

ARCHITECTURE 201
 FUNDAMENTALS OF ARCHITECTURAL DESIGN

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PROJECT NO. 3: THE CHUP KI RUINS VISITORS CENTER, VERDE VALLEY, ARIZONA

PROJECT LEARNING OBJECTIVES:

1. To synthesize the aspects of architectural design that were addressed in Projects No. 1 and 2.
2. To integrate the design of buildings and exterior space, with attention to human factors, circulation, natural siting and site analysis, climate and related issues.
3. To integrate your experiences to date in visual communication, structures, construction systems and architectural design.
4. To present a comprehensive and coordinated design product and problem solution for an architectural design project.



THE VERDE VALLEY:

Humans have occupied Arizona and the Verde Valley for thousands of years. There were three great cultures in our region in recent pre-historic times: The Hohokam of the southern deserts, in a zone stretching from Phoenix to Tucson; the Mogollon of southeastern Arizona and southwestern New Mexico and Mexico; and the Anasazi of the northern uplands we now call the Colorado Plateau or the "Four Corners" area. There were other relatively minor groups. One of these, the Sinagua of the high country between the Anasazi and Mogollon territories, played a central role in the history of the Verde Valley. [Refer to Attachment A: a map of the Phoenix-Flagstaff zone]

According to the literature of the National Park Service, there were humans in the Verde Valley two thousands years ago - hunters and food gatherers who had no pottery and no permanent homes. The first known "permanent" settlers of the Verde Valley were the Hohokam - farmers who planted crops in the rich earth near the Verde River and built homes of brush and mud on terraces looking out over their fields. They arrived after 600 A.D. Over the next 400 or more years, their society developed and they refined their techniques of irrigation and farming. They grew beans, corn and squash. They had pottery, fiber crafts, hunting tools and many skills, but they built only a few permanent structures. For example, the "kiva" of the Mogollon and Anasazi societies was absent in the Hohokam culture. Around 1400 A.D., "the Hohokam went into eclipse."

The Sinagua lived in the forests to the northeast of the Verde Valley. They were dry-farmers and hunters who also lived in small houses of poles, brush and mud. About 1070 A.D., some Hohokam left the Verde Valley to move up onto the plateaus, and shortly afterwards many of the Sinagua moved down out of the hills and into the Valley. By 1125 A.D., the Sinagua were the Verde Valley residents. They adopted the Hohokam techniques of irrigation and began to build houses of stone and mud. It was the Sinagua people who built the rock pueblos that survive in the Valley today. [Refer to Attachment B: a map of Verde Valley sites]

Attachment B shows only the major excavated prehistoric sites, of which Tuzigoot and Montezuma Castle are the best known, and both of which were built by those Sinagua who moved into the Verde Valley.

At first they had lived in caves or small dwellings on ridges looking over their fields. The first few rooms of Montezuma Castle were built in the 1100's. A small pueblo was built on the west rim of Montezuma Well, a site that provided stones, mud, clay and water at its doorstep.

The National Park Service historical studies tell us that the Sinagua of the Verde lived in small pueblos until about 1250 A.D., and then their architecture grew in size and complexity - it became fortified and had parapets, viewports and sealed doorways. Gradually they moved to the center of the Valley or to more "urban" situations. Montezuma Castle, the five-story twenty-room "apartment house" reached its maximum size in the 1300's. Tuzigoot, a two or three-story complex of 77 ground level rooms on a ridge in the center of the Valley was begun around 1300 A.D. Soon after 1400 A.D., the entire Verde Valley was abandoned by the Sinagua. It is believed that the Yavapai Indians took their place.



THE CHUP KI RUINS:

The Verde Valley is a warehouse of history and a treasury of ancient sites. The years have eroded the ruins and vandals have done their damage, but a few sites have been protected, thanks to the joint concern of the Department of the Interior and the owners of the lands on which some of the ruins rest. This is the case with the Chup Ki ruins, which huddle into the cliffs in a small south-facing alcove on the eastern edge of the Verde River, well southeast of the town of Camp Verde.

Chup Ki (pronounced "Shoop Kai") incorporates the features found in the other Verde Valley sites: a rock and mud two and three-story pueblo looking down onto a field that once was irrigated by diverting stream water into a canal system.

The National Park Service has decided that the Chup Ki site should be opened to the public. A visitor's center is included in the budget process, along with funds for site development and operational expenses.

Design proposals are requested.



THE SITE AND ITS CLIMATE:

Site maps will be provided showing the topography, the vegetation, the Verde River and the stream by the site, and other features. The Verde Valley ranges from about 3,000' up to 8,000' in elevation, and the Chup Ki site is well toward the low end of the valley. The terrain varies from riverside terraces and plains to rolling foothills to rocky cliffs.

The climate is a pleasant one, being the transitional zone between the cold of the north and the furnace of the south. Because of this, the Chup Ki Visitor's Center and the site will be open year-round. The site averages 10 to 15 inches of precipitation per year. The wet seasons are from July through August, and from December through March, with the largest amount in the summer months.

In autumn it is crisp and clear; in winter it is relatively mild, but there is frost, occasional snow flurries and cold winds down the river channel; in spring there may be high winds; and in summer there is increased heat, relieved by the great thunderstorms and rains that track between the mountains and the desert.

The area is an "ecotone" or transitional area between upper and lower life zones, with the result that there is a wide variety of vegetation and animal life. Pinyon, juniper, mountain brush, scrub oak, mesquite and yucca are common, with trees such as cottonwood, ash and hackberry near watercourses. Animal life is equally varied: deer, antelope, rabbits, prairie dogs and woodrats are the larger species. Birds include wild turkey, quail, doves and many resident and migratory species.



THE CLIENT'S QUALITATIVE PROGRAM:

The National Park Service of the United States Department of the Interior is the client. Fortunately, this is a governmental agency with an informed and progressive view of architecture and architectural design. It insists on the best in its visitor center facilities: in concept, in response to context and climate, in design development, in technics and in construction.

In particular, the National Park Service demands an architecture that enhances and melds with the spirit of the place, that has a sense of place itself, and that is also contemporary and forward-looking. It wants a facility that is reasonably compact and efficient in construction and operation. It requests the use of materials and structural systems and construction techniques that are appropriate for a remote site and its context.

The client's representatives have expressed affection for the special nature of Chup Ki, and ask you to remember this as you consider the sequence of arrival, parking, walking to the Visitor's Center, participation in its activities and opportunities, and the design of the pathways to and from the ruins themselves. The experience will be a journey through time as well as space. Philosophically, the National Park Service insists that visitors go into and through the Visitor's Center experience before embarking on the trail to the Chup Ki ruins themselves.

The visitor will not be able to enter the ruins, to avoid any damage or further deterioration, but the trail will follow their edge which will be punctuated with informational markers and descriptions. The client reminds you that all of the trails and the facilities of the Visitor's Center shall be accessible to the handicapped.

The National Park Service requests a design that is a guide to, and guardian of, the past; that is of the best of the present; and that will remain fresh and relevant far into the future.



VISITOR CENTER STAFF:

The National Park Service has a District Superintendent, with offices in Camp Verde. Each site has its own staff under the Superintendent's direction. The Chup Ki staff members will live in Camp Verde or in the Verde Valley, commuting daily to the site. The staff will be:

1. Head Ranger
2. Deputy Ranger (combining administrative back-up with research)
3. Secretary-Receptionist
4. Resident Archeologist (director of research and coordinator of exhibitions)
5. Food Counter Person (as needed in each season; might be local volunteer)
6. Custodian (part-time evening person, with 4-hour shift daily)



THE CLIENT'S QUANTITATIVE PROGRAM:

Like most governmental or large corporate clients, the National Park Service has an architectural staff. While design work is given to architectural firms, much of the pre-design programming is developed by the National Park Service based on its experience and standards. For the Chup Ki Visitor's Center, it has established the following Quantitative Program:

A. EXHIBITS, ADMINISTRATION AND SUPPORT FACILITIES

1. Entry Space 200 sf
(reception counter; books & souvenirs, Secretary-Receptionist's desk and files; to be adjacent to Administrative Offices)
2. Administrative Offices: Two offices at 130 sf each 260 sf
(Head Ranger and Deputy Ranger's offices; each to have desk, credenza, visitor's seating and files)
3. Exhibition Spaces
(All to be accessible to the public with most exhibits in cases or diorama displays with security protection; primarily self-guiding interpretative displays)
 - a. Theme Exhibit Spaces: Seven at 400 sf each 2,800 sf
(Alcoves, rooms or spaces, each of which will have a theme to explain an aspect of life at Chup Ki. The seven selected are:
 - 1) History
 - 2) Way of Life (customs, religion, basic culture, farming, etc.)
 - 3) Implements (for farming, hunting, crafts, etc.)
 - 4) Pottery
 - 5) Basketry
 - 6) Textiles and Clothing
 - 7) Ornaments (pendants, beads, hairpins, etc.)
 - b. Central Exhibition Space 1,200 sf
(to house a 12' by 16' topographical model of the Chup Ki ruins and the site, as a central feature. Other small exhibits to be in the space on a rotating basis)
4. The Kiya 600 sf
(a small auditorium with a level floor; for slide presentations and talks by staff members to small groups of visitors; may have small elevated platform and lectern; projection booth not required)
5. Research and Work Room 600 sf
(Exhibit preparation, artifact study and cataloging, files, sorting tables, etc.; receiving and shipping entry to be at this room opening to exterior service area)
6. Archive and Storage Room 400 sf
(Racks and shelves; boxes and trays of archival materials; files; to open directly from Research and Work Room)
7. Utility Room 200 sf
(Mechanical, electrical and telephone equipment; some custodial supplies and tools; exterior entry only; to be reached from exterior service area)

B. FOOD SERVICE FACILITY

(Enclosed space with a modest food preparation area and a walk-through service area; generally cold sandwiches, light snacks, hot dogs and beverages. In busy seasons, prepared foods will be brought from Camp Verde. To be accessible from exterior service area)

1. Food Preparation Area 160 sf
(Warming oven, small grille, counter space, refrigerator, sinks)
2. Walk-Through Service Area 200 sf
(One-way in-and-out line, counter, some seating for waiting)

C. RESTROOMS

(May be a separate building or may be incorporated into the main Visitor's Center interior space; requires close proximity to other facilities, visual and psychological privacy is mandatory; provide square foot area as needed)

1. Women's Restroom: 3 water closets; 2 lavatories
2. Men's Restroom: 1 water closet; 2 urinals; 2 lavatories

D. EXTERIOR SPACES AND PLACES

1. The Plaza

(A central unifying or linking space, or spaces, to add to the visitor's pleasure and enjoyment of the Chup Ki ruins visit; to help establish and reinforce the "sense of place." Indoor-outdoor relationships with other facilities will be important. An appropriate amount of shelter from sun, rain and snow shall be provided. There will be one significant object in the plaza, as a display and part of the "sense of place")

a. The Petroglyph Rock

(A large rock, irregular in shape but approximately 8' in width in each direction and just over 6' high. It was located in an adjacent water drainage terrace and was in jeopardy from development. It is covered with "petroglyphs," which may have been messages, or trail markers, or historical events, or decorations or merely "doodles." Undoubtedly some also had ceremonial significance. The symbols on it represent humans, the sun, animals, snakes, the moon, stars, birds, lightning and many other natural features.)

2. The Eating and Picnic Place

(Seating for 30 people; a paved area that is part of the Plaza or an extension of the Plaza; a quality experience, accessible from the Food Service Facility and reasonably accessible to the Restrooms)

3. Trail Heads to the Chup Ki Ruins

(Transition points where the visitors leave the Plaza to visit the ruins; assume the probability that it will be a one-way self-guiding trail)

4. Arrival Driveway and Parking

(A drive from the 24' road to the area of the Visitor's Center; parking area for 10 private cars, 3 recreational vehicles and one bus that might carry 60 people.)

5. Service Drive and Parking

(Access for service vehicles for deliveries, waste removal and maintenance; parking for 1 truck and 3 staff cars; to be screened from public view.)



FINAL PRESENTATION REQUIREMENTS:

The final presentation shall be a designed and coordinated visual presentation, with all drawings and the models a part of the visual system. The required elements of the presentation:

1. SITE MODEL (The grey chipboard model already done for November 4; mounted or presented as part of final presentation; 1"=200')
2. "ROOF-SITE PLAN" (Drawing at 1/16")
3. CHUP KI VISITOR'S CENTER PLAN (Drawing at 1/8")
4. REFINED OR NEW STUDY MODEL OF VISITOR'S CENTER (A revision or new version of the model already done for November 13; grey chipboard; 1/8")
5. ONE SIGNIFICANT SECTION-ELEVATION DRAWING OF VISITOR'S CENTER (1/8")
6. ONE SIGNIFICANT INTERIOR PERSPECTIVE (To show the character of the design, the nature of the materials and systems, and the "sense of place")

On the final presentation drawings: color is permissible, spot color is acceptable, full color is allowable, and discretion is advisable.

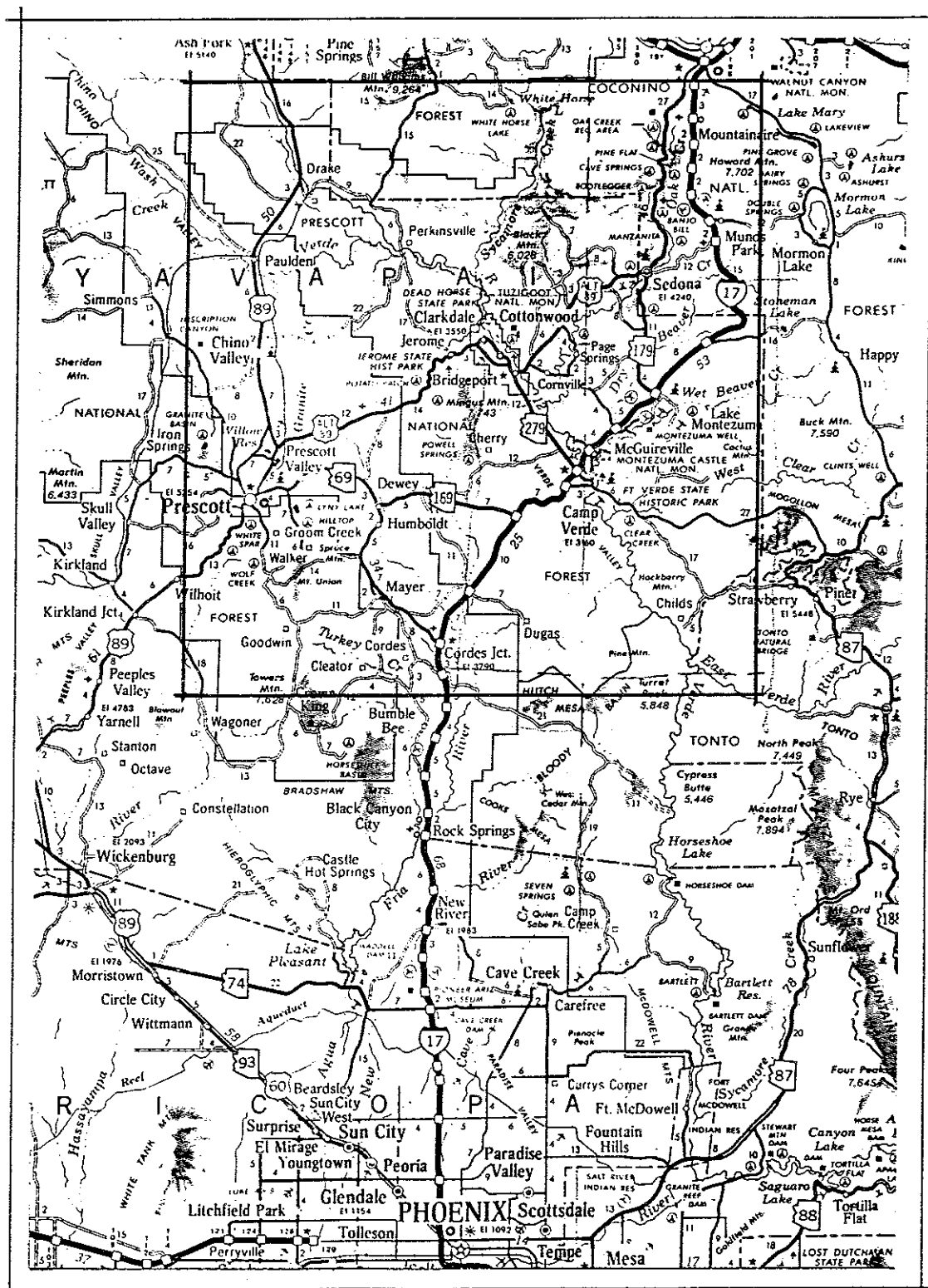


EVALUATION CRITERIA: EQUAL WEIGHT WILL BE GIVEN TO THE FOLLOWING:

- A. CONCEPT (The Idea; Theme; Sense of Place)
- B. SITE PLANNING (Response to Site and Climate; Circulation; Views)
- C. PLAN DEVELOPMENT (Function; Circulation; Relationships)
- D. 3-D DEVELOPMENT (Forms; Form Refinement; Spatial Relationships)
- E. TECHNICS (Structure; Materials; Construction; Openings)
- F. COMMUNICATION (Drawings; Models; Organization; Verbal Skills)

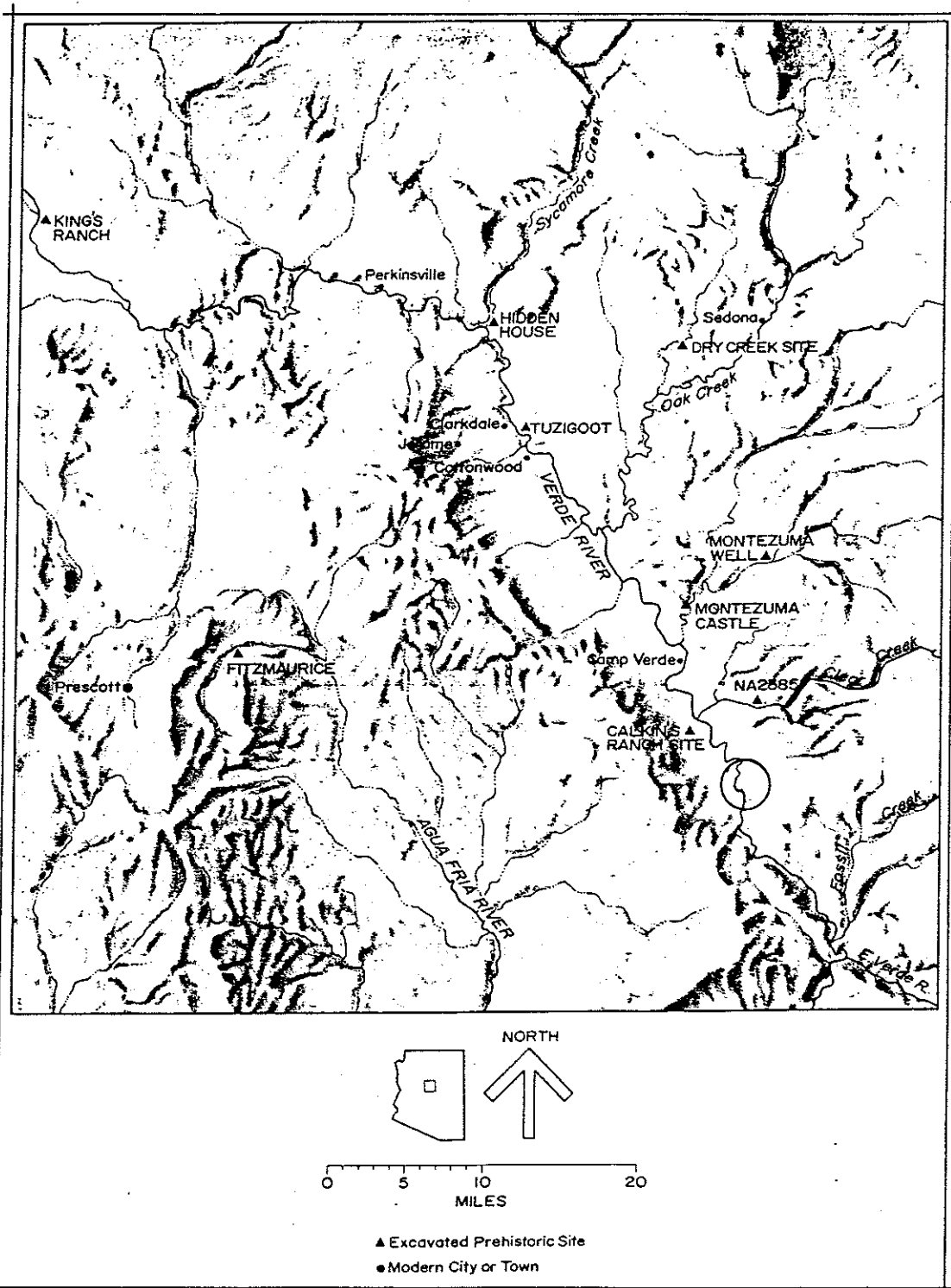
ATTACHMENT A: CENTRAL ARIZONA: THE PHOENIX-FLAGSTAFF CORRIDOR

The boxed zone indicates the area covered on Attachment B.



ATTACHMENT B: THE VERDE VALLEY AND VICINITY

The circle in lower right corner of the map indicates the general vicinity of the Chup Ki Ruins.



THE SITE: TOPOGRAPHY AND VEGETATION

SCALE: 1" = 200'

The actual location for the Visitor's Center is to be selected by the designer with care given to preservation of the ruins area and the canal fields north of the Verde River.

