

Supplementary Material

Fig. S1 - Photos from the study area. (A) Aerial photo from the southern part; (B) from the part extending from south to the north; (C) spring time in a typical beech forest; (D) autumn time in a typical beech forest; (E) profile of a Stagnic Luvisol; (F) profile of an Albic Luvisol; and (G) profile of a Colluvic Stagnosol.

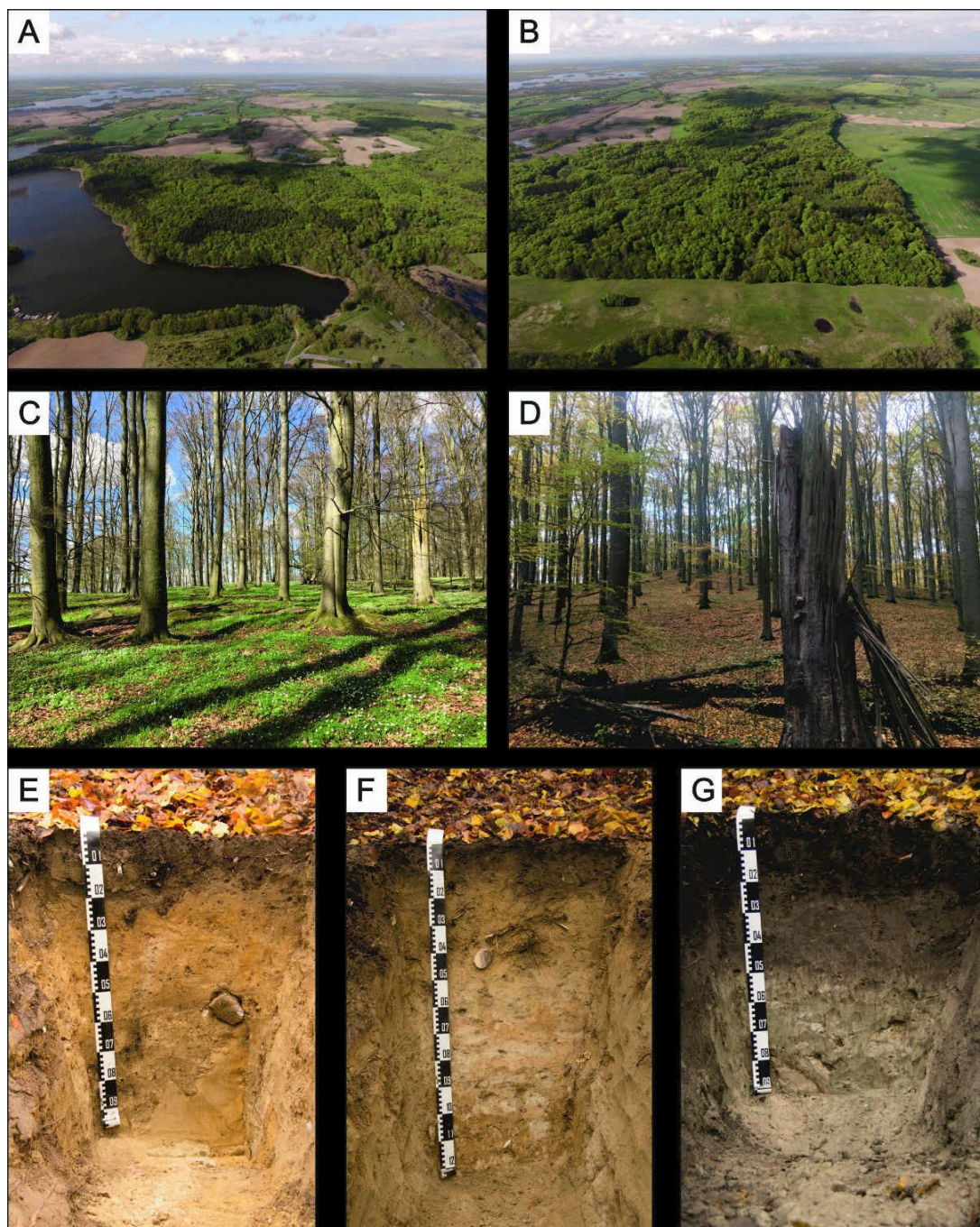


Fig. S2 - Vegetation development reconstructed from palynological records of (A) Regional vegetation in a radius of about 50 km around lake Carwitzer See reconstructed using the REVEALS model – black line: mean value, grey area: 10 to 90 % percentile of 100 repeated model runs. (B) Local vegetation at Conower Werder a few hundred meters around the pollen site reconstructed using the MARCO POLO model. Selected plant taxa displayed.

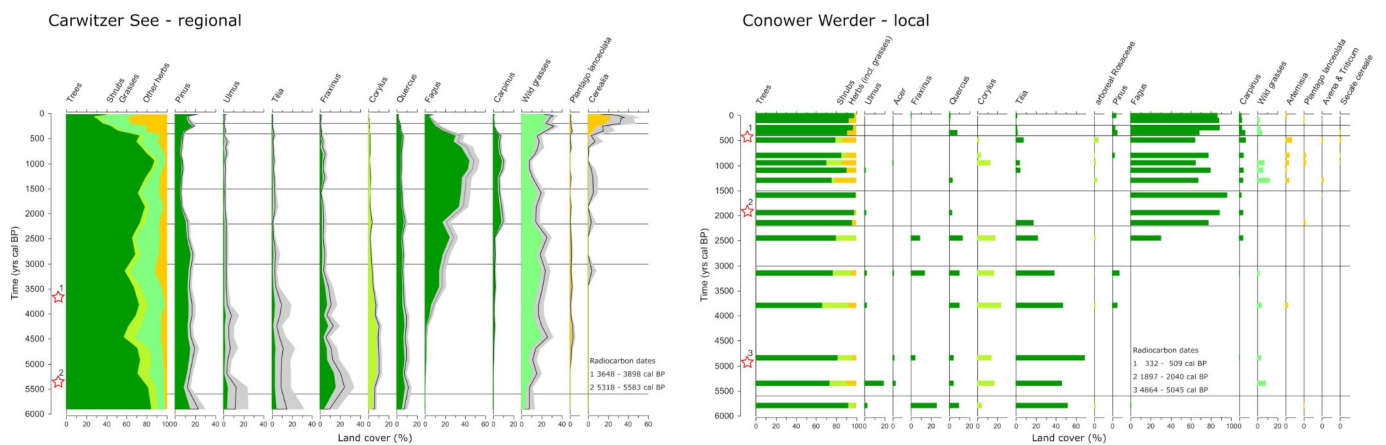


Fig. S3 - Land cover changes in the Quillow catchment from 1767 to 2010.

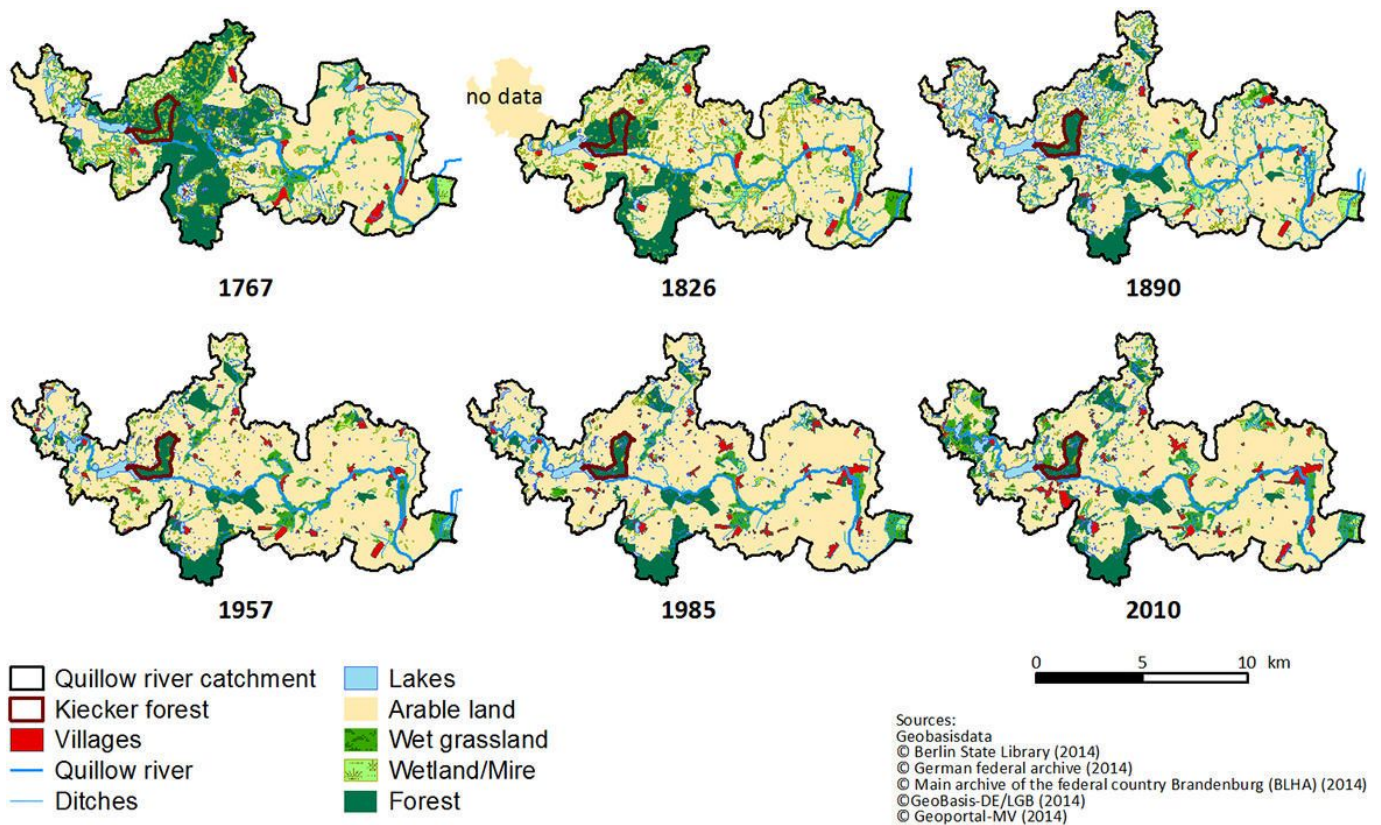
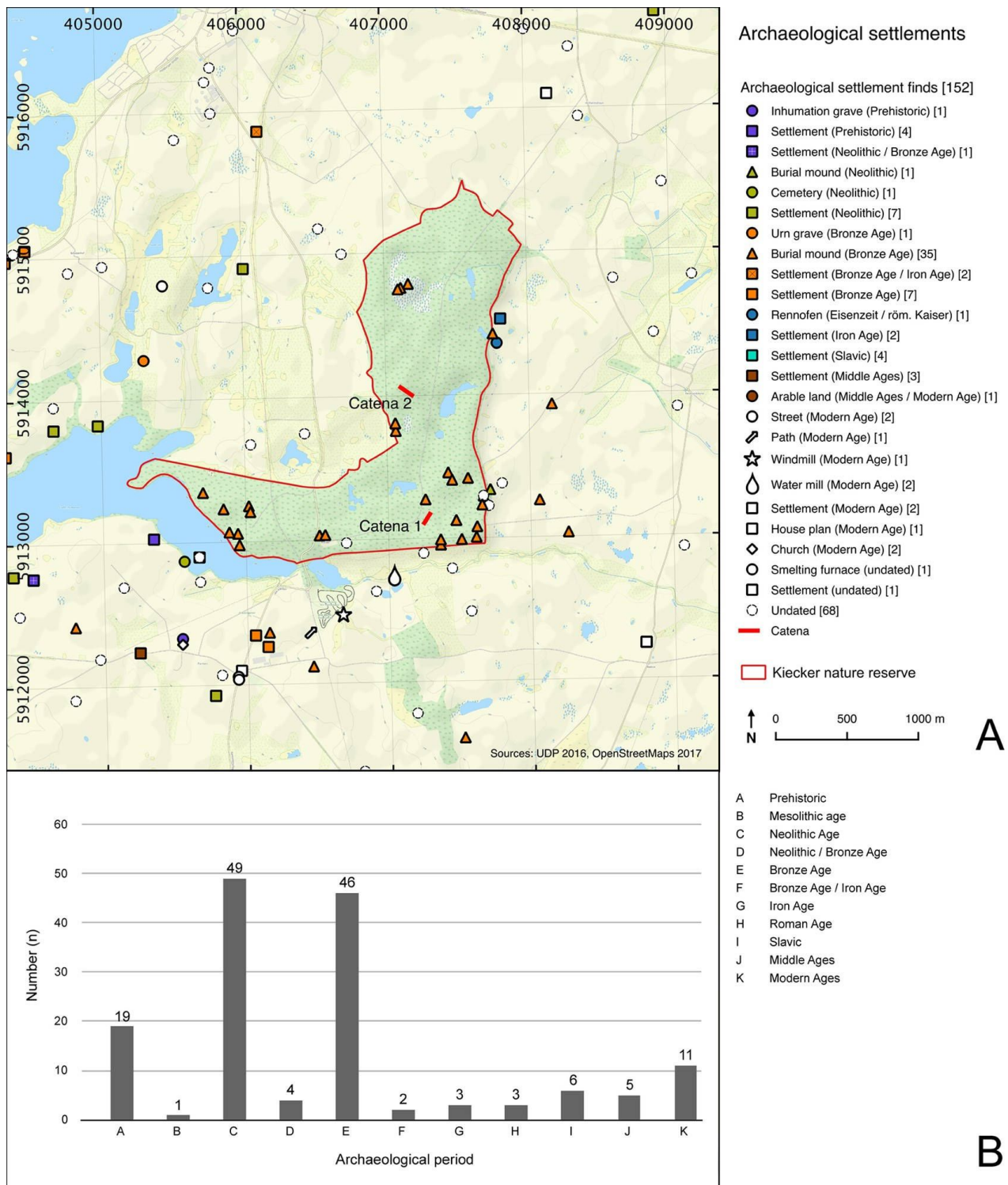


Fig. S4 - Archaeological settlement finds. (A) In the immediate vicinity of the Kiecker forest and (B) their number for the different ages.



Tab. S1 - Pedological data from the soil profiles sampled in the Kiecker forest. (1) See Fig. 4; (2): global geodetic system WGS84 with EPSG Code 3857; (KA5): Ad hoc-AG Boden (2005). Bodenkundliche Kartieranleitung [Soil mapping instructions]. Schweizerbart, Hannover, Germany, pp. 438.

Profile ⁽¹⁾	Coordinates ⁽²⁾	Depth (cm)	Horizon (KA5)	Colour (Munsell)	Grain-size composition			Textural class (KA5)	pH (CaCl ₂)	Corg (%)
					Clay (%)	Silt (%)	Sand (%)			
KIE-1	53° 21' 32" N, 13° 36' 23" E	0–15	Ah	7.5YR 2.5/1	3.53	41.68	54.80	Su4	3.50	7.91
		15–28	M	2.5YR 3/2	2.57	29.47	67.96	Su3	4.07	1.38
		28–45	II Sw-fAh	10YR 4/1	1.57	21.30	77.13	Su2	4.48	0.54
		45–65	III fAh°Sd	10YR 5/2	2.64	45.69	51.67	Su4	4.59	0.33
		65–100	IV Sd	10YR 5/1	3.92	28.18	67.91	Su3	4.44	0.12
		100–120	V ilC	7.5YR 6/2	0.09	2.00	97.92	Ss	4.79	0.01
KIE-2	53° 21' 33" N, 13° 36' 23" E	0–15	Ah	7.5YR 3/3	1.68	21.64	76.68	Su2	3.58	1.56
		15–20	Ah-Bv	10YR 5/4	2.08	21.31	76.61	Su2	3.85	0.68
		20–40	Bv	7.5YR 5/6	2.61	23.90	73.50	Su2	4.06	0.22
		40–50	Bv-Al	10YR 5/4	3.69	25.63	70.68	Su3	3.95	0.22
		50–60	Al	10YR 7/3	4.31	23.98	71.72	Su2	3.88	0.22
		60–85	Al+Bbt	10YR 7/3	1.83	18.68	79.50	Su2	3.90	0.17
KIE-3	53° 21' 34" N, 13° 36' 25" E	85–110	Bbt	7.5YR 4/6	4.17	23.66	72.17	Su2	4.07	0.05
		0–8	Ah	10YR 3/2	2.82	27.56	69.63	Su3	3.63	1.63
		8–16	Sw-Al	7.5YR 5/2	2.23	22.57	75.20	Su2	3.69	1.22
		16–70	II Sd-Bt	10YR 5/8	14.10	35.92	49.98	Sl4	3.56	0.42
		70–87	elC	2.5YR 7/6	10.52	32.99	56.49	Su3	7.63	1.81
		87–100	II lCv	10YR 6/6	0.31	3.78	95.91	Ss	7.42	0.34
KIE-4	53° 22' 01" N, 13° 36' 18" E	100–120	elCn	2.5YR 8/4	2.19	52.66	45.15	Us	7.42	1.07
		0–5	Ah	10YR 3/2	3.13	36.03	60.84	Su3	3.34	4.41
		5–10	Al	10YR 4/4	4.45	37.71	57.84	Su3	3.53	2.01
		10–40	Btv	10YR 7/8	8.73	36.00	55.28	Sl3	3.72	0.40
		40–72	IIBv1	5YR 3/6	5.53	23.71	70.76	Sl2	3.84	0.13
		72–100	Bv2	5YR 2/6	7.63	23.55	68.82	Sl2	4.39	0.19
KIE-5	53° 22' 02" N, 13° 36' 16" E	100–120	Bv3	5YR 2/6	8.02	19.66	72.32	Sl2	4.51	0.34
		0–20	Ah	7.5YR 3/3	1.73	18.22	80.05	Su2	3.42	1.37
		20–35	Ah-Bv	10YR 5/4	1.77	16.32	81.91	Su2	3.73	0.72
KIE-6	53° 22' 03" N, 13° 36' 14" E	35–45	Sw-Al	10YR 5/4	1.20	12.17	86.63	Su2	3.89	0.21
		45–120	II Sd-Bt	10YR 5/5	12.51	34.75	52.75	Sl4	4.11	0.15
		0–10	Ah	10YR 3/2	1.38	14.93	83.69	Su2	3.47	2.91
		10–18	Ah+Bv	10YR 3/6	2.36	14.84	82.81	Su2	3.68	1.40
KIE-6	53° 22' 03" N, 13° 36' 14" E	18–70	Bv	10YR 3/6	2.26	12.51	85.23	Su2	3.98	0.38
		70–120	lCv	10YR 4/6	3.80	17.33	78.87	Su2	4.49	0.26