



TREE - RING DATES
FROM
ARIZONA J
HOPI MESAS AREA

Bryant Bannister
William J. Robinson
Richard L. Warren

LABORATORY OF TREE-RING RESEARCH
THE UNIVERSITY OF ARIZONA
TUCSON
1967

Tree-Ring Dates from Arizona J

Hopi Mesas Area

Bryant Bannister
William J. Robinson
Richard L. Warren

Laboratory of Tree-Ring Research

The University of Arizona

Tucson

1967

PREFACE

This is the fourth of a projected series of preliminary reports on archaeological tree-ring dates from the Southwest. With the eventual objective of preparing a synthesis of Southwestern dendrochronology, all archaeological specimens now housed in the Laboratory of Tree-Ring Research are being systematically reviewed and re-analyzed on a site-by-site basis. Two grants, GS-247 and GS-908, awarded to The University of Arizona by the National Science Foundation have made this project possible and are most gratefully acknowledged.

We sincerely appeal to archaeologists who make use of this report to offer critical comment and to point out errors, and we earnestly solicit additional information regarding site locations, proveniences, alternate site names, descriptions, and other data that will enhance the scientific value of our final synthesis. Only by the sharing of personal experience and knowledge of those who have worked in the field will our record ever approach completeness.

Although I have assumed overall administrative responsibility for the project, the real heart of our program has been ably directed by Jeffrey S. Dean who has supervised all specimen dating work, and by William J. Robinson who has been in charge of the archaeological aspects of the study. All specimen analyses presented in this report were conducted by Richard L. Warren and site information was assembled by S. Alan Skinner. The illustrations were drawn by Forrest W. Meader and John W. Hannah. Both Michele Brady and Martha H. Ames patiently handled the typing and assembly details. To all these people, and to the many archaeologists and dendrochronologists upon whose work our results are based, I am deeply indebted.

The spirit of this series of publications is that of a Fourth Beam Expedition; performed this time in the laboratory and the files. We hope the Fifth Expedition will be conducted in the field.

Bryant Bannister

Tucson, Arizona
December 29, 1967

TABLE OF CONTENTS

	<u>Page</u>
PREFACE	ii
LIST OF FIGURES	iv
INDEX OF CROSS-REFERENCE OF SITE DESIGNATIONS	v
INTRODUCTION	1
THE CURRENT REPORT	1
ORGANIZATION OF RESEARCH	2
PRESENTATION OF DATA	2
EXPLANATION OF SYMBOLS	4
TREE-RING DATES FROM ARCHAEOLOGICAL SITES	8

* Indicates undated sites

<u>Map Reference Number</u>	<u>Name</u>	<u>Page</u>
1.	Awatovi	8
2.	Nesheptanga	*
3.	Chakpahu	14
4.	Hano	15
5.	Kawaikuh	16
6.	Kokopnyama	18
7.	Oraibi	20
8.	New Oraibi	25
9.	Payupki	*
10.	Pink Arrow	26
11.	Shakurvi	*
12.	Shipaulovi	27
13.	Shungopavi	28
14.	Sichomovi	30
15.	Site 4, Jeddito	31
16.	Site 4a, Jeddito	32
17.	Site 104, Jeddito	33
18.	Site 106, Jeddito	35
19.	Site 107, Jeddito	36
20.	Site 111, Jeddito	37
21.	Site 169, Jeddito	38
22.	Site 264, Jeddito	39
23.	Mishongnovi	*
24.	Walpi	41
25.	Homolovi	*
26.	Giants Chair	*
27.	Rim Ruin	*
28.	NA 2558	*
29.	NA 2597	*
30.	NA 7806	*
31.	Site 102, Jeddito	*
32.	Site 108, Jeddito	*
33.	Hopi Butte Group	*
REFERENCES		42

LIST OF FIGURES

		<u>Page</u>
Figure 1	Location of Sites in Arizona J	6
Figure 2	Sequence of Chronological Components in Arizona J	7

INDEX OF CROSS-REFERENCE OF SITE DESIGNATIONS

* Indicates primary site reference

Arizona J:6:1 (ASM) - - - - - See Giants Chair
 Arizona J:7:1 (ASM) - - - - - See Awatovi
 Arizona J:7:2 (ASM) - - - - - See Kawaikuh
 Arizona J:7:3 (ASM) - - - - - See Site 107, Jeddito
 Arizona J:8:1 (ASM) - - - - - See Pink Arrow
 Arizona J:8:2 (ASM) - - - - - See Site 4, Jeddito
 Arizona J:8:3 (ASM) - - - - - See Site 4a, Jeddito
 Arizona J:8:4 (ASM) - - - - - See Site 264, Jeddito
 Arizona J:8:5 (ASM) - - - - - See Kokopnyama
 Arizona J:14:3 (ASM) - - - - - See Homolovi
 Awatovi - - - - - *

Bat House - - - - - See Chakpahu

Chakpahu - - - - - *
 Chimopavi - - - - - Shungopovi
 Cottonwood Ruin (Hough) - - - - - Kokopnyama

Giants Chair - - - - - *

Hano - - - - - *
 Homolovi - - - - - *
 Hopi Butte Group - - - - - *
 Horn House - - - - - See Kokopnyama
 Hoyapki - - - - - See Giants Chair

Jeddito 264 - - - - - See Site 264, Jeddito

Kawaika-a - - - - - See Kawaikuh
 Kawaikuh - - - - - *
 Kiakochomovi - - - - - See Oraibi, New
 Kokopnyama - - - - - *

LA 633 - - - - - See Awatovi
 LA 1889 - - - - - See Kokopnyama
 LA 1993 - - - - - See Nesheptanga
 LA 2162 - - - - - See Kawaikuh

Mishiptonga - - - - - See Kawaikuh
 Mishongnovi - - - - - *

NA 820 - - - - - See Awatovi
 NA 837 - - - - - See Giants Chair
 NA 868 - - - - - See Shungopovi
 NA 952 - - - - - See Homolovi
 NA 1000 - - - - - See Oraibi

INDEX OF CROSS-REFERENCE, continued

NA 1001 - - - - - See Kawaikuh
 NA 1019 - - - - - See Kokopnyama
 NA 1039 - - - - - See Chakpahu
 NA 1040 - - - - - See Payupki
 NA 1048 - - - - - See Nesheptanga
 NA 1054 - - - - - See Rim Ruin
 NA 1513 - - - - - See Walpi
 NA 1514 - - - - - See Sichomovi
 NA 1515 - - - - - See Hano
 NA 1517 - - - - - See Shipaulovi
 NA 1518 - - - - - See Shungopovi
 NA 1519 - - - - - See Oraibi, New
 NA 1520 - - - - - See Oraibi
 NA 2558 - - - - - *
 NA 2597 - - - - - *
 NA 4288 - - - - - See Hopi Butte Group
 NA 7806 - - - - - *
 NA 9182 - - - - - See Hopi Butte Group
 NA 9183 - - - - - See Hopi Butte Group
 NA 9192 - - - - - See Hopi Butte Group
 NA 9400 - - - - - See Hopi Butte Group
 NA 9440 - - - - - See Hopi Butte Group
 NA 9465 - - - - - See Hopi Butte Group
 Nesheptanga - - - - - *

 Oraibi - - - - - *
 Oraibi, New - - - - - *

 Payupki - - - - - *
 Pink Arrow - - - - - *

 Rim Ruin - - - - - *

 Shakurvi - - - - - *
 Shipaulovi - - - - - *
 Shungopovi - - - - - *
 Sichomovi - - - - - *
 Site 4, Jeddito - - - - - *
 Site 4a, Jeddito - - - - - *
 Site 102, Jeddito - - - - - *
 Site 104, Jeddito - - - - - *
 Site 106, Jeddito - - - - - *
 Site 107, Jeddito - - - - - *
 Site 108, Jeddito - - - - - *
 Site 111, Jeddito - - - - - *
 Site 169, Jeddito - - - - - *
 Site 264, Jeddito - - - - - *

 Tallahogan - - - - - See Awatovi
 Tewa (Mindeleff, Stubbs) - - - - - See Hano

INDEX OF CROSS-REFERENCE, continued

Tusayan 2:1 (GP) - - - - - See Oraibi
Tusayan 2:2 (GP) - - - - - See Shungopovi
Tusayan 3:3 (GP) - - - - - See Walpi
Tusayan 4:1 (GP) - - - - - See Site 264, Jeddito
Tusayan 4:3 (GP) - - - - - See Awatovi
Tusayan 7:1 (GP) - - - - - See Awatovi
Tusayan 7:2 (GP) - - - - - See Kawaikuh
Tusayan 8:1 (GP) - - - - - See Kokopnyama
Tusayan 8:2 (GP) - - - - - See Nesheptanga
Tusayan 8:4 (GP) - - - - - See Chakpahu
Tusayan 14:1 (GP) - - - - - See Homolovi

Walpi - - - - - *

ASM - Arizona State Museum site survey

GP - Gila Pueblo site survey

LA - Laboratory of Anthropology (now Museum of New Mexico)

NA - Museum of Northern Arizona site survey

INTRODUCTION

The Laboratory of Tree-Ring Research has been serving as a repository for archaeological wood and charcoal specimens since 1916 when A.E. Douglass began seeking prehistoric wood in an effort to extend his modern ring chronologies into the past. While his primary interest was in compiling an extensive dendroclimatic record to facilitate long range weather prediction studies, the collection and eventual dating of hundreds of pieces of prehistoric wood was of inestimable value to archaeologists.

Dendrochronology provides the most precise prehistoric temporal control in the world. Determination of the cutting date of artifactual and architectural materials made of wood is of the greatest importance to culture historians. At the present time Southwestern archaeologists have over 2000 years of continuous records. From a beginning of an initial group of relatively few crossdated beams from the southwestern United States, detailed regional records have been compiled for most of this area and parallel studies are being or have been developed in the Arctic, the Great Plains, California, Mexico, Europe and western Asia.

Douglass acquired more than 10,000 laboratory specimens during a 45-year period. Small groups of dates derived by him and his staff appeared at intervals in diverse publications, most of them in the Tree-Ring Bulletin. Then, in 1951, Terah L. Smiley reviewed the existing collection and published a summary of reliable sites and dates. This was a major advancement of the state of knowledge and has been the standard reference in the field.

By the beginning of the present decade it had become apparent that a new evaluation of archaeological specimens was necessary. A vast number of additional specimens had been collected and many new and better study techniques had been developed. In addition, at various times over the years, other institutions which maintained collections of dendrochronological materials had turned them over to the Laboratory of Tree-Ring Research for preservation and study. The original Douglass collection has been augmented by the acquisition of collections from Gila Pueblo, the Laboratory of Anthropology at Santa Fe, and the Museum of Northern Arizona. The aggregate group now numbers about 100,000 specimens and the time seems right to attempt an up-to-date synthesis of archaeological tree-ring dating.

THE CURRENT PROJECT

In July 1963, the Laboratory of Tree-Ring Research received a National Science Foundation grant to cover the costs involved in reassessing and reworking all of the specimens in its collection. This study has been productive beyond expectations and a renewal grant was received in July of 1965 to carry this work to completion.

The development of more sophisticated techniques of sample preparation, analysis, and interpretation has now made it possible to achieve a high level of efficiency in the production of dates. The current project involves a systematic restudy of pertinent parts of the collection with the basic aims of: (1) checking past work, (2) obtaining as many new dates as possible, (3) extracting the chronological parameters necessary for prehistoric climatic interpretation, and (4) organizing the resultant data. To this end a series

of preliminary publications presenting a summary of the available information about the sites and the derived dendrochronological information is being produced. This paper, Tree-Ring Dates from Arizona J: Hopi Mesas Area, is the fourth of these. A complete list of titles in this series appears on the inside of the back cover. Specialized chronological data of interest to dendrochronologists, such as standardized indices and plotted growth curves will appear at intervals in the Tree-Ring Bulletin.

This series should be of great importance to Southwestern archaeologists. With all prehistoric materials checked for provenience, dating, and possible duplication, the available dendrochronological controls for each site are exactly determined. The provenience of dated specimens within a site and the temporal ordering of sites within a geographic area are presented as precisely as possible. In most cases, existing published dates from individual sites have been corroborated; a few have been changed. In many cases, new dates have been obtained for these units which serve to augment the range and detail of chronological control. In addition, many specimens from new sites have been dated. Some of these are products of recent excavations; others, whose characteristics presented various procedural problems in the past, are now datable because of the knowledge derived from an intensive dendrochronological study of the geographic and temporal units involved.

These new data are translatable into the finest of prehistoric temporal controls. For example, the chronological data from the various quadrangles, largely derived from short occupancy sites with a localized geographic distribution, present an unequalled opportunity for studies of cultural attributes and change. Ceramic and architectural development, settlement patterns, population movements, demographic estimates, and numerous other studies can be undertaken with a precision previously impossible. The information derived by this project will be instrumental in any future synthesis of Southwestern archaeology.

ORGANIZATION OF RESEARCH

At the beginning of this project a procedural decision was made to organize the material on an areal basis with the archaeological site as the basic unit of study and to group the sites into arbitrary regional units which would allow thorough intensive analyses. The sites have been studied individually, and as a group, by comparing all the sites within a quadrangle. The quadrangles, which correspond to those established by the Survey system of the Arizona State Museum (Wasley 1964), encompass 1 degree of longitude and 1 degree of latitude. This grouping has allowed the building of firm regional tree-ring chronologies and has resulted in increased understanding of local ring variation which in turn has permitted more dating of individual specimens.

PRESENTATION OF DATA

Although the Laboratory's records include all archaeological sites from which tree-ring specimens have been collected, data are presented in this report only for sites with dated specimens. However, both dated and undated

sites are shown in Fig. 1 and listed in the Table of Contents on page iii. The information available to the Laboratory on the dated sites is very uneven. In the past 40 years, many tree-ring specimens were collected for the primary purpose of chronology building and, as a consequence, the archaeological characteristics of the collection site were frequently recorded only in general terms. In some cases, the location of the site has been lost as a result of incomplete records or as a result of acceptance of specimens for chronology purposes without the details of archaeological provenience. Some sites have been placed in quadrangles only by inference on the part of the present staff and may, in fact, belong to a different area entirely. However, every effort has been made to obtain as much information as possible.

In a limited number of cases, specimens for which records exist have not been identified in the collections. The problems thus created are not great, as these specimens are usually only a few of many from a site. If they were previously dated, however, they are not so considered in this report. Occasionally, the lost specimens represent the total collection from a site and, as a consequence, the site does not appear in the reports. No such instances occur in Arizona J.

To summarize the data presented, a chart has been prepared (Fig. 2) to represent the sequence of dated sites and structures. The components are ranked from late to early according to the latest outside dates only and the chart is not intended to be used to chronologically position the listed sites. Temporal placement of sites must depend upon careful assessment of both archaeological and dendrochronological evidence.

The following notes help to explain the categories used in the presentation of data:

Site: The Laboratory has chosen, often arbitrarily, what it believes to be the most common designation of a site.

Alternate name and number: Many sites have been known by various names in the literature or in local usage. Many sites also carry two or more institutional designations. In this category, an attempt has been made to list all such alternates that have been applied to the site.

Location: Sites are located on a map (Fig. 1) as well as by a brief descriptive note. In some cases, the Laboratory records give more precise locations, particularly for recently excavated sites, but for the purposes of this report the location given was deemed sufficient. Some sites are presented with only approximate locations.

Description: Information about the site is taken from published reports and readily available knowledge. No exhaustive search to obtain unpublished notes was made.

Source of Collection: The individual and/or institution, and the date of collection are listed to enable readers to assess the provenience data.

References: All known published sources for archaeological data pertaining to the site (Site Description) and the sources for previous publication of dates (Published Dates) from the site are given.

Dates: The dates are presented in chronological sequence and by provenience subgroupings when known. Catalogue numbers are given for future reference and specific identification of the dated specimens. GP indicates a Gila Pueblo catalogue number, F indicates a Museum of Northern Arizona catalogue number, and RG indicates a Laboratory of Anthropology catalogue number. All other numbers were assigned by the Laboratory of Tree-Ring Research. Every effort has been made during analysis to eliminate duplication of dates derived from the same piece of original wood. The identification of duplication has been done solely on ring characteristics except in cases where the provenience data specify duplication or for pieces that obviously fit together. The latter case is prevalent in large ruins that were sampled by more than one institution. In all cases of duplication, only one date appears in the list and the catalog number is that of the best chronological piece.

Comment: The comments are based on the tree-ring evidence. A more sophisticated interpretation of the dates is reserved for the archaeologist who is analyzing the site as a whole.

EXPLANATION OF SYMBOLS

The symbols used with the inside date are:

- year - no pith ring present
- p - pith ring present
- fp - the curvature of the inside ring indicates that it is far from the pith
- tp - pith ring present, but due to the difficult nature of the ring series near the center of the specimen, an exact date cannot be assigned to it. The date is obtained by counting back from the earliest dated ring.
- ± - the innermost ring is not the pith ring and an absolute date cannot be assigned to it. A ring count is involved.

The symbols used with the outside date are:

- B - bark present
- G - beetle galleries are present on the surface of the specimen
- L - a characteristic surface patination and smoothness, which develops on beams stripped of bark, is present
- c - the outermost ring is continuous around the full circumference of the specimen. This symbol is used only if a full section is present.
- r - less than a full section is present, but the outermost ring is continuous around available circumference

- v - a subjective judgment that, although there is not direct evidence of the true outside on the specimen, the date is within a very few years of being a cutting date
- vv - there is no way of estimating how far the last ring is from the true outside
- + - one or more rings may be missing near the end of the ring series whose presence or absence cannot be determined because the specimen does not extend far enough to provide an adequate check
- ++ - a ring count is necessary due to the fact that beyond a certain point the specimen could not be dated

The symbols B, G, L, c and r indicate cutting dates in order of decreasing confidence, unless a + or ++ is also present.

The symbols L, G, and B may be used in any combination with each other or with the other symbols except v and vv. The r and c symbols are mutually exclusive, but may be used with L, G, B, + and ++. The v and vv are also mutually exclusive and may be used with the + and ++. The + and ++ are mutually exclusive but may be used in combination with all the other symbols.

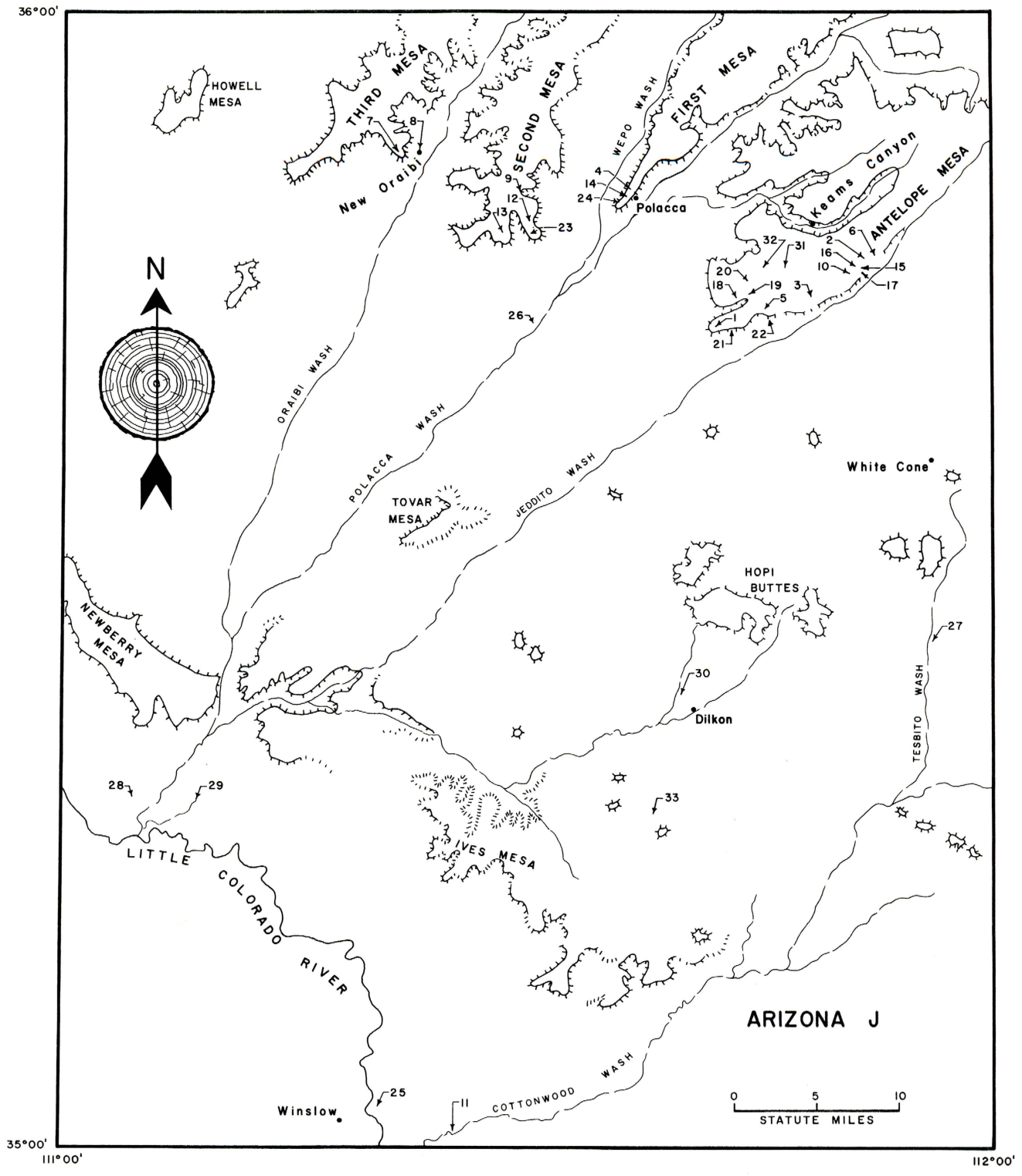


Figure 1. Location of Sites in Arizona J

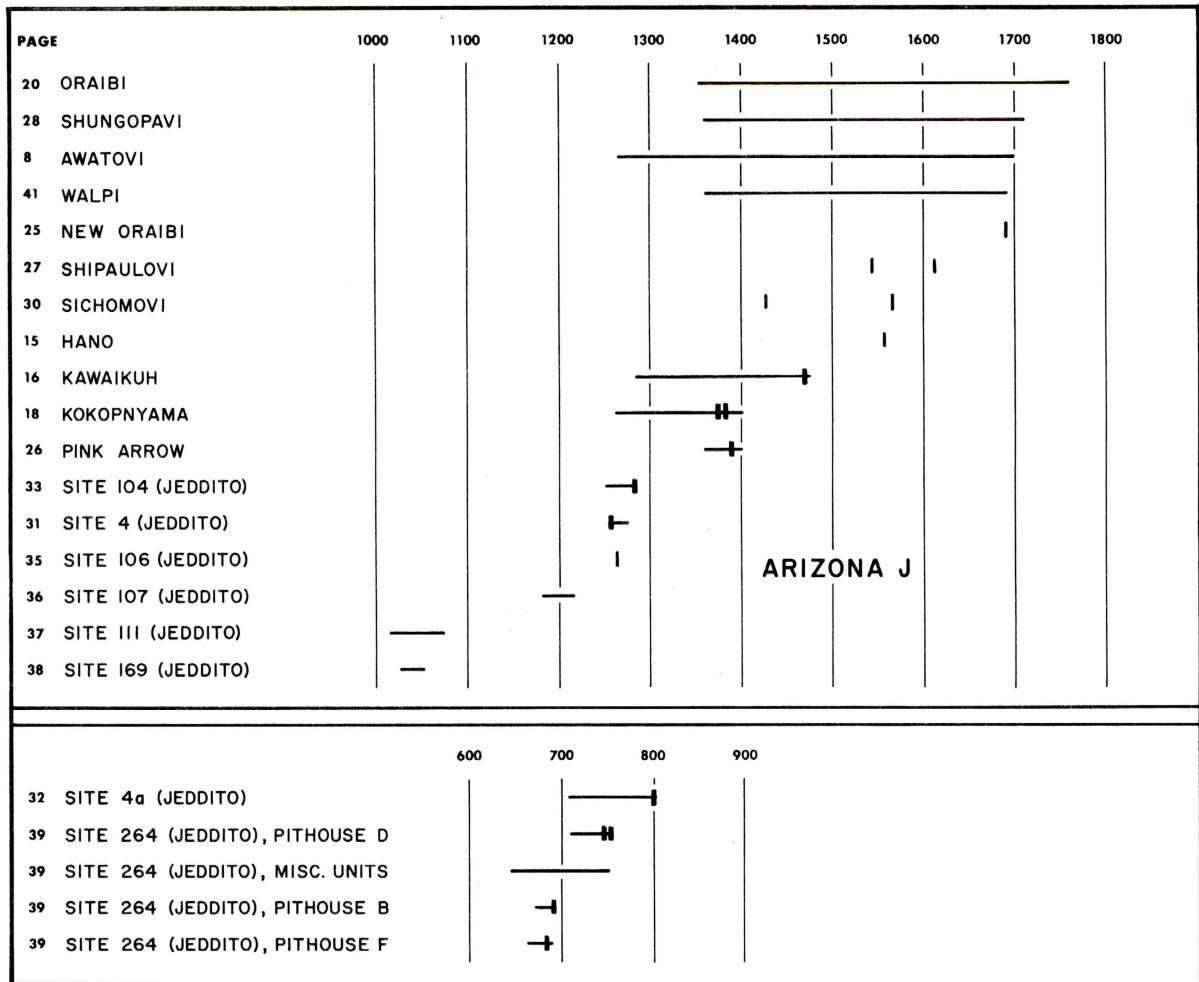


Figure 2. Sequence of Chronological Components in Arizona J. Horizontal lines indicate range of outside dates. Narrow vertical lines indicate single outside dates. Wide vertical bars indicate substantial clusters of dates in relation to total range and number of dates.

TREE-RING DATES FROM ARCHAEOLOGICAL SITES

Awatovi

MAP REFERENCE: 1

ALTERNATE NAME/NUMBER: Tusayan 4:3(GP), Arizona J:7:1(ASM),
Tusayan 7:1(GP), NA 820, LA 633,
Tallahogan (see Montgomery, Smith, and
Brew 1949:xxii for additional names)

LOCATION:

Awatovi is located about 10 miles southwest of the Jeddito Trading Post on the southern tip of Antelope Mesa, between Tallahogan Wash and Jeddito Wash in Navajo County, Arizona.

DESCRIPTION:

Awatovi is a large sandstone ruin that covers about 20 acres and was occupied from about A.D. 1200 to 1700. The earliest occupation was in the Western Mound, which represents the prehistoric period of occupation. The site is also the location of a Spanish Mission established in 1629 and occupied until about 1700. The mission had a series of three churches and a large friary. The main church (Number 2) was called San Bernardo de Aguatubi. A large barrack-stable foundation dating from the Spanish period was also found. Approximately 1300 rooms including 25 kivas were excavated, and many of the latter had elaborate wall murals. The pueblo was destroyed and abandoned about 1700.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University between 1935-1939 under the direction of J.O. Brew

REFERENCES:

Site Description: Mindleff 1891; Fewkes 1898; Montgomery, Smith, and Brew 1949; Smith 1952; Woodbury 1954; Burgh 1959

Published Dates: Douglass 1938; Haury 1938; Hall 1951; Smiley 1951

DATES:

Room 330

L-2459 1340fp - 1372vv

Awatovi, continued

Room 401			Room 481		
	L-99	1488p - 1519vv		L-1397	1452fp - 1543vv
	L-110-1	1425fp - 1526vv		Room 497	
	L-100-2	1456fp - 1549vv		L-1400	1591fp - 1661vv
	L-100	1569p - 1631vv		Room 499	
	L-100-1	1569p - 1638c		L-1370-1	1538fp - 1604vv
Room 414			Room 505		
	L-27	1310p - 1387vv		L-104-2	1577 - 1606vv
Room 418			Room 510		
	L-97-1	1512fp - 1604vv		L-95-1	1391 - 1533r
	L-97-2	1481fp - 1628vv	Room 511		
Room 423				L-1041	1550p - 1617vv
	L-108-1	1345fp - 1371vv	Room 517		
Room 437				L-142-1	1357fp - 1461+vv
	L-402-1	1298p - 1387vv	Room 518		
	L-407-1	1310p - 1388vv		L-94	1321p - 1382r
Room 443			Room 519		
	L-368	1308p - 1456+vv		L-419-1	1339p - 1392vv
Room 445				L-419-2	1442p - 1474vv
	L-228	1313p - 1368r	Room 520		
	L-249-b-1	1338fp - 1383vv		L-398	1342p - 1388vv
	L-367	1339p - 1452vv	Room 529		
Room 452				L-2088	1305p - 1375vv
	L-411-1	1310p - 1393vv		L-2138	1275p - 1414vv
	L-411-2	1534fp - 1621vv		L-2086	1405fp - 1432vv
Room 456			Room 530		
	L-1411-2	1577fp - 1641vv		L-2139	1515p - 1556vv
	L-1420-1	1583fp - 1671vv			
Room 473					
	L-1409-1	1326fp - 1378vv			
	L-1409-2	1572fp - 1605vv			
	L-1416	1580fp - 1635vv			

Awatovi, continued

Room 600

L-406-1 1228fp - 1265vv
 L-310 1195p - 1283+vv
 L-403-1 1511p - 1554vv
 L-403-2 1531p - 1574vv

Room 610

L-401 1285p - 1393vv
 L-401-1 1558p - 1602vv

Room 618

L-423 1301fp - 1345vv

Room 622

L-377 1477fp - 1576vv

Room 626

L-366 1363fp - 1418vv

Room 702

L-1408 1461fp - 1549vv

Room 706

L-1406 1426fp - 1555vv

Room 723

L-1407-1 1592 - 1649vv

Room 724

L-1113 1286 - 1340vv
 L-1117 1333fp - 1370vv
 L-1004 1285 - 1374vv
 L-1095 1353fp - 1382vv
 L-1150-10 1332fp - 1392vv
 L-1234 1368fp - 1407vv
 L-1165 1357p - 1415vv
 L-1170 1366fp - 1426vv
 L-1051 1426fp - 1462vv
 L-1064 1453fp - 1485vv
 L-1255 1451fp - 1485vv
 L-1009 1442fp - 1489vv

Room 724, continued

L-1050 1423fp - 1492vv
 L-1003 1399fp - 1496vv
 L-1131 1445fp - 1513vv
 L-1062 1458fp - 1516vv
 L-1130 1490fp - 1522+vv
 L-1242 1493fp - 1525vv
 L-1149 1480fp - 1534vv
 L-1137 1507fp - 1537vv
 L-1150-8 1509fp - 1539vv
 L-1097 1483fp - 1540vv
 L-1224 1507fp - 1540vv
 L-1171 1516fp - 1550vv
 L-1386 1510fp - 1550vv
 L-1232 1518fp - 1553vv
 L-1102 1528fp - 1554vv
 L-1180 1525fp - 1554vv
 L-1058 1412fp - 1555vv
 L-1005 1382p - 1557vv
 L-1056 1465fp - 1557vv
 L-1150-9 1521fp - 1558vv
 L-1183 1428+fp - 1558vv
 L-1219 1514p - 1559vv
 L-1125 1531fp - 1562vv
 L-1066 1526fp - 1562vv
 L-1249 1495fp - 1564vv
 L-1046 1527fp - 1567vv
 L-1008 1355fp - 1570vv
 L-1057 1454fp - 1570vv
 L-1099 1529fp - 1571vv
 L-1169 1532fp - 1577vv
 L-1179 1536fp - 1579vv
 L-1119 1531fp - 1579vv
 L-1126 1499fp - 1583vv
 L-1080 1500fp - 1589vv
 L-1092 1537fp - 1596vv
 L-1044 1518fp - 1598vv
 L-1107 1481fp - 1599vv
 L-1174 1532fp - 1599vv
 L-1070 1567fp - 1604vv
 L-1134 1565fp - 1606vv
 L-1078 1562fp - 1609vv
 L-1128 1562fp - 1611vv
 L-1052 1570fp - 1613vv
 L-1150-2 1581fp - 1614vv
 L-1084 1552fp - 1616vv
 L-1157 1518fp - 1617vv
 L-1176 1519fp - 1619vv
 L-1230 1566fp - 1619vv

Awatovi, continued

Room 724, continued

L-1110 1561fp - 1620vv
 L-1167 1580fp - 1620vv
 L-1098 1556fp - 1621vv
 L-1045 1504fp - 1630vv
 L-1172 1577fp - 1631vv
 L-1042 1645p - 1699c

Room 729

L-1405 1261fp - 1344vv

Room 734

L-1018 1128p - 1291+vv
 L-1200 1352fp - 1403vv
 L-1016 1367fp - 1424vv
 L-1398 1400fp - 1446vv
 L-1188 1416fp - 1466vv
 L-1017 1401fp - 1467vv
 L-1184 1367fp - 1478vv
 L-1199 1494fp - 1532vv
 L-1422-1 1505fp - 1537vv
 L-1038 1514fp - 1537vv
 L-1193 1489fp - 1550vv
 L-1185 1491fp - 1560vv
 L-1213 1532fp - 1563vv
 L-1024 1490fp - 1575vv
 L-1196 1549fp - 1600vv
 L-1197 1553fp - 1608vv
 L-1187 1555fp - 1613vv
 L-1422-2 1565fp - 1617vv
 L-1203 1572fp - 1620vv
 L-1190 1536fp - 1626vv
 L-1198 1576fp - 1627vv

Room 735

L-1025 1546fp - 1629vv

Room 742

L-1418-3 1373fp - 1428vv
 L-1418-1 1575fp - 1609vv

Room 752

L-1419-3 1489p - 1556vv

Room 767

L-1388-1 1571fp - 1604vv
 L-1388-2 1587fp - 1610vv

Room 768

L-1376-1 1426fp - 1470vv
 L-1376-2 1566fp - 1587+vv

Room 788

L-1209 1303p - 1385vv
 L-1259 1344fp - 1412vv
 L-1256-1 1451fp - 1498vv
 L-1256-2 1426p - 1503vv

Room 908

L-2007 1310fp - 1428vv

Test 12, Room 1

L-3020 1299p - 1383vv
 L-3021 1295p - 1394vv
 L-3013 1274p - 1428vv

Test 14, Room 4

L-420-8 1364fp - 1405vv
 L-1381 1365 - 1411vv
 L-420-10 1384fp - 1431vv
 L-420-1 1336p - 1432v
 L-420-2 1413p - 1493vv

Test 14, Room 8

L-1385 1360fp - 1401vv
 L-3019 1378p - 1440vv

Test 22, Room 10

L-96-1 1311 - 1393vv
 L-363-14 1338p - 1422v
 L-363-19-2 1372fp - 1426vv
 L-363-9 1396fp - 1483vv
 L-365 1371p - 1493vv
 L-1000 1382p - 1504vv
 L-365-4 1409fp - 1515vv
 L-363 1469fp - 1565vv
 L-364 1359fp - 1566vv
 L-364-3 1522fp - 1594vv
 L-363-2 1520fp - 1598+vv
 L-363-1 1510fp - 1615vv
 L-363-24 1499 - 1631vv
 L-96-4 1426fp - 1649vv
 L-363-19-3 1503p - 1657v
 L-369 1544fp - 1660vv
 L-363-12 1645p - 1696v

Awatovi, continued

Test 22, Square C

L-102-1 1432fp - 1495+vv

Test 29

L-1365 1309p - 1359vv
 L-1435 1316p - 1379+vv
 L-1436 1310p - 1383vv
 L-1367 1323p - 1386vv

Test 31, Room 1

L-1290-1 1324p - 1354vv
 L-1287-2 1327fp - 1392vv
 L-1301-2 1331fp - 1405vv
 L-1326-1 1328fp - 1427vv
 L-1310 1369p - 1433vv
 L-1267 1336fp - 1459vv
 L-1282 1409fp - 1462vv
 L-1269 1323fp - 1476vv
 L-1306 1496fp - 1546vv
 L-1280-1 1492fp - 1550vv
 L-1287-6 1530fp - 1558vv
 L-1319 1483fp - 1567vv
 L-1311-1 1572fp - 1599vv
 L-1266 1525p - 1617vv
 L-1283 1566p - 1621vv
 L-1291 1596fp - 1628vv

Test 38, Room 2

L-1371-1 1567+p - 1681vv

Test 44, Room 2

L-2009 1309 - 1385vv
 L-2000 1310p - 1389vv
 L-2002-1 1398p - 1440v
 L-2010 1405p - 1440v
 L-2004-2 1575p - 1630vv
 L-2002-2 1580p - 1644v

Test 46, Room 1

L-1433-4 1316p - 1407vv
 L-1432-1 1366p - 1430vv
 L-1431 1325fp - 1476vv
 L-1432-2 1512p - 1561vv
 L-1432-5 1538p - 1689+vv

Test 46, Room 2

L-1423 1304p - 1376r
 L-1434-1 1389fp - 1435vv

Test 46, Room 3

L-2012-1 1420fp - 1475vv
 L-2011 1440p - 1479v

Test 46, Room 4

L-2015-1 1409p - 1486vv

Test 51, Room 11

L-2005 1339fp - 1368vv

Test 51, Room 14

L-2006-5 1360fp - 1394vv

Test 56, Room 1

L-2008-2 1232fp - 1282vv

Test 62, Room 1

L-2070 1352fp - 1407vv
 L-2068 1300p - 1419vv
 L-2069 1310fp - 1442vv

Test 64

L-2461 1353fp - 1416vv
 L-2460 1405fp - 1475vv

No Provenience

L-3008 1315fp - 1374vv
 L-234 1394p - 1439v
 L-3004 1420p - 1484vv
 L-1489 1440fp - 1488vv
 L-3010 1433fp - 1498vv
 L-1441-1 1497p - 1545vv
 L-222 1534p - 1596vv
 L-3002 1525p - 1596vv
 L-252 1577p - 1608vv
 L-236 1531p - 1621+vv

Awatovi, continued

COMMENTS:

Despite the vast array of dates from excavations at Awatovi, it is difficult to construct a realistic chronology. This is due in part to a lack of cutting dates and possibly extensive reuse of timbers.

There are few dates from the Western Mound, which is the earliest occupation of the site. Dates from room numbers in the 400 and 700 series concentrate in two general periods. The late 14th - early 15th century dates represent a part of the prehistoric construction. The dates falling in the 17th century are from rooms arranged around the mission churches and, in the main, are parts of the friary. Room 724 in particular is a friary room which was converted to use as a church during the brief return of the missionaries after the Pueblo Revolt. The late date of 1699 from this structure suggests that it was reroofed or substantially repaired for the reoccupation.

The species used in construction at Awatovi are basically juniper, pinyon pine, ponderosa pine, and Douglas-fir. The latter two species do not grow nearby at the present time and it is improbable that they did so even in the 13th century. Thus it would seem that many straight-boled pine and Douglas-fir trees were transported some distance to Awatovi.

The range of dates for Awatovi, while not allowing detailed statements on specific construction, are in good agreement with the accepted period of occupation from A.D. 1300 to 1700.

Chakpahu

MAP REFERENCE: 3

ALTERNATE NAME/NUMBER: Bat House, Tusayan 8:4 (GP), NA 1039

LOCATION:

Chakpahu is situated on the edge of Antelope Mesa about halfway between Kawaikuh and the Jeddito Trading Post. It is approximately four miles southwest of the latter.

DESCRIPTION:

This is a large, late masonry pueblo similar in many respects to Kawaikuh.

SOURCE OF COLLECTION:

Excavations conducted by Earl H. Morris in 1928 at the instigation of the Second Beam Expedition.

REFERENCES:

Site Description: Hough 1903; Mindeleff 1891

Published Dates: Douglass 1935, 1938; Smiley 1951

DATES:

None - see comment

COMMENT:

The dates from Chakpahu, originally published by Douglass, were not verified during the present reanalysis. Although it is possible to understand why Douglass dated the specimens as he did, the quality of the crossdating with other sites and chronologies is not strong enough on present standards.

Hano

MAP REFERENCE: 4

ALTERNATE NAME/NUMBER: Tewa, NA 1515

LOCATION:

Hano is situated on First Mesa at the crest of the old trail leading to the mesa top from Polacca. It is located about 11 miles west of the Keams Canyon Trading Post, Navajo County, Arizona.

DESCRIPTION:

The pueblo is constructed of sandstone and consists of two linear house units which enclose a narrow plaza. There is a single rectangular kiva within the plaza and one on the mesa edge. The inhabitants speak Tewa and are immigrants who moved to the Hopi area from the Rio Grande about 1700 and established the pueblo (Dozier 1966:13).

SOURCE OF COLLECTION:

Collection by the First and Second Beam Expeditions in 1923 and 1928

REFERENCES:

Site Description: Mindeleff 1891; Stubbs 1950; Dozier 1966

Published Dates: Smiley 1951

DATES:

House east of Nampeyo's House

BE-356 1491 - 1556vv

COMMENT:

No additional comment is possible based on this single date.

Kawaikuh

MAP REFERENCE: 5

ALTERNATE NAME/NUMBER: Mishiptonga (Mindeleff), Kawaika-a, NA 1001,
LA 2162, Tusayan 7:2 (GP), Arizona J:7:2 (ASM)

LOCATION:

The site is located on the southeastern edge of Antelope Mesa between two gorges and about three miles east of Awatovi in Navajo County, Arizona.

DESCRIPTION:

The site is the largest Pueblo III-IV ruin in the Jeddito area. The pueblo is of irregular arrangement with a large number of courts enclosed by large and small room clusters. The pueblo is roughly linear in arrangement but is not as well formed or symmetrical as the later Hopi Mesa villages. Hough (1903) uncovered a kiva with colorful murals and later work has shown that there are other such kivas at the site.

SOURCE OF COLLECTION:

Excavations by E.H. Morris in 1928 and by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J.O. Brew

REFERENCES:

Site Description: Mindeleff 1891; Hough 1903; Smith 1952; Hargrave 1935

Published Dates: Douglass 1935, 1938; Hall 1951; Smiley 1951

DATES:

Kiva J ₁			North Burned Room		
KAW-1	1313p	- 1365c	KAW-172	1305	- 1353vv
KAW-160	1394p	- 1469vv	KAW-165	1318	- 1359vv
			KAW-65	1313p	- 1365r
1st Burned Room			KAW-66	1313p	- 1365r
			KAW-167	1318p	- 1365r
KAW-54	1303fp	- 1365vv	KAW-69	1322p	- 1366r
KAW-56	1342fp	- 1365vv			

Kawaikuh, continued

South Burned Room

KAW-60 1233p - 1284r
 KAW-74 1306p - 1365r
 KAW-73 1310p - 1368c
 KAW-176 1364p - 1412r

50' N. of Kiva J

KAW-171 1315 - 1359vv
 KAW-107-2 1322fp- 1400vv
 KAW-64 1308p - 1416vv
 KAW-106-3 1332fp- 1456++vv
 KAW-168 1308p - 1456++vv
 KAW-62 1308p - 1462++vv
 KAW-106-7 1305fp- 1464++vv

North of three burned rooms

KAW-173 1323fp - 1360vv
 KAW-175 1317p - 1363vv
 KAW-174 1311p - 1371vv

Fireplace

KAW-117 1212p - 1275vv
 KAW-116 1319fp - 1398+r

P₁

KAW-144 1270+p - 1433++vv
 KAW-151 1302p - 1474++vv

Test 4, Room 1

L-2432 1272fp - 1321vv
 L-2431 1353p - 1420vv
 L-2433 1365fp - 1423+vv

Test 4, Room 4

L-2437 1317fp - 1356vv

Test 4, Room 5

L-2439 1150fp - 1233vv
 L-2438 1307 - 1378vv
 L-2140 1304fp - 1430v
 L-2440 1338p - 1433vv

Test 4, Room 6

L-2442 1197p - 1332vv
 L-2443 1198p - 1337+vv

Test 4, Room 8

L-2449 1326p - 1366vv
 L-2453 1327p - 1366vv
 L-2452 1326p - 1367vv
 L-2457-3 1326p - 1367vv

Test 5, Room 2

L-2466 1360p - 1415r

P₂ - 3

KAW-124-2 1339fp- 1382vv

P₃ - 1 - 1

KAW-140 1318fp - 1398vv

Southwest Midden

KAW-115-1 1355fp- 1446++vv

No Provenience

KAW-57 1316p - 1365r
 KAW-159 1310p - 1398r

COMMENTS:

The dates concentrate at the mid 1300's and mid 1400's, and the latest date is 1469 which has some ring loss. The dates do not demonstrate the Spanish time period as postulated for the site by Hargrave but they do not deny the possibility of Spanish visitation.

Kokopnyama

MAP REFERENCE: 6

ALTERNATE NAME/NUMBER: Horn House, Cottonwood Ruin, NA 1019,
Tusayan 8:1(GP), Arizona J:8:5(ASM), LA 1889

LOCATION:

The site is situated on the edge of Antelope Mesa approximately one mile northeast of the Jeddito Trading Post in Navajo County, Arizona.

DESCRIPTION:

The site is large pre-Spanish Pueblo III-IV masonry pueblo which encloses a large quadrangular plaza. In addition to the plaza and its surrounding room blocks, the pueblo stretches north for about 600 feet along the mesa edge. The Pueblo III dwellings and the Pueblo IV kivas are located on the slope below the mesa edge.

SOURCE OF COLLECTION:

L.L. Hargrave excavated 20 rooms and 5 kivas for the Third Beam Expedition in 1929.

REFERENCES:

Site Description: Mindeleff 1891; Hough 1903; Haury and Hargrave 1931; Hargrave 1935

Published Dates: Douglass 1935, 1938; Haury and Hargrave 1931; Smiley 1951

DATES:

Room 7

KOK-1642 1233p - 1280vv

Room 9(?) (with fallen roof)

KOK-1930 1157 - 1272vv

Room 10

KOK-1650 1243p - 1279vv

KOK-1664 1115p - 1303vv

Room 23, Kiva

KOK-1947 1335p - 1400r

KOK-1931 1336p - 1400vv

Room 24, Kiva

KOK-1749 1322 - 1358vv

KOK-1913 1325 fp - 1363vv

KOK-1893 1319p - 1368v

KOK-1858 1318p - 1368c

KOK-1747 1323p - 1369r

KOK-1753 1303p - 1378+vv

KOK-1771 1313p - 1378+vv

KOK-1759 1334 - 1380vv

KOK-1778 1326p - 1380vv

KOK-1857 1320p - 1380v

KOK-1875 1338fp - 1380v

KOK-1909 1310p - 1380v

KOK-1761 1330p - 1380r

KOK-1773 1316p - 1380r

KOK-1776 1328p - 1380r

Kokopnyama, continued

Room 24, Kiva, continued

KOK-1794 1332fp - 1380r
KOK-1865 1324p - 1380r
KOK-1869 1310p - 1380r
KOK-1887 1324fp - 1380r
KOK-1908 1325fp - 1380r
KOK-1855 1332p - 1380c
KOK-1864 1325p - 1380c
KOK-1873 1343p - 1380c

Room 25

KOK-1919 1200p - 1272cB

Room 26

KOK-1954 1319fp - 1371lv

Test 7

KOK-1845 1176p - 1261vv

Room X, above cut

KOK-1940 1326p - 1370r
KOK-1942 1279fp - 1370r
KOK-1943 1339p - 1370r
KOK-1946 1312p - 1399+r

Room Y, 7' deep in cut

KOK-1950 1247fp - 1291+r

Room Z, above and N. of cut

KOK-1938 1328p - 1400r

No Provenience

KOK-1924 1168p - 1275vv
KOK-1925 1158[±]p - 1275vv
KOK-1926 1184[±]p - 1275v
KOK-1928 1191 - 1275v
KOK-1937 1196 - 1276v
KOK-1927 1202p - 1276r

COMMENTS:

The dates form two clusters, one in the late 1200's and the other in the late 1300's. These dates agree with the Pueblo III-IV assessment by Hargrave. One kiva (Room 24) is conclusively dated at 1380 with associated structures having similar cutting dates. Room 25 and Room Y have cutting dates in the late 1200's. The dates previously reported from the pueblo have been reevaluated so that there are no longer any dates later than 1400.

Oraibi

MAP REFERENCE: 7

ALTERNATE NAME/NUMBER: Tusayan 2:1(GP), NA 1000, NA 1520

LOCATION:

The pueblo of Oraibi is located on the southeastern tip of Third Mesa, a southern projection of Black Mesa, 55 miles north of Winslow in Navajo County, Arizona.

DESCRIPTION:

This was once the largest of the Hopi pueblos and is composed of several linear room units forming parallel streets, rather than plazas. The pueblo is constructed of sandstone and rises to four stories in a few places. It has been continuously occupied since about A.D. 1150, but in 1906 a split occurred which depopulated the pueblo. Since then, Oraibi has been one of the smaller Hopi villages.

SOURCE OF COLLECTION:

Collected by the First Beam Expedition in 1923 and by A.E. Douglass and L.L. Hargrave for the Second Beam Expedition in 1928. In 1939, D. O'Bryan collected specimens for Gila Pueblo.

REFERENCES:

Site Description: Mindelleff 1891; Titiev 1944; Stubbs 1950

Published Dates: Douglass 1935, 1938; Peterson 1935, 1937, 1939; Smiley 1951

DATES:

Room 30, Roof		Room 156
BE-120	1621p - 1750vv	BE-277 1414p - 1551vv
		BE-276 1614p - 1757v
Room 45		Room 163, Ladder
BE-121	1675 - 1760v	BE-119 1620p - 1682vv
Room 78		Room 165, 2nd Story
BE-122	1513 - 1630v	BE-297 1320fp - 1428vv
Room 92, Ladder		BE-296 1416p - 1628v
BE-287	1611p - 1697++vv	BE-294 1602p - 1674vv
		BE-295 1620p - 1691vv

Oraibi, continued

Room 175

BE-217 1358p - 1424vv
 BE-218 1511p - 1543vv
 BE-220 1516p - 1563vv
 BE-219 1660 - 1710v

Room 187

BE-178 1321p - 1381vv

Room 195

BE-125 1618p - 1683vv

Room 203

BE-177 1537p - 1635v

Room 213, Roof

BE-180 1647p - 1691r

Room 242, 2nd Story

BE-290 1524p - 1565vv

Between Rooms 242 and 243

BE-291 1526p - 1575vv

Room 243, 3rd Story

BE-293 1329p - 1392vv
 BE-292 1567p - 1602vv

Room 248, 2nd Story

BE-284 1309 - 1366vv
 BE-285 1492p - 1557vv
 BE-241 1529p - 1564vv
 BE-246 1578p - 1619vv
 BE-242 1547p - 1633vv
 BE-245 1687p - 1724v
 BE-249 1688p - 1730v

Room 254

BE-253 1400p - 1461vv
 BE-250 1391 - 1482vv
 BE-251 1485p - 1531vv
 BE-254 1527p - 1631vv

Room 272

BE-273 1424p - 1490vv
 BE-275 1534p - 1580vv

Room 273

BE-274 1322p - 1475vv
 BE-272 1322p - 1490vv
 BE-271 1427p - 1495vv

Room 273A

BE-281 1367p - 1519vv
 BE-280 1505p - 1556vv
 BE-279 1719p - 1749vv

Room 281

BE-264 1556p - 1633vv

Room 288

BE-269 1258p - 1353vv
 BE-268 1319p - 1365vv
 BE-267 1419 - 1513vv
 BE-265 1486p - 1552vv
 BE-278 1614p - 1749vv

Room 360

BE-256 1344p - 1429vv
 BE-255 1650p - 1712v

Room 369

BE-257 1439p - 1490vv

Room 378

BE-240 1363 - 1455+vv

Room 386, 2nd Story

BE-261 1462p - 1547vv
 BE-262 1406p - 1551vv

Room 460

BE-159 1377p - 1437vv
 BE-223 1617p - 1675vv
 BE-222 1641 - 1682vv

Oraibi, continued

Room above 460		Above Room 187	
BE-160	1467fp - 1516vv	BE-170	1649p - 1756vv
BE-162	1515p - 1560vv		
BE-161	1642p - 1715vv	Above Room 189	
BE-163	1661p - 1726vv	BE-171	1337p - 1462vv
Room 461		BE-169	1536p - 1572vv
BE-138	1518 - 1567vv	Kiva A, Bear Kiva	
BE-139	1629p - 1692v	GP-1360	1280p - 1386vv
Room under 461		BE-106	1313p - 1394vv
BE-146	1621p - 1666vv	BE-107	1316p - 1422vv
Room 469, Roof		BE-7	1429fp - 1515vv
BE-135	1720p - 1755v	BE-101	1553p - 1588vv
Room above 469		BE-6	1433p - 1673vv
BE-134	1680p - 1710v	BE-2	1445p - 1706vv
Room 482		BE-104	1644p - 1707vv
BE-147	1476p - 1565vv	Kiva B, Snake Kiva	
BE-151	1707p - 1755vv	BE-244	1392p - 1468vv
Below Room 482		BE-203	1405fp - 1525vv
BE-148	1702p - 1730vv	BE-213	1469fp - 1531vv
Room 546		BE-204	1312 - 1547++vv
BE-234	1524p - 1621vv	BE-214	1488fp - 1551vv
Room 547		BE-202	1464fp - 1566vv
BE-238	1362+p - 1424vv	BE-215	1483p - 1629vv
BE-239	1479 ⁻ p - 1629v	BE-201	1578 - 1710vv
Room 558, 2nd Story		BE-112	1620p - 1753vv
BE-298	1468p - 1559 vv	BE-113	1622p - 1759vv
Room 573, 2nd Story		Kiva D, Hawiovi	
BE-221	1297p - 1490vv	BE-190	1280p - 1386vv
Above Room 97		BE-183	1319p - 1564vv
BE-194	1645p - 1689vv	BE-192	1386fp - 1619v
		BE-184	1419fp - 1622vv
		BE-189	1478 - 1630vv
		GP-1368	1614fp - 1708++vv
		GP-1364	1640p - 1725vv
		BE-185	1621 - 1730vv
		BE-187	1608p - 1752vv

Oraibi, continued

Kiva H, Antelope

GP-1354 1322fp - 1393vv
 BE-118 1377 - 1451vv
 BE-4 1296p - 1481vv
 GP-1347 1383p - 1519vv
 BE-5 1305p - 1524vv
 GP-1352 1466p - 1546vv
 GP-1346 1426p - 1550vv
 GP-1350 1435p - 1550vv
 BE-207 1479fp - 1556vv
 BE-208 1499fp - 1562vv
 BE-206 1462fp - 1602vv
 BE-114 1370 - 1617vv
 BE-205 1462 - 1619vv
 BE-210 1505fp - 1621vv
 GP-1353 1386p - 1625vv
 GP-1348 1463fp - 1626+vv
 BE-10 1436fp - 1636vv
 GP-1349 1482fp - 1640vv
 BE-9 1617 - 1696vv
 BE-211 1648p - 1706vv
 BE-115 1654p - 1720vv
 BE-8 1616p - 1729+vv

Kiva I, Tao

GP-1376 1304p - 1530vv
 GP-1377 1540p - 1674vv
 GP-1378 1658p - 1723r
 GP-1375 1617p - 1724vv

Quincy Jame's House

BE-300 1358p - 1430vv
 BE-299 1651p - 1759r

Jimmy's House

BE-127 1313p - 1362vv
 BE-224 1320p - 1493vv
 BE-128 1429p - 1520v
 BE-231 1462p - 1528vv
 BE-133 1297p - 1595vv
 BE-232 1618p - 1678vv
 BE-233 1604p - 1678vv
 BE-129 1657p - 1690v
 BE-130 1637p - 1715vv

Jimmy's Mother-in-law's House

BE-216 1493p - 1618vv

Corral

GP-1355 1491p - 1605vv
 GP-1356 1644p - 1754v

Jimmy's Wood Pile

BE-108 1634p - 1759vv

Andrew's Chicken House

BE-200 1350p - 1476vv

Jimmy's Chicken House

BE-286 1374p - 1462vv

Laura's Chicken House

BE-289 1325p - 1368vv

No Provenience

BE-301 1305p - 1401vv
 BE-434 1309p - 1466vv
 BE-126 1387 - 1512vv
 BE-171a 1465fp - 1516vv
 BE-307 1490p - 1527vv
 BE-270 1557 - 1616vv
 BE-220a 1533p - 1632+v
 BE-288 1665p - 1706v
 BE-304 1615p - 1710vv
 BE-174 1651 - 1712v
 BE-308 1589fp - 1712vv
 BE-309 1595 - 1724vv

Oraibi, continued

COMMENTS:

The long series of dates from the houses and kivas suggest the reuse of many beams, and there seem to be no clearly dated construction clusters. These factors may be overemphasized because the collections were aimed at crossing the gap and not at dating the structures.

New Oraibi

MAP REFERENCE: 8

ALTERNATE NAME/NUMBER: Kiakocho-movi, NA 1519

LOCATION:

The pueblo is situated at the base of the southern face of Third Mesa just west of Oraibi Wash in Navajo County, Arizona.

DESCRIPTION:

New Oraibi was founded in 1910-11 by people who remained in Old Oraibi after the 1906 split but who were too progressive to remain. The pueblo is constructed of well-dressed sandstone with the majority of the houses being larger and more isolated than those in the other Hopi villages.

SOURCE OF COLLECTION:

Collected in 1923 by the First Beam Expedition

REFERENCES:

Site Description: Dennis 1940; Titiev 1944

Published Dates: None

DATES:

Antelope Kiva Floor-board

BE-1 1375fp - 1689vv

COMMENTS:

This specimen is one of several beams brought from the Antelope Kiva at Old Oraibi to the new Antelope Kiva at New Oraibi, after the establishment of this pueblo in the early 1900's. The date is certainly not representative of the pueblo's founding date and represents a good example of a reused timber.

Pink Arrow

MAP REFERENCE: 10

ALTERNATE NAME/NUMBER: Arizona J:8:1(ASM)

LOCATION:

Pink Arrow is at the head of a small side canyon between the pueblo ruins of Chakpahu and Nesheptanga about one mile downstream from the Jeddito Trading Post, Navajo County, Arizona.

DESCRIPTION:

The site is a small Pueblo III-IV masonry structure of approximately 40 rooms. Excavations were undertaken in 32 rooms and one kiva.

SOURCE OF COLLECTION:

Collected by excavation in 1939 by the Awatovi Expedition of the Peabody Museum of Harvard University under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941; Smith 1952

Published Dates: Hall 1951; Smiley 1951

DATES:

Room 3

L-2055-2 1329fp - 1358vv
L-2055-1 1332fp - 1395vv

Room 24

L-2031 1325p - 1376vv
L-2027 1311fp - 1378+r
L-2038 1338p - 1382r
L-2053 1322fp - 1394vv
L-2044 1336fp - 1399+v

Room 25

L-2065 1315p - 1370r

Room 31

L-2061 1326p - 1386r
L-2062 1330fp - 1386r
L-2057 1313p - 1387v
L-2060 1318p - 1387r

COMMENTS:

There is little doubt that Room 31 was constructed in 1387. Room 25 may have been built about 1370 but Room 24 is more of a problem. The 1378-82 cutting dates suggest construction of the room at that time with the later dates being reconstruction beams; however, it is possible that the room was constructed soon after 1399 and that the earlier beams are re-used timbers. The dates thus confirm construction in the second half of the 14th century.

Shipaulovi

MAP REFERENCE: 12

ALTERNATE NAME/NUMBER: NA1517

LOCATION:

Shipaulovi is located on the summit of a low rocky knoll on Second Mesa on the Hopi Indian Reservation, 17 miles west of the Keams Canyon Trading Post, Navajo County, Arizona.

DESCRIPTION:

This is the smallest of the Hopi Villages, and is a good example of the enclosed court type village. There is only one break in the wall in addition to three roofed entries. There are two rectangular kivas, one on the rocky summit near the houses and the second on the lower ground beside the trail that leads to the village.

SOURCE OF COLLECTION:

Collected in 1923 by the First Beam Expedition

REFERENCES:

Site Description: Mindelleff 1891; Stubbs 1950

Published Dates: Douglass 1935, 1938; Peterson 1935; Smiley 1951

DATES:

Kokiawuchti Kiva

BE-22	1336	- 1544++vv
BE-21	1445p	- 1610vv

COMMENT:

The pueblo was founded about 1700 when Shungopavi was relocated and the mesa-top pueblos of Shipaulovi and Shungopavi were established. Many of the beams from the old pueblo were reused by the people of Shipaulovi and these dates may represent such beams.

Shungopavi

MAP REFERENCE: 13

ALTERNATE NAME/NUMBER: Chimopavi, Shumopavi, Tusayan 2:2 (GP)
NA 868, NA 1518

LOCATION:

The pueblo is located on the southern edge of Second Mesa on the Hopi Indian Reservation in Navajo County, Arizona.

DESCRIPTION:

The pueblo was founded about 1680 after the destruction of its Spanish mission and abandonment of its previous site. It is a plaza-type pueblo with three parallel linear blocks and recent scattering. The pueblo is constructed of stone and rises to three stories in some places. There are five rectangular kivas.

SOURCE OF COLLECTION:

Collected in 1923 by the First Beam Expedition and in 1928 by L. L. Hargrave for the Second Beam Expedition

REFERENCES:

Site Description: Mindelleff 1891; Stubbs 1950

Published Dates: Douglass 1935, 1938; Peterson 1935; Smiley 1951

DATES:

Kiva South of Town

BE-17 1471fp - 1631+tvv

Edmund's Storehouse, 1st Floor Roof

BE-372 1326p - 1379vv

BE-375 1415 - 1452vv

BE-374 1542p - 1633v

Sammie's Store Shed

BE-387 1320p - 1390vv

BE-389 1370fp - 1441vv

BE-386 1329p - 1443vv

BE-390 1420p - 1484vv

BE-388 1416 - 1489vv

Nueba's House

Edmund's Storehouse, 2nd Floor Roof

BE-369 1353 - 1427vv

BE-371 1309p - 1467vv

BE-377 1416 - 1490vv

BE-370 1530p - 1622vv

BE-392 1321p - 1385vv

BE-393 1421 - 1481vv

BE-391 1558p - 1720vv

BE-394 1617p - 1710vv

Shungopavi, continued

Blanche's House

BE-395 1297p - 1359vv
 BE-397 1320p - 1359vv
 BE-396 1312 - 1378vv
 BE-399 1452p - 1526vv
 BE-398 1498 - 1561vv

Jessie's House, 1st Floor

BE-400 1295p - 1365vv

Maud's House

BE-405 1358fp - 1417vv
 BE-404 1386p - 1428vv
 BE-402 1275p - 1433vv
 BE-403 1332p - 1452vv
 BE-406 1428p - 1519vv

Ethel's House, post in rear

BE-407 1310p - 1429vv

Florence's House

BE-414 1310p - 1380vv
 BE-412 1291 - 1407vv
 BE-410 1387p - 1433vv
 BE-416 1358p - 1467vv
 BE-409 1375p - 1469vv
 BE-408 1368p - 1490vv
 BE-415 1453p - 1520vv
 BE-413 1569p - 1624vv

Reba's House, 2nd Story

BE-418 1427fp - 1512vv
 BE-417 1331fp - 1412vv

General, House Top

BE-381 1275p - 1384vv
 BE-379 1269p - 1397vv
 BE-382 1333p - 1469vv
 BE-380 1313p - 1513vv
 BE-383 1431p - 1530vv
 BE-378 1397p - 1629vv

General, By House

BE-385 1305p - 1397vv
 BE-384 1381p - 1453vv

No Provenience

BE-421A 1349p - 1394vv
 BE-419 1374p - 1452vv
 BE-420A 1487 - 1530vv

COMMENTS:

Although there is not a single cutting date, the concentrations in the 14th, 15th, and 16th centuries suggest that the people carried out some beam robbing from the earlier sites of Shungopavi. Mindelleff (1891:76) mentions that the squared beams from the 17th century mission were incorporated into the construction of the kivas.

Sichomovi

MAP REFERENCE: 14

ALTERNATE NAME/NUMBER: NA 1514

LOCATION:

The pueblo is situated on top of First Mesa between the adjoining pueblos of Walpi to the south and Hano to the north on the Hopi Indian Reservation, Navajo County, Arizona.

DESCRIPTION:

Sichomovi has two long linear room blocks which enclose a narrow plaza. Two contiguous kivas are located in the plaza. The pueblo was founded about 1750 by some people from Walpi and the Rio Grande pueblos.

SOURCE OF COLLECTION:

Collected by the First Beam Expedition in 1923 and by the Second Beam Expedition in 1928

REFERENCES:

Site Description: Mindeloff 1891; Stubbs 1950

Published Dates: Peterson 1935; Smiley 1951

DATES:

Roof Beam

BE-15 1310p - 1427vv

Store House Roof Beam

BE-341 1419p - 1565vv

COMMENT:

These dates are not a good indication of the building period of the pueblo based on the historical records.

Site 4, Jeddito

MAP REFERENCE: 15

ALTERNATE NAME/NUMBER: Arizona J:8:2 (ASM)

LOCATION:

This site is located on the southern rim of Antelope Mesa one mile west of the Jeddito Trading Post in Navajo County, Arizona.

DESCRIPTION:

The site has two Basketmaker III slab-walled pithouses (one actually called a room), a Pueblo I-II house unit of three rooms and an associated kiva which is superimposed on top of one of the earlier pithouses, and an early Pueblo III D-shaped kiva associated with a three-room pueblo. A 7-room structure was built as an extension of the Pueblo III room block. The D-shaped kiva is connected to the room block by a passageway.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1935, 1938, and 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1937, 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

D-Shaped Kiva

L-1430-13 1175p - 1235c
L-1430-46 1201p - 1253r
L-1430-47 1211p - 1255r
L-1430-8 1172p - 1255r
L-1430-2 1250p - 1275r

COMMENT:

The cutting date cluster at 1253-55 suggests construction of the kiva at or near this time. The 1275 date may indicate minor roof repair of the kiva or other reconstruction of the structure. Although the site represents a long period of occupation, dates were only derived for the latest horizon.

Site 4A, Jeddito

MAP REFERENCE: 16

ALTERNATE NAME/NUMBER: Arizona J:8:3 (ASM)

LOCATION:

Site 4A is located 200 yards west of Site 4, about one mile west of the Jeddito Trading Post on the rim of Antelope Mesa in Navajo County, Arizona.

DESCRIPTION:

This Pueblo II site has 10 rooms and a D-shaped kiva. The pueblo and kiva overlie several pithouses.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1938-39 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941
Published Dates: Hall 1951; Smiley 1951

DATES:

Room 10

L-2414 614p - 707+vv
L-1425-7 675fp - 752vv
L-1425-13 685fp - 755vv
L-1425-12 688fp - 760vv
L-1425-8 680fp - 766vv
L-2418 666fp - 767+vv
L-1425-14 706fp - 770vv
L-1425-9 689fp - 774+vv
L-2404 701fp - 776+vv
L-1425-10 696fp - 783vv
L-1425-15 693fp - 797 ++vv
L-2391 654fp - 798vv
L-1425-3 701p - 800v
L-2387 650p - 800v
L-2407 737p - 800r

Room 10, continued

L-2400 758p - 801r
L-1425-1 717p - 802v
L-2409 711p - 802v
L-2377 720p - 802r
L-2416 746fp - 804vv

Room 18

L-2428 710p - 788vv

East of Room 24

L-2221 664fp - 719vv

COMMENT:

The slight cluster of cutting dates at 800-02 indicate that Room 10 was constructed at this time. The room may be one of the pithouses which stratigraphically pre-date the pueblo.

Site 104, Jeddito

MAP REFERENCE: 17

ALTERNATE NAME/NUMBER: None

LOCATION:

The site is located in a side canyon of the Jeddito Valley and in the rocky breaks below Pink Arrow about one mile west of the Jeddito Trading Post, Navajo County, Arizona.

DESCRIPTION:

The site is a Pueblo II-III pueblo community consisting of a series of separate house units, of which 19 rooms and one kiva were excavated.

SOURCE OF COLLECTION:

Excavation in 1939 by the Awatovi Expedition of the Peabody Museum of Harvard University under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

Room 1, firepit

L-2201 1197p - 1250vv

Room 7

L-2196 1201+p - 1268vv
L-2210 1226p - 1268vv
L-2151-4 1226p - 1269vv
L-2153 1199fp - 1276v
L-2142 1227p - 1277vv
L-2174 1239p - 1277vv
L-2526 1204fp - 1277vv
L-2167 1195p - 1278vv
L-2524 1242p - 1282v
L-2510 1243p - 1282v
L-2501 1253p - 1282v
L-2487 1232p - 1282v
L-2150 1190p - 1282r
L-2160 1247p - 1282r
L-2175-1 1260fp - 1282r
L-2181 1249 - 1282r

Room 7, continued

L-2189 1261fp - 1282r
L-2193 1248fp - 1282r
L-2205 1257fp - 1282r
L-2519-2 1245p - 1282r
L-2521 1231p - 1282r
L-2522 1200p - 1282r
L-2152 1252p - 1282c
L-2507 1253p - 1282c
L-2143 1230p - 1282rB
L-2146 1248p - 1282rB
L-2151-3 1242p - 1282rB
L-2157 1235p - 1282rB
L-2163 1243p - 1282rB
L-2166 1242p - 1282rB
L-2169 1231p - 1282rB
L-2178 1244 - 1282rB
L-2179 1243p - 1282rB
L-2183-2 1247p - 1282rB
L-2203 1256p - 1282rB
L-2478 1224p - 1282rB

Site 104, continued

Room 7, continued

L-2482	1247p	- 1282rB	L-2168-2	1209p	- 1283r
L-2488	1255p	- 1282rB	L-2175-3	1232p	- 1283r
L-2489	1258p	- 1282rB	L-2183-3	1245fp	- 1283r
L-2490	1231p	- 1282rB	L-2188	1240p	- 1283r
L-2498	1250p	- 1282rB	L-2192	1228fp	- 1283r
L-2514	1230p	- 1282rB	L-2197	1249fp	- 1283r
L-2156	1253p	- 1282cB	L-2479	1245p	- 1283r
L-2176	1248p	- 1282cB	L-2483	1236p	- 1283r
L-2183-1	1266p	- 1282cB	L-2485	1249p	- 1283r
L-2495	1246	- 1282cB	L-2486	1242p	- 1283r
L-2512	1252p	- 1282cB	L-2497	1248p	- 1283r
L-2518	1248p	- 1282cB	L-2503	1234p	- 1283r
L-2182	1233p	- 1282B	L-2515	1257fp	- 1283r
L-2186	1236p	- 1282B	L-2523	1233fp	- 1283r
L-2480	1250p	- 1282B	L-2525	1235p	- 1283r
L-2175-2	1238p	- 1283v	L-2504	1244p	- 1283c
L-2202	1240p	- 1283v	L-2511-2	1257p	- 1283c
L-2499	1240p	- 1283v	L-2144	1252p	- 1283rB
L-2519-1	1215fp	- 1283v	L-2151-2	1195p	- 1283rB
L-2145	1242p	- 1283r	L-2159-1	1253p	- 1283rB
L-2148	1235p	- 1283r	L-2159-2	1246p	- 1283rB
L-2149	1227p	- 1283r	L-2177	1249p	- 1283rB
L-2151-1	1249p	- 1283r	L-2180	1230fp	- 1283rB
L-2151-5	1248	- 1283r	L-2184	1229p	- 1283rB
L-2154	1223fp	- 1283r	L-2511-1	1210p	- 1283rB
L-2155	1220p	- 1283r	L-2502	1247p	- 1283cB
L-2162	1252p	- 1283r	L-2168-3	1194p	- 1283B
L-2168-1	1259p	- 1283r	L-2491	1192p	- 1283B

COMMENT:

The strong cluster of cutting dates at A.D. 1282-83 places the construction of the structure convincingly at this time, but the vast number of individual timbers in a single structure raises other problems. Timbers in this quantity are often associated with cribbed kivas, but there is no indication that this structure is such. It is possible that some duplication escaped detection during analysis, but, since much duplication was determined, it is felt that these materials are nearly all from individual trees. A possibility remains that this is simply a well-preserved example of the use of small poles for the secondary roofing material in a nearly solid layer.

Site 106, Jeddito

MAP REFERENCE: 18

ALTERNATE NAME/NUMBER: None

LOCATION:

The site is situated on the north rim of Tallahogan Canyon, approximately a mile and a half north of Awatovi, in Navajo County, Arizona

DESCRIPTION:

Site 106 is a Pueblo III structure of 8 rooms.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

Room 7

L-2071 1209p - 1262vv

COMMENT:

The single date is insufficient for detailed chronological placement except as a suggestion of a late Pueblo III context for the site.

Site 107, Jeddito

MAP REFERENCE: 19

ALTERNATE NAME/NUMBER: Arizona J:7:3 (ASM)

LOCATION:

Site 107 is located just east of Site 106 (preceding page) and is also on the north rim of Tallahogan Canyon in Navajo County, Arizona.

DESCRIPTION:

This is a single unit of 14 rooms and an associated D-shaped kiva.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

Kiva A

L-2080 1123fp - 1179vv
L-2077 1151fp - 1190vv
L-2078 1167p - 1202vv

Room 11

L-2098 1142fp - 1216+B

COMMENT:

The near cutting date from Room 11 and the latest date from the kiva both suggest construction activity in the early part of the thirteenth century.

Site 111, Jeddito

MAP REFERENCE: 20

ALTERNATE NAME/NUMBER: None

LOCATION:

The site is situated on the top of Antelope Mesa, approximately one-half mile north of the head of Tallahogan Canyon and about six miles west of Jeddito Trading Post in Navajo County, Arizona.

DESCRIPTION:

Site 111 has five surface rooms and five pithouses or kivas. It was considered at time of excavation to be early Pueblo II in age.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

Room 1
L-2110 953p - 1014vv

Room 4
L-2121 932fp - 1033vv

Room 7, firepit
L-2122 961fp - 1028vv

Room 8 (pithouse)
L-2109 988fp - 1074vv

COMMENT:

Lacking a concentration of dates, only a general placement in the eleventh century can be suggested for this site.

Site 169, Jeddito

MAP REFERENCE: 21

ALTERNATE NAME/NUMBER: None

LOCATION:

Site 169 is situated on a bench below the southern edge of Antelope Mesa between Awatovi and Kawaikuh, and about seven miles southwest of the Jeddito Trading Post, Navajo County, Arizona.

DESCRIPTION:

The site has two pithouses which bear a striking resemblance in their masonry to the Pueblo II pithouses of the San Francisco Mountain region to the southwest.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941

Published Dates: Hall 1951; Smiley 1951

DATES:

Room 2 (Pithouse 2?)

L-2126	946fp	- 1025v
L-2130	967p	- 1049v
L-2128	989	- 1051v

COMMENT:

It is probable that the structure was under construction between A.D. 1050 and 1100.

Site 264, Jeddito

MAP REFERENCE: 22

ALTERNATE NAME/NUMBER: Tusayan 4:1 (GP), Arizona J:8:4 (ASM), Jeddito 264

LOCATION:

Site 264 is located on a spur of Antelope Mesa which juts into the Jeddito Valley between Kawaikuh and Chakpahu. It is about five miles southwest of the Jeddito Trading Post, Navajo County, Arizona.

DESCRIPTION:

This is a small Basketmaker III - Pueblo I village of six pithouses and 43 other units including slab-lined pits and other pit structures. A Pueblo II surface room overlies one of the pithouses.

SOURCE OF COLLECTION:

Excavations by the Awatovi Expedition of the Peabody Museum of Harvard University in 1939 under the direction of J. O. Brew

REFERENCES:

Site Description: Brew 1941; Daifuku 1961

Published Dates: Hall 1951; Smiley 1951

DATES:

Pithouse A

L-2351 627p - 703vv
L-2352 680fp - 719vv

Pithouse B

L-2281-6 559p - 672r
L-2283 630p - 675r
L-2275-1 644p - 690r
L-2276 622p - 690r
L-2278 647p - 690c
L-2275-2 631p - 692r

Pithouse D

L-2310 636p - 708++vv
L-2291 687fp - 725v
L-2315 632p - 725vv
L-2286 638p - 725r
L-2311 669fp - 725r
L-2314 669p - 725r
L-2304 666p - 732vv
L-2312 685p - 736vv
L-2288 698fp - 736r
L-2290 666fp - 736r

Site 264, Jeddito, continued

Pithouse F

L-2251 577p - 661vv
 L-2250 621p - 666r
 L-2258 621p - 667c
 L-2257 615p - 670r
 L-2330 620p - 670r
 L-2340 623p - 671vv
 L-2253 631p - 672r
 L-2334 630p - 675v
 L-2259 621p - 675r
 L-2332 636p - 676r
 L-2269 633p - 684vv
 L-2339 636p - 684vv
 L-2328 638p - 684v
 L-2329 630p - 685vv
 L-2338 616p - 685v
 L-2335 633p - 685v
 L-2266 636p - 685r
 L-2333 620p - 685r
 L-2337 620p - 689v

Unit 5

L-2361 690fp - 725vv
 L-2362 694fp - 733vv

Unit 13

L-2366-1 697fp - 726r

Unit 15, subfloor

L-2295 609p - 672rG
 L-2321 638p - 675v
 L-2325-1 641fp - 677vv
 L-2323 628fp - 677v
 L-2297 601p - 677r
 L-2317 602[±]p - 678r
 L-2300 632 - 690r
 L-2318 658p - 692c

Unit 37

L-2274 651p - 701vv

No Provenience

L-2216 518fp - 625vv
 L-2217 498fp - 642vv
 L-2307-2 579p - 650++vv
 L-2307-1 594fp - 668vv

COMMENT:

The dates from the various structures at Site 264 support both the general Basketmaker III - Pueblo I placement and the archaeological seriation of pithouse types. The cluster at A.D. 690-692 places the construction of Pithouse B at that time. Pithouse F also has a strong cluster at A.D. 684-685 which indicates construction. The earlier cutting dates from this pithouse may represent reused beams. Pithouse D has two clusters; at A.D. 725 and 736. Either of these may represent initial construction. The sequence here is further confused by Units 5 and 13 which were destroyed by the construction of Pithouse D but which have nearly identical dates. The dates from Unit 15 probably refer to Pithouse B which underlies the unit, since the specimens were in subfloor context. The date clustering, architectural typology, and settlement patterns of Site 264 suggest successive occupation by a few social groups over a period of about 50 years rather than simultaneous occupation of all structures.

Walpi

MAP REFERENCE: 24

ALTERNATE NAME/NUMBER: Tusayan 3:3 (GP), NA 1513

LOCATION:

The pueblo of Walpi is located on the southern tip of First Mesa, about 70 miles north of Winslow, Navajo County, Arizona.

DESCRIPTION:

Walpi is a compact, linear unit due in part to topographic limitations. It is constructed of sandstone masonry and rises to four stories. There are five kivas in the village. Walpi was constructed at this location shortly after A.D. 1680 when its previous locations below the mesa were abandoned.

SOURCE OF COLLECTION:

Both the First Beam Expedition in 1923 and the Second Beam Expedition in 1928 led by L. L. Hargrave obtained cores and sections from the pueblo.

REFERENCES:

Site Description: Mindeleff 1891; Stubbs 1950

Published Dates: Douglass 1935, 1938; Peterson 1935; Smiley 1951

DATES:

Moen Kiva			Loose Logs		
	BE-11	1294p - 1490vv	BE-343	1406p	- 1483vv
			BE-347	1511p	- 1565vv
Mabel's House			BE-344	1525p	- 1577vv
	BE-345	1294p - 1370vv	BE-348	1606p	- 1691vv
			BE-349	1525p	- 1692r
Duke's House					
	BE-350	1329p - 1560vv			

COMMENT:

The single cutting date agrees well with the historical date of founding of present Walpi. The other timbers, with considerable ring loss, may represent beams reused from earlier construction at sites below the mesa top.

REFERENCES

Brew, John Otis

- 1937 The First Two Seasons at Awatovi. American Antiquity, Vol. 3, No. 2, pp. 122-37. Menasha.
- 1941 Preliminary Report of the Peabody Museum Awatovi Expedition of 1939. Plateau, Vol. 13, No. 3, pp. 37-48. Flagstaff.

Burgh, Robert F.

- 1959 Ceramic Profiles in the Western Mound at Awatovi, Northeastern Arizona. American Antiquity, Vol. 25, No. 2, pp. 184-202. Salt Lake City.

Daifuku, Hiroshi

- 1961 Jedito 264: A Report on the Excavation of a Basket Maker III - Pueblo I Site in Northeastern Arizona with a Review of Some Current Theories in Southwestern Archaeology. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 33, No. 1. Cambridge.

Dennis, Wayne

- 1940 The Hopi Child. D. Appleton-Century Company, Inc. New York and London.

Douglass, Andrew Ellicott

- 1935 Dating Pueblo Bonito and Other Ruins of the Southwest. National Geographic Society, Contributed Technical Papers, Pueblo Bonito Series, No. 1. Washington.
- 1938 Southwestern Dated Ruins: V. Tree-Ring Bulletin, Vol. 5, No. 2, pp. 10-13. Tucson.

Dozier, Edward P.

- 1966 Hano: A Tewa Indian Community in Arizona. Holt, Rinehart, and Winston, Inc. New York.

Fewkes, Jesse Walter

- 1898 Archeological Expedition to Arizona in 1895. Seventeenth Annual Report of The Bureau of American Ethnology, pp. 520-742. Washington.

Hall, Edward T., Jr.

- 1951 Southwestern Dated Ruins: VI. Tree-Ring Bulletin, Vol. 17, No. 4, pp. 26-8. Tucson.

Hargrave, Lyndon Lane

- 1935 The Jeddito Valley and the First Pueblo Towns in Arizona to be Visited by Europeans. Museum Notes, Vol. 8, No. 4. Flagstaff.

Haury, Emil W.

- 1938 Southwestern Dated Ruins: II. Tree-Ring Bulletin, Vol. 4, No. 3, pp. 3-4. Tucson.

Haury, Emil W. and Lyndon Lane Hargrave

- 1931 Recently Dated Pueblo Ruins in Arizona. Smithsonian Miscellaneous Collections, Vol. 82, No. 11. Washington.

Hough, Walter

- 1903 Archeological Field Work in Northeastern Arizona. The Museum-Gates Expedition of 1901. Annual Report of the U. S. National Museum for 1901, pp. 279-358. Washington.

Mindeleff, Victor

- 1891 A Study of Pueblo Architecture in Tusayan and Cibola. Eighth Annual Report of the Bureau of American Ethnology, pp. 1-228. Washington.

Montgomery, Ross Gordon, Watson Smith and John Otis Brew

- 1949 Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Establishment at a Hopi Indian Town in Northeastern Arizona. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 36. Cambridge.

Peterson, Alfred

- 1935 Specimens from the Pueblo Area Collected by the First Beam Expedition, 1923. Tree-Ring Bulletin, Vol. 1, No. 3, pp. 23-4. Tucson.
- 1937 Further Data on First Beam Expedition Specimens, 1923. Tree-Ring Bulletin, Vol. 3, No. 3, pp. 23-4. Tucson.
- 1939 Third Report on Hopi Specimens: Collections of the Second Beam Expedition, 1928. Tree-Ring Bulletin, Vol. 6, No. 1, pp. 6-8. Tucson.

Smiley, Terah L.

- 1951 A Summary of Tree-Ring Dates from some Southwestern Archaeological Sites. University of Arizona Bulletin, Vol. 22, Laboratory of Tree-Ring Research Bulletin, No. 5. Tucson.

Smith, Watson

- 1952 Kiva Mural Decorations at Awatovi and Kawaika-a, with a Survey of Other Wall Paintings in the Pueblo Southwest. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 37. Cambridge.

Stubbs, Stanley A.

- 1950 Bird's-eye View of the Pueblos. University of Oklahoma Press, Norman.

Titiev, Mischa

- 1944 Old Oraibi: A Study of the Hopi Indians of Third Mesa. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 22, No. 1. Cambridge.

Woodbury, Richard B.

- 1954 Prehistoric Stone Implements of Northeastern Arizona. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 34. Cambridge.

PREVIOUS QUADRANGLE REPORTS

TREE-RING DATES FROM ARIZONA K: Puerco--Wide Ruin--
Ganado Area, by Bryant Bannister, John W. Hannah,
and William J. Robinson. 1966.

TREE-RING DATES FROM ARIZONA E: Chinle--De Chelly--
Red Rock Area, by Bryant Bannister, Jeffrey S. Dean,
and Elizabeth A.M. Gell. 1966.

TREE-RING DATES FROM ARIZONA N-Q: Verde--Showlow--
St. Johns Area, by Bryant Bannister, Elizabeth A.M.
Gell, and John W. Hannah. 1966.