Three other beams have been dated in the past, and the short records kept of them checked again, but the actual specimens could not be found to complete the data listed above. They are as follows:

F. 2524—Outside date 1126—Inside 1085—Loc: Misc.
W. 2 —Outside date 1127—Inside 1079—Loc: Misc.
F. 3837—Outside date 1148—Inside 1091—Loc: Misc.

shell and stone; the extremely wide use of paint; a peculiar painted basketry; the use of lac as a modeling and adhesive material, and characteristic masonry unusually good for this section of the Southwest. Walls have rubble cores which are faced with carefully laid small blocks of sandstone and limestone. In the ceramic complex at Wupatki Winona Brown and Sunset Red are the most common plain type and there is some Turkey Hill Red. Tusayan Corrugated and Moenkopi Corrugated are abundant. The painted types include Citadel Polychrome, Flagstaff Black-on-White and Walnut Black-on-White, with Sosi Black-on-White and Wupatki Black-on-White present in smaller amounts.[6] This is an early Pueblo III complex.

As an examination of the accompanying list of dates will show, early beams were reused in various parts of the pueblo.

Associated with the site is the only known southwestern ball court built completely of masonry. There is also a large circular walled structure, termed a "dance plaza," which in form and location is strongly suggestive of the Great Kivas of the Chaco Canyon and similar sites. It is of interest that the later dates from the Chaco overlap with the earlier dates from Wupatki.

The resemblance between Wupatki and the Bear Ruin in east-central Arizona reported by Haury may also be noted.[7] Here there is a unit of rooms, a large circular kiva with a wide opening on one side, and the dates are almost identical with those from Wupatki.

DATES FROM KINNIKINNICK PUEBLO

JOHN C. MCGREGOR

Kinnikinnick Pueblo is a late Pueblo III and early Pueblo IV site on Anderson Mesa, some 35 miles southeast of Flagstaff, Arizona. One room, room no. 3, was dug by an expedition conducted by Mr. Milton Wetherill and Sidney Connor, for the Museum of Northern Arizona, in the summer of 1940 in an effort to collect tree-ring material which would bridge a short gap in the local Flagstaff series. This gap originally consisted of some forty years at the end of the thirteenth century and the beginning of the fourteenth. The material collected did not close this gap, failing to do so by only six years, but did extend the chronology to 1311 A.D.

The archaeology of this site gives every evidence that beams may be expected which will fill this small period, for pottery types are found here which definitely date later than 1311. The most common decorated pottery complex consists of Jeddito Black-on-Yellow, Bidahochi Polychrome, and

[6] H. S. Colton, Winona and Ridge Ruin, II, Mus. North. Ariz. Bul. 19, 1941.
H. S. Colton and L. L. Hargrave, Handbook of Northern Arizona Pottery Wares, Mus. North. Ariz. Bul. 11, 1937.

[7] E. W. Haury, New Tree-Ring Dates from the Forestdale Valley, East Central Arizona, Tree-Ring Bul. 7, 14-16, 1940.

Winslow Polychrome. The most common types are Chavez Brown and Kinnikinnick Brown recently reported by Colton.[1] The culture represented is the Clear Creek Focus.[2]

The pueblo, of medium size for this time, was built of Moenkopi sandstone in the lower portion and of basalt boulders in the upper walls. The site appears to have a small court and contains a low wall structure which has sometimes been described as an antelope trap, or corral. Certainly the main portion of the pueblo, that near the edge of the large canyon upon which the site lies, was two stories high, and perhaps was even of three stories. This probably explains the several clusters of dates and the long series of rooms. The entire pueblo contains about twenty ground floor rooms so that with the addition of two or three stories a considerable series is still left unexamined.

Surprising quantities of pottery and other objects were found during the course of this comparatively simple and short excavation. Not only were a number of broken but restorable vessels found but an unusual quantity of bone awls of several varieties came from this room as well as a large sandstone slab with a circular hole in the middle. The latter, though unpainted, was similar to the one reported by Haury from the Pinedale ruin, a site of somewhat comparable culture and time.[3]

The specimens in the form of charcoal brought into the laboratory were predominantly ponderosa pine, very small amounts of juniper, and very rarely pieces of pinyon; there were no fir specimens. Today with the exception of the pines growing abundantly in the canyon just below the ruin the predominant tree type is juniper, and it is surprising that more juniper fragments were not found here.

In all of this material whenever other indications showed a true outside or cutting surface the cambium layer invariably had bubbled up in burning and carbonized, thus to form what may be a good indication of a cutting date. Another characteristic which seemed to indicate outsides or very near outsides was the presence of checked or cracked outer surfaces to a depth of only a few rings, as though the surface had rotted somewhat and cracked before the beam was burned.

Although one date was secured at 1147 and at 1257, the first well-dated cutting year is 1269 with seven fragments of beams. Unfortunately most of these seem to have been derived from the same specimen so that only three appear likely as independent dates. However, this probably is the first indication of actual building found, for they are all true outside dates. The next building activity seems to have been between 1274 and 1280, for three specimens date 1274, two 1275, and three 1280. The third building period comes sometime after 1285 and between that date and 1305, during which period nineteen dates are found. The last period of building, or repair, is at a date near 1308. The latest date from the site came probably from room 2, instead of 3, for it was found in loose material near the common wall. This was picked up by Dr. A. E. Douglass and the writer previous to excavation.

A large part of this material has either been dated directly by or examined and check-dated by Dr. Douglass.

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[1] H. S. Colton, Winona and Ridge Ruin, II, Mus. North. Ariz. Bul. 19, 1941.

[2] H. S. Colton, Prehistoric Culture Units and Their Relationships in Northern Arizona, Mus. North. Ariz. Bul. 17, 1939.

[3] E. W. Haury and L. L. Hargrave, Recently Dated Pueblo Ruins in Arizona, Smiths. Misc. Coll. *82*, n. 11, 1931.

DATED SPECIMENS FROM KINNIKINNICK

Number	Outside Dated Ring	Inside Dated Ring	Radius, mm.	Species	Form of Specimen	Number of Absent Rings	Estimated Bark Date
K.N.K. 1	1293	1253		P.P.	Frag.		1295±2
K.N.K. 2*	1269	1244		"	"		1269
K.N.K. 3	1278	1254		"	"		
K.N.K. 4	1311	1276		"	"		1311
F. 4909	1290	1240	26	"	"	1	1290+X
F. 4914	1307	1258	21	"	"	0	1307
F. 4916	1300	1246	38	"	"	0	1303±3
F. 4917	1308	1258	34	"	"	0	1308
F. 4921	1303	1230	52	"	"	0	1308±5
F. 4922	1275	1230	43	"	"	0	1275+X
F. 4923	1309	1278	12	"	"	0	1309
F. 4924	1301	1240	47	"	"	1	1301+X
F. 4926	1304	1270	18	"	"	0	1304+X
F. 4927	1305	1252	36	"	"	0	1310±5
F. 4930	1306	1256	35	"	"	0	1308±2
F. 4942	1307	1208	60	"	"	0	1310±3
F. 4959	1295	1248	40	"	"	1	1295+X
F. 4960	1300	1244	38	Pnn.	"	1	1300+X
F. 4961	1294	1248	35	P.P.	"	0	1294+X
F. 4964	1257	1205	58	"	¼ Sec	0	1257+X
F. 4971	1308	1272	31	"	"	0	1310±2
F. 4979	1303	1227	47	"	Frag.	1	1308±5
F. 4982	1304	1275	35	"	¾ Sec.	0	1304
F. 5024	1295	1259	38	"	Frag.	0	1295+X
F. 5030A	1298	1258	45	"	"	0	1298+X
F. 5030B	1308	1270	19	"	"	0	1308+X
F. 5049	1300	1241	34	"	"	1	1300
F. 5077	1270	1243	39	"	¼ Sec.	0	1270
F. 5078*	1269	1244	26	"	"	0	1269
F. 5079*	1269	1244	30	"	"	0	1269
F. 5080	1269	1249	14	"	Frag.	0	1269
F. 5081*	1269	1244	38	"	½ Sec.	0	1269
F. 5082	1304	1273	22	"	Frag.	0	1304+X
F. 5087*	1269	1243	34	"	½ Sec.	0	1269
F. 5099	1304	1271	38	"	Sec.	0	1304
F. 5108	1274	1229	51	"	Frag.	0	1274+X
F. 5109	1309	1256	26	Pnn.	"	0	1310±1
F. 5110	1280	1231	43	P.P.	Sec.	0	1280+X
F. 5111	1301	1210	60	"	"	0	1301+X
F. 5112	1303	1244	39	"	Frag.	0	1308±5
F. 5115	1280	1239	38	"	"	0	1280+X
F. 5116*	1269	1243	34	"	½ Sec.	0	1269
F. 5117	1147	1081	49	"	Sec.	0	1147+X
F. 5119	1274	1218	46	"	Frag.	0	1274+X
F. 5120	1273	1226	44	"	"	0	1273
F. 5131	1303	1247	32	"	"	0	1313±10
F. 5132	1274	1233	33	"	"	0	1274+X
F. 5150	1275	1232	34	"	"	0	1275+X
F. 5154	1280	1244	30	"	"	1	1280
F. 5158	1300	1270	20	"	"	0	1300+X
F. 5163	1298	1263	39	"	¼ Sec.	0	1298
F. 5164	1308	1249	52	"	"	0	1308
F. 5172	1296	1256	28	"	Frag.	0	1296+X
F. 5173	1292	1243	38	"	¼ Sec.	2	1292+X
F. 5174	1308	1234	46	"	¼ Sec.	several	1308
F. 5175	1307	1251	40	"	"	0	1307
F. 5180	1308	1253	27	"	"	0	1308
F. 5214	1287	1232	38	"	½ Sec.	0	1287

*Possibly all from the same original specimen.