## **8 Discussion and Conclusion**

#### **Dating and Phasing**

The dating resolution provided by the pottery suggests that there are three broad phases of activity on the site. These can be correlated with those put forward by the evaluation report and interim reports on the work further south. A small amount of pottery, backed up by the flint artefacts appear for the first time to represent Bronze Age activity, with a structure and isolated pits associated with the gathering of hazelnuts forming the clearest indication of any earlier prehistoric activity on site. The main bulk of the pottery is of a native tradition and generally belongs to the Later Iron Age/early Roman period similar to the evaluation results. The presence of large roundhouses that lie in an un-enclosed area in the north-eastern part of the site hints at an earlier Iron Age date but a lack of pottery to date them more securely this does little to directly support this assumption. The resolution of the dating is not good enough to properly the boundary between the Iron Age and Roman period. This therefore makes the phasing of the trackway ditches difficult. At least two stratigraphically differing phase have been observed with Ditch 4 and at least three within Ditch 5. This sequence of multi-phased development of the trackway is, however, consistent with the results of both the evaluation and the work carried out further to the south.

### Bronze Age/earlier prehistoric (Evaluation Phase 1)

Several fragments of Bronze Age pottery including Beaker and Collared Urns were identified. The flint recovered from the site also belong to this prehistoric period and was initially considered to be residual but, in light of the pottery and archaeological evidence, can now be consider to be representative of Bronze Age activity. This activity is perhaps best indentified in the form of Roundhouse 1 located to the east of the trackway. Its location, suggests it is not contemporary with the use of the trackway and therefore, most likely to be earlier in date. The form of the structure also suggests a Bronze Age date, when compared with other known Bronze Age examples, such as those at Swillington Common (Roberts, Burgess and Berg 2001) and South Elmsall (Grassam 2010). The lack of any clearly datable finds does, however, hinder this assertion. The environmental samples also indicate the roasting of hazelnuts at several locations across the site, some of these samples come from pits with Bronze Age dates.

#### Pre-Roman Iron Age (Phase 2 and 3)

The native style pottery recovered from the site ranges in date from the Iron Age through to the Romano-British period, and, as suggested in the excavations to the south, perhaps into the early post Roman period. As the vast bulk of the pottery recovered form the site is in this native style the identification of any early, mid or late Iron Age features is, therefore, difficult to determine. The possible roundhouses to the north-east of the site lie in an area that appears to be unenclosed and could be early to mid Iron Age in date. The broad dating of the pottery does not allow the large linear features to be assigned with any confidence to a phase but it is envisaged that the trackway (Ditch 4 and 5) and the field systems (Ditch 1, 2 and 3) were

established during this period of time, with perhaps the western cut of Ditch 4 and the eastern gully of Ditch 5 also belonging to the pre-Roman Iron Age this phase.

#### Romano-British (Phase 3)

The Roman-British pottery is confined to features areas around the trackway suggesting a focus on these features during this period. This again conforms to the proposed ideas about the trackway development which sees renewal and realignment of the trackway during the Romano-British period. The eastern part of Ditch 4 and the western gully of Ditch 5 are most likely to be part of this phase. No structural evidence can be definitively dated to this period but Roundhouses 2 and 3 might form part of a native settlement that extents into the Romano-British period. Evidence of corn drying was located at the northern end of the stripped area where the environmental evidence indicated a mixed cereal economy reliant mainly on wheat, with lesser amounts of barley and only trace finds of oats. Oats may well have been used as animal fodder, but the poor level of animal bone survival does not add any additional insights.

Not surprisingly, many features remain un-phased and undated. Many are scattered isolated pits that maybe the result of prehistoric activity across the site or have been isolated due to the reduction of the natural levels by intensive ploughing. The lack of features on the eastern side of the extraction area is consistent with the presence of plough furrows in this area. Interestingly many of the features are located some distance form the trackway and perhaps indicate a wider and more ubiquitous occupation of the landscape in the prehistoric period prior to the establishment of the trackway.

#### **Environmental Evidence**

Charcoal evidence recovered from the pits and some of the post-holes indicates deciduous woodland of oak, with open lighter areas of hazel, being exploited for both fuel and construction purposes. This supports the idea of a linear zone of woodland clearance that is being exploited and in which resources are being gathered. The identification of any animal husbandry at any period is limited due to the poor preservation of the animal bone from the site. The carbonised seeds recovered from deposits also provide some insight into the changing arable economy of the settlement but this in turn is hindered by the lack of pottery dating precision.

#### Conclusions

The archaeological work undertaken within the Phase 1 Extraction Area of the northern extension to Newbridge Quarry provided significant additional information about the past exploitation of this landscape.

The excavation has revealed the presence of previously unrecorded evidence of Bronze Age activity, including the identification of at least one Bronze Age roundhouse and a number of pits. This activity is not focused upon the trackway, but is located up to 150m to the east, in

an area thought as a consequence of the evaluation to be devoid of archaeology. The excavation also identified further examples of pre-Roman Iron Age/Romano-British roundhouse with two differing types identified in close proximity to each other in the southern area of the site.

As to the south the main feature continues to be the parallel trackway ditches which provided the focus for activity in the Late Iron Age Roman period. The bulk of the pottery recovered was in a native style, which has a long life span and does not allow for separate chronological phases of the trackway development to be readily identified. The western trackway ditch (Ditch 4) did produce much more obvious Roman pottery, perhaps suggesting that the ditch was open for a longer period of time.

#### **Future Strategy**

The strip, record and excavate process that has been employed in mitigation of the Phase 1 Extraction has proved most effective at identifying structures and discrete features, particularly those of earlier prehistoric date, that evaded the evaluation process of geophysical survey and trial trenching. Consequently, it is proposed that the same strategy of investigation be employed in the Phase 2 Extraction Area.

Dating the archaeology of the Phase 1 Extraction Area has, so far, relied primarily upon pottery. This is problematic on two counts, first because many features do not contain pottery, or any other diagnostic material, and secondly because the resolution of the ceramic dating, particularly for the later Iron Age and Roman period is not precise. A number of potential radiocarbon dating samples have been identified from the environmental analysis (see below). Those from later Iron Age/Roman contexts will not provide any better resolution than the pottery dating, however inadequate that is, so it is anticipated that future radiocarbon dating will concentrate on material thought to be from earlier prehistoric features or structures. However, rather than analyse Phase 1 samples now, it is considered prudent to keep potential dating samples under continuous review, so that the most appropriate samples can be submitted, for the most beneficial outcome, as part of a global dating programme at the completion of the excavation work for all phases of extraction. The cost of radiocarbon dating will then only be realised as part of the final analysis and publication of the results. This approach will be reviewed in the light of future findings.

Structure/feature	Context	Sample
Roundhouse 1	3232	Hazel nutshell fragments (0.14g)
	3269	Oak charcoal (0.35g)
Roundhouse 3	3184	Oak charcoal (1.3g)
Roundhouse 4	3359	Hazel nutshell fragments (0.02g)
Roundhouse 5	3354	Hazel charcoal (0.11g)
Roundhouse 6	3371	Hazel nutshell fragments (0.02g)
		Oak charcoal (0.21g)

Table 8: Potential Radiocarbon Dating Samples from the Phase 1 Extraction Area

Structure/feature	Context	Sample
Pit 3329	3326	Hazel nutshell fragments (0.26g). Flint scraper from same context.
Pit 3452	3452	Hazel nutshell fragments (0.92g)
		Burnt ?animal bone
Pit 3442	3443	Hazel nutshell fragments (0.14g). Bronze Age pottery from same context.
Corn drier 3430	3430	Hazel nutshell fragments (0.01g)

Phase	File/Box No	Description	Quantity
Evaluation	File no.1	Context register sheets	2
		Drawing register sheets	2
		Levels sheets	4
		Sample register sheets	1
		Finds register sheets	1
		Photo register sheets	3
		Colour negative strips	1
		B&W negative strips	1
Excavation	File no. 2	Context register sheets	4
		Drawing register sheets	3
		Sample register sheets	1
Excavation	File no. 3	Context sheets (nos. 1000-1199)	200

# Appendix 1: Inventory of primary archive

# Appendix 2: Concordance of contexts yielding artefacts or environmental remains

# Abbreviations

Bone	Animal bone
Daub	Fired clay fragments
GBA	General biological analysis soil sample
Flint	Flint object
BA pot	Bronze Age pottery
PRIA pot	Pre-Roman Iron Age pottery

# RB pot Romano-British pottery

Context	Extraction Area	Group	Description	Artefacts and environmental samples
Topsoil	All areas		Topsoil	
Subsoil	All areas		Subsoil	Flint (11)
3095	Stock Area		Single fill of 3096	GBA 354
			Mid grey/orange brown silty clay.	
3096	Stock Area		Cut of pit	
			0.32m in length, 0.42m in width and 0.14m deep	
3097	Stock Area		Single fill of 3098	GBA 355
			Black silty clay	
3098	Stock Area		Cut of pit	
			0.43m in length, 0.43m in width and 0.17m deep	
3099	Stock Area		Single fill of 3100	GBA 356; BA pot (4); Flint (1)
			Reddish brown Silty clay	
3100	Stock Area		Cut of pit	
			0.55m in length, 0.40m in width and 0.11m deep	
3101	Stock Area		Single fill of 3102	GBA 358; Flint (1)
			Greyish brown silty clay	
3102	Stock Area		Cut of post-hole	
			0.74m in length, 0.64m in width and 0.50m deep	
3103	Stock Area		Single fill of 3104	GBA 357
			Black charcoal rich, silty clay	
3104	Stock Area		Oval cut of fire pit	
			1.20m in length, 1.21m in width and 0.17m deep	

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Context	Extraction Area	Group	Description	Artefacts and environmental samples
3105	Stock Area	a ter tar	Single fill of 3103	GBA 369; PRIA Pot; (1) Flint (1
			Mid orangey brown silty clay	
3106	Stock Area		Circular cut of pit	
			1m in length, 1.04m in width and 0.18m deep	
3107	Phase 1		Upper fill of 3109	GBA 360
			Dark brown silty clay 0.05m deep	
3108	Phase 1		Main fill of 3109	GBA 361
			Mid brown silty clay 0.27m deep	
3109	Phase 1		Oval cut of post-hole	
			0.65m in length, 0.43m in width and 0.32m deep	
3110	Stock Area		Single fill of 3111	GBA 363; BA pot (13); Flint (1)
			Mid grey orange brown silty clay	
3111	Stock Area		Cut of pit	
			0.77m in length, 0.88m in width and 0.19m deep	
3112	Phase 1	Ditch 1	Single fill of 3113 (same as 3114), Reddish brown silty clay	PRIA Pot (1)
3113	Phase 1	Ditch 1	Cut of gully terminal (same as 3115)	
			0.70m in width and 0.23m deep	
3114	Phase 1	Ditch 1	Single fill of 3115 (same as 3112)	GBA 364
3115	Phase 1	Ditch 1	Cut of gully (same as 3113)	
			0.53m in width and 0.23m deep	
3116	Phase 1		Single fill of 3117	GBA 365
			Dark greyish brown silty clay	
3117	Phase 1		Oval cut of pit	
			1.28m in length, 1.23m in width and 0.29m deep	
3118	Phase 1	RH 2	Single fill of 3119	GBA 366
			Mid brown silty clay	
3119	Phase 1	RH 2	Cut of post-hole	
			0.60m in length, 0.80m in width and 0.12m deep	
3120	Phase 1	RH 2	Upper fill of 3121	GBA 367
			Greyish brown silty clay	
3121	Phase 1	RH 2	Rectangular cut of post-hole	
			0.90m in length, 0.65m in width and 0.28m deep	
3122	Phase 1	RH 2	Single fill of 3123	GBA 368
			Reddish brown silty clay	
3123	Phase 1	RH 2	Circular cut of post-hole	
			0.80m in length, 0.75m in width and 0.14m deep	
3124	Phase 1	RH 2	Single fill of 3125	GBA 369
			Reddish brown silty clay	

Context	Extraction Area	Group	Description	Artefacts and environmental samples
3125	Phase 1	RH 2	Cut of post-hole	
			0.90m in length, 0.55m in width and 0.24m deep	
3126	Phase 1	RH 2	Single fill of 3127	GBA 370
			Reddish brown silty clay	
127	Phase 1	RH 2	Cut of post-hole	
			0.60m in length, 0.62m in width and 0.16m deep	
128	Phase 1	RH 2	Primary fill of 3121	GBA 371
			Reddish brown silty clay 0.18m deep	
129	Phase 1		Single fill of 3130	GBA 372; PRIA pot
			Dark yellowish brown silty clay	
130	Phase 1		Oval cut of possible fire pit	
			0.96m in length, 0.88m in width and 0.27m deep	
131	Phase 1	RH 2	Post pipe within 3133	GBA 382, daub (1)
			Mid grey brown silty clay 0.23m deep	
132	Phase 1	RH 2	Fill of 3133	GBA 383
			Yellowish brown silty clay	
133	Phase 1	RH 2	Cut of post-hole	
			0.75m in length, 0.85m in width and 0.23m deep	
134	Phase 1	RH 2	Single fill of 3135	GBA 384; animal bone (6)
			Greyish brown silty clay	
135	Phase 1	RH 2	Oval cut of pit	
			1.15m in length, 1.46m in width and 0.38m deep	
136	Phase 1	RH 2	Post pipe within 3138	GBA 373, daub (1)
			Dark greyish brown silty clay 0.19m deep	
137	Phase 1	RH 2	Fill of 3138	GBA 374
			Yellowish brown silty clay 0.19m deep	
138	Phase 1	RH 2	Cut of post-hole	
			0.90m in length, 0.50m in width and 0.19m deep	
139	Phase 1	RH 2	Single fill of 3140	GBA 375
			Reddish brown silty clay	
140	Phase 1	RH 2	Cut of post-hole	
			0.50m in length, 0.45m in width and 0.25m deep	
141	Phase 1	RH 2	Single fill of 3142	
			Reddish brown silty clay	
142	Phase 1	RH 2	Cut of shallow poss. PH	
			0.30m in diameter and 0.01-0.02m deep	
143	Phase 1	RH 2	Single fill of 3144	GBA 381
			Yellowish brown silty clay	

Context	Extraction Area	Group	Description	Artefacts and environmental samples
3144	Phase 1	RH 2	Cut of post-hole	
			0.68m in length, 0.80m in width and 0.20m deep	
3145	Phase 1	RH 2	Post pipe within 3147	GBA 376
3146	Phase 1	RH 2	Fill of 3147	GBA 377
			Yellowish brown silty clay	
3147	Phase 1	RH 2	Cut of post-hole	
			1m in length, 0.88m in width and 0.35m deep	
3148	Phase 1	RH 2	Single fill of 3149	
			Dark brown silty clay	
3149	Phase 1	RH 2	Cut of shallow possible PH	
			0.75m in length, 0.50m in width and 0.05m deep	
3150	Phase 1	RH 2	Single fill of 3151	GBA 378
			Reddish brown silty clay	
3151	Phase 1	RH 2	Cut of post-hole	
			0.60m in length, 0.46m in width and 0.30m deep	
3152	Phase 1	RH 2	Single fill of 3153	GBA 379
			Reddish brown silty clay	
3153	Phase 1	RH 2	Cut of post-hole	
			0.74m in length, 0.47m in width and 0.46m deep	
3154	Phase 1	RH 2	Single fill of 3155	
			Reddish brown silty clay	
3155	Phase 1	RH 2	Cut of post-hole	
			0.56m in length, 0.50m in width and 0.20m deep	
3156	Phase 1	RH 2	Single fill of 3157	GBA 387
			Greyish brown silty clay	
3157	Phase 1	RH 2	Cut of post-hole	
			0.75m in length, 0.65m in width and 0.26m deep	
3158	Phase 1	RH 2	Post pipe within 3160 0.24m deep	
3159	Phase 1	RH 2	Fill of 3160	
			Yellowish brown silty clay 0.24m deep	
3160	Phase 1	RH 2	Cut of post-hole	
			0.50m in length, 0.47m in width and 0.24m deep	
3161	Phase 1	RH 2	Single fill of 3162	
			Dark orange brown silty clay	
3162	Phase 1	RH 2	Cut of post-hole	
			0.70m in length, 0.80m in width and 0.25m deep	
3163	Phase 1	RH 2	Single fill of 3164	GBA 385
			Reddish brown silty clay	

Context	Extraction Area	Group	Description	Artefacts and environmental samples
3164	Phase 1	RH 2	Cut of pit	
			1.31m in length, 1in width and 0.25m deep	
3165	Phase 1	RH 2	Single fill of 3166	GBA 386
			Yellowish brown silty clay	
3166	Phase 1	RH 2	Cut of post-hole	
			0.90m in length, 0.90m in width and 0.40m deep	
3167	Phase 1	Ditch 1	Single fill of 3168 (same as 3112)	
3168	Phase 1	Ditch 1	Cut of gully (same as 3113)	
			0.69m in width and 0.12m deep	
3169	Phase 1		Single fill of 3170	GBA 388
			Dark grey silty clay 0.09m deep	
3170	Phase 1		Cut of small pit	
			0.30m in length, 0.21m in width and 0.09m deep	
3171	Phase 1		Single fill of 3172	GBA.389
			Yellowish brown silty clay	
3172	Phase 1		Cut of post-hole	
			0.65m in length, 0.52m in width and 0.23m deep	
3173	Phase 1	RH 3	Single fill of 3174	
			Greyish yellow silty clay	
3174	Phase 1	RH 3	Cut of roundhouse gully	
			0.25-0.40m in width and 0.01-0.20m deep	
3175	Phase 1	RH 3	Single fill of 3176	GBA 390
			Greyish yellow silty clay	
3176	Phase 1	RH 3	Cut of post-hole	
			0.60m in length, 0.47m in width and 0.20m deep	
3177	Phase 1		Single fill of 3182	GBA 391
			Greyish brown silty clay	
3178	Phase 1		Single fill of 3179	GBA 392
			Orangey brown silty clay	
3179	Phase 1		Oval cut of post-hole	
			0.90m in length, 0.38m in width and 0.30m deep	
3180	Phase 1		Fill of 3181	GBA 393
			Orangey brown silty clay	
3181	Phase 1		Oval cut of post-hole	
			0.85m in length, 0.77m in width and 0.30m deep	
3182	Phase 1		Cut of small pit	
			0.30m in length, 0.26m in width and 0.15m deep	
3183	Phase 1		Post pipe within 3181	GBA 395
			11	

Context	Extraction Area	Group	Description	Artefacts and environmental samples
3184	Phase 1	RH 3	Single fill of 3185	GBA 394
			Grey brown silty clay	
3185	Phase 1	RH 3	Cut of post-hole	
			0.46m in width and 0.46m deep	
3186	Phase 1	RH 3	Single fill of 3187	GBA 403
			Yellow brown silty clay	
3187	Phase 1	RH 3	Cut of roundhouse gully	
			0.85m in width and 0.18m deep	
3188	Phase 1		Single fill of 3189	GBA 396
			Greyish brown silty clay	
3189	Phase 1		Cut of post-hole	
			1.07m in length, 0.57m in width and 0.33m deep	
3190	Phase 1		Single fill of 3191	GBA 397
3191	Phase 1		Cut of post-hole	
			0.45m in length, 0.31m in width and 0.14m deep	
3192	Phase 1	Ditch 5	Single fill of 3193	
			Reddish brown silty clay	
3193	Phase 1	Ditch 5	Cut of terminal of trackway ditch	
			0.90 wide and 0.38m deep	
3194	Phase 1	Ditch 1	Single fill of 3195	GBA 399; Flint (1)
			Reddish brown silty clay	
3195	Phase 1	Ditch 1	Cut of E-W ditch	
			0.60m in width and 0.22m deep	
3196	Phase 1	RH 3	Single fill of 3197	
			Orangey brown silty clay	
3197	Phase 1	RH 3	Cut of roundhouse gully	
			0.85m in width and 0.16m deep	
3198	Phase 1	RH 3	Single fill of 3199	GBA 398; Animal bone (10);
			Dark greyish brown silty clay	Flint (1)
3199	Phase 1	RH 3	Cut of post-hole	
			1m in length, 0.62m in width and 0.37m deep	
3200	Phase 1	RH 3	Single fill of 3201 (same as 3186)	
3201	Phase 1	RH 3	Cut of roundhouse gully (same as 3187)	
			0.40m in width and 0.06m deep	
3202	Phase 1	RH 3	Single fill of 3203	GBA 400; Flint (1)
			Reddish brown silty clay	
3203	Phase 1	RH 3	Cut of post-hole	
			0.54m in length, 0.50m in width and 0.12m deep	
3204	Phase 1	RH 3	Single fill of 3205	GBA 401
			Reddish brown silty clay	
3205	Phase 1	RH 3	Cut of post-hole	

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Context	Extraction Area	Group	Description	Artefacts and environmental samples
			0.40m in length, 0.45m in width and 0.15m deep	
3206	Phase 1	RH 3	Single fill of 3207	
			Greyish brown silty clay	
3207	Phase 1	RH 3	Cut of PH or roundhouse gully section	
			0.75m in length, 0.76m in width and 0.14m deep	
3208	Phase 1	Ditch 5	Single fill of 3209	GBA 402
			Reddish brown silty clay	
3209	Phase 1	Ditch 5	Cut of eastern trackway ditch	
			0.41m in width and 0.15m deep	
3210	Phase 1	Ditch 5	Single fill of 3211	
			Orangey brown silty clay	
3211	Phase 1	Ditch 5	Cut of a section of eastern trackway ditch	
			0.73m in width and 0.16m deep	
3212	Phase 1	RH 3	Single fill of 3213	GBA 404
			Orangey brown silty clay	
3213	Phase 1	RH 3	Cut of possible PH	
			0.70m in length, 0.66m in width and 0.09m deep	
3214	Phase 1	RH 3	Fill of beam slot?	
3215	Phase 1	RH 3	Cut of possible beam slot?	
			3.30m in length, 0.70m in width and 0.10m deep	
3216	Phase 1	RH 1	Post Pipe within post-hole 3223	GBA 405
3217	Phase 1	RH 1	Post Pipe within post-hole 3218	GBA 406
3218	Phase 1	RH 1	Cut of post-hole	
			0.27m in diameter, 0.28m deep	
3219	Phase 1	RH 1	Post Pipe within post-hole 3220	GBA 407
3220	Phase 1	RH 1	Cut of post-hole 0.31m in diameter, 0.30m deep	
3221	Phase 1	RH 1	Upper fill of post-hole 3222	GBA 408
			Brownish grey silty clay	
3222	Phase 1	RH 1	Cut of post-hole	
			0.32m in diameter and 0.15m deep	
3223	Phase 1	RH 1	Cut of post-hole	
			0.33m in diameter and 0.35m deep	
3224	Phase 1	RH 1	Post Pipe within post-hole 3225	GBA 409; Flint (1)
3225	Phase 1	RH 1	Cut of post-hole	
			0.50m in diameter and 0.13m deep	
3226	Phase 1	RH 1	Fill of post-hole 3228	GBA 410 daub (2)
			Dark blackish brown silty clay	
3227	Phase 1	RH 1	Fill of post-hole 3228	
			Light brown silty clay	
3228	Phase 1	RH 1	Cut of post-hole	