

GEOLOGICAL INSTITUTE RADIOCARBON DATES II*

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GIN-104. Pavlov campsite, Czechoslovakia **$26,000 \pm 350$**
[24,050 B.C.]**

Charcoal. Pavlov campsite [48° 50' N Lat, 16° 25' E Long], Czechoslovakia. Archaeologic [*sic*] age is beginning of Würm III. Other determinations of charcoal from same campsite are: 24,800 \pm 150 yr (GRO-1325, de Vries, 1958) and 26,400 \pm 230 yr (GRO-1242, *ibid.*), which agree with our date. Subm. by A. N. Rogachev; [no date given (E.M.S.)].

Molodova V site series

This Paleolithic campsite in Dnestr region, Ukrainian SSR [approx. 48° 25' N Lat, 26° 30' E Long] was excavated 1951-1963 by A. P. Chernysh (1959). Samples GIN-52, 54, 56, 105, and 106 coll. 1962 by N. V. Kind. References: Ivanova (1959); Chernysh (1959); Alekseyev *et al.* (1964). Cf. also Ivanova (1966); fig. 20 presents consolidated stratigraphic table, to depth 12 m, of excavations, including soil horizons, culture (Mousterian, Upper Paleolithic, and Mesolithic), mammalian and molluscan fauna, assoc. woody species, inferred climates, radiocarbon dates, and tentative geologic correlations; also, GIN-6-10, Geol. Inst. I (D.B.S.).

GIN-54. Molodova V site **$10,940 \pm 150$**
[8990 B.C.]

Loam with campfire charcoal. Early Mesolithic Stratum 1, depth 0.5 to 0.8 m. Estimated stratigraphic position: Allerød to [Upper] Earlier Dryas.

GIN-56. Molodova V site **$12,300 \pm 140$**
[10,350 B.C.]..

Loam with campfire charcoal from Stratum [2], (late Magdalenian), depth 1.2 to 1.4 m. C¹⁴ age of fossil bones from same stratum, according to ethyl-benzol variant, is 11,900 \pm 230 yr (GIN-8).

GIN-147. Molodova V site **$17,100 \pm 1400$**
[15,150 B.C.]

Charcoal from campfire, Stratum 4, (late Magdalenian) depth 1.9 to 2.05 m.

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** Information in brackets interpolated by translator (E.M.S.) and commentator (D.B.S.).

GIN-52. Molodova V site **17,100 ± 180**
[15,150 B.C.]
Loam with campfire charcoal, Stratum 5 (middle Magdalenian), depth 2.2 to 2.4 m.

GIN-105. Molodova V site **16,750 ± 250**
[14,800 B.C.]
Loam with campfire charcoal, Stratum 6 (early Magdalenian), depth 2.6 to 2.8 m.

GIN-106. Molodova V site **23,100 ± 400**
[21,150 B.C.]
Soil, Stratum 10 (mature Solutrean), depth 4.4 to 4.9 m.

GIN-72. Molodova I site, Ukrainian SSR **22,850 ± 120**
[20,900 B.C.]
Shells of land molluscs. Molodova [48° 35' N Lat, 26° 45' E Long], Baylova Ripa ravine, on left bank of Dnestr, above Molodova I campsite. Layer of loessal alluvia underlies zone of soil formation and corresponds to 2 soils in cross section of Molodova V (Ivanova, 1960); upper one is synchronous with cultural Strata 9 and 10 (Ivanova, 1959; Chernysh, 1959). Depth of stratum is 6.5 to 7 m. Sample coll. 1962 by N. V. Kind.

Vyg River sites series, Karelian ASSR

GIN-130. Zalavruga I site **4010 ± 70**
[2060 B.C.]
Charcoal from bonfire from Zalavruga I campsite, Vyg River, Malinin Island [1.5 km SE of Besovy Sledki, 64° 30' N Lat, 34° 40' E Long] (Gurina, 1961, p. 516), Karelian ASSR. Depth 0.70 m (Cross Section 15, Quadrants 2 and 2a). Intrusive particles of sand mixed with ocher. Inferred archaeologic date: 2nd millennium B.C.

GIN-129. Besovy Sledki site **5430 ± 50**
[3480 B.C.]
Wood from Besovy Sledki campsite [64° 30' N Lat, 34° 40' E Long], Vyg R. [actually located on old channel of Vyg R. (D.B.S.)], Karelian ASSR, in layer of silty sand at depth 1.1 m under cliff on which campsite was located. Layer contains many pottery fragments. Thought to date from 2nd half of 3rd millennium B.C.

GIN-57. Moscow, Moscow Oblast **230 ± 100**
[A.D. 1720]
Wood from house in Moscow, built ca. A.D. 1900. Discrepancy probably due to Suess effect. Date of approx. contemporaneous sample, GIN-3: 290 ± 80 yr (Geol. Inst. I).

GIN-112. Berendeyevo swamp, Yaroslavl' Oblast **5730 ± 120**
[3780 B.C.]
Wood from Berendeyevo swamp [56° 35' N Lat, 39° 00' E Long] in Pereslavl' Raion, Yaroslavl' Oblast. Pile-dwelling settlement in peat

mass 70 cm above base of underlying sapropels. Archaeologic date: 2nd phase of comb-and-pit-marked Neolithic, approx. 1st half of 3rd millennium B.C. Subm. by A. L. Nikitin, Inst. of Archaeol., Acad. of Sci., USSR. (Cf. Vernadsky Inst. I-IV, 1966, Mo-206-214; also Neustadt, 1965, p. 87-91 [D.B.S.]).

8550 ± 35

GIN-111. Lake Pleshcheyevo, Yaroslavl' Oblast

[6600 B.C.]

Wood from shore of Lake Pleshcheyevo, Perslavl'-Zalesskiy [56° 42' N Lat, 38° 50' E Long]. Sample from peat at depth 1.9 m, overlying fluvial-glacial sediments. Geologic age: basal Holocene. Coll. 1964 by V. V. Cherdyntsev.

Pleshcheyevo campsites series, Yaroslavl' Oblast

1530 ± 30

GIN-114. Pleshcheyevo I site

[A.D. 420]

Charcoal from hearth pit in dune sand, 25 to 30 cm thick, 1 km from present shoreline of Lake Pleshcheyevo, Pleshcheyevo I campsite, Pereslavl' Raion, Yaroslavl' Oblast [56° 57' N Lat, 38° 43' E Long]. Cultural stratum overlain by contemporary soil and underlain by lake sands. Inferred date: medieval. Subm. [n.d.] by A. L. Nikitin.

3870 ± 30

GIN-116. Pleshcheyevo II site

[1920 B.C.]

Charcoal from Pleshcheyevo II campsite, same locality as GIN-114, in sand dune at former shoreline of L. Pleshcheyevo, 0.5 km from present shoreline on SW side. Cultural stratum, ca. 40 cm thick, overlies soil, and is overlain by horizon of contemporary podsollic soil, up to 25 cm thick. Archaeologic date: 2nd phase of comb-and-pit-marked Neolithic. Settlement date same as pile dwelling, GIN-112. Age of sample appears markedly less than estimated. Subm. by A. L. Nikitin.

2480 ± 50

GIN-113. Pleshcheyevo III site

[530 B.C.]

Charcoal from remains of dwelling destroyed by fire at Pleshcheyevo III campsite, near Samples GIN-114 and 116. Campsite on low dune, 400 m from present shoreline. Cultural stratum, at depth 35 to 40 cm, in contemporary forest soil, underlain by lake sand. Stratum has strictly local character, and penetrates to depth 50 to 70 cm. Archaeologic date: Early Iron age before introduction of *gorodishche* [fortified settlement], tentatively, middle 1st millennium B.C. Subm. by A. L. Nikitin.

4720 ± 50

GIN-115. Pleshcheyevo IV site

[2770 B.C.]

Charcoal from Pleshcheyevo IV campsite, near GIN-114. Geographic and stratigraphic position analogous to Pleshcheyevo I. Samples taken along whole cultural stratum. Archaeologic date: Volosovo culture, late Eneolithic, ca. middle of 2nd millennium B.C. [Cf. Tret'yakov and Mongayt, 1956, p. 101. (D.B.S.)] Subm. by A. L. Nikitin.

GIN-128. Dikarikha site**2200 ± 30**
[250 B.C.]

Charcoal from hearth depth 0.45 to 0.50 m, at Dikarikha campsite from low dune on N shore of L. Pleshcheyevo [56° 57' N Lat, 38° 46' E. Long]. Cultural stratum (settlement and cemetery) lies in sandy loamy deposits. Archaeologic date: late Bronze. Subm. by A. L. Nikitin.

GIN-67. Sungir' Stream, Vladimir Oblast**9080 ± 85**
[7130 B.C.]

Peat from Sungir' Stream, above Suromna village [approx. 56° 10' N Lat, 40° 35' E Long], Vladimir Oblast. Peat, ca. 10 cm thick, from depth 1.5 m in lacustrine and paludal loam in I terrace. Estimated geologic age: late Glacial to early Holocene. Sample coll. 1963 by S. M. Tseytlin and L. D. Sulerzhitskiy.

Ulovo series, Vladimir Oblast**GIN-82. Ulovo****18,600 ± 200**
[16,650 B.C.]

Buried soil of II terrace, depth 3.7 m, from left bank of Ulovka R. valley, 3 km above confluence with Nerl' R., Ulovo village, Vladimir Oblast [approx. 56° 20' N Lat, 40° 50' E Long]. Upper stratum of buried soil of Terrace 2 above flood plain. Strongly humified loam lies 3.7 m beneath topsoil loams; former overlies moraine, disturbed by solifluction, overlying periglacial sand. Inferred age: late Glacial. Coll. 1963 by S. M. Tseytlin and L. O. Sulerzhitskiy. (Cf. GIN-16, Geol. Inst. I [D.B.S.]).

GIN-81. Ulovo**35,000 ± 1000**
[33,050 B.C.]

Buried soil from same exposure as GIN-82, lower soil stratum, 0.15 m thick at depth 6.2 m. Soil is inclusion within deposits of periglacial alluvia disturbed by deposition of ice-wedge casts. Overlies till of Dnepr (?) [Mindel] Glaciation. Inferred age: a Würm interstadial. Coll. 1963 by S. M. Tseytlin and L. D. Sulerzhitskiy. Previous date of >35,000 yr for this sample (GIN-16, Geol. Inst. I).

GIN-83. Vladimir, Vladimir Oblast**20,540 ± 120**
[18,590 B.C.]

Buried soil (loam disarranged by solifluction) in Dobrosel'skiy clay pit, Vladimir city [56° 08' N Lat, 40° 24' E Long]. Depth ca. 4.5 m. Rests on alluvium, overlying till. Age probably Paudorf. Overlain by gray (podsolized) loams identical at 3.5 m depth with soil underlying cultural stratum of Sungir' campsite (GIN-15, Geol. Inst. I). Coll. 1963 by S. M. Tseytlin and L. D. Sulerzhitskiy.

Yakimanka series, Vladimir Oblast

GIN-84. Yakimanka **20,300 ± 150**
[18,350 B.C.]

Buried soil from Kamennyy Ovrage ["Stony Ravine"] in Yakimanka village, Suzdal' Raion, Vladimir Oblast [56° 22' N Lat, 40° 22' E Long]. Sample from upper part of left slope, 1 km from confluence with Nerl' R., depth 2.5 m; underlies topsoil loams, and overlies till. Soil disturbed by solifluction. Age approx. that of GIN-82. Coll. 1963 by S. M. Tseytlin and L. D. Sulerzhitskiy.

GIN-102a. Yakimanka **>45,000**

Humus extracted from peat with alkaline treatment, from Kamennyy Ovrage, Yakimanka village. Peat at depth 5 m, base of left bank of ravine, 1 km from confluence with Nerl' R. Overlain with loams and underlain by sand. Thickness of peat ca. 1.5 m. Paleobotanical data correlate with Mikulino [Eem] Interglacial (Metel'tseva and Sukachev, 1961). Dates of earlier samples: 9750 ± 200 yr (GIN-11, Geol. Inst. I), and >22,000 (GIN-12, Geol. Inst. I). Reasons for discrepancy are unclear. Present measurement corroborates ancient age of peat deposit, which lies beyond limits of our variant of C¹⁴ method. Coll. 1964 by N. V. Kind.

GIN-80. Yeliseyevichi site, Bryansk Oblast **33,000 ± 400**
[31,050 B.C.]

Wood from Yeliseyevichi campsite, Bryansk Oblast [53° 35' N Lat, 33° 35' E Long]. [Erroneously given in text as Belorussian SSR. (D.B.S.)]. Found in base of hearth at depth 2.3 m, in floor of dwelling made of mammoth bones, in stratum of loessal loams. Archaeologic estimate, according to V. D. Bud'ko, who subm. sample, is Late Gravettian, analogous to Pavlov campsite (GIN-104, this list). (Cf. also Butzer, 1964, p. 389-393. [D.B.S.]

GIN-94. Kursk I site, Kursk Oblast **11,600 ± 200**
[9650 B.C.]

Fossil bone from Kursk I campsite [51° 40' N Lat, 36° 10' E Long], Kursk. I terrace above flood plain, right bank of Seym R. Cultural stratum of campsite lies in reddish-brown clay at depth 1.2 m from surface. Estimated archaeologic age: early or middle Magdalenian. Sample coll. 1963 by P. I. Boriskovskiy, Inst. of Archaeol., Acad of Sci., USSR.

Kostenki Group sites series, Voronezh Oblast

GIN-86. Kostenki I site **14,020 ± 60**
[12,070 B.C.]

Charred bone from upper stratum of Kostenki I campsite [51° 25' N Lat, 39° 01' E Long]. "Second dwelling." Depth, 1.5 m. Coll. 1963 by A. A. Velichko, Inst. of Geog., Acad. of Sci., USSR and A. N. Roga-

chev, Inst. of Archaeol., Acad. of Sci., USSR. (Cf. Yefimenko, 1953, p. 420-436 for description; Tret'yakov and Mongayt, 1956, p. 23, for map and key to sites. [D.B.S.]

GIN-93. Kostenki II site **11,000 ± 200**
[9050 B.C.]

Fossil bones. Kostenki II campsite [51° 24' N Lat, 39° 01' E Long]. Scapula of mammoth from stratum enclosing burial of body of Crô-Magnon type. Subm. by P. I. Boriskovskiy [n.d. (E.M.S.)]

GIN-89. Kostenki XII site **23,600 ± 300**
[21,650 B.C.]

Loam of upper humified layer at Kostenki XII campsite [51° 25' N Lat, 39° 01' E Long], with aggregate thickness of 0.55 m, at depth 1.7 m. Enriched with humus in lower part of layer. On underlying brownish-gray loam are separate lenses of volcanic ash. Cultural Stratum II of campsite assoc. with [humified] layer. Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-79. Markina Gora site **14,300 ± 460**
[12,350 B.C.]

Fossil bones from Markina Gora campsite (Kostenki XIV) [51° 24' N Lat, 39° 00' E Long]. Slivers of tubular [*sic*] bones of horse from cultural Stratum III, Markina Gora campsite, synchronous with burial of Negroid-type man. Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-78. Kostenki XVII site **20,100 ± 200**
[18,150 B.C.]

Loam from lower humified layer at campsite Kostenki XVII [51° 24' N Lat, 39° 01' E Long]. Stratum 6 at depth 6.35 to 6.45 m. Ca. 1.5 m higher occur lenses of volcanic ash. Basic cultural stratum of campsite assoc. with lower [humified] layer. Inventory of both cultural strata [GIN-77] is same type and close in time (Boriskovskiy, 1953). Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-85. Kostenki XVIII site **9610 ± 190**
[7660 B.C.]

Fossil bone splinters from upper cultural stratum of Kostenki XVIII campsite [51° 25' N Lat, 39° 01' E Long], Anosovskiy Log [ravine]. Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-77. Kostenki XVIII site **20,000 ± 350**
[18,050 B.C.]

Humified loam from Kostenki XVIII campsite, same location as GIN-85. Stratum 4a at depth 3.6 to 3.7 m; upper surface shows maximum enrichment with humus and charcoal. At depth 1.1 m from zone of contact [with topsoil chernozem] lenses of volcanic ash occur. Finds of Upper Paleolithic inventory assoc. with Stratum 4a. Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-107. Kostenki XIX site **11,800 ± 500**
[9850 B.C.]

Charred bone from Kostenki XIX campsite [51° 25' N Lat, 39° 00' E Long], Kostenki village. Located on I terrace above flood plain of Don R. Cultural stratum lies in loam at depth 1 to 2.5 m, becoming deeper downslope. Coll. [n.d.] by P. I. Boriskovskiy. Estimated archaeological age: Late Paleolithic or transitional to Mesolithic (Boriskovskiy, 1963).

GIN-88. Borshevo II site (Kostenki Group) **12,300 ± 100**
[10,350 B.C.]

Humified alluvium from I Terrace above flood level of Don R., Borshevo village. Underlies lower cultural stratum of Borshevo II campsite [51° 20' N Lat, 39° 06' E Long]. Sampled layer, 0.15 m thick, at depth 3.35 m, contains plant remains and mollusc shells. Archaeologic age: transitional from Magdalenian to Azilian, *i.e.*, transitional between Upper Paleolithic and Epipaleolithic (D.B.S.). Coll. 1963 by A. A. Velichko and A. N. Rogachev.

GIN-66. Chyornyy Yar, Astrakhan Oblast **12,500 ± 140**
[10,550 B.C.]

Humified loam with plant remains. Chyornyy Yar village [48° 03' N Lat, 46° 07' E Long], Astrakhan Oblast. Peaty lens on base of [Lower] Khvalinsk [Würm III(?)] marine clay, lies at depth 4 m. Underlying lenses are Atelian [Würm I(?)] loams and [Lower] Khazar [Riss] estuarine clays. (Cf. Grichuk *et al.*, 1966, p. 170-174; Gerasimov, 1953, p. 107-110 [D.B.S.]). Inferred geologic age: beginning of [Lower] Khvalinsk [Würm III(?)] Transgression, Mologo-Sheksnya Interglacial [Eem Interstadial]. Sample coll. 1963 by Yu. M. Vasil'yev, Geol. Inst., Acad. of Sci., USSR. C¹⁴ date is significantly younger than inferred geologic age.

GIN-926. Akhshtyr cave, N. Caucasus **19,500 ± 500**
[17,550 B.C.]

Charcoal from Akhshtyr cave, Mzymta R., Adler Raion, Krasnodar Krai [43° 32' N Lat, 39° 59' E Long]. Hearth in cultural stratum at depth ca. 7.00 m. Archaeologic age: base of Upper Paleolithic strata. Coll. 1963 by Ye. A. Vekilova, Inst. of Archaeol., Acad. of Sci., USSR.

Nabati series, Poti, Georgian SSR

GIN-108. Poti, Georgian SSR **4140 ± 50**
[2190 B.C.]

Peat from Nabati deposit near city of Poti [42° 10' N Lat, 41° 40' E Long], Kolkhidian [Colchis] depression, Georgian SSR. [*Carex*]—reedy peat at depth 3.5 m. Samples GIN-108 and 127 subm. [n.d.] by P. P. Timofeyev, Geol. Inst., Acad. of Sci., USSR.

GIN-127. Poti, Georgian SSR **6660 ± 60**
[4710 B.C.]

Sedge [*Carex*] peat from same deposit as GIN-108. Depth, 6 m.

GIN-32. Karmir-blur, Armenian SSR **2500 ± 40**
[550 B.C.]

Charred wood from Karmir-blur hamlet on outskirts of Erevan [40° 11' N Lat, 44° 35' E Long]. Ruins of Urartu city of Teysheb-baini, burned by nomads at beginning of 6th century B.C. (Cf. also Mo-241, Vernadsky Inst. IV-V. [D.B.S.]) Another date (GIN-1): 2600 ± 135 yr, Geol. Inst. I. Dates agree well with archaeologic estimate (Cherdyntsev *et al.*, 1964).

GIN-126. Irtysh River, Omsk Oblast **30,700 ± 300**
[28,750 B.C.]

Wood from stump in alluvium of II terrace above flood plain of Irtysh R. at Lipovskaya village [unlocated, near 55° N Lat, 73° E Long]. Inferred age: Karginskoye [Paudorf Interstadial (?)]. Sample subm. [n.d.] by I. A. Volkov, Inst., of Geol. and Geophysics, Siberian Division, Acad. of Sci., USSR [Novosibirsk].

Lower Yenisey River series

Samples GIN-101 through GIN-61 which follow, seek to correlate sediments in lower Yenisey R. with terrace stratigraphy of middle Yenisey at Podkamennaya Tunguska (61° 50' N Lat, 90° 31' E Long) and upper Yenisey at Krasnoyarsk city (56° 00' N Lat, 92° 50' E Long). (Cf. Gorshkov, 1966. [D.B.S.])

GIN-101. Yar'yakhmal River, Krasnoyarsk Krai **>45,000**

Wood from Ust'-Yenisey Port [Ust'-Port: 69° 45' N Lat, 84° 30' E Long], Yar'yakhmal R., at depth ca. 2 m, from alluvium (?), transitional downward to marine Kazantseva [Riss-Würm Interglacial (?)] sands. In upper part of facies, immediately beneath sample, is horizon with cryogenic disturbances. Inferred geologic age: late Kazantseva or early Zyryanka [Würm I and II (?)].

GIN-55. Malaya Kheta R., Krasnoyarsk Krai **21,700 ± 1700**
[19,750 B.C.]

Peat from Yenisey R. [basin], 20-m "Karginskoye" terrace, at Malaya Kheta R. [69° 20' N Lat, 84° 30' E Long], 17 km above its mouth. Layer of alluvial peat lies at depth 7 m in upper part of Karginskoye [Paudorf (?)] alluvium, 1.0 to 1.5 m below Sartanskoye [Würm III (?)] deposits. Pollen diagrams indicate onset of cooling. Coll. 1962 by N. V. Kind and S. L. Troitskiy. Large standard deviation measurement caused by small quantity of sample.

GIN-140. Igarka Permafrost Station, **35,400 ± 300**
Krasnoyarsk Krai **[33,450 B.C.]**

Wood from Igarka Permafrost Station, Acad. of Sci., USSR [Igarka city: 67° 30' N Lat, 86° 30' E Long]. Karginskoye [Paudorf Interstadial (?)] deposits. Earlier C¹⁴ dates reported by A. P. Vinogradov *et al.*, (1959) were not less than 24,500 yr (Mo-4); and by us, 21,350 ± 650 yr (GIN-28,

Geol. Inst. I). Discrepancy in dates made repetition of determination necessary. Sample coll. 1962 by N. V. Kind and S. L. Troitskiy.

GIN-76. Igarskiy Yar, Krasnoyarsk Krai **35,800 ± 600**
[33,850 B.C.]

Buried wood from II, 20 to 25-m terrace of Yenisey R. at Igarka [67° 30' N Lat, 86° 20' E Long]. Exposure "Igarskiy yar" [*yar* = steep bank]. Sample at depth 3.5 m below base of fluvial-glacial sediments overlying till of Zyryanka age. Wood belongs to period of glacial retreat [after] maximal stage of Zyryanka Glaciation. Coll. 1962 by N. V. Kind and S. L. Troitskiy. *Comment* (D.B.S.): Zyryanka = Würm I and II(?) (Cherdyntsev *et al.*, 1964).

GIN-98. Denezhkino, Krasnoyarsk Krai **36,900 ± 400**
[34,950 B.C.]

Buried wood from II, 30 m terrace of Yenisey R. at Benezhkino settlement [66° 40' N Lat, 86° 50' E Long], in obliquely stratified fluvial-glacial sediment, at elev. 13 m above water level. Stratigraphic position approx. same as sample GIN-76. Coll. 1962 by N. V. Kind and S. L. Troitskiy.

GIN-99. Koneshchel'ye settlement, Krasnoyarsk Krai **32,500 ± 700**
[30,550 B.C.]

Plant remains with wood fragments from Yenisey R. at Koneshchel'ye settlement [unlocated: on Yenisey R. between 65° and 69° N Lat (D.B.S.)]. II terrace, 30 m above river. Sandy layer, with plant remains, at depth 4.5 m, assoc. with top of 8 to 10-m alluvial facies of Karginskoye (?) period; this facies was deposited on Zyryanka glacial and fluvial-glacial deposits. Layer disturbed by frost, believed related to beginning of Sartanskoye cooling. Coll. 1962 by N. V. Kind and S. L. Troitskiy.

Bol'shoy Shar sub-series, Yenisey River, Krasnoyarsk Krai

GIN-100. Bol'shoy Shar **30,200 ± 600**
[28,250 B.C.]

Plant remains from II, 30-m terrace of Yenisey R. opposite mouth of Bol'shoy Shar channel [unlocated: between 65° and 69° N Lat (D.B.S.)]. From alluvium with plant remains, at depth 17 m, overlain and underlain by varved clays from peri-glacial lake at edge of Zyryanka glacier, at time of maximum S advance. Samples GIN-100, 100a, and 110 coll. 1962 by N. V. Kind and S. L. Troitskiy.

GIN-100a. Bol'shoy Shar **34,800 ± 1600**
[32,850 B.C.]

Humus extracted from sample GIN-100. Closeness of dates of samples GIN-100a and 110, and discrepancy with GIN-100, point to contamination of GIN-100 with younger carbon.

GIN-110. Bol'shoy Shar **35,200 ± 700**
[33,250 B.C.]

Plant remains from same locality as GIN-100; depth, 18 m.

GIN-61. Nizhnaya Tunguska R., **37,000 ± 1900**
Krasnoyarsk Krai **[35,050 B.C.]**

Buried wood from III terrace of Nizhnaya Tunguska R. at Uchami Faktoriya [trading post; 63° 45' N Lat, 96° 25' E Long]. Sample from middle of sandy alluvium (Karginskoye (?)), deposited on lacustrine and fluvial sediments of Zyryanka age. Coll. 1963 by S. M. Tseytlin.

Upper Yenisey Paleo-Mesolithic series

GIN-117. Afontova Gora II site, **20,900 ± 300**
Krasnoyarsk Krai **[18,950 B.C.]**

Charcoal from early Siberian Paleolithic campsite, Afontova Gora [56° 00' N Lat, 92° 50' E Long]. Lower humic layer probably corresponds to lower cultural stratum of campsite. Inferred geologic age: Late Karginskoye [Paudorf Interstadial (?), cf. Cherdyntsev *et al.*, 1964]. Coll. 1962 by S. M. Tseytlin. (Cf. also Mo-343, Vernadsky Inst. I-IV, 1966. [D.B.S.])

Upper Yenisey Paleo-Mesolithic series (cont'd.)

GIN-91. Kokorevo I site **13,300 ± 50**
[11,350 B.C.]

Charcoal from Kokorevo I (Zabochka) campsite at Kokorevo village, Novoselovo Raion, Krasnoyarsk Krai [55° 10' N Lat, 90° 45' E Long]. Alluvium of II terrace above Yenisey R. flood plain at depth 2.85 m, presumably Sartanskoye age. Cultural stratum is at depth 3.8 m. Archaeologic age: Siberian Upper Paleolithic. Coll. 1962-1963 by Z. A. Abramova, Inst. of Archaeol., Acad. of Sci., USSR. *Comment* (D.B.S.): Sartanskoye is probably equivalent to Würm III; (cf. Cherdyntsev *et al.* 1964).

GIN-90. Kokorevo II site **13,330 ± 100**
[11,380 B.C.]

Charcoal from Kokorevo II (Telezhnyy Log) campsite on right bank of Borozda R., left tributary to Yenisey, at Kokorevo village (see GIN-91). Cultural stratum occurs in alluvial deposits of Sartanskoye age (?) under 2 layers of buried soil. Archaeologic age: Siberian Upper Paleolithic. Coll. 1962-1963 by Z. A. Abramova.

Angara River Paleo-Mesolithic series

GIN-96. Ust'-Belaya site, Irkutsk Oblast **8960 ± 60**
[7010 B.C.]

Fossil bone from multi-stratum campsite, Ust'-Belaya [52° 55' N Lat, 103° 35' E Long], III-IV cultural horizons; I terrace above flood plain of Belaya R., 800 m above confluence with Angara R. Alluvial

deposits of flood-plain facies. Concluding phase of flood-plain alluvia accumulation. Inferred archaeologic age: Mesolithic. Coll. 1962-1963 by Z. A. Abramova.

GIN-97. Mal'ta site, Irkutsk Oblast **14,750 ± 120**
[12,800 B.C.]

Fossil bones from campsite at Mal'ta village [52° 52' N Lat, 103° 25' E Long], Irkutsk Oblast. III terrace above flood plain of Belaya R. Sample taken at depth 1.05 m from lower cultural stratum which lies in loess-like loam, overlapping surface of alluvium. Inferred geologic age: last Interstadial of Zyryanka Glaciation. Archaeologic age: early Siberian Paleolithic. Coll. 1963 by E. L. Ravskiy, Geol. Inst., Acad. of Sci., USSR.

GIN-103. Malaya Anyuy River, Yakut ASSR **>45,000**

Wood from Malaya Anyuy R., 22 km above Anyuysk village [68° 20' N Lat, 161° 30' E Long], E part of Kolyma lowland. Fragment of log of *Larix dahurica* from lacustrine-alluvial layer containing also *Pinus pumila*. Inferred geologic age: Karginskoye [Paudorf Interstadial (?)]. Coll. 1963 by A. V. Sher.

Avacha Volcano series

GIN-122. Avacha Volcano, Kamchatka **5480 ± 70**
[3520 B.C.]

Charred wood from dike of agglomerate, Avacha Volcano, Kamchatka [53° 20' N Lat, 158° 40' E Long].

GIN-118. Zhirovaya, Kamchatka **106 ± 2%**
contemporary
carbon std

CO₂. Zhirovaya, Lower Zhirovaya springs, Kamchatka [unlocated; near Avacha Volcano]. Presence of contemporary "living" carbon was shown: value of C¹⁴ shown is in relation to 0.95 × NBS oxalic acid. *Comment*: nuclear fallout appears to be contaminant. (Ed.)

Kunashiri Island series, Kurile Islands, Sakhalin Oblast

GIN-124a. Kunashiri Island **39,300 ± 600**
[37,340 B.C.]

Wood from base of pyroclastic layer from Kunashiri Is. [ca. 44° 00' N Lat, 145° 40' E Long], Kurile Islands. Sample not pretreated with alkali and acid.

GIN-124b. Kunashiri Island **40,200 ± 750**
[38,240 B.C.]

Control sample of wood at same locality as GIN-124a. Subjected to usual chemical treatment. Difference between 2 dates is within statistical tolerances.