

## THE DESERT WEST

### A Trial Correlation of Culture and Chronology\*

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The map and chronological chart in this paper are presented as a record of stock-taking. Both result from a four day seminar which met to assess the state of archaeological knowledge in the Desert West. Meetings were held in the quarters of the University of California Archaeological Survey at Berkeley, in August, 1957, under the chairmanship of Jesse D. Jennings.

The seminar was held under no formal aegis and was a voluntary one, the participants attending at their own expense. Main participants present included H. H. Aschmann, M. A. Baumhoff, J. A. Bennyhoff, R. D. Daugherty, A. B. Elsasser, G. L. Grosscup, R. F. Heizer, J. D. Jennings, A. D. Krieger, F. A. Riddell, A. E. Treganza and W. D. Wallace. R. Drake, R. J. Squier and N. Wilson were visitors at one or more sessions.

The objectives of the seminar were simple, if not necessarily concise. It was desired to pool the special knowledge and information not yet in print but controlled by various individuals in order to arrive at some insight into the broader implications of the many discrete archaeological series known from the Great Basin. In brief, the seminar met to answer the question as to whether broad areal correlations in culture content and relationship could yet be distilled from the individual sites being described in increasing numbers from Nevada, Utah, California, Oregon and Washington.

#### Summary

Most participants, as the sessions ended, were of the opinion that the seminar had been of value and some progress had been made, or at least a groundwork had been laid, toward a synthesis of the prehistory of the intermountain West. In sober fact, however, the results were less a synthesis than an inventory.

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\* The original plan was to publish a summary of the traits for each culture column of the chart. This has proved impossible because of the failure of several participants to provide such lists and because of the uneven and incomplete nature of those lists which were drawn up. It was not therefore feasible to adhere to the original plan of publication (Ed.).

The primary achievement is the broad regional chronology chart (Fig. 1). Here various views have been, through compromise and discussion, reconciled into something which verges on the coherent and provides a space and time scale for further study of the culture or cultures of the Desert West. It will be noted that several named, even reported, archaeological manifestations of the area are not considered. Consensus was that sites not adequately reported, or sites lacking sizable artifact complexes, or sites where antiquity was only obliquely inferable (i.e., sites lacking stratigraphic controls or distinctive diagnostic artifact assemblages which in other sites were under control) would be omitted. This action was taken in order to ensure that discussion would focus on controlled data; to some extent this reduced speculation and the urging of personal conviction as evidence. Even so, some of our conclusions are highly tenuous.

A second achievement, of perhaps only passing value, was the delineation of an area (Map 1). This is an area of convenience only; it represents no great cultural truths. It does indicate, however, the limits arbitrarily imposed on the discussion by the state of current archaeological knowledge.

Other findings may be considered constructive, though negative.

1. It was impossible to deal effectively with the so-called Lake Mohave, Amargosa and Pinto-Gypsum cultures. A more specific description of the many artifact types and a segregation of types into complexes, as well as more substantive information on the geological context (if indeed this exists) of the cultural materials, are essential for each of these named cultures.
2. The widespread, so-called Shoshone ware (Owens Valley Brown being one type) deserves intensive study and a non-linguistic name. The range, the varied types, the time of first appearance from place to place, and a clarification of the northern affiliation of this ware all become important to understanding of the protohistoric and historic remains.
3. The lack of archaeological study of known historic interior Shoshonean Indian sites makes the transition from ethnology and ethnohistory to prehistory almost impossible.
4. Possibly only a phase of 3, but separately noted by the seminar, was the vagueness of knowledge about the archaeological materials of the protohistoric period.
5. It was impossible, on the basis of reported data, to do anything constructive with the varied ceramic traditions manifest in the southern California desert. The ceramics are ill-defined as to associated artifacts and sequence of occurrence, and no careful, comprehensive typological studies have yet been published.
6. The lack of archaeological information from eastern Nevada and Idaho is so complete that the seminar was unable to consider these important areas.
7. Many artifact series, now referred to as a culture or as a phase in a local sequence, are in reality nothing but a flint complex, or a handful of non-distinctive rough stone artifacts. In Figure 1, these lacunae are evidenced.

## The Area

The Desert West may be considered a part of the vast province of low rainfall in western North America which has been called Arid America by some anthropologists and geographers. This province, however, has never been at all clearly defined because of confusion between geographical and cultural criteria. Areas of more abundant rainfall and plant and animal food have been included because their native cultures show basic similarities with those of the real deserts; and, conversely, the Great Plains has been excluded because its native cultures have been different, supposedly, from those of the western deserts.

Obviously, there is no completely satisfactory way of defining Arid America, but less confusion results if the criteria are either geographical or cultural, but not both. Archaeological exploration of the western states is very uneven and a great deal is still to be learned about the native cultures over thousands of years, together with the ways in which they became adjusted to environment. Furthermore, the environment itself has been undergoing changes.

The simplest way to arrive at the boundaries of Arid America is to include the unforested areas of relatively low rainfall (generally less than 25 inches annually) from western Canada to central Mexico. This environment, in general, includes the Lower Sonoran and Upper Sonoran Life Zones found in the desert regions between the Cascades-Sierra Nevada ranges and the Rocky Mountains, the Great Plains, northern Mexico exclusive of the timbered Sierra Madre ranges, and numerous smaller areas such as valleys within the main mountain masses.

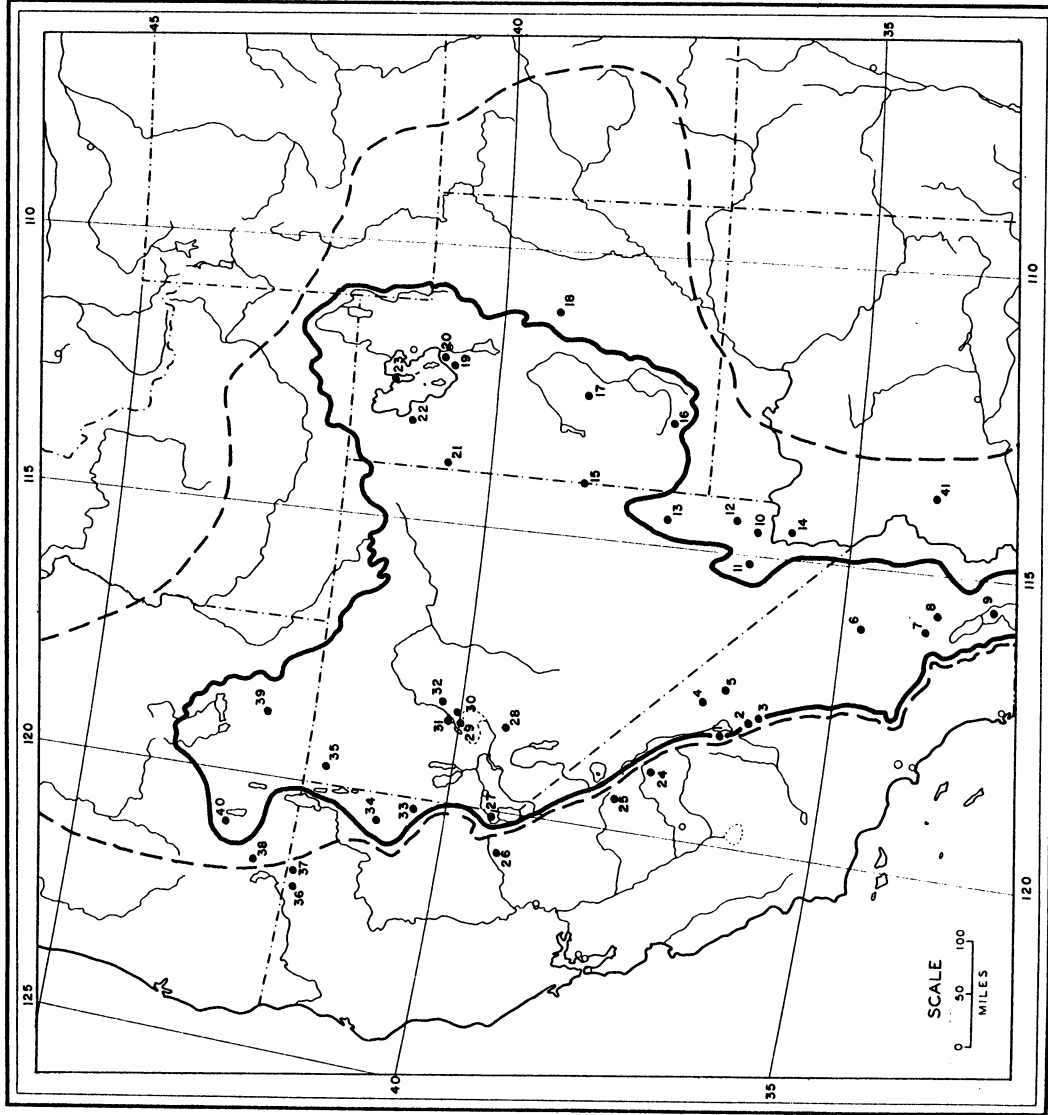
The present study, however, is by necessity confined to only a part of this enormous province. The Southwest, Great Plains, and Mexico have been the subject of previous synthesis. Thus, for our present purposes, the center of interest is the Great Basin.

The Great Basin is an area of interior drainage in the western United States. Except for the western and eastern margins which include high, moist land and a few isolated mountain areas, this is an area of deficient moisture. To this core area we may add three extensive adjacent areas which, though possessing exterior drainage, possess the same general ecologic pattern and, during the last two thousand years at least, seem to have been closely associated culturally. The three added areas include 1. Eastern Utah and western Colorado. 2. The Snake and Columbia Plateaus (between the Cascades and the Idaho Rockies). To this may be added the areas east of the Cascades which drain west through the mountains but have the same physical character as the undrained areas to the east. 3. Southern Utah and Nevada and the desert drainage of the Colorado in California and Arizona. In the added territories, as in the core area, there are isolated high, moist districts, but in all cases such districts are not extensive enough to constitute either barriers or centers for distinctive cultural developments.

MAP 1

Limits of Great Basin (---) and Boundary of Portion of Desert West (---)  
Under Discussion at Meetings Preceding Great Basin Conference, 1957

Numbered dots refer to sites or approximate centers of designated  
cultures or complexes as follows:



No.	Site	References
1	Iny-2	Riddell, 1951
2	Rose Springs	Ms., Univ. Calif.
3	Little Lake	Harrington, 1957
4	Coville Rock Shelter	Meighan, 1953
5	Mesquite Flat	Wallace and Taylor, 1955
6	Lake Mohave	Campbell et al., 1937; Rogers, 1939
7	Twenty-Nine Palms	Campbell, 1931
8	Pinto Basin	Campbell, 1935; Rogers, 1939
9	Sand Hills	Peck, 1953
10	Gypsum Cave	Harrington, 1933
11	Tule Springs	Simpson, 1933; Harrington, 1954
12	Lost City	Harrington, 1927
13	Etna Cave	Wheeler, 1942
14	Willow Beach	Schroeder, 1952
15	Garrison	Taylor, 1954
16	Paragonah	Meighan, 1956
17	Kanosh	Steward, 1936
18	Old Woman Cave	Ms., Univ. Utah
19	Black Rock Caves	Steward, 1937
20	Deadman Cave	Smith, 1952
21	Danger Cave	Jennings, 1953
22	Stansbury	Ms., Univ. Utah
23	Promontory Point	Steward, 1937
24	Vermilion Valley	Lathrap and Shuttler, 1955
25	Yosemite Valley	Bennyhoff, 1956
26	Nev-15	Ms., Univ. Calif.
27	Martis	Reiser and Elsassner, 1953
28	Hidden Cave	Grosscup, 1956
29	Humboldt Cave	Reiser and Krieger, 1956
30	Ocala Cave	Loud and Harrington, 1929
31	Lovelock Cave Bed	Loud and Harrington, 1929;
32	Humboldt Lake Bed	Heiser and Grosscup, Ms.
33	Leonard Rock Shelter	Heiser, 1951
34	Tommy Tucker Cave	Fenenga and Riddell, 1949
35	Karlo	Riddell, 1956
36	Massacre Lake Cave	Heiser, 1942
37	Lower Klamath Lake	Squier, 1956; Cressman, 1942
38	Tule Lake	Squier, 1956
39	Upper Klamath Lake	Cressman, 1956
40	Cattow Cave	Cressman, 1942
41	Fort Rock Cave	Cressman, 1942
42	Bouse	Barner, Ms.

On the other hand, the Southwest and the plains of eastern Wyoming and beyond are not included, despite their ecologic similarities, because their recent history has shown distinctly different cultural foci. It is entirely possible that despite the vast distances involved the whole of dry western North America in very ancient times had a reasonably uniform culture based on similar ecologic adaptations.

An effort is made in setting up this area to keep it contiguous on broad fronts rather than to have outliers or districts connected by long, narrow corridors.

### The Chronological Chart

The chronological chart must be regarded as an interim trial ordering of what is now known. The chart, as are all charts, is misleading because the rigidity of the form makes it appear that there is more certainty of knowledge than could be claimed. It must also be emphasized that the chart does not represent pooled opinion in the sense that it carries the unconditional approval of the seminar participants. Figure 1 represents a compromise of diverse views and is offered as the best solution which appeared to be possible within the time available to the seminar. While the correlations suggested in the chart may prove to be valid, the material is now presented only for testing and refinement. It is hoped that those who differ with the proposed chronology will be stimulated to publish sufficient facts to demonstrate the necessary revisions.

The presentation of data in a single chart is also unsatisfactory because it is inevitable that some adjacent localities must be separated. In view of our limited knowledge, however, it was felt that an overall view would be advantageous at this time. In future, it will be useful to present a series of sectional or sub-areal charts, with the repetition of pertinent regions on each chart. The smaller size would then allow the inclusion of adjacent cultural sequences outside the Great Basin. The inclusion of the Coastal California, Colorado River, High Plains, and various Southwestern regions would provide better orientation in Figure 1, but problems of chart size prohibited this.

Space does not permit any extended discussion of the varied problems which are presented throughout the chart. One rather general procedure does deserve attention, however. The practice of assigning linguistic names to archaeological complexes and artifact types is contrary to usual methodology and many examples of the confusion which results could be cited from other areas. Yet such has been done in many localities of the Great Basin for the protohistoric period. The problem of identifying the first appearance of the Shoshonean groups has become particularly significant since the presentation of linguistic evidence which suggests the very late spread of these historic occupants of the Great Basin (Lamb, 1958). The primary evidence used by those archaeologists who assign lin-

guistic labels has been certain projectile point and/or ceramic types. However, one has merely to survey the literature to see that variant point complexes have been assigned to the same Shoshonean group, and there is no certainty whatever that the appearance of the ceramics which have been named after Shoshonean groups actually represents the appearance of the linguistic group. It is therefore recommended that non-linguistic labels be applied both to archaeological complexes and to artifact types.

### Sources

The following sources will serve as a guide to the literature for Figure 1. Space does not allow any complete bibliography so the emphasis has been placed on recently published reports and syntheses which contain references to the older, and often more basic, reports. Wormington (1957) provides excellent summaries of the earlier complexes. Radiocarbon dates are given by Heizer (1958) for California, Grosscup (1958) for Nevada, Cressman (1956) for Oregon, Butler (1957) for the Columbia River, and Jennings (1957) for Utah.

#### SOUTHERN CALIFORNIA DESERT.

It is impossible to set up any meaningful chronology for this region from the existent literature. More complete descriptions in terms of rigorous typology, artifact association and frequency, and site locations are needed for most of the cultural periods.

Colorado Desert: Lake Mohave, Pinto-Gypsum, Amargosa (the latter is represented by an X in Fig. 1): Rogers, 1939. See pertinent entries for Mohave Desert. Bouse 1 through Moon Mountain: Harner, 1958 (herein). See also Rogers, 1945; Schroeder, 1952a; Peck, 1953.

Mohave Desert, including Mohave Sink: Lake Mohave: Campbell, et al., 1937; Rogers, 1939 (Playa); Antevs, 1952; Brainerd, 1953. See Inyo-Mono locality for further comment. Pinto-Gypsum: Campbell and Campbell, 1935; Rogers, 1939; Antevs, 1952. See Inyo-Mono locality. Amargosa, Basketmaker: This complex has been so confused that it has been indicated by the lower X in Figure 1. Rogers (1939) originally defined two phases of Amargosa following the Pinto-Gypsum industry. Later (Hauray, 1950:193) he equated these phases with Pinto-Gypsum, and introduced an undefined Amargosa III phase with the result that "Amargosa" has lost all meaning. Others have referred to this complex as Basketmaker (Harrington, 1952, 1953, 1957; Smith, et al., 1957) on the basis of projectile point types but the temporal and cultural affiliations of the California complex with the very specific Basketmaker phases have never been satisfactorily demonstrated. The "Early Desert Mohave" complex of Rogers (1939, 1945) provides still more confusion because of the inadequate presentation of data.

W. B. in Figure 1 refers to the Willow Beach phase of the Mohave Sink (Schroeder, 1952a, b; Late Desert Mohave of Rogers, 1939, 1945). The upper X in this column refers to the "Shoshonean" occupation (Schroeder, 1952b; Smith, et al., 1957). A non-linguistic name is needed. Death Valley: The entire sequence has been dealt with by Wallace (1958, herein). In the spirit of compromise at the seminar, Wallace agreed to the simplification presented in Figure 1. However, his report differs in significant detail in terms of names, dating, and continuous occupation (see his Table 1, p. 17, herein).

Inyo-Mono: Harrington (1952, 1953, 1957) deals with the entire cultural sequence (using variant cultural labels) as found at and near the Stahl site. However, he would reverse the position of Lake Mohave and Gypsum, and restrict the age of Pinto-Lake Mohave to about 3000-4000 years ago. A reappraisal of the entire Pinto problem in its various manifestations (Lister, 1953) is urgently needed. Harrington also argues for the identification of Basketmaker II, III and Shoshonean occupation for the locality (see discussion of terminology under Mohave Desert above). F. Riddell (n.d.; 1958, herein) briefly summarizes the Rose Spring sequence, and the Iny-2 site has been described by H. Riddell (1951). See also Meighan, 1955; Riddell and Riddell, 1956.

#### SIERRA.

The Vermilion Valley I-III sequence is based on soon-to-be-published investigations by W. J. Wallace (Lathrap and Shutler, 1955, describe V.V. III). Bennyhoff (1956) presents the Yosemite sequence. Heizer and Elsasser (1953), and Heizer (n.d.) deal with the Central Sierra sequence.

#### NEVADA.

Southern Nevada: Tule Springs: Simpson, 1933; Harrington, 1954, 1956; (see Grosscup, 1957:25 for scattered references). Folsom-Yuma (represented by lowest X on chart; point identification doubtful): Wheeler, 1942. Gypsum: Harrington, 1933; Wheeler, 1942; Arnold and Libby, 1951. Basketmaker II through Pueblo II: Schroeder, 1953; Wheeler, 1942; Harrington, 1927 (also see Grosscup, 1957:30-33); Hayden, 1930. Southern Paiute (represented by uppermost X on chart; name unsatisfactory): Harrington, 1930, 1933; Schroeder, 1953; Baldwin, 1950.

West Central Nevada: Fishbone Cave (represented by X in Fig. 1; significance uncertain): Orr, 1956. Fallon: Grosscup, 1956. Leonard, Humboldt: Heizer, 1951. (The Carson and Hidden Cave phases of Grosscup, 1956, have been lumped with these. Relationships cannot be determined from the meager artifact inventories, but all four manifestations indicate occupation during Anathermal and Altithermal times.) Early to Late Lovelock: Loud and Harrington, 1929; Heizer and Krieger, 1956; Heizer, 1951; Heizer and Grosscup, n.d.; Heizer, 1942. Dune Springs: Grosscup, 1956.

## NORTHEAST CALIFORNIA.

F. A. Riddell, 1956a, b, c; 1958 (herein); Fenenga and Riddell, 1949.

## KLAMATH.

Lower Klamath-Tule Lake: The Early, Middle and Late periods are those of Cressman (1956). The Indian Bank, Gillem Bluff and Tule Lake phases are described by Squier (1956).

Upper Klamath: Cressman, 1956.

## SOUTHEAST OREGON.

The entire column has been adapted from Cressman, 1956, Chart 3, p. 464; the nature of the revision called for by the C-14 date obtained after Chart 3 was made (*ibid.*, footnote pp. 464, 465) is uncertain so no change has been attempted in Figure 1, herein. (By typographical error Paisley Cave No. 3 is shown as P-I (at 8500 B.P.) instead of P-III on Cressman's Chart 3.)

## NORTHERN OREGON - WASHINGTON

Columbia River: Lind Coulee: Daugherty, 1956. (In Fig. 1, herein, the arrow symbolizes duration of occupation for the Dalles site and has no relation to the Lind Coulee site.) Dalles (Five Mile Rapids site appears to be the name finally decided upon): Wormington, 1957:186; Butler, 1957. Wakemap, and Middle Columbia Cremation Complex: Butler, 1957; Strong, 1945; Strong, Schenck and Steward, 1930. Moses Lake: Daugherty, 1952. The Early, Middle and Late periods of Butler (1957) appeared too late to be included in Figure 1.

Lower Snake River: Alpowa: Daugherty and Dammel, 1952. The Asotin, MacGregor Cave/Porcupine Cave, and Harder sites are unpublished.

## UTAH.

Black Rock I: Steward, 1937. Danger Cave: Jennings, 1957 (see his Comparisons for absorption of previous Deadman and Black Rock cultures); Uncompahgre: Wormington and Lister, 1956. Fremont, Sevier Fremont (including all Basketmaker and Puebloid phases): Jennings, Reed, et al., 1956:104; Wormington, 1955; Taylor, 1954; Schroeder, 1955; Meighan, et al., 1956; Rudy, 1953; Steward, 1936; Morss, 1931. Promontory: Steward, 1937; Gunnerson, 1956. Shoshonean (represented by an X in Fig. 1, name unsatisfactory): Jennings, 1957; Rudy, 1953; Malouf, 1944, 1946; Steward, 1937.



## Bibliography\*

### Abbreviations Used

- A Ant: American Antiquity. Menasha or Salt Lake City.  
SM: Southwest Museum. Los Angeles.  
-M: Masterkey.  
-P: Papers.  
UC: University of California. Berkeley.  
-AR: Anthropological Records.  
-PAAE: Publications in American Archaeology and Ethnology.  
UCAS: University of California Archaeological Survey. Berkeley.  
-Ms: Manuscript.  
-R: Report.  
UU: University of Utah. Salt Lake City.  
-AP: Anthropological Papers.
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\* Corrections to Sites, References, in Map 1 legend should be made as follows:

- No. 2 Ms., Univ. Calif., should read Riddell, n.d.; (Rose Springs should read Rose Spring).
- No. 8 Campbell, 1935, should read Campbell and Campbell, 1935.
- No. 14 Schroeder, 1952, should be Schroeder, 1952b.
- No. 16 Meighan, 1956, should be Meighan et al., 1956.
- No. 18 Old Woman Cave, should read Old Woman Site and Ms., Univ. Utah should now be Taylor, 1958.
- No. 21 Jennings, 1953, should now read Jennings, 1957.
- No. 22 Ms., Univ. Utah, should read Jameson, n.d.
- No. 26 Ms., Univ. Calif., should read Heizer, n.d.
- No. 34 Riddell, 1956, should be Riddell, 1956c.

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FIGURE 1

Explanation of Symbols on Chronological Chart

- PUEBLO: cultural period whose validity is generally recognized.
- Dalles**: single site with unnamed cultural period(s) or
- Humboldt**: site(s) with limited cultural inventories.
- \* : radiocarbon date (for listing and discussion see UCAS-R No. 43).
- : approximate temporal boundaries  
(uncertainty increases with age).
- ↓ ?  
? ↑ : very indefinite time of inception  
or termination.
- X : claimed complex with unsatisfactory  
name, content, or chronological placement.
- ?? : no information available.
- ////// : base line for Patayan-Hohokam influenced ceramics.
- W W W : base line for "Shoshone" ceramics { Owens Valley Brown Ware.  
S. Paiute Utility Ware.  
Shoshone Ware.
- { o o o o o  
o o o o o : time span for Anasazi influenced ceramics.
- xxxxxxx : time span for Promontory Ware.
- \\\\\\\\\\\\ : assumed cultural continuity (in many cases a cultural  
equivalence based on sherds and points from region to  
region exists but is not indicated on chart).
- ////// : Anasazi and Fremont influenced cultures.
- ||||| : Pinto-Gypsum or possibly related complexes.
- ||||| : Lake Mohave similarities.



