

LÓDŹ RADIOCARBON DATES II

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The following list consists of dates of archaeological and geologic samples measured from January 1981 to December 1982. Measurements were continued with the same proportional counter system, pretreatment procedure, methane preparation, measurement, and calculation, as described previously (Kanwiszer & Trzeciak, 1984). Ages were computed on the ^{14}C half-life of 5568 ± 30 years. Precision is reported as one standard deviation based only on statistical counting uncertainties in the measurement of the background, NBS modern standard, and sample activities. The dates are not corrected for ^{13}C fractionation. Descriptions and comments are based on information supplied by submitters of samples.

ARCHAEOLOGIC SAMPLES

LOD-157. Puck **1140 \pm 90**

Wood from construction fragment of stave boat found in Puck ($54^{\circ} 45'$ N, $18^{\circ} 20'$ E), Gdańsk prov. This boat wreck is important link of boat building evolution in Europe. Depth 1.20m, Sec XIV. Sample coll and subm by W Stepień, Research and Arts Specification Center, Łódź.

General Comment: ^{14}C age converges with ceramic period.

LOD-158. Kuźnica Skakawska **2560 \pm 140**

Wood and charcoal from wattle feature coll during systematic excavation in Kuźnica Skakawska village ($51^{\circ} 16'$ N, $18^{\circ} 19'$ E), Kalisz prov. Sample coll and subm by J Jadczyk, Archaeol and Ethnog Mus, Łódź.

LOD-159. Zberzyn 3a **4720 \pm 110**

Charcoal coll during excavation in Zberzyn village ($52^{\circ} 26'$ N, $18^{\circ} 08'$ E), Kohn prov. This site dates from the TRB period. Sample coll from a burned batten which is lying on clayey mud floor of hut under the Kujawian barrow mound no. IV. Depth 0.84m, Plot A3, Level 99.10. Dates building of Kujawian barrows period in Wiórek phase of TRB. Sample coll by K Gorczyca, subm by R Grygiel, Archaeol and Ethnog Mus, Łódź.

Brześć Kujawski series

Brześć Kujawski is located at confluence of Zgłowiączka R and Bachorza R, ($52^{\circ} 36'$ N, $18^{\circ} 35'$ E), Włocławek prov. Archaeol research, conducted by K Jażdżewski from 1933–1938, uncovered, close to present town, several sites dating from Neolithic to 13th century. At present these excavations are being continued by R Grygiel, who is particularly concerned with settlement of Brześć-Kujawian group, mainly of the Lengel culture. ^{14}C dates will be used to date unique complex-Brześć Kujawski. All samples coll and subm by R Grygiel.

LOD-160. Brześć Kujawski 1/81	3590 ± 250
Charcoal, NW of Site 4, concentration, lens in Pit 735, depth 1.20m.	
LOD-163. Brześć Kujawski 4/81	5130 ± 160
Charcoal, S of Site 3, lens in Pit 774, depth 2m.	
LOD-164. Brześć Kujawski 5/81	5210 ± 180
Charcoal, S of Site 3, lens in Pit 775, depth 2m.	
LOD-165. Brześć Kujawski 6/81	5370 ± 180
Charcoal, S of Site 3, lens in Pit 782, depth 0.80m.	
LOD-166. Brześć Kujawski 7/81	6490 ± 350
Charcoal, S of Site 3, lens in Pit 784, depth 0.70m.	
LOD-167. Brześć Kujawski 8/81	5410 ± 340
Charcoal, S of Site 3, lens in Pit 787, depth 0.60m.	
LOD-168. Brześć Kujawski 9/81	2460 ± 80
Charcoal, SE of Site 3, lens in Pit 806, depth 1.20m.	
LOD-169. Brześć Kujawski 10/81	4100 ± 150
Charcoal, S of Site 3, lens in Pit 809, depth 0.90m.	
LOD-170. Brześć Kujawski 11/81	4930 ± 170
Charcoal, E of Site 3, lens in Pit 816, depth 0.70m.	
LOD-171. Brześć Kujawski 12/81	2460 ± 100
Charcoal, W of Site 3, lens in Pit 823, depth 0.50m.	
LOD-172. Brześć Kujawski 13/81	6490 ± 460
Charcoal, E of Site 3, lens in Pit 825, depth 0.60m.	
LOD-173. Brześć Kujawski 14/81	5250 ± 180
Charcoal, W of Site 3, lens in Pit 834, depth 0.70m.	
LOD-187. Brześć Kujawski 4/82	5280 ± 190
Charcoal, Site 4, lens in Pit 899, depth 1.20m.	
LOD-188. Brześć Kujawski 1/82	6400 ± 220
Charcoal, Site 4, fire layer, carbonized beam, in transverse ditch of Hut 56, depth 0.80m.	
LOD-193. Brześć Kujawski 2/82	5400 ± 190
Charcoal, Site 4, lens at base of Pit 892, depth 0.60 to 0.80m.	
LOD-194. Brześć Kujawski 2/83	5280 ± 190
Charcoal, Site 4, lens in ditch of Hut 56, depth ca 1m.	

LOD-195. Brześć Kujawski 1/83 **5260 ± 180**

Charcoal, Site 4, lens at base of Pit 893, depth 1.8m.

LOD-174. Gustorzyn 1 **5740 ± 150**

Charcoal from Gustorzyn (52° 36' N, 18° 35' E), Włocławek prov, coll from fill of hut-type dwelling which dates from Lengyel cultural period; depth 0.50 to 0.60m. This is earliest date from Lengyel culture. Sample coll and subm by R Grygiel.

LOD-175. Dąbrówno **610 ± 70**

Charcoal from burned feature of construction of Teutonic Knights' castle. Castle and Dąbrówno town (53° 25' N, 20° 02' E), Olsztyn prov, are on isthmus between two lakes. Sample coll and subm by A Nadolski, Inst Hist Material Culture, Polish Acad Sci, Łódź.

LOD-178. Wąwolnica **5070 ± 210**

Charcoal from Wąwolnica (51° 28' N, 22° 06' E), Lublin prov, coll during systematic excavation. Dating material was scattered in pit, at 1.60m depth from surface. It probably dates from Volhyn-Lublin Painted Pottery cultural period. Sample coll and subm by A Zakościelna, Inst Archaeol, Lublin Univ, Lublin.

Turowiec and Męcikał series

Four charcoal samples, 2 from Turowiec village (52° 50' N, 18° 10' E), 2 from Męcikał village (52° 50' N, 18° 15' E), Bydgoszcz prov. Dates should help establish chronology of Late-Komornik inventories of Kashube lake district. Samples coll and subm by Z Bagniewski, Archaeol Dept, Wrocław Univ, Wrocław.

LOD-179. Turowiec T-1-p-2 **3920 ± 200**

Charcoal from hearth surrounded by stone; depth 0.40 to 0.46m.

LOD-180. Męcikał M-6-p-3/79 **5780 ± 260**

Charcoal from free-standing hearth surrounded by stone.

LOD-181. Turowiec T-3-p-1 **4110 ± 200**

Charcoal from partly scattered hearth surrounded by stone.

LOD-182. Męcikał M-11-k-1 **4860 ± 210**

Scattered charcoal from concentration of flint artifacts no. 1, buried in the floor trough.

Saidiya series

Two samples, probably carbonized food, from Saidiya (34° N, 45° E), near Jalaula town in NE Iraq. Samples were composed of carbonized organic substance, concentrated on floor, in disturbed cultural layer, around hearth, with ceramic and stone artifacts *in situ* (pieces from inside

jugs). Depth from surface: 0.60 to 0.75m. Dates help determine real age of site, and have already shed new light on prehistory of Mesopotamian region. Samples coll and subm by S K Kozłowski.

LOD-183. Saidiya 1 **6070 ± 270**
Carbonized food.

LOD-184. Saidiya 2 **5780 ± 260**
Carbonized food.

LOD-185. Kochlew 1/7 **7490 ± 220**

Wood coll during systematic excavation in Kochlew village (51° 12' N, 18° 42' E), Sieradz prov. Sample was composed of small fragments scattered in peat layer, at depth 0.30 to 0.40m from surface. Dated to determine chronology of second terrace surface. Sample coll and subm by K Cyrek, Archaeol and Ethnog Mus, Lódź.

General Comment: both archaeological and geologic excavations were conducted at the same time by K Cyrek and P Marosik at Kochlew. Description and more dates of archaeological and geologic samples were pub earlier (Kanwiszer & Trzeciak, 1984).

Łykowe series

This series is a continuation of archaeological dates from site in Łykowe village (51° 12' N, 18° 47' E), Sieradz prov. Systematic excavations were conducted by M Cyrek and K Cyrek. Samples were coll and subm by K Cyrek. Detailed description of site with first Łykowe series was pub earlier (Kanwiszer & Trzeciak, 1984).

LOD-192. Łykowe 1/82/1 **4240 ± 160**

Wood and peat from layer which is remains of wooden footbridge from so-called "excavation near pond" at depth 1.50m.

LOD-198. Łykowe 1/82/2 **5750 ± 160**

Fragment of wooden beam from "excavation near pond" at depth 1.50m.

LOD-199. Łykowe 1/82/5 **5550 ± 150**

Charcoal from hearth within dwelling feature from VII/0₂₀ (-20) at depth 0.40 to 0.80m.

LOD-200. Łykowe 1/82/6 **5300 ± 150**

Charcoal from grate pit (or cultural pit) from X/0₂₃ (-50) at depth 0.80m.

LOD-201. Łykowe 1/82/9 **5480 ± 140**

Charcoal from domestic pit from XI/0₂₀ (-40) at depth 0.60 to 0.80m.

LOD-202. Łykowe 1/83/4 **5750 ± 140**

Charcoal from grate pit (or cultural pit) from X/0₂₃ (−50) at depth 0.80m.

LOD-203. Krzczów 2/83 **4250 ± 140**

Charcoal from archaeological site in Krzczów (51° 09' N, 18° 46' E), Sieradz prov. Sample from grate pit, at depth 1m from A/a (−100); coll and subm by K Cyrek.

Mały Płock series

Two samples of charcoal from Mały Płock (53° 18' N, 22° 02' E), Łomża prov. Dated to establish chronology of Early Middle Ages settlement complex and also to determine chronologic associations within complex. Samples coll by W Wróblewski and J Wysocki; subm by E Tworowska, Archaeol Inst, Warsaw Univ, Warsaw.

LOD-205. Mały Płock 1c/79 **820 ± 110**

Burned matter from cultural layer near hearth from Feature 2, NS 20.90–21.18; WE 123.80–124.08 at depth ca 1m.

LOD-206. Mały Płock 5c/82 **820 ± 100**

Charcoal from layer of burned matter from settlement Feature 76, Quarter SOW, WE 42.50; NS 56.85 at depth 0.50m.

LOD-207. Czerchów **670 ± 100**

Charcoal coll during systematic excavation in Czerchów (51° 55' N, 19° 15' E), Łódź prov from Hearth 1, Excavation I, Sec 3 at depth 1.20 to 1.30m. Sample coll and subm by A Chmielowska, Archaeol and Ethnog Mus, Łódź.

LOD-211. Krzemionki 1 **5800 ± 170**

Charcoal from stripped flint mine in Krzemionki (50° 59' N, 21° 30' E), Kielce prov. Sample coll from area of hearth remains, under shaft dump 6/668 (Krukowski, 1939). Dated to establish chronology of flint workshop under shaft dump. Sample from Ar B 10, Quarter A, m 2, Sec b at depth 0.90m. Coll and subm by M Zalewski, Natl Archaeol Mus, Warsaw.

GEOLOGIC SAMPLES

Kochlew series

Peat from Kochlew (51° 12' N, 18° 48' E), Sieradz prov coll and subm by P Marosik, Archaeol and Ethnog Mus, Łódź.

General Comment: archaeological and geologic excavations were conducted at Kochlew site at same time by P Marosik and K Cyrek. Archaeologic dates were reported above.

LOD-176. Kochlew 4/80 **11,950 ± 270**

Peat from layer between medium-sand with some coarse-sand and silty muck at depth 3.55 to 4.05m.

LOD-177. Kochlew 5/80 12,020 ± 280

Peat from layer between silty muck and medium-sand at depth 4.55 to 4.80m.

WBM series

Samples coll from geologic sites in Wola Branicka-Kol (51° 57' N, 19° 27' E), Lódź prov. Dates should help establish chronology of Holocene sediments in river valleys. Samples coll and subm by H Klatkowa and J Kamiński, Inst Geog, Lódź Univ.

LOD-186. WBM II/41 7000 ± 190

Wood, depth 0.90m.

LOD-197. WBM II/40 1900 ± 110

Charcoal, depth 1.10m.

LOD-212. WBM 3-S 4620 ± 140

Sand and organic slime with wood fragments coll from layer within fossil meander at depth 0.80m.

LOD-213. WBM 4-S 5730 ± 140

Sand with organics and many wood fragments at depth 1.80 to 2.10m.

LOD-189. Sulejów Piaski 1 1660 ± 90

Wood (probably fragment of trunk) from Sulejów Piaski (51° 22' N, 19° 21' E), Piotrków Trybunalski prov. Sample coll by coring layer of peaty sand with silt at depth 2.0 to 2.2m. Sample coll and subm by P Marosik.

LOD-190. Srebrna (Todoranka) 1 2660 ± 100

Sample coll from profile of lacustrine sediment, Srebrna Lake, in Nature Preserve near Srebrna village (44° 05' N, 27° 05' E), west of town of Silistra, Bulgaria. Sample was composed of scattered peat with admixture of very small mineral fragments with detritus and larger plant fragments. Sample coll by coring at depth 1.90m. "Srebrna 1" is first profile along Bulgarian section of Danube Valley (Straszewska, 1974). Research of Danube Valley is conducted by Inst Geol Sci, Polish Acad Sci in collaboration with Bulgarian Acad Sci. Sample coll by E Bozikowa, Sofia Univ, Bulgaria and K Straszewska, Inst Geol Sci, Polish Acad Sci, Warsaw.

LOD-191. Rośle 7 12,000 ± 420

Peat coll from layer under dune in Rośle Nowe near Dąbie (52° 08' N, 18° 29' E), Konin prov. Sample from base of excavation, at tip of S arm of dune at depth 4.10m. Dated to confirm previous ¹⁴C dates, LOD-29, -37, -40. Series of dates from Rośle Nowe excavation should provide new data on plants and climate during Böling Interstadial (Wasylikowa, 1964). Sample coll by K Krajewski and Z Balwierz; subm by K Krajewski, Inst Geog, Lódź Univ.

Bychlew series

Two samples from Bychlew village (51° 37' N, 19° 21' E), Łódź prov. Both samples were taken during construction drilling. Dated to establish border between Holocene and Pleistocene sediments in valleys. Samples coll and subm by H Klatkova, Inst Geog, Łódź Univ.

LOD-196. Bychlew 11/5 **12,000 ± 300**

Peat, depth 1.65m.

LOD-210. Bychlew 11/24 **14,400 ± 300**

Organic ooze, depth 4.50m.

Będzyn series

Two samples from site in Będzyn village (51° 13' N, 19° 53' E), Piotrków Trybunalski prov, coll from natural exposure. Dated to establish relation between evolution of Pilica R valley and prehistoric settlement. Samples coll and subm by P Marosik.

LOD-204. Będzyn 3 **3050 ± 160**

Wood from layer of sand and organic ooze at depth 1.1m.

LOD-218. Będzyn 6 **5730 ± 160**

Charcoal, remains of trunk in layer of river mud at depth 1.7m.

Dąbrówka series

Two charcoal samples coll from exposure in Dąbrówka Wielka near Brzeziny (51° 51' N, 19° 43' E), Skierniewice prov. Samples are from hearths covered with loess sediments, spread across gully. Dated to establish beginning of gully erosion. Samples coll by J Wiczorkowska and subm by J Kamiński.

LOD-208. Dąbrówka 13 **4650 ± 160**

Charcoal in mineral material from lowest layer of three superimposed hearths from NW wall, depth ca 0.9m.

LOD-209. Dąbrówka 14 **3500 ± 160**

Charcoal from highest layer of three superimposed hearths, from NW wall, depth ca 0.7m.

Paskrzyn and Łęg Ręczyński series

Three samples from Paskrzyn (51° 14' N, 19° 52' E), Piotrków Trybunalski prov, and one from Łęg Ręczyński (51° 14' N, 19° 13' E), Piotrków Trybunalski prov. Dated to establish changes of river channel configurations at base of Pilica R Valley near Przedbórz. All samples coll and subm by P Marosik.

LOD-214. Paskrzyn 1 **2970 ± 160**

Humus of fossil soil, depth 1.5m.

LOD-215. Paskrzyn 2 **11,480 ± 180**

Charcoal, depth ca 8.0m.

LOD-216. Łęg Ręczyński **6470 ± 140**

Wood fragment coll from organic oozy layer (fossil river channel), depth 1.8m.

LOD-217. Paskrzyn 5 **7360 ± 170**

Wood fragment coll from organic oozy layer (floor), under eolian sand cover.

LOD-219. Lublinek **9870 ± 190**

Wood from foundation trench many meters long, at base of Ner R valley, connected with building of waste-water treatment plant, Lublinek near Lódź, (51° 44' N, 19° 21' E), Lódź prov. Sample was chosen among different size branches and a trunk scattered within river sands and river oozes. Sample from 0.5m above bottom of lowest flood series, depth 1.7m. Dated to establish period of strong lateral erosion of Ner R, which precedes period of better stabilization of river channel in center of valley (Turkowska, in press). Sample coll and subm by K Turkowska, Inst Geog, Lódź Univ.

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