

A Directory of

TREE-RING DATED PREHISTORIC SITES

in the

AMERICAN SOUTHWEST

by

William J. Robinson

and

Catherine M. Cameron

**Laboratory of Tree-Ring Research
The University of Arizona
Tucson, Arizona**

1 November 1991

Between 1966 and 1975, the Laboratory of Tree-Ring Research (TRL) published a series of 16 reports, the so-called quadrangle series, listing all dated sites from a specific area with their associated dates as of the year of publication. The data contained in this series are still, with a few minor corrections, useful and valid, but have been substantially augmented in the last 15 years by new dates from previously and newly dated sites. As a measure of this increase, a tabulation at the conclusion of the quadrangle series listed totals of 923 dated sites and 18,803 dates. These figures included prehistoric, Native American (excluding the Navajo Land Claim), and historic European sites. In contrast, the inventory presented here lists more than 1300 dated sites and more than 27,000 dates and includes only prehistoric sites. Thus, both categories have increased well over 50%.

Presentation of data in the quadrangle format, that is, listing of dates in standard typographic form, suffers from being obsolescent almost from the instant of publication as new material from the area of coverage is received. Furthermore, this format cannot be easily or cheaply updated. Thus, rather than routinely updating the quadrangle series with 16 (or more) individual volumes, the TRL has developed a microcomputer data base that summarizes site and dating information in a single file. Although this data base lacks the details of individual dates, it gains from absolute currency. As soon as new material is processed by the TRL and a report issued to the principal investigator, the information is entered to the data base and is available for hard copy or data searches. As outlined below, detailed listings on a site-by-site basis will, however, continue to be available by xerographic means.

THE DIRECTORY

This directory contains all dated prehistoric sites in the American Southwest. A decision was made to include dates from sites which technically, in part at least, are post-Spanish as long as the sites themselves appeared to conform to prehistoric patterns and originated in pre-Spanish times. Thus a handful of sites have dates falling between A.D. 1540 and nearly 1700. These are located in the northern Rio Grande, for the most part, and predate the permanent Spanish settlement of New Mexico. Obvious post-Spanish sites or post-Spanish components, such as mission churches, at basically prehistoric sites (i.e. San Bernardo de Awatovi) will be treated in a later directory along with other historic European sites and structures. A third directory will cover all Native American sites including occupied and Pueblo V pueblos and villages.

In this directory, sites with nonoverlapping chronological components are listed twice in order to avoid introduced confusion in the dating columns. Thus Pueblo III-period caves with underlying Basketmaker III components have dual entries. So too do the classic Chaco ruins with Mesa Verde reoccupations.

Two complementary listings are included. Listing 1 is organized geographically - alphabetically by state and quadrangle (refer to Figure 1). This allows easy comparison with data published in the quadrangle series and the isolation of newly-dated sites. Listing 2 is temporal with the site with the earliest terminal ("Late") date first and that with the latest date last. Because the entire suite of dates from a site or component is considered, these dates may not be wholly representative of the site dating.

THE DATABASE

The database is written in dBase IV and run in a compiled version. Both programs and data are installed in microcomputers in the Archaeological Research Section of the TRL. The database is

updated on approximately a monthly schedule. The program allows searches for subsets using standard dBase IV syntax. Output of the search is in the form of hardcopy (a subset of the directory) or as a delimited ASCII file of UTM data on floppy disk fulfilling the search criteria. This latter form may be valuable for those wishing to interface directory data with their own mapping or plotting programs. The TRL is developing an CAD base map of the Southwest that will accept subset data for visual presentation.

To facilitate analyses of tree-ring data, requests for searches of the database will be accepted by the TRL. A nominal charge will be assessed to cover the costs of reproduction and mailing.

It should be stressed that the dating summaries (the final three columns) should be used only as broad guidelines for site dating. Only detailed and complete dating information should be used for either site or regional analysis. For example, this directory does not provide the means either to identify outlier dates or to detail provenience. Analyses of these data must be based not only on specifics, but on the guidelines provided by Ahlstrom (1985), Dean (1978a, 1978b, 1986), and a modicum of common sense.

A final caveat: we have done our best to insure the accuracy of the data presented, but have been challenged frequently by the lack of access to site descriptions and locations. If you wish to improve the directory by sending us updated site information, we will welcome your participation.

REFERENCES

- Ahlstrom, Richard V. N.
1985 The Interpretation of Archaeological Tree-Ring Dates. Doctoral Dissertation, The University of Arizona, Tucson. University Microfilms, Inc., Ann Arbor.
- Dean, Jeffrey S.
1978a Tree-Ring Dating in Archaeology. In "Miscellaneous Collected Papers 19-24," edited by J. D. Jennings, pp. 129-163. University of Utah Anthropological Papers, No. 99.
1978b Independent Dating in Archaeological Analysis. In Advances in Archaeological Method and Theory, Vol. 1, edited by M. B. Schiffer. Academic Press, New York.
1986 Dendrochronology. In Dating and Age Determination of Biological Materials, edited by M. R. Zimmerman and J. L. Angel, pp. 126-165. Croom Helm, London.

EXPLANATION OF COLUMN HEADINGS

- State/Quad** - This alpha/numeric code is an internal file control used by the TRL. Although the alpha corresponds to the Arizona State Museum Survey System (Figure 1), the numeric sequence is unique to the TRL.
- Site Name/Number** - We have chosen, perhaps arbitrarily, the most common name if, indeed, the site is named. Otherwise, the survey number of the state/institution is used. Failing all else, a field designation is employed.
- Culture** - This is a broad, and loose, designation, included mainly for searching purposes.
- Period** - Also a broad, and loose, category, included for database searching purposes.
- UTM, East, North-** Self-evident. UTM's are used as given by principal investigators or as determined from site placement on 7.5' quad maps. The accuracy of the location may be judged by the number of trailing zeros. Many sites could be placed only to the nearest 1000 meters at best.
- Elev** - Elevation, in feet, as given by principal investigators or as determined from 7.5' quad maps.
- T** - Site type. 1 = primarily pit structures; 2 = primarily surface structures; 3 = midden context.
- S** - Site situation. Open or Sheltered.
- R** - Number of structures. 1 = 1 to 3; 2 = 4 to 10; 3 = more than 10. This is a gross measure of site size.
- Num** - Total number of dates from the site/component.
- EC** - Earliest cutting date from the site/component.
- Late** - Latest date, cutting or not, from the site/component.
- C** - Number of date clusters.

ACKNOWLEDGEMENTS

No publication is an island, so we hasten to sincerely thank the Archaeometry Program of the National Science Foundation who, under Grant BNS-8504241, provided critical support for all aspects of the data base. Alexander J. Lindsay, Jr. accepted the unenviable task of ferreting out site information from the vast array of published and unpublished sources. He succeeded beyond expectation. And, finally, we are grateful to Doug Gann who introduced us to AutoCAD and lent his extraordinary skills to the project.

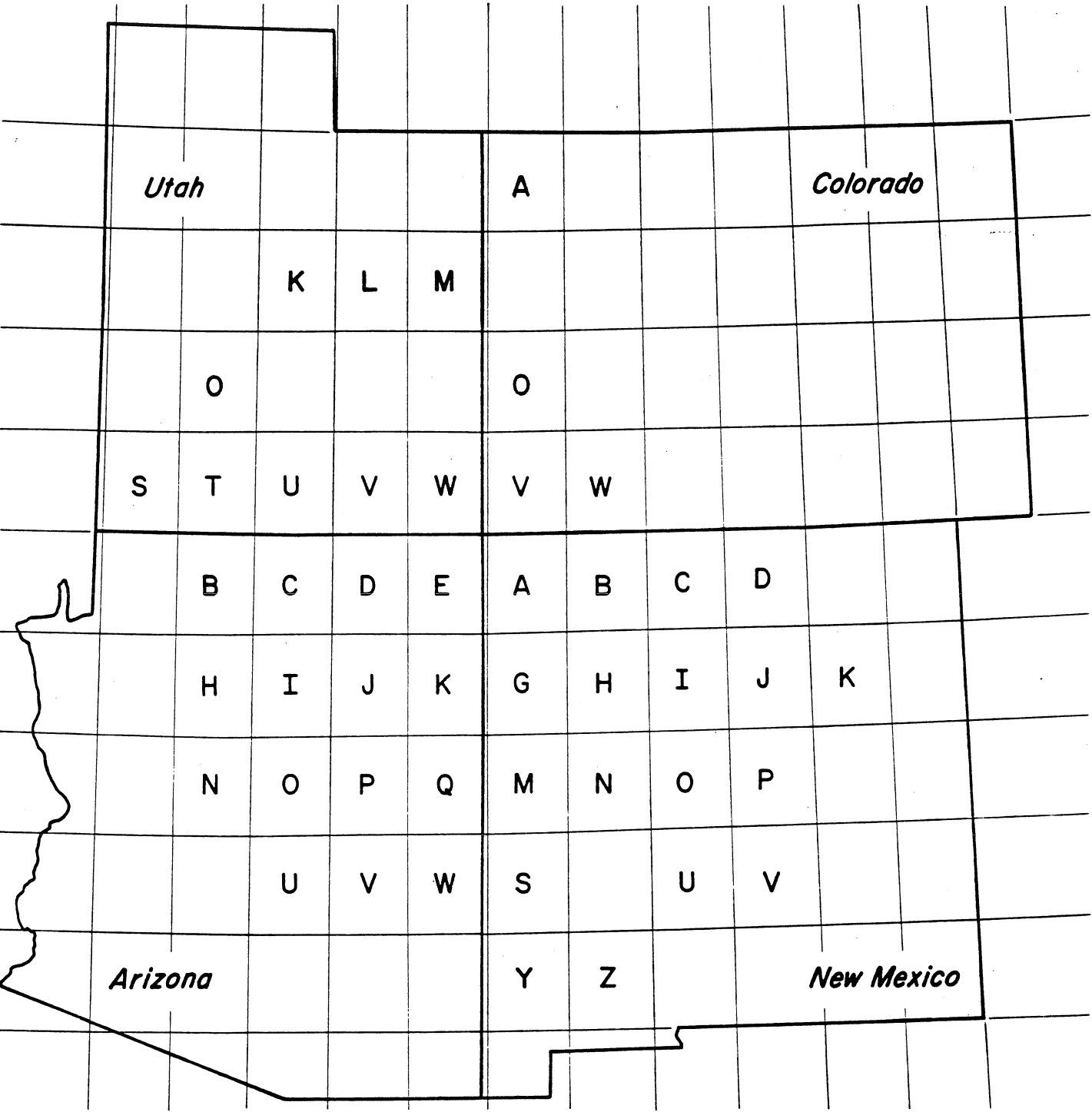


Figure 1. Quadrangles with Dated Prehistoric Sites.

LISTING BY STATE AND QUADRANGLE

Catalog with site locations redacted.