# A SEQUENCE OF RUINS IN THE FLAGSTAFF AREA DATED BY TREE-RINGS

by

E SAN AND AND

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Signed: Flower Harla

## APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Associate Professor of Anthropology

#### PREFACE

This project was made possible only through the cooperation of a large number of institutions and individuals.

The National Science Foundation provided the funds for me to spend three years at this task, with two grants to the University of Arizona, one of these to the Geochronology Laboratories (G-4952) and the other to the Laboratory of Tree-Ring Research (G-10793).

The Museum of Northern Arizona made available its large collection of prehistoric and modern tree-ring specimens which formed the basis of this project.

The Laboratory of Tree-Ring Research supplied work and storage space as well as comparative material and full use of its facilities during the course of this project.

Terah L. Smiley furnished the initial stimulus to the project. E. B. Danson was helpful in supplying background information on the sites from the files of the Museum of Northern Arizona. David Breternitz helped me to understand the problems of Flagstaff archaeology and gave freely of his time in discussing

various sites. Marvin A. Stokes directed my efforts during the first stages of the project and stood willing to give technical advice and assistance during the whole course of the project.

My thesis committee, consisting of Drs. R. H. Thompson (Chairman), R. B. Woodbury and E. H. Spicer, gave much of their time and effort in directing my writing of this manuscript.

# TABLE OF CONTENTS

	Preface iii	
1.	Introduction	
2.	History of Archaeological Work in the Area 5	
3.	The Collection 8	
4.	The Prehistoric Phase Sequence 12	
5.	Tree-rings and Phases 20	
6.	Old Dates and New 24	
7.	Conclusions	
	Appendix: Tables of Site and Specimen Informa-	
	tion 30	
	References	

# LIST OF FIGURES

Figure 1	. Map of the	Flagstaff	region sh	nowing are	chae-
ologi	cal sites .	• • • • •		facing ;	page 1
Figure 2	. The range	of outside	dates by	sites and	i
phase	8				21

## LIST OF TABLES

Table	1.	Site	NA	142	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	31
Table	2.	Site	NA	1921	В	•	•	•	•	•	•	•	•	•	•		•	•	•	•	32
Table	3.	Site	NA	310	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	34
Table	4.	Site	NA	333	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	35
Table	5.	Site	NA	358	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	36
Table	6.	Site	NA	405	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	37
Table	7.	Site	NA	408	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	<b>3</b> 9
Table	8.	Site	NA	534	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	41
Table	9.	Site	NA	660	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	42
Table	10.	Site	e NA	1 739	9	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	43
Table	11.	Site	e NA	862	2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	44
Table	12.	Site	N/	86	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	46
Table	13.	Site	e NA	112	21	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	47
Table	14.	Site	e NA	113	39	•	•	•	•,	•	•	•	•	•	•	•	•	•	٠	•	48
Table	15.	Site	e NA	12	38	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	49
Table	16.	Site	e NA	124	44]	B:	•	•	•	•	•	•	•	•	•	•	•	•	•	•	52
Table	17.	Site	e NA	129	95,	A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	54
Table	18.	Site	e N	A 15	31	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	55
Table	19.	Site	e Na	A 15'	71.	A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	56
Table	20.	Site	e N	A 16	250	3	•	•	•	•	•	•	•	•,	•	•	•	•	•	•	57
Table	21.	Site	e N	A 16	29	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	59
Table	22.	Site	e N	A 16	80	•	•	•	•	•		•	•	•	•	•	•	•	•	•	62
Table	23.	Site	e N	A 17	54		•														63

Table	24.	Site	NA	1785	•	•	•	٠	•	٠	•	•	٠	•	•	•	•	•	•	65
Table	25.	Site	NA	1814A		•	•	•	•	•	•	•	•	•	•	•	•	•	•	68
Table	26.	Site	NA	1920B		•	•	•	•	•	•	•	•	•	•	•	•	•	•	69
Table	27.	Site	NA	1922A		•	•	•	•	•	•	•	<sup>2</sup> •	•	•	•	•	•	•	71
Table																				
Table	29.	Site	NA	1927A		•	•	•	•	•	•	•	•	•	•	•	•.	•	•	73
Table	30.	Site	NA	2001	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	74
Table	31.	Site	NA	2002	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	76
Table	32.	Site	NA	2004A	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	84
Table	33.	Site	NA	2133	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	85
Table	34•	Site	NA	2134	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	88
Table	35.	Site	NA	2135	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	90
Table	36.	Site	NA	2218	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	91
Table	37.	Site	NA	2551	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	92
Table	38.	Site	NA	2798	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	93
Table	39•	Site	NA	2800	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	95
Table	40.	Site	NA	3056	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	97
Table	41.	Site	NA	3673	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	98
Table	42.	Site	NA	3674	•	•	• .	•	•	•	•	•	•	•	•	•	•	•	•	99
Table	43.	Site	NA	4317	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	100
Table	44.	Site	NA	5866	.•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	101
Table	45.	Site	NA	5903	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	102
Table	46.	Site	NA	7207	•		•		•	•						_				1 N3

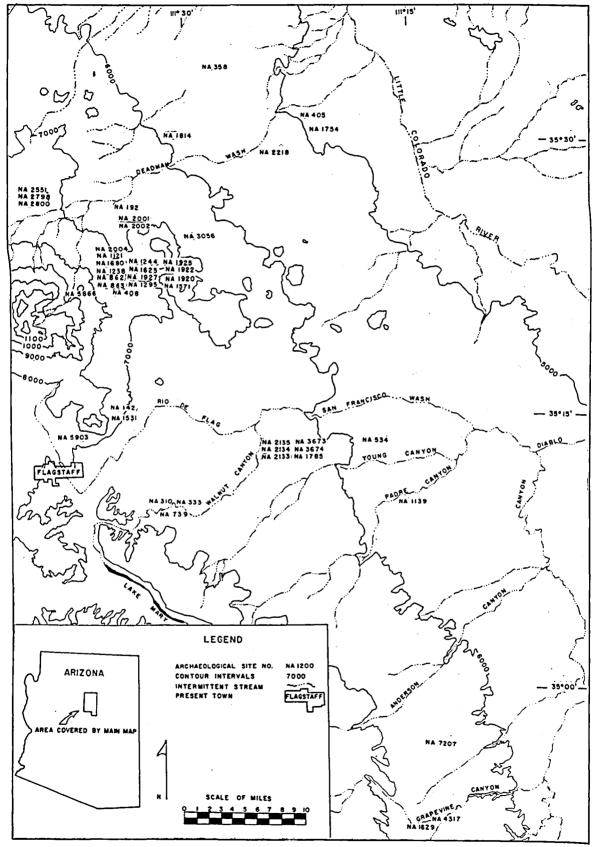


FIGURE 1. MAP OF THE FLAGSTAFF REGION SHOWING ARCHAEOLOGICAL SITES

#### INTRODUCTION

During the last 30 years one of the more intensively studied archaeological areas of the Southwest has been the region around Flagstaff, Arizona (Fig. 1). Work has been done in this area by many persons and institutions, but by far the most active of the institutions sponsoring fieldwork in the area has been the Museum of Northern Arizona.

This archaeological fieldwork has revealed a portion of the past history of this region, and an excellent synthesis of the archaeology is contained in two publications of H. S. Colton, founder and until recently, director of the Museum of Northern Arizona. These are <u>Black Sand</u> (Colton 1960) and <u>The Sinagua</u> (Colton 1946). An examination of the first will give the reader an idea of the life of the prehistoric people of the area, while the second is concerned primarily with the archaeological remains or the material culture of the area.

This report will deal with one aspect of the archaeology of the Flagstaff area, the time span involved, and will do so through the most reliable

recorder of absolute time yet known for the prehistoric Southwest, the medium of tree-ring records.

Following the report of A. E. Douglass (1929) that trees contained a year by year record of past seasons and that this record could be read and a year date assigned to individual rings, there has been wholesale collecting of wood beams and fragments from archaeological sites over the Southwest. The Flagstaff area was no exception to this trend.

The Museum of Northern Arizona has been especially active in this respect, having collected more than 6000 specimens of wood and charcoal as a potential dating resource for this purpose, and the collecting is still underway. The Museum has, of course, been keenly interested in what information it might obtain from the study of these specimens. Over a period of years a large number of specimens were studied and dates assigned to them by a number of different individuals, most notable of whom in this respect were A. E. Douglass and J. C. Mc.Gregor.

This, however, only represented a partial study of the total collection as, so far as I can determine, an apparently rapid survey was made of the specimens from a particular site, the most promising specimens were selected, and these were then studied in an attempt

to date them. In this manner a fairly large number of dated specimens were secured in a comparatively short time. This approach suited the purposes of Douglass and Mc.Gregor at that time, since being able to apply an actual year date to an archaeological unit was an important innovation in the Southwest.

These dates were applied first to a particular unit, then as knowledge of the archaeological sequence grew, they were applied to phases within the sequence. Subsequently, pottery types representative of those phases had dates assigned to them in an ever widening circle of application.

However, as these dates were based on only a partial study of the specimens from a particular site, it was thought that a thorough study of all the specimens from all of the sites around Flagstaff would produce additional dates, yield a more precise chronology, and determine if the original dates assigned to units and phases should be modified or changed in any way.

For this reason the Museum of Northern Arizona, the Geochronology Laboratories, and the Laboratory of Tree-Ring Research decided to initiate a joint project to make a complete restudy of the prehistoric tree-ring specimens from the Flagstaff region.

This report describes the findings of the work accomplished under this project and provides sufficient information about the archaeological work done in the area to place the tree-ring material in its proper cultural context.

#### HISTORY OF ARCHAEOLOGICAL WORK IN THE AREA

The first archaeological interest in the area covered by this report came in 1851 when Sitgreaves (1853) made notes on the Wupatki group of ruins and in 1853 when Whipple (1856) visited Turkey Tank Caves. A lapse of about 20 years followed before James Stevenson saw Walnut Canyon, and J. W. Powell (1887) examined Old and New Caves pueblos and the Citadel.

In 1896 J. W. Fewkes (1900) reported on a number of the sites. He was followed in 1916 by H. S. Colton who instituted an archaeological survey of the region which is still continuing. Actual excavation started in 1926 when Fewkes (1927) dug. Elden Pueblo for the Smithsonian Institution. In 1927 and 1928 Byron Cummings (1930) excavated Turkey Hill Pueblo for the University of Arizona.

Up to this time the value of wood and charcoal for dating purposes was unrecognized by these archaeologists; thus no tree-ring material was saved from these sites. When this value became known at a later time, several scraps of charcoal were salvaged from the backdirt at Elden Pueblo.

In 1930, the period of greatest archaeological activity began with the first field parties from the Museum of Northern Arizona. This period was curtailed in 1941 with the beginning of the Second World War. Work resumed after the war, and the University of Illinois began to send field parties into the area. This work is continuing at present.

One of the major features of the archaeological work in the region during the nineteen thirties was the overemphasis on obtaining tree-ring material. Open sites were tested to see if they had burned, thus preserving tree-ring specimens in the form of charcoal. If they had burned they were fully excavated; otherwise they were filled back in. This produced a great number of sites which were tested, from which sherds were saved and the test pit filled back in. On the basis of the sherds they were assigned to some phase, but nothing was known of their architecture.

Following the accidental discovery that pithouses were buried beneath the cinders from Sunset Crater, a number of these sites were located and excavated with a corresponding emphasis on tree-ring material in order to date the eruption of this small volcano. Since the end of the Second World War one of the major emphases in this region has been in the field of salvage archaeology. Therefore any gaps in the cultural sequence have been filled only if the appropriate material was found during the course of salvage work. This is in contrast to the work carried on before the war when the emphasis was on filling in the sequence and in obtaining tree-ring specimens from all phases.

#### THE COLLECTION

The collection of tree-ring material from archaeological sites in the Flagstaff area that was examined during the course of this investigation was composed of 4263 individual specimens.

These specimens were in all stages of preservation from solid wood logs to fragments that crumbled into dust when touched. The majority of the specimens, however, were preserved as charcoal, with most of these being mere fragments.

As a result of more than 600 years exposure to the elements most of the unburned wood has completely disappeared from the exposed or open archaeological sites of the area. Exceptions are to be found where local conditions created some protection from rotting and subsequent disintegration. For example, these conditions are found in the various small cliff dwellings, in cave shelters, in a few well protected inner rooms of multistoried pueblos (where, however, the wood was usually quite rotten), and in at least one instance where complete immersion in water preserved the specimen.

The species represented in this collection are the same as those found in the area at present: ponderosa pine, pinyon pine, Douglas fir, juniper, aspen and oak.

Of these specimens 1881 were considered to be too short to be of any value, and an additional 488 were of undatable species. The remaining 1894 were considered long enough and with sufficient character to justify skeleton plotting. From this group, 596 dates were derived; thus, one out of every three specimens with any length and character was dated.

#### PROCEDURE

The procedure employed in this study was in accordance with the generally accepted methods of the Laboratory of Tree-Ring Research. As this method has been amply described in the literature (Glock 1937), I will not attempt to describe it again, but will mention several pertinent points of interest.

Each site was worked as a unit, that is, all specimens from a particular site were studied at one time, and where crossdating was present, a composite was constructed for each site in order to gain the maximum

length possible and to attempt to pick up any missing or locally absent rings.

Each phase was taken as a unit with all sites in each phase being studied and all composites checked to determine crossdating between sites. This yielded a longer, stronger composite, which was subsequently extended to include all the phases of the area except for the Cinder Park Phase which displayed insufficient crossdating.

The specimens were treated as though no previous work had ever been done on them, with the result that many specimens have slightly different dates now than have been previously reported.

In only rare instances was it possible to determine the actual cutting date of any specimen. This is due to the fragmentary nature of the majority of specimens. Therefore, unless specifically stated otherwise with the letter "b," meaning bark, the dates given refer only to the outermost ring of any specimen with an undetermined number of rings lost from the outside.

In such a situation it is still possible to gain a concrete idea of the possible time span of any site and of the probable time span of each phase. This can be done by utilizing the clustering of dates around specific points in time.

Thus a site with a single date is obviously rather poorly dated, but when four or five such sites, all belonging to a single phase, have nearly identical outside dates, the probability that they accurately date that phase is quite high.

### THE PREHISTORIC PHASE SEQUENCE

There is an extensive range of prehistory represented in the sites from which the tree-ring specimens comprising this collection have been gathered.

These sites range from simple pithouses with brush roofs and walls to elaborate multi-storied pueblos, from sites covered by the debris of a volcanic eruption to cliff dwellings. They represent a long series of cultural changes in response to new conditions both natural and cultural. These shifts of culture are closely akin to those that have affected other areas of the ancient Southwest, and where the archaeologist has recognized them as a convenient cultural unit. he has referred to them as phases. In the Flagstaff area this unit has long been referred to as a focus, but quite recently H. S. Colton of the Museum of Northern Arizona has recognized that "phase" has a more widespread usage, and in order to reduce confusion in terminology has suggested that it is proper to replace the term "focus" with "phase" in referring to the sequences around Flagstaff (Colton 1956). Therefore, in

this report the term "phase" will be used where "focus" was used previously.

The best general survey of the archaeology of the Flagstaff region is that by Colton (1946) who deals primarily with architecture and pottery. These two items have been found to be of major significance in attempting to determine shifts of cultural interest among the prehistoric inhabitants of the Southwest.

The phases that are pertinent to this report have been defined primarily by Colton (1939), Gladwin (1934) and Mc.Gregor (1941). As their definitions of each phase rely heavily upon architecture and ceramic groupings, these attributes will be the ones used in this summary of each phase. The relationships between phases are adapted from Colton (1946). Only those phases which are of interest to this report are listed below, with the Angell and Winona phases being treated as one phase due to reasons which are explained in the descriptions of the phases.

There are time levels when the relationships between phases are rather complicated in the Flagstaff region since different cultural groups maintained residence in a comparatively restricted area at the same time period. For instance, at one time three different

phases, Padre, Winona-Angell, and Medicine Valley, each representing a distinct cultural tradition were existing simultaneously no more than 25 miles apart. Yet by the next period or phase Padre and Winona-Angell had merged, and Medicine Valley had ceased to exist.

The entire phase sequence and information about specific sites is given in greater detail in Colton (1946). A more recent but less technical summary is to be found in Colton (1960).

Pecos cl sificati stages	lon	Date	Sinagua Branch		Coconino Branch
Pueblo	IV	1300-1400	Clear Creek		
Pueblo 1	III	1200-1300	Turkey Hill		
Pueblo 1	III	1120-1200	Elden		
Pueblo	II	1050-1120	Padre	Angell- Winona	Medicine Valley
Pueblo	II	900-1050	Rio de Flag		Medicine Valley
Pueblo	I	700-900	Sunset	•	Coconino

The phase sequence in the Flagstaff region.

## Sinagua Branch

Sunset Phase was defined by Colton (1939):
deep timber pithouses, quadrilateral post arrangement,
ventilator with no deflector, sometimes a small room in
place of a ventilator; Rio de Flag Brown, Deadmans Blackon-red, Deadmans Gray, and Kana-a Black-on-white. Colton
(1946) added that the ventilator was not a ventilator but
an entrance way.

Rio de Flag Phase was defined by Colton (1939): rectangular earth lodges, quadrilateral post arrangement, sometimes built on an artificial mound bordered by stones, usually with an alcove, and deep masonry pithouses with quadrilateral post arrangement, ventilator and no deflector; Rio de Flag Brown, Deadmans Black-on-red, Deadmans Gray, Deadmans Fugitive Red, and Deadmans Black-on-white. Colton (1946) said that the "alcove houses" might represent a new phase, Sugar Loaf Phase. This suggestion has received no further support.

Winona Phase was defined by Colton (1939):
masonry or timbered pithouses with two-post support, entrance on the long east side, sedentary Hohokam type of
earth lodge; Deadmans Black-on-white, Holbrook Black-onwhite, Winona Brown, Coconino Red-on-buff, Winona Redon-buff, Rio de Flag Brown, Sunset Red, Tusayan

Corrugated, Deadmans Gray, and Deadmans Fugitive Red. Mc.Gregor (1941) adds Angell Brown to this list.

Angell Phase was defined by Mc.Gregor (1941): clay-walled alcove pithouses with the associated ceramic types, Winona Corrugated, Winona Smudged, and Winona Brown. Colton (1946) says that on the basis of ceramics it is impossible to distinguish between the Winona and Angell phases. For this reason, in this study they are treated as one phase instead of two.

Padre Phase was defined by Colton (1939):
deep masonry pithouses with alcove or ventilator; Winona
Brown, Sunset Red, Tusayan Black-on-red, Youngs Brown,
Winona Corrugated, Winona Smudged, Tusayan Corrugated,
Deadmans Black-on-white, and Holbrook Black-on-white.

Elden Phase was defined by Gladwin (1934):

pueblo architecture; Tusayan Black-on-white, Tusayan

Black-on-red, Tusayan Polychrome, Moenkopi Corrugated,

and Sunset Red. Colton (1939) added unit houses or

small multi-storied pueblos with or without kivas,

possibly ballcourts: Turkey Hill Red, Flagstaff Red,

Citadel Polychrome, Elden Corrugated, St. Johns Poly
chrome, Wingate Black-on-red, Walnut Black-on-white,

and Flagstaff Black-on-white.

Turkey Hill Phase was defined by Colton (1939): multi-story pueblos with rectangular kivas; Turkey Hill Red, Sunset Red, Elden Corrugated, Moenkopi Corrugated, Kayenta Black-on-white, and Tusayan Polychrome.

Clear Creek Phase was defined by Gladwin (1934):
pueblos with 30-200 rooms; Jeddito Black-on-yellow,
Fourmile Polychrome, Gila Polychrome, and Flagstaff Red
Ware. Colton (1934) added Tonto Red, Tonto Smudged,
Homolovi Corrugated, Winslow Polychrome, and Tuwiuca
Black-on-orange.

#### Coconino Branch

Coconino Phase was defined by Gladwin (1934):
slab houses; Kana-a Black-on-white, Deadmans Fugitive
Red, and Deadmans Gray. Colton (1934) elaborated on
this, adding: (a) irregular earth lodges with firepits
irregularly placed; (b) deep timber pithouses with ventilator (with the comment that these were possibly Sinagua houses reoccupied by the Coconino); (c) surface
structures with small rectangular contiguous rooms of
low masonry and adobe, turtle back "bricks" and Deadmans Fugitive Red, Deadmans Gray, Deadmans Black-ongray, Kana-a Gray, Rio de Flag Brown, Kana-a Black-onwhite, and Deadmans Black-on-red.

Medicine Valley Phase was defined by Colton (1939): (a) rectangular earth lodge, quadrilateral roof support, side entrance, timber or masonry walls; (b) masonry surface granaries of small contiguous rooms and; (c) rectangular forts on hilltops. Ceramic types are Deadmans Gray, Deadmans Fugitive Red, Deadmans Black-on-gray, Deadmans Black-on-white, Deadmans Black-on-red, Rio de Flag Brown, Tusayan Black-on-red, Medicine Black-on-red, Coconino Gray, Medicine Gray, and Tusayan Corrugated.

#### SUMMARY

The earliest period, the Cinder Park phase, was characterized by a small population living in brush huts, making crude pottery and learning to utilize the resources of the area. The major innovation during the next period, the Sunset Phase, was the timber pithouse. In the Rio de Flag Phase houses began to be built above ground and occasionally on small artificial mounds. The next period saw the replacement of timber pithouses by masonry pithouses, Padre Phase, and the movement into the area of people of Hohokam affiliation from the south, Winona and Angell phases. This was followed by the introduction of Anasazi traits including masonry pueblos,

the concentration of the population into large centers, and finally the movement out of the area toward the south and east, Turkey Hill and Clear Creek phases.

#### TREE-RINGS AND PHASES

A chronological chart (Fig. 2) of the various sites, as determined by the tree-rings, was constructed in order to show clearly the following relationships:

- (a) To what phase each site belongs.
- (b) The range of outside dates from each site. The earliest outside date from each site was represented by a dot placed at the intersection of the proper time and site coordinates. The latest date was also represented in the same manner. If there was a continuous series of dates between these two points, the points were connected by a line. If there was a considerable break in the times represented, this was shown by handling the group of dates on either side of the break as a separate unit.

An examination of this chart and the employment of certain basic assumptions enabled me to assign time spans in actual years to the phases represented. The basic assumptions employed were:

(a) The outermost ring date at any site is the closest approximation of the final abandonment of the site.

				21
NA	7207	Q	-	
NA	3056		•	NO PHASE ASSIGNMENT
NA	5866		•	
NA	1295		<del></del>	•
NA	3674			•
NA	7207	A		•
NA	2218			•
NA	534			•
NA	4317			•
NA	2551			
NA	2798			COCONINO
NA	1927		•	
NA	1925	В		COCONINO AND SUNSET
NA	2800	•		
NA	1531			SUNSET
NA	5903		•	RIO DE FLAG
NA	1922			
NA	1920	٥		MEDICINE VALLEY
NA	1571	_		
NA	2004	_		AND
NA	408			
NA	863			. DIO DE ELAC
NA	1244	R		RIO DE FLAG
NA	1121			
ı	2001		•	MEDICINE VALLEY
NA	1680			
NA	862			
NA	1238			
NA	1625	C		•
NA	1754			· —
NA	192			
	2002		•	
NA	2133	A	<del></del>	
1	2134		WINONA	-
	2133		WINOWA	
_	3673		<del></del>	
3	2135	c	ANGELL	
1	2133		~ 11 4 6 6 6	
	2134		PADRE	
NA NA	310	_	FAUNE	
NA NA	1814			
NA	142	~	ELDEN	
NA	358			• <u> </u>
NA NA	333			
NA	333 405		•	
NA	1785			
1				·
NA NA	739			
MA	660		TURKEY	HILL
<del></del>	1629			
<del>  ""</del>	. 023		CLEAR	CREEK
Ī			-7 -8	-1200 -1200 -1000-
1			<b>8</b> 00-	200
<u> </u>			<u> </u>	i ? ?

Fig. 2 The range of outside dates by sites and phases.

- (b) A cluster of dates is probably more accurate than a single date.
- (c) The stratigraphic relationships of the various phases have been accurately worked out.

As Colton (1946) has explained in some detail, the Flagstaff area is a meeting place or frontier zone for three or more cultures. There are some sites which have been listed as having elements of several different contemporaneous phases as well as several sequential phases. These sites have been plotted as being the latest phase represented, and where a site has been designated as having two contemporaneous phases, it is shown in a combined category. This frontier situation creates a number of complications in attempting to assign dates to phases because of the lack of pure or single-phase sites. For instance, there is only one pure Rio de Flag Phase site, but nine sites with Rio de Flag Phase and Medicine Valley Phase components.

However, by taking the archaeological evidence into account it is possible to overcome the majority of the difficulties. Thus, the Padre Phase with only one site yielding any dates is followed by the Elden Phase with a good series of dates and overlies the Winona-Angell phases with an excellent group of dates. Since

the Padre Phase develops out of the Rio de Flag Phase, another check on the beginning date is possible. There is only one pure Rio de Flag Phase site, which contains only one dated specimen; therefore not much reliance should be placed upon it. However, seven additional sites yielding dates have been assigned a Rio de Flag component in their final period of occupancy. These seven sites have a great range of dates, but the latest date is contemporaneous with the Winona-Angell sites. The Padre Phase is thus bracketed into a fairly restricted time period.

In a similar fashion, the Rio de Flag and Medicine Valley phases are restricted in time. The dates that have been applied to the various phases are as a result rounded off in most instances, for unless all the sites of a region are excavated and accurately dated it is always possible that one a few years earlier or later might be discovered.

#### OLD DATES AND NEW

The work done during the course of this project was accomplished with the attitude that no previous work had ever been done on these specimens.

Since only a fraction of them had been intensively studied, this fiction was fairly easily maintained.

At the completion of the project a check was made to see which specimens previously dated had been dated again and what differences in dating were present. It was gratifying to see that the majority of these were dated at the same time period, and only minor differences were present, such as a few years difference in inside and outside dates for each specimen. These differences were the result of the examination of a different portion of the specimen or of the loss of fragments of the outside in the course of handling and packing over the intervening years, or both.

There were, however, a number of specimens which had been previously dated but at an entirely different time period. This is a much more serious matter. In each case my work was rechecked as far as possible,

looking up the skeleton plots that had been used previously and comparing them with mine, and then checking each against the master chronology at both of the time periods in question. In all cases it was possible to see why the specimen had been given the date it had received previously, but I do not believe that the evidence is sufficiently strong to place it in that time period. The evidence is strong enough to place the specimen in the time period assigned in this study.

An even larger group of specimens which had been dated previously did not yield a date for me. These specimens were likewise rechecked, and again it was possible to see why they had been dated at a particular time period, but the strength of the dating was such that I could not convince myself that the specimen in question belonged to the period previously cited. These dates could be perfectly legitimate, but there are too many doubts as to their validity for full acceptance of them.

Of the total 596 dated specimens, 466 had not been dated prior to this examination.

7. CONCLUSIONS

A total of 4263 archaeological tree-ring specimens from 92 sites in the Flagstaff area was examined during the course of this project. From these specimens, 596 outside dates were obtained. These dates ranged from A. D. 678 to 1311.

The tree-ring dates for the various phases in the local sequence were revised and modified as follows:

Phases	Old Dates	New Dates
Clear Creek	1300-1350	1300-1320+?
Turkey Hill	1200-1300	1250-1300
Elden	1120-1200	1150-1250
Padre	1070-1120	1100-1150
Medicine Valley	900-1120	950-1150
Angell-Winona	1070-1120	1070-1100
Rio de Flag	9 <b>0</b> 0 <b>-</b> 1050	980-1100
Sunset	700-900,	? -980
Coconino	700-900	? -950
Cinder Park	500 <b>-700</b>	? - ?
		•

city of material from excavated sites representing these phases. These less well dated phases are Cinder Park, Coconino, Sunset, Rio de Flag, Padre, Turkey Hill, and Clear Creek. However, by using the known archaeological sequence to bracket these phases with what dates are available it is possible to present adequate dates for all except the earliest phases: Cinder Park, Coconino, and Sunset. Only three phases, Angell-Winona, Medicine Valley, and Elden, are known from enough excavated sites with datable material to be considered well dated by the tree-ring method.

This re-examination of the dating of the archaeological phases of the Flagstaff region has been based
on the fiction that no previous tree-ring dating work
had been carried on in the area before. When, however,
the records were checked at the end of the project it
was found that of the 596 dated specimens obtained during the course of this study only 130 of these had previously been dated.

Therefore, the time spans given for the phases in question, although differing by only a few years in most cases from previously published estimates, should be much closer to the actual time spans of these phases

than had previously been possible to determine. The major outlines of the chronology are unchanged by these new dates. Moreover, the very large number of new dates serves to confirm the basic sequence.

The early and late phases are characterized by a small number of actual sites. For this reason the number of sites with dated tree-ring specimens is small and the corresponding phases are inadequately dated.

The early phases represent a time of small population in a widely scattered settlement pattern. The later phases represent a considerable population, highly concentrated. Neither of these extremes of the sequence has received adequate attention from the archaeologist.

The low percentage of actual dates derived from a rather large collection of tree-ring specimens is a reflection of the fact that although in theory every specimen could yield a date, in actual practice only a small percentage do.

If by some chance the archaeologist who is doing field collecting of archaeological tree-ring specimens has had dendrochronological training the ratio of
dated specimens to collected specimens will undoubtedly
be higher because he can eliminate most of the unsuitable specimens in the field.

However the majority of archaeologists lack this specialized training and should therefore collect and hopefully submit all possible specimens with the understanding that only a few dates may result. This is, of course, merely an additional area in which the archaeologist is forced to collect everything possible, to keep more and more detailed documentation and to submit increasing quantities of material to specialists in other fields.

#### APPENDIX:

Tables of Site and Specimen Information

The site number is the number assigned to a particular site by the Museum of Northern Arizona archaeological site survey. The site unit is the location in the site from which the specimens were collected.

The specimen number is usually the number assigned serially to tree-ring specimens by the Museum of Northern Arizona. These numbers have the prefix "F", and as the bulk of the specimens have this prefix it is shown only for the first specimen of each group. All other prefixes are for specimens not collected by the Museum of Northern Arizona, and the specimen numbers were assigned by the Laboratory of Tree-Ring Research.

The inside date refers to the date of the innermost ring present on the specimen. The outside date refers to the outermost ring present on the specimen. When bark cells were present on the specimen the letter "b" follows the outside ring date. The previous outside date refers to the date assigned by someone other than myself to the outermost ring.

Table 1. SITE NA 142

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date			
Backdirt	Elden Pueblo	1122	1160	1159			
			•				
Site name:	Elden Pueblo						
Excavated by:	Fewkes and Harrington 1926						
References:	Colton, H. S. 1946						
	Colton, M. R.	F. and	H. S. 19	39			
	Douglass 1938	3 .					
•	Fewkes 1927						
· · ·	Hough 1932						

Phase assignment: Elden

Table 2. SITE NA 192 B

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
В	F 1242	1063	1106	-
В	1180	1058	1104	-
В	1221	1060	1104	· <b>_</b>
В	1240	1061	1104	-
В	1214	1059	1100	-
В	1248	1059	1099	-
В	781	1045	1093	-
<b>B</b> .	788	1045	1093	-
В	783	1049	1093	-
<b>B</b> \	789	1044	1093	, <b>-</b>
В	1178	1042	1089	-
В	1186	1040	1087	· <u>-</u>
В	1197	1036	1085	-
В	786	1045	1085	<b>-</b>
В	1196	1035	1084	-
<b>B</b> ;	1200	1034	1073	

none

Excavated by:

Hargrave 1930

References:

Colton 1946

Gladwin 1943

### Table 2. SITE NA 192 B (continued)

References:

Hargrave 1933

Phase assignment: Medicine Valley

Table 3. SITE NA 310

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date	
?	. F 2353	845	933	933	
?	2354	803	911	911	

Walnut Canyon cliff dwelling

Excavated by:

References:

Phase assignment: Elden?

Table 4. SITE NA 333

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	<b>F</b> 3684	1031	1187	-
?	3683	1025	1153	1185
	, , , , , , , , , , , , , , , , , , ,			

Walnut Canyon cliff dwelling

Excavated by:

?

References:

Phase assignment: Elden?

Table 5. SITE NA 358

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 4271	1118	1187	1182
?	4267	1121	1184	1182
?	4265	1120	1183	1183
?	4272	1119	1183	1183
?	4268	1118	1178	1183
?	4262	1134	1173	1156+

Nalakihu

Excavated by:

King 1933-34

References:

Colton 1946

Fewkes 1900

Fewkes 1904

King 1949

Phase assignment:

Elden, Klethla and Chino

Table 6. SITE NA 405

•	Site Unit			Specimen Number	Inside Date	Outside Date	Previous Outside Date
	Sec.	4	F	3919	1128	1198	-
	Sec.	4		3724	1153	1197	_
	Sec.	4		3895	1104	1190	1190
	Sec.	4 '		3862	1124	1169	1170
	Sec.	4		3863	1131	1164	-
••	Sec.	4		3853	1024	1134	-
	?			2533	1153	1192	-
	?			3808	1109	1173	1173
	?			2535	1121	1173	-
	?			2532	1094	1165	1167
	?	WPT	2.	19	999	1147	-
	?		F	3048	1052	1127	-
	?			3807	966	1028	-
<b>\</b>	Sec.	3		3767	1138	1186	-
	Sec.	3		3795	1147	1186	•
	Sec:	3		3766	1149	1186	-
	Room	41		3923	1116	1166	-
	Room	41		3781	1118	1164	-

Table 6. SITE NA 405 (continued)

Site Unit		Specimen Number	Inside Date	Outside Date	Previous Outside Date	
Room	46 F	3002	1093	1160	1160	
Room	46	2995	1104	1157	1156	
Room	35	2965	1130	1160	1170?	
Room	35	3017	1012	1120	•	
Site name	•	Wupatki				
Excavated	by:	Hargrave	1933			
		Museum of	Norther	n Arizon	a staff	
		1934			2	
		Reed 1940				
•		Jones 194	0-41			
Reference	3:	Colton 1946				
		Douglass	1938			
		Fewkes 19	00			
•		Fewkes 19	04			
		Gladwin l	943			
		Mc.Gregor	1938 ,			

Phase assignment: Klethla and Elden

Table 7. SITE NA 408

	Site Jni	-			ecimen lumber	Inside Date	Outside Date	Previous Outside Date
Board	in	front	end	F	998	955	1000	
Board	in	front	end		727	922	987	-
Board	in	front	end		9 <b>9</b> 5	942	987	<b>-</b> '
Board	in	front	end		722	923	981	-
Board	in	front	end		719	89 <b>9</b>	976	975
Board	in	front	end		731	842	975	976
Board	in	front	end		834	. 880	974	<u>.</u>
Board	in	front	end		718	904	972	-
Board	in	front	end		728	833	972	-
Board	in	front	end		840	883	972	-
Board	in	front	end		996	904	958	<del>-</del>
Board	in	front	end		720	898	946	~
Board	in	front	end		724	902	946	-
Board	in	front	end		721	864	923	975
Board	in	front	end		717	842	922	-
Board	in	front	end		729	866	919	-
Board	in	front	end		725	841	916	-
Board	in	front	end		830	854	913	-
Board	in	front	end		831	866	910	-
Board	in	front	end		833	844	886	-

Table 7. SITE NA 408 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Near center of room	F 1014	847	908	911+
Near center of room	1016	854	895	-
Near center of room	1013	810	849	911+
Vestibule posts	1024	963	1007	-
Vestibule posts	1022	963	1006	-
Vestibule posts	1001	969	1021	-
Vestibule posts	99 <b>9</b>	972	1011	-
Site name:	Jack Si	mith's A	lcove Hou	se
Expose tod have	Uomano	1071		

Excavated by:

Hargrave 1931

References:

Colton 1932a

Colton 1946

Douglass 1938

Gladwin 1943

Hargrave 1933

Mc.Gregor 1938

Phase assignment:

Rio de Flag, Medicine Valley

and Black Mesa

Table 8. SITE NA 534

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date	
Surface	F 2648	1159	1246	1246	

none

Excavated by:

pothunters

Reference:

MNA files

Phase assignment:

none

Table 9. SITE NA 660

Site Unit	Specime Number		Inside Dat	Outside Date	Previous Outside Date
?	THP	1	1233	1278	-
?	THP 10	0	1185	1232	-
?	Haury's 241	1	1138	1175	-
?	THP 8	8	1143	1170	-
?	THP	9	1123	1168b	-

Turkey Hill Pueblo

Excavated by:

Cummings 1927 and 1928

References:

Colton 1946

Cummings 1930

Phase assignment:

Padre, Elden and Turkey Hill

Table 10. SITE NA 739

Site Unit			Outside Date	Previous Outside Date	
?	11/212	1071	1256	1256+ \	
A	F 2386	1063	1092	1092	
<b>A</b>	2385	1029	1070	1094?	

Walnut Canyon cliff dwelling

Excavated by:

Hargrave 1932

References:

Colton 1946

Mc.Gregor 1936b

Phase assignment:

Elden

Table 11. SITE NA 862

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Room east II	F 173	1021'	1059	-
Room east II	152	917	970	-
Room east III	224	996	1059	1058
Room east III	205	999	1059	1059
Room east III	206	993	1059	1056
Room east III	197	1001	1058	1059
Room east III	227	997	1058	-
Room east III	225	995	1049	-
Room east III	209	970	1034	1034
Room east III	223	979	1025	1032+
Large room IV	305	1005	1060	1061
Large room IV	309	1015	1059	1055
Large room IV	278	1018	1056	1056
Large room IV	306	1017	1056	1056
Large room IV	308	1017	1056	-
Large room IV	307	1012	1050	-
Large room IV	250	963	1001	-
Large room IV	310	<b>76</b> 8	882	904
Large room IV	311	766	874	-
Large room IV	288	805	842	-

## Table 11. SITE NA 862 (continued)

Site name: Medicine Fort

Excavated by: Hargrave 1930

References: Colton 1946

Douglass 1936

Douglass 1938

Gladwin 1943

Hargrave 1933a

Mc.Gregor 1936b

Mc.Gregor 1938b

Phase assignment: Medicine Valley

Table 12. SITE NA 863

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date		
?	F 4156	988	1076	-		
Site name:	Medicine	Cave				
Excavated by:	Cummings 1929					
	Colton and Brady 1929					
	Hargrave	1930				
References:	Colton 19	46				
	Gladwin l	.943				
	Mc.Gregor	1938b				
Phase assignment:	Medicine	Valley				
	Rio de Fl	ag.				

Table 13. SITE NA 1121

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 1509	815	898	-
?	1503	814	889	-
?	<b>15</b> 05	809	888	-
?	1504	812	882	-
?	1506	814	872	-

?

Excavated by:

Hargrave 1929-30?

References:

Colton 1946

Gladwin 1943

Phase assignment:

Medicine Valley

Table 14. SITE NA 1139

side Outside Previous ate Date Outside Date	Specimen Number	Site Unit
.86 1248 -	F 2945	?
50 1178 -	4167	?
.55 1178 -	4168	?
.57 1176 -	4170	?
.19 1157 -	4171	?
•	4171	?

Wilson Pueblo

Excavated by:

Wilson 1929

Hargrave 1930

References:

Colton 1946.

Phase assignment: Elden

Table 15. SITE NA 1238

Site Unit		ecimen umber	In <b>s</b> ide Date	Outside Date	Previous Outside Date
ventilator	F	355	1015	1066	-
ventilator		361	1019	1066	-
ventilator		<b>3</b> 62	1020	1066	<del>-</del>
ventilator		363	1015	1053	
ventilator		367	914	949	-
<b>v.</b> 1		654	1008	1052	<del>-</del>
V. 4		426	1006	1066b	-
V. 4		431	1020	1066b	-
V. 4		424	1023	1066	-
V. 4		429	1025	1066	, <b>-</b>
V. 4		425	1008	1061	-
V. 4		423	1008	1060	-
V. 4		421	997	1049	-
V. 4		428	1001	1048	-
V. 5		406	998	1066	1067
V. 5		407	996	1066	1066
<b>V.</b> 5		409	998	1057	-
V. 5		410	999	1056	-

Table 15. SITE NA 1238 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
V. 5	F 411	1005	1052	1066
V. 5	408	998	1049	1066
N.E. end	628	816	851	<b>-</b>
Part of S.W. beam	549	855	931	-
Part of S.W. beam	433	846	<b>92</b> 8	-
Part of S.W. beam	546	876	928	-
Part of S.W. beam	556	875	927	926
Part of S.W. beam	507	826	926	-
Part of S.W. beam	443	881	919	-
N.E. corner	484	1014	1066	-
N.E. corner	485	1011	1066	-
N.E. corner	487	1012	1066	-
N.E. corner	488	1020	1066	-
N.E. corner	` 489	1013	1066	-
N.E. corner	490	1026	1066	-
N.E. corner	491	1026	1066	-
N.E. corner	493	1023	1066	-
N.E. corner	499	1021	1066	-

Table 15. SITE NA 1238 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
N.E. corner	504	1023	1066	-
N.E. corner	486	1014	1065	-
N.E. corner	494	1013	1065	<b>-</b> '
N.E. corner	502	1017	1065	-
Misc.	590	899	955	-
Misc.	<b>597</b>	901	951	-
Misc.	593	8 <b>7</b> 8	927	-
Misc.	596	862	926	-
Misc.	595	878	920	-
Misc.	527	873	915	-
Misc.	603	823	891	-
Misc.	594	802	887	-
	·			

none

Excavated by:

MNA staff 1930

References:

Colton 1946

Gladwin 1943

Mc.Gregor 1936b

Mc.Gregor and Douglass 1938

Phase assignment:

Medicine Valley

Table 16. SITE NA 1244 B

	Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Post	N.E. corner	F 1729	965	1011	-
Post	N.E. corner	1725	943	1010	-
Post	N.E. corner	1726	944	1009	-
Post	N.E. corner	1731	946	994	-
Post	N.E. corner	1727	945	992	-
Post	N.E. corner	1728	95 <b>6</b>	991	-
Post	N.E. corner	1730	944	98 <b>6</b>	-
Beam	from N.E. side	1757	1026	1094	1067
Beam	from N.E. side	1758	1026	1093	-
w.	roof beam	1763	955	993	· •
W.	roof beam	1765	955	988	
	Misc.	1760	1028	1093	<b>-</b>
	Misc.	1762	931	977	-

Excavated by:

References:

none

MNA staff 1931

Colton 1946

Mc.Gregor 1932

# Table 16. SITE NA 1244 B (continued)

References:

Mc.Gregor 1938b

Phase assignment:

Medicine Valley and Rio de

Flag

Table 17. SITE NA 1295 A

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
N.E. corner post	F 2390	<b>799</b>	893	-
Rear ventilator post	2406	759	805	-
Site name:	none			
Excavated by:	Hargrave	1932		

References:

Colton 1946

Gladwin 1943

Phase assignment: none (sherds were lost)

Table 18. SITE NA 1531

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
W. corner back side	F 3061	901	965	964
W. corner back side	3063	905	964	-
N. corner back side	3064	819	854	-
W. corner post	2623	634	692	708+
E. corner post	2624	626	708	-
Floor by S. corner post	<b>263</b> 2	617	687	-
Site name:	Elden p	ithouse		
Excavated by:	Hargrav	e 1932		
	Bretern	itz 1956	(re-exca	vation)
References:	Bretern	itz 1957	<b>'</b> b	
	Colton	1946		
	Douglas	s 1938		
	Gladwin	1943	•	
	Mc.Greg	or 19360	<b>:</b>	

Phase assignment:

Sunset

Mc.Gregor 1938b

Table 19. SITE NA 1571 A

Site Unit	Specimen Inside Outside Previous Number Date Date Outside Date
?	F 2411 864 911 -
?	2416 823 881 -
Site name:	none
Excavated by:	Hargrave 1932
References:	Colton 1946
	Gladwin 1943
Phase assignment:	Medicine Valley and Rio de Flag

Table 20. SITE NA 1625 C

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Poles, S.W. corner	F 1375	1042	1093	-
Poles, S.W. corner	1379	1038	1093	-
Poles, S.W. corner	1383	1042	1093	-
Poles, S.W. corner	1385	1040	1093	-
Poles, S.W. corner	1452	972	1032	7
Beam between S. posts on top of S.E. post	1440	1034	1092	<u> </u>
Beam between S. posts on top of S.E. post	1441	1033	1077	-
Beam between S. posts on top of S.E. post	1429	1033	1072	-
Beam between S. posts on top of S.E. post	1430	1033	1071	-
N.W. post	1359	762	799	<b>.</b> 799
N.W. post	1355	714	786	784
N.W. post	1365	740	785	_
N.W. post	1367	740	777	-
N.W. post	1356	<b>7</b> 20	776	777
N.E. post	1343	750	894	927
Misc.	1100	1041	1092	

#### Table 20. SITE NA 1625 C (continued)

Site name:

none

Excavated by:

Hargrave 1930

References:

Colton 1946

Douglass 1936

Douglass 1938

Gladwin 1943

Hargrave 1933

Mc.Gregor 1936b

Mc.Gregor 1938b

Phase assignment:

Medicine Valley

Table 21. SITE NA 1629

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date	
Frame used to build floor of first floor	F 4888	1249	1311	<b>-</b> .	
Frame used to build floor of first floor	4899	1230	1309	-	
Frame used to build floor of first floor	4897	1236	1306	-	
Frame used to build floor of first floor	4885	1273	1305		
Frame used to build floor of first floor	4894	1200	1248	-	
Frame used to build floor of first floor	4896	1196	1237	•	
Frame used to build floor of first floor	<b>4890</b>	1103	1154	-	
Frame used to build floor of first floor	4889	1020	1140	-	
Frame used to build floor of first floor	4900	1055	1095	-	
West of center	4906	1243	1303	-	
Misc.	4908	1052	1143	-	
S. wall	4921	1231	1303	1303	
N.W. corner	4929	1221	1282	•••	

Table 21. SITE NA 1629 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
N.W. corner	F 4934	1079	1121	-
S.E. corner	4942	1208	1308	1307
S.E. corner	4959	1247	1303 .	1295
S.E. corner	5124	1244	1295	-
S.E. corner	4961	1248	1294	1294
S.E. corner	5119	1219	1275	1274
S.E. corner	4954	1227	1273	-
S.E. corner	4963	1229	1270	-
S.E. corner	4945	1210	1267	-
S.E. corner	4964	1206	1257	1257
S.E. corner	4965	1203	1257	-
S.E. corner	5251	1145	1249	-
S.E. corner	5114	1195	1236	-
S.E. corner	5127	1136	1180	-
S.E. corner	5117	1064	1147	1147
S.E. corner	4948	1050	1101	
S.E. corner	5128	<b>9</b> 85	1031	-
S.W. corner	5102	1264	1310	-

Table 21. SITE NA 1629 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
S.W. corner	F 5106	1270	1303	-
S.W. corner	5097	1241	1284	-
S. wall	5180	1258	1308	1308
W. wall	5210	1272	1310	***
W. wall	5224	1253	1308	-
Room 3	5002	1273	1308	-
Room 3	5050	1243	1307	-
Room 3	5007	1242	1303	-
Room 3	5135	1196	1233	-
Room 3	5133	1035	1159	-
Room 3	4984	1052	1115	<b>-</b>

Site name:

Kinnikinnick

Excavated by:

Wetherill 1940

Colton 1946

Conner 1943

Mc.Gregor 1942b

Phase assignment: Turkey Hill and Clear Creek

Table 22. SITE NA 1680

Site Unit		ecimen umber	Inside Date	Outside Date	Previous Outside Date	
?	F	971	960	1031	-	
?		972	956	1015	-	
?		931	882	931	-	
. ?		906	819	887	889	

Site name:

Excavated by:

Hargrave 1930

References:

Colton 1946

Douglass 1936

Douglass 1938

Gladwin 1943

Hargrave 1933

Mc.Gregor 1936b

Mc.Gregor 1938b

Phase assignment:

Medicine Valley

Table 23. SITE NA 1754 A

Site Unit					pecimen Number	Inside Date	Outside Date	Previous Outside Date
Pithouse	s.w.	of	kiva	F	2247	1039	1095	-
Pithouse	s.w.	of	kiva		2245	1038	1094	-
Pithouse	s.w.	of	kiva		2246	?	1094	-
Pithouse	s.w.	of	kiva		2248	1040	1094	-
Pithouse	s.w.	of	kiva		2251	1042	1094	-
Pithouse	s.w.	of	kiva		2254	1050	1094	-
Pithouse	s.w.	of	kiva		2256	1049	1094	-
Pithouse	s.w.	of	kiva		2257	1038	1094	-
Pithouse	s.w.	of	kiva		2258	1050	1094	
Pithouse	s.w.	of	kiva		2255	1049	1093	-
Pithouse	s.w.	of	kiva		2252	1040	1092	-
<b>**</b>								
Beam	?				2286	1043	1096	-
Beam	?				2275	1015	1094ъ	-
Beam	?				2271	1017	1074	-
Side po	ole				2324	1055	1096	-

Heiser Springs Pueblo

Excavated by:

Hargrave 1932

References:

Colton 1946

# Table 23: SITE NA 1754 A (continued)

References: Gladwin 1943

Hargrave 1933

Phase assignment: Medicine Valley

Table 24. SITE NA 1785

Site Unit		Specimen Number	Inside Date	Outside Date	Previous Outside Date
Room	6	F 4767	1135	1207	·
Room	6	4771	1136	1207	-
Room	6	4769	1137	1206	-
Room	6	4843	1137	1201	-
Room	6	4770	1051	1134	-
Room	6	4808	1070	1130	-
Room	6	4829	1048	1129	
Room	6	4836	1055	1128	<u>.</u>
Room	6	4826	1079	1126	•
Room	6	4825	1054	1124	•
Room	6	4739	1048	1120	-
Room	6	4740	1057	1116	<b>-</b>
Room	6	4809	1075	1116	1110
Room	6 .	4814	1070	1115	-
Room	6	4824	1079	1115	1116
Room	6	4733	1053	1114	<b>-</b>
Room	6	4734	1054	1114	
Room	6	4735	1055	1114	<b>-</b>
Room	6	4844	1058	1111	· •
Room	6	4758	1041	1109	1110
Room	6	4845	1044	1108	-

Table 24. SITE NA 1785 (continued)

Site Unit			ecimen lumber	Inside Date	Outside Date	Prev: Outs: Date	ide
Room	6	F	4795	1069	11086	-	
Room	6		4 <b>73</b> 2	1041	1107	<b>≖.</b> ·	
Room	6		4815	1051	1106	-	
Room	6		4741	1040	1105	-	
Room	6		4761	1064	1105	-	
Room	6		4765	1048	1105	-	
Room	6	-	4813	1051	1100+?	-	
Room	6		4832	1039	1097	1102	
Room	6		4842	1052	1096	-	
Room	6		4837	1049	1095	-	
Room	6		4827	1043	1094Ъ	-	
Room	6		4840	1036	1090	-	
Room	6		4810	1049	1089	-	
Room	6		4838	1037	1088	-	
Room	6		4730	1037	1086	-	
Room	8		4749	1140	1173	1173	
Room	8		4796	1070	1147	-	
Room	8		4790	1034	1127b	_	
Room	8		4727	1071	1115	1123	

Table 24. SITE NA 1785 (continued)

Site Unit	Specimen Inside Outside Previous Number Date Date Outside Date
Room 11	F 4757 1034 1116 1117
Site name:	Ridge Ruin
Excavated by:	Mc.Gregor and Wetherill 1939
References:	Colton 1946
	Mc.Gregor 1941 .
Phase assignment:	Elden

Table 25. SITE NA 1814 A

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date		
S. corner post	F 2015	813	914	907		
W. corner post	2016	808	931	928		
E. corner post	2211	830	942	928		
Middle post N. end	2226	820	921	920+		
Burial No. 1	2100	855	903	-		
Site name:	Juniper	r Terra	ce			
Excavated by:	Hargra	re 1931	-32			
References:	Colton	1946				
	Gladwin	n 1943				
	Mc.Gre	gor 193	<b>მ</b> ზ			
·	Smith :	1952				
Phase assignment:	Hull,	Klethla	and Eld	en		
Comment:	Specimo	Specimens are listed in the				
	catal	og as b	eing fro	m Unit		
	"A".	Descri	ption so	unds		
·	more like Unit "C".					

Table 26. SITE NA 1920 B

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 3741	862	907	-
?	1670 ·	826	875	-
?	1666	826	874	-
?	1688	820	<b>874</b>	-
?	1691	831	874	-
?	1693	827	874	-
?	1667	834	873	-
?	3476	821	856	-
?	1674	787	843	-
?	3463	799	841	•
?	1671	802	836	-
?	3466	788	832	•
?	3475	792	821	
?	3468	784	819	•
?	1692	777	815	-
?	3474	772	807	· ·
?	3477	768	805	-
?	1700	751	<b>7</b> 95	851
?	1662	736	777	-
?	1675	731	767	-
?	1658	712	760	•

Table 26. SITE NA 1920 B (continued)

Site Unit	Specimen Inside Outside Previous Number Date Date Outside Date				
?	F 3478 723 755 -				
?	1697 701 745 <del>-</del>				
Site name:	none				
Excavated by:	Hargrave 1931				
	Newman 1935				
References:	Colton 1946				
	Douglass 1936				
	Douglass 1938				
	Gladwin 1943				
	Mc.Gregor 1936c				
	Mc.Gregor 1938b				
Phase assignment:	Coconino, Medicine Valley,				
	Sunset and Rio de Flag				

Table 27. SITE NA 1922 A

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date	
?	F 3511	746	787	-	
?	3480	617	701	-	
Site name:	none				
Excavated by:	Wheeler	r 1935			
References:	Colton	1946			
	Gladwi	n 1943	•		
	Mc.Gregor 1935				
	Mc.Gre	gor 193	6		
Phase assignment:	Coconi	no, Med	icine Va	lley,	
	Sunse	t and R	io de Fl	ag	

Table 28. SITE NA 1925 B

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date			
Post W. wall	F 2444	787	834	833			
Post N. wall	2450	677	773	855			
Ventilator	3297	634	703	-			
Misc.	2448	640	734	-			
Site name:	none						
Excavated by:	?						
References:	Colton	1946					
	Dougla	ss 19 <b>3</b> 8					
	Gladwi	Gladwin 1943					
	Mc.Gre	Mc.Gregor 1936c					
<del>-</del>	Mc.Gre	Mc.Gregor 1938b					
Phase assignment:	Sunset	Sunset and Coconino					

Table 29. SITE NA 1927 A

Site Unit	Specimen Inside Outside Previou Number Date Date Outside Date				
?	F 2454 751 811 -				
Site name:	none				
Excavated by:	?				
References:	Colton 1946				
	Hargrave 1933				
Phase assignment:	Sunset and Coconino				

Table 30. SITE NA 2001

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
E. post	F 1779	895	1002	-
By N. post	1786	863	950	-
Between N. and W. posts	1787	8 <b>82</b>	981	-
W. end	2169	925	963	-
Misc.	2165	939	1003	-
Misc.	2162	921	997	-
Misc.	2166	923	996	-
Misc.	2159	923	971	-
Misc.	2164	923	960	-

Site name:

none

Excavated by:

Hargrave 1931

References:

Colton 1946

Douglass 1938

Gladwin 1943

Mc.Gregor 1936b .

Mc.Gregor 1938b

## Table 30. SITE NA 2001 (continued)

Phase assignment:

Medicine Valley

Table 31. SITE NA 2002

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
E. post	F 1832	889	938	939
N. corner post No. 22	2063	8 <b>96</b>	930	•
W. corner post No. 25	1942	842	916	918
Board between S. and E. posts	1897	988	1123	1112
Board between S. and E. posts	1884	982	1121	-
Board between S. and E. posts	1881	949	1091	-
Board between S. and E. posts	1834	9 <b>7</b> 2	1088	-
Board between S. and E. posts	1903	1012	1069	-
Board between S. and E. posts	1901	977	1064	-
Board between S. and E. posts	1899	962	1063	••
Board between S. and E. posts	1898	952	1056	1052
Board between S. and E. posts	1902	988	1050	-
Board between S. and E. posts	1952	988	1050	•

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Board between S. and E. posts	F 1848	965	1018	-
Board between S. and E. posts	1837	955	1017	-
Board between S. and E. posts	1885	947	1003	-
Board between S. and E. posts	1886	948	1002	-
Board between S. and E. posts	1904 '	948	999	-
Board between S. and E. posts	1900	948	996	<b>-</b>
Board between S. and E. posts	1887	947	996	-
Board between S. and E. posts	1845	936	981	-
Board between S. and E. posts	1882	873	945	-
Near front	1860	973	1112	-
Near front	1855	915	1064	-
"A" between E. and N. posts	2065	946	1022	<del>-</del>
"A" between E. and N. posts	2051	901	922	-

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
"A" between E. and N. posts	F 1867	898	991	947
"A" between E. and N. posts	1869	898	991	-
"A" between E. and N. posts	1870	893	983	-
"A" between E. and N. posts	1986	911	973	-
"A" between E. and N. posts	1871	911	960	-
"A" between E. and N. posts	1866	848	945	943
Poles across beam S. to W.	1877	1047	1127	-
Poles across beam S. to W.	1880	1072	1110	-
Poles across beam S. to W.	1875	982	1046	-
Poles across beam S. to W.	1878	982	1042	-
Poles across beam S. to W.	1876	930	981	-
S.W. corner	2047	907	1040	-
S.W. corner	2059	927	1039	-
S.W. corner	2058	800	924	

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
S.W. corner	F 2001	740	<b>7</b> 90 ·	-
S.W. corner	1997	734	787	-
S.W. corner	1998	732	774	-
Beam between N. and W. posts	2198	9 <b>78</b>	1094	-
Beam between N. and W. posts	2030	944	1056	-
Beam between N. and W. posts	1977	868	992	-
Beam between N. and W. posts	2009	926	982	<b>-</b>
Beam between N. and W. posts	1978	<b>91</b> 0	981	-
Beam between N. and W. posts	2201	820	958	-
Beam between N. and W. posts	2200	854	936	-
Beam between N. and W. posts	2043	826	928	-
Beam between N. and W. posts	2006	841	928	-
Beam between N. and W. posts	2044	828	927	<b>-</b>
Beam between N. and W. posts	2012	852	923	-

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Beam between N. and W. posts	F 2014	859	920	-
Beam between N. and W. posts	2203	819	917	-
Beam between N. and W. posts	2199	819	908	-
Beam between N. and W. posts	2013	815	897	-
Beam between N. and W. posts	2042	825	885	
Beam between N. and W. posts	2011	834	872	-
Beam between N. and W. posts	2007	824	864	-
Beam between N. and W. posts	2010	809	863	-
Board S. of S. post	1945	1030	1127	-
Board S. of S. post	1943	983	1126	<del>-</del> ,
Board S. of S. post	1944	980	1048	-
Poles N. of beam on S. W. side	1947	982	1046	-
W. corner	2037	890	960	-

Table 31. SITE NA 2002 (continued)

Site Unit		Specimen Number	Inside Date	Outside Date	Previous Outside Date
Between S.	and W. posts	F 2036	953	1118	-
Between S.	and W. posts	1936	1055	1113	-
Between S.	and W. posts	1935	955	1099	1097
Between S.	and W. posts	2034	956	1091	-
Between S.	and W. posts	1991	875	987	-
Between S.	and W. posts	1931	917	981	-
Between S.	and W. posts	1932	893	966	-
Between S.	and W. posts	2045	815	949	-
Between S.	and W. posts	20 <b>46</b> B	896	946	-
Between S.	and W. posts	1989	871	945	-
Between S.	and W. posts	1990	869	945	-
Between S.	and W. posts	1982	809	926	-
Between S.	and W.	1940	759	914	914
Between S.	and W.	1985	838	908	-

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Between S. and W. posts	F 2210	805	855	-
Between S. and W. posts	2046A	772	815	-
Board lla	1981	959	1017	-
Board lla	1980	957	1011	<b>'-</b>
Board lla	1979	960	1008	••
Floor boards and poles	1995	856	945	-
Floor boards and poles	1996	881	942	-
Floor boards and poles	1993	807	872	-
E. side floor	1925	857	997	-
Board along back wall	2053	926	1049	-
Board along back wall	2054	852	927	*** **
Board along back wall	2055	806	864	<del>-</del>
S.E. pole across beam	19260	1072	1104	-
S.E. pole across beam	1926B	1017	1078	•
S.E. pole across beam	1926A	947	991	-

Table 31. SITE NA 2002 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Misc.	F 1889	969	1069	-
Misc.	1909	930	982	_
Misc.	1890	936	981	-
Misc.	1894	928	980	-
Misc.	1896	932	979	-
Misc.	1907	927	979	-
Misc.	1895	939	977	-
Misc.	1905	901	976	. •
Misc.	1906	914	976	-
Misc.	1908	931	973	-
Misc.	1888	828	880	-

Site name:

Excavated by:

Hargrave 1931

References:

Colton 1946

Douglass 1938

Gladwin 1943

Mc.Gregor 1936b

Mc.Gregor 1938b

Phase assignment:

Medicine Valley

Table 32. SITE NA 2004 A

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
S. beam	F 2132	928	988	y. ••
S. beam	2134	912	953	-
S. beam	2135	908	948	<del>-</del> .
Misc.	2127	923	999	-
Misc.	2131	925	999	-
Misc.	2128	912	997	-
Misc.	2129	940	989	-
Misc.	2125	915	986	-
Misc.	2124	866	969	-

Site name: Whistle House

Excavated by: Hargrave? 1931

References: Colton 1946

Gladwin 1943

Mc.Gregor 1936b

Mc.Gregor 1938b

Phase assignment: Rio de Flag and Medicine

Valley

Table 33. SITE NA 2133

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
"A"	F 4487	1029	1086	1086
" <b>A"</b>	4524	1034	1086	1073
, " <b>A</b> "	4528	1051	1085	1079
"A"	4529	1051	1085	1086
"A"	458 <b>9</b>	1035	1085	1085
"A"	4516	1045	1084	1076
"A"	4519	1046	1084	1073
"A"	4555	1040	1084	1083
"A"	4567	1055	1084	1086
"A"	4491	1015	1082	1078
"A"	4514	1042	1082	1077
"A"	4561	1046	1082	1070
"A"	4593	1037	1082	1079
"A"	4518	1047	1081	1080
"A"	4566	1056	1081	1086
"A"	4532	1031	1080	-
"A"	4560	1041	1079	1076
·" <b>A</b> "	4562	1047	1079	1078
"A"	4525	1038	1078	1078
"A"	4676	1043	1078	-
" <b>А</b> "	4552	1042	1077	-

Table 33. SITE NA 2133 (continued)

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
пAн	F 4557	1042	1077	1078
"A"	4513	1041	1076	1085
"A"	4544	1043	1076	1073
"A"	4592	1035	1076	1077
"A"	. 4590	1039	1075	-
n <b>A</b> n ,	4545	1040	1074	1070
"A"	4537	1027	1011	1054
нВи	4404	1044	1081	1078
"B"	4402	1051	1080	1077
<sup>н</sup> Вн	4403	1046	1074	1073
"D"	4426	1041	1100	1097
uDu	4439	1039	1094	1079
"D"	4445	1043	1094	-
"D"	4442	1042	1084	-
"D"	4441	1037	1081	1080
"D"	4440	1038	1077	-
· .				

Site name:

Winona

Excavated by:

Mc.Gregor and Wetherill 1938

## Table 33. SITE NA 2133 (continued)

References:

Colton 1946

Wetherill 1941a

Phase assignment:

Units "A" and "B" to Winona;

Unit "D" to Angell

Table 34. SITE NA 2134

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
"A"	F 3619	1058	1131	1131
"A"	3659	1077	1130	-
"A"	3663	1077	1127	-
" <b>A</b> "	3639	1060	1122	-
"A"	3662	1082	1118	-
"A"	3626	1079	1115	1118
" <b>A</b> "	3625	1078	1113	1109
"A"	3660	1079	1113	
пДп	3623	1081	1111	1111
"A"	3674	1077	1111	-
" <b>A</b> "	3673	1070	1106	-
"A"	4277	1063	1100	-
· · · · · · · · · · · · · · · · · · ·	3634	1056	1097	-
"A"	3671	1054	1089	-
"E 1"	4471	988	1086	1086
"E 1"	4470	988	1080	<b>-</b> .
Trash	4597	1045	1119	-
Trash	3514	960	1061	-

## Table 34. SITE NA 2134 (continued)

Site name:

Winona

Excavated by:

Mc.Gregor 1935, 1937

References:

Colton 1946

Mc.Gregor 1937

Mc.Gregor 1941a

Phase assignment:

"A" to Padre; "E 1" to Winona

Table 35. SITE NA 2135

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date		
Roof material	F 4698	1058	1098	-		
Roof material	4694	1038	1087	1086		
Roof material	4695	1020	1087	-		
Roof material	4696	940	1051	-		
S. post W. wall	4687	1056	1096	1096		
Entrance way	4688	1049	1095	-		
Entrance way	4689	1048	1095	-		
Entrance way	4686	882	1072	1003		
Site name:	Winona					
Excavated by:			Wetheri	11 1938		
References:		Mc.Gregor and Wetherill 1938 Colton 1946				
		Mc.Gregor 1941a				
Dhaga agairment.			~**			
Phase assignment:	Augeti	Angell				

Table 36. SITE NA 2218

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Trash	F 2646	1037	1088	-
Site name:	none			
Excavated by:	none			
References:	MNA fi	les		
Phase assignment:	none			

Table 37. SITE NA 2551

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 3406	842	885	-
?	4037	811	884	-
?	3402	737	806	-
?	4035	730	786	-
?	4050	734	<b>7</b> 75	-
?	4044	735	7 <b>7</b> 3	-
?	4040	638	687	685

Site name:

Excavated by:

Spicer 1934

References:

Colton 1946

Douglass 1936

Douglass 1938

Gladwin 1943

Mc.Gregor 1936c

Mc.Gregor 1936c

Mc.Gregor 1938b

Spicer 1934

Phase assignment:

Coconino

Table 38. SITE NA 2798

Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 39 <b>91</b>	878	937	-
8	4013	884	937	-
?	4018	890	937	-
?	4019	890	937	-
?	4024	893	937	-
?	4028	884	937	-
?	4003	725	929	927
?	4020	860	9 <b>2</b> 9	-
?	4033	880	924	-
?	4095	818	882	-
?	3997	799	850	-
?	4015	783	839	-
?	4031	764	829	-
?	3995	692	826	828
?	4089	713	796	803
<b>?</b>	3984	655	771	-
?	3993	671	771	771
?	4012	645	759	<b>7</b> 58
?	4027	689	754	752
. ?	4004	679	748	748
?	4026	696	745	-

## Table 38. SITE NA 2798 (continued)

Site name: Baker Ranch

Excavated by: Spicer 1934

References: Colton 1946

Douglass 1936

Douglass 1938

Gladwin 1943

Mc.Gregor 1936b

Mc.Gregor 1936c

Spicer 1934

Phase assignment: Coconino

Table 39. SITE NA 2800

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
?	F 3419	817	883	-
?	4072	860	881	-
?	3412	818	878	-
?	3420	818	8 <b>7</b> 8	-
?	3416	799	877	-
?	4055	753	877ზ	-
?	4069	821	877	-
?	3414	820	876	-
?	4070	814	873	-
?	4080	805	873	-
?	4068	799	865	-
?	4078	820	856	-
?	4083	789	843	-
?	4071	774	819	-
?	4062	<b>734</b>	732	792
?	4052	659	724	-
. ?	4073	682	721	-
?	4053	641	711	711
?	3421	640	691	-
?	4060	623	688	680
?	3415	643	678	-

## Table 39. SITE NA 2800 (continued)

Site name: Baker Ranch

Excavated by: Spicer 1934

References: Colton 1946

Douglass 1938

Gladwin 1943

Mc.Gregor 1936b

Mc.Gregor 1936c

Mc.Gregor 1938

Spicer 1934

Phase assignment: Coconino and Sunset

Table 40. SITE NA 3056

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date		
?	F 3446	768	812	-		
Site name:	none					
Excavated by:	Taylor 1935					
References:	Colton 1946					
	Gladwin 1943					
	Mc.Gre	gor 193	6 <b>c</b>			
Phase assignment:	none					

Table 41. SITE NA 3673

Site Unit		ecimen umber	Inside Date	Outside Date	Previous Outside Date
"T" post	F	48 <b>49</b>	1048	1081	-
"T" post		4855	1044	1081	-
"T" post		4854	1031	10 <b>7</b> 5	•
S. side of entrance		4753	1042	1075	1075
Site name:		none			
Excavated by:		Mc.Gre	gor and	We theri	11 1939
References:		Colton	1946		
		Mc.Gre	gor 194	la	
Phase assignment:		Angell			

Table 42. SITE NA 3674

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
"T" beam	F 4874	999	1078	•
		•		
Site name:	none			
Excavated by:	Mc.Gre	gor and	Wetheri	11 1939
References:	MNA fi	les		
Phase assignment:	none			

Table 43. SITE NA 4317

Site	Specimen			Previous		
Unit	Number	Date	Date	Outside Date		
Room 11	F 6087	928	1078	-		
Te B 6	6102	1185	1282	or* · · ·		
Burial 7	6125	1179	1276	-		
Site name:	Polloc	k site				
Excavated by:	Mc.Gregor 1955					
References:	Beeson	Beeson 1957				
	Mc.Gregor 1955 Mc.Gregor 1956					
Phase assignment:	none					

Table 44. SITE NA 5866

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date		
Walk-in well	F 6211	717	813	-		
Site name:	McCorm	ack Spr	ing			
Excavated by:	?					
References:	none					
Phase assignment:	none					
Comment:	This s	pecimen	was unc	overed		
	when	a ranch	er clean	ed out		
	a spr	ing.				

Table 45. SITE NA 5903

Site Unit	Specimen Number			Previous Outside Date
?	F 6134	759	820	-

Site name:

none

Excavated by:

Breternitz 1956

References:

Breternitz 1957a

Phase assignment:

Rio de Flag

Table 46. SITE NA 7207

Site Unit	Specimen Number	Inside Date	Outside Date	Previous Outside Date
Pithouse A 2nd post	F 6202	994	1083	-
Pithouse A 2nd post	6203	1020	1083	-
Structure Q, beam 7	6252	731	771	-
Structure Q, beam 7	6251	<b>7</b> 23	760	
Structure Q, post 6	6259	710	760	-
Structure Q, post 6	6260	718	760	-
Structure Q, post 6	6261	703	760	-
Structure Q, post 6	6262	711	760	-
	· · · · · · · · · · · · · · · · · · ·			······································

Site name: Pershing Site

Excavated by: Mc.Gregor 1957

Mc.Gregor 1960

References: Mc.Gregor 1958

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Phase assignment: none

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