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PHYSICAL RESEARCH LABORATORY RADIOCARBON DATE LIST III

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Presented below are dates from some important archaeologic and Quaternary sites. All dates are based on τ 1/2 = 5568 yr; to convert the radiocarbon dates for archaeologic samples into AD/BC scale, 1950 has been used as base as per the resolution passed at the Ninth International Radiocarbon Conference, San Diego, 1976. The dates are not corrected for ^{13}C fractionation. All the dates older than 10,000 yr have been given with 2σ errors. Due to uncertainty about the contribution of the biogenic carbon in caliche ($CaCO_3$) samples, the dates represent apparent and not true ages.

Samples were converted to methane for measuring ^{14}C activity in gas proportional counters. Detailed techniques were described earlier (R, 1971, v 13, p 442-449). All archaeologic samples were given NaOH pretreatment.

General Comment: many dates on Pacific Ocean sediments (PRL-284-286, PRL-326-329, PRL-332, PRL-344-346, PRL-348-357, and PRL-360-372) were obtained to determine sedimentation rates. ^{14}C dates on caliche formations of Rajasthan were measured to date climatic changes depicted by sedimentary profiles. Wherever possible measurements were based on CO_2 evolved from outer (a), middle (b), and core (c) fractions of the same nodule which enabled a study of the growth rates of caliche nodules. The ^{14}C dated pollen sequence from Toshmaidan (PRL-2B-5, PRL-7, PRL-9-10 and PRL-12) indicates that deglaciation in Kashmir valley started ca 15,000 yr ago. The Ramtirth Ware, a newly discovered Deccan Chalcolithic culture, has been dated to 3500 yr BP (PRL-382-384).

I. ARCHAEOLOGIC SAMPLES

Aligrama series, Pakistan

Aligrama (34° 49′ N, 72° 19′ E), Dist Swat, Pakistan; subm by Sebastiano Tusa, ISMEO, Rome, Italy. *Comment*: samples were measured to date Swat culture deposits (Stacul & Tusa, 1975, p 291-321).

PRL-243. Swat culture Vth period **2900 ± 110**
Charcoal, Loc Tr E, Layer 9, depth 4.5m.

PRL-244. Swat culture Vth period **2660 ± 130**
Charcoal, Loc Tr F, Area 3, Layer 4, depth 2.5m.

PRL-246. Swat culture Vth period **3080 ± 170**
Charcoal, Loc Tr F, Area 4, Layer 7, depth 5.5m.

Apegaon series, Maharashtra

Apegaon, a Chalcolithic site, Dist Aurangabad; subm by S B Deo, Deccan Coll, Poona. *Comment*: site has yielded a new ceramic viz Ramtirth Ware, different from the other Chalcolithic (Jorwe and Malwa) wares of the Deccan.

PRL-382. Chalcolithic deposit **3450 ± 100**

Charcoal, Loc Tr XII-XVI, Layer 4, depth 1.3m.

PRL-383. Chalcolithic deposit **3450 ± 100**

Charcoal, Loc Tr XII-XVI, Layer 5, depth 1.5m.

PRL-384. Chalcolithic deposit **3520 ± 100**

Charcoal, Loc Tr XII-XVI, Layer 6.

PRL-283. Besnagar, India, Northern Black Polished (NBP) Ware deposit **2200 ± 130**

Charcoal from Besnagar (23° 30′ N, 77° 45′ E), Dist Vidisha, Loc Tr BSN-VI, Layer 11, depth 4.1m; subm by Dir Gen Archaeol, New Delhi.

Bhalukpung series, Arunachal Pradesh

Bhalukpung (27° 30′ N, 92° 20′ E), Dist Kameng, subm by B M Das, Dibrugarh Univ, Assam.

PRL-287. Terrace deposit **1130 ± 100**

Carbonized rice, Tr 1, Loc Dezenling, Layer 2, depth .3 to 1m; sender's Sample S/B/1.

PRL-288. Terrace deposit **650 ± 80**

Charcoal, Tr 1, Loc Dezenling, Layer 2, depth .3 to 1m; sender's Sample S/B/2.

Bhimbetka series, Madhya Pradesh

Bhimbetka (22° 65′ N, 77° 57′ E), Dist Raisen, subm by V N Misra, Deccan Coll, Poona. *Comment*: dates show scatter indicating probably admixture due to recent fire-building activity at site.

PRL-306. Cave deposit **2820 ± 110**

Charcoal, Tr F, Loc 1 & 2, Layer 1, depth .46 to .5m; sender's Sample BTK-IIIF-13-1976-1.

PRL-310. Cave deposit **2320 ± 100**

Charcoal, Tr F, Loc 1 & 2, Layer 2, depth .5 to .55m; sender's Sample BTK-IIIF-13-1976-2.

PRL-311. Cave deposit **1060 ± 80**

Charcoal, Tr F, Loc 1 & 2, Layer 2, depth .56 to .6m; sender's Sample IIIF-13-1976-3.

PRL-314. Cave deposit, burial **630 ± 100**

Charcoal, Tr E, Loc 2, Layer 2, depth .61 to .65m; sender's Sample BTK-IIIF-13-1976-8.

PRL-315. Cave deposit **1760 ± 180**

Charcoal, Tr F, Loc 1 & 2, Layer 2, depth .61 to .65m; sender's Sample BTK-IIIF-13-1976-4.

PRL-316. Cave deposit **1930 ± 100**

Charcoal, Tr F, Loc 2, Layer 2, depth .66 to .7m; sender's Sample BTK-IIIF-13-1976-5.

PRL-317. Cave deposit **2490 ± 100**

Charcoal, Tr E, Loc 2, Layer 2, depth .66 to .7m; sender's Sample BTK-IIIF-13-1976-9.

PRL-318. Cave deposit **3560 ± 100**

Charcoal, Tr E, Loc 1, Layer 3, depth .71 to .75m; sender's Sample BTK-IIIF-13-1976-7.

PRL-321. Cave deposit **370 ± 130**

Charcoal, Tr E, Loc 2, Layer 3, depth 1.06 to 1.1m; sender's Sample BTR-IIIF-13-1976-11.

PRL-325. Ganwaria, India, Painted Grey Ware (PGW) deposit **4610 ± 110**

Ganwaria (27° 26′ N, 83° 7′ E), Dist Basti, Loc Tr XA1 Qd2, Rm 17, Layer 15, depth 7m; subm by Dir Gen Archaeol, New Delhi, sender's Sample 15. *Comment*: date represents old charcoal and has no relevance to cultural levels.

PRL-253. Hatti, India, Old gold mining **2630 ± 150**

Charred wood from ancient shaft at Hatti, Dist Raichur, subm by Dir Gen Archaeol, New Delhi; sender's Sample 2/75/MSC.

PRL-252. Ingaladhal, India, Old copper working **1680 ± 100**

Wood from ancient shaft at Ingaladhal, Dist Chitradurga, subm by Dir Gen Archaeol, New Delhi; sender's Sample 1/75/MSC.

Jodhpura series, India

Jodhpura (27° 31′ N, 76° 5′ E) Dist Jaipur, subm by Dir Archaeol & Mus, Jaipur.

PRL-272. Painted Grey Ware (PGW) deposit **2670 ± 150**

Charcoal, Loc Tr D, Layer 12, depth 1.97m; sender's Sample JRA 3/75.

PRL-273. PGW deposit **2310 ± 140**

Charcoal, Loc Tr E, Layer 8, depth 2.5m; sender's Sample JRA 4/75.

PRL-274. PGW deposit **2250 ± 110**

Charcoal, Loc Tr D, Layer 12, depth 2.9m; sender's Sample JRA 5/75.

PRL-275. Black-and-Red Ware (BRW) deposit (?) **4360 ± 160**

Charcoal, Loc Tr D, Layer 13, depth 2.87m; sender's Sample JRA 6/75.

PRL-277. Ocher Color Pottery (OCP) deposit (?) **2610 ± 110**

Charcoal, Loc Tr D, Layer 14, depth 1.94m; sender's Sample JRA 9/75.

PRL-278. OCP deposit **4060 ± 170**

Charcoal, Loc Tr D, Layer 14, depth 3m; sender's Sample 12/75.

PRL-254. Kalyadi, India, Old copper working **310 ± 80**

Wood from an ancient shaft at Kalyadi, Dist Hassan, subm by Dir Gen Archaeol, New Delhi; sender's Sample 3/75/MSC.

Mitathal series, Haryana

Mitathal (28° 50′ N, 76° 10′ E), Dist Bhiwani, subm by Suraj Bhan, Ind Inst Adv Studies, Simla.

PRL-290. Late Siswal culture (?) **3820 ± 130**

Charcoal, Loc Tr MTL-1, Layer 17, depth 2.95m; sender's Sample 10.

PRL-291. Harappa culture **3600 ± 110**

Charcoal, Loc Tr MTL-1, pit sealed by Layer 10, depth 2.6m; sender's Sample 11.

PRL-292. Harappa culture **4210 ± 210**

Charcoal, Loc Tr MTL-2, pit sealed by Layer 4; sender's Sample 15.

Mathura series, Uttar Pradesh

Mathura (27° 28′ N, 77° 42′ E), Dist Mathura, subm by Dir Gen Archaeol, New Delhi.

PRL-333. Northern Black Polished Ware (NBP) deposit **2490 ± 140**

Charcoal, Tr MTR-8, Loc B1 Qd2, Pit 3 sealed by Layer 5, depth 3.18m; sender's Sample 1.

PRL-334. NBP deposit **2600 ± 150**

Charcoal, Tr MTR-10, Loc A1 Qd4, Layer 9, depth 1.45m; sender's Sample 3.

PRL-336. NBP deposit **2540 ± 90**

Charcoal, Tr MTR-8, Loc B1 Qd2, Layer 6, depth 3m; sender's Sample 5.

PRL-337. NBP deposit **2340 ± 100**

Charcoal, Tr MTR-11, Loc Trial Trench (TT), Pit 5 sealed by Layer 20, depth 5.45m; sender's Sample 6.

PRL-338. NBP deposit **2280 ± 100**

Charcoal, Tr MTR-11, Loc TT, Layer 18, depth 4.7m; sender's Sample 7.

PRL-339. NBP deposit **2380 ± 100**

Charcoal, Tr MTR-8, Loc B1 Qd3, Pit 2 sealed by Layer 3; sender's Sample 8.

PRL-340. PGW-NBP overlap (?) **2390 ± 150**

Charcoal, Tr MTR-8, Loc A1 Qd4, Layer 11, depth 4.2m; sender's Sample 9.

PRL-342. PGW-NBP overlap (?) **2180 ± 160**

Charcoal, Tr MTR-8, Loc B1 Qd2, Pit 8 sealed by Layer 8, depth 3.6m; sender's Sample 11.

PRL-343. NBP deposit **2150 ± 100**

Charcoal, Tr MTR-11, Loc TT, Layer 18, depth 4.2m; sender's Sample 12.

Piprahwa series, Uttar Pradesh

Piprahwa (27° 26′ N, 83° 7′ E), Dist Basti, subm by Dir Gen Archaeol, New Delhi.

PRL-322. Sunga-Kushana deposit **2250 ± 100**

Charred rice, NW corner room of E Monastery, Layer 2, depth 1.65m; sender's Sample 10.

PRL-323. Pre-Mauryan deposit **2290 ± 100**

Charcoal, Room 2, E Monastery, Layer 8, depth 4.1m; sender's Sample 13.

PRL-324. Pre-Mauryan deposit **2170 ± 130**

Charcoal, Tr ZA2 Qd3, Layer 8, depth 4.2m; sender's Sample 14.

Pirak series, Pakistan

Pirak (29° 30′ N, 67° 54′ E) a Chalcolithic site, Dist Kachi, subm by J F Jarrige, Mus Guimet, Paris.

PRL-388. Chalcolithic deposit **2730 ± 110**

Charcoal, Tr PKC 3G, Loc CXIII, Layer 2, depth 1.1m.

PRL-389. Chalcolithic deposit **2590 ± 100**

Charcoal, Tr PKC 2F, Loc CVII, Layer 7, depth 1.6m.

PRL-390. Chalcolithic deposit **2730 ± 100**

Charcoal, PKA 3G, Loc LXXVII, Layer 21W, depth 3m.

PRL-391. Chalcolithic deposit **2730 ± 100**

Charcoal, Tr PKA 3I, Layer 42N, depth 10m.

PRL-298. Zawar, India, lead workings **Modern**

Carbon from lead smelting retort coll at Zawar (24° 21′ N, 73° 41′ E), Dist Udaipur; subm by G P Deshmukh, Geol Survey, Jaipur.

II. QUATERNARY SAMPLES

PRL-385. Admiralty Bay, Antarctica, morainic deposit **>40,000**

Wood from a crag slope at Admiralty Bay (62° S, 64° W) Antarctica, subm by E Anati, Centro Camuno Studi Prehist, Capo Di Ponte, Italy.

PRL-146. Andada, India, river terrace deposit **$31{,}830^{+4010}_{-2660}$**

Lime-caliche from Upper Terrace on Narmada R near Andada, Broach Dist, depth 3m; subm by N Bedi, Geol Survey India, Ahmedabad; sender's Sample GSI/NB/3.

PRL-42. Bombay High, India, continental shelf **$11{,}120^{+320}_{-300}$**

Shelf sediment from 0.4m-long drill core off Bombay. Subm by B S Venkatachala, Palynol Lab, Dehra Dun. Sender's Sample V2/H-1-1/P.

Chirai series, Rajasthan

Chirai, Jodhpur Dist; subm by D P Agrawal, PRL, Ahmedabad. *Comment*: samples measured to study caliche formation.

PRL-377. Caliche **$27{,}820^{+2690}_{-2010}$**

Caliche from exposed sec at Chirai, depth 1.65m; sender's Sample C-22.

PRL-378. Caliche **$21{,}550^{+640}_{-600}$**

Caliche from exposed sec at Chirai, depth 1.3m; sender's Sample C-23.

PRL-379. Caliche **$22{,}350^{+690}_{-640}$**

Caliche from exposed sec at Chirai, depth 1.15m, sender's Sample C-24.

PRL-262. Chotila, India, miliolite deposit **$15{,}820^{+590}_{-640}$**

Miliolite from hillslope near Chotila, Surendranagar Dist, depth 0.1m; subm by B Roy, PRL, Ahmedabad. *Comment*: sample measured to date inland miliolite.

PRL-191. Dungarpur, India, miliolite deposit $19{,}780^{+850}_{-950}$

Miliolite from Dungarpur, Junagarh Dist, depth 12.3m; subm by D P Agrawal, PRL, Ahmedabad. *Comment*: sample measured to date miliolite formation.

Gudlai Nadi series, Rajasthan

Gudlai Nadi, Jodhpur Dist; subm by D P Agrawal, PRL, Ahmedabad. *Comment*: samples measured to study caliche formation.

PRL-373. Caliche $11{,}730^{+450}_{-430}$

Caliche from exposed sec of Gudlai Nadi R; horizon D, depth 0.5m; sender's Sample C-20.

PRL-374. Caliche

a) $14{,}960^{+220}_{-210}$

b) $22{,}910^{+1050}_{-930}$

c) $18{,}310^{+580}_{-540}$

Caliche from exposed sec on Gudlai Nadi R from horizon C, depth 1.4m; sender's Sample C-19.

PRL-375. Caliche $26{,}450^{+3190}_{-2280}$

Caliche from exposed sec on Gudlai Nadi R; depth 1.8m; sender's Sample C-18.

PRL-376. Caliche >40,000

Caliche from exposed sec on Gudlai Nadi R; depth 3.2m; sender's Sample C-17.

PRL-263. Junagarh, India, miliolite deposit $33{,}750^{+3250}_{-5540}$

Miliolite from dune at base of Girnar Hill, Junagarh Dist; subm by B Roy, PRL, Ahmedabad.

PRL-236. Kolara, India, terrace deposit 6640 ± 260

Peaty clay with wood fragments from river terrace near Kolara (22° 30′ N, 88° 30′ E), Howrah Dist; depth 6.65m; subm by H P Gupta, Birbal Sahni Inst Palaebot, Lucknow. *Comment*: dated to study possible submergence of forest in Bengal Basin.

Little Rann of Kutch series, Gujarat

Little Rann of Kutch, Surendranagar Dist; subm by R S Kathiara, Geol Survey, Ahmedabad. *Comment*: samples measured to study sedimentation rate.

PRL-299. Silt deposit 6220 ± 110

Wood from a brine well, depth 2.1m; sender's Sample RSK/49/4A.

PRL-300. Silt deposit **6160 ± 110**

Wood from a brine well, depth 2.2m; sender's Sample RSK/41/4A.

PRL-301. Silt deposit **8240 ± 140**

Wood from a brine well, depth 4.1m; sender's Sample RSK/10/5A.

PRL-302. Silt deposit **7560 ± 140**

Wood from a brine well, depth 4.5m, sender's Sample RSK/24/4A.

PRL-296. Naini Tal, India, talus deposit **540 ± 100**

Wood from drill hole DH1, depth 61m at Naini Tal (29° 23′ N, 79° 27′ E); subm by Dir Engg Geol Dn (East), Geol Survey India, Lucknow; sender's Sample 1. *Comment*: sample dated to study landslide history.

Naliasar series, Rajasthan

Naliasar, Jaipur Dist; subm by D P Agrawal, PRL, Ahmedabad. *Comment*: samples measured to study caliche formation.

a) $12{,}750^{+290}_{-280}$

PRL-358. Caliche **b) $15{,}570^{+370}_{-360}$**

Caliche from lake basin, depth 0.05m; sender's Sample C-1.

a) $15{,}550^{+590}_{-550}$

PRL-359. Caliche **b) $20{,}000^{+920}_{-820}$**

c) $22{,}320^{+700}_{-640}$

Caliche from lake basin, depth 0.1m; sender's Sample C-2.

PRL-293. Nandipalli, India, fluvial deposit **$23{,}670^{+640}_{-690}$**

Shells from clayey silt deposit resting on Middle Paleolithic tool-bearing gravel on Sagileru R at Nandipalli, Cuddapah Dist; subm by K Thimma Reddy.

Navunda series, Karnataka

Navunda village (13° 45′ N, 74° 38′ E), South Canara Dist; subm by P S N Murty, Nat Min Dev Corp Ltd, Mangalore. *Comment*: samples measured to study lignite stratigraphy.

PRL-103. Lignite deposit **>40,000**

Lignite from a well 6m deep and 1.5m below water level.

PRL-132. Lignitized wood deposit **$38{,}295^{+5330}_{-3145}$**

Fragments of lignitized wood 9.4m below surface and 1.2m below water level. *Comment*: finite age probably due to contamination.

PRL-216. Odador, India, coastal aeolinite **9390 ± 140**

Limestone from semi-consolidated aeolinite 1.5km SE of Odador (21° 34′ N, 69° 40′ E), Junagarh Dist, alt +8m; subm by U B Mathur, Geol Survey India; sender's Sample MM 14. *Comment*: sample measured to date Late Quaternary coastal aeolinite.

Pacific Ocean sediment series

Box cores of calcareous sediments from Ontong Java Plateau (4° 50′ N to 0° 07′ N, 155° 52′ E to 163° 42′ E), water depth 1597 to 4441m. Coll by W H Berger, subm by D Lal, PRL, Ahmedabad. *Comment*: samples measured to study sedimentation rate.

Sample	Core no.	Core depth (mm)	^{14}C age
PRL-360	ERDC 88 BX 2	0 to 5	3060 ± 150
PRL-363	"	50 to 60	5410 ± 110
PRL-362	"	140 to 180	11,370 ± 230
PRL-361	"	230 to 260	$17{,}460^{+440}_{-420}$
PRL-364	ERDC 102 BX 2	0-5	7900 ± 160
PRL-366	"	5-10	7930 ± 190
PRL-367	"	10-15	4450 ± 110
PRL-368	"	15-20	8360 ± 170
PRL-369	"	30-40	5010 ± 100
PRL-370	"	60-80	6370 ± 100
PRL-371	"	120-150	10,570 ± 180
PRL-372	"	180-230	$14{,}470^{+320}_{-310}$
PRL-365	"	270-310	$22{,}050^{+560}_{-520}$
PRL-284	ERDC 123 BX 2	0-3	2310 ± 180
PRL-285	"	6.5-10.5	2810 ± 110
PRL-286	"	15.5-21	3150 ± 140
PRL-326	"	31-41	3470 ± 120
PRL-327	"	51-61	3540 ± 150
PRL-346	"	61-71	3650 ± 110
PRL-328	"	81-91	4960 ± 160
PRL-329	"	121-141	6550 ± 120
PRL-345	"	181-201	9110 ± 130
PRL-344	"	261-291	12,240 ± 270
PRL-332	"	321-361	$14{,}500^{+300}_{-310}$

Sample	Core no.	Core depth (mm)	^{14}C age
PRL-348	ERDC 141 BX 2	0-5	5790 ± 170
PRL-349	"	5-10	6310 ± 170
PRL-350	"	10-15	6800 ± 120
PRL-351	"	15-20	6940 ± 150
PRL-352	"	30-40	8560 ± 140
PRL-353	"	60-80	$12{,}510^{+270}_{-260}$
PRL-354	"	140-180	$28{,}730^{+1540}_{-1290}$
PRL-356	"	220-260	$37{,}800^{+5870}_{-3350}$
PRL-357	"	340-370	>40,000

PRL-120. Pandiya Tivu, India, coastal sediment **2070 ± 100**

Coral from Pandya Tivu (78° 13′ E, 8° 45′ N), alt +3m; subm by A V N Sarma, Temple Univ, Philadelphia, Pennsylvania. *Comment*: sample measured to study sea-level changes on east coast of India.

PRL-145. Panetha, India, terrace deposit **6470 ± 180**

Pedocal with caliche from upper terrace on Narmada R near Panetha, Broach Dist, depth 2.5m; subm by N Bedi, Geol Survey, India, Ahmedabad, sender's Sample GSI/NB/2.

PRL-30. Prabhas Patan, India, oyster shell bed **$20{,}825^{+670}_{-540}$**

Shells from oyster bed on Hiran R, Junagarh Dist; subm by D P Agrawal. *Comment*: bed yielded Middle Paleolithic tools.

Sankhu, Nepal

Sankhu (27° 43′ N, 88° 28′ E), Kathmandu Dist, subm by Vishnu Mittre, Birbal Sahni Inst Paleobot, Lucknow. *Comment*: samples were measured to date pollen sequence.

PRL-192. Carbonaceous clay deposit **$16{,}900^{+1010}_{-900}$**

Peaty Clay II from exposed sec, depth 11.3m, sender's Sample Sankhu Boudh 1.

PRL-193. Carbonaceous clay deposit **>40,000**

Peaty Clay III from exposed sec, depth 13.75m, sender's Sample Sankhu Boudh 2.

PRL-194. Carbonaceous clay deposit **>40,000**

Peaty Clay III from exposed sec, depth 14.15m, sender's Sample Sankhu Boudh 3.

PRL-195. Carbonaceous clay deposit >40,000

Peaty Clay III from exposed sec, depth 14.45m, sender's Sample Sankhu Boudh 4.

PRL-196. Carbonaceous clay deposit >40,000

Peaty Clay III from exposed sec, depth 14.75m, sender's Sample 5.

Toshmaidan series, Jammu & Kashmir

Toshmaidan (33° 56′ N, 73° 31′ E), Srinagar Dist; subm by G Singh, Australian Natl Univ, Canberra and D P Agrawal, PRL, Ahmedabad. *Comment*: samples were measured to date pollen sequence in a bog (Singh & Agrawal, 1976, p 232).

Sample no.	Serial no.	Depth (m)	Sample	Sieve fraction (m)	Pollen stage	Date
PRL-2B	II	.15 to .35	Peat	420	g	2790 ± 160
PRL-3	III	.5 to .7	Peat	420	d	9650 ± 245
PRL-4B	IV	.75 to .90	Peat	420	d	10,005 $^{+340}_{-380}$
PRL-5	V	1.25 to 1.4	Peat	420	d	11,360 $^{+585}_{-600}$
PRL-7	VII	2.05 to 2.2	Fine organic mud	—	c	13,980 $^{+520}_{-565}$
PRL-9	IX	2.8 to 2.95	Clay mud	—	c	15,250 $^{+760}_{-820}$
PRL-10	X	3.17 to 3.27	Clay mud	—	a-b	14,760 $^{+1015}_{-925}$
PRL-12	XII	3.37 to 3.5	Blue-gray Lacustrine clay	—	a-b	13,830 $^{+900}_{-785}$

Tso-Kar series, Jammu & Kashmir

Tso-Kar (33° 20′ N, 78° E) Ladakh Dist, subm by M Krishnamurthy, Geol Survey, India, Lucknow. *Comment*: samples measured to date paleoclimatic events.

PRL-259. Lacustrine deposit 7490 ± 190

Gastropod shells from lacustrine deposits at Tso-Kar, depth 2m.

PRL-261. Lacustrine deposit 4840 ± 170

Carbon precipitate from lake sediment, depth .6m.

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