

Appendix 1—Radiocarbon dates from excavated archaeological sites described in these proceedings

Notes

1. Radiocarbon ages are quoted in conventional years BP (before AD 1950), and the errors for these dates are expressed at the one-sigma (68% probability) level of confidence.

2. Calibrated date ranges are equivalent to the probable calendrical age of the sample material and are expressed at one-sigma (68% probability) and two-sigma (95% probability) levels of confidence.

3. Dates obtained from Beta Analytic in Florida (Beta lab code) were calibrated using the IntCal98 calibration dataset (Stuiver et al. 1998) and the Talma & Vogel (1993) calibration programme in the case of Roestown 2, Co. Meath, and sites on the M7 Portlaoise–Castletown/M8 Portlaoise–Cullahill motorway scheme, and using the IntCal98 calibration dataset (Stuiver et al. 1998) and the OxCal v.3.10 calibration programme (Bronk Ramsey 2005) in the case of the N7 Limerick Southern Ring Road (Phase II).

Dates obtained from Queen's University, Belfast (UB lab code), were calibrated using datasets from Stuiver & Reimer 1993 and Reimer et al. 2004 and the CALIB 5.0 calibration programme (Stuiver et al. 2005) in the case of Mitchelstown, Co. Cork; using the IntCal04 calibration dataset (Reimer et al. 2004) and the CALIB 5.0 calibration programme (Stuiver et al. 2005) in the case of Carrowkeel and Rahally, Co. Galway; and using the IntCal98 calibration dataset (Stuiver et al. 1998) and the OxCal v.3.10 calibration programme (Bronk Ramsey 2005) in the case of Newrath, Co. Kilkenny.

Dates obtained from the Scottish Universities Environmental Research Centre (SUERC lab code) were calibrated using the IntCal98 calibration dataset (Stuiver et al. 1998) and the OxCal v.3.10 calibration programme (Bronk Ramsey 2005) in the case of Newrath, Co. Kilkenny, and using the IntCal04 calibration dataset (Reimer et al. 2004) and the OxCal v.3.10 calibration programme (Bronk Ramsey 2005) in the case of Rochfort Demesne, Co. Westmeath.

4. All of the sample material from Carrowkeel, Co. Galway, is cremated human bone or unburnt human bone from inhumation burials.

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
Chapter 3 (J Kiely & B Sutton)—The new face of Bronze Age pottery				
UB-6743	Mitchelstown	Oak (<i>Quercus</i>) charcoal from upper fill of pit containing pottery	3493 ± 37	1880–1769 BC one sigma 1916–1696 BC two sigma
Chapter 5 (S Carter)—Environmental archaeology: two examples from the N25 and N7				
SUERC-10124	Newrath, Site 34, Area 1	Monocotyledon plant tissue from sediment monolith 1, 84–5 cm	1870 ± 35	AD 80–170 one sigma AD 60–240 two sigma
SUERC - 10125	Newrath, Site 34, Area 1	Blackberry (<i>Rubus</i> sp.) seeds from sediment monolith 1, 168–9 cm	4150 ± 35	2780–2660 BC one sigma 2880–2620 BC two sigma
SUERC - 10126	Newrath, Site 34, Area 1	Oak (<i>Quercus</i>) and birch (<i>Betula</i>) buds and bud scales from sediment monolith 1, 233–4 cm	4850 ± 35	3670–3630 BC one sigma 3710–3620 BC two sigma
SUERC - 10127	Newrath, Site 34, Area 1	Monocotyledon plant tissue from sediment monolith 1, 124–5 cm	2360 ± 35	510–380 BC one sigma 540–370 BC two sigma
SUERC - 10128	Newrath, Site 34, Area 1	Oak (<i>Quercus</i>) and birch (<i>Betula</i>) buds and bud scales from sediment monolith 2, 211–12 cm	4765 ± 35	3640–3520 BC one sigma 3640–3380 BC two sigma
Beta-203540	Ballinacurra West	Amorphous organic matter, -1.8 m OD	4590 ± 40	3370–3350 BC one sigma 3500–3130 BC two sigma
Beta-203539	Ballinacurra West	Amorphous organic matter, -2.87 m OD	5530 ± 50	4380–4340 BC one sigma 4460–4320 BC two sigma
Beta-203538	Ballinacurra West	Amorphous organic matter, -3.67 m OD	6500 ± 50	5490–5460 BC one sigma 5520–5360 BC two sigma
Beta-203536	Ballinacurra West	Amorphous organic matter, -4.35 m OD	6290 ± 50	5320–5240 BC one sigma 5350–5080 BC two sigma
Beta-203537	Casting basin	Amorphous organic matter, -11.76 m OD	8070 ± 50	7080–7040 BC one sigma 7140–6840 BC two sigma
Beta-203541	Casting basin	Amorphous organic matter, -12.44 m OD	9170 ± 40	8340–8290 BC one sigma 8470–8280 BC two sigma
Beta-203542	Casting basin	Amorphous organic matter, -12.6 m OD	9350 ± 70	8710–8540 BC one sigma 8770–8340 BC two sigma

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Beta-203543	Casting basin	Amorphous organic matter, -13 m OD	9580 ± 40	9140–8800 BC one sigma 9180–8770 BC two sigma
Beta-203544	Coonagh West	Amorphous organic matter, -1.25 m OD	5660 ± 50	4530–4450 BC one sigma 4590–4360 BC two sigma
Beta-203546	Coonagh West	Amorphous organic matter, -1.44 m OD	5670 ± 40	4530–4460 BC one sigma 4580–4440 BC two sigma
Beta-203545	Coonagh West	Amorphous organic matter, -2.15 m OD	6400 ± 50	5460–5320 BC one sigma 5480–5300 BC two sigma
Beta-203549	Meelick Creek	Amorphous organic matter, +0.66 m OD	3660 ± 40	2050–1960 BC one sigma 2140–1920 BC two sigma
Beta-203547	Meelick Creek	Amorphous organic matter, -0.54 m OD	4030 ± 40	2580–2480 BC one sigma 2630–2470 BC two sigma
Beta-203548	Meelick Creek	Amorphous organic matter, -1.33 m OD	5860 ± 40	4760–4700 BC one sigma 4800–4620 BC two sigma

Chapter 6 (B Wilkins)—Time and tide: five millenia on the banks of the Suir

UB-6901	Newrath, Site 34, Area 1	Alder (<i>Alnus</i> sp.) wood from brushwood hurdle, Cutting E	2116 ± 32	193–197 BC one sigma 344–248 BC two sigma
UB-6906	Newrath, Site 34, Area 2	Alder (<i>Alnus</i> sp.) wood from brushwood platform, Cutting H	524 ± 29	AD 1404–1432 one sigma AD 1324–1441 two sigma
UB-6908	Newrath, Site 34, Area 4	Alder (<i>Alnus</i> sp.) wood from trackway	3702 ± 34	2138–2035 BC one sigma 2200–1980 BC two sigma

Chapter 8 (J O’Sullivan)—The quiet landscape: discoveries on a road scheme in east Galway

UB-7410	Carrowkeel	Foetus	499 ± 29	AD 1415–1436 one sigma AD 1400–1477 two sigma
UB-7411	Carrowkeel	Child	1129 ± 31	AD 888–970 one sigma AD 782–989 two sigma
UB-7412	Carrowkeel	Adult	1186 ± 32	AD 781–885 one sigma AD 721–960 two sigma
UB-7413	Carrowkeel	Foetus	1148 ± 31	AD 785–968 one sigma AD 780–975 two sigma
UB-7414	Carrowkeel	Child	1156 ± 31	AD 783–960 one sigma AD 779–971 two sigma
UB-7416	Carrowkeel	Infant	1125 ± 31	AD 890–970 one sigma AD 783–991 two sigma

New Routes to the Past

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
UB-7417	Carrowkeel	Adult	1228 ± 31	AD 717–865 one sigma AD 689–884 two sigma
UB-7418	Carrowkeel	Infant	1214 ± 31	AD 774–871 one sigma AD 693–890 two sigma
UB-7419	Carrowkeel	Foetus	638 ± 30	AD 1293–1388 one sigma AD 1284–1396 two sigma
UB-7420	Carrowkeel	Adult	1264 ± 31	AD 689–773 one sigma AD 667–861 two sigma
UB-7422	Carrowkeel	Foetus	815 ± 31	AD 1211–1261 one sigma AD 1169–1269 two sigma
UB-7423	Carrowkeel	Adult	1244 ± 32	AD 688–808 one sigma AD 682–872 two sigma
UB-7424	Carrowkeel	Child	1182 ± 32	AD 781–887 one sigma AD 726–964 two sigma
UB-7425	Carrowkeel	Adolescent	1250 ± 34	AD 687–802 one sigma AD 676–870 two sigma
UB-7426	Carrowkeel	Infant	830 ± 31	AD 1186–1254 one sigma AD 1159–1265 two sigma
UB-7427	Carrowkeel	Adult	940 ± 31	AD 1034–1153 one sigma AD 1024–1161 two sigma
UB-7428	Carrowkeel	Adult	906 ± 31	AD 1045–1170 one sigma AD 1038–1208 two sigma
UB-7429	Carrowkeel	Child	1104 ± 31	AD 896–981 one sigma AD 885–1013 two sigma
UB-7430	Carrowkeel	Child	1185 ± 31	AD 781–886 one sigma AD 723–951 two sigma
UB-7431	Carrowkeel	Child	1193 ± 34	AD 779–881 one sigma AD 710–949 two sigma
UB-7432	Carrowkeel	Child	1261 ± 33	AD 688–775 one sigma AD 668–864 two sigma
UB-7433	Carrowkeel	Adult	954 ± 31	AD 1026–1151 one sigma AD 1022–1156 two sigma
UB-7434	Carrowkeel	Infant	1215 ± 32	AD 773–873 one sigma AD 692–890 two sigma
UB-7435	Carrowkeel	Child	1203 ± 32	AD 778–870 one sigma AD 694–936 two sigma
UB-7436	Carrowkeel	Adult	1193 ± 31	AD 780–880 one sigma AD 716–943 two sigma
UB-7437	Carrowkeel	Infant	949 ± 32	AD 1028–1152 one sigma AD 1023–1158 two sigma

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
UB-7438	Carrowkeel	Adult	935 ± 31	AD 1039–1153 one sigma AD 1024–1165 two sigma
UB-7439	Carrowkeel	Child	1168 ± 32	AD 781–934 one sigma AD 775–968 two sigma
UB-7440	Carrowkeel	Adult	1301 ± 31	AD 667–766 one sigma AD 660–772 two sigma
UB-7441	Carrowkeel	Adult	1182 ± 31	AD 781–887 one sigma AD 728–962 two sigma
UB-7442	Carrowkeel	Child	907 ± 30	AD 1045–1168 one sigma AD 1037–1207 two sigma
UB-7443	Carrowkeel	Adult	1305 ± 34	AD 665–766 one sigma AD 658–773 two sigma
UB-7444	Carrowkeel	Child	1113 ± 32	AD 894–974 one sigma AD 832–1015 two sigma
UB-7445	Carrowkeel	Adult	1196 ± 35	AD 779–880 one sigma AD 694–946 two sigma
UB-7446	Carrowkeel	Infant	1223 ± 33	AD 723–869 one sigma AD 689–887 two sigma
UB-7447	Carrowkeel	Foetus	1193 ± 33	AD 780–881 one sigma AD 712–947 two sigma
UB-7448	Carrowkeel	Human bone	1249 ± 31	AD 688–801 one sigma AD 678–869 two sigma
UB-7449	Carrowkeel	Human bone	1113 ± 32	AD 894–974 one sigma AD 832–1015 two sigma
UB-7482	Carrowkeel	Human bone	1127 ± 32	AD 889–971 one sigma AD 782–991 two sigma
UB-7483	Carrowkeel	Human bone	1227 ± 31	AD 718–866 one sigma AD 689–884 two sigma
UB-7244	Rahally	Alder (<i>Alnus</i>) from a charcoal deposit in the basal fill of the innermost ditch of the hillfort	2756 ± 32	924–842 BC one sigma 994–827 BC two sigma
UB-7245	Rahally	Oak (<i>Quercus</i>) from a charcoal spread sealed by a field bank adjacent to the ringfort on the hill summit	884 ± 29	AD 1053–1211 one sigma AD 1043–1218 two sigma

Chapter 10 (J Channing)—A multiperiod enclosure at Rochfort Demesne, Co. Westmeath

SUERC-8586	Rochfort Demesne	Adult domestic cow jawbone from the innermost ditch	1350 ± 35	AD 640–690 one sigma AD 610–770 two sigma
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<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
SUERC-8587	Rochfort Demesne	Adult domestic cow jawbone from the outer ditch	1200 ± 35	AD 775–875 one sigma AD 690–950 two sigma
SUERC-8588	Rochfort Demesne	Elm (<i>Ulmus</i>) charcoal from internal pit	1230 ± 35	AD 710–870 one sigma AD 680–890 two sigma

Chapter 11 (S Desmond)—The archaeology of the M7/M8 motorway scheme

Beta-218616	Springfield 2	Hazel (<i>Corylus avellana</i>) and ash (<i>Fraxinus excelsior</i>) charcoal from possible slot-trench associated with burnt mound	3320 ± 40	1650–1530 BC one sigma 1690–1510 BC two sigma
Beta-218617	Coolfin 4	Oak (<i>Quercus</i>) charcoal from trough associated with burnt mound	1150 ± 40	AD 870–960 one sigma AD 780–990 two sigma
Beta-218618	Aghmacart 1	Ash (<i>Fraxinus excelsior</i>) and alder (<i>Alnus glutinosa</i>) charcoal from burnt mound material	4040 ± 40	2590–2490 BC one sigma 2830–2470 BC two sigma
Beta-218619	Aghmacart 2	Alder (<i>Alnus glutinosa</i>) charcoal from trough associated with burnt mound	3810 ± 40	2300–2200 BC one sigma 2400–2140 BC two sigma
Beta-218620	Cuffsborough 5	Ash (<i>Fraxinus excelsior</i>) charcoal from main fill of a shallow ditch associated with pits, hearths and post-holes	2280 ± 40	390–360 BC one sigma 400–210 BC two sigma
Beta-218621	Coolfin 2	Ash (<i>Fraxinus excelsior</i>) charcoal from pit associated with burnt mound	2570 ± 40	800–780 BC one sigma 810–560 BC two sigma
Beta-218622	Springfield 3	Ash (<i>Fraxinus excelsior</i>), elm (<i>Ulmus</i>) and alder (<i>Alnus glutinosa</i>) charcoal from pit associated with burnt mound	4060 ± 60	2830–2490 BC one sigma 2870–2460 BC two sigma
Beta-218623	Cannonswood 2	Oak (<i>Quercus</i>) charcoal from a trough associated with hearths and pits	3750 ± 60	2270–2040 BC one sigma 2330–1970 BC two sigma
Beta-218624	Derrinsallagh 1	Alder (<i>Alnus glutinosa</i>) charcoal from a hearth associated with pits containing slag	520 ± 40	AD 1410–1430 one sigma AD 1320–1440 two sigma

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
Beta-218625	Cuffsborough 4	Oak (<i>Quercus</i>) charcoal from a post-hole of a possible circular house structure	3430 ± 40	1760–1690 BC one sigma 1870–1630 BC two sigma
Beta-218626	Derrinsallagh 2	Ash (<i>Fraxinus excelsior</i>) charcoal from flue of a cereal-drying kiln	1090 ± 50	AD 900–1000 one sigma AD 870–1020 two sigma
Beta-218627	Kilcotton 2	Hazel (<i>Corylus avellana</i>) charcoal from a trough associated with charcoal production pits	3720 ± 40	2190–2040 BC one sigma 2210–2010 BC two sigma
Beta-218628	Cannonswood 1	Pine (<i>Pinus</i>) and alder (<i>Alnus glutinosa</i>) charcoal from a pit associated with a series of pits and stake-holes	2890 ± 40	1120–1000 BC one sigma 1200–940 BC two sigma
Beta-218629	Springfield 1	Ash (<i>Fraxinus excelsior</i>) charcoal from an irregular pit associated with other pits, post-holes and a curvilinear feature	4120 ± 40	2860–2590 BC one sigma 2870–2570 BC two sigma
Beta-218630	Shanboe 1	Hazel (<i>Corylus avellana</i>) and oak (<i>Quercus</i>) wood from trough lining associated with a burnt mound	2990 ± 40	1290–1140 BC one sigma 1380–1100 BC two sigma
Beta-218631	Coolfin 1	Pomoideae charcoal from a hearth associated with other hearths, pits, post-holes and stake-holes	2940 ± 40	1210–1060 BC one sigma 1280–1010 BC two sigma
Beta-218632	Cuffsborough 5	Oak (<i>Quercus</i>) charcoal from post-hole of possible structure	320 ± 40	AD 1500–1640 one sigma AD 1460–1660 two sigma
Beta-218633	Shanboe 5	Hazel (<i>Corylus avellana</i>) charcoal from trough associated with a burnt mound	3240 ± 40	1520–1440 BC one sigma 1600–1420 BC two sigma
Beta-218634	Lismore 1/Bushfield or Maghernaskeagh 1	Pomoideae and hazel (<i>Corylus avellana</i>) charcoal from industrial pit on an enclosure site	7420 ± 50	6380–6230 BC one sigma 6400–6210 BC two sigma
Beta-218635	Cuffsborough 4	Alder (<i>Alnus glutinosa</i>) and pine (<i>Pinus</i>) charcoal from post-hole associated with circular structure	3590 ± 40	1970–1890 BC one sigma 2030–1870 BC two sigma

Settlement, Industry and Ritual

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
Beta-218636	Coolfin 1	Alder (<i>Alnus glutinosa</i>) and blackthorn (<i>Prunus spinosa</i>) charcoal from slot-trench of a house structure	3130 ± 40	1430–1390 BC one sigma 1490–1310 BC two sigma
Beta-218637	Cuffsborough 4	Oak (<i>Quercus</i>) charcoal from a post-hole of a structure	3390 ± 70	1750–1610 BC one sigma 1880–1520 BC two sigma
Beta-218639	Kilcotton 1	Oak (<i>Quercus</i>) charcoal from charcoal production pit	530 ± 40	AD 1400–1430 one sigma AD 1320–1440 two sigma
Beta-218640	Killeany 1	Ash (<i>Fraxinus excelsior</i>) charcoal from a kiln associated with an enclosure	1280 ± 40	AD 680–780 one sigma AD 660–860 two sigma
Beta-218641	Cuffsborough 4	Alder (<i>Alnus glutinosa</i>) charcoal from a bowl furnace associated with structures	1860 ± 50	AD 90–230 one sigma AD 50–250 two sigma
Beta-218642	Tintore 2	Blackthorn (<i>Prunus spinosa</i>) charcoal from a cremation pit associated with an enclosure	2980 ± 60	1300–1110 BC one sigma 1390–1010 BC two sigma
Beta-218643	Tintore 2	Alder (<i>Alnus glutinosa</i>) charcoal from a pit associated with an enclosure	2520 ± 60	790–530 BC one sigma 810–410 BC two sigma
Beta-218644	Tintore 2	Blackthorn (<i>Prunus spinosa</i>) and ash (<i>Fraxinus excelsior</i>) charcoal from the fill of an enclosure ditch	2770 ± 40	940–850 BC one sigma 1000–820 BC two sigma
Beta-218645	Derrinsallagh 4	Alder (<i>Alnus glutinosa</i>), ash (<i>Fraxinus excelsior</i>) and Pomoideae charcoal from a bowl furnace associated with pits and post-holes	1920 ± 70	AD 20–140 one sigma AD 50–240 two sigma
Beta-218646	Lismore 2	Ash (<i>Fraxinus excelsior</i>) charcoal from burnt mound pit	3770 ± 70	2290–2050 BC one sigma 2450–1970 BC two sigma
Beta-218649	Derrinsallagh 4	Ash (<i>Fraxinus excelsior</i>) charcoal from a bowl furnace associated with pits and post-holes	1890 ± 60	60–220 BC one sigma 10–250 BC two sigma

<i>Lab Code</i>	<i>Site</i>	<i>Sample/context</i>	<i>Yrs BP</i>	<i>Calibrated date ranges</i>
Beta-218650	Derrinsallagh 3	Willow (<i>Salix</i>) charcoal from a post-hole associated with an enclosure	460 ± 40	AD 1420–1450 one sigma AD 1410–1480 two sigma
Chapter 12 (T O'Neill)—The hidden past of Parknahown, Co. Laois				
Beta-218638	Parknahown 5	Ash (<i>Fraxinus excelsior</i>) and blackthorn (<i>Prunus spinosa</i>) charcoal from early enclosure ditch	1530 ± 50	AD 450–600 one sigma AD 420–640 two sigma
Beta-218647	Parknahown 5	Blackthorn (<i>Prunus spinosa</i>), ash (<i>Fraxinus excelsior</i>), alder (<i>Alnus glutinosa</i>), hazel (<i>Corylus avellana</i>), oak (<i>Quercus</i>) and elm (<i>Ulmus</i>) charcoal from northern ditch section of double-ditched enclosure	1560 ± 40	AD 430–550 one sigma AD 410–600 two sigma
Beta-218648	Parknahown 5	Ash (<i>Fraxinus excelsior</i>) charcoal from recut within northern ditch section of double-ditched enclosure	970 ± 70	AD 1000–1160 one sigma AD 960–1220 two sigma
Chapter 13 (R O'Hara)—Roestown 2, Co. Meath: an excavation on the M3				
Beta-219002	Roestown 2	Chicken (<i>Gallus gallus</i>) bone from primary fill of Phase 1 enclosure, Area A	1320 ± 40	AD 660–710 one sigma AD 650–780 two sigma
Beta-219003	Roestown 2	Dog (<i>Canis familiaris</i> L.) bone from Phase 1 ancillary enclosure, Area A	1360 ± 40	AD 650–680 one sigma AD 630–710 two sigma
Beta-219005	Roestown 2	Pig (<i>Sus</i> sp.) bone from primary fill of enclosure, Area A	1380 ± 40	AD 640–670 one sigma AD 620–690 two sigma
Beta-220114	Roestown 2	Dog (<i>Canis familiaris</i> L.) bone from recut of D-shaped enclosure, Area B	1200 ± 40	AD 780–890 one sigma AD 710–960 two sigma
Beta-220115	Roestown 2	Cattle (<i>Bos taurus</i> L.) bone from D-shaped enclosure, Area B	1480 ± 40	AD 550–630 one sigma AD 530–650 two sigma
Beta-220116	Roestown 2	Dog (<i>Canis familiaris</i> L.) bone from recut of D-shaped enclosure, Area B	1170 ± 40	AD 790–900 one sigma AD 770–980 two sigma

