

PHYSICAL RESEARCH LABORATORY RADIOCARBON DATE LIST VI

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We present here dates for archaeological and geological samples. The dates are based on $\tau_{1/2} = 5568$ years, using 1950 as the base year. The modern standard was 95% of activity of NBS oxalic acid.

Samples were pretreated, prepared by methane synthesis and counted in a proportional counter. The detailed procedure has been described earlier (Agrawal, Gupta & Kusumgar 1971). We reported minor changes in previous date lists. Quoted errors are based on counting statistics alone. For samples younger than 10,000 years, the error is 1 standard deviation, and for older samples, 2 standard deviations. The dates are not corrected for ^{13}C fractionation. Samples have been arranged alphabetically according to the name of the site.

ARCHAEOLOGICAL SAMPLES

India

PRL-937. Adiyaman Kottai, BRW deposit **1720 ± 150**

Charcoal from Adiyaman Kottai (12°05'N, 78°10'E), Dharmapuri dist., Tr. AMK-2, Layer Pit 24, 4.37 m depth; subm. by K. V. Raman, Madras Univ.; Sample 1.

Comment: dates Black-and-Red Ware (BRW) levels of site.

PRL-930. Aguncha Old Mine **2860 ± 100**

Wood from Aguncha (25°45'N, 74°46'E), Ajmer dist., 20 m depth; subm. by D. K. Chakrabarti, Dept. History, Delhi Univ.; Sample 4.

Comment: dates Aguncha mine.

Alagankulam series, Tamil Nadu

Alagankulam, Ramanthapuram dist., Tamil Nadu State; subm. by Dr. R. Nagaswamy, State Dept. Archaeol., Mandavalli, Madras.

PRL-1296. BRW levels **2090 ± 100**

Charcoal, Tr. AGM-2, Layer 2, Locus 1, 1.40 m depth.

PRL-1297. BRW levels **2140 ± 100**

Charcoal, Tr. AGM-2, Layer 3, Locus 0'-1', 1.55 m depth.

PRL-1298. BRW levels **2240 ± 130**

Charcoal, Tr. AGM-2, Layer 3, Locus 0'-1', 1.90 m depth.

PRL-1299. Black and Red Rouletted Wares levels **2260 ± 100**

Charcoal, Tr. AGM-2, Layer 5, Locus I'-II', 2.80 m depth.

PRL-869. Bahiri BRW period 2540 ± 180

Charcoal from Bahiri (23°60'N, 88°10'E), Birbhum dist., Tr. BHR III, Layer 4, 1.50 m depth; subm. by D. K. Chakrabarti; Sample 4.

Balu series, Haryana

Balu, Jind dist.; subm. by S. Bhan, Kurukshetra Univ., Dept. Archaeol., Haryana.

Comment: dates provide Bronze Age chronology.

PRL-985. Bronze Age culture 2330 ± 100

Charcoal, Tr. Q5, 0.6 m depth; Sample 2.

PRL-989. Bronze Age culture 3250 ± 150

Charcoal, Tr. Q5, Layer 11, 1.5 m depth; Sample 6.

PRL-1237. Beehive, Ceramic period 1370 ± 100

Shells from Beehive (12°25'N, 92°53'E), Middle Andaman dist., Andaman Islands, Tr. East, Layer Basal III, 1.2 m depth; subm. by Z. Cooper, Deccan Coll., Pune, Maharashtra; Sample 1.

Comment: dates ceramic period.

PRL-792. Bhimbetka, Acheulian industry 15,110 ⁺³⁴⁰/₋₃₃₀

Calcium carbonate from Bhimbetka, Raisen dist., Tr. BTK III F23, Layer 5, 1.21–1.25 m depth; subm. by V. N. Misra, Deccan College, Pune; Sample BTK 13.

Comment: date is too young for the Acheulian.

Chigargunta series, Andhra Pradesh

Chigargunta, Chittoor dist., subm. by G. Biksham, Chigargunta Gold Project, Sanganapalle, Andhra Pradesh.

Comment: dates gold mine.

PRL-1187. Gold mine 1270 ± 110

Charcoal, Sample CCA-1.

PRL-1188. Gold mine 1050 ± 110

Half-burned wood, Sample CCA-2.

PRL-687. Dangawada Malwa culture 3810 ± 140

Charcoal from Dangawada, Ujjain dist., Tr. IV, Layer 9, 1.95 m depth; subm. by M. P. Khare, Dept. Archaeol., Madhya Pradesh, Bhopal; Sample 11.

Comment: dates Malwa culture deposits at site.

PRL-919. Fatehganj 1400 ± 90

Wood from Fatehganj (22°N, 72°3'E), Vadodara dist.; subm. by B. G. Sharma, Jyoti Ltd., PO Chemical Industries, Baroda; Sample RD/X/83.

Comment: dated to learn age of tree.

Hatikra series, West Bengal, India

Hatikra (23°49'N, 87°35'E), Birbhum dist., West Bengal; subm. by N. C. Ghosh, Visva Bharati, Santiniketan, West Bengal.

Comment: samples dated to establish chronology of Iron Age site in West Bengal.

PRL-1189. Iron Age 1400 ± 90

Charcoal, Tr. A', Layer 3, 80 cm depth.

PRL-1190. Iron Age 1310 ± 90

Charcoal, Tr. A', Layer 5, 1.22 cm depth.

PRL-1191. Iron Age 2870 ± 120

Charcoal, Tr. A', Layer 6, 1.92 cm depth.

PRL-1192. Iron Age 900 ± 100

Charcoal, Tr. XA', Layer 3, 38 cm depth.

PRL-1193. Iron Age 1540 ± 130

Charcoal, Tr. XA', Layer 4, 66 cm depth.

PRL-1194. Iron Age 1480 ± 90

Charcoal, Tr. XA', Layer 4, 66 cm depth.

PRL-1195. Iron Age 1220 ± 130

Charcoal, Tr. B', Layer 3, 81 cm depth.

Hulas series, Uttar Pradesh

Hulas (28°43'N, 77°22'E), Saharanpur dist.; subm. by K. N. Dikshit, Archaeol. Survey of India, New Delhi.

Comment: dates late Harappan phase.

PRL-1031. Harappan period 3840 ± 110

Charcoal, Tr. XH8, Qd 1, Layer 8, 1.36 m depth; Sample 11.

PRL-1032. Harappan period 4380 ± 150

Charcoal, Tr. XH8, Qd 1, Layer 8, 1.35 m depth; Sample 12.

PRL-1097. Ingaldhal copper mines 2010 ± 110

Wood from Ingaldhal mines (14°11'N, 76°26'E), Chitradurga dist., 47 m depth; subm. by R. Shankar, Mangalore Univ., Mangalagangotri, Karnataka; Sample Inwood 2.

Comment: dates operation of old mine.

Kakrahta series, Madhya Pradesh

Kakrahta (28°23'N, 73°2'E), Jabalpur dist., subm. by V. K. Bajpai, Archaeol. Museum, eastern region, Japalpur.

Comment: dates early historic site.

PRL-1051. Maurya Sunga period 2870 ± 120

Charcoal, Tr. KRT-I, Layer 10, 1.96 m depth; Sample 9.

PRL-1054. Maurya Sunga period 2310 ± 110

Charcoal, Tr. KRT-I, Layer 11, 2.33 m depth; Sample 15.

Khairadih series, Uttar Pradesh

Khairadih (26°10'N, 83°51'E), Ballia dist.; subm. by V. Tripathi, Banaras Hindu Univ., Banaras.

Comment: dates beginning of cultural habitation at the site.

PRL-1049. BRW period 2890 ± 150

Charcoal, Tr. KDH3, D'1, Layer 9, 6.48 m depth.

PRL-1050. Northern Black Polished Ware (NBPW) period 2060 ± 150

Charcoal, Tr. KDH3, C'5, Layer 2, 1.67–2.55 m depth.

PRL-929. Khetri, old mine 340 ± 80

Wood from Khetri (28°00'N, 75°51'E), Sikar dist., 20 m depth; subm. by D. K. Chakrabarti; Sample 3.

Comment: dates mine at Khetri.

PRL-927. Khohdariba, old mine Modern

Wood from Khohdariba (27°10'N, 76°24'E), Alwar dist.; subm. by D. K. Chakrabarti; Sample 1.

Comment: sample shows modern activity.

Manjhi series, Bihar

Manjhi (25°49'50"N, 84°55'E), Sasan dist., Bihar; subm. by T. N. Roy, Banaras Hindu Univ.

Comment: samples date different cultural periods at site.

- PRL-979. Period III** **1670 ± 130**
Charcoal, 3.07–3.60 m depth.
- PRL-980. NBPW period** **1930 ± 140**
Charcoal, 6.56–6.62 m depth.
- PRL-983. NBPW period** **2350 ± 140**
Charcoal, 9.65–9.94 m depth.
- PRL-854. Nagda, Upper Paleolithic** **>31,000**
Ostrich eggshells from Nagda, Ujjain dist., 4 m depth; subm. by the late V. S. Wakankar, Inst. Rock Art, Ujjain.
Comment: dates Upper Paleolithic settlement and art activity.
- PRL-914. Nagda, palaeosol** **10,120 ⁺²⁸⁰₋₂₇₀**
Soil carbonate and organic fraction from Nagda, Layer 9, depth 0.3 m; subm. by H. Raghavan, Deccan Coll., Pune; Sample 667.
Comment: dates palaeosol.
- PRL-816. Pythpatan, Neolithic** **4190 ± 140**
Charcoal from Pythpatan (34°12'N, 74°21'E), Baramula dist.; subm. by R. K. Pant, PRL, Ahmedabad; Sample 1.
Comment: dated for age of industry.
- PRL-928. Rajpur Dariba, old mine** **2390 ± 140**
Wood from Rajpur Dariba (24°57'N, 74°10'E), Udaipur dist.; subm. by D. K. Chakrabarti; Sample 2.
Comment: dates Dariba copper mine.
- PRL-1196. Ramgada, Upper Paleolithic culture** **>31,000**
Ostrich eggshells from Ramgada, Mandsaur dist., 0.28 m depth; subm. by the late V. S. Wakankar, Bharat Kala Bhavan, Ujjain, Madhya Pradesh.
Comment: dates Upper Paleolithic culture at site.
- Rojdi series, India**
Rojdi (21°52'N, 70°55'E), Rajkot dist., Gujarat State, India; subm. by M. H. Raval, Gujarat State Dept. Archaeol., Ahmedabad and G. L. Possehl, Univ. Pennsylvania, Philadelphia.
Comment: samples dated to study Rojdi southern extension and post-urban phase (Table 1).

TABLE 1. Charcoal Samples from Rojdi Area of Rajkot District, Gujarat, India

PRL no.	Identification no.	Depth (cm)	¹⁴ C yr (B.P.)
-1081	5241	46–52	2360 ± 210
-1084	2218	86	3700 ± 150
-1282	10481	131	3470 ± 140
-1281	10483	140	3520 ± 110
-1083	2248	150–160	3870 ± 120
-1088	10126	190–220	3770 ± 120
-1283	10763	207	3980 ± 100
-1089	10161	236–243	3870 ± 120
-1093	10137	237–243	3920 ± 110
-1091	10148	236–244	4150 ± 110
-1285	10769	257	3740 ± 140
-1087	10173	244–276	4010 ± 110
-1284	10768	263	3810 ± 100
-1085	10184	280–288	4020 ± 110

Sanghol series, Panjab, India

Sanghol (30°47'N, 76°23'E), Ludhiana dist., Panjab; subm. by R. C. Gaur, Archaeol. Survey India, Purana Qila, New Delhi.

PRL-1269. Early Kushan period **2070 ± 130**

Charcoal, Tr. BX-1, Layer 24, 5.45 m depth.

PRL-1271. Early Kushan period **1550 ± 120**

Charcoal, Tr. BX-1, Layer 20, 4.7 m depth.

PRL-1274. Early Kushan period **2500 ± 100**

Charcoal, Tr. D-3, Layer 15, 2.14 m depth.

PRL-1277. Early Kushan period **2250 ± 120**

Charcoal, Tr. XB2, Layer 8, 3.45 m depth.

Semthan series, India

Semthan, Anantnag dist.; subm. by R. S. Bisht, Archaeol. Survey, India, Baroda.

PRL-941. Pre-Northern Black Polished Ware (NBPW), Period I **2200 ± 140**

Charcoal, Layer 34; Sample SMN-81/CC-25.

PRL-945. NBPW, Period II **2280 ± 110**

Charcoal, Layer 33; Sample SMN-81/CC-24.

PRL-946. NBPW, Period II **1880 ± 120**

Charcoal, Layer 32; Sample SMN-81/CC-17.

PRL-959. Indo-Greek, Period III **1730 ± 130**

Charcoal, Layer 23; Sample SMN-81/CC-9.

PRL-778. Singh-Bhagwantpur, Early Historic period **3010 ± 90**

Charcoal from Singh-Bhagwantpur (35°53'N, 76°33'E), Rupnagar dist., Tr. 30-T, Layer 6, 2.72 m depth; subm. by Y. D. Sharma, Dept Archaeol., Panjab Univ., Chandigarh; Sample SBP-30-796.

Comment: dates confirm earlier chronology.

Vallam series, Tamil Nadu

Vallam (10°43'N, 79°4'E), Thanjavur dist., Tamil Nadu; subm. by Y. Subbarayalu, Dept. Epigraphy, Tamil Nadu.

Comment: dates show transition of different cultures.

PRL-1108. BRW period **1300 ± 100**

Charcoal, Tr. VLM-1, Layer 8, Locus II'-IV, 155 cm depth.

PRL-1109. Early Historic period **2900 ± 100**

Charcoal, Tr. VLM-1, Layer 9, Locus II-IV, 187-192 cm depth.

PRL-1110. Early Historic period **2840 ± 140**

Charcoal, Tr. VLM-1, Layer 9, Locus 0-11, 200 cm depth.

PRL-1111. Early Historic period **2360 ± 120**

Charcoal, Tr. VLM-1, Layer 9, Locus III'-IV', 205-210 cm depth.

PRL-1238. Yarata Nala, basal layers **1470 ± 100**

Shells, basal layer, 1.5 m depth; subm. by Z. Cooper; Sample 2.

Comment: date confirms contemporaneity of site with Beehive midden; see PRL-1237, above.

Zawar Mala series, Rajasthan

Zawar Mala (24°19-45'N, 73°40'E), Udaipur dist.; subm. by V. L. Upadhyaya, Hindustan Zinc Ltd., Zawar.

Comment: dates ancient mining activity in area.

PRL-933. Ancient mine **1940 ± 140**

Charcoal, Sample ZM/4.

PRL-934. Ancient mine **730 ± 130**

Charcoal, Sample ZM/7.

PRL-935. Ancient mine **820 ± 130**

Charcoal, Sample ZM/8.

*Nepal***Dumakhad series, Kathmandu**

Dumakhad, Kathmandu dist.; subm. by M. P. Khanal, Research Centre, Nepal Asian Studies, Kirtipur.

Comment: dates provide historical chronology.

PRL-1073. Historic levels 590 ± 90

Charcoal, Tr. A, Layer 1, 0.32 m depth.

PRL-1074. Early historic levels 1360 ± 90

Charcoal soil, Tr. F, Layer 3, 1.80 m depth.

Sri Lanka

PRL-976. Alu-lena, geometric microliths 9410 ± 150

Charcoal from Alu-lena (7°15'N, 80°25'E), Kegalle dist., Tr. AAX, Layer 3, 1.5 m depth; subm. by S. U. Deraniyagala, Dept. Archaeol., Colombo; Sample ALK(3).

Comment: dates show considerable scatter; some dates seem quite early for context.

Beli-lena Kitulgala series

Beli-lena, Kitulgala (7°N, 80°25'E), Kegalle dist., Sri Lanka; subm. by S. U. Deraniyagala.

PRL-1011. Geometric microliths 14,100 ⁺³⁰⁰₋₂₉₀

Charcoal, Tr. 12J; 131, Layer IIIa1 and IIIa2, 168–190 cm depth.

PRL-1012. Geometric microliths 3170 ± 120

Charcoal, Tr. 20A, Layer IIIa3, 164–168 cm depth.

PRL-1013. Geometric microliths 17,870 ⁺⁵⁷⁰₋₅₃₀

Charcoal, Tr. 12I, Layer IIIb1, 145–164 cm depth.

PRL-1015. Geometric microliths 24,520 ⁺¹⁵⁰⁰₋₁₂₇₀

Charcoal, Tr. 5F, Layer IIIc2, 130–141 cm depth.

PRL-1019. Geometric microliths 8660 ± 200

Charcoal, Tr. 13I, Layer IVb3, 68–90 cm depth.

Batadomba cave (8°N, 82°E), Ratnapura dist.; subm. by S. U. Deraniyagala.

Comment: samples date non-geometric microliths.

- PRL-859. Upper Paleolithic** 13,880 ⁺³⁷⁰/₋₃₆₀
Charcoal, Tr. 16g, Layer 6A, 2 m depth; Sample Bd 16g 6A.
- PRL-860. Upper Paleolithic** 13,130 ⁺⁴⁴⁰/₋₄₂₀
Charcoal, Tr. 16H, Layer 5, 1.7 m depth; Sample Bd 16H5.
- PRL-828. Maduru-Oya Reservoir dam, ancient reservoir** 1380 ± 130
Charcoal from Madur-Oya Reservoir dam, Polonnaruwa dist., 3 m depth; subm. by S. U. Deraniyagala; Sample 2.
Comment: dates irrigation technology.

GEOLOGICAL SAMPLES*India***Arabian Sea sediment series**

Marine sediments from the shelf region of Arabian Sea, Samples PRL-1307 to -1320 subm. by M. V. S. Gupta, Natl. Inst. Oceanog. (NIO), Goa and PRL-1321 to -1327 subm. by R. Shankar.

Comment: samples dated to study sedimentation rate, paleoclimate and biostratigraphy of foraminifera (Table 2).

TABLE 2. Sediments from Arabian Sea

PRL no.	Identification no.	Depth (m)	Lat (N)	Long (E)	¹⁴ C yr (B.P.)
-1307	Sta 3943	0.6-0.7	21°4.5'	69°7'	4150 ± 120
-1308	Sta 3943	0.8-0.9	21°4.5'	69°7'	5610 ± 130
-1310	Sta 3944	Top	21°20'	69°30'	8100 ± 130
-1314	Sta 3952	0.4-0.45	21°53'	68°2'	4720 ± 100
-1315	Sta 3952	1.0-1.10	21°53'	68°2'	4560 ± 100
-1320	Sta 3958	1.5 (bottom)	22°41'	68°23'	10,050 ^{+ 240} / _{- 230}
-1321	CA-65-10	0.65-0.70	12°10'	72°15'	11,620 ± 250
-1322	Ca-10-15	0.1-0.15	12°14'	72°15'	4680 ± 110
-1323	CA-40-45	0.4-0.45	12°14'	72°15'	12,550 ^{+ 440} / _{- 410}
-1325	CA-70-75	0.7-0.75	12°14'	72°15'	17,140 ^{+ 350} / _{- 330}
-1326	CA-95-100	0.95-1.0	12°14'	72°15'	25,380 ^{+ 1190} / _{- 1040}
-1327	CA-115-120	1.15-1.20	12°14'	72°15'	29,150 ^{+ 2600} / _{- 1960}

PRL-909. Arabian Sea, phosphorite deposits 10,720 ⁺⁴⁰⁰
-380

Phosphorite deposits from southwest of Arabian Sea off-shelf region; subm. by D. V. Borole, NIO, Panaji, Goa.

Comment: dates phosphorite.

Bap Rann series, Rajasthan

Organic-rich material from Salt Lake, Bap Rann; subm. by H. Raghavan.

Comment: dates site.

PRL-916. Sediment **Modern**

Organic material, 1.3–1.6 m depth; Sample 5.

PRL-917. Sediment 9240 ± 150

Organic material, 1.8–2.05 m depth; Sample 6.

PRL-1178. Birohar, mud 5120 ± 120

Calcite from Birohar (28°35'N, 76°22'E), Bhimani dist., 0.9–1.0 m depth; subm. by S. B. Bhatia, Geol. Dept., Panjab Univ., Chandigarh.

Comment: calcite dated for age of microfauna.

Carlesberg Ridge series, Arabian Sea

Sediment core from Carlesberg Ridge (4°59.968'N, 65°14.062'E); subm. by D. V. Borole.

PRL-1257. Sediment 27,980 ⁺³⁸⁰⁰
-2570

Organic material, 0.1–0.15 m depth.

PRL-1258. Sediment 23,790 ⁺⁹²⁰
-830

Organic material, 0.3–0.35 m depth.

PRL-1259. Sediment 27,610 ⁺¹⁴⁵⁰
-1230

Organic material, 0.35–0.4 m depth.

PRL-1260. Sediment > 31,000

Organic material, 0.5–0.55 m depth.

PRL-922. Drgli Bakurpara, organic-rich clay 460 ± 100

Organic clay from Drgli Bakurpara (25°58'45"N, 91°03'45"E), Godpara dist., Assam; subm. by K. K. Sinha, Geol. Survey India (GSI), Shillong.

Comment: dated to study Quaternary stratigraphy of lower Brahmaputra basin.

Kashmir Valley paleoclimatic series

Deposits from various locations in Kashmir valley (Tables 3 and 4); subm. by D. P. Agrawal (Kusumgar, Agrawal & Krishnamurthy 1980; Kusumgar *et al.* 1986).

TABLE 3. Dates of Kashmir Valley Loess Deposits

Site name	Horizon (Palaeosol)	PRL no. Organic (O); Carbonate (C)	Lat (N)	Long (E)	¹⁴ C yr (B.P.)
Burzahom	2	-585-O	34°10'	74°53'	> 31,000
Burzahom	3	-586-O	34°10'	74°53'	> 31,000
Burzahom	3	-588-C	34°10'	74°53'	14,000 + ²⁹⁰ - ²⁸⁰
Burzahom	1	-590-O	34°10'	74°53'	18,460 + ⁸²⁰ - ⁷⁴⁰
Burzahom	1	-590-C	34°10'	74°53'	17,060 + ³⁵⁰ - ³⁴⁰
Burzahom	1	-591-C	34°10'	74°53'	20,340 + ¹³²⁰ - ¹¹³⁰
Burzahom	1	-593-O	34°10'	74°53'	18,890 + ⁸³⁰ - ⁷⁵⁰
Burzahom	1	-593-C	34°10'	74°53'	15,700 + ³⁷⁰ - ³⁶⁰
Burzahom	1	-594-C	34°10'	74°53'	20,430 + ⁹²⁰ - ⁸²⁰
Burzahom	1	-611-C	34°10'	74°53'	20,190 + ⁵⁷⁰ - ⁵³⁰
Burzahom	3	-1038-O	34°10'	74°53'	> 31,000
Burzahom	3	-643-O	34°10'	74°53'	30,520 + ¹⁸⁰⁰ - ¹⁴⁷⁰
Burzahom	4	-829-C	34°10'	74°53'	14,170 + ⁵⁰⁰ - ⁴⁷⁰
Dilpur	1	-824-C	33°56'	74°57'	10,340 ± 220
Dilpur	1	-825-O	33°56'	74°57'	14,490 ± 310
Dilpur	2	-826-C	33°56'	74°57'	21,840 + ¹¹⁵⁰ - ¹⁰⁰⁰
Dilpur	-	-760-O	33°56'	74°57'	> 31,000
Dilpur	-	-830-O	33°56'	74°57'	17,740 + ⁶³⁰ - ⁵⁸⁰
Garhi Burzahom	3	-592-O	34°10'	74°53'	26,340 + ²⁰¹⁰ - ¹⁶¹⁰
Kanier	3	-1041-C	33°56'30"	74°44'15'	26,900 + ¹³⁶⁰ - ¹¹⁶⁰
Kanier	3	-1041-O	33°56'30"	74°44'15'	> 31,000
Kanier	2	-1042-O	33°56'30"	74°44'15'	> 31,000
Kanier	1	-1043-O	33°56'30"	74°44'15'	27,380 + ²⁴¹⁰ - ¹⁸⁵⁰
Khanchikhol	1	-848-O	33°47'13"	74°50'7"	5930 ± 170
Khanchikhol	3	-849-O	33°47'13"	74°50'7"	25,190 + ¹⁷⁴⁰ - ¹⁴³⁰
Khanchikhol	3	-1045-O	33°47'13"	74°50'7"	> 31,000
Khanchikhol	3	-1045-C	33°47'13"	74°50'7"	26,490 + ¹⁷⁰⁰ - ¹⁴⁰⁰
Khanchikhol	1	-1206-O	33°47'13"	74°50'7"	5140 ± 110
Khanchikhol	1	-1286-O	33°47'13"	74°50'7"	6040 ± 110
Khanchikhol	2	-1287-O	33°47'13"	74°50'7"	23,300 + ⁷²⁰ - ⁶⁶⁰
Khanchikhol	3	-1288-O	33°47'13"	74°50'7"	>31,000
Malpura	1	-851-O	34°4'30"	74°19'45"	6500 ± 190

TABLE 3. (Continued)

Site name	Horizon (Palaeosol)	PRL no. Organic (O) Carbonate (C)	Lat (N)	Long (E)	¹⁴ C yr (B.P.)
Olchibagh	1	-597-C	34°4'30"	74°19'45"	24,960 + 1780 - 1460
Olchibagh	2	-598-C	34°4'30"	74°19'45"	21,200 + 630 - 580
Olchibagh	2	-598-O	34°4'30"	74°19'45"	12,560 + 450 - 430
Pakharpur	1	-627-O	33°48'	74°47'	27,630 + 1350 - 1160
Pakharpur	2	-628-O	33°48'	74°47'	> 31,000
Pattagarh	2	-1210-O	33°58'6"	74°58'5"	> 31,000
Peehru	1	-1211-O	33°44'	75°11'	> 31,000
Puthkhah	2	-617-O	34°14'	74°21'	25,800 + 1100 - 960
Puthkhah	2	-617-C	34°14'	74°21'	28,560 + 1560 - 1300
Puthkhah	1	-618-O	34°14'	74°21'	18,550 + 600 - 550
Puthkhah	1	-618-C	34°14'	74°21'	> 31,000
Romu	1	-629-O	33°53'	74°50'	5660 ± 120
Romu	2	-630-O	33°53'	74°50'	4030 ± 130
Romu	3	-631-O	33°53'	74°50'	> 31,000
Romu	4	-632-O	33°53'	74°50'	22,070 + 1000 - 890
Romu	5	-1034-O	33°53'	74°50'	28,240 + 1530 - 1290
Saki Paparian	1	-595-C	34°49'	75°07'	> 31,000
Saki Paparian	2	-596-O	34°49'	75°07'	> 31,000
Saki Paparian	3	-596-C	34°49'	75°07'	> 31,000
Shupian	2	-1217-O	33°42'14"	75°49'9"	> 31,000
Tilsur	-	-850-O	33°52'	74°47'	20,740 + 1050 - 980
Tsrar Sharif	1	-624-O	33°51'	74°46'	> 31,000
Tsrar Sharif	2	-625-O	33°51'	74°46'	> 31,000
Tsrar Sharif	3	-626-O	33°51'	74°46'	> 31,000
Wagahoma	1	-1205-O	33°49'46"	75°6'38"	> 31,000
Zadur	-	-635-O	33°55'	74°51'	15,360 + 360 - 350
Zadur	-	-636-O	33°55'	74°51'	26,660 + 1240 - 1070

PRL-773. Khodri-ride-inchibra, carbonaceous clay > 31,000

Carbonaceous clays from Khodri-ride-inchibra tunnel (30°33'N, 77°48'E), Sirmur dist.; subm. by P. J. Jalote, Geol. Survey India, Nagpur; Sample 3.

Comment: dates movement along Krol thrust in Himalayas.

Matikhad series, Assam

Semi-carbonized wood from Matikhad (27°17'30"N, 95°43'10"E), Dibrugarh dist.; subm. by A. B.

TABLE 4. Dates on Other Kashmir Deposits

Site name	Material depth	PRL No. Organic (O) Carbonate (C)	Lat (N)	Long (E)	¹⁴ C yr (B.P.)
Anchar Lake	Organic mud 0.6–1.2 m	-813-O	34°6'	74°43'N	Modern
Anchar Lake	Organic mud 1.2–1.7 m	-814-O	34°6'	74°43'N	1180 ± 110
Anchar Lake	Organic mud 6.9–7.2 m	-815-O	34°6'	74°43'N	930 ± 120
Anchar Lake	Organic mud 7.5–7.8 m	-812-O	34°6'	74°43'N	4030 ± 140
Anchar Lake	Peat 6.3–6.6 m	-823-O	34°6'	74°43'N	2600 ± 120
Anchar Lake	Mud 5.55–5.7 m	-864-O	34°6'	74°43'N	3390 ± 150
Butapathri	Lake clay 1.9–1.4 m	-842-O	34°4'30"	74°18'30"	10,640 ^{+ 530} _{- 310}
Butapathri	Lake clay 0.9–1.15 m	-847-O	34°4'30"	74°18'30"	2140 ± 140
Butapathri	Lake clay 0.65–0.9 m	-846-O	34°4'30"	74°18'30"	990 ± 140
Butapathri	Lake clay 0.15–0.65 m	-845-O	34°4'30"	74°18'30"	1090 ± 130
Butapathri	Lake clay 2.45–2.85 m	-843-O	34°4'30"	74°18'30"	16,620 ^{+ 570} _{- 530}
Butapathri	Lake clay 1.65–2.15 m	-844-O	34°4'30"	74°18'30"	8930 ± 210
Jammu Cave	Stalactite	-831-C	-	-	1540 ± 100
Jammu Cave	Stalactite	-832-C	-	-	1530 ± 150
Jammu Cave	Stalactite	-833-C	-	-	1100 ± 130
Kolahoi	Wood	-1121-O	34°12'	75°20'	150 ± 100
Kolahoi	Wood	-1122-O	34°12'	75°20'	810 ± 90
Nadial Lake	Mud 2.0–2.5 m	-862-O	33°41'	74°17'	2220 ± 140
Nadial Lake	Mud	-863-O	33°41'	74°17'	2440 ± 150

Goswami, Geol. Survey India, Shillong.

Comment: dating will facilitate understanding of biostratigraphy of formation.

PRL-578. Wood 17,960 ⁺⁴⁹⁰
₋₄₆₀

Semi-carbonized wood, 2.54 m depth ; Sample SII9A.

PRL-582. Wood 17,040 ⁺⁶⁶⁰
₋₆₁₀

Semi-carbonized wood, 2.54–2.58 m depth; Sample W/QG.

PRL-583. Wood 16,800 ⁺⁴⁵⁰
₋₄₃₀

Semi-carbonized wood, 2.20–2.25 m depth; Sample W2/QG.

PRL-1179. Misri, Marl **4100 ± 120**

Marl from Misri (28°40'N, 76°17'E), Bhiwani dist.; subm. by S. B. Bhatia.

Comment: measured to date microfauna.

PRL-1027. Mendipathar, dry wood **1080 ± 100**

Wood from Mendipathar (25°50'–26°00'N, 90°35'–90°40'E), 3.30 m depth; Sample 4.1; subm. by B. K. Rastogi, NGRI, Hyderabad.

Comment: dated to determine interval between major earthquakes in area.

Minicoy series, Union Territory of Lakshadweep

Coral from Minicoy (80°17'N, 73°E); subm by S. K. Gulati, Indian Inst. Techn. (IIT), New Delhi.

Comment: dated to study effect of age on strength of material and degree of diagenesis.

PRL-839. Coral **Modern**

Coral from lagoon; Sample 4.

PRL-840. Coral **Modern**

Coral from lagoon; Sample 5.

Nainital Lakes series, Uttar Pradesh

Sediment core from dry bed of lakes (29°19.5–24'N, 79°25–35'E), Nainital dist.; subm by P. Sharma, PRL, Ahmedabad.

Comment: dated to study sedimentation rate of Nainital Lakes (Table 5).

TABLE 5. Sediments from Nainital Lakes District

Lake	Depth (m)	PRL no. Organic (O) Carbonate (C)	Lat (N)	Long (E)	¹⁴ C yr (B.P.)
Kamal Tal	5.30–5.50	-1098-O	29°24'	79°25'	6950 ± 150
Kamal Tal	3.60–3.80	-1099-O	29°24'	79°25'	4270 ± 120
Kamal Tal	2.80–3.00	-1100-O	29°24'	79°25'	4030 ± 160
Kamal Tal	1.70–1.90	-1107-O	29°24'	79°25'	3080 ± 100
Kamal Tal	2.20–2.40	-1180-O	29°24'	79°25'	3070 ± 100
Kamal Tal	0.60–0.80	-1181-O	29°24'	79°25'	880 ± 100
Sukha Tal	1.32–1.42	-1105-O	29°23'	79°32'	1280 ± 90
Bharat Tal	1.70–1.80	-1106-O	29°23'	79°32'	860 ± 90
Garud Tal	1.60–1.70	-1120-O	29°23'	79°32'	2920 ± 100
Naukuchia Tal (relict section)	0.8	-1232-O	29°20'	79°35'	> 31,000

Narara Bet series, Gujarat

Coral reef rock from Narara Bet (22°29'N, 69°44'E), Jamnagar dist; subm. by S. K. Gulati.

Comment: dated to study effect of age on coral and degree of diagenesis.

PRL-836. Coral reef rock **5340 ± 170**

Coral, 2.0–2.5 m depth.

PRL-837. Coral reef rock **4520 ± 170**

Coral, 2.5–3 m depth.

PRL-838. Okha R-station, coral reef rock **Modern**

Coral from Okha R-station (22°28'N, 69°05'E), Jamnagar dist.; subm by S. K. Gulati.

Comment: same as above.

PRL-915. Talchappar, sediment **6620 ± 170**

Organic sediment from Talchappar, Churu dist., Rajasthan State, 1.77 m depth; subm. by H. Raghavan.

Comment: measured to date Holocene climatic changes.

Tri Junction series, Rajasthan

Caliche samples from Tri Junction (26°16'N, 72°19'E); subm. by R. V. Krishnamurthy, PRL, Ahmedabad.

PRL-574. Caliche **21,910 ⁺⁵⁴⁰₋₅₁₀**

Carbonate, Core no. C28, 0.7 m depth.

PRL-575. Caliche **> 31,000**

Carbonate, Core no. C29, 2.6 m depth.

PRL-576. Caliche **> 31,000**

Carbonate, Core no. C30, 3.0 m depth.

PRL-577. Caliche **> 31,000**

Carbonate, Core no. C31, 3.28–3.65 m depth.

Tuticorin Harbor series, Tamil Nadu

Limestone from Tuticorin Harbor (7.8°N, 78.2°E), Tirunelveli dist.; subm. by M. V. Gupta, NIO and Dona Paula.

Comment: dated to study sedimentology and micropaleontology.

PRL-977.	Limestone	28,550	+1320 -1140
PRL-978.	Limestone	25,790	+1750 -1430
PRL-923.	Uniew River, sediment	730	± 110

Wood from Uniew River, E Khasi Hills dist., 4.0 m depth; subm. by K. K. Sinha.
Comment: dated to understand geomorphic setting of Meghalaya plateau.

PRL-1023.	Western continental shelf	11,310	+250 -240
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Aragonite from the western continental shelf (14°00'N, 73°53'7"E); subm. by R. R. Nair, NIO and Dona Paula; Sample G/18/81(A).

Ziro Valley River series, Arunachal Pradesh

Organic material from Ziro Valley River, Subansin dist.; subm. by K. K. Sinha.
Comment: dated to establish Quaternary stratigraphy.

PRL-924.	Wood	> 31,000
	Wood, 2 m depth; Sample 83E14/4/1.	
PRL-926.	Peat	> 31,000
	Peat; Sample 83E14/4/2.	

Italy

PRL-918.	Civitavellhia, sediment	10,830	+360 -350
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Carbonate from Civitavellhia (42°13'N, 11°27'E); subm. by J. C. Castagnoli, Inst. Cosmo-Geofisica, Obitorino, Italy.
Comment: dated to establish sedimentation rate.

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