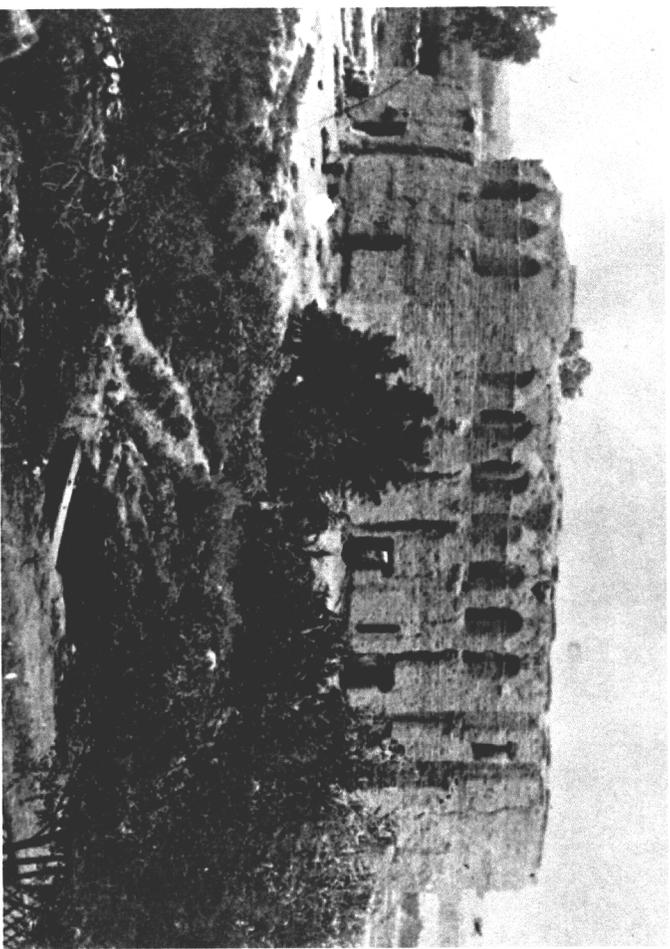
Conclusion 3 – Cultural Resources are Worth Saving

- Cultural Resources are the touchstones to our collective heritage.



Conclusion 4 - Cultural Resources are Fragile and Finite

Once they are lost
they are lost
Forever.

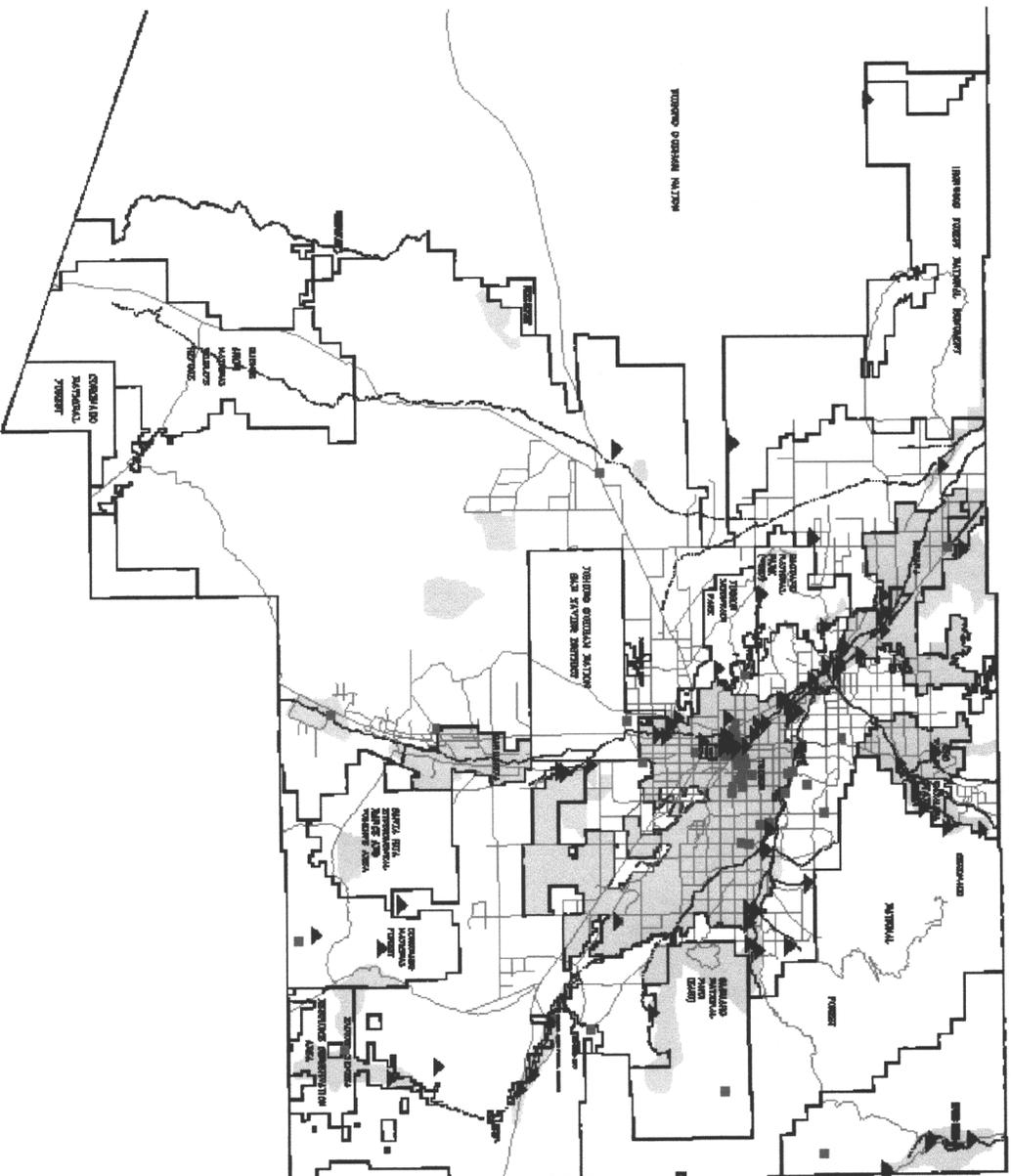


Conclusion 5 – Conservation will require a Variety of Measures

- Purchase in Fee Simple
- Purchase of Development Rights
- Conservation Easements
- Donation for Tax Benefits
- Open Space set asides
- Land Use Regulation

Conclusion 6 –

Conservation Requires Cooperation



Summary

- Cultural Resource values are high.
- Threat is regional in scope.
- Cooperation is required.
- Proactive/reactive measures are needed.
- Adaptive Management is essential.
- Conservation is long term/large scale.

The End

