ARABLE FARMING IN NORTH EAST ENGLAND DURING THE LATER PREHISTORIC AND ROMAN PERIOD

An Archaeobotanical Perspective

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FIGURES

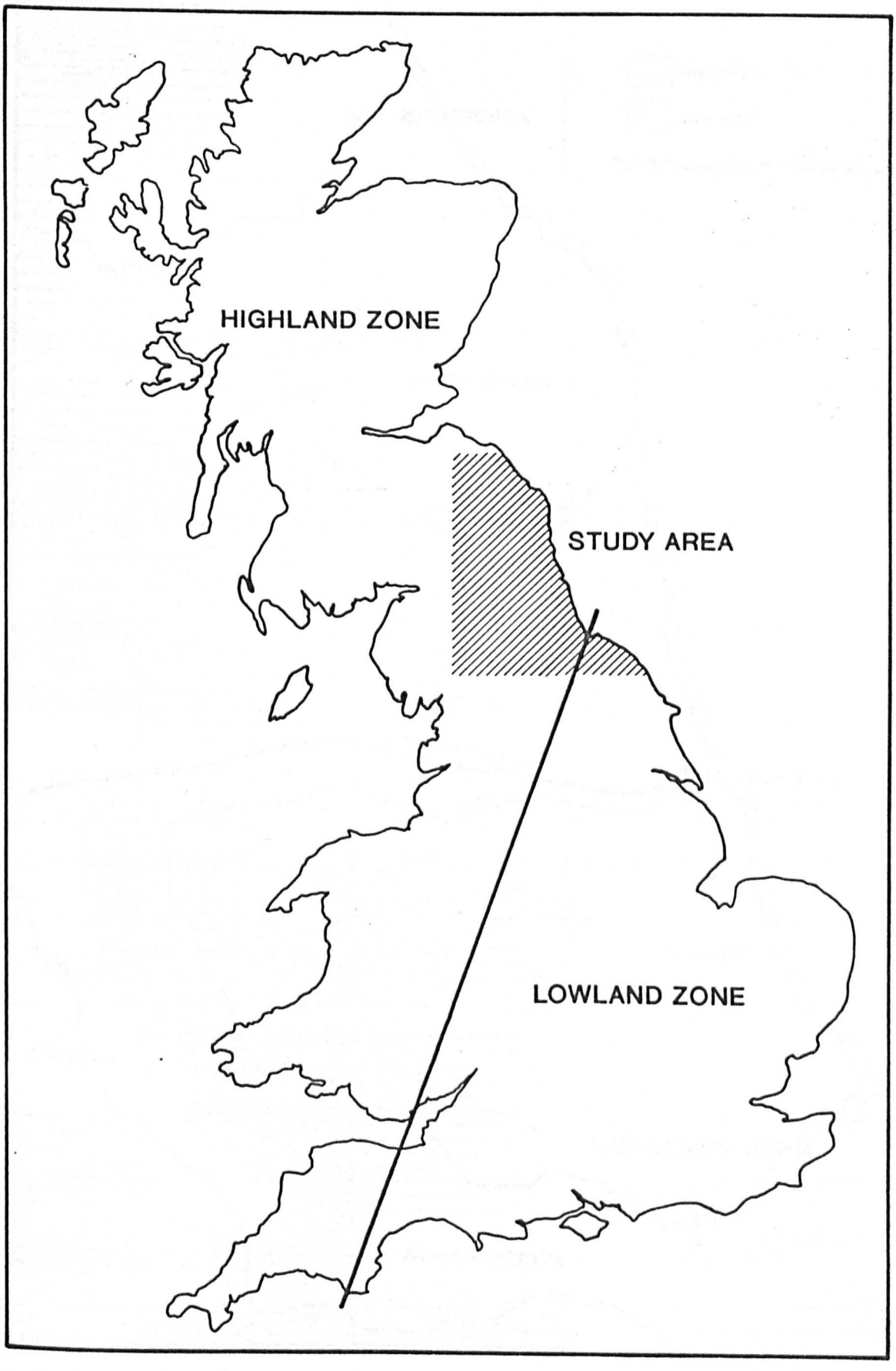


Figure 1.1 Division of the country into a Highland and a Lowland Zone (after Evans 1975, Fox 1932, Stamp and Beaver 1971), and location of the study area.

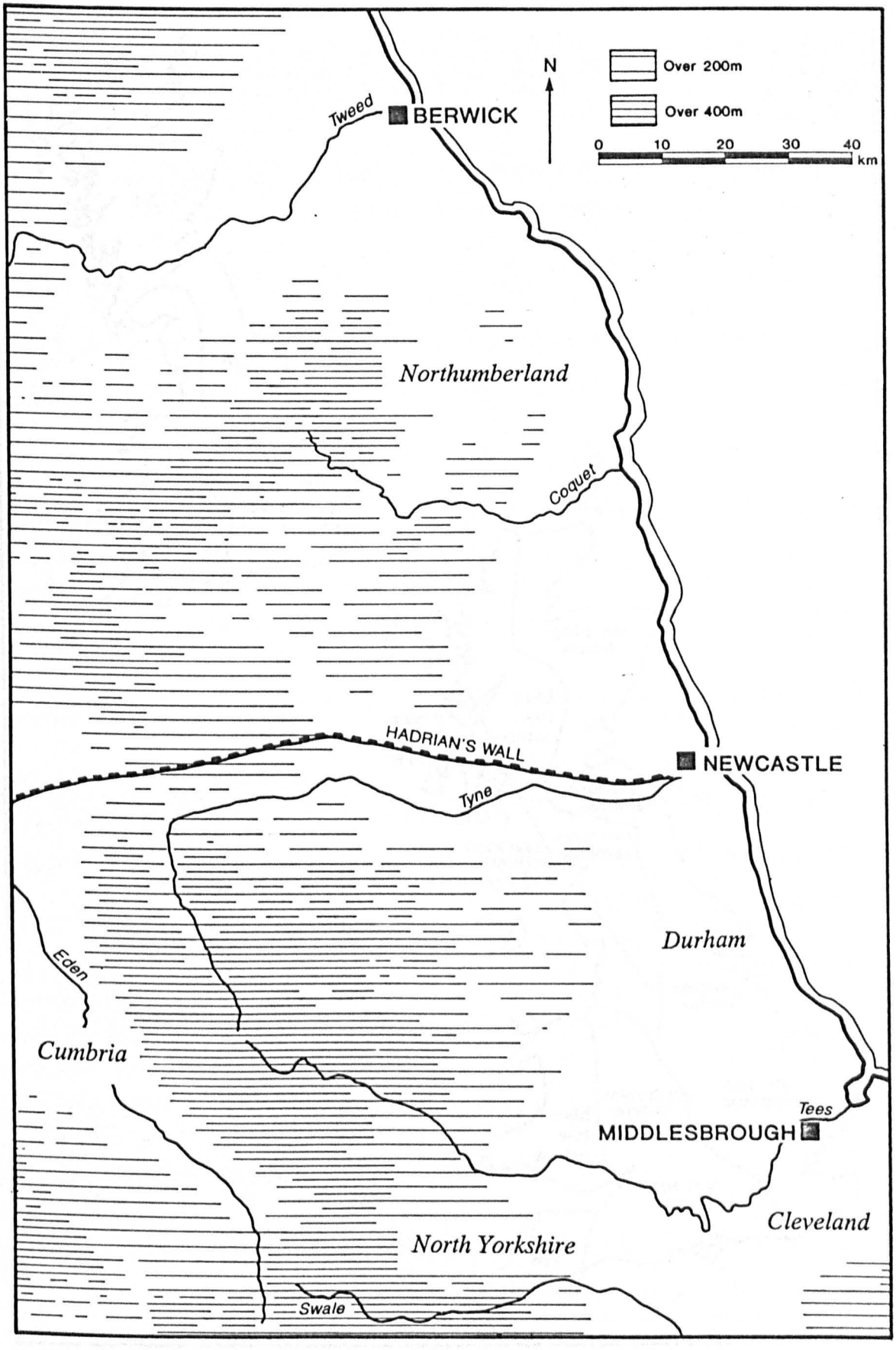


Figure 2.1 Map of the study area showing geographical features mentioned in the text.

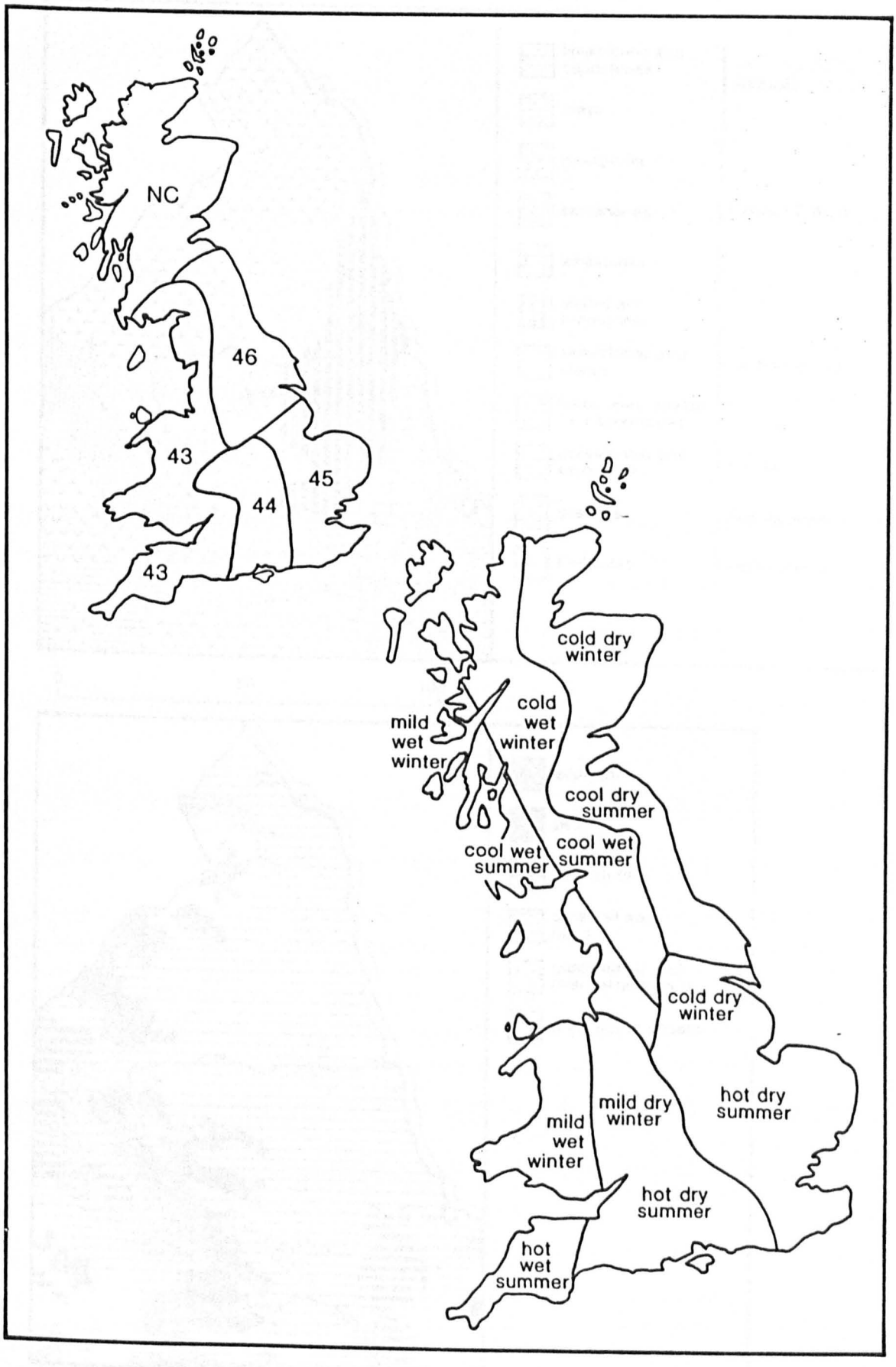


Figure 2.2 Climatic zones of Britain, following Thran and Broekhuizen 1965 (top) and Shirlaw 1966 (below).

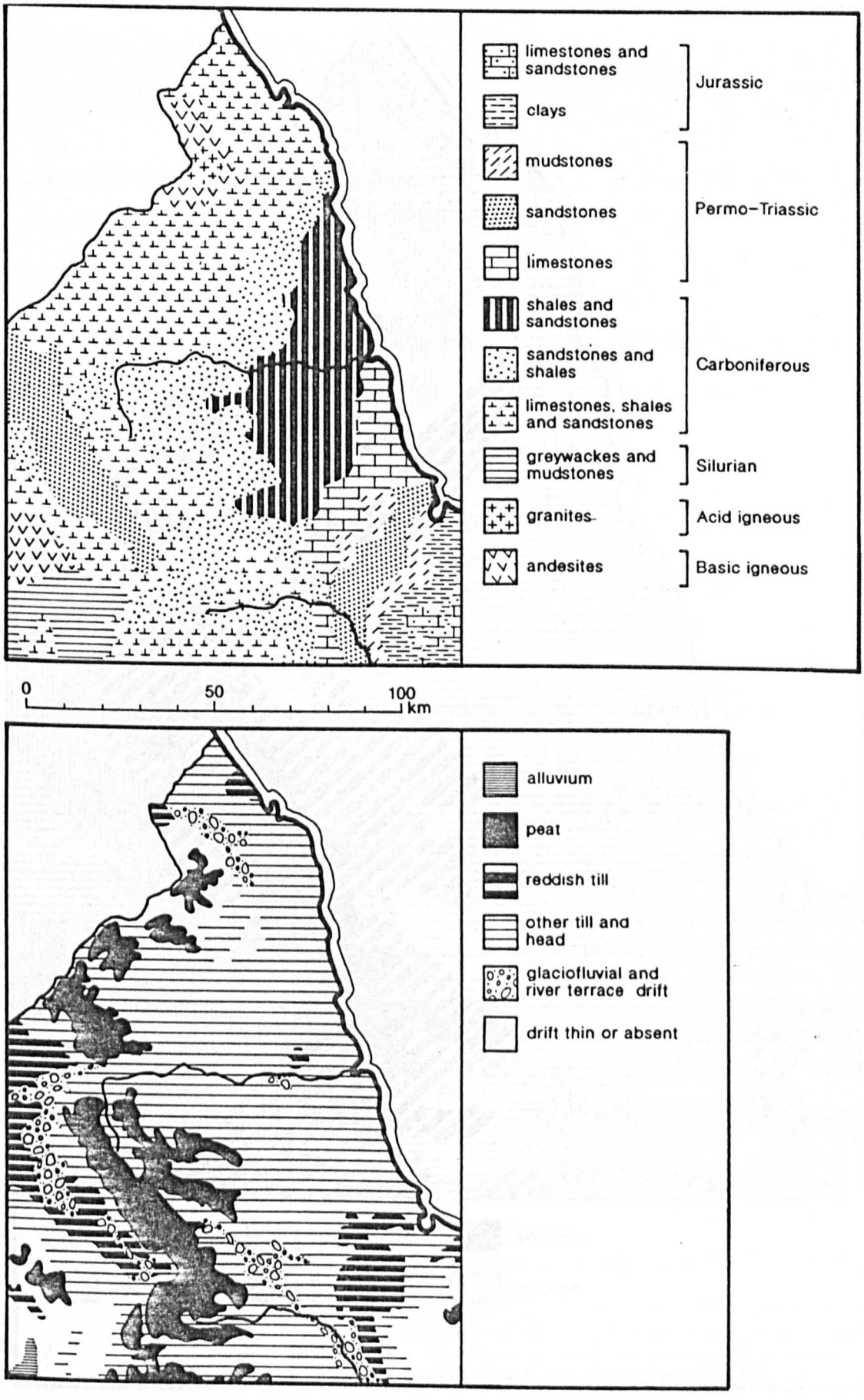


Figure 2.3 Solid and drift geology in the region (after Jarvis *et al.* 1984).

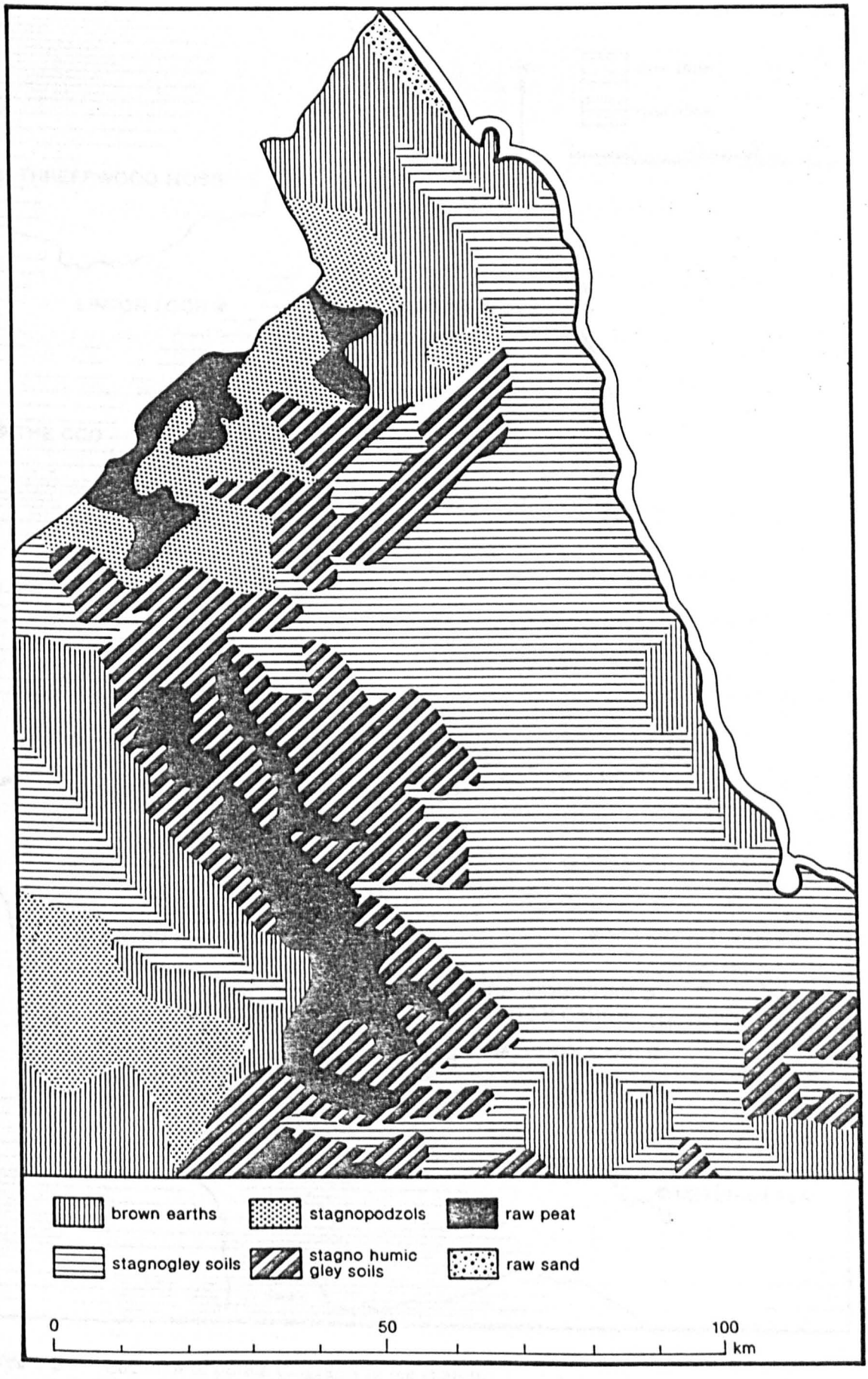


Figure 2.4 Generalized soil map of the region (after Mackney 1974).

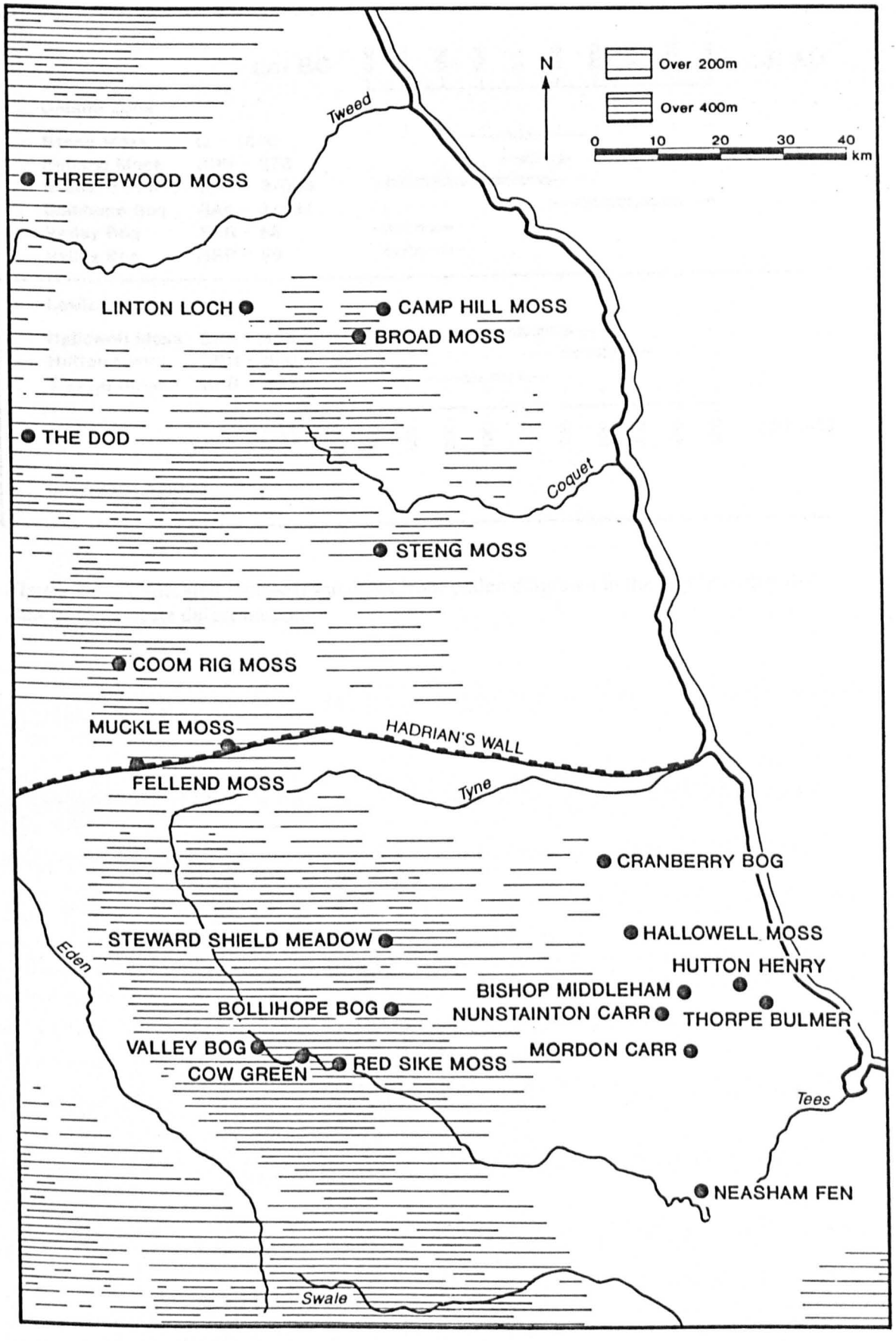


Figure 2.5 Location of pollen diagrams in the region.

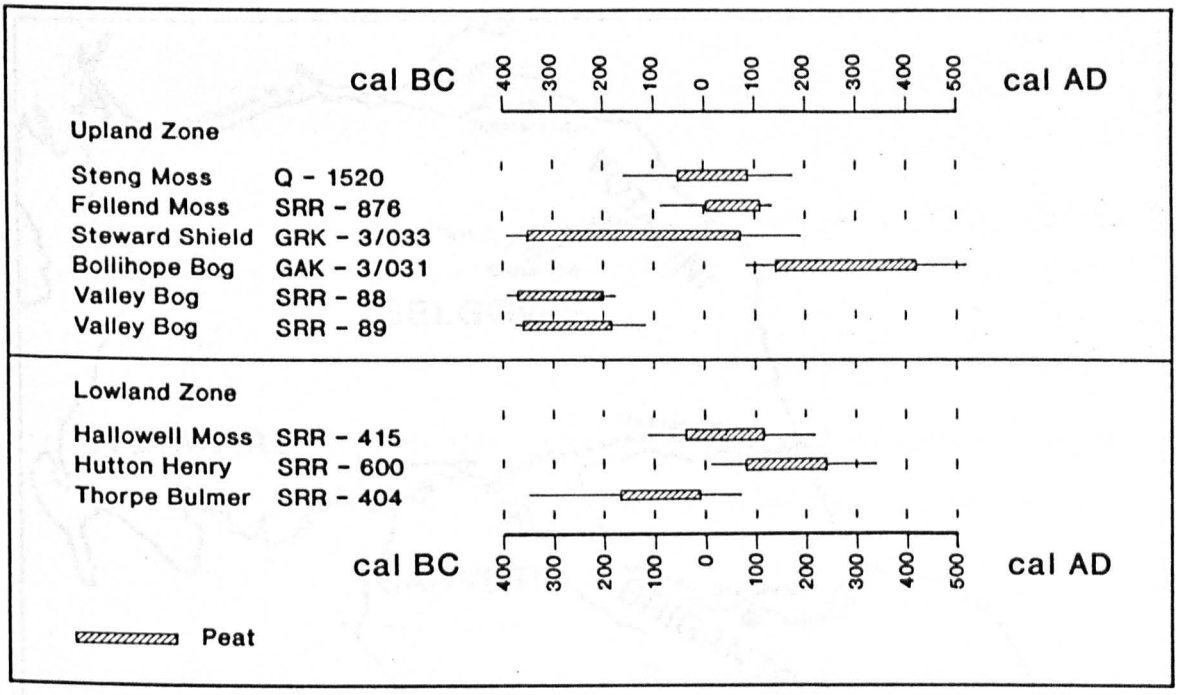


Figure 2.6 Calibrated radio-carbon dates from pollen diagrams in the region dating the start of large-scale deforestation.

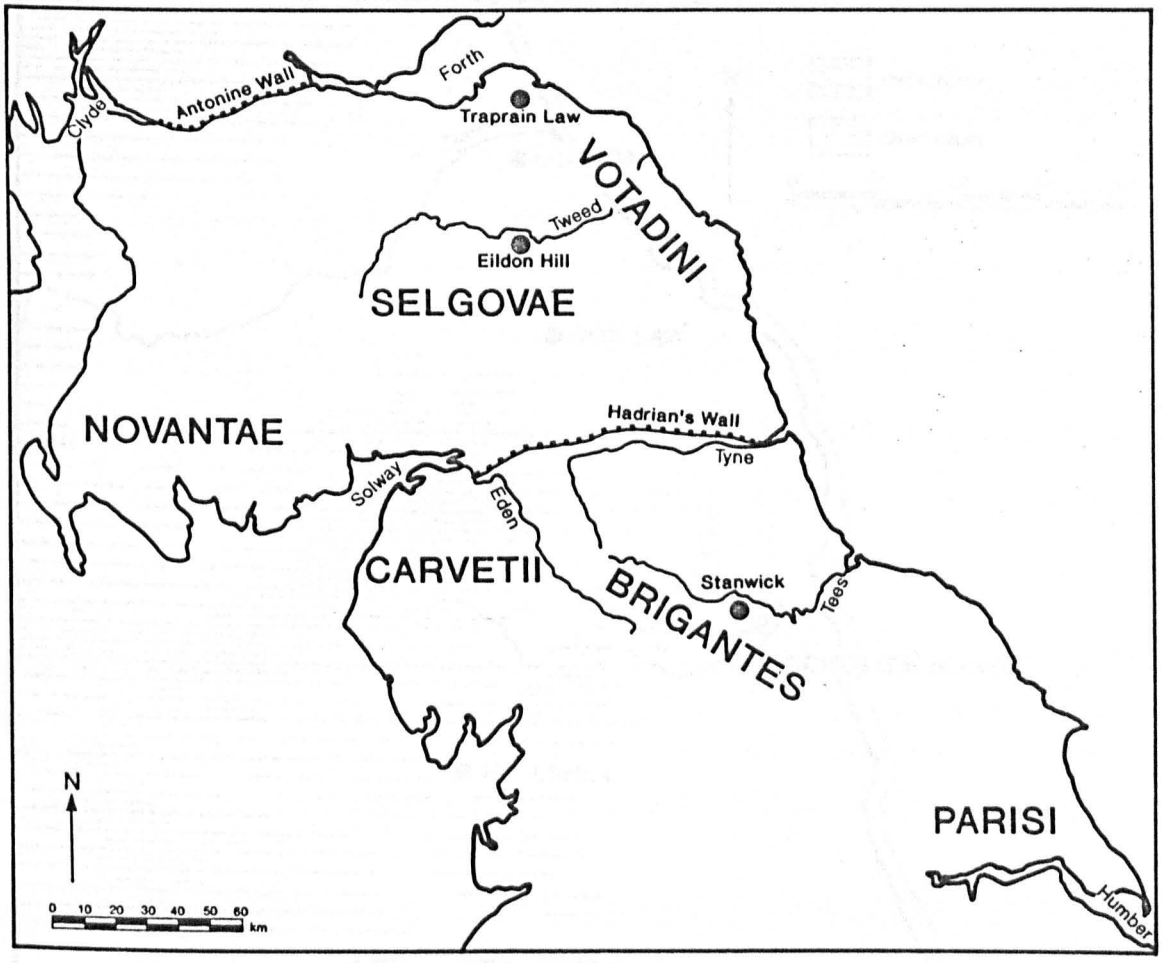


Figure 2.7 The tribes in northern Britain during the early Roman period and the location of the two Roman frontiers (after Breeze 1982 and Frere 1978).

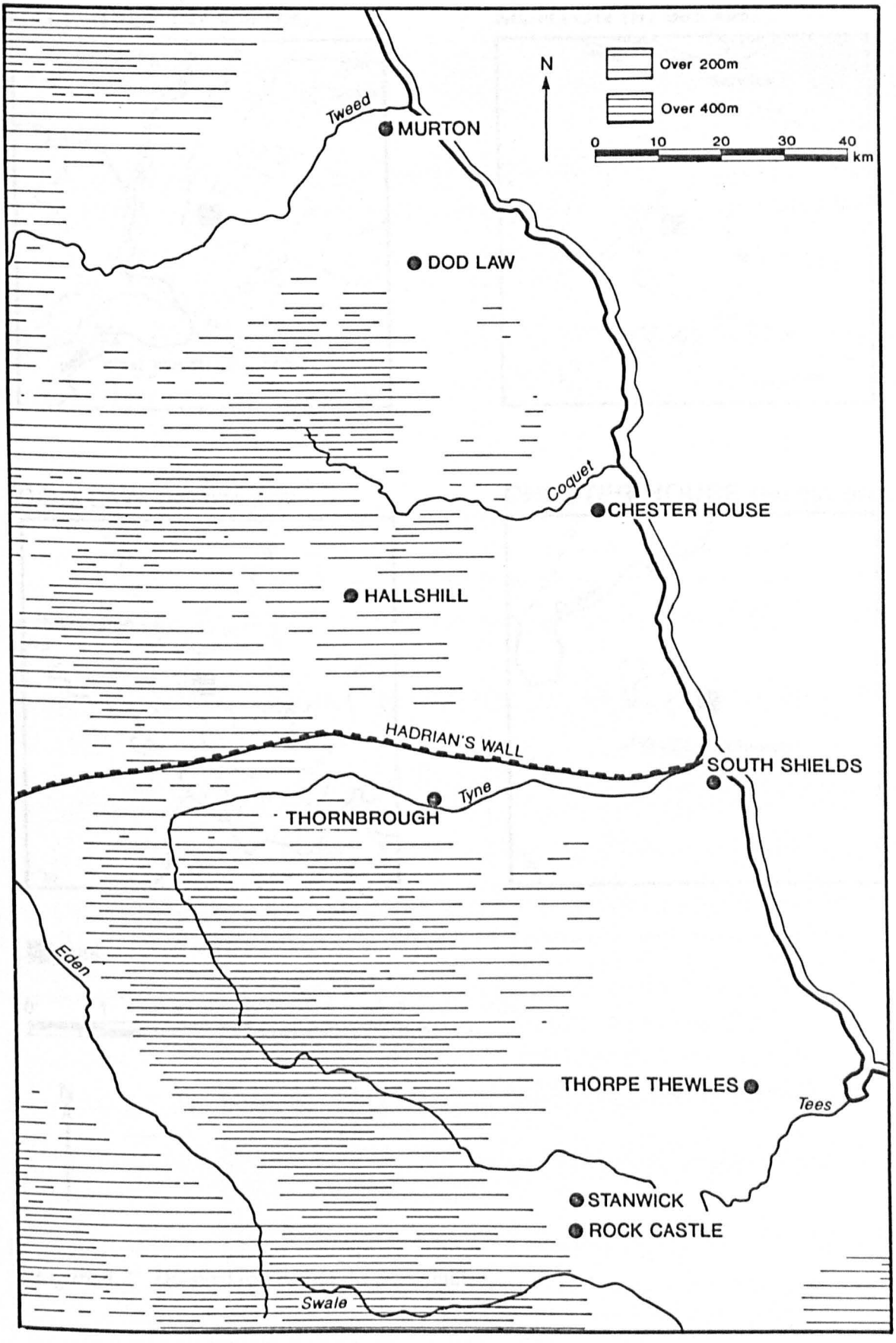


Figure 4.1 Map of the region showing the location of the sites studied.

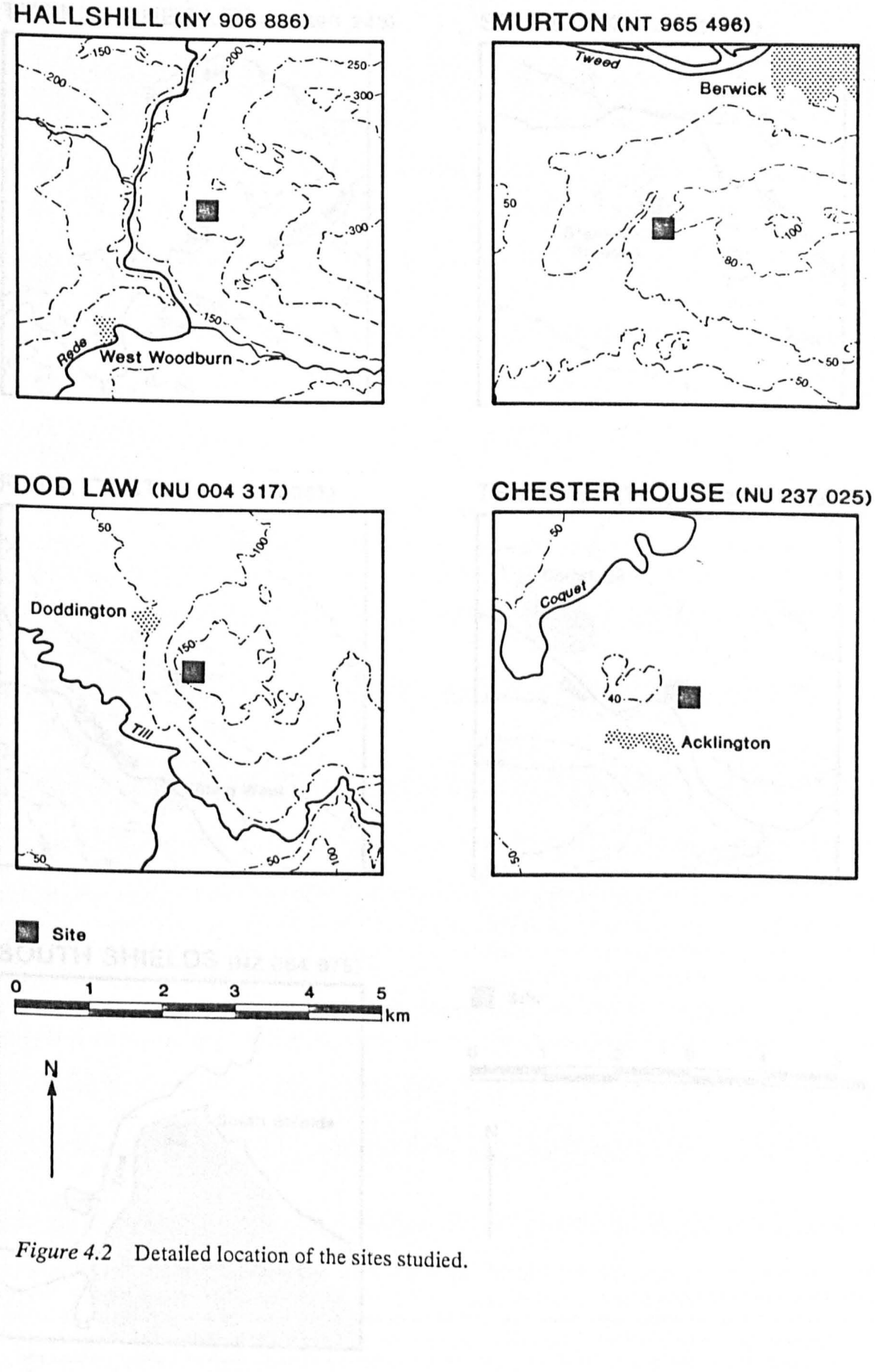


Figure 4.2 Detailed location of the sites studied.

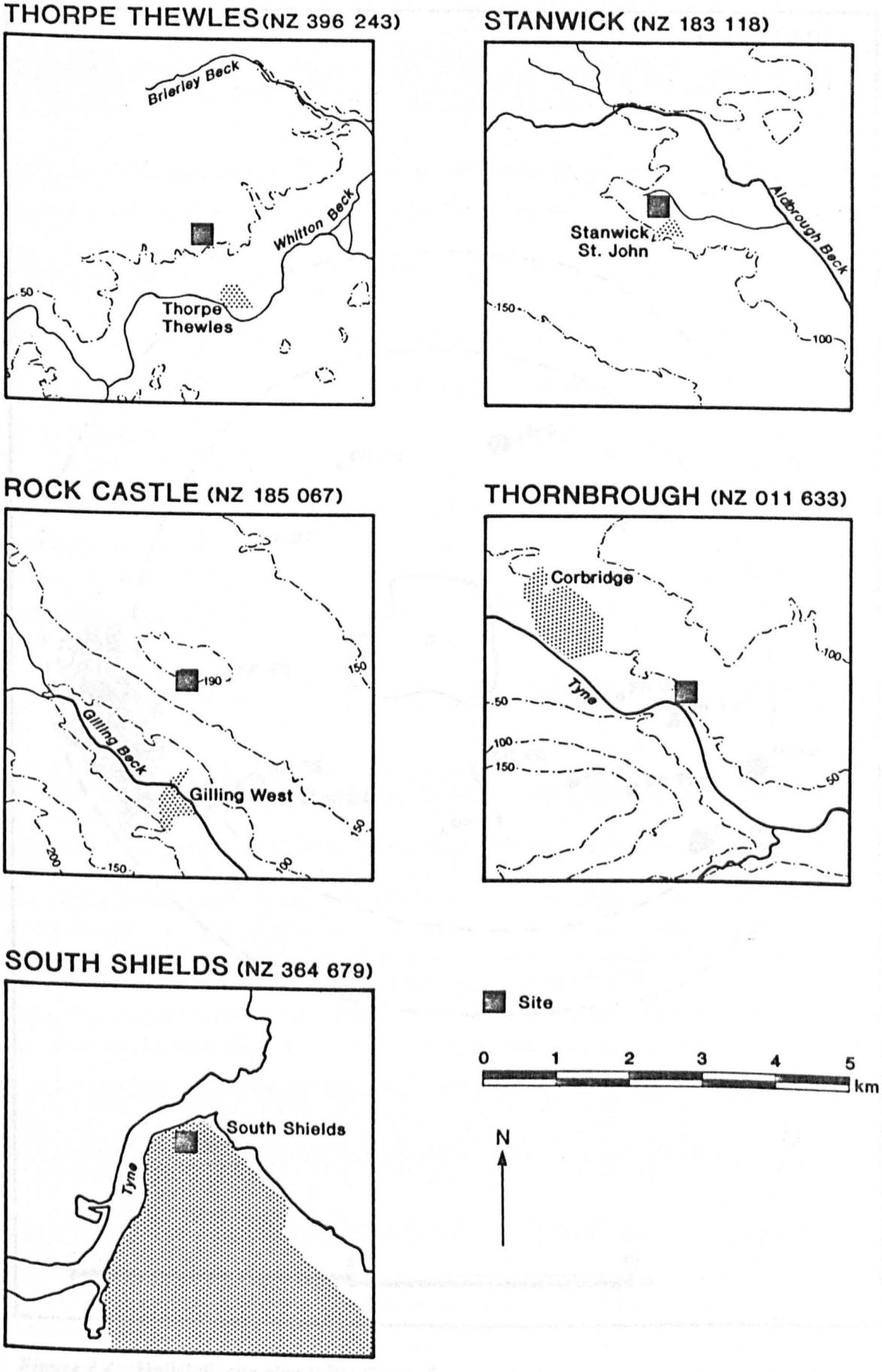


Figure 4.3 Detailed location of the sites studied.

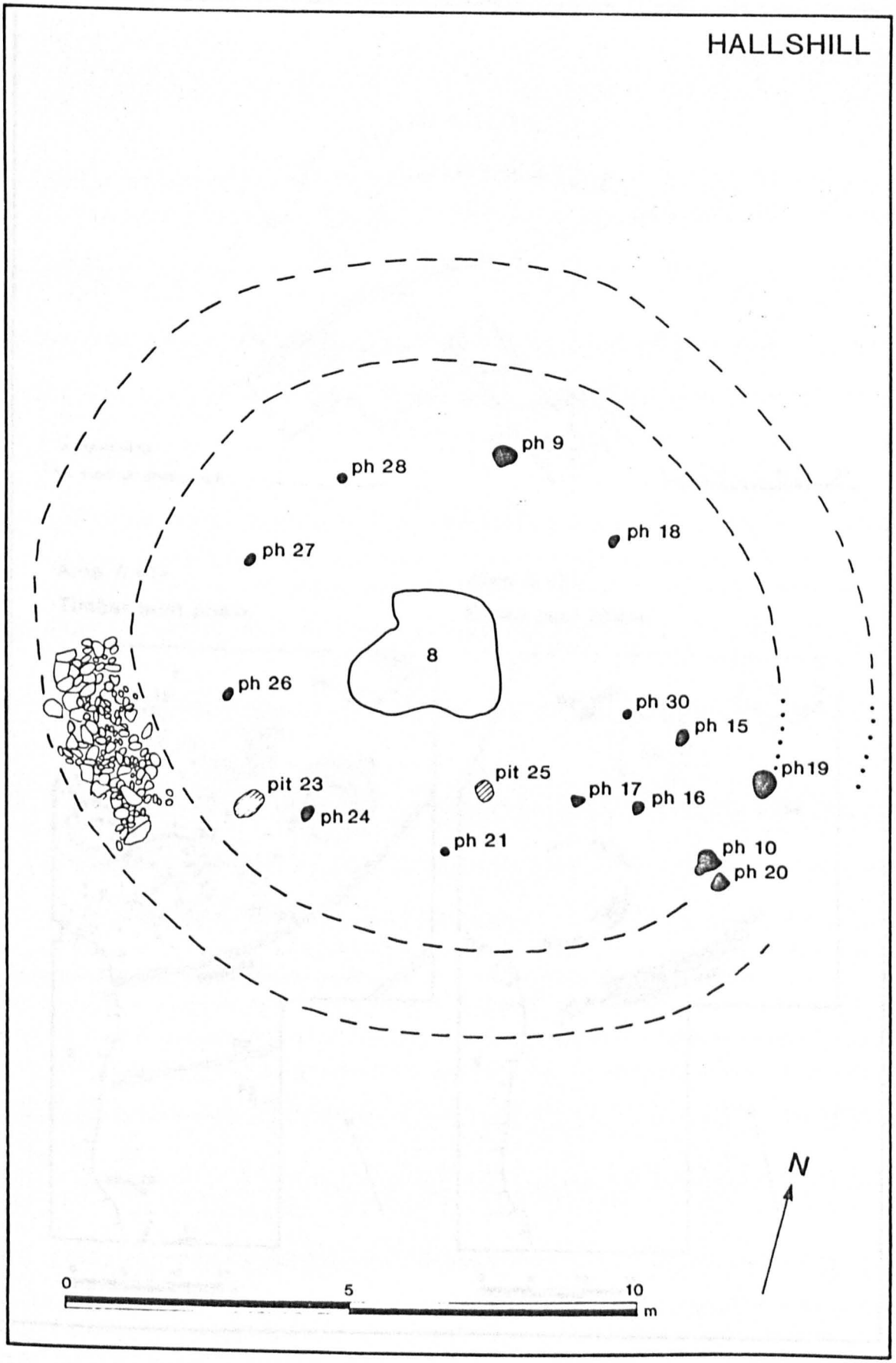


Figure 4.4 Hallshill, site plan (after Gates, forthcoming).

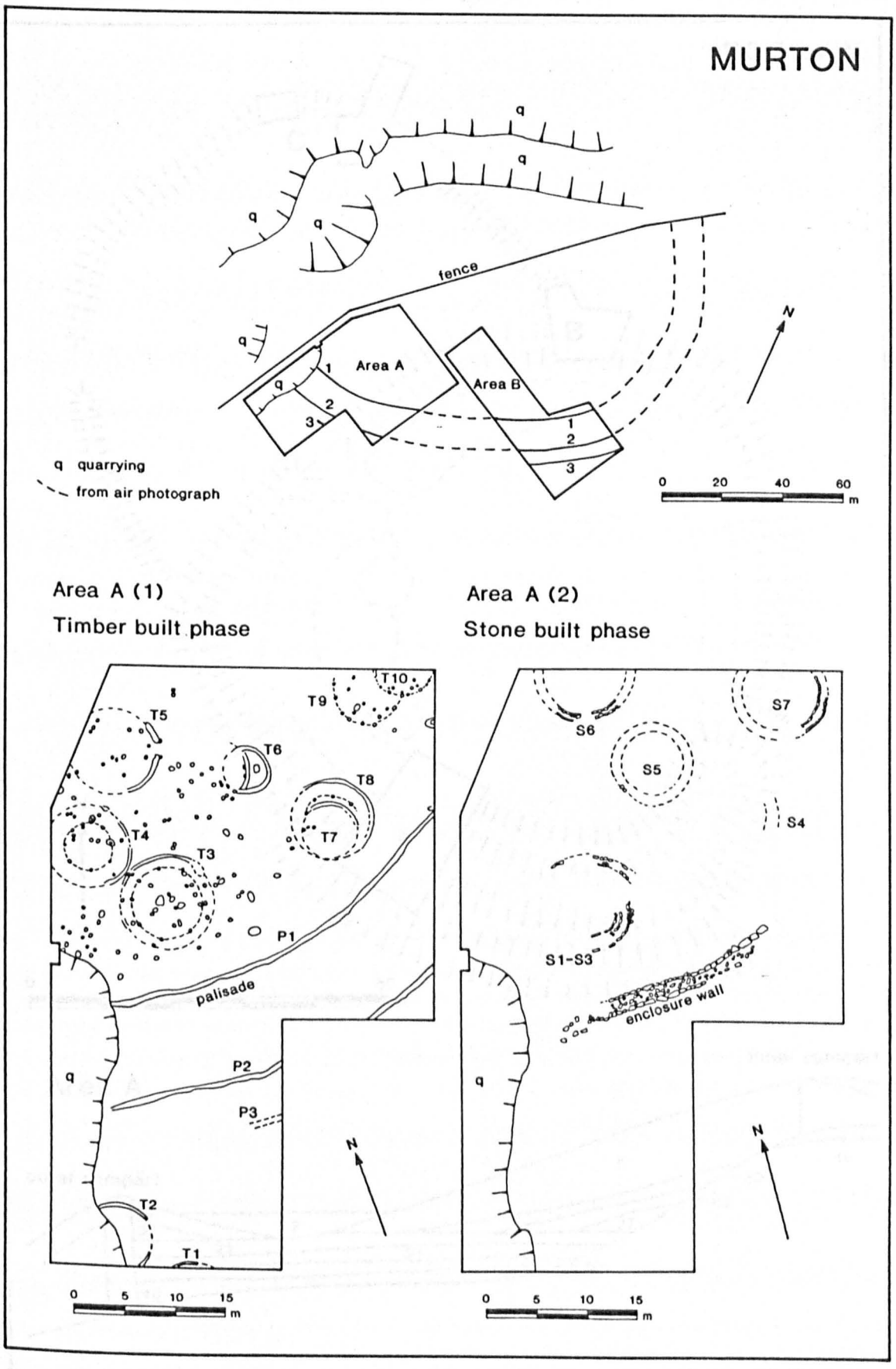


Figure 4.5 Murton, site plan (after Jobey 1987).

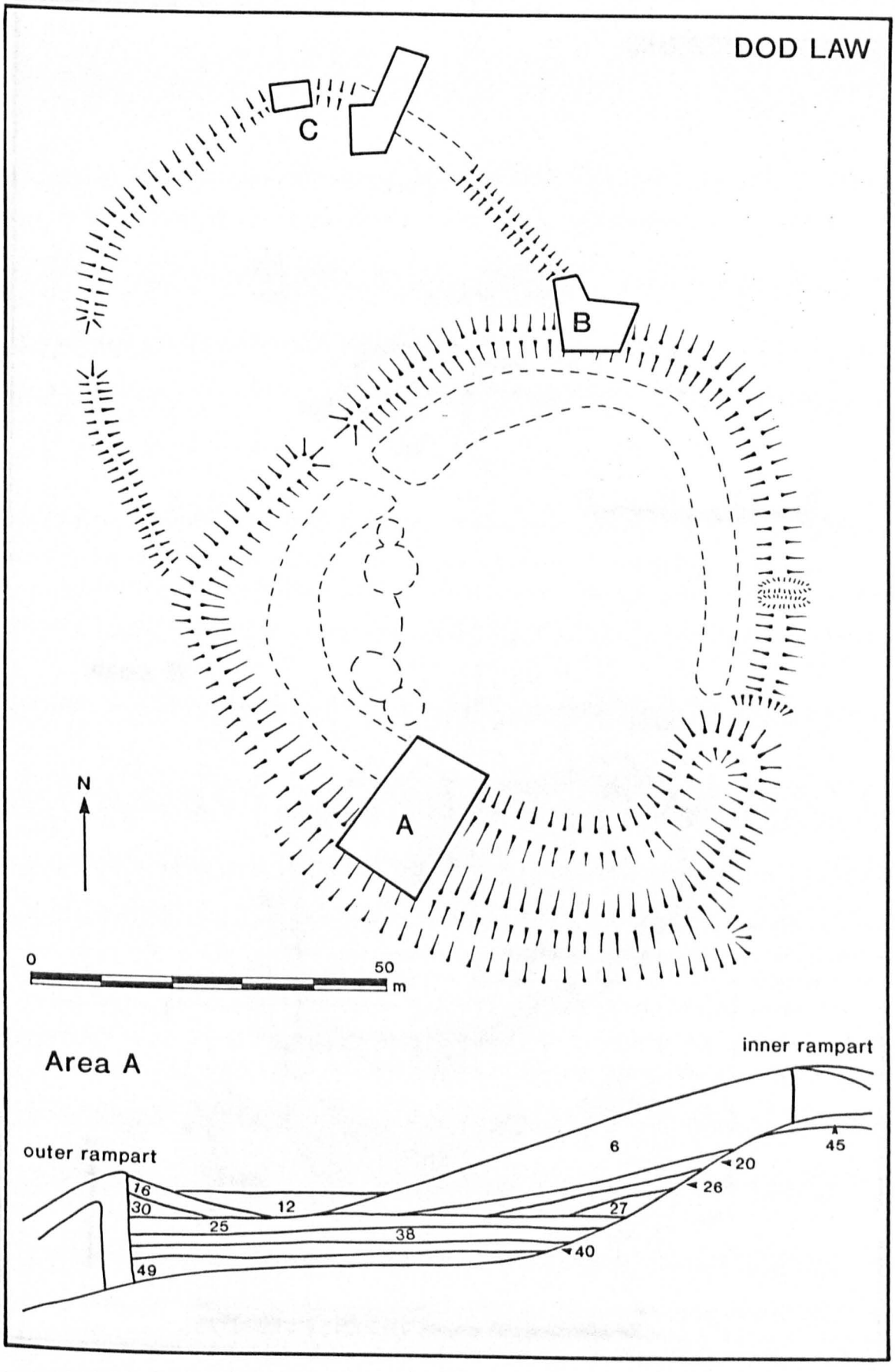


Figure 4.6 Dod Law, site plan (after Smith 1986).

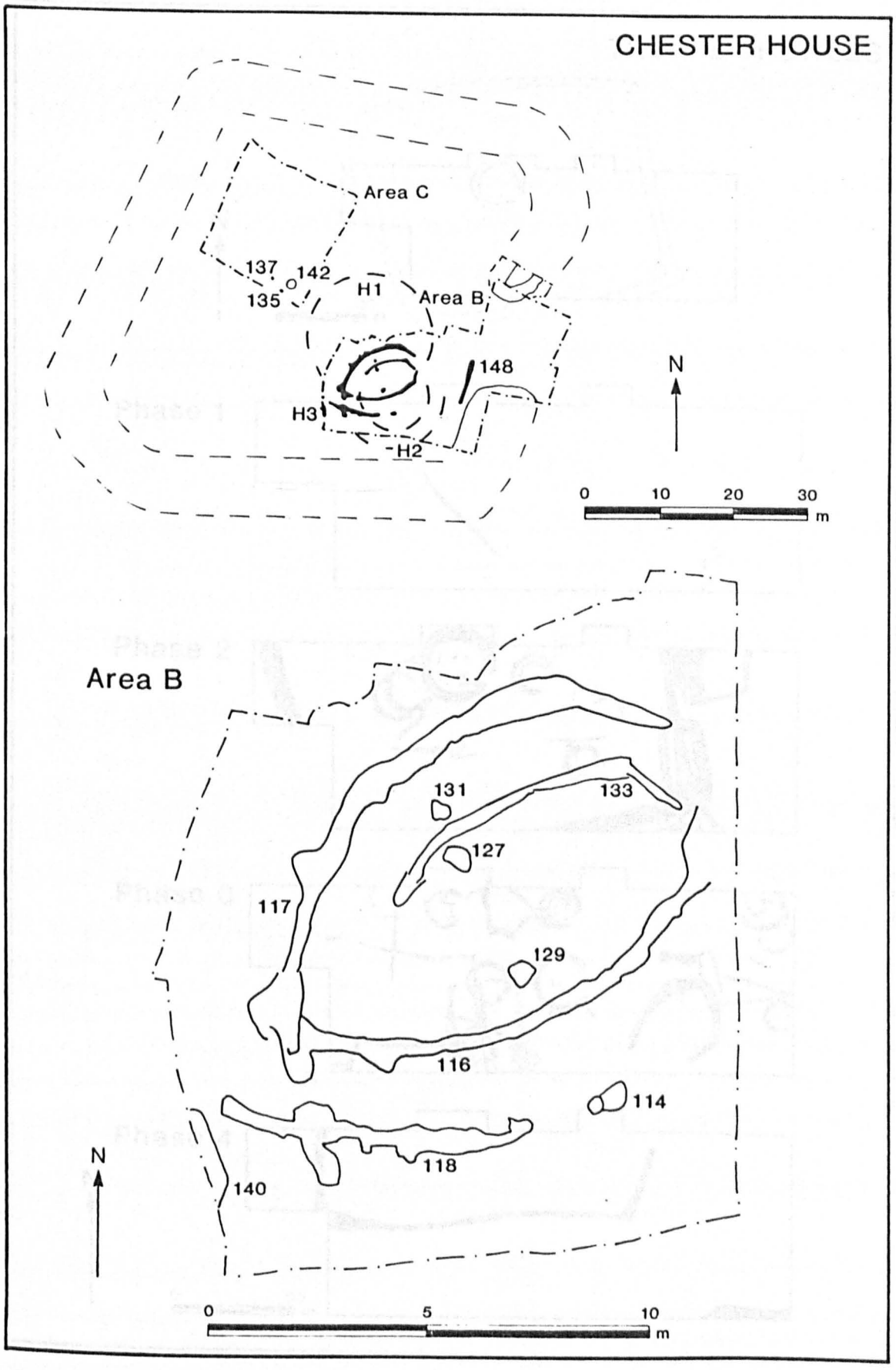


Figure 4.7 Chester House, site plan (after Holbrook 1988).

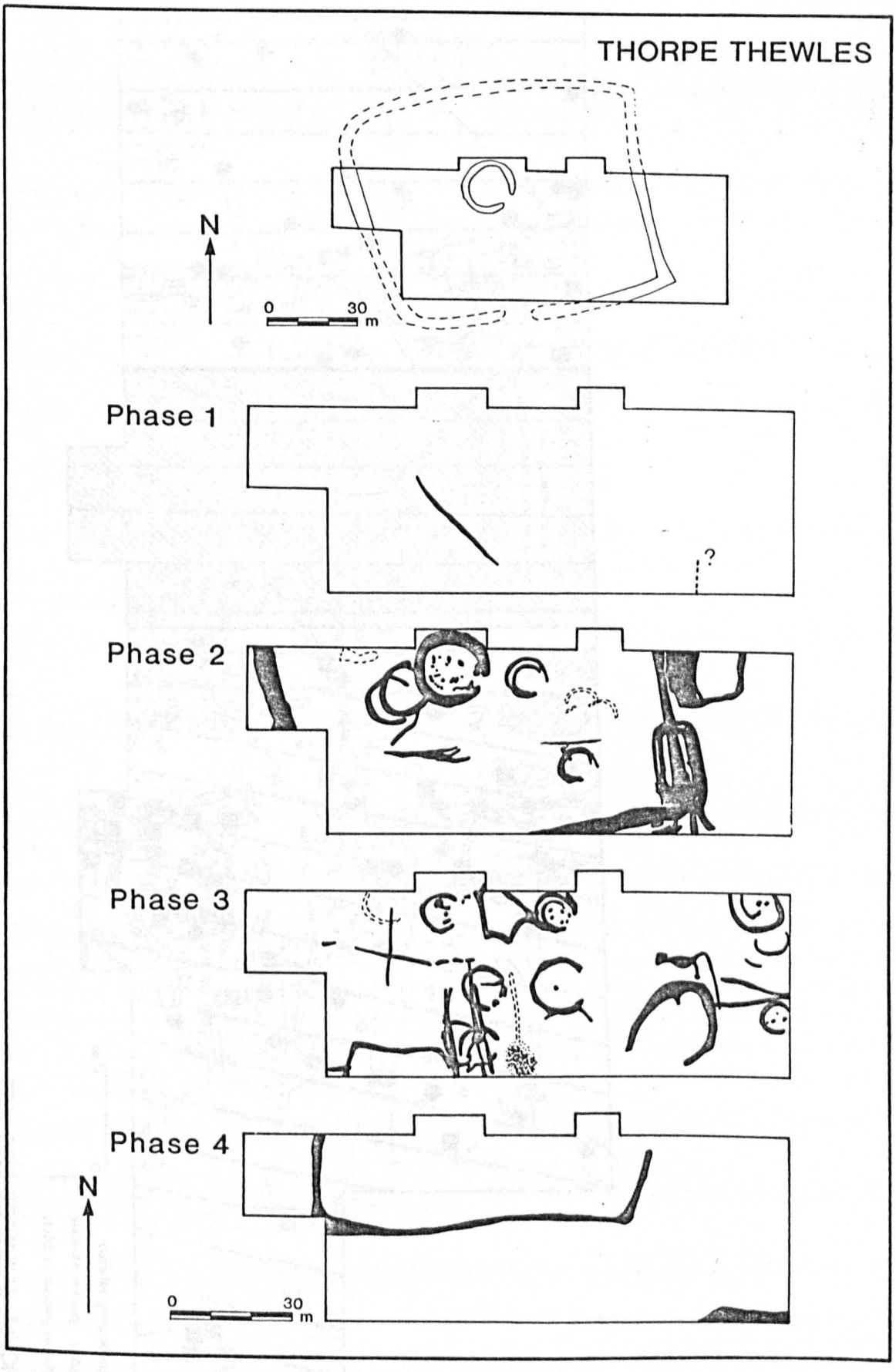


Figure 4.8 Thorpe Thewles, phase plan (after Heslop 1987).

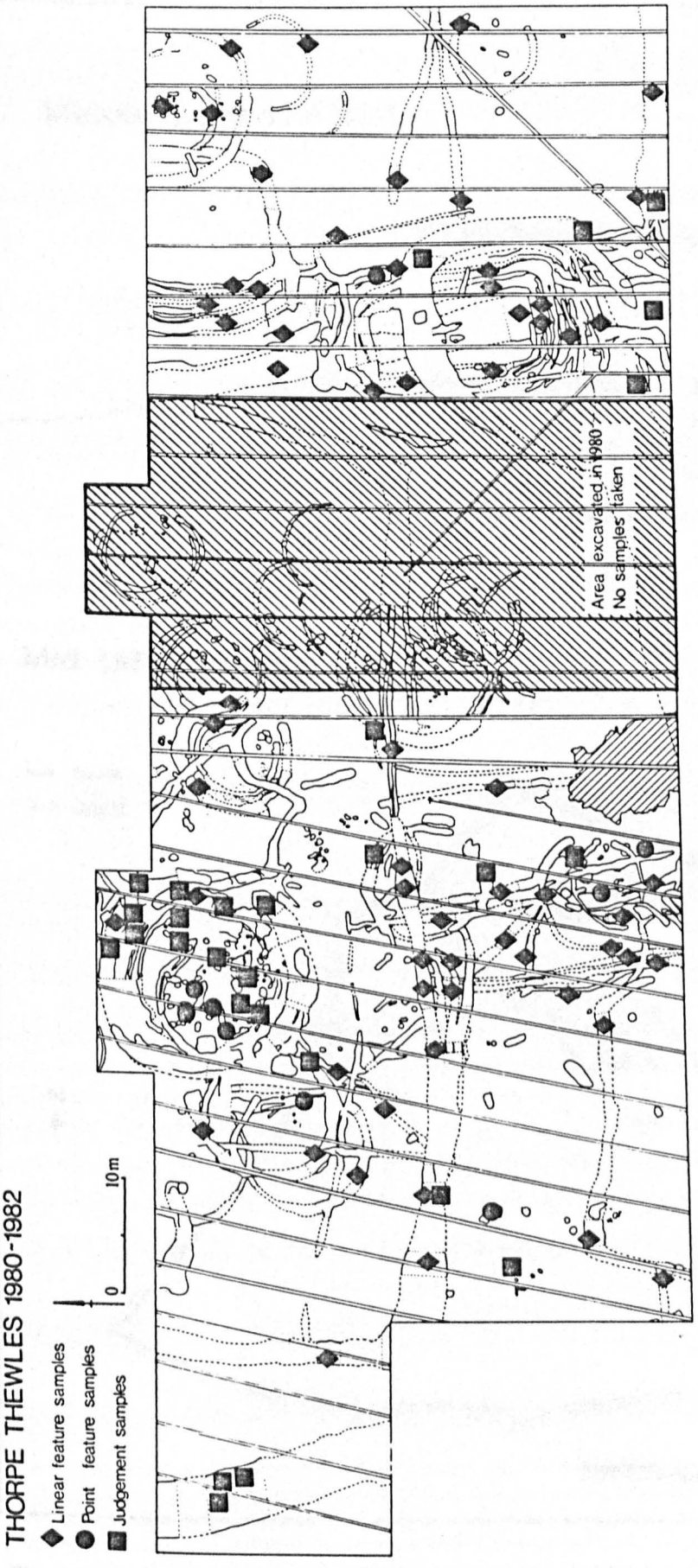


Figure 4.9 Thorpe Thewles, site plan (after Heslop 1987).

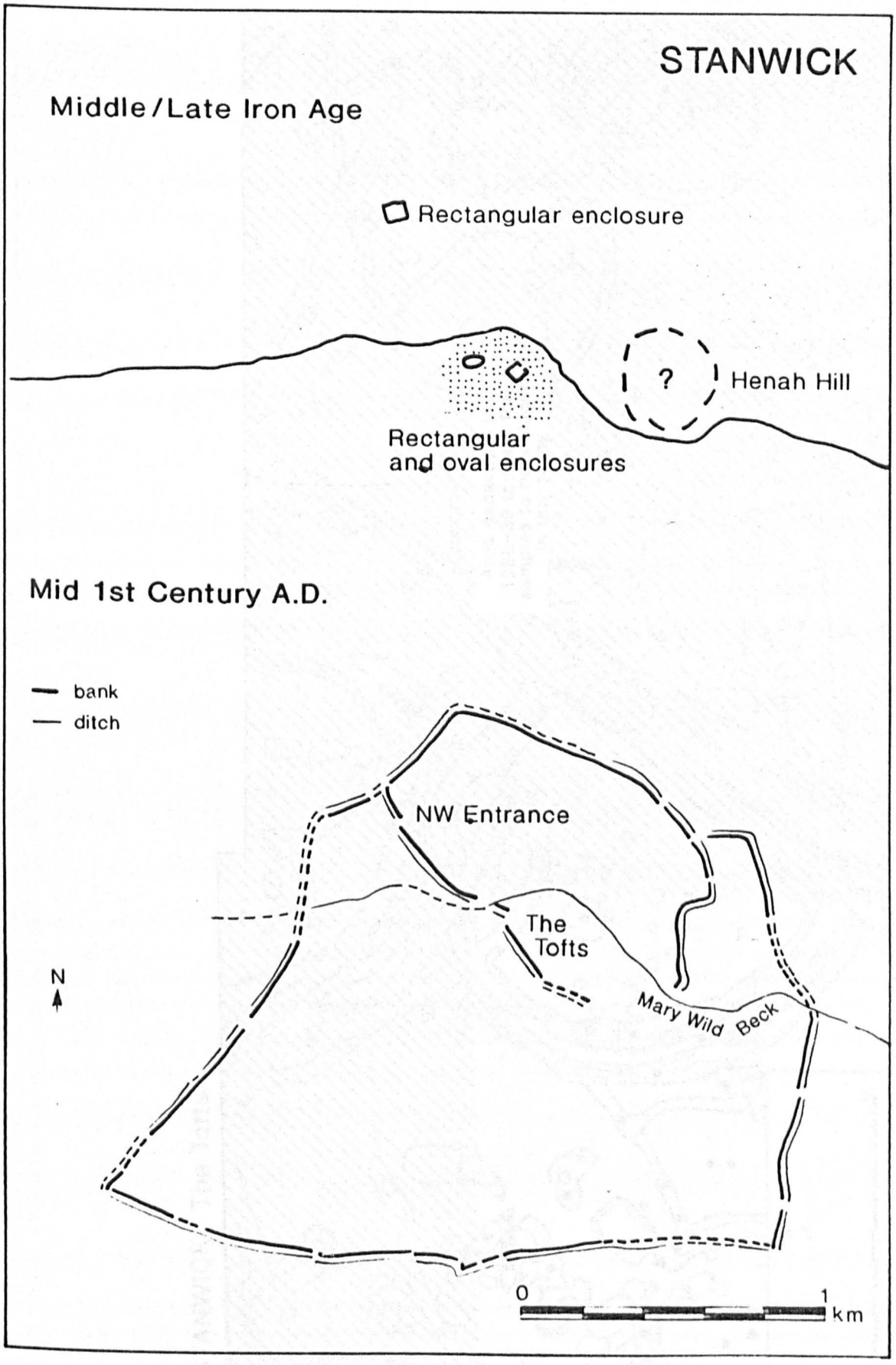


Figure 4.10 Stanwick, phase plan (after Haselgrove 1982).

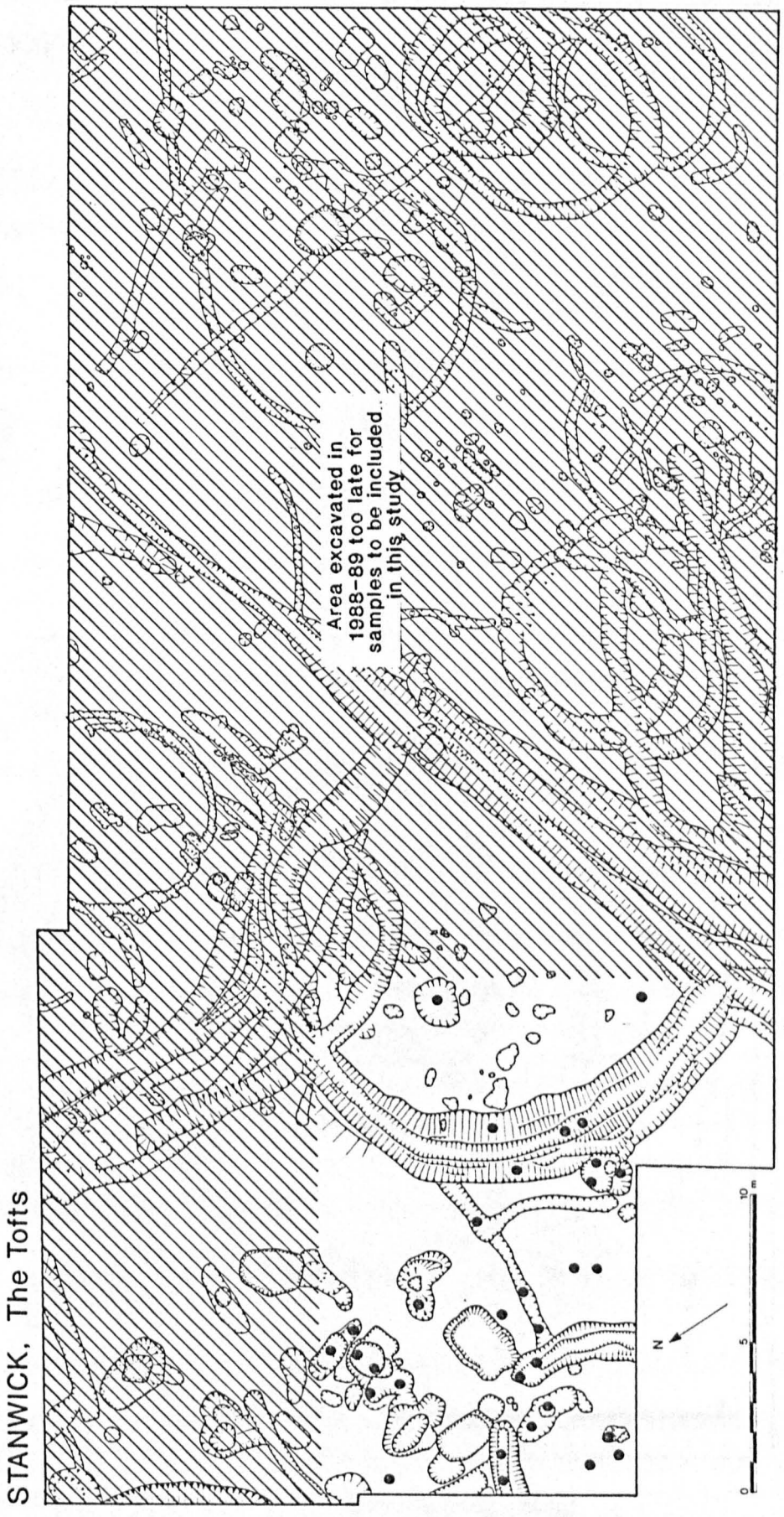


Figure 4.11 Stanwick, site plan (after Haselgrove 1990).

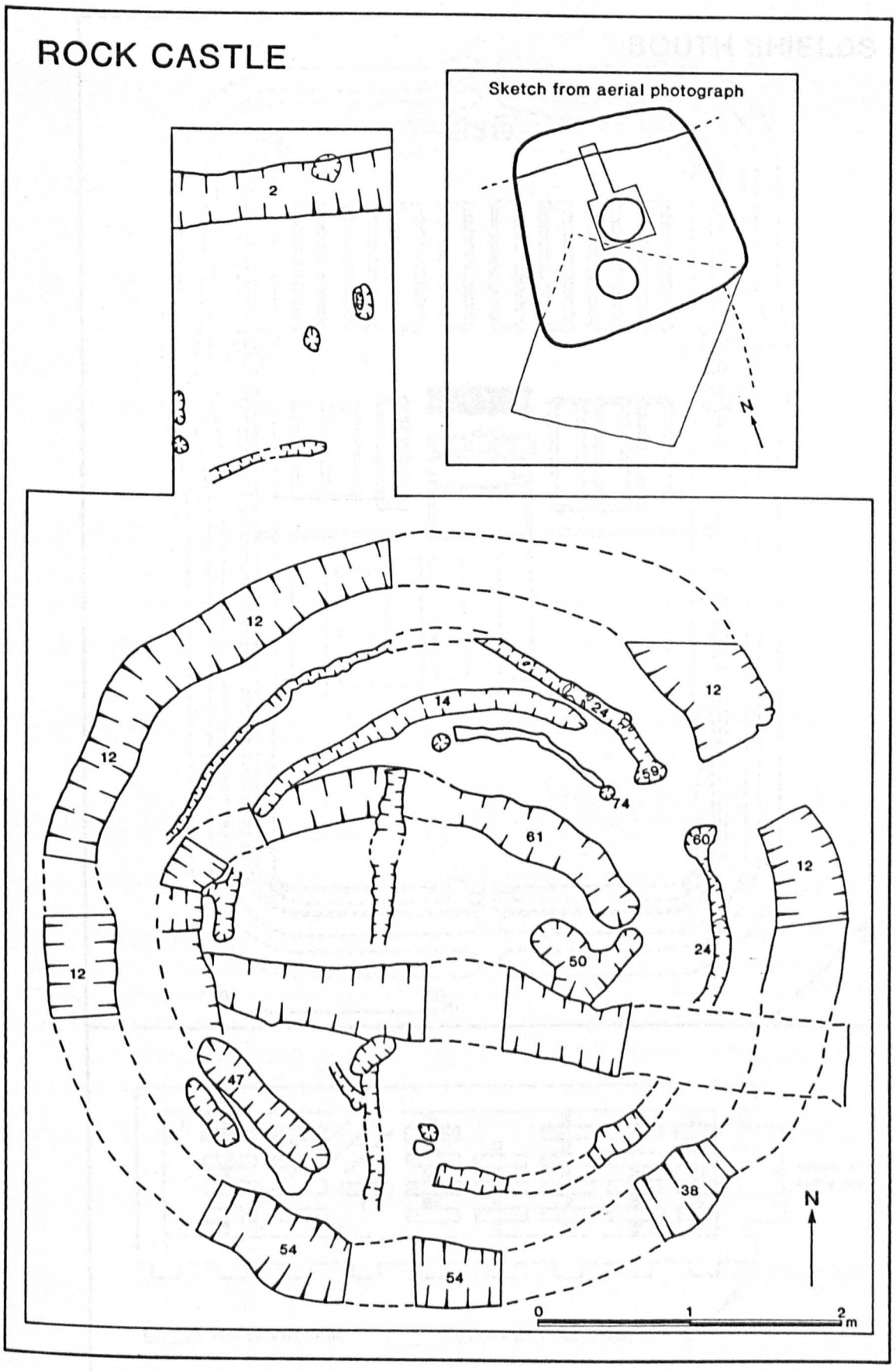


Figure 4.12 Rock Castle, site plan (after Turnbull and Fitts, forthcoming).

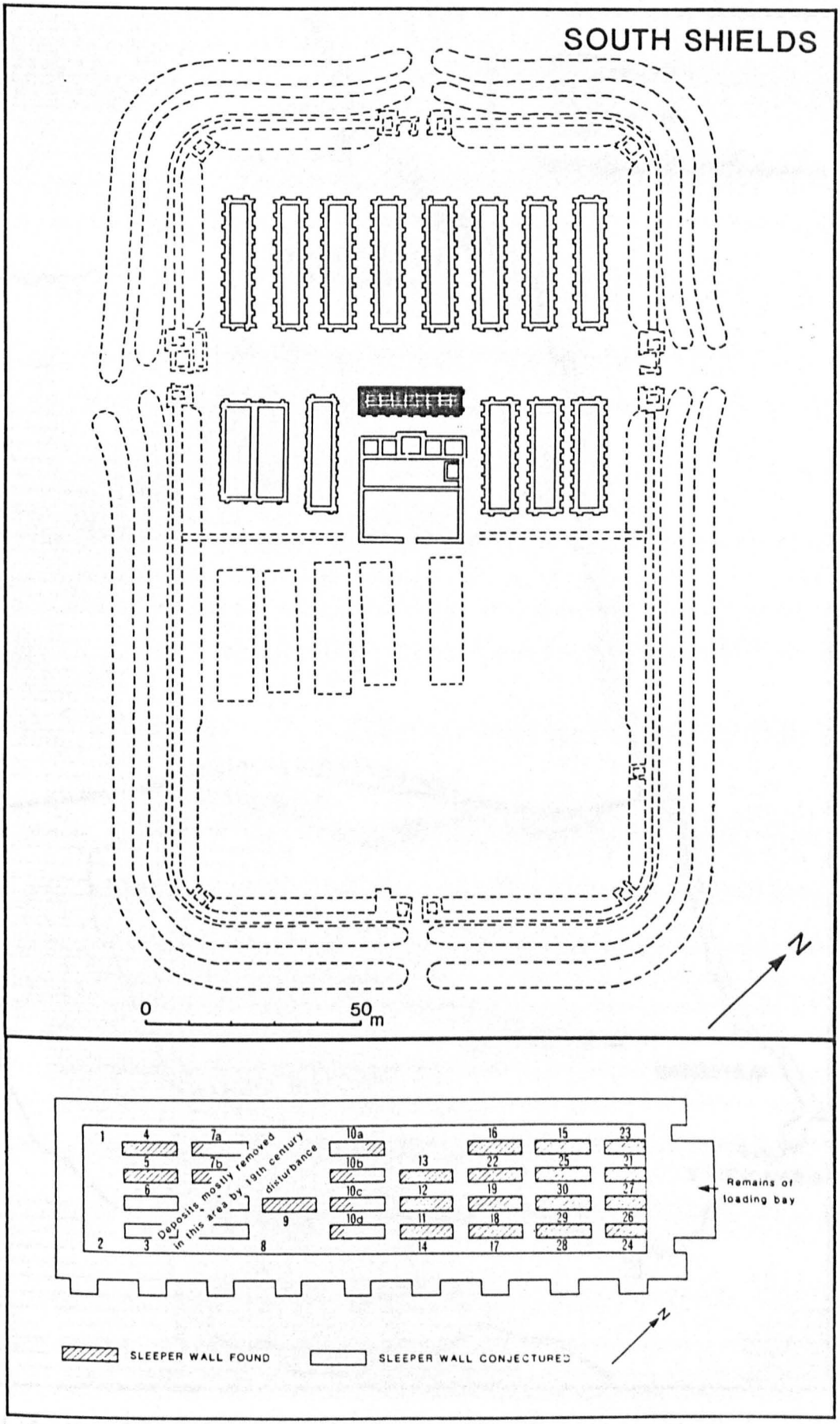


Figure 4.13 South Shields, site plan (after Bidwell 1989).

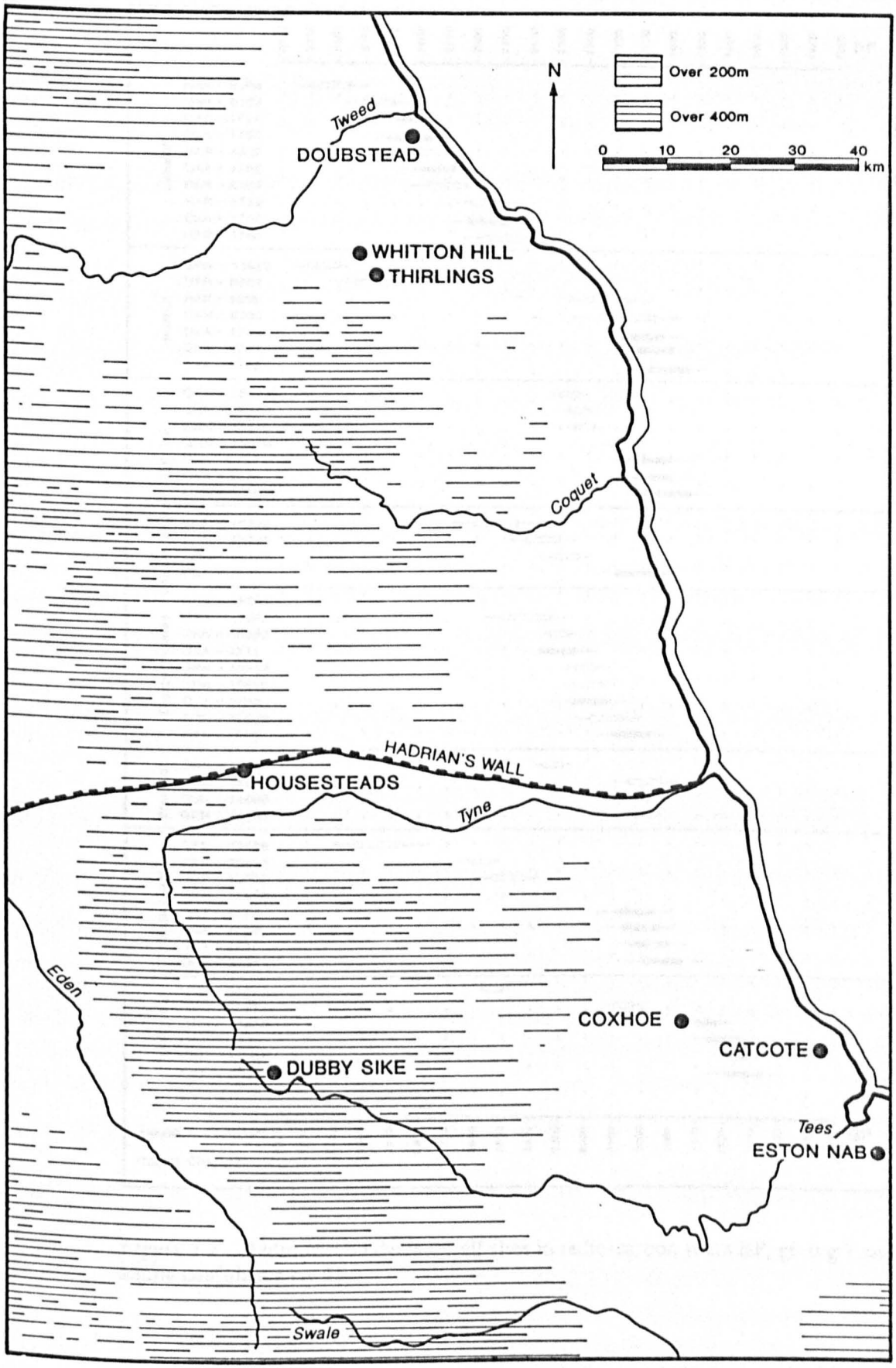


Figure 4.14 Map of the region showing the other sites from which plant remains are available.

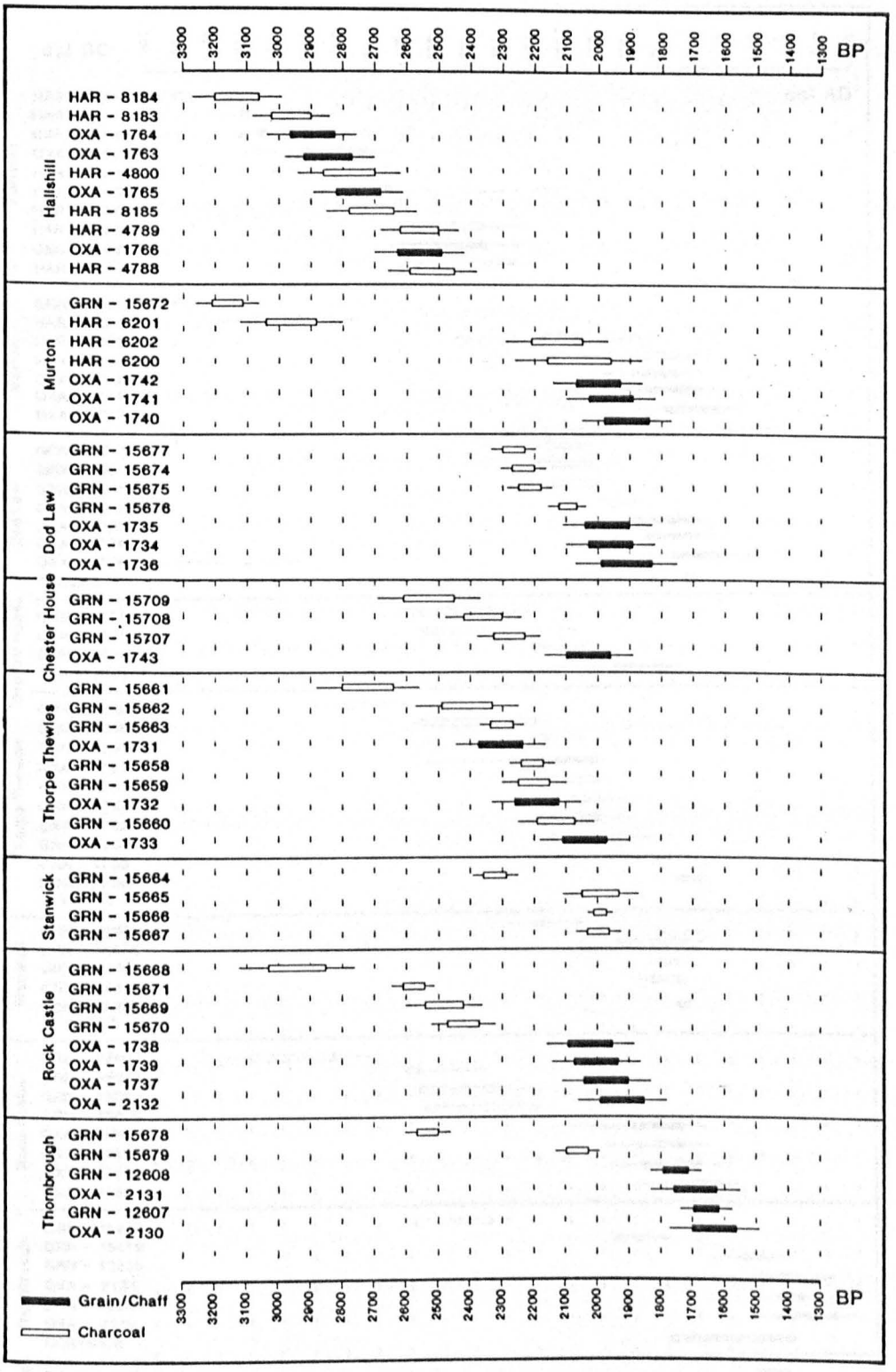


Figure 5.1 Radio-carbon dates for all sites in radio-carbon years BP, giving 1 and 2 sigma confidence levels.

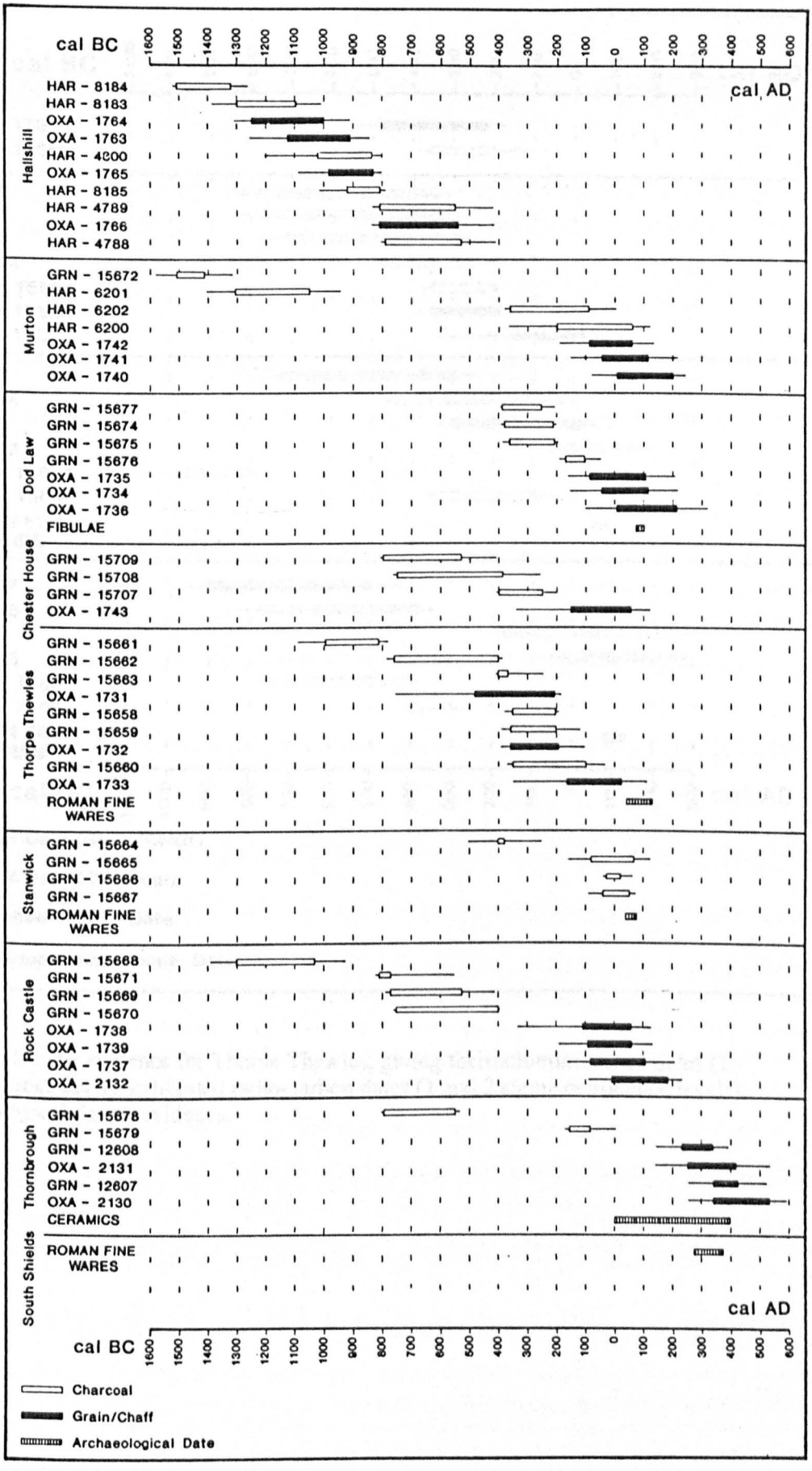


Figure 5.2 Calibrated radio-carbon dates for all sites in calendar years cal BC/AD, giving 1 and 2 sigma confidence levels, and archaeological dating evidence.

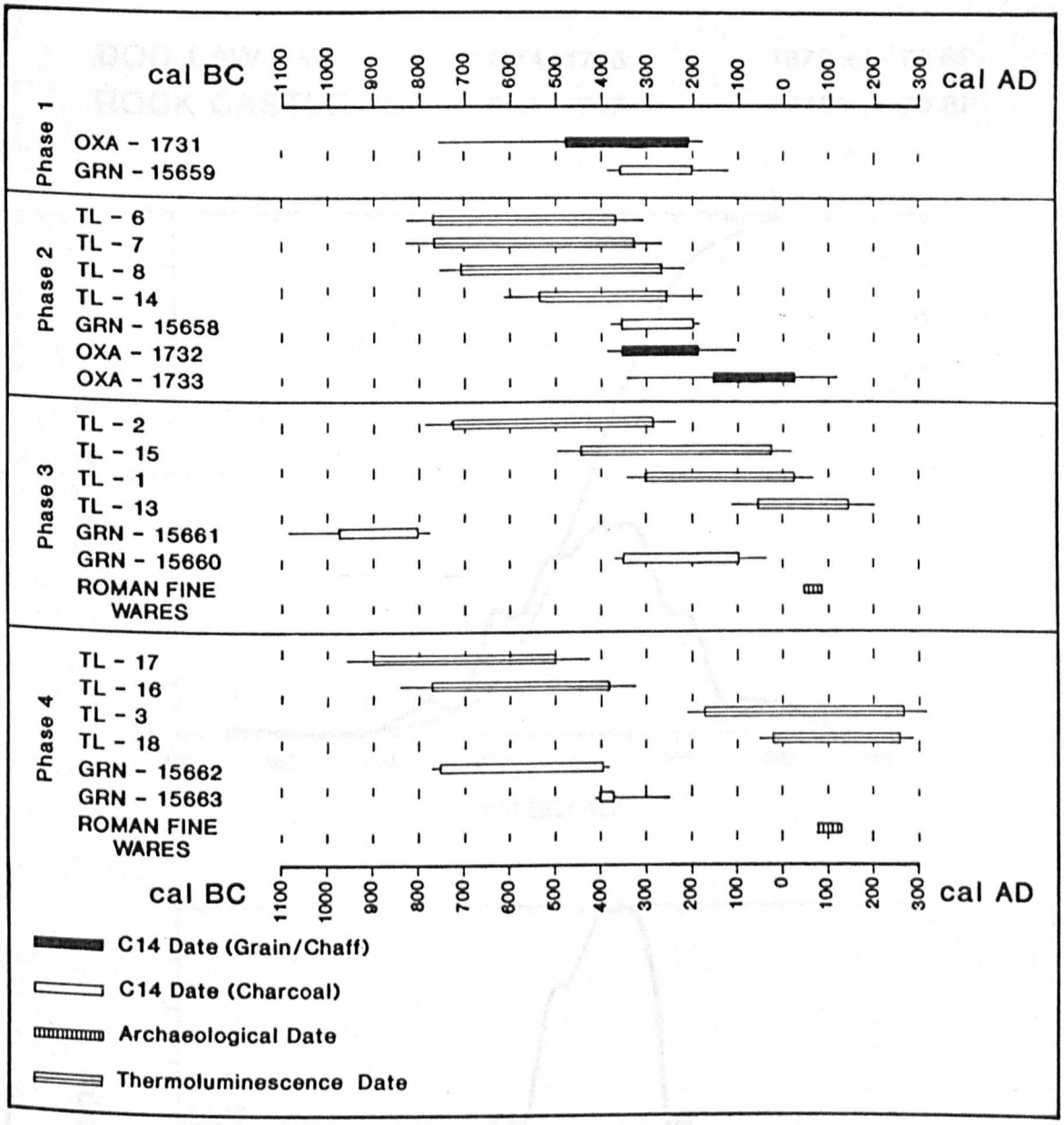


Figure 5.3 Dating evidence for Thorpe Thewles, giving thermoluminescence dates (1 sigma confidence level), calibrated radio-carbon dates (1 and 2 sigma confidence levels), and archaeological dating evidence.

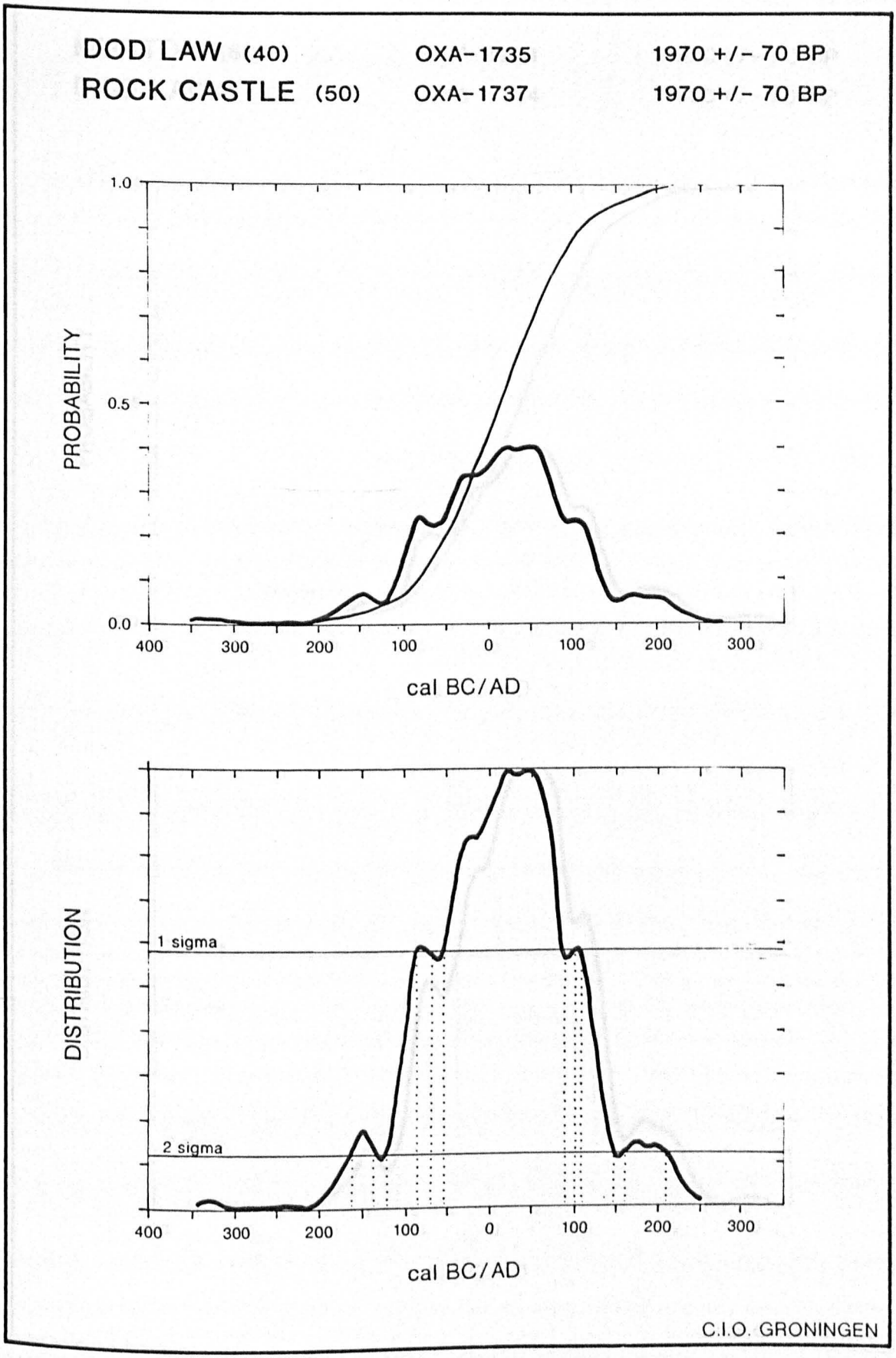


Figure 5.4 Calibration for OxA-1735 and OxA-1737.

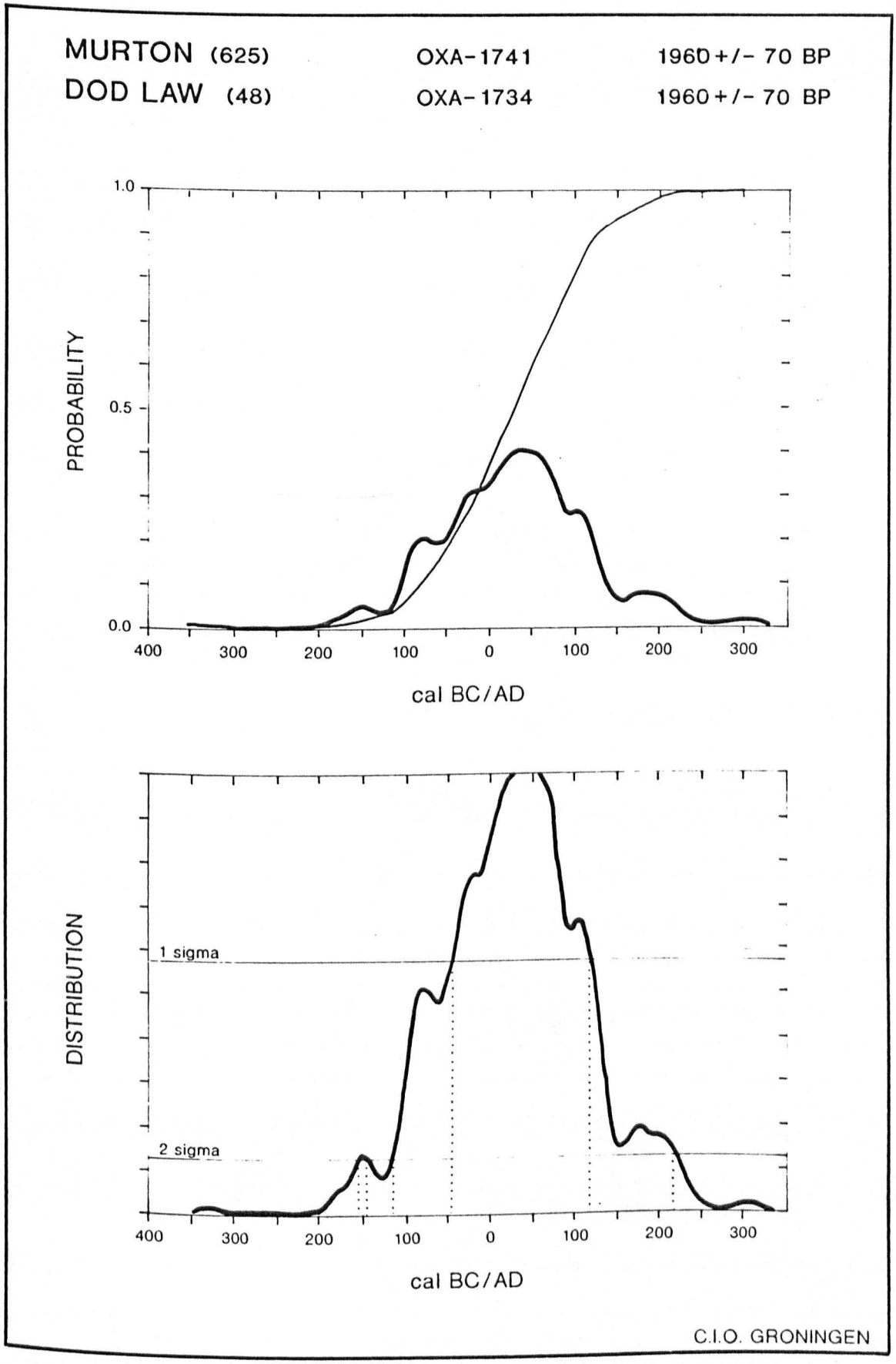


Figure 5.5 Calibration for OxA-1741 and OxA-1734.

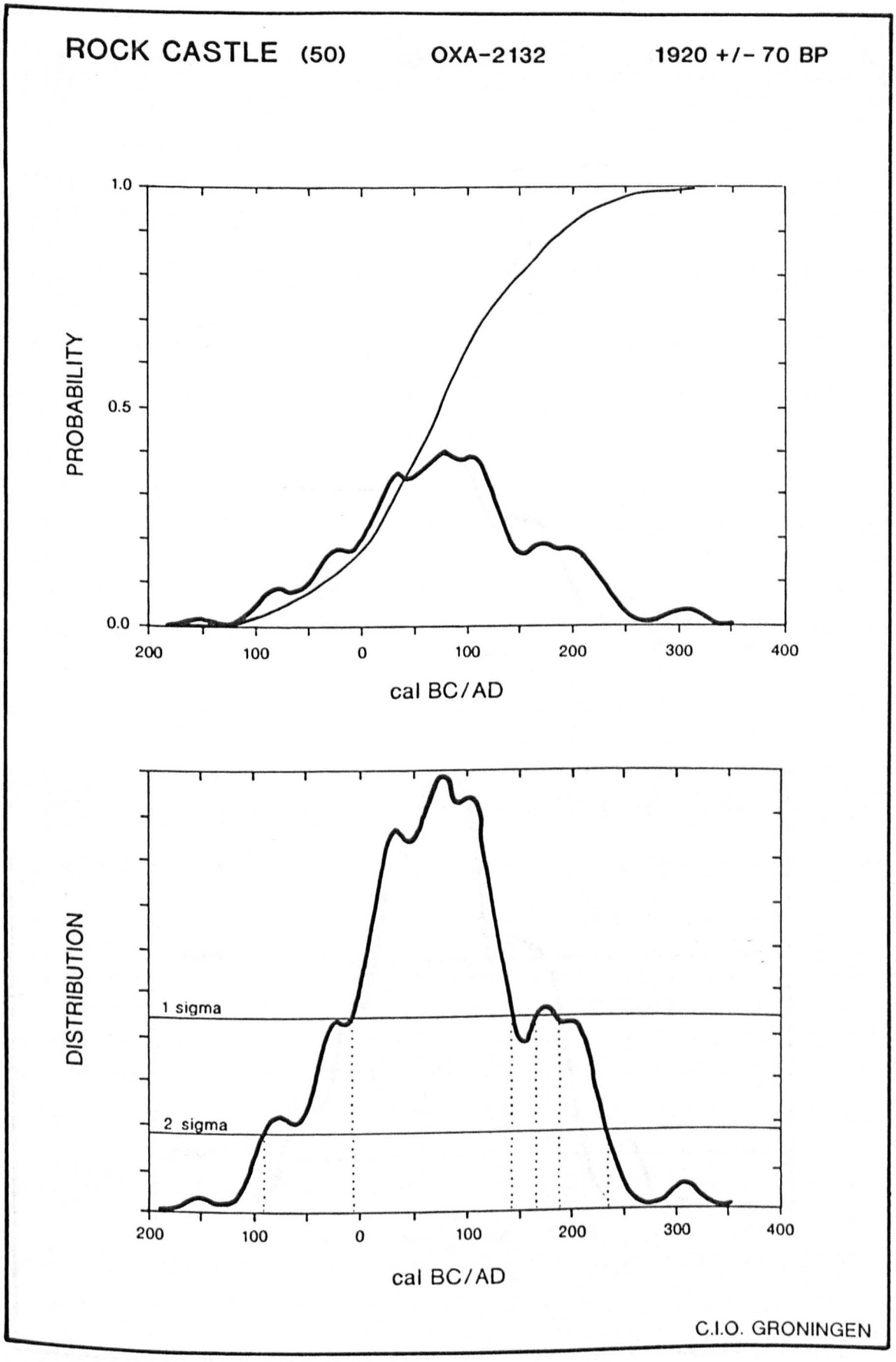


Figure 5.6 Calibration for OxA-2132.

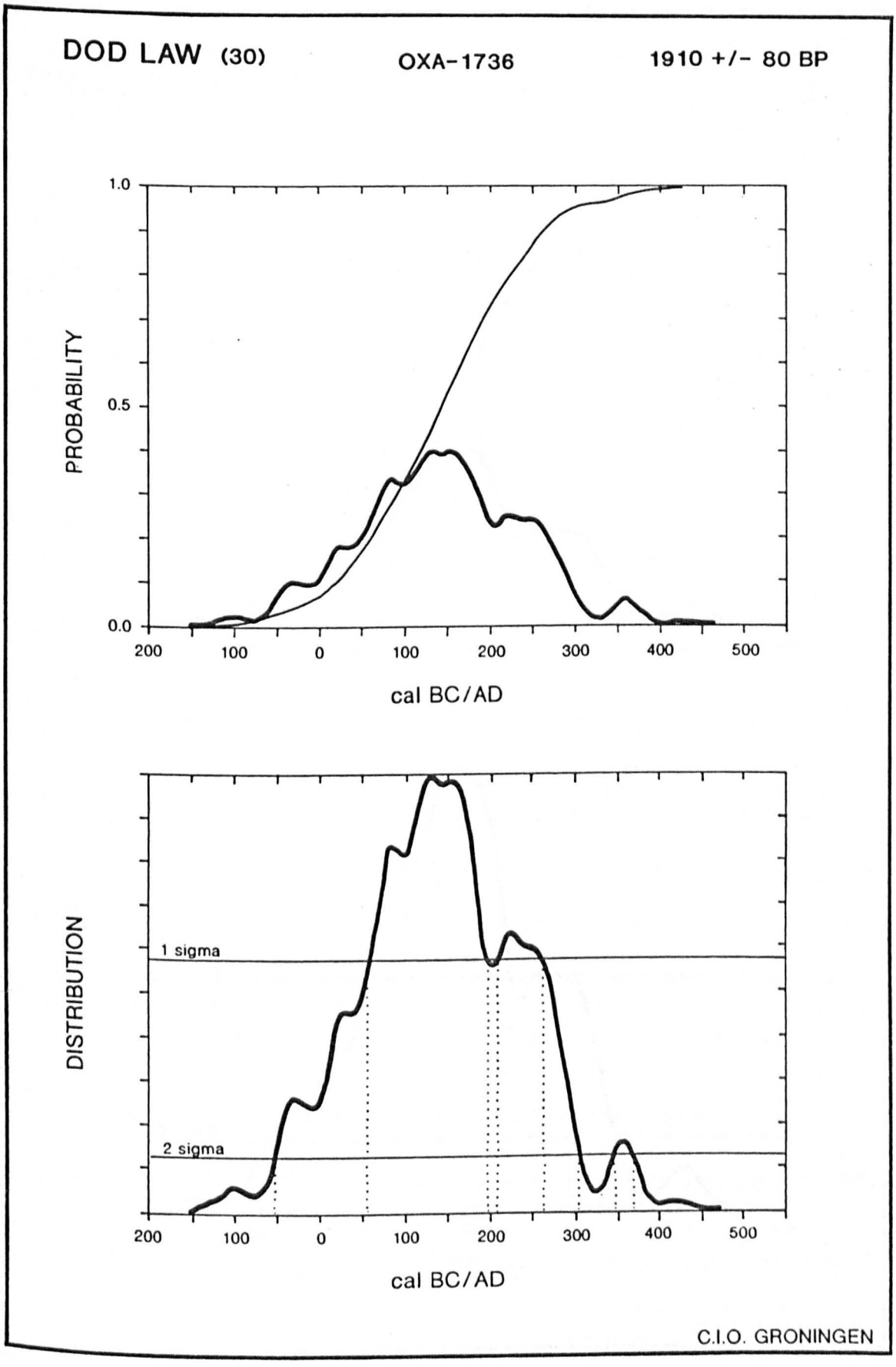


Figure 5.7 Calibration for OxA-1736.

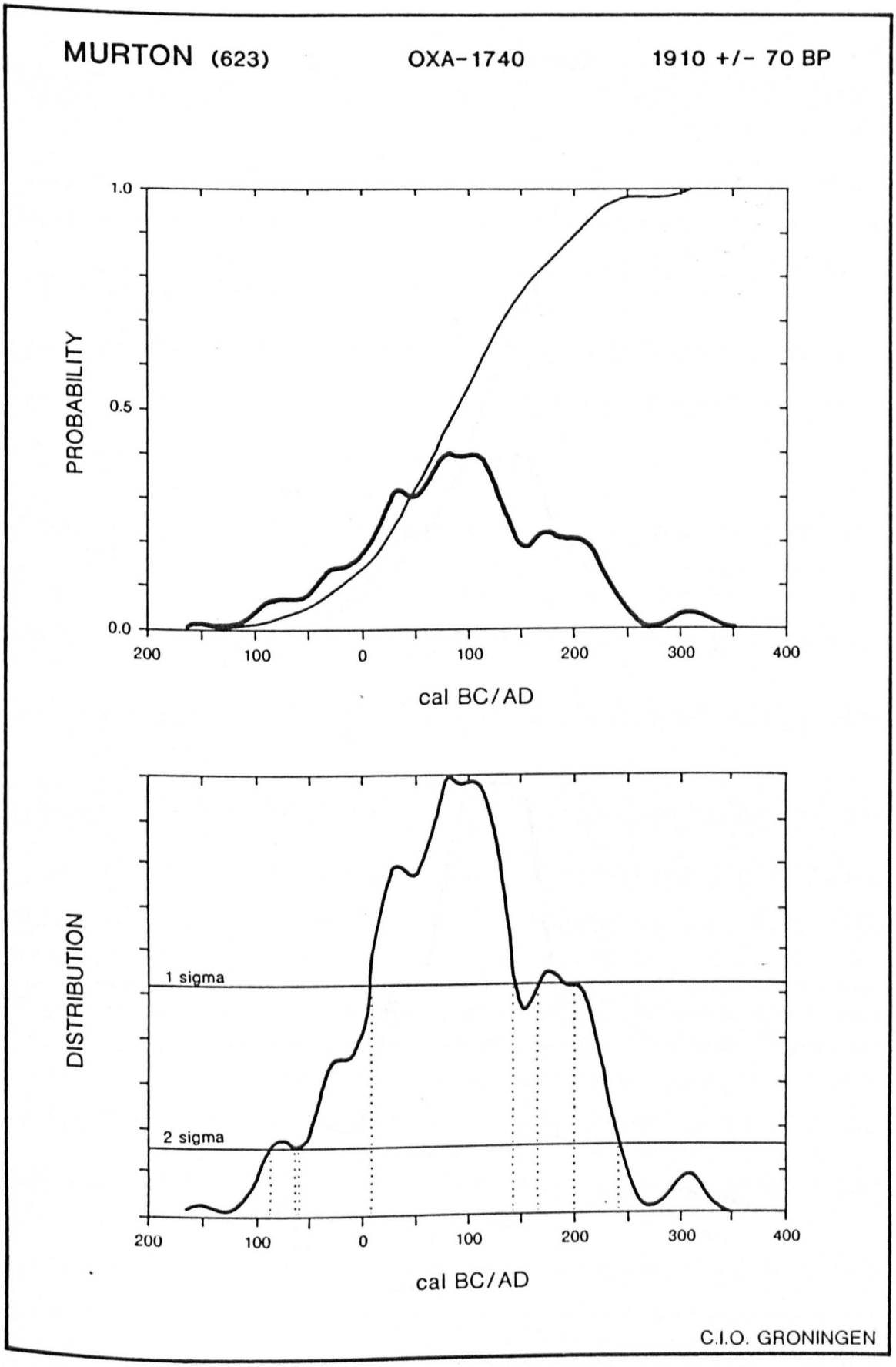


Figure 5.8 Calibration for OxA-1740.

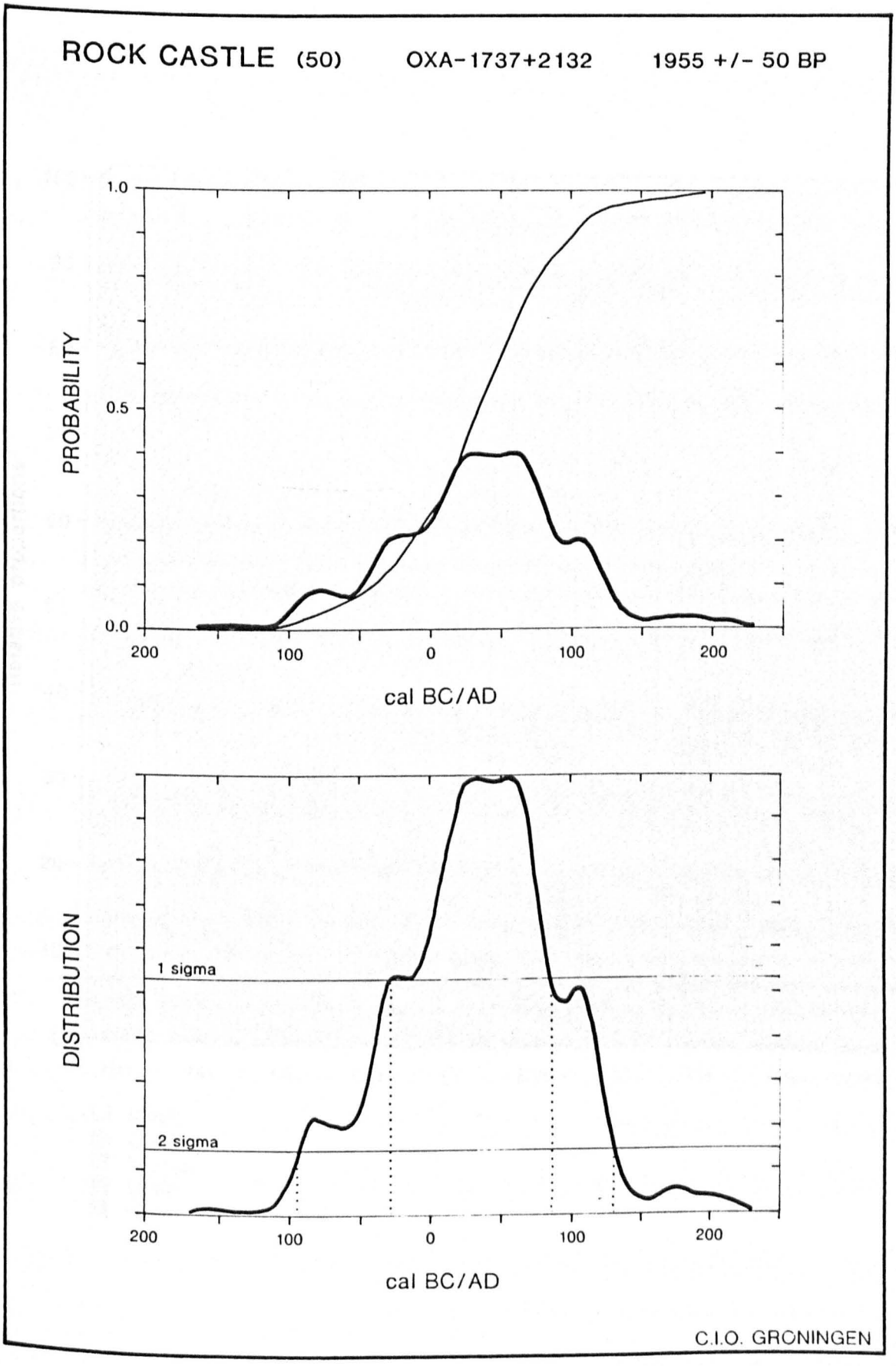


Figure 5.9 Calibration for OxA-1737 and OxA-2132 combined.

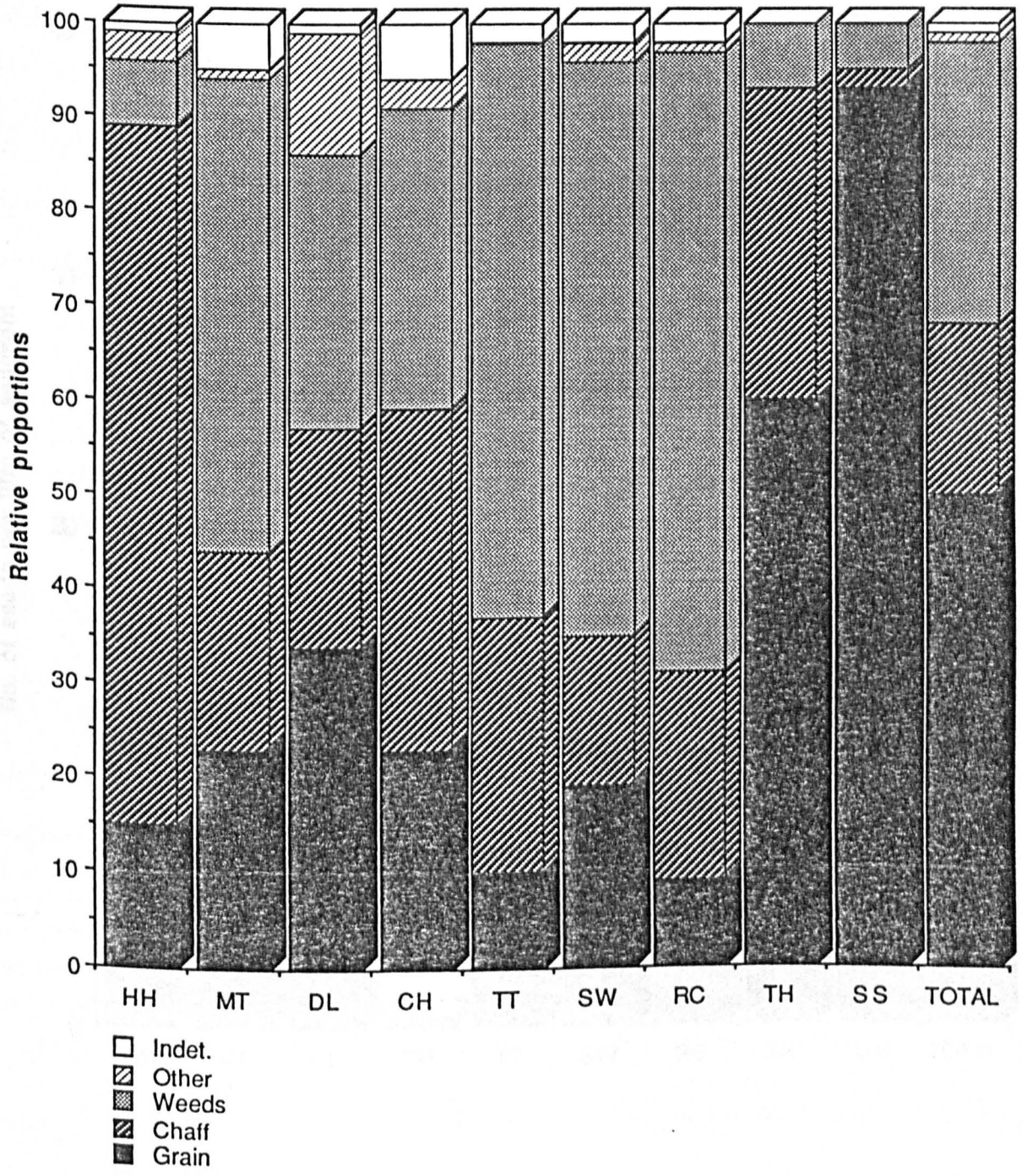


Figure 6.1 Composition of the carbonized seed assemblages for each site: relative proportions of major components (HH = Hallshill, MT = Murton, DL = Dod Law, CH = Chester House, TT = Thorpe Thewles, SW = Stanwick, RC = Rock Castle, TH = Thornbrough, SS = South Shields).

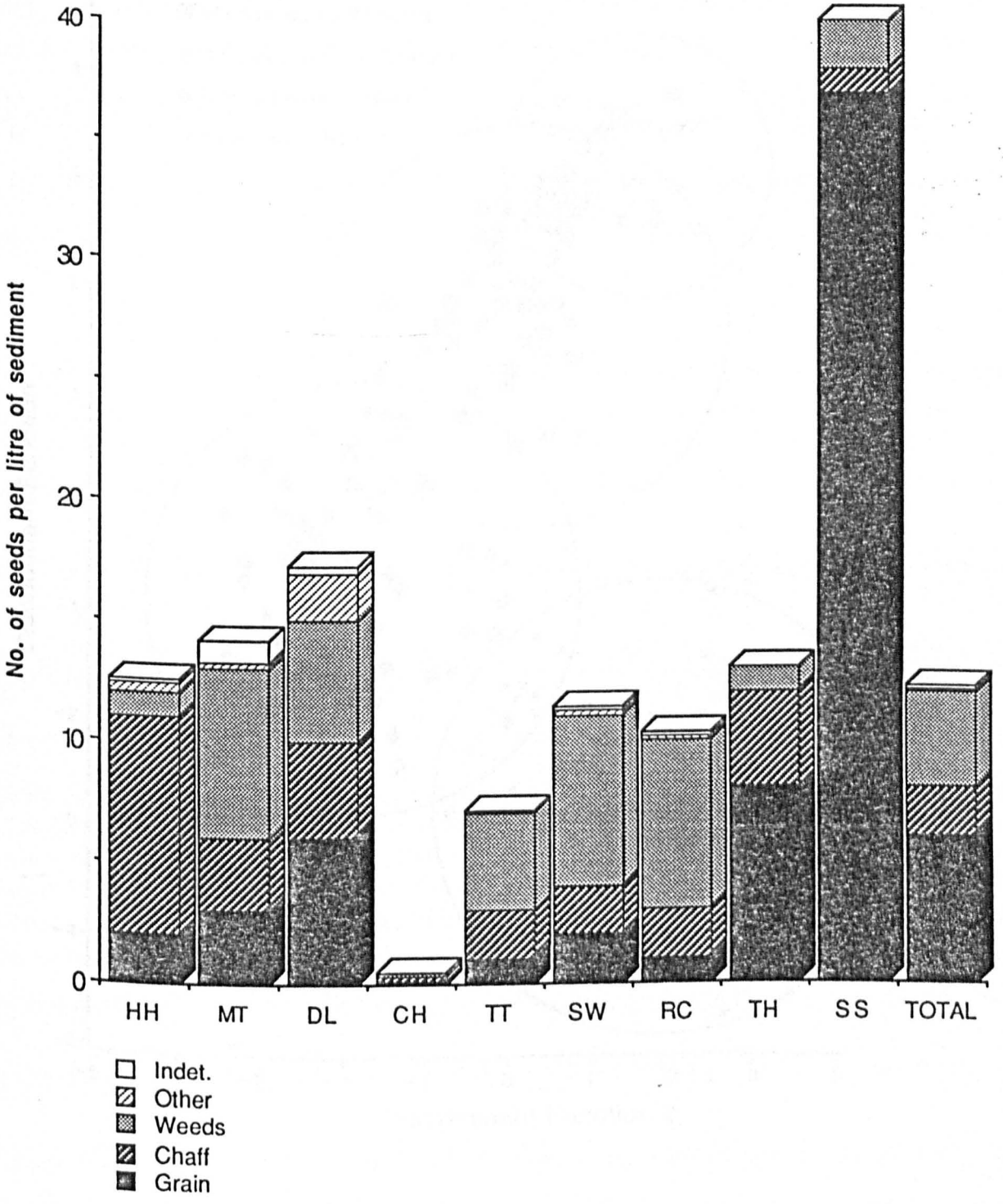


Figure 6.2 Composition of the carbonized seed assemblages for each site: number of seeds per litre of sieved sediment for the major components (see Figure 6.1 for key to site codes).

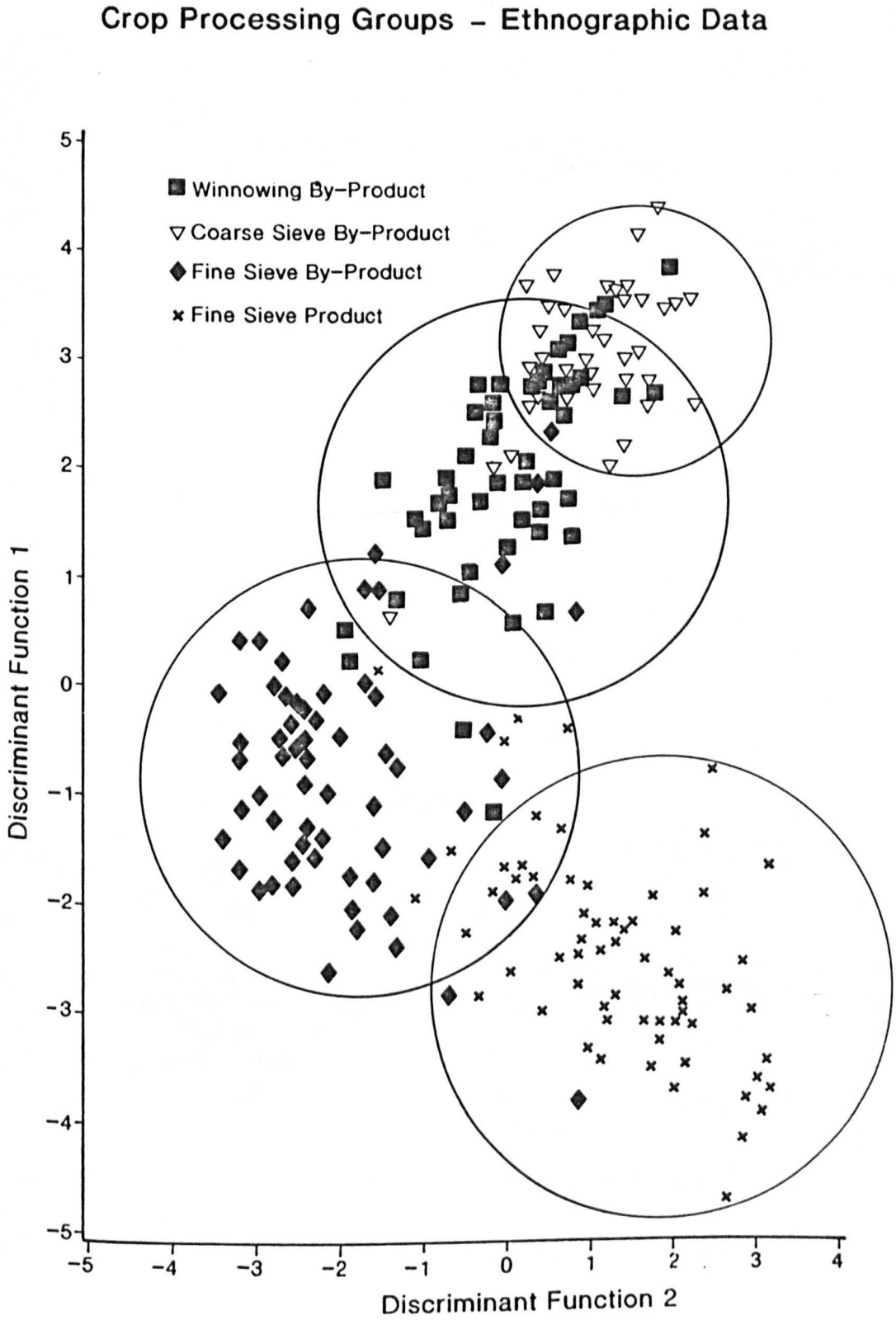


Figure 7.1 Discrimination of crop processing groups for ethnographic data from Amorgos, Greece (G. Jones 1983a, 1984, 1987), using the percentages of weed seed categories. The large circles enclose 90 per cent of the samples of each group.

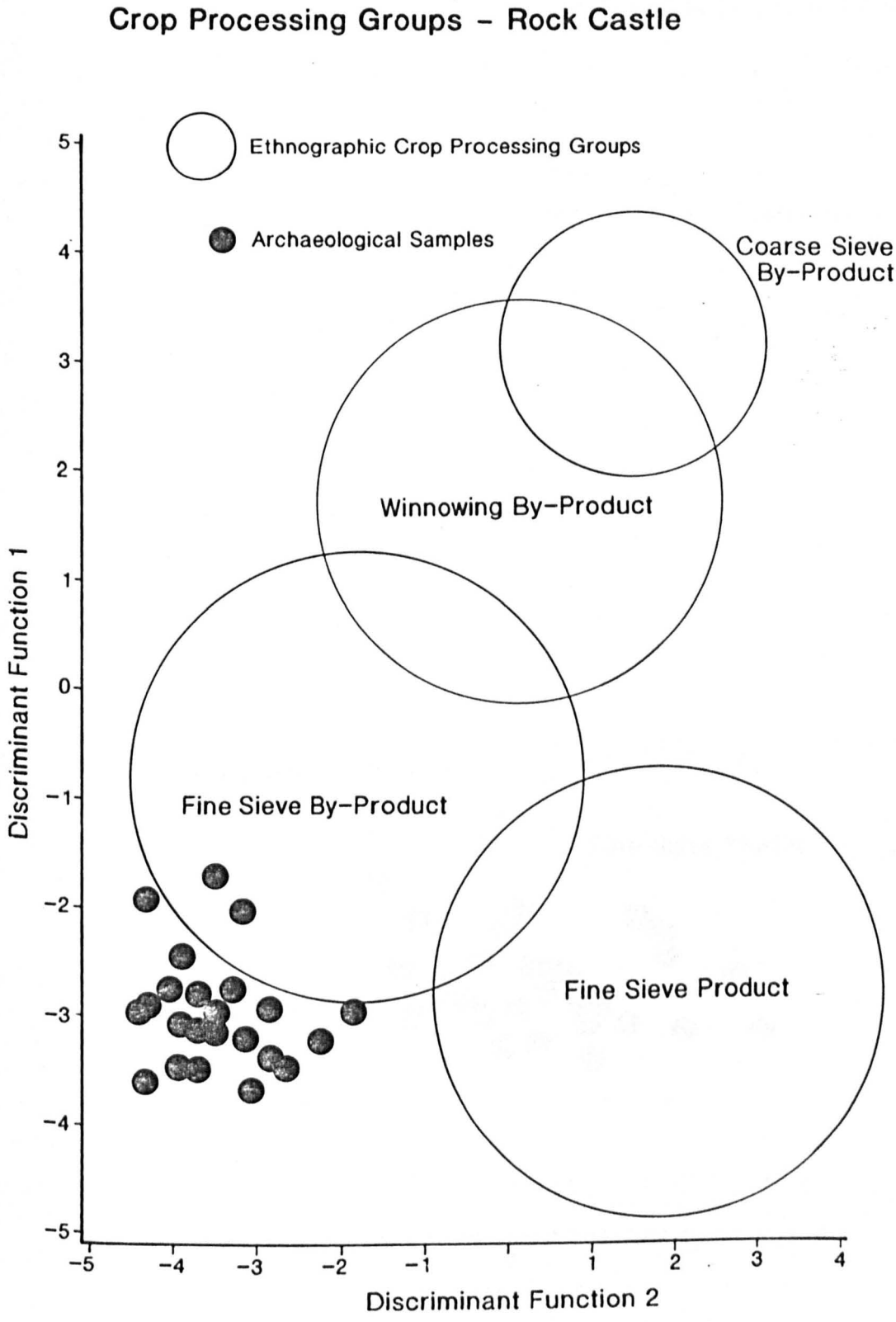


Figure 7.2 Discriminant analysis using the four crop processing groups as the control groups, to which archaeological samples are compared. The large, open circles represent the ethnographic processing groups (see Figure 7.1). The small, solid circles represent the archaeological samples from Rock Castle, classified as fine sieve by-products.

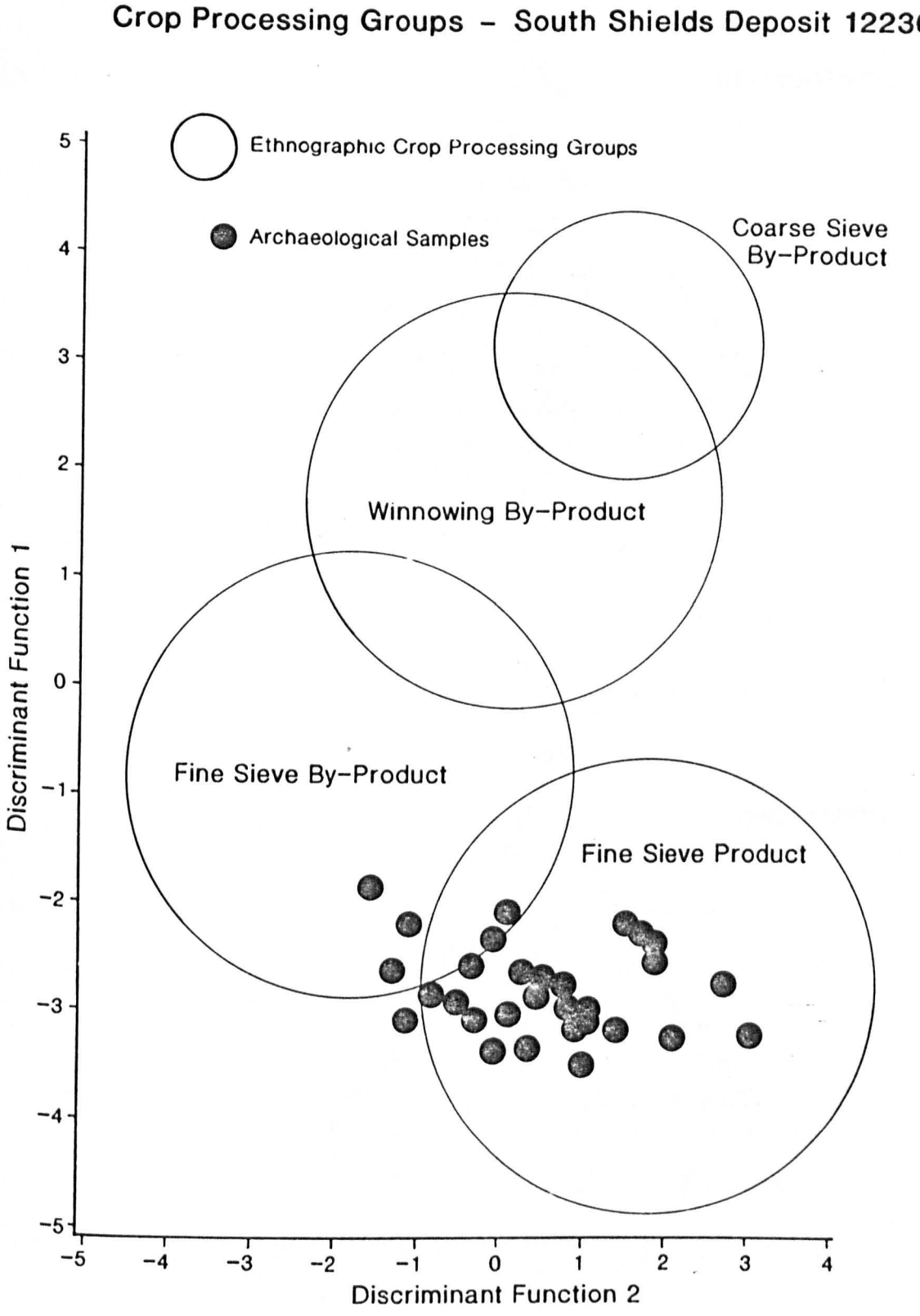


Figure 7.3 Discriminant analysis using the four crop processing groups as the control groups to which archaeological samples are compared. The large, open circles represent the ethnographic processing groups (see Figure 7.1). The small, solid circles represent the archaeological samples from South Shields, deposit 12236, classified as fine sieve product (27 samples) and fine sieve by-product (3 samples).

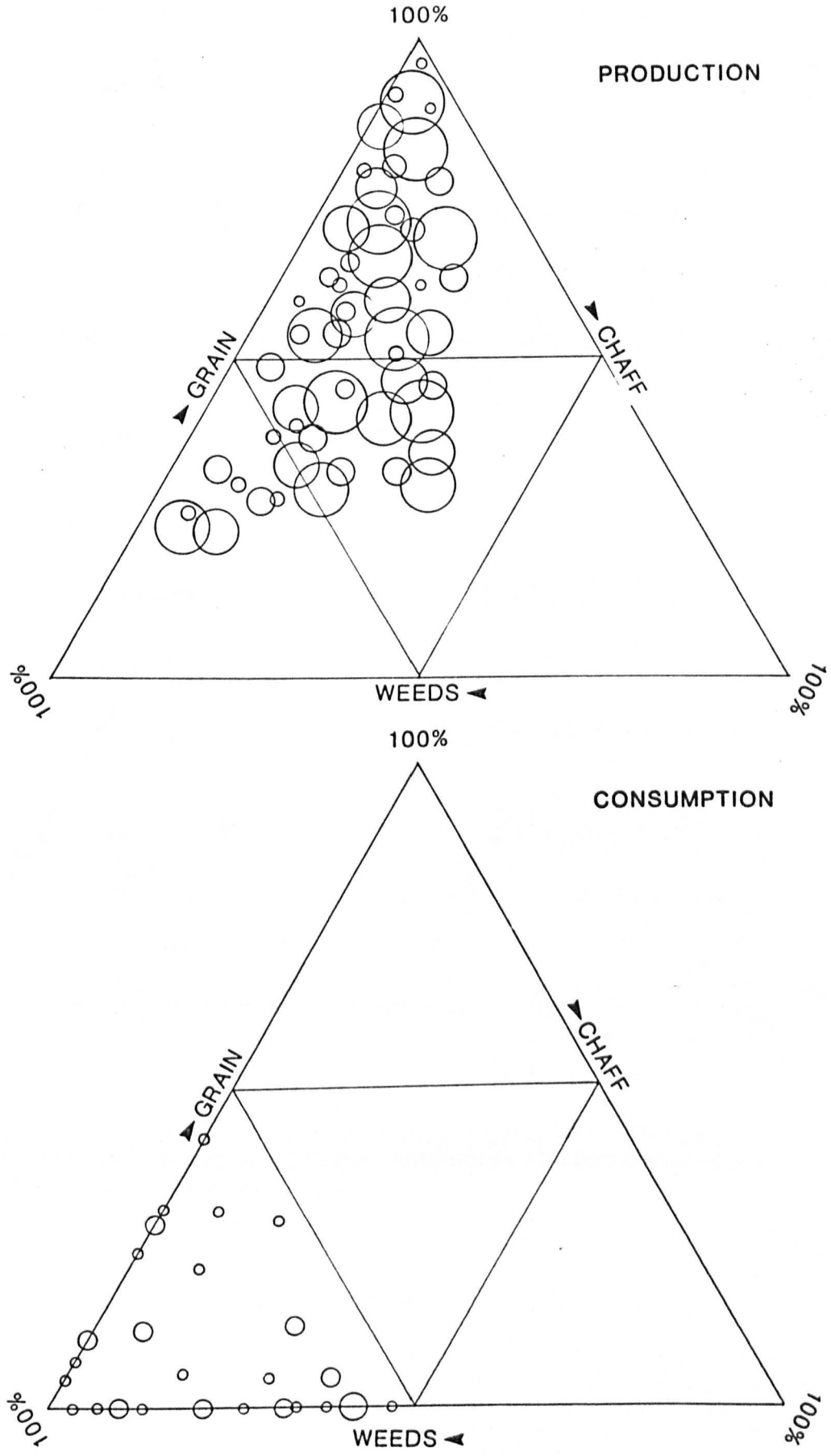


Figure 8.1 Triangular scatter plots showing the relative proportions of cereal grains, chaff and weed seeds for generalized producer and consumer assemblages (after M. Jones 1985). Each circle represents one sample. For key to size of circle, see Figure 8.3.

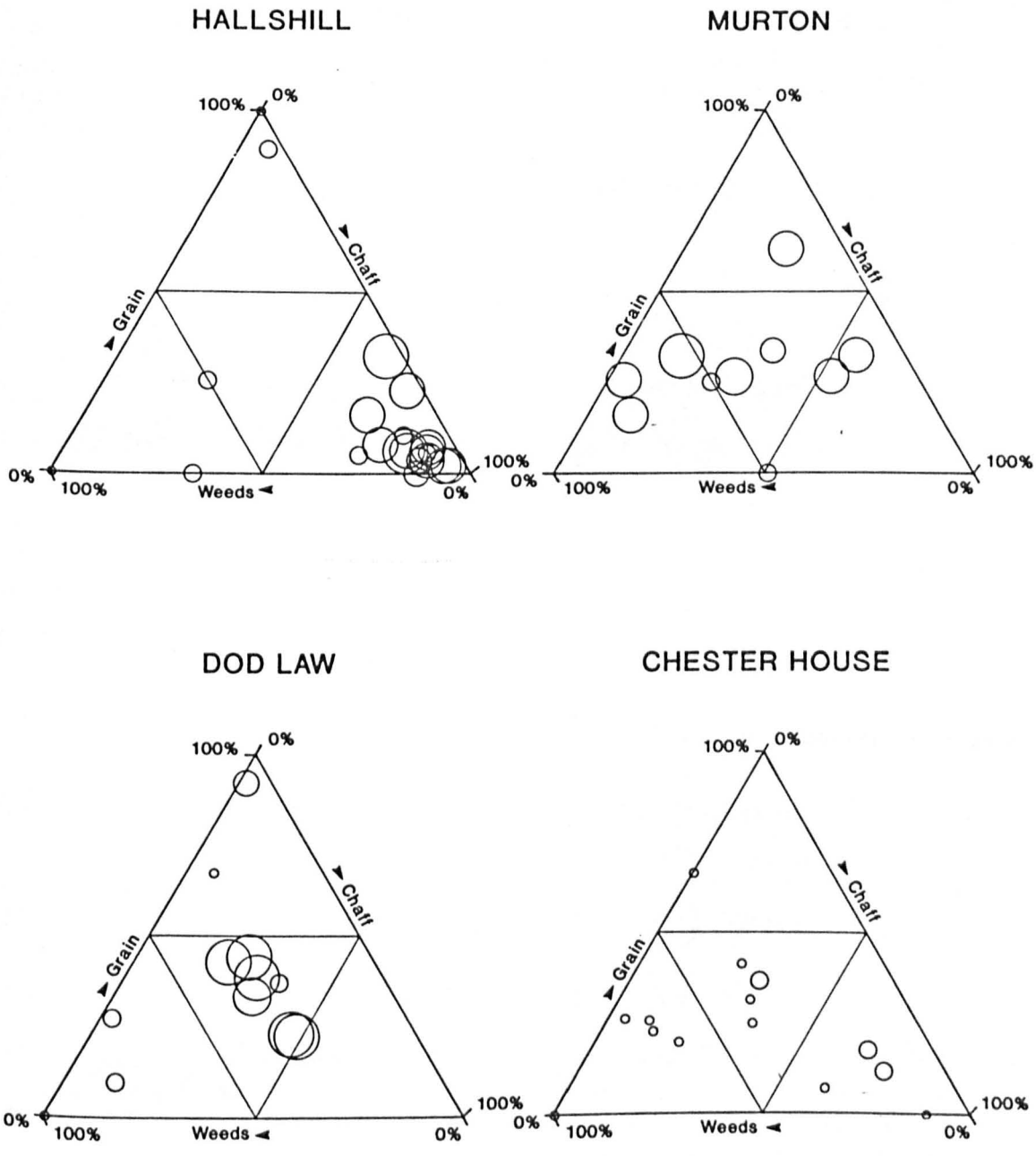


Figure 8.2 Triangular scatter plots showing the relative proportions of cereal grains, chaff and weed seeds for four of the prehistoric assemblages. Each circle represents one sample. For key to size of circle, see Figure 8.3.

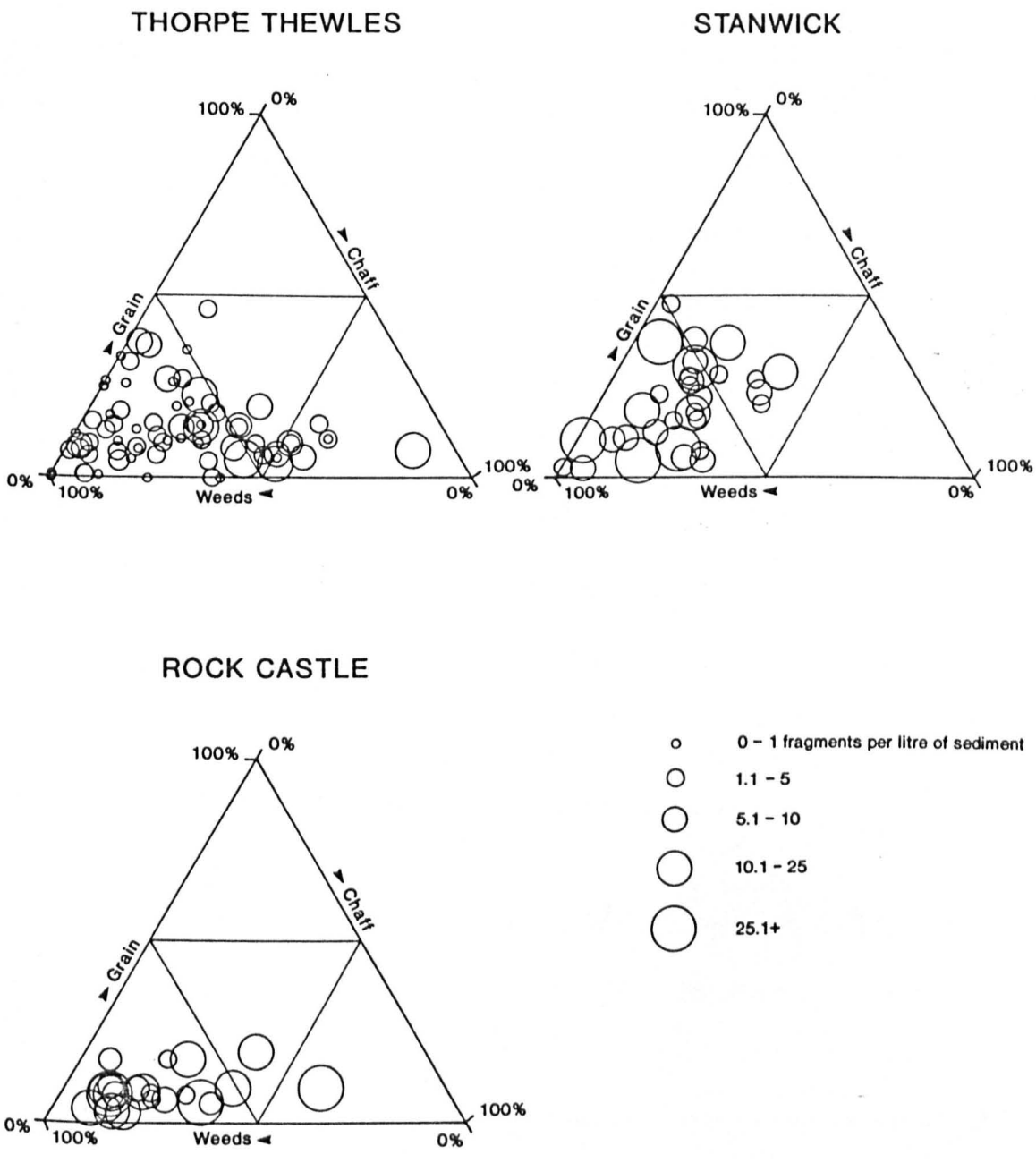


Figure 8.3 Triangular scatter plots showing the relative proportions of cereal grains, chaff and weed seeds for three of the prehistoric assemblages. Each circle represents one sample.

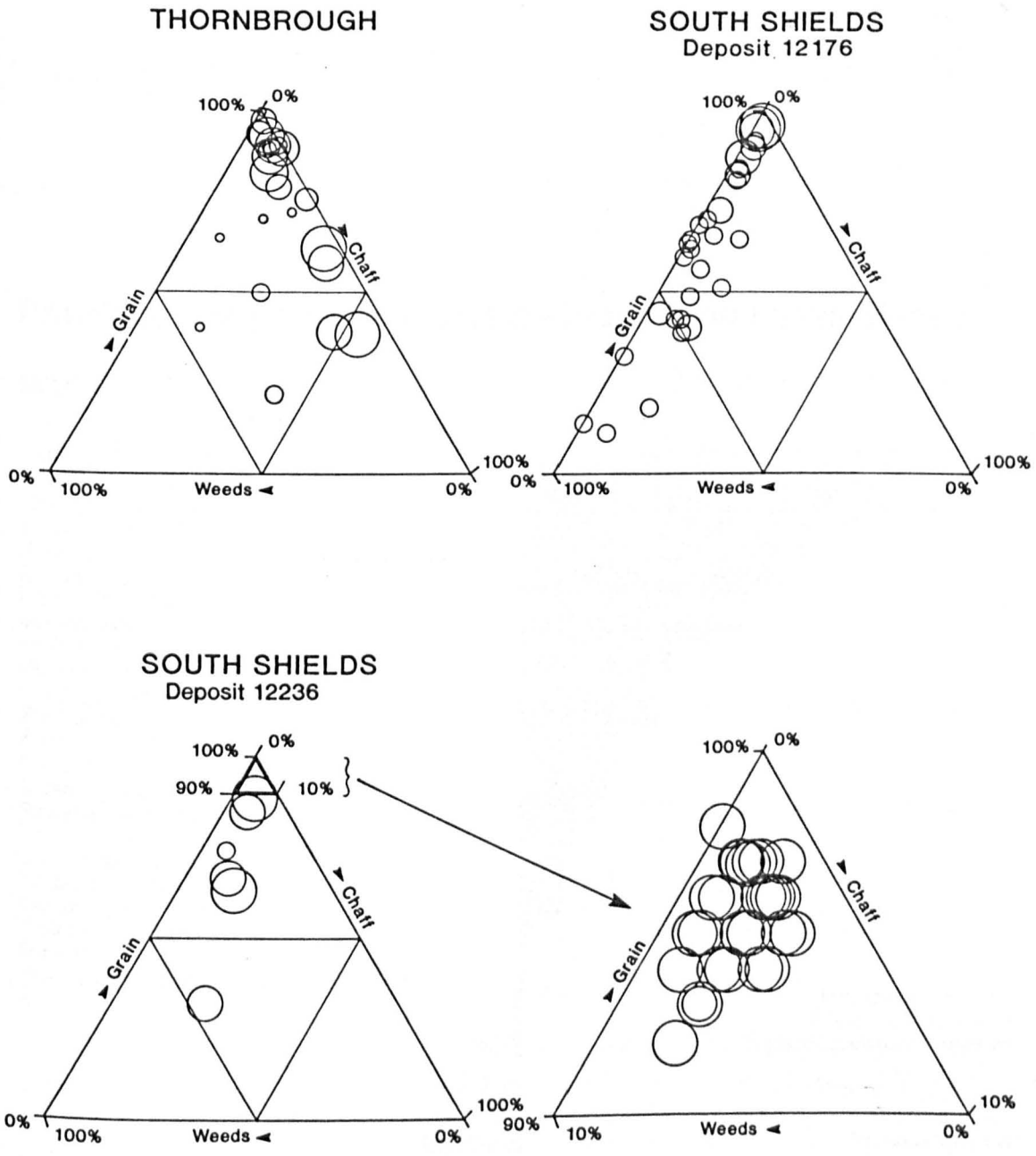


Figure 8.4 Triangular scatter plots showing the relative proportions of cereal grains, chaff and weed seeds for the Roman assemblages. Each circle represents one sample. For key to size of circle, see Figure 8.3.

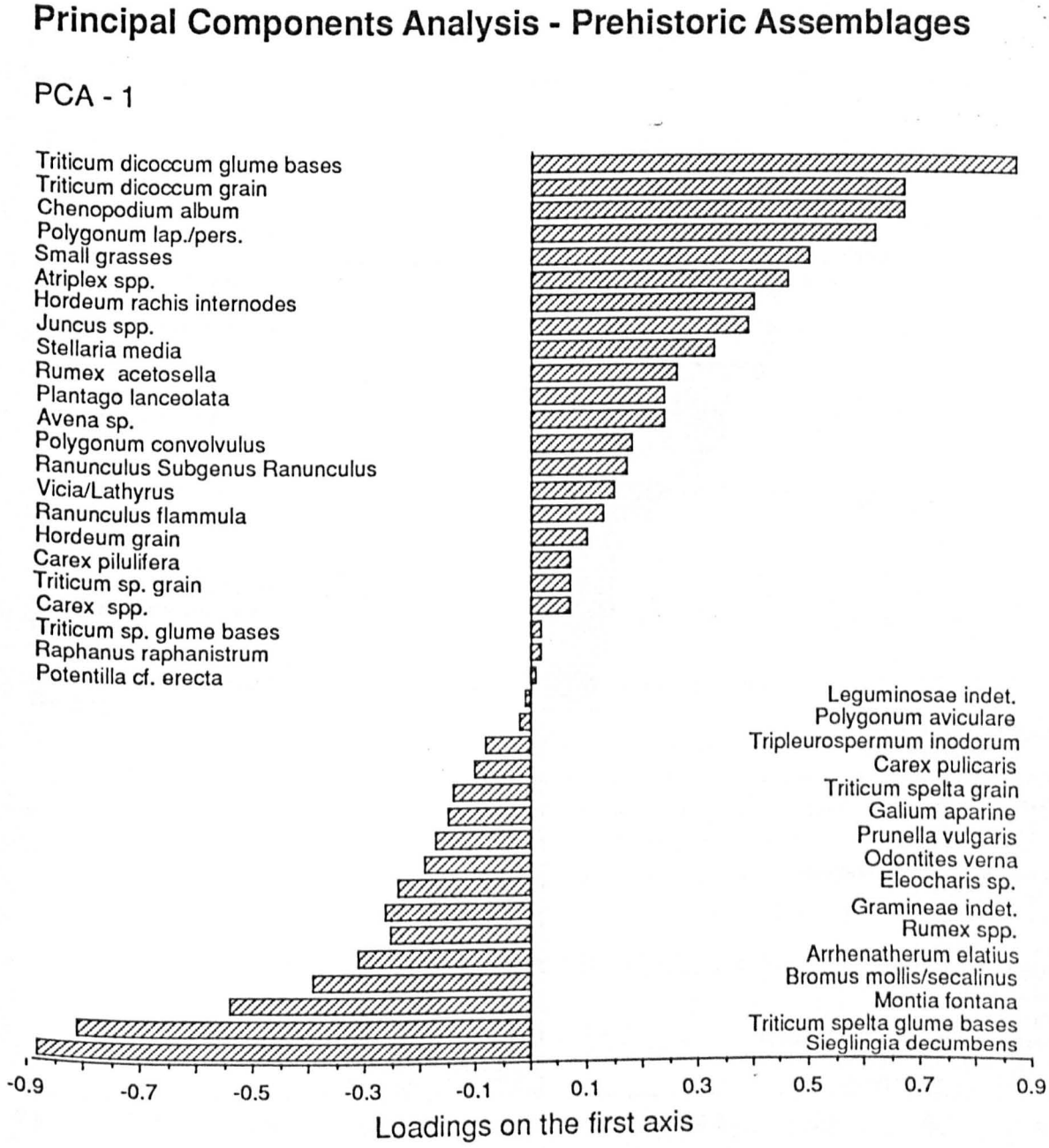


Figure 10.1 Principal components analysis of the prehistoric assemblages using both cereals and weed species. Factor loadings on the first axis.

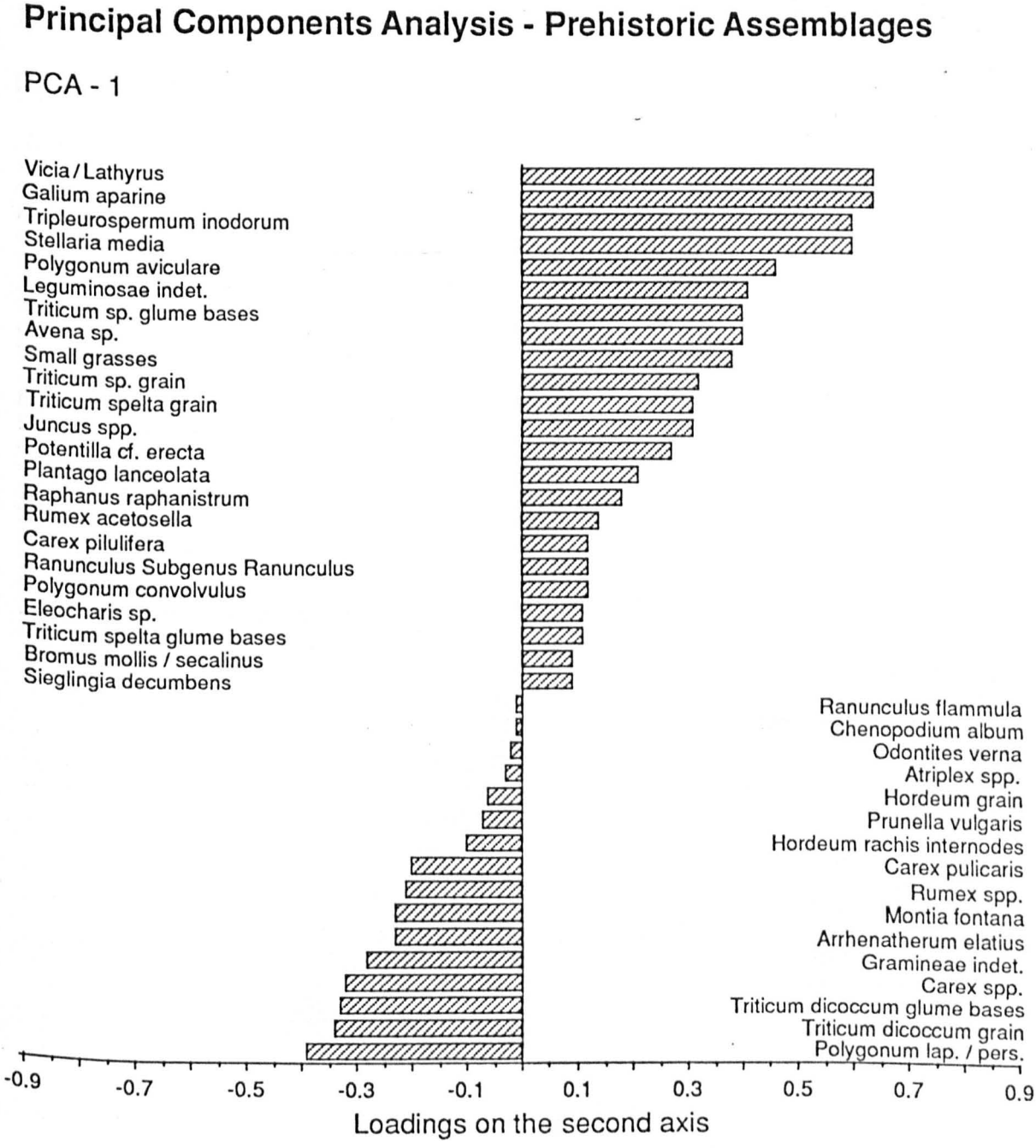


Figure 10.2 Principal components analysis of the prehistoric assemblages using both cereals and weed species. Factor loadings on the second axis.

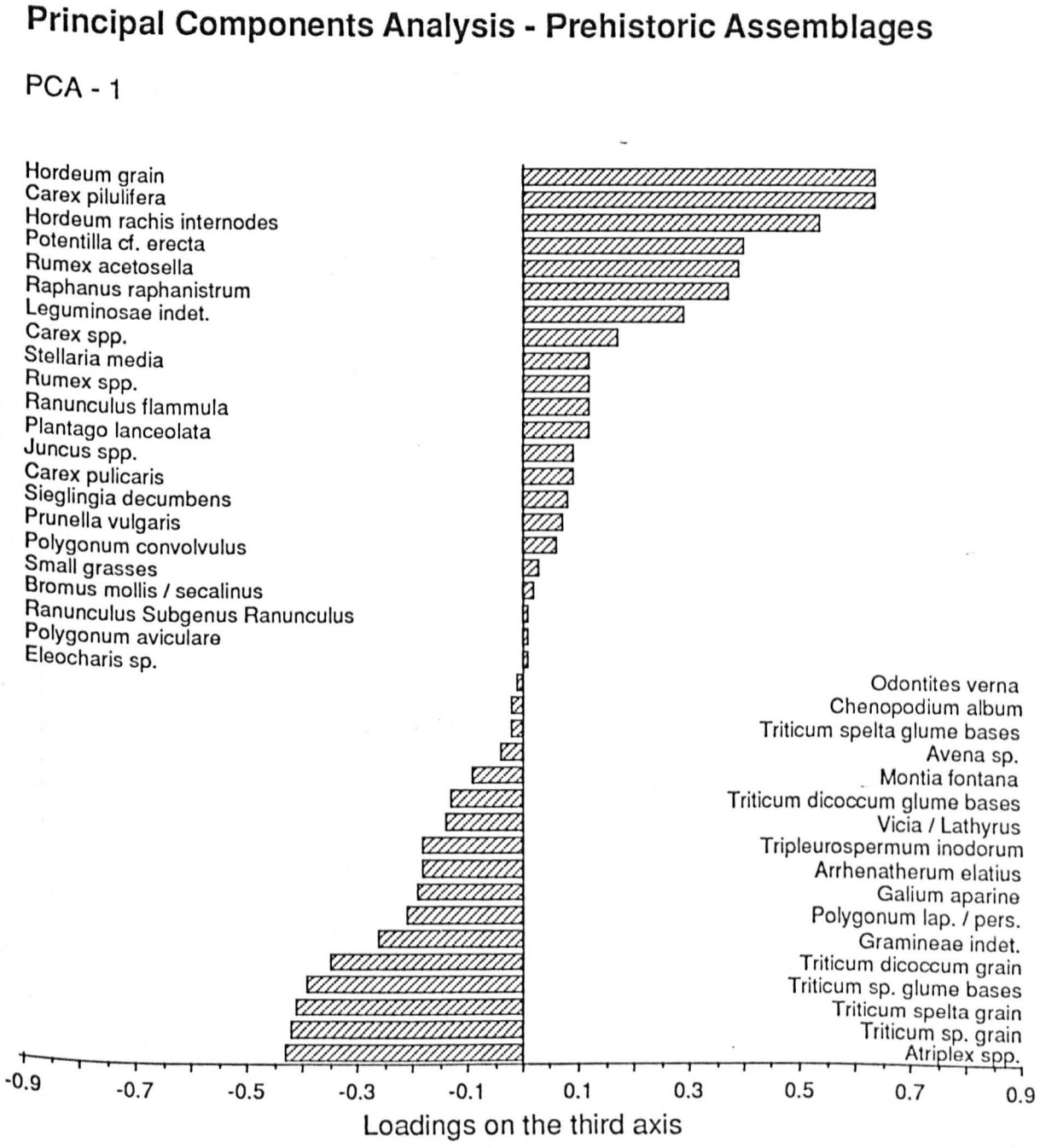


Figure 10.3 Principal components analysis of the prehistoric assemblages using both cereals and weed species. Factor loadings on the third axis.

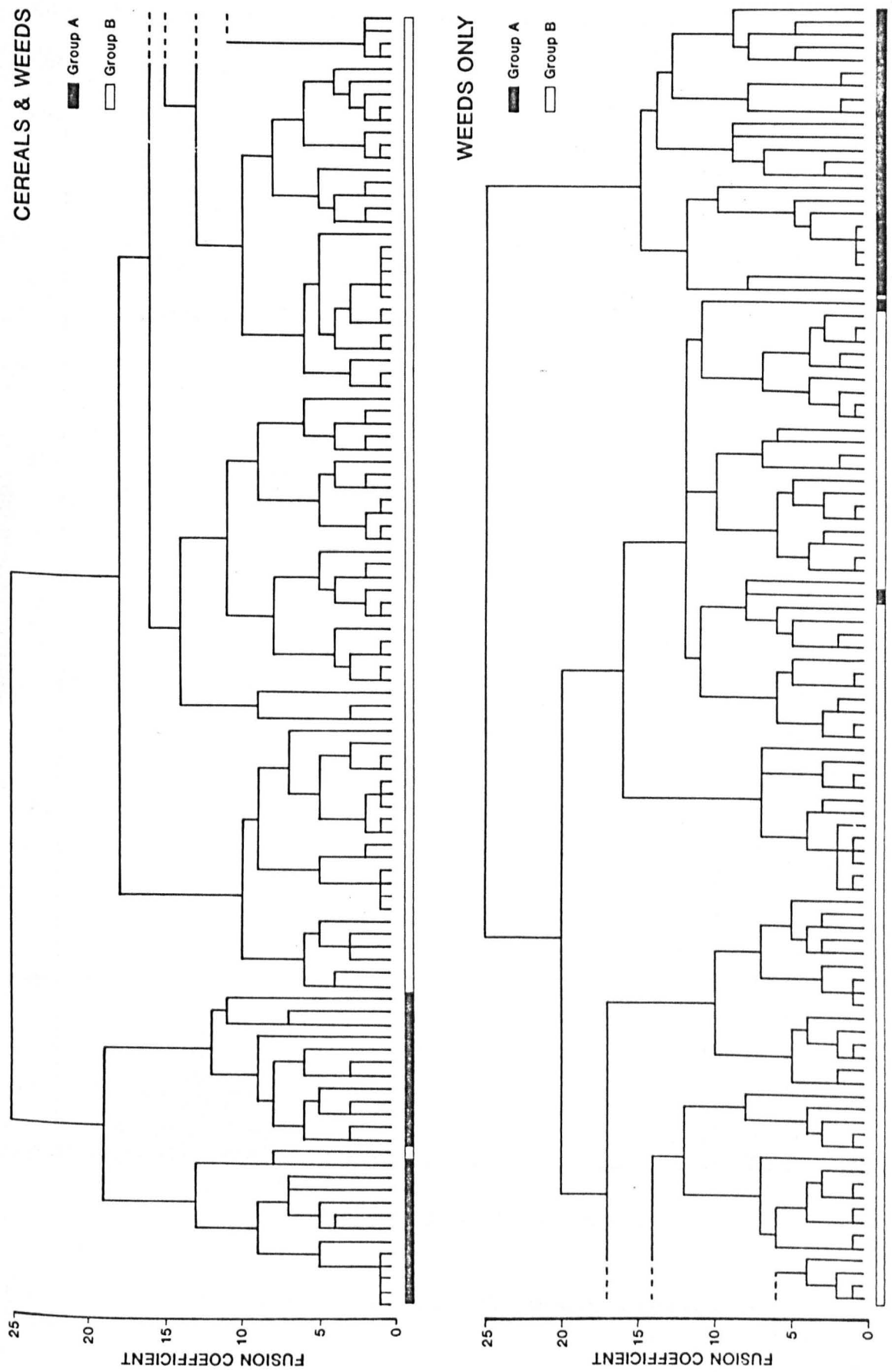


Figure 10.4 Cluster analysis of the prehistoric assemblages, using both cereals and weed species (top), and weed species only (below).

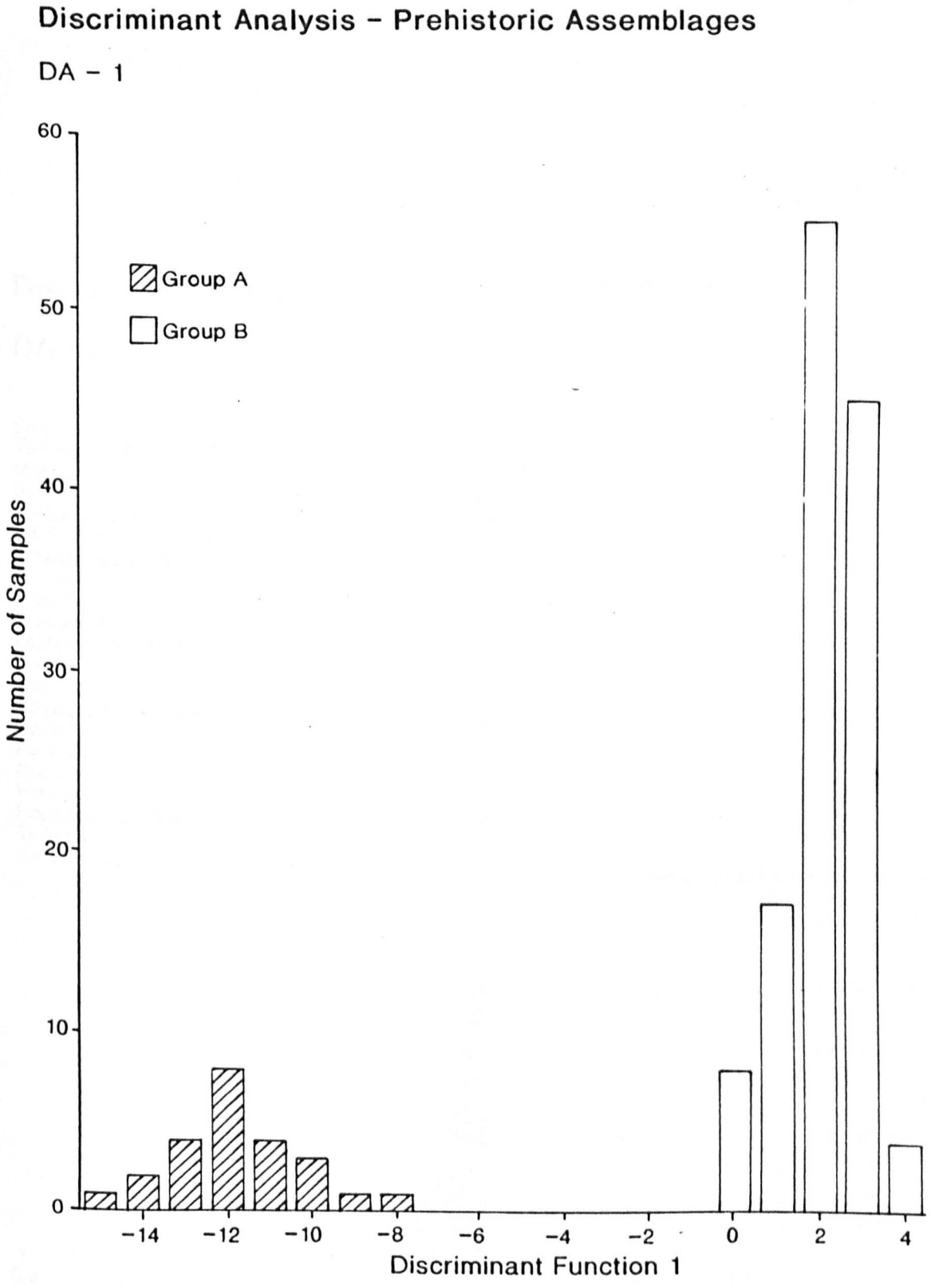


Figure 10.5 Discriminant analysis of the prehistoric assemblages, using both cereals and weed species.

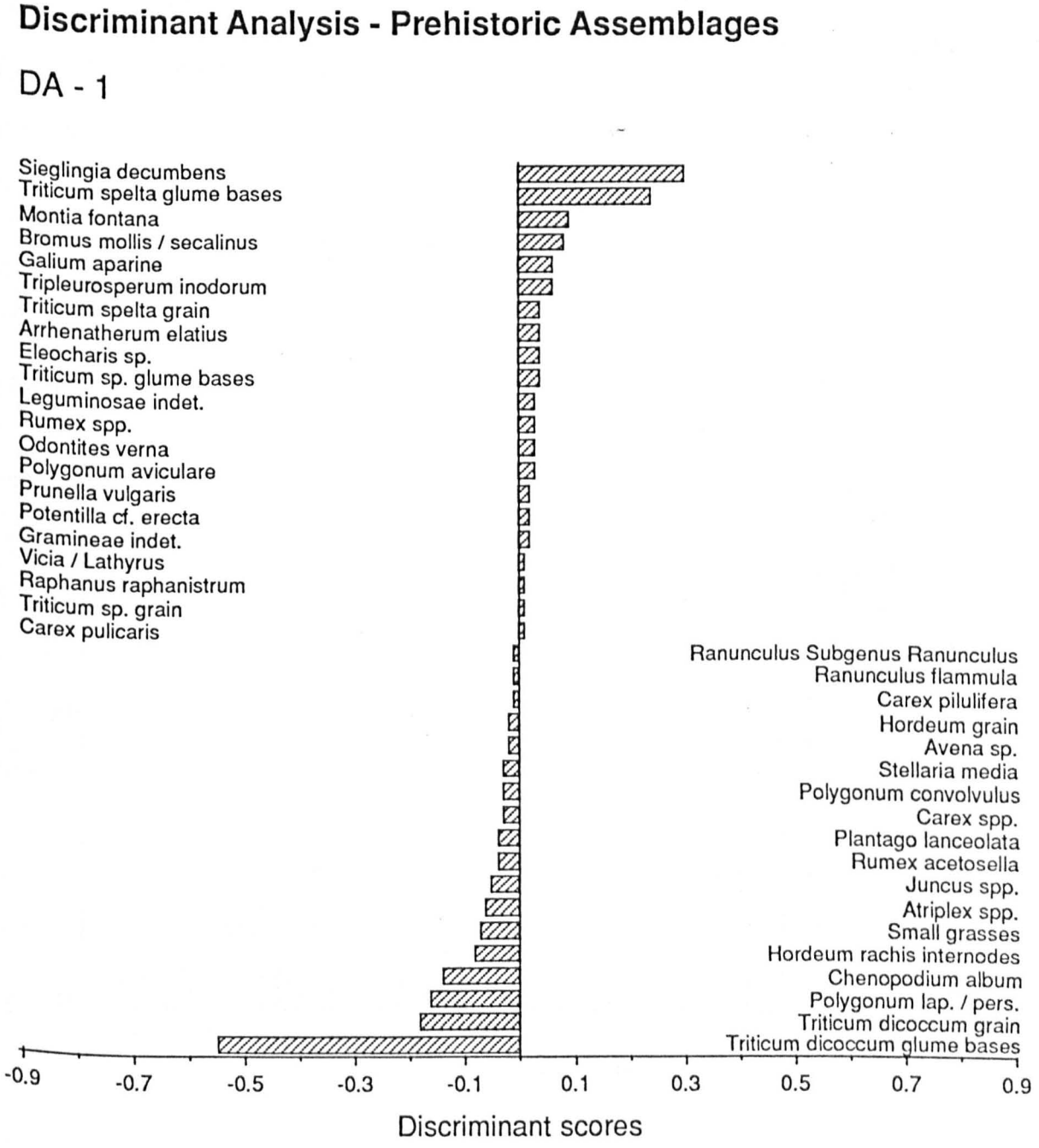


Figure 10.6 Discriminant analysis of the prehistoric assemblages, using both cereals and weed species. Group A is associated with negative, Group B with positive discriminant scores.

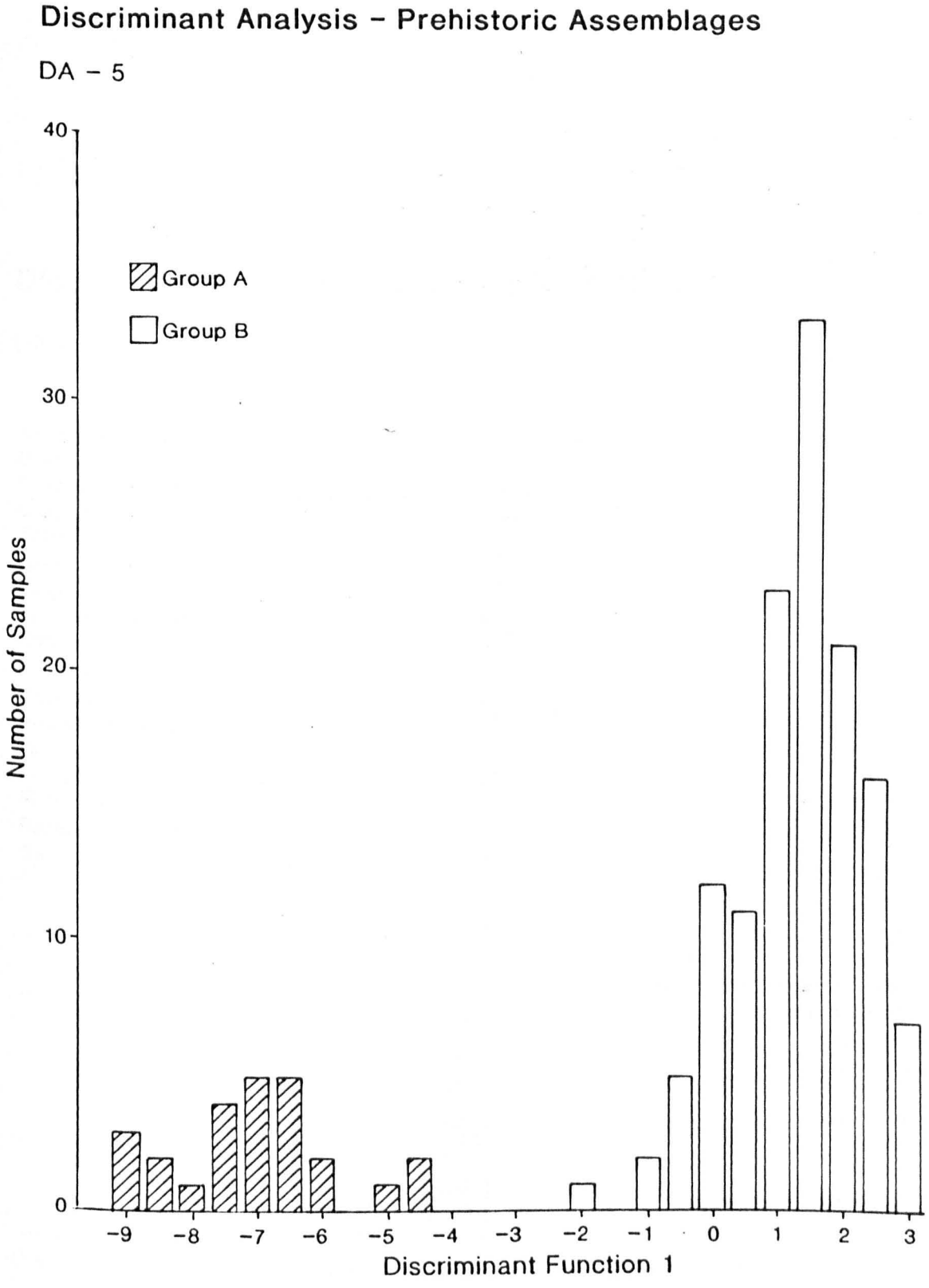


Figure 10.7 Discriminant analysis of the prehistoric assemblages, using weed species only.

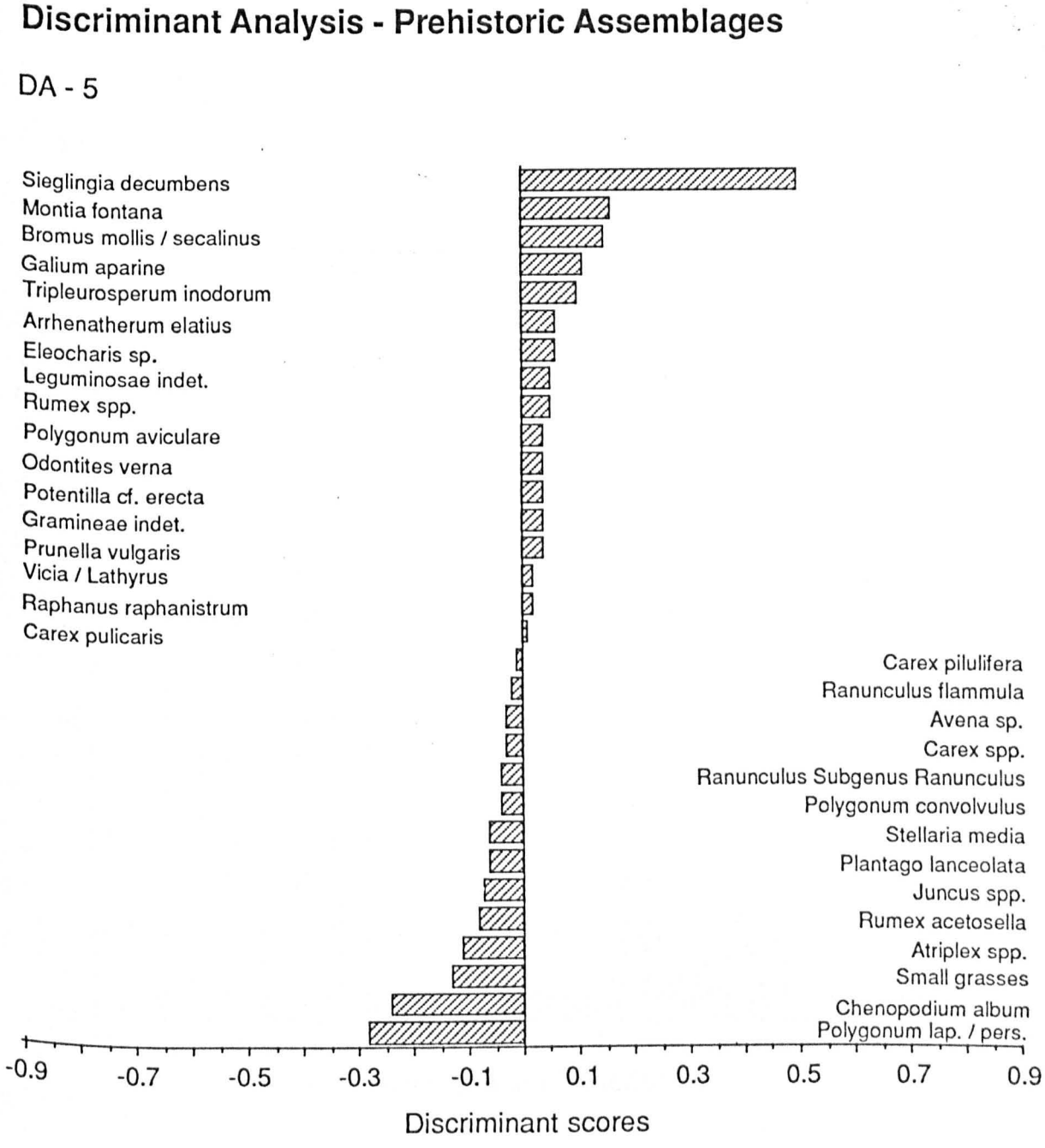


Figure 10.8 Discriminant analysis of the prehistoric assemblages, using weed species only. Group A is associated with negative, Group B with positive discriminant scores.

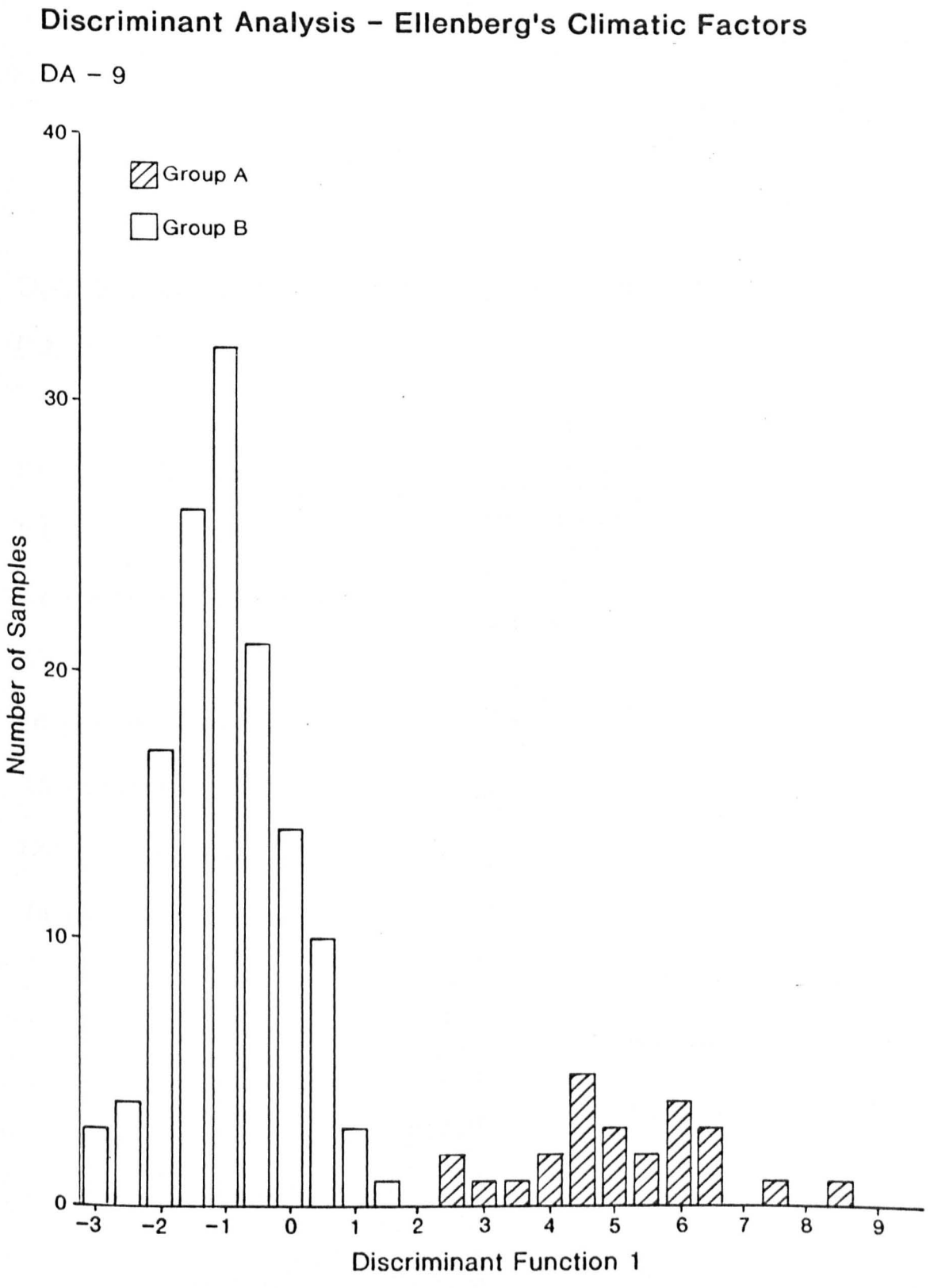


Figure 10.9 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) indicator values for climatic factors.

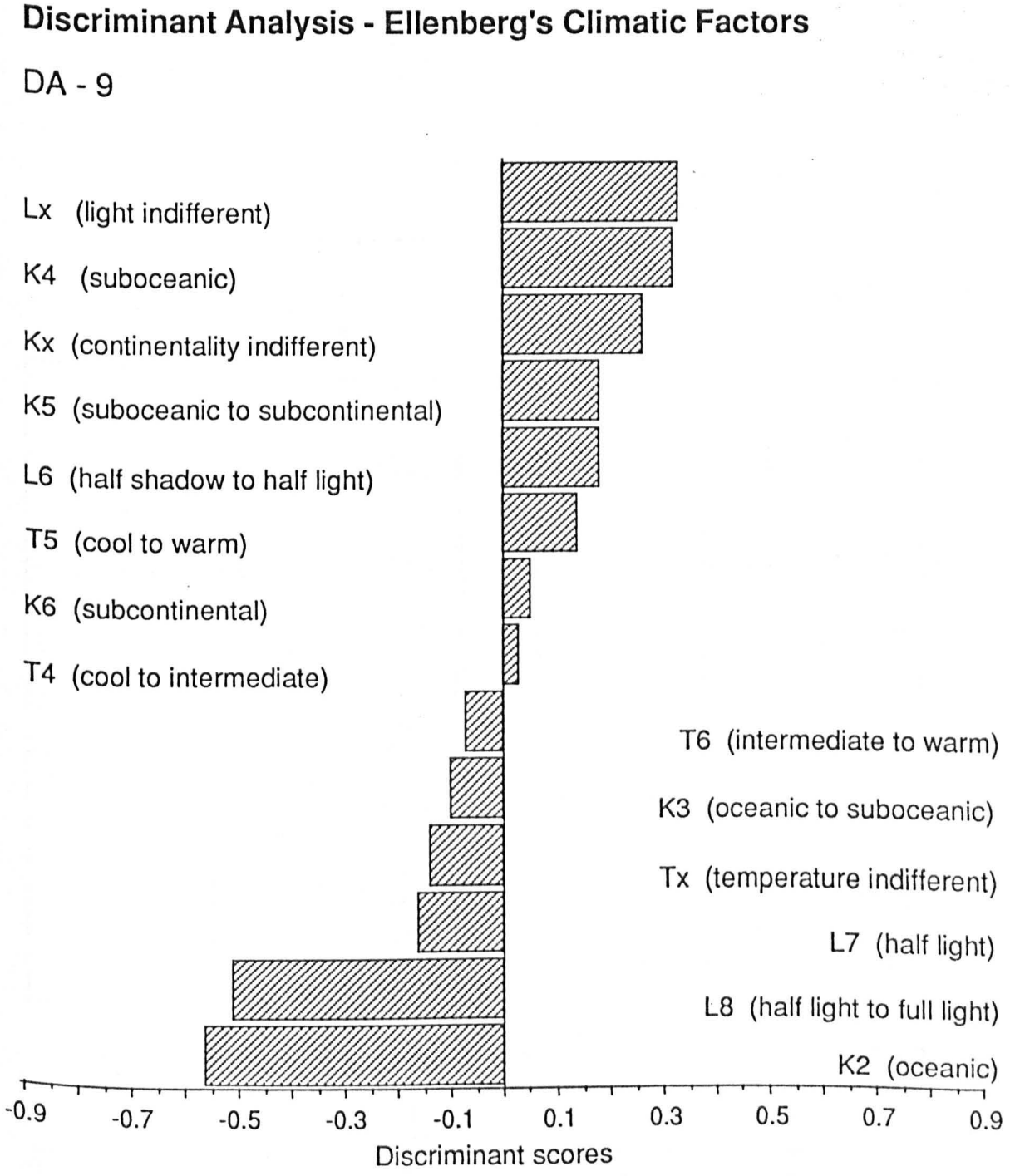


Figure 10.10 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) indicator values for climatic factors. Group A is associated with positive, Group B with negative discriminant scores.

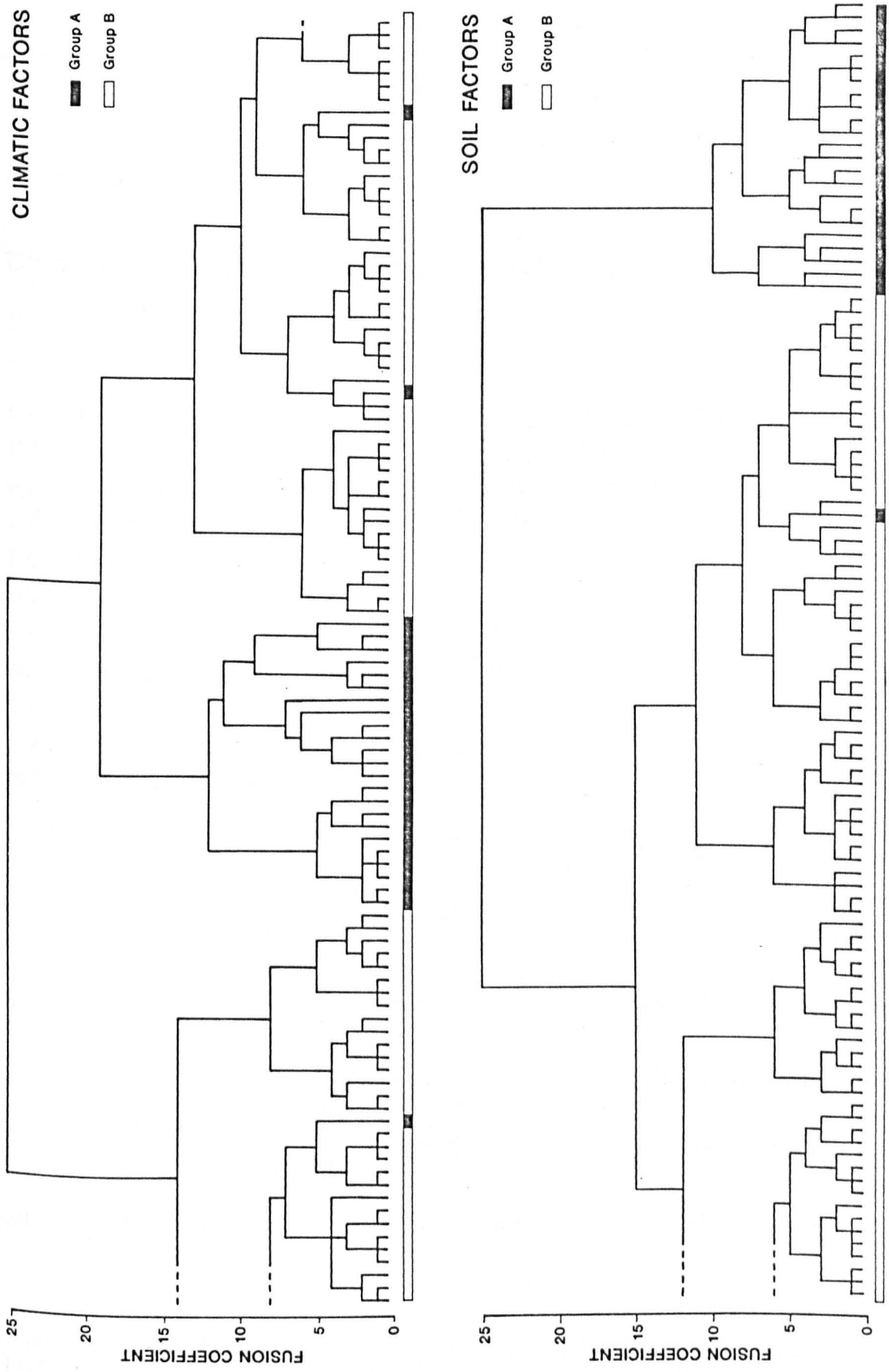


Figure 10.11 Cluster analysis of the prehistoric assemblages, using Ellenberg's (1979) climatic factors (top), and Ellenberg's (1979) edaphic factors (below).

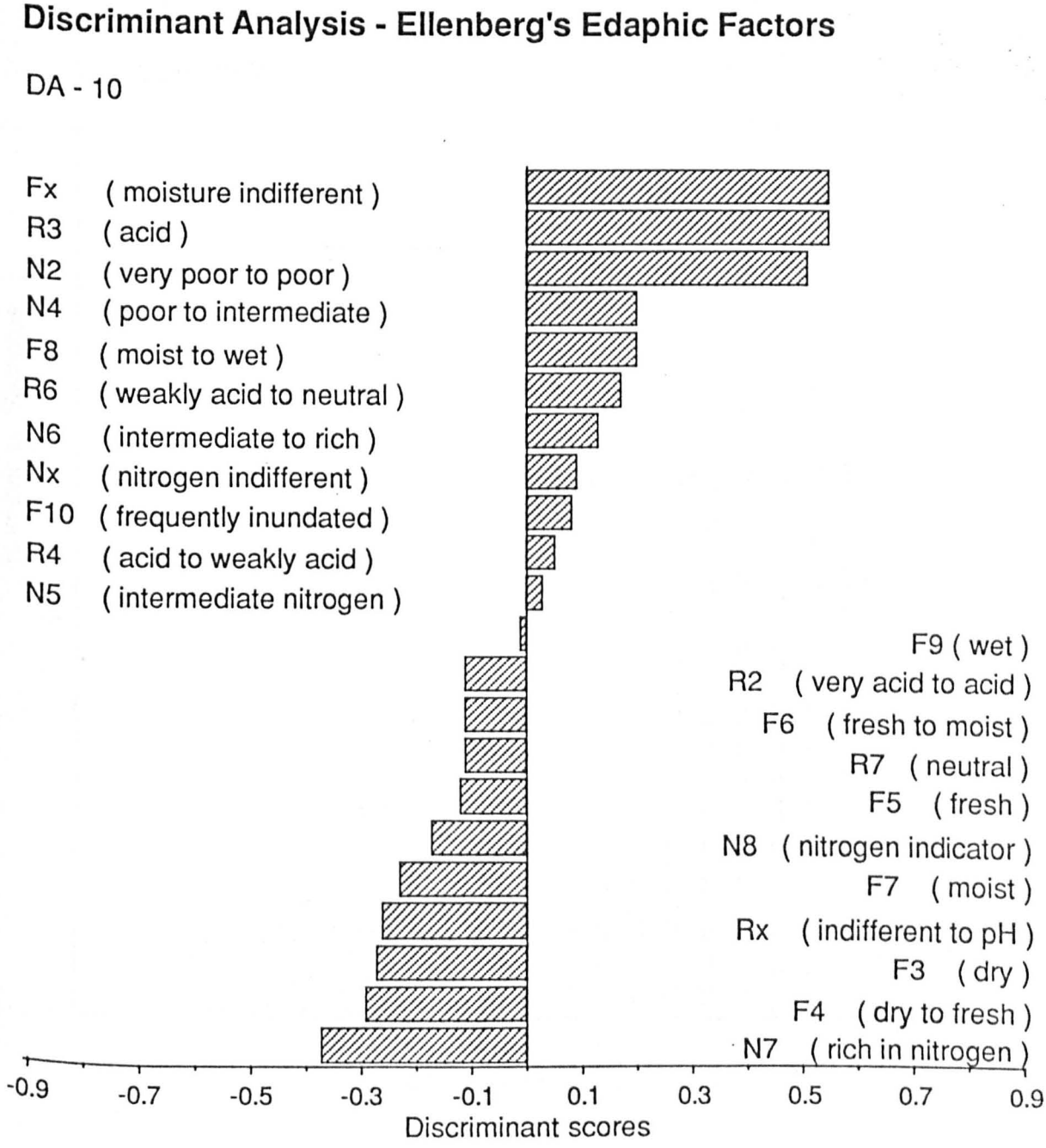


Figure 10.12 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) indicator values for edaphic factors. Group A is associated with negative, Group B with positive discriminant scores.

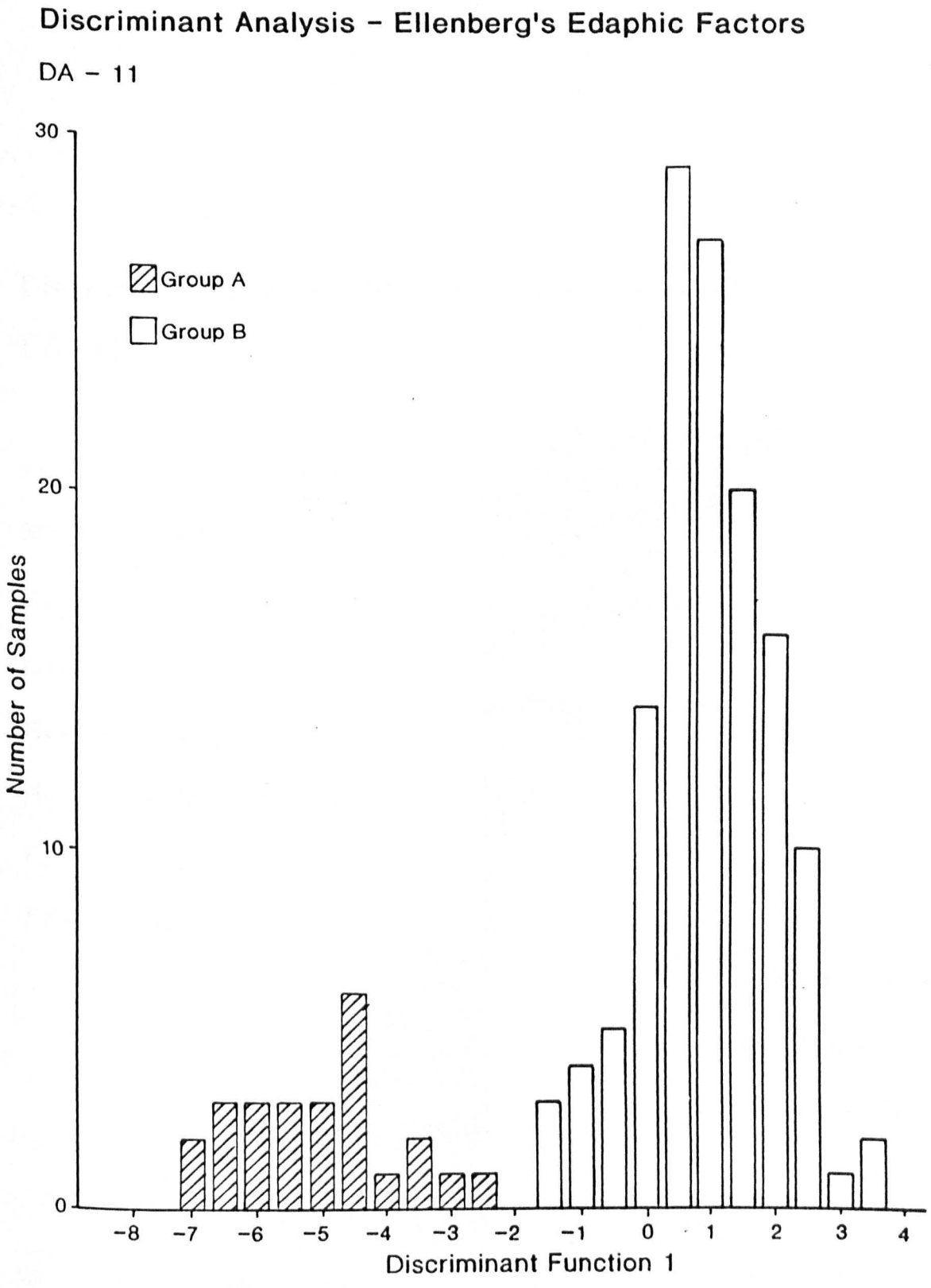


Figure 10.13 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) edaphic factors, having combined the indicator values into broader groups.

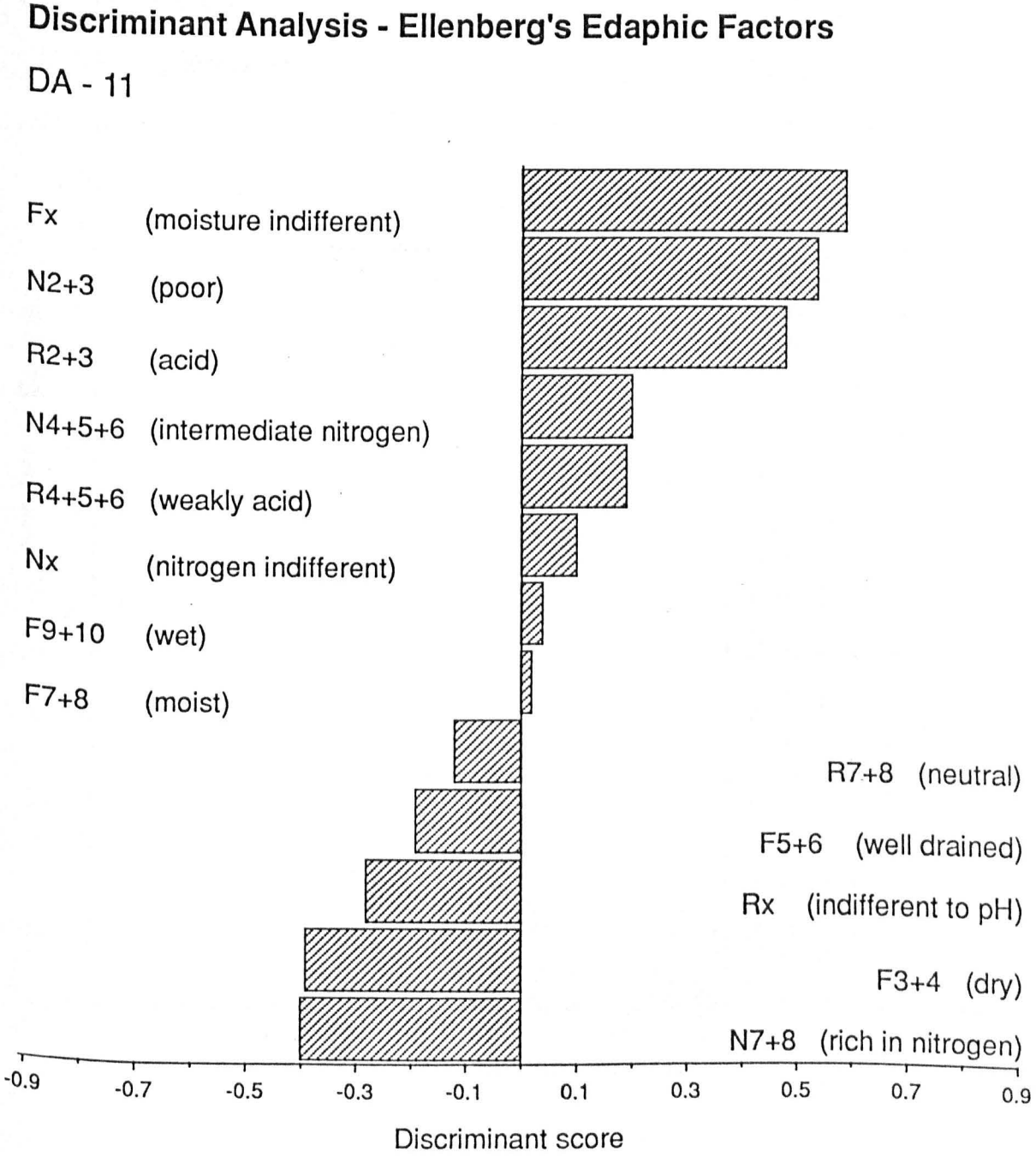


Figure 10.14 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) edaphic factors, having combined the indicator values into broader groups. Group A is associated with negative, Group B with positive discriminant scores.

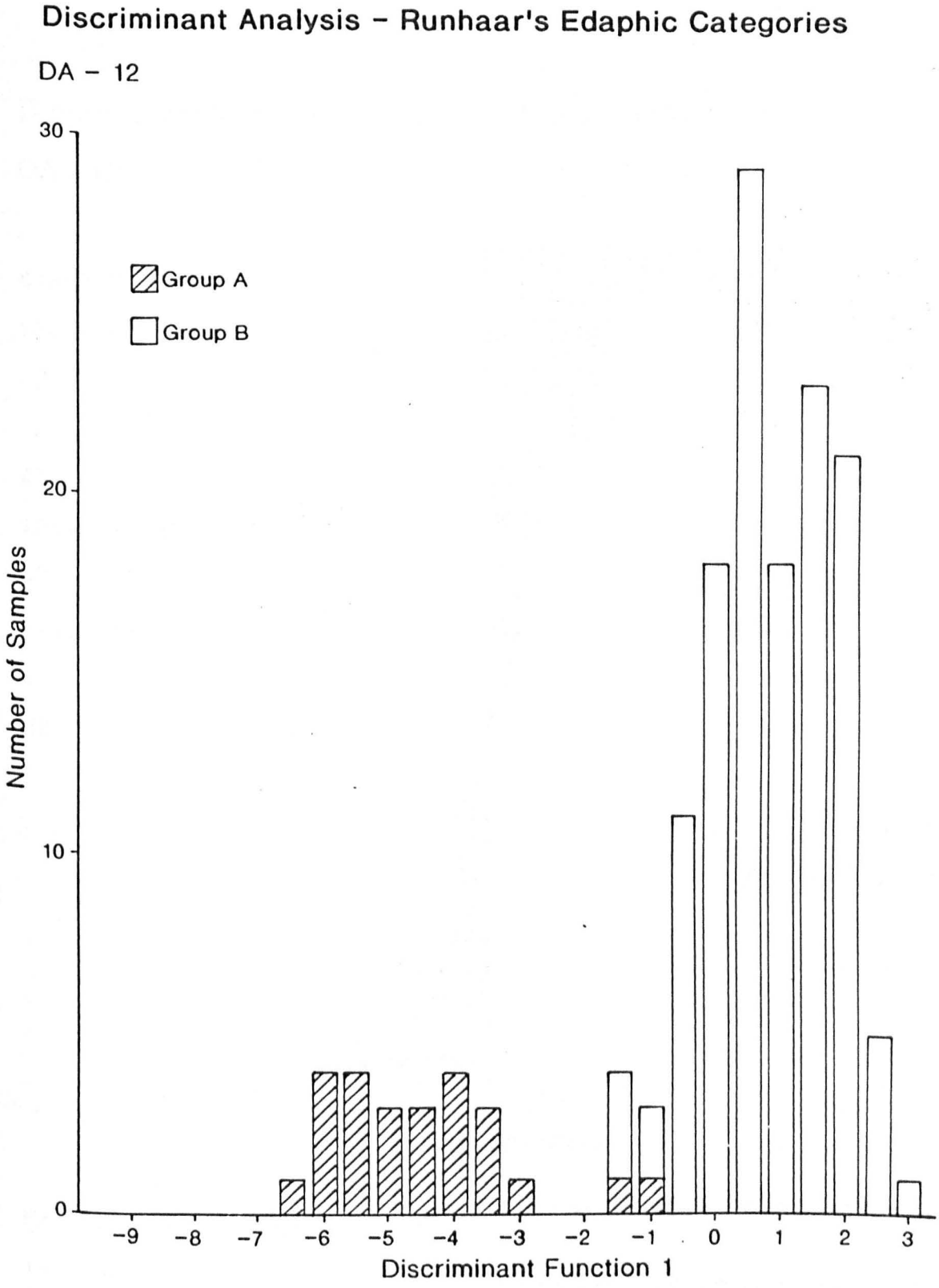


Figure 10.15 Discriminant analysis of the prehistoric assemblages, using Runhaar's (1987) edaphic categories.

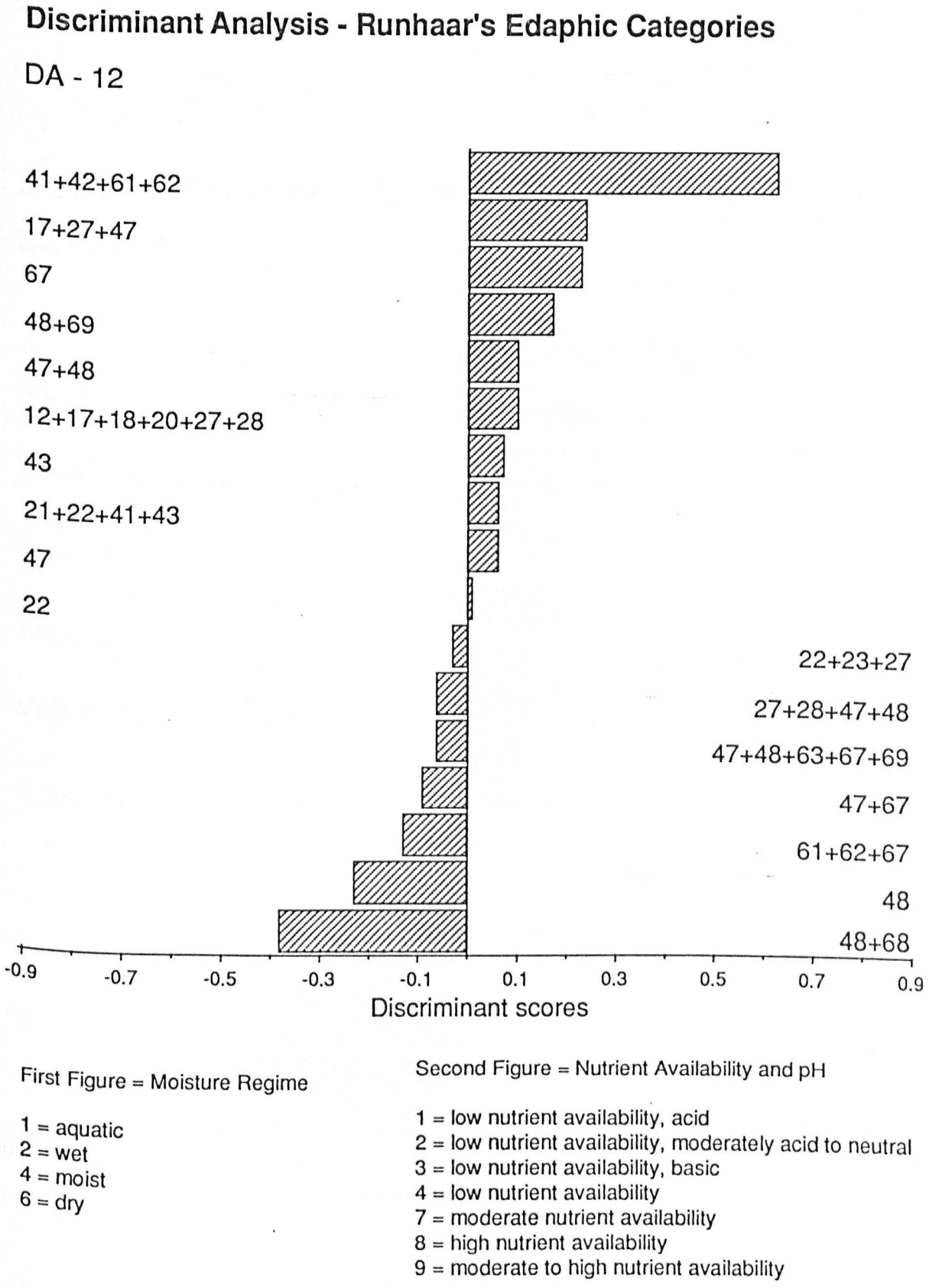


Figure 10.16 Discriminant analysis of the prehistoric assemblages, using Runhaar's (1987) edaphic categories. Group A is associated with negative, Group B with positive discriminant scores.

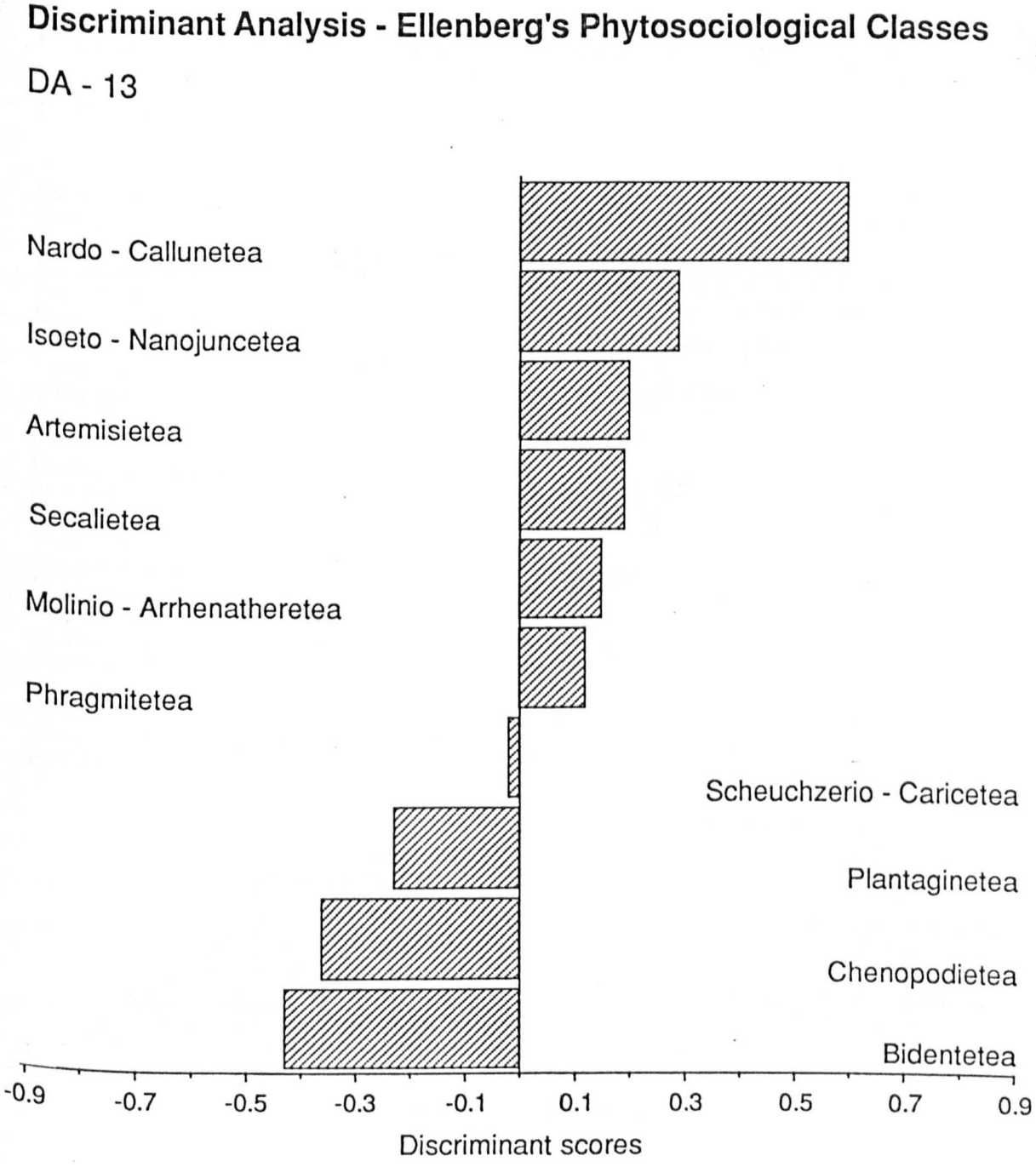


Figure 10.17 Discriminant analysis of the prehistoric assemblages, using Ellenberg's (1979) phytosociological Classes. Group A is associated with negative, Group B with positive discriminant scores.

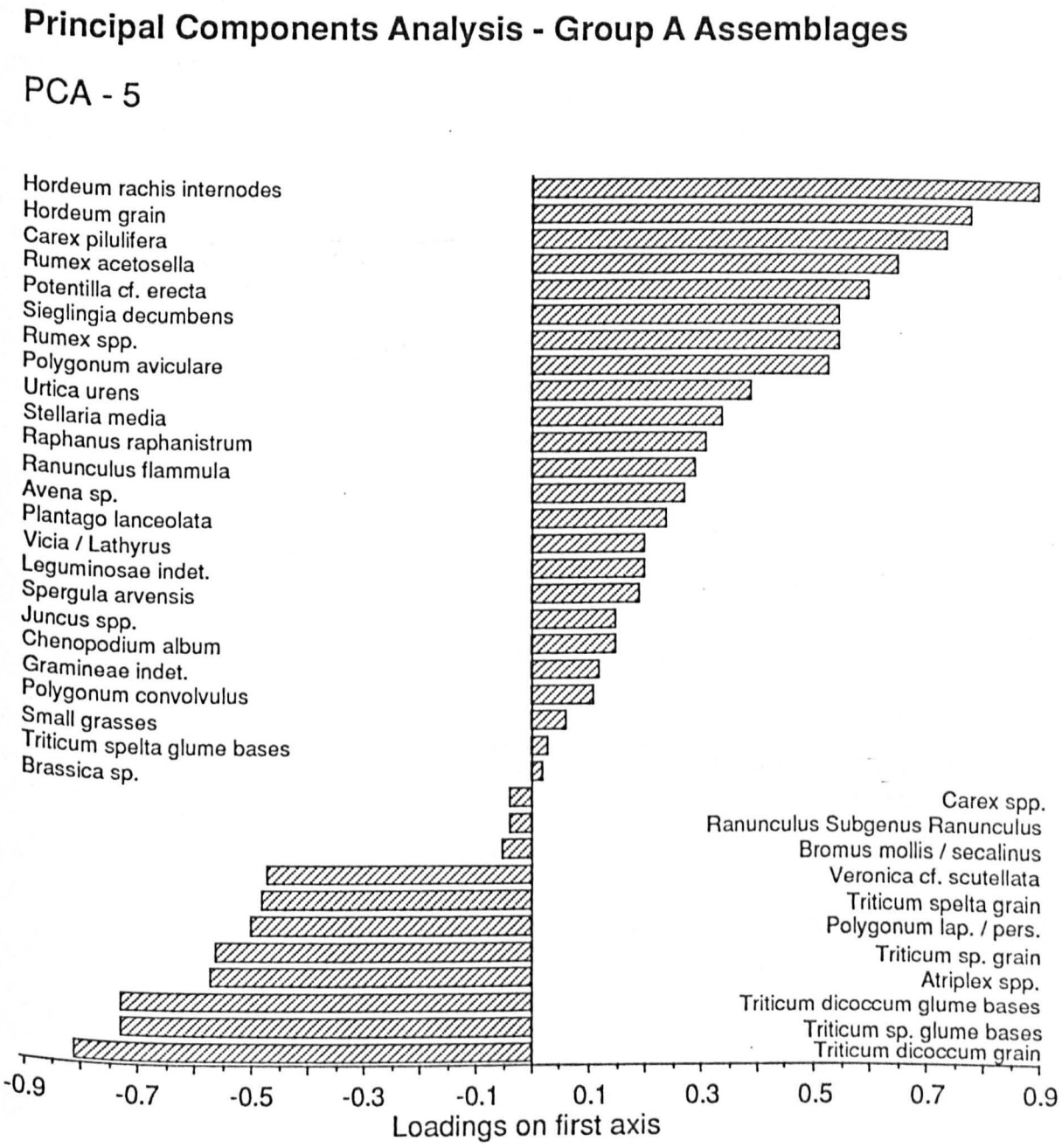


Figure 10.18 Principal component analysis of the Group A assemblages only using both cereals and weed species. Factor loadings on the first axis.

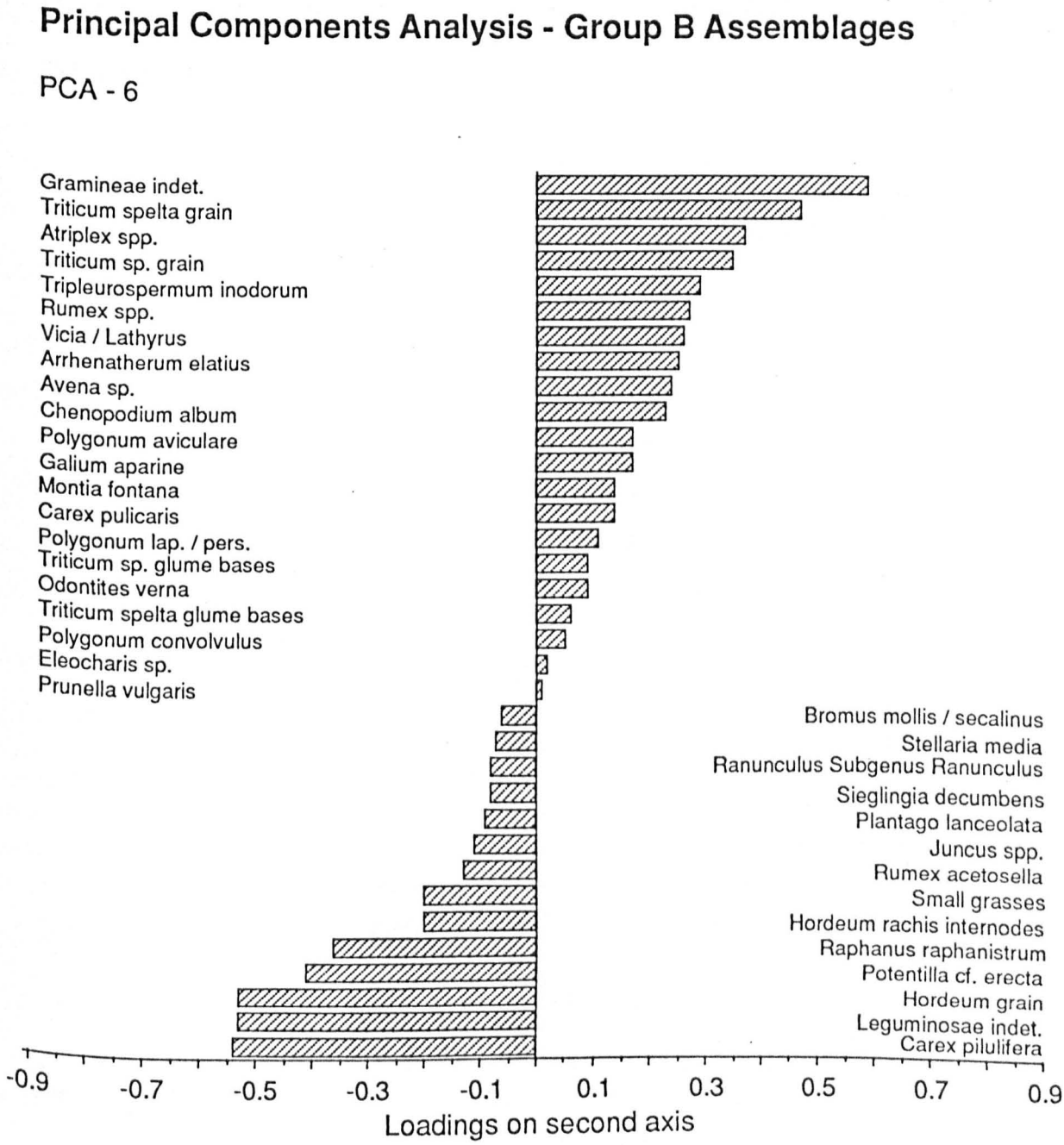


Figure 10.19 Principal components analysis of the Group B assemblages onlyusing both cereals and weed species. Factor loadings on the second axis.

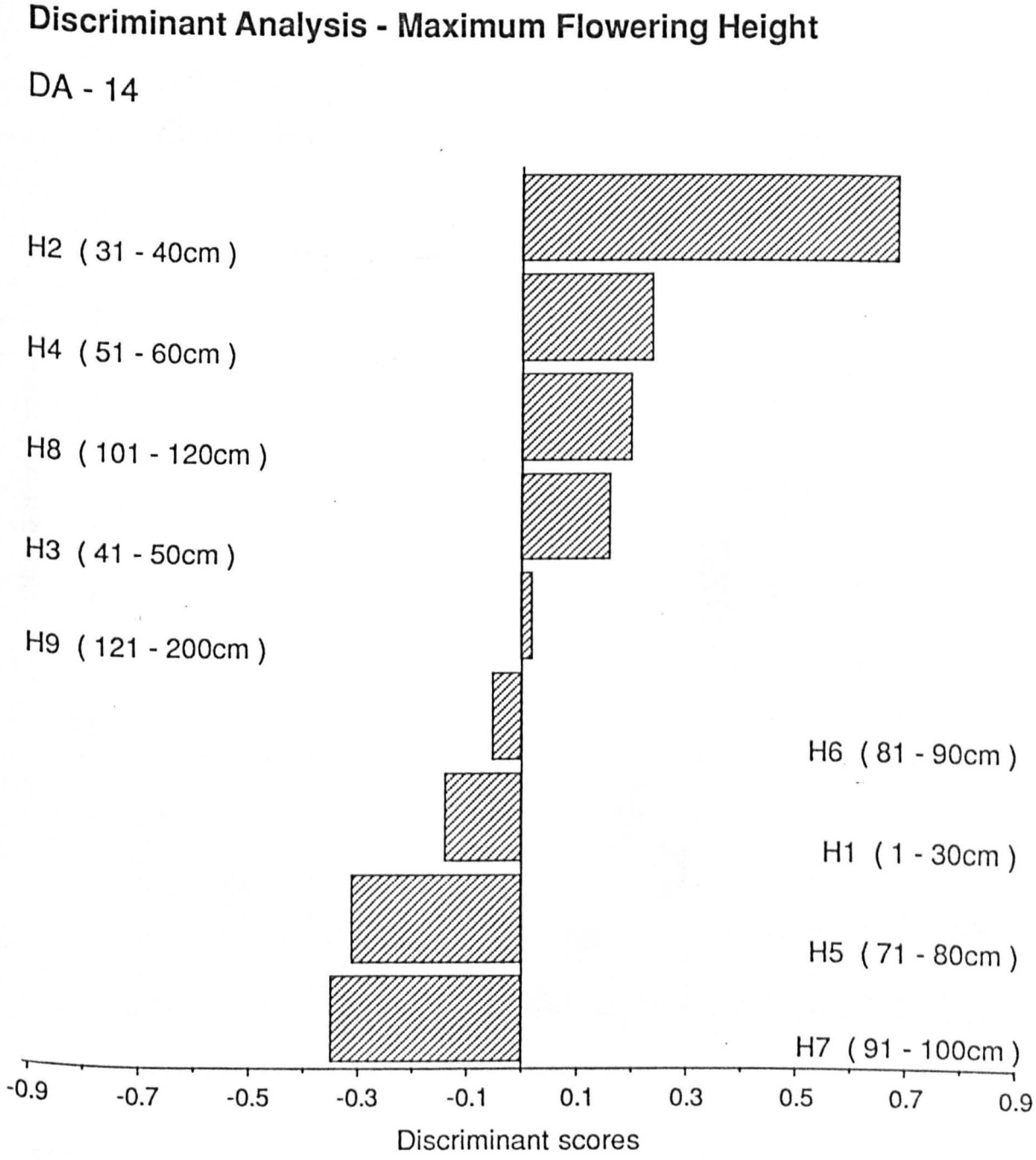


Figure 10.20 Discriminant analysis of the prehistoric assemblages, using the maximum flowering height (after Clapham *et al.* 1962). Group A is associated with negative, Group B with positive discriminant scores.

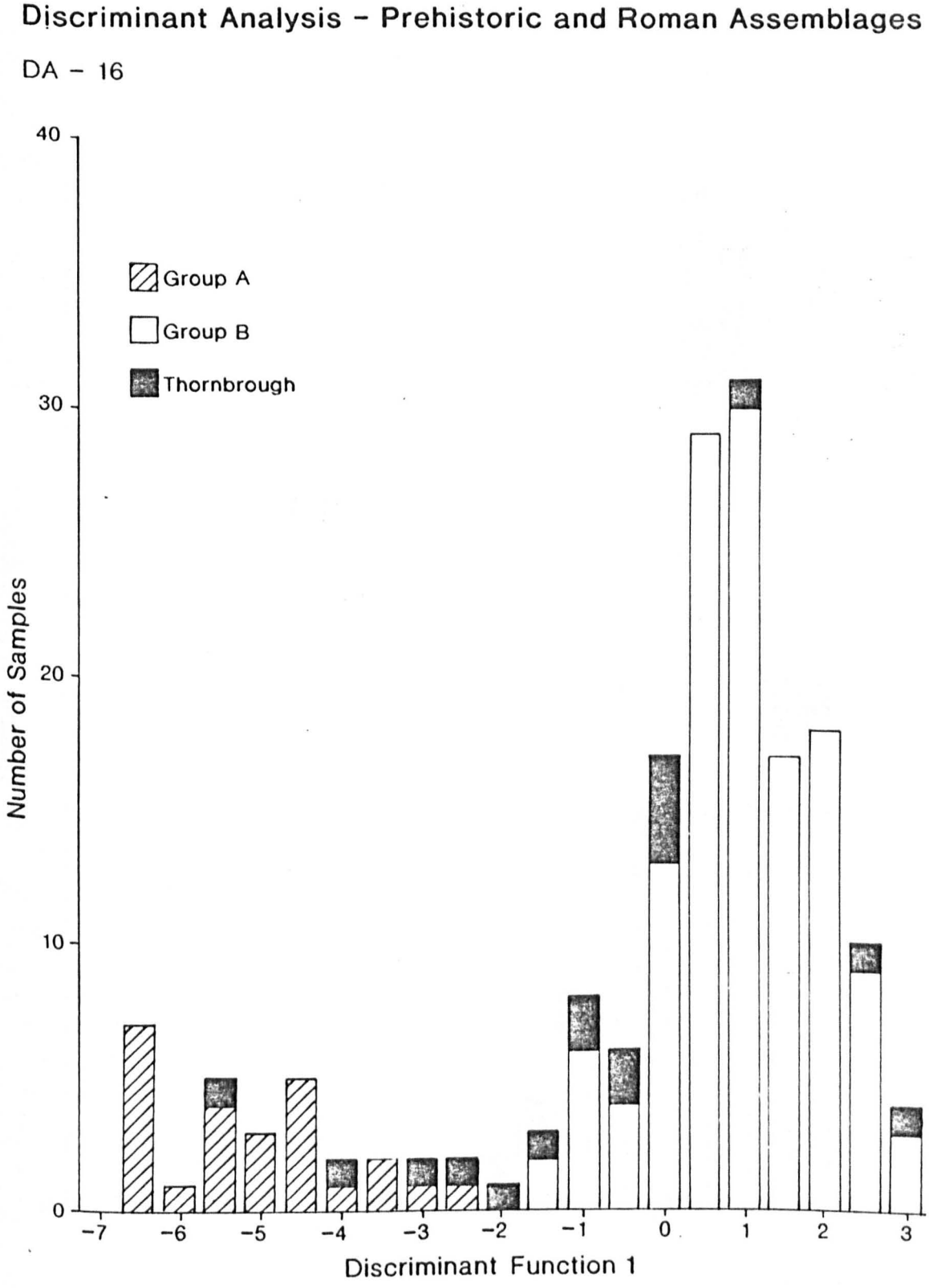


Figure 10.21 Discriminant analysis using Ellenberg's edaphic factors and the life form of the weed species as the variables, and the Group A and Group B assemblages as the control groups to which the samples from Roman period Thornbrough are compared.

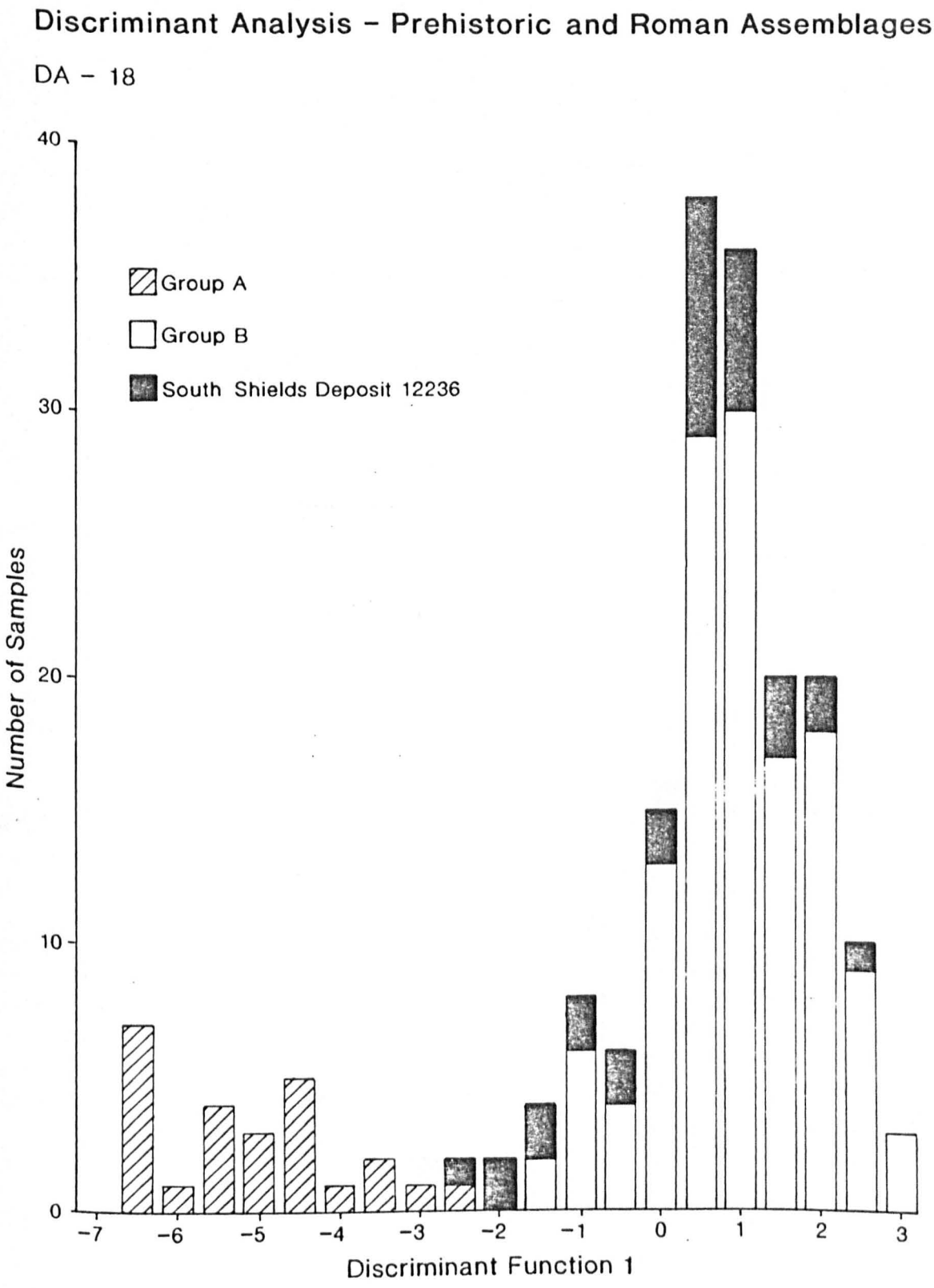


Figure 10.22 Discriminant analysis using Ellenberg's edaphic factors and the life form of the weed species as the variables, and the Group A and Group B assemblages as the control groups to which the samples from Roman South Shields, deposit 12236, are compared.

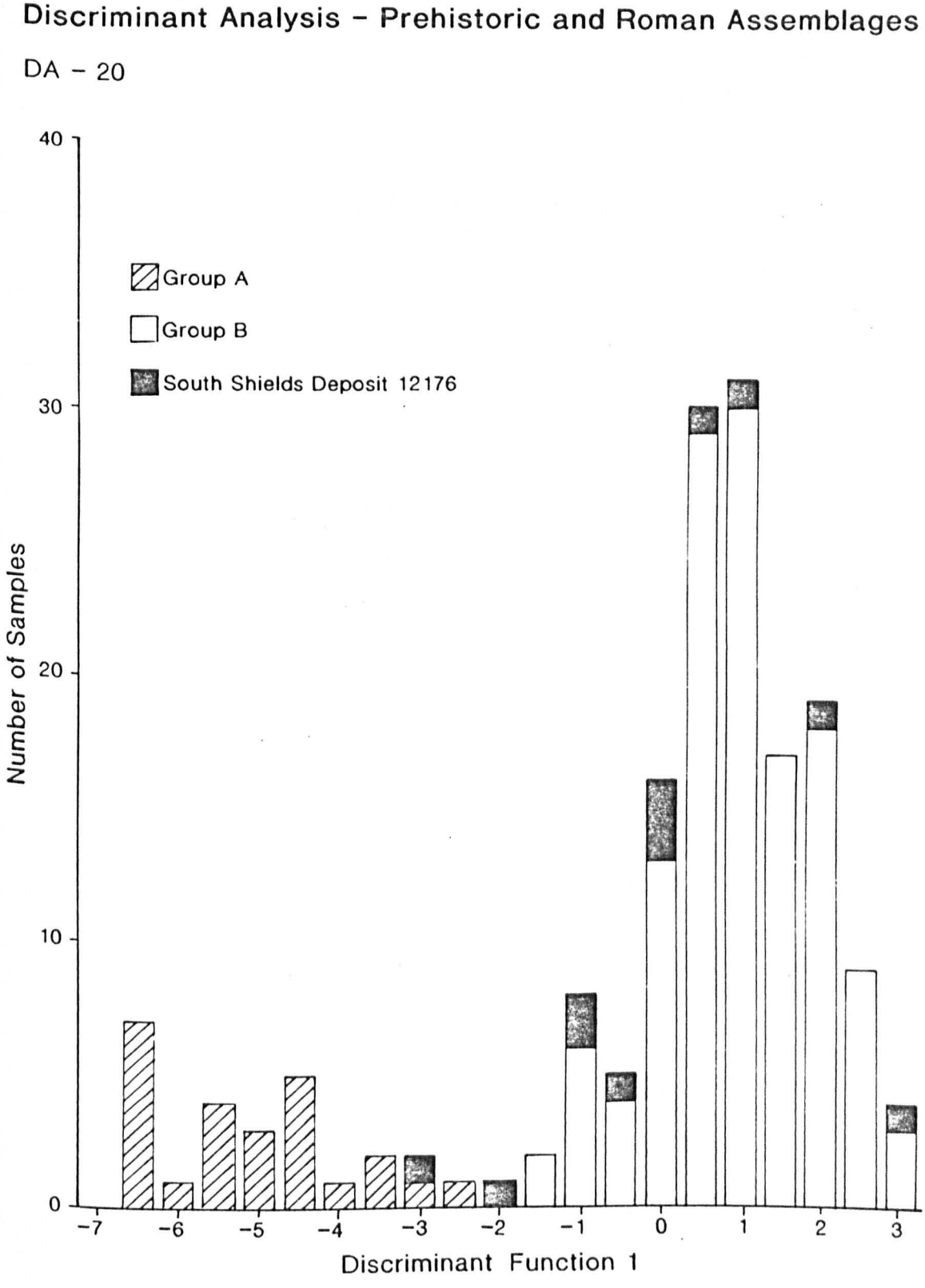


Figure 10.23 Discriminant analysis using Ellenberg's edaphic factors and the life form of the weed species as the variables, and the Group A and Group B assemblages as the control groups to which the samples from Roman South Shields, deposit 12176, are compared.

TABLES

Table 2.1 Location of pollen diagrams in the region.

SITE	GRID REF.	ALTITUDE	REFERENCE
Upland area			
Threepwood Moss	NT 425 515	290 m O.D.	Mannion 1979
Blackpool Moss	NT 517 289	250 m O.D.	Butler in press
The Dod	NT 473 060	215 m O.D.	Shennan and Innes 1986
Camp Hill Moss	NU 100 263	205 m O.D.	Davies and Turner 1979
Broad Moss	NT 963 215	390 m O.D.	Davies and Turner 1979
Steng Moss	NY 965 913	305 m O.D.	Davies and Turner 1979
Coom Rigg Moss	NY 690 790	300 m O.D.	Chapman 1964
Muckle Moss	NY 798 669	200 m O.D.	Pearson 1960
Fellend Moss	NY 679 658	200 m O.D.	Davies and Turner 1979
Steward Shield	NY 983 438	290 m O.D.	Roberts *et al.* 1973
Bollihope Bog	NZ 017 346	290 m O.D.	Roberts *et al.* 1973
Valley Bog	NY 763 331	549 m O.D.	Chambers 1978
Cow Green	NY 810 300	550 m O.D.	Turner *et al.* 1973
Red Sike Moss	NY 820 287	490 m O.D.	Turner *et al.* 1973
Simy Folds	NY 763 549	350 m O.D.	Donaldson 1983
Coastal Plain			
Linton Loch	NT 793 254	92 m O.D.	Mannion 1978
Cranberry Bog	NZ 232 545	90 m O.D.	Turner & Kershaw 1973
Hallowell Moss	NZ 251 439	75 m O.D.	Donaldson & Turner'77
Hutton Henry	NZ 410 350	137 m O.D.	Bartley *et al.* 1976
Thorpe Bulmer	NZ 453 354	100 m O.D.	Bartley *et al.* 1976
Bishop Middleham	NZ 324 304	76 m O.D.	Bartley *et al.* 1976
Nunstainton	NZ 320 295	76 m O.D.	Bartley *et al.* 1976
Mordon Carr	NZ 321 253	80 m O.D.	Bartley *et al.* 1976
Neasham Fen	NZ 332 116	40 m O.D.	Bartley *et al.* 1976

Table 2.2 Calibration of radio-carbon dates dating the start of large-scale forest clearance (Stuiver and Pearson 1986)

	1 SIGMA	2 SIGMA
Steng Moss		
Q-1520	52 cal BC - 86 cal AD	160 cal BC - 176 cal AD
Fellend Moss		
SRR-876	2 cal AD - 110 cal AD	88 cal BC - 132 cal AD
Steward Shield Meadow		
GaK-3/033	350 cal BC - 70 cal AD	390 cal BC - 190 cal AD
Bollihope Bog		
GaK-3/031	140 cal AD - 420 cal AD	80 cal AD - 540 cal AD
Valley Bog		
SRR-88	372 cal BC - 204 cal BC	394 cal BC - 124 cal BC
SRR-89	360 cal BC - 186 cal BC	376 cal BC - 116 cal BC
Hallowell Moss		
SRR-415	42 cal BC - 118 cal AD	114 cal BC - 220 cal AD
Hutton Henry		
SRR-600	84 cal AD - 240 cal AD	12 cal AD - 340 cal AD
Thorpe Bulmer		
SRR-404	168 cal BC - 10 cal BC	350 cal BC - 70 cal AD

Table 2.3 Faunal assemblages from the region (after Haselgrove 1982 with modifications)

		CATTLE	PIG	SHEEP/ GOAT	HORSE	OTHER	SAMPLE SIZE
1.	Doubstead	+	-	+	+	-	<50
2.	Kennel Hall	30	2	3	-	bird	437
3.	Hartburn	+	-	+	+	bird	<50
4.	Burradon	+	+	+	-	-	32
5.	Tynemouth	-	+	+	-	bird	<50
6.	Coxhoe	47%	4%	32%	17%	dog, deer	164
7.	Catcote ('68)	46%	9%	40%	5%	deer	735
8.	Catcote ('89)	51	7	14	4	fish	342
9.	Thorpe Thewles	53%	13%	24%	10%	dog,cat deer,bird	8000
10.	Stanwick ('54)	40%	16%	18%	13%	dog, deer	large
11.	Stanwick ('84)	50%	21%	18%	4%	dog, deer	28MNI

References: 1. Rackham 1982a, 2. Rackham 1978, 3. Hodgson 1973, 4. Hodgson 1970, 5. Hodgson 1967, 6. Rackham 1982b, 7. Hodgson 1968, 8. Gidney 1989, 9. Rackham 1987, 10. Wheeler 1954, 11. Haselgrove 1984.

Table 3.1 List of species present in the samples.

BOTANICAL NAME	ENGLISH NAME
CEREALS	
Triticum dicoccum (Schrank.) Schübl.	emmer wheat
Triticum spelta L.	spelt wheat
Triticum aestivo-compactum Schiem.	bread wheat
Hordeum vulgare L.	six-row barley
Secale cereale L.	rye
WEEDS	
Ranunculus acris L.	meadow buttercup
Ranunculus repens L.	creeping buttercup
Ranunculus Subgenus Ranunculus	-
Ranunculus flammula L.	lesser spearwort
Papaver argemone L.	prickley-headed poppy
Papaver rhoeas/dubium L.	field/long-headed poppy
Papaver sp.	poppy
Raphanus raphanistrum L.	wild radish
Brassica sp.	-
Cruciferae indet.	-
Viola Subgenus Melanium	pansy
Montia fontana, ssp. chondrosperma (Fenzl) Walters	blinks
Stellaria media (L.) Vill.	chickweed
Stellaria palustris Retz.	marsh stitchwort
Spergula arvensis L.	corn spurrey
Agrostemma githago L.	corn cockle
Caryophyllaceae indet.	-
Chenopodium album L.	fat hen
Chenopodium sp.	goosefoot
Atriplex spp.	orache
Chenopodiaceae indet.	-
Malva sylvestris L.	common mallow
Malva sp.	mallow
Linum catharticum L.	purging flax
Vicia hirsuta (L.) S. F. Gray	hairy tare
Vicia/Lathyrus	vetch/pea
Leguminosae indet. (small)	small-seeded legumes
Aphanes arvensis agg.	parsley piert
Potentilla cf. erecta (L.) Räusch	common tormentil
Heracleum spondylium L.	cow parsnip
Conium maculatum L.	hemlock
Anthriscus caucalis Bieb.	bur chervil
Polygonum aviculare agg.	knotgrass
Polygonum convolvulus L. (= Fallopia convolvulus (L.) A. Löve) (= Bilderdykia convolvulus L.)	black bindweed
Polygonum lapathifolium L.	pale persicaria
Polygonum persicaria L.	red shank, persicaria
Polygonum lap/pers	persicaria
Polygonum sp.	-

Table 3.1 (cont.)

Rumex acetosella agg.	sheep's sorrel
Rumex spp.	dock
Polygonaceae indet.	-
Urtica dioica L.	small nettle
Urtica urens L.	stinging nettle
Solanum nigrum L.	black nightshade
Hyoscyamus niger L.	henbane
Odontites verna (Bell.) Dum.	red bartsia
Veronica arvensis L.	wall speedwell
Veronica cf. scutellata L.	marsh speedwell
Rhinanthus sp.	yellow-rattle
Verbascum sp.	mullein
Ajuga reptans L.	bugle
Lamium album/purpureum L.	white/red dead nettle
Stachys arvensis (L.) L.	field woundwort
Mentha arvensis/aquatica L.	mint
Galeopsis sp.	hemp-nettle
Prunella vulgaris L.	self heal
Plantago lanceolata L.	ribwort plantain
Plantago major L.	great plantain
Galium aparine L.	goosegrass
Galium palustre L.	marsh bedstraw
Sherardia arvensis L.	field madder
Valerianella dentata (L.) Poll.	lamb's lettuce
Tripleurospermum inodorum (L.) Schultz Bip.	scentless mayweed
Lapsana communis L.	nipplewort
Sonchus asper (L.) Hill	sow-thistle
Hypocheris glabra/radicata L.	cat's ear
Centaurea cf. cyanus L.	cornflower
Compositae indet.	-
Avena sp.	oat
Bromus mollis/secalinus	bromegrass
Bromus sterilis L. (=Anisantha sterilis (L.) Nevski)	barren brome
Sieglingia decumbens (L.)Bernh. (= Danthonia decumbens (L.) DC.)	heath grass
small grasses (including Poa annua)	
Gramineae indet.	grasses
Arrhenatherum elatius, ssp. bulbosum (Willd.) Spenn.	onion couch
rhizomes Gramineae indet.	-
Juncus squarrosus L.	heath rush
Juncus sp., capsule	rush
Eleocharis sp.	spike-rush
Isolepis setacea (L.) R. Br.	bristle scirpus
Carex pilulifera L.	pill-headed sedge
Carex pulicaris L.	flea sedge
Carex spp.	sedge

Table 3.1 (cont.)

OTHER	
Linum cf. usitatissimum L.	flax
Corylus avellana L.	hazelnut
Crataegus cf. monogyna Jacq.	hawthorn
Prunus spinosa L.	sloe
Sambucus nigra L.	elderberry
tree buds indet.	-
Rosa sp.	rose
Rubus fruticosus agg.	blackberry
Rubus sp.	blackberry/raspberry
Thelycrania sanguinea (L.) Fourr. (=Cornus sanguinea L.)	dogwood
Calluna vulgaris (L.) Hull, leafshoots	heather
Calluna vulgaris (L.) Hull, flowers	heather
Erica sp., flowers	heather
Vaccinium myrtillus L.	bilberry
Empetrum nigrum L.	crowberry
Pteridium aquilinium (L.) Kuhn, fronds	bracken
Lycopus europaeus L.	gipsy-wort
Viola Subgenus Viola	violet
Caltha palustris L.	marsh marigold
Menyanthes trifoliata L.	bogbean
Potamogeton spp.	pondweed

Table 3.2 List of abbreviations used in the data tables.

ABBREVIATION	BOTANICAL NAME
CEREALS	
Trit dico	Triticum dicoccum (Schrank.) Schübl.
Trit spel	Triticum spelta L.
Trit aest	Triticum aestivo-compactum Schiem.
Trit sp.	Triticum sp.
Hord vulg	Hordeum vulgare L.
Seca cere	Secale cereale L.
Cere inde	Cerealia indet.
coleopti.	detached coleoptiles
CHAFF	
glum dico	glume bases Triticum dicoccum
glum spel	glume bases Triticum spelta
glum inde	glume bases Triticum sp.
glumes	glume fragments Triticum sp.
rach brit	rachis internodes of a brittle rachis wheat
rach aest	rachis internodes Triticum aestivum
base Trit	basal nodes Triticum sp.
rach Hord	rachis internodes Hordeum vulgare
base Hord	basal nodes Hordeum sp.
flor Avef	floret bases Avena fatua
flor Aven	floret bases Avena sp.
awns Aven	awn fragments Avena sp.
culm node	culm nodes cereals/large grasses
awns Trit	awn fragments Triticum sp.
lemm Hord	lemma fragents Hordeum sp.
chaf inde	chaff fragments indet.
rach Seca	rachis internodes Secale cereale
WEEDS	
Ranu acri	Ranunculus acris L.
Ranu repe	Ranunculus repens L.
Ranu Ranu	Ranunculus Subgenus Ranunculus
Ranu flam	Ranunculus flammula L.
Papa arge	Papaver argemone L.
Papa rh/d	Papaver rhoeas/dubium L.
Papa sp.	Papaver sp.
Raph Raph	Raphanus raphanistrum L.
Bras sp.	Brassica sp.
Crucif.	Cruciferae indet.
Viol Mela	Viola Subgenus Melanium (DC.) Hegi
Mont font	Montia fontana, ssp. chondrosperma (Fenzl)
Stel medi	Stellaria media (L.) Vill. /Walters
Stel palu	Stellaria palustris Retz.
Sper arve	Spergula arvensis L.
Agro gith	Agrostemma githago L.
Caryoph.	Caryophyllaceae indet.
Chen albu	Chenopodium album L.
Chen sp.	Chenopodium sp.
Atri spp.	Atriplex spp.
Chenop.	Chenopodiaceae indet.

Table 3.2 (cont.)

Malv sylv	Malva sylvestris L.
Malv sp.	Malva sp.
Linu cath	Linum catharticum L.
Vici hirs	Vicia hirsuta (L.) S. F. Gray
Vici Lath	Vicia/Lathyrus
Legumin.	Leguminosae indet. (small)
Apha arve	Aphanes arvensis agg.
Pote erec	Potentilla cf. erecta (L.) Räusch
Hera spon	Heracleum spondylium L.
Coni macu	Conium maculatum L.
Anth cauc	Anthriscus caucalis Bieb.
Poly avic	Polygonum aviculare agg.
Poly conv	Polygonum convolvulus L.
Poly lapa	Polygonum lapathifolium L.
Poly pers	Polygonum persicaria L.
Poly l/p	Polygonum lapathifolium/persicaria
Poly sp.	Polygonum sp.
Rume acet	Rumex acetosella agg.
Rume spp.	Rumex spp.
Polygon.	Polygonaceae indet.
Urti dioc	Urtica dioica L.
Urti uren	Urtica urens L.
Sola nigr	Solanum nigrum L.
Hyos nige	Hyoscyamus niger L.
Odon vern	Odontites verna (Bell.) Dum.
Vero arve	Veronica arvensis L.
Vero scut	Veronica cf. scutellata L.
Rhin sp.	Rhinanthus sp.
Verb sp.	Verbascum sp.
Ajug rept	Ajuga reptans L.
Lami a/p	Lamium album/purpureum L.
Stac arve	Stachys arvensis (L.) L.
Ment a/a	Mentha arvensis/aquatica L.
Gale sp.	Galeopsis sp.
Prun vulg	Prunella vulgaris L.
Plan lanc	Plantago lanceolata L.
Plan majo	Plantago major L.
Gali apar	Galium aparine L.
Gali palu	Galium palustre L.
Sher arve	Sherardia arvensis L.
Vale dent	Valerianella dentata (L.) Poll.
Trip inod	Tripleurospermum inodorum (L.) Schultz Bip.
Laps comm	Lapsana communis L.
Sonc aspe	Sonchus asper (L.) Hill
Hypo g/r	Hypocheris glabra/radicata L.
Cent cyan	Centaurea cf. cyanus L.
Compos.	Compositae indet.
Aven sp.	Avena sp.
Brom m/s	Bromus mollis/secalinus
Brom ster	Bromus sterilis L.
Sieg decu	Sieglingia decumbens (L.)Bernh.
smal gras	small grasses (including Poa annua)
Gramin.	Gramineae indet.

Table 3.2 (cont.)

WEEDS	
Arrh elat	Arrhenatherum elatius, ssp. bulbosum
rhiz Gram	rhizomes Gramineae indet. /(Willd.) Spenn.
Junc squa	Juncus squarrosus L.
Junc sp.	Juncus sp., capsule
Eleo sp.	Eleocharis sp.
Isol seta	Isolepis setacea (L.) R. Br.
Care pilu	Carex pilulifera L.
Care puli	Carex pulicaris L.
Care spp.	Carex spp.
OTHER	
Linu usit	Linum cf. usitatissimum L.
Cory avel	Corylus avellana L.
Crat mono	Crataegus cf. monogyna Jacq.
Prun spin	Prunus spinosa L.
Samb nigr	Sambucus nigra L.
tree buds	tree buds indet.
Rosa sp.	Rosa sp.
Rubu frut	Rubus fruticosus agg.
Rubu sp.	Rubus sp.
Thel sang	Thelycrania sanguinea (L.) Fourr.
Call leaf	Calluna vulgaris (L.) Hull, leafshoots
Call flow	Calluna vulgaris (L.) Hull, flowers
Eric flow	Erica sp., flowers
Vacc myrt	Vaccinium myrtillus L.
Empe nigr	Empetrum nigrum L.
Pter aqui	Pteridium aquilinium (L.) Kuhn, fronds
Lyco euro	Lycopus europaeus L.
Viol Viol	Viola Subgenus Viola
Calt palu	Caltha palustris L.
Meny trif	Menyanthes trifoliata L.
Pota spp.	Potamogeton spp.

Table 3.3 Relative proportions of weed species in >10% of the samples.

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	303	890	3,556	431	598	635	892
WEEDS									
Ranu acri	.00	.00	.00	.00	.01	.00	.00	.00	.00
Ranu repe	.00	.00	.13	.00	.04	.04	.03	.20	.00
Ranu Ranu	2.05	.21	.00	37.12	.29	.28	.36	.41	.00
Ranu flam	.00	.43	.13	.00	.19	.00	.10	.20	.06
Raph raph	.00	.21	.26	.00	.06	.48	.13	1.42	1.91
Mont font	.00	.00	.06	.00	13.31	1.37	1.30	.20	.13
Stel medi	2.05	10.26	1.47	.00	.29	.76	3.45	.20	.25
Chen albu	14.36	13.03	28.01	.76	2.73	3.02	2.02	3.25	.06
Chen sp.	1.03	6.84	24.74	1.52	1.09	.80	4.62	1.02	.38
Atri spp.	6.67	.85	.45	.76	.91	.20	1.71	.61	.32
Chenop.	.00	.00	.00	1.52	.50	.16	.10	.00	.00
Vici Lath	.00	.43	.51	2.27	.24	.24	3.73	.61	1.53
Legumin.	3.08	1.50	.96	6.06	2.40	6.24	10.34	1.63	1.27
Pote erec	.00	.85	.71	.00	.50	1.61	1.10	.61	.13
Poly avic	.00	1.92	.77	.00	.52	.40	1.71	1.63	.00
Poly conv	.51	.43	.45	.76	.18	.28	.28	1.02	.06
Poly lapa	6.15	2.56	.96	.76	.32	.12	.03	.61	.06
Poly pers	6.15	2.35	1.28	.76	.24	.16	.03	.41	.00
Poly l/p	3.59	.43	.90	1.52	.17	.16	.13	.81	.00
Rume acet	.51	.64	1.47	2.27	.13	1.57	.43	1.22	.83
Rume spp.	2.05	1.28	1.92	.00	3.39	12.11	.94	.61	8.21
Odon vern	.00	.00	.00	.00	.17	.12	.03	.00	.06
Prun vulg	.00	.21	.00	.00	.15	.08	.08	.20	.00
Plan lanc	1.54	1.28	1.67	.76	.38	.52	.79	1.63	.38
Gali apar	.00	.00	.06	.00	.55	.89	2.02	1.02	1.59
Trip inod	.00	.21	.00	.00	1.35	.52	5.46	.41	.06
Aven sp.	1.54	.21	.96	5.30	.65	.08	.92	1.02	10.31
Brom m/s	4.10	.64	1.28	3.03	11.84	17.87	4.72	47.76	44.75
Sieg decu	.51	2.99	.71	11.36	35.22	30.14	28.55	4.47	16.23
smal gras	23.59	20.09	17.88	10.61	5.14	9.50	15.37	6.71	1.85
Gramin.	7.18	5.56	1.41	4.55	7.58	1.21	2.40	10.98	1.08
Arrh elat	.00	.00	.06	.00	.45	.00	.08	1.63	.00
Eleo sp.	.00	.00	.00	.00	.18	.20	.10	.41	.19
Junc sp.	.51	.00	.83	1.52	.01	.12	.54	.20	.00
Care pilu	.00	1.50	1.41	.76	.23	2.09	.54	.41	.64
Care puli	.00	2.78	.00	.00	.43	.00	.00	.00	.13
Care spp.	12.82	20.30	8.53	6.06	8.15	6.64	5.87	6.50	7.51

Table 3.4 Number of seeds per 1 litre of sieved sediment of weed species in >10% of the samples.

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
WEEDS									
Ranu acri	.00	.00	.00	.00	.00	.00	.00	.00	.00
Ranu repe	.00	.00	.01	.00	.00	.00	.00	.00	.00
Ranu Ranu	.02	.01	.00	.06	.01	.02	.02	.00	.00
Ranu flam	.00	.03	.01	.00	.01	.00	.01	.00	.00
Raph raph	.00	.01	.01	.00	.00	.03	.01	.01	.03
Mont font	.00	.00	.00	.00	.51	.08	.09	.00	.00
Stel medi	.02	.71	.07	.00	.01	.04	.23	.00	.00
Chen albu	.11	.90	1.42	.00	.10	.17	.13	.03	.00
Chen sp.	.01	.47	1.25	.00	.04	.05	.30	.01	.01
Atri spp.	.05	.06	.02	.00	.03	.01	.11	.00	.01
Chenop.	.00	.00	.00	.00	.02	.01	.01	.00	.00
Vici Lath	.00	.03	.03	.00	.01	.01	.24	.00	.03
Legumin.	.02	.10	.05	.01	.09	.36	.68	.01	.02
Pote erec	.00	.06	.04	.00	.02	.09	.07	.00	.00
Poly avic	.00	.13	.04	.00	.02	.02	.11	.01	.00
Poly conv	.00	.03	.02	.00	.01	.02	.02	.01	.00
Poly lapa	.05	.18	.05	.00	.01	.01	.00	.00	.00
Poly pers	.05	.16	.06	.00	.01	.01	.00	.00	.00
Poly l/p	.03	.03	.05	.00	.01	.01	.01	.01	.00
Rume acet	.00	.04	.07	.00	.00	.09	.03	.01	.01
Rume spp.	.02	.09	.10	.00	.13	.70	.06	.00	.14
Odon vern	.00	.00	.00	.00	.01	.01	.00	.00	.00
Prun vulg	.00	.01	.00	.00	.01	.00	.01	.00	.00
Plan lanc	.01	.09	.08	.00	.01	.03	.05	.01	.01
Gali apar	.00	.00	.00	.00	.02	.05	.13	.01	.03
Trip inod	.00	.01	.00	.00	.05	.03	.36	.00	.00
Aven sp.	.01	.01	.05	.01	.02	.00	.06	.01	.18
Brom m/s	.03	.04	.06	.00	.45	1.03	.31	.37	.79
Sieg decu	.00	.21	.04	.02	1.35	1.74	1.87	.03	.29
smal gras	.18	1.38	.91	.02	.20	.55	1.01	.05	.03
Gramin.	.06	.38	.07	.01	.29	.07	.16	.09	.02
Arrh elat	.00	.00	.00	.00	.02	.00	.01	.01	.00
Eleo sp.	.00	.00	.00	.00	.01	.01	.01	.00	.00
Junc sp.	.00	.00	.04	.00	.00	.01	.04	.00	.00
Care pilu	.00	.10	.07	.00	.01	.12	.04	.00	.01
Care puli	.00	.19	.00	.00	.02	.00	.00	.00	.00
Care spp.	.10	1.40	.43	.01	.31	.38	.38	.05	.13

Table 3.5 Coefficient of skewness for the distribution of the variables present in >10 % of the samples in the prehistoric assemblages.

	COEFFICIENT OF SKEWNESS		
TRANSFORMATION:	%	SQRT%	OCTAVE SCALE%
GRAIN			
Triticum dicoccum	4.4	3.6	3.2
Triticum spelta	3.7	0.7	0.1
Triticum sp.	1.0	-0.1	-0.7
Hordeum vulgare	0.6	-0.7	-2.3
CHAFF			
glume bases Triticum dicoccum	2.9	2.2	1.9
glume bases Triticum spelta	-0.2	-1.1	-2.0
glume bases Triticum sp.	0.2	-1.4	-3.1
rachis internodes Hordeum	2.9	1.2	0.3
WEEDS			
Ranunculus Subgenus Ranunculus	6.4	2.1	1.5
Ranunculus flammula	5.6	3.5	3.8
Raphanus raphanistrum	3.6	2.7	2.8
Stellaria media	3.9	1.6	1.1
Montia fontana	3.2	1.1	-0.1
Chenopodium album	2.8	1.2	-0.4
Atriplex spp.	6.4	2.2	1.2
Vicia/Lathyrus	3.7	2.0	1.7
Leguminosae indet.	2.7	0.6	-0.3
Potentilla cf. erecta	5.7	1.7	1.3
Polygonum aviculare	2.0	1.0	1.0
Polygonum convolvulus	6.1	2.6	2.5
Polygonum lapathifolium/persicaria 3.5	1.8	1.0	
Rumex acetosella	4.5	2.4	2.1
Rumex spp.	2.4	0.7	0.2
Odontites verna	5.3	3.5	3.6
Prunella vulgaris	7.0	3.6	4.0
Plantago lanceolata	4.7	1.7	1.2
Galium aparine	1.9	0.9	0.9
Tripleurospermum inodorum	2.5	1.2	0.9
Avena sp.	5.1	1.9	1.7
Bromus mollis/secalinus	2.3	0.3	-1.0
Sieglingia decumbens	-0.2	-1.1	-1.9
small grasses	1.9	0.4	-1.2
Arrhenatherum elatius	4.1	2.1	2.0
Gramineae indet.	1.5	-0.1	-0.7
Eleocharis sp.	3.9	2.3	2.4
Carex pilulifera	5.6	2.0	1.5
Carex pulicaris	4.8	3.2	3.3
Carex spp.	1.9	0.1	-1.6
Juncus spp.	5.8	2.8	2.5

Table 4.1 Sample contexts from Hallshill.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
16	fill of posthole	2
17	fill of posthole	2
18	fill of posthole	10
19	fill of posthole	2
20	fill of posthole	2
21	fill of posthole	11
24	fill of posthole	8
26	fill of posthole	12
27	fill of posthole	10
28	fill of posthole	12
30	fill of posthole	13
8	area of burning (hearth?)	70
23A	fill of pit	10
23B	fill of pit	10
23C	fill of pit	10
23D	fill of pit	10
23E	fill of pit	10
23F	fill of pit	10
23G	fill of pit	4
25L	lower fill of pit	17
25U	upper fill of pit	17
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	252

Table 4.2a Carbonized seeds from Hallshill.

CONTEXTS:	16	17	18	19	20	21	24	26	27	28	30	sub-total
VOL. IN LITRES:	2	2	10	2	2	11	8	12	10	12	13	84
GRAIN												
Trit dico	.	.	1	.	.	2	.	1	.	.	.	4
Trit spel	.	.	.	.	.	.	.	.	.	.	.	.
Trit sp.	.	.	2	1	.	.	.	.	.	.	.	3
Hord vulg	.	1	2	.	.	1	.	.	.	.	2	6
Cere inde	.	.	.	.	.	2	1	2	.	3	2	10
CHAFF												
glum dico	1	.	91	.	.	21	8	81	54	27	27	310
glum spel	.	.	4	.	.	.	1	.	.	.	7	12
glum inde	.	.	44	.	.	9	5	23	20	11	43	155
rach brit	.	.	4	.	.	.	1	4	11	1	9	30
base Trit	.	.	.	.	.	.	.	.	2	.	1	3
rach Hord	.	.	9	1	.	4	.	1	2	1	3	21
awns Aven	.	.	.	.	.	.	.	.	2	.	.	2
culm node	.	.	.	.	.	.	.	.	.	.	.	.
WEEDS												
Ranu Ranu	.	.	.	.	.	.	.	.	1	.	.	1
Bras sp.	.	.	.	.	.	.	.	1	.	.	.	1
Stel medi	.	.	.	.	.	1	.	.	1	.	.	2
Sper arve	.	.	.	.	.	.	.	.	.	.	.	.
Atri spp.	.	.	3	.	.	.	.	.	.	.	1	4
Chen albu	1	.	2	.	.	.	.	2	2	.	1	8
Chen sp.	.	.	1	.	.	.	.	.	.	.	.	1
Legumin.	.	.	.	.	.	.	.	1	.	1	.	2
Poly conv	.	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	1	.	.	.	2	.	1	.	1	5
Poly pers	.	.	1	.	.	.	.	.	.	.	1	2
Poly l/p	.	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	1	.	.	1
Rume spp.	.	.	.	.	.	.	.	.	.	.	.	.
Vero scut	.	.	.	.	.	.	.	.	.	.	.	.
Ajug rept	.	.	.	.	.	.	.	.	.	1	.	1
Stac arve	.	.	.	.	.	.	.	.	.	.	.	.
Plan majo	.	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	.	.	.	.	.	.	.	.	.	.
Brom m/s	.	.	.	.	.	.	1	.	.	.	1	2
Aven sp.	1	.	.	.	.	.	.	.	.	.	.	1
Sieg decu	.	.	.	.	.	1	.	.	.	.	.	1
smal gras	.	.	.	.	.	1	.	1	7	.	2	11
Gramin.	.	.	.	.	.	.	1	.	.	.	.	1
rhiz Gram	.	.	.	.	1	.	.	.	.	.	.	1
Care spp.	.	.	.	.	2	.	.	1	.	.	1	4
Junc sp.	.	.	.	.	.	.	.	.	.	.	.	.

Table 4.2a (cont.)

CONTEXTS:	16	17	18	19	20	21	24	26	27	28	30	sub-total
VOL. IN LITRES:	2	2	10	2	2	11	8	12	10	12	13	84
OTHER												
Linu usit	.	.	1	.	.	.	.	.	.	.	.	1
Rubu sp.	.	.	.	.	.	.	.	.	1	.	.	1
Cory avel	.	.	1	.	.	.	4	2	1	2	3	13
Lyco euro	.	.	.	.	.	.	.	.	3	.	.	3
Call leaf	.	.	.	.	.	.	.	.	.	.	.	.
Eric flow	.	.	.	.	.	.	.	.	.	.	.	.
Pter aqui	.	.	.	.	.	.	.	.	.	.	1	1
INDET.	.	.	1	2	.	2	1	.	2	1	4	13
TOTAL	3	1	168	4	3	44	25	120	111	48	110	637

Table 4.2b Carbonized seeds from Hallshill.

CONTEXTS:	8	23A	23B	23C	23D	23E	23F	23G	25L*	25U*	TOTAL
VOL. IN LITRES:	70	10	10	10	10	10	10	4	17	17	252
GRAIN											
Trit dico	18	7	4	2	5	4	1	.	23	36	104
Trit spel	2	.	.	1	.	1	1	.	6	18	29
Trit sp.	33	.	6	4	2	1	1	.	16	57	123
Hord vulg	6	4	6	.	5	2	1	1	4	5	40
Cere inde	29	5	7	5	7	10	3	2	36	63	177
CHAFF											
glum dico	5	86	38	70	98	58	90	12	133	157	1057
glum spel	.	3	1	3	4	2	2	.	3	5	35
glum inde	.	100	51	58	139	81	98	22	117	176	997
rach brit	2	9	5	8	23	11	7	5	18	24	142
base Trit	.	.	.	2	.	.	1	.	.	.	6
rach Hord	.	6	.	2	3	4	6	.	4	2	48
awns Aven	.	1	.	1	1	1	1	.	.	.	7
culm node	.	3	1	.	.	1	.	1	.	.	6
WEEDS											
Ranu Ranu	.	1	.	.	.	2	.	.	.	.	4
Bras sp.	.	.	.	.	.	.	.	.	.	.	1
Stel medi	.	.	.	1	.	1	.	.	.	.	4
Sper arve	.	.	.	.	.	.	.	.	.	1	1
Atri spp.	.	1	2	.	2	1	2	.	.	1	13
Chen albu	.	.	5	2	5	2	4	.	2	.	28
Chen sp.	.	.	.	.	.	.	1	.	.	.	2
Legumin.	.	.	.	2	2	.	.	.	.	.	6
Poly conv	.	.	.	.	1	.	.	.	.	.	1
Poly lapa	.	1	1	.	1	2	1	.	1	.	12
Poly pers	.	.	2	.	1	3	1	2	1	.	12
Poly l/p	.	.	1	.	3	1	1	.	.	1	7
Rume acet	.	.	.	.	.	.	.	.	.	.	1
Rume spp.	2	.	1	.	1	.	.	.	.	.	4
Vero scut	.	.	.	3	4	3	2	.	.	.	12
Ajug rept	.	.	1	.	.	1	.	.	.	.	3
Stac arve	.	.	.	.	1	.	.	.	.	.	1
Plan majo	.	.	.	.	1	2	.	.	.	.	3
Plan lanc	1	.	.	1	.	.	.	.	1	.	3
Brom m/s	.	1	.	.	2	2	.	.	.	1	8
Aven sp.	1	.	.	.	1	.	.	.	.	.	3
Sieg decu	.	.	.	.	.	.	.	.	.	.	1
smal gras	.	4	7	.	3	7	2	1	5	6	46
Gramin.	.	1	1	.	5	.	1	2	2	1	14
rhiz Gram	.	.	.	.	.	.	.	.	.	.	1
Care spp.	.	4	.	1	4	5	2	1	2	2	25
Junc sp.	.	1	.	.	.	.	.	.	.	.	1

Table 4.2b (cont.)

CONTEXTS:	8	23A	23B	23C	23D	23E	23F	23G	25L*	25U*	TOTAL
VOL. IN LITRES:	70	10	10	10	10	10	10	4	17	17	252
OTHER											
Linu usit	.	.	.	.	.	.	.	.	1	.	2
Rubu sp.	1	.	.	.	.	.	.	1	.	.	3
Cory avel	.	5	5	.	9	8	.	1	2	1	44
Lyco euro	.	.	.	.	.	.	.	.	.	.	3
Call leaf	.	.	.	.	1	.	.	1	.	.	2
Eric flow	.	.	.	.	1	.	.	.	.	.	1
Pter aqui	.	7	3	7	6	7	8	5	.	.	44
INDET.	.	4	2	1	5	7	3	.	.	2	37
TOTAL	100	254	150	174	346	230	240	57	377	559	3124

KEY: * = only 25 per cent of this sample analysed.

Table 4.3 Sample contexts from Murton.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
617	fill of palisade trench P1	1
623	from floor area of timber-built house T9, occupation earth sealed by paved floor of stone-built house S7	20
624	from earth incorporated into wall of stone-built house S7, probably derived from context 623	20
625	from earth beneath enclosure wall and over filled innner ditch	20
630	from fill of post hole of timber-built house T9, sealed by paved floor of stone-built house S7	1.5
631	from fill of unlined pit sealed by paved floor	1
633	fill of posthole of timber-built house T9, sealed by paved floor of stone-built house S7	1.5
636	from fill of clay lined pit in floor area of timber-built house T9, sealed by paved floor of stone-built house S7	1
638	from fill of unlined pit sealed by paved floor of stone-built house S7	1
639	from fill of clay lined pit, probably associated with timber-built house T3, sealed by paved floor of stone-built house S1	1
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	68

Table 4.4 Carbonized seeds from Murton.

CONTEXTS:	617	623	624	625	630	631	633	636	638	639	TOTAL
VOL. IN LITRES:	1	20	20	20	1.5	1	1.5	1	1	1	68
GRAIN											
Trit dico	.	1	.	1	.	.	.	.	.	.	2
Trit spel	.	.	.	2	.	.	.	.	.	.	2
Trit sp.	.	.	1	5	.	.	.	.	.	.	6
Hord vulg	.	34	49	28	14	1	3	4	5	3	141
Cere inde	.	12	20	31	3	.	2	1	3	2	74
CHAFF											
glum dico	2	6	7	21	.	.	.	.	1	.	37
glum spel	.	.	2	16	.	.	.	.	.	.	18
glum Trit	.	4	4	16	.	.	.	.	.	.	24
glumes	.	.	.	1	.	.	.	.	.	.	1
rach brit	.	2	2	8	1	.	.	1	.	1	15
rach Hord	.	39	28	12	6	1	1	6	2	9	104
base Hord	.	.	.	.	.	.	.	2	.	.	2
chaf inde	.	.	.	2	.	.	.	.	.	.	2
WEEDS											
Ranu flam	.	.	1	1	.	.	.	.	.	.	2
Ranu Ranu	.	.	1	.	.	.	.	.	.	.	1
Raph raph	.	.	.	.	.	.	.	.	.	1	1
Stel medi	.	1	46	1	.	.	.	.	.	.	48
Sper arve	.	.	1	.	.	.	.	.	.	.	1
Chen albu	.	4	18	28	.	.	9	2	.	.	61
Chen sp.	.	2	5	24	.	.	.	.	.	1	32
Atri spp.	.	.	.	4	.	.	.	.	.	.	4
Vici Lath	.	.	1	1	.	.	.	.	.	.	2
Legumin.	.	1	2	2	2	.	.	.	.	.	7
Pote erec	.	1	3	.	.	.	.	.	.	.	4
Poly avic	.	.	7	1	.	.	1	.	.	.	9
Poly conv	.	.	1	1	.	.	.	.	.	.	2
Poly lapa	1	1	5	5	.	.	.	.	.	.	12
Poly pers	.	2	6	2	.	.	1	.	.	.	11
Poly l/p	.	.	.	2	.	.	.	.	.	.	2
Poly sp.	.	1	.	.	.	.	.	.	.	.	1
Rume spp.	.	1	.	1	4	.	.	.	.	.	6
Rume acet	.	1	.	.	2	.	.	.	.	.	3
Urti uren	.	.	9	5	.	.	1	.	.	.	15
Gale sp.	.	.	1	.	.	.	.	.	.	.	1
Prun vulg	.	.	1	.	.	.	.	.	.	.	1
Stac arve	.	.	.	1	.	.	.	.	.	.	1
Plan lanc	.	1	4	1	.	.	.	.	.	.	6
Trip inod	.	1	.	.	.	.	.	.	.	.	1
Brom m/s	.	.	2	.	1	.	.	.	.	.	3
Aven sp.	.	.	1	.	.	.	.	.	.	.	1
Sieg decu	.	1	2	9	2	.	.	.	.	.	14
smal gras	.	6	76	5	4	.	1	.	.	2	94
Gramin.	.	11	7	4	2	.	.	.	2	.	26

Table 4.4 (cont.)

CONTEXTS:	617	623	624	625	630	631	633	636	638	639	TOTAL
VOL. IN LITRES:	1	20	20	20	1.5	1	1.5	1	1	1	68
WEEDS											
Care pilu	.	1	1	.	4	1	.	.	.	.	7
Care puli	.	1	12	.	.	.	.	.	.	.	13
Care spp.	.	3	77	11	2	.	2	.	.	.	95
OTHER											
Cory avel	.	.	1	.	1	.	.	.	.	.	2
Call leaf	.	5	2	.	1	.	.	.	.	.	8
Empe nigr	.	1	.	.	.	.	.	.	.	.	1
INDET.	1	5	30	9	4	1	.	.	.	.	50
TOTAL	4	149	436	261	53	4	21	16	13	19	976

Table 4.5 Sample contexts from Dod Law.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
AREA A		
45/ 8	ground surface underneath inner rampart	29
45/ 9	ground surface underneath inner rampart	18
40/10	rubbish deposit in between the inner and outer rampart	25
40/11	rubbish deposit in between the inner and outer rampart	30
38/ 7	rubbish deposit in between the inner and outer rampart	30
25/ 3	rubbish deposit in between the inner and outer rampart	29
25/ 5	rubbish deposit in between the inner and outer rampart	18
30/ 6	rubbish deposit accumulated against the outer rampart	30
AREA B		
8/ 2	outer rampart deposit	23
8/12	above context 51	29
51/13	lense within make-up of outer rampart	22
AREA C		
24/ 1	charcoal rich deposit outside hut circles in extra-mural settlement	25
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	308

Table 4.6 Carbonized seeds from Dod Law.

CONTEXT:	45	45	40	40	38	25	25	30	8	8	51*	24	TOTAL
SAMPLE NO.:	8	9	10	11	7	3	5	6	2	12	13*	1	
VOL. IN LITRES:	29	18	25	30	30	29	18	30	23	29	22	25	308
GRAIN													
Trit dico	.	.	1	2	1	.	3	3	.	.	.	.	10
Trit spel	.	.	.	1	10	1	4	1	.	.	.	.	17
Trit sp.	2	.	7	4	4	9	6	9	.	.	.	.	41
Hord vulg	9	5	104	332	226	104	150	84	.	8	14	4	1040
Cere inde	.	3	50	304	192	35	127	81	.	8	15	4	819
CHAFF													
glum dico	3	.	60	110	62	1	32	49	.	1	6	.	324
glum spel	.	.	13	10	4	.	19	8	.	.	.	.	54
glum inde	3	.	42	57	41	.	46	33	.	1	9	.	232
glumes	.	.	2	1	.	.	1	.	.	.	.	.	4
rach brit	2	.	21	25	16	.	19	10	.	3	3	.	99
rach Hord	4	.	131	199	68	.	42	69	.	9	15	1	538
base Hord	.	.	6	21	3	.	1	.	.	.	.	.	31
chaf inde	.	.	.	.	1	.	.	.	.	.	.	.	1
awns Aven	.	.	.	.	.	.	.	.	.	.	19	.	19
flor Avef	.	.	.	.	.	.	.	.	.	.	3	.	3
culm node	3	1	.	.	1	.	2	.	.	.	1	.	8
WEEDS													
Ranu repe	.	.	1	.	.	.	.	.	.	.	1	.	2
Ranu flam	.	.	.	.	1	.	.	.	.	.	1	.	2
Raph raph	.	.	1	.	1	.	.	2	.	.	.	.	4
Bras sp.	.	.	2	3	1	.	1	1	.	.	.	.	8
Mont font	.	.	.	.	1	.	.	.	.	.	.	.	1
Stel medi	4	.	4	2	5	.	4	3	.	1	.	.	23
Sper arve	5	.	2	1	4	.	.	2	.	2	3	.	19
Atri spp.	3	.	.	.	.	.	.	2	.	.	2	.	7
Chen albu	9	3	52	159	101	7	75	23	.	1	7	.	437
Chen sp.	6	1	30	138	111	.	44	49	.	1	6	.	386
Vici Lath	.	.	.	2	.	1	3	2	.	.	.	.	8
Legumin.	6	2	1	1	.	.	.	3	.	.	2	.	15
Pote erec	2	.	1	4	3	.	1	.	.	.	.	.	11
Poly avic	1	2	1	4	1	.	3	.	.	.	.	.	12
Poly conv	.	.	.	1	1	1	2	2	.	.	.	.	7
Poly lapa	.	.	3	7	4	.	.	1	.	.	.	.	15
Poly pers	.	.	2	7	4	.	5	.	.	.	2	.	20
Poly l/p	1	.	.	5	3	.	1	1	.	.	3	.	14
Poly sp.	1	.	2	5	1	.	1	4	.	.	.	.	14
Rume acet	2	.	.	3	2	.	3	8	.	1	4	.	23
Rume spp.	.	.	10	3	6	.	4	7	.	.	.	.	30
Urti uren	1	.	.	1	.	.	.	.	.	.	.	.	2
Urti dioc	.	.	2	.	.	.	.	.	.	.	.	.	2
Vero arve	1	.	.	.	.	.	.	.	.	.	.	.	1
Ajug rept	.	.	.	.	.	.	.	.	.	1	.	.	1
Gale sp.	1	.	.	.	.	.	.	.	.	.	.	.	1
Lami a/p	1	.	.	.	.	.	.	1	.	.	.	.	2
Plan lanc	3	1	7	8	4	.	1	2	.	.	.	.	26

Table 4.6 (cont.)

CONTEXT:	45	45	40	40	38	25	25	30	8	8	51*	24	TOTAL
SAMPLE NO.:	8	9	10	11	7	3	5	6	2	12	13*	1	
VOL. IN LITRES:	29	18	25	30	30	29	18	30	23	29	22	25	308
WEEDS													
Aven sp.	3	2	2	.	.	.	2	.	.	2	4	.	15
Gali apar	.	.	.	.	1	.	.	.	.	.	.	.	1
Brom m/s	.	.	2	6	4	1	4	2	.	.	1	.	20
Sieg decu	.	.	2	3	2	.	2	2	.	.	.	.	11
smal gras	42	16	42	54	42	.	39	39	.	2	1	2	279
Arrh elat	.	.	.	.	.	.	1	.	.	.	.	.	1
Gramin.	3	.	.	2	.	.	.	12	.	2	3	.	22
rhiz Gram	.	.	10	.	6	.	9	2	.	.	.	.	27
Care pilu	.	.	5	9	6	.	1	1	.	.	.	.	22
Care spp.	7	.	24	36	45	1	8	12	.	.	.	.	133
OTHER													
Cory avel	93	6	1	.	2	.	2	.	.	1	1	.	106
Rosa sp.	4	.		.	1	.	.	.	.	.	.	.	5
Rubu sp.	.	.	1	.	.	.	1	.	.	.	.	.	2
tree buds	.	.	.	.	.	2	.	1	.	3	4	.	10
Call leaf	.	.	6	19	13	.	5	10	.	.	.	.	53
Call flow	.	.	77	139	127	.	72	112	.	.	.	.	527
Eric flow	.	.	2	3	8	.	1	2	.	.	.	.	16
Empe nigr	.	.	2	.	.	.	.	.	.	.	.	.	2
Junc sp.	.	.	2	2	6	.	1	1	.	.	1	.	13
Pter aqui	.	.	2	4	3	.	.	.	.	.	1	.	10
INDET.	10	2	8	15	13	.	7	12	2	1	5	1	76
TOTAL	235	44	746	1712	1162	163	755	668	2	48	137*	12	5684

KEY: * = only 25 per cent of this sample has been analysed.

Table 4.7 Sample contexts from Chester House.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
110	lower fill of enclosure ditch	30
114	fill of context 115, pit/posthole	60
116	fill of context 139, ring groove of House 1	120
117	fill of context 119, eavesdrop gulley of House 2	270
118	fill of context 120, eavesdrop gulley of House 1	90
127	fill of context 128, posthole, House 1	25
129	fill of context 130, posthole	30
131	fill of context 132, posthole, House 1	20
133	fill of context 134, ring groove of House 2	60
135	fill of context 136, posthole	25
137	fill of context 138, posthole	15
140	fill of context 141, gulley of House 3	30
142	fill of context 143, pit	25
148	fill of context 149, palisade trench	90
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	890

Table 4.8 Carbonized seeds from Chester House.

CONTEXT:	110	114	116	117	118	127	129	131	133	135	137	140	142	148	TOTAL
NO. OF SAMPLES:	1	2	4	9	3	1	1	1	2	1	1	1	1	3	31
VOL. IN LITRES:	30	60	120	270	90	25	30	20	60	25	15	30	25	90	890
GRAIN															
Trit spel	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Trit sp.	.	.	.	3	1	3	.	.	.	.	.	.	.	.	7
Hord vulg	.	.	.	16	1	3	.	4	2	3	.	.	2	2	33
Cere inde	.	1	7	21	6	7	2	3	2	2	.	2	3	3	59
CHAFF															
glum dico	.	.	.	22	1	4	.	1	.	4	3	5	7	2	49
glum spel	.	.	.	1	1	.	.	.	.	.	.	1	1	.	4
glum inde	.	1	1	8	5	3	.	.	1	4	2	2	9	.	36
rach brit	.	.	.	8	.	1	.	.	1	3	2	4	2	.	21
rach Hord	.	.	.	14	1	1	.	3	.	4	1	5	11	.	40
awns Aven	.	.	.	1	.	.	.	.	.	1	.	.	.	.	2
flor Avef	.	.	.	.	.	.	.	.	.	1	.	1	.	.	2
flor Aven	.	.	.	.	.	2	.	.	.	.	.	.	.	.	2
culm node	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
chaf inde	.	.	.	2	.	.	.	.	.	.	.	.	.	.	2
WEEDS															
Ranu Ranu	1	.	11	10	5	2	.	4	7	.	.	3	.	6	49
Crucif.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Sper arve	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Atri spp.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Chen albu	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1
Chen sp.	.	.	.	1	.	.	.	1	.	.	.	.	.	.	2
Chenop.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	2
Vici Lath	.	1	2	.	.	.	.	.	.	.	.	.	.	.	3
Legumin.	.	.	2	1	1	.	.	.	.	.	.	1	.	3	8
Poly conv	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1
Poly lapa	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Poly pers	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Poly l/p	.	.	.	.	.	1	.	.	.	1	.	.	.	.	2
Rume acet	.	.	1	.	2	.	.	.	.	.	.	.	.	.	3
Plan lanc	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Aven sp.	.	.	.	2	.	5	.	.	.	.	.	.	.	.	7
Brom m/s	.	.	.	2	.	1	.	.	.	.	.	.	1	.	4
Sieg decu	.	.	.	12	1	.	.	.	.	.	.	1	.	1	15
smal gras	.	.	1	8	.	.	.	.	.	1	.	2	1	1	14
Gramin.	.	.	.	5	.	.	.	.	.	.	.	.	1	.	6
rhiz Gram	.	.	.	6	.	.	.	.	.	.	.	1	.	.	7
Care pilu	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
Care spp.	.	.	.	3	1	1	.	1	1	.	.	1	.	.	8

Table 4.8 (cont.)

CONTEXT:	110	114	116	117	118	127	129	131	133	135	137	140	142	148	TOTAL
NO. OF SAMPLES:	1	2	4	9	3	1	1	1	2	1	1	1	1	3	31
VOL. IN LITRES:	30	60	120	270	90	25	30	20	60	25	15	30	25	90	890
OTHER															
Cory avel	.	.	1	.	.	.	.	.	.	.	1	1	.	1	4
tree buds	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1
Call leaf	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Call flow	.	.	.	.	1	.	.	.	.	.	.	.	2	.	3
Junc sp.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	2
Pter. aqui	1	.	.	.	.	.	.	.	.	.	.	2	.	.	3
INDET.	1	2	2	12	.	1	1	.	3	1	1	.	1	2	27
TOTAL	3	5	28	168	28	36	3	17	17	26	11	33	43	21	439

Table 4.9 Sample contexts from Thorpe Thewles.

CATEGORIES OF SAMPLES:

Linear samples : random samples from linear features, such as ditches and gullies (coded LS)

Point samples : random samples from point features, such as pits and postholes (coded PF)

Judgement samples : samples from features judged by the excavator to be important contexts which needed sampling (coded JS)

Masking layer samples : samples from the layers of extant stratigraphy overlying the subsoil cut features (coded ML)

NO. OF SAMPLES PER PHASE		VOLUME IN LITRES
PHASE I	2 samples (1 LS, 1PF)	56
PHASE I/II	1 sample (1 LS)	28
PhASE II	44 samples (27 LS, 4 PF, 13 JS)	1232
PHASE II/III	10 samples (8 LS, 2 JS)	280
PHASE III	29 samples (16 LS, 3 PF, 10 JS)	812
PHASE III/IV	29 samples (1 LS, 28 ML)	812
PHASE IV	12 samples (10 LS, 2 JS)	336
	TOTAL OF SIEVED SEDIMENT IN LITRES:	3556

Table 4.10a Carbonized seeds from Thorpe Thewles.

PHASE:	I		I/II	II							sub-
SAMPLE NO.:	LS 268	PF 1	LS 270	LS 112	LS 120	LS 138	LS 150	LS 160	LS 233	LS 248	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	3	.	.	6	13	9	4	2	.	.	37
Trit sp.	3	3	.	4	10	9	4	3	1	.	37
Hord vulg	1	5	3	7	17	15	9	2	1	7	67
Cere inde	7	3	2	9	33	17	7	3	6	3	90
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	15	.	3	66	236	65	39	8	6	10	448
glum inde	17	1	7	54	276	43	18	11	6	25	458
glumes	3	.	1	.	20	6	.	.	.	.	30
rach brit	8	.	.	13	102	6	4	2	.	4	139
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	1	35	.	.	20	2	1	.	2	.	61
base Hord	.	.	.	.	1	.	.	.	.	.	1
flor Avef	.	.	.	.	1	.	.	.	.	.	1
awns Aven	1	.	.	.	9	.	.	.	.	1	11
culm node	.	.	.	.	.	.	.	.	.	1	1
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	1	.	.	.	.	.	.	.	.	1
Ranu Ranu	.	.	1	1	4	2	.	.	.	.	8
Ranu flam	.	.	.	.	.	1	.	.	.	.	1
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	1	.	.	.	.	.	.	.	.	1
Bras sp.	.	.	.	.	1	.	.	.	.	.	1
Crucif.	.	.	.	.	1	.	.	.	.	.	1
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	5	10	.	3	55	9	1	3	3	1	90
Stel medi	.	.	.	1	1	1	.	.	.	.	3
Chen albu	7	.	.	2	10	6	3	12	.	.	40
Chen sp.	1	.	1	.	6	3	1	.	.	1	13
Atri spp.	3	.	.	1	13	1	1	.	1	.	20
Chenop.	.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	1	1	1	2	1	.	.	.	6
Legumin.	.	2	1	4	15	5	.	.	1	.	28
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	1	.	.	1	1	.	.	.	.	3
Hera spon	.	.	.	.	.	.	.	.	1	.	1
Poly avic	1	.	.	.	4	1	1	.	1	.	8
Poly conv	.	1	.	.	.	1	1	.	.	.	3
Poly lapa	.	.	.	.	.	2	.	.	.	.	2

Table 4.10a (cont.)

PHASE:	I		I/II	II							sub-
SAMPLE NO.:	LS 268	PF 1	LS 270	LS 112	LS 120	LS 138	LS 150	LS 160	LS 233	LS 248	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	.	.	1	1	.	1	1	4
Poly l/p	.	.	.	.	1	.	.	.	.	.	1
Rume acet	.	.	.	.	.	.	1	.	.	.	1
Rume spp.	3	.	.	.	31	11	5	1	.	1	52
Polygon.	2	.	.	.	1	1	.	.	.	.	4
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	.	1	.	.	.	.	.	.	1
Verb sp.	.	.	.	.	.	.	1	.	.	.	1
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	1	.	.	.	.	.	.	.	.	.	1
Plan lanc	.	.	.	2	3	2	.	.	.	.	7
Plan majo	.	.	.	.	.	.	.	.	1	.	1
Gali apar	.	.	.	.	3	1	.	.	.	.	4
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	2	.	.	4	13	2	1	.	.	1	23
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	1	.	.	.	1
Aven sp.	.	.	.	2	3	.	.	.	.	.	5
Brom m/s	6	.	.	24	183	43	16	5	4	1	282
Sieg decu	27	16	12	20	168	80	22	10	39	10	404
Smal gras	3	.	1	29	37	11	10	1	1	.	93
Gramin.	5	1	3	6	.	23	8	9	7	3	65
Arrh elat	.	.	.	1	2	2	.	.	.	1	6
rhiz Gram	6	9	1	5	24	22	9	1	18	4	99
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	1	.	.	.	.	.	1
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	2	.	.	.	.	2
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	16	12	1	9	23	14	1	3	1	1	81
OTHER											
Cory avel	.	.	1	.	.	.	.	1	1	.	3
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	5	4	.	3	10	9	5	2	1	.	39
TOTAL	152	105	39	278	1353	431	176	79	103	76	2792

Table 4.10b Carbonized seeds from Thorpe Thewles.

PHASE:	II										sub-
SAMPLE NO.:	LS 304	LS 350	LS 496	LS 515	LS 523	LS 547	LS 551	LS 570	LS 573	LS 584	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	.	.	1	.	.	.	.	.	1	.	2
Trit sp.	.	.	.	.	.	.	.	1	.	.	1
Hord vulg	.	.	.	.	.	.	1	.	.	.	.
Cere inde	2	.	2	1	5	1	1	.	.	.	12
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	6	.	.	.	4	.	17	5	.	1	33
glum inde	4	1	.	2	.	1	14	2	.	.	24
glumes	.	.	.	.	.	.	1	1	.	.	2
rach brit	.	.	.	1	.	.	4	2	.	.	7
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	1	.	.	.	2	.	.	.	3
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	1	.	.	.	.	1
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	.	.	.	.	.	.	.	.	.	.
Ranu flam	.	.	.	.	.	.	.	.	.	.	.
Papa arge	.	.	.	.	.	1	.	.	.	.	1
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.	.
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	.	1	.	1	9	.	4	.	.	.	15
Stel medi	.	.	.	.	.	.	.	.	.	.	.
Chen albu	.	.	1	.	.	.	1	.	.	.	2
Chen sp.	.	.	.	.	.	.	.	1	.	.	1
Atri spp.	.	.	.	.	.	.	.	.	.	.	.
Chenop.	.	.	.	.	.	.	4	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	.	.	.	.	.	.
Legumin.	.	.	.	.	5	.	4	.	.	1	10
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	.	.	.	.	.	.	.	.	.
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	.	.	.	.	.	.	.	.	.
Poly conv	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	.	.	.

Table 4.10b (cont.)

PHASE:	II										sub-
SAMPLE NO.:	LS 304	LS 350	LS 496	LS 515	LS 523	LS 547	LS 551	LS 570	LS 573	LS 584	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	.	.	.	.	.	.	.	.
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	1	.	.	1	.	.	.	.	.	2
Rume spp.	.	.	.	1	2	.	.	.	.	.	3
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	.	.	.	.	.	.	.	.	.
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	1	.	.	.	.	.	.	.	1
Plan majo	.	.	1	.	.	2	.	.	.	.	3
Gali apar	.	.	.	.	.	.	1	.	.	.	1
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	1	.	1	.	.	1	.	.	.	3
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	.	.	.	.	.
Brom m/s	.	.	1	.	2	2	4	2	.	.	11
Sieg decu	4	1	3	6	27	3	31	4	.	.	79
Smal gras	1	1	.	.	3	.	4	.	.	.	9
Gramin.	.	.	1	2	.	1	1	2	.	3	10
Arrh elat	.	.	.	.	.	.	.	.	.	.	.
rhiz Gram	.	.	.	1	14	.	3	1	.	.	19
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	.	.	.	.	.
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	.	.	.	.	4	.	2	.	.	.	6
OTHER											
Cory avel	1	.	.	.	.	.	.	.	.	.	1
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	.	2	5	2	4	.	6	.	2	3	24
TOTAL	18	8	17	18	80	12	106	21	3	8	291

Table 4.10c Carbonized seeds from Thorpe Thewles.

PHASE	II										sub-
SAMPLE NO.:	LS589	LS 614	LS 631	LS 634	LS 637	LS 652	LS 664	LS 670	LS 674	LS 677	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	.	.	1	.	.	.	1	.	.	.	2
Trit sp.	.	1	.	.	.	.	.	.	.	.	1
Hord vulg	.	.	1	.	.	.	.	.	.	.	1
Cere inde	1	.	4	.	2	4	1	1	2	1	16
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	1	.	.	.	4	1	.	.	.	.	6
glum inde	2	.	.	.	2	.	.	1	3	1	9
glumes	.	.	.	.	.	.	.	.	.	.	.
rach brit	.	.	.	.	.	.	.	1	.	.	1
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	.	1	.	.	.	1	1	3
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	.	.	1	1	.	.	.	.	.	2
Ranu flam	.	.	.	.	.	.	.	.	.	.	.
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.	.
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	1	.	.	.	1	.	.	.	1	.	3
Stel medi	.	.	1	.	.	.	.	.	.	1	2
Chen albu	.	.	.	.	7	.	.	.	.	.	7
Chen sp.	.	.	.	.	11	.	1	.	.	.	12
Atri spp.	.	.	.	.	.	.	.	.	1	.	1
Chenop.	.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	.	.	.	.	.	.
Legumin.	.	.	.	.	8	.	.	.	1	.	9
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	1	.	.	2	.	.	.	1	.	4
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	.	.	.	.	.	.	.	.	.
Poly conv	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	.	.	.

Table 4.10c (cont.)

PHASE:	II										sub-
SAMPLE NO.:	LS589	LS 614	LS 631	LS 634	LS 637	LS 652	LS 664	LS 670	LS 674	LS 677	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	.	.	.	.	.	.	.	.
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	.	.	.
Rume spp.	1	.	.	.	4	.	.	.	1	.	6
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	.	.	.	.	.	.	.	.	.
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	.	.	.	.	.	.	.	.	.
Plan majo	.	.	.	.	.	.	.	.	.	.	.
Gali apar	.	.	.	.	1	.	.	.	.	1	2
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	.	.	.	.	.	.	.	.	.
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	.	.	.	.	.
Brom m/s	.	1	2	.	2	.	1	2	3	.	11
Sieg decu	2	2	10	.	32	.	2	.	.	1	49
Smal gras	.	2	.	.	2	.	.	.	.	.	4
Gramin.	2	.	2	1	9	3	1	.	3	.	21
Arrh elat	.	.	.	.	.	.	.	.	.	.	.
rhiz Gram	1	.	.	.	17	1	.	.	3	.	22
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	.	.	.	.	.
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	.	1	2	.	17	.	.	2	.	.	22
OTHER											
Cory avel	.	.	.	.	.	.	.	.	.	.	.
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	.	.	1	2	6	.	1	1	1	3	15
TOTAL	11	8	24	4	129	9	8	8	21	9	231

Table 4.10d Carbonized seeds from Thorpe Thewles.

PHASE:	II										sub-
SAMPLE:	PF 29	PF 41	PF 46	PF 57	JS 2	JS 3	JS 4*	JS 7	JS 9	JS 13	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	1	.	.	.	.	.	1
Trit spel	.	.	.	1	5	5	.	4	.	7	22
Trit sp.	.	1	.	4	3	11	4	.	.	3	26
Hord vulg	1	1	.	7	59	12	6	59	8	7	.
Cere inde	2	7	.	18	70	33	10	72	4	14	230
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	.	45	.	72	10	3	23	7	6	59	225
glum inde	3	41	2	117	5	2	11	.	3	56	240
glumes	.	5	.	4	.	.	.	.	.	4	13
rach brit	.	10	1	18	19	1	4	1	7	38	99
base Trit	.	.	.	.	.	.	.	.	.	2	2
rach Hord	.	.	.	3	12	.	.	.	2	15	32
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	1	.	.	.	.	.	2	3
culm node	.	.	.	.	1	1	.	.	.	.	2
chaf inde	1	.	.	.	.	.	.	.	.	.	1
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	1	1
Ranu Ranu	.	.	1	.	.	.	3	1	2	.	7
Ranu flam	.	.	.	.	.	.	.	1	.	.	1
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	1	.	.	.	.	.	.	1
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	1	.	.	1	.	.	2
Viol Mela	.	.	.	.	1	.	.	.	1	.	2
Mont font	8	2	4	15	325	173	321	.	12	18	878
Stel medi	.	.	.	.	3	2	.	1	.	.	6
Chen albu	2	.	1	5	.	2	5	1	4	9	29
Chen sp.	.	.	.	10	1	2	1	.	1	5	20
Atri spp.	.	.	.	2	1	2	1	.	1	4	11
Chenop.	.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	1	2	1	.	3	7
Legumin.	1	1	.	3	16	21	17	14	1	8	82
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	.	.	13	3	10	2	2	2	32
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	1	.	.	1	.	2	.	6	.	.	10
Poly conv	.	.	.	1	1	1	.	1	.	.	4
Poly lapa	.	.	.	1	.	.	1	9	2	1	14

Table 4.10d (cont.)

PHASE:	II										sub-
SAMPLE NO.:	PF 29	PF 41	PF 46	PF 57	JS 2	JS 3	JS 4*	JS 7	JS 9	JS 13	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	3	.	.	.	.	2	.	5
Poly l/p	1	.	.	.	.	.	.	.	.	1	2
Rume acet	.	.	.	1	.	.	.	1	.	1	3
Rume spp.	.	1	.	10	5	4	.	3	9	25	57
Polygon.	.	.	.	.	1	.	.	.	.	.	1
Urti dioc	.	.	.	.	.	2	.	.	.	1	3
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	.	1	.	.	.	.	.	.	1
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	2	1	1	.	1	.	5
Plan lanc	.	1	.	.	4	2	5	1	1	2	16
Plan majo	.	.	.	.	.	1	.	.	.	.	1
Gali apar	.	1	.	1	.	5	.	.	.	.	7
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	1	1	.	.	.	2
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	.	2	5	.	.	1	2	16	26
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	2	.	1	.	.	3
Aven sp.	.	1	.	.	10	.	.	2	1	1	15
Brom m/s	.	11	.	54	113	3	6	3	11	71	272
Sieg decu	28	36	2	66	260	245	167	131	47	46	1028
Smal gras	2	4	.	4	51	59	18	5	4	20	167
Gramin.	5	6	.	44	75	27	8	16	4	24	209
Arrh elat	.	.	1	1	2	6	3	.	.	.	13
rhiz Gram	.	10	.	14	79	72	40	20	19	3	257
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	1	1	.	.	1	.	.	2	.	.	5
Isol seta	.	.	.	.	1	1	.	.	.	1	3
Care pilu	.	.	.	1	1	.	1	5	2	1	11
Care puli	1	.	.	2	4	2	.	1	.	1	11
Care spp.	5	2	.	22	56	42	12	29	8	22	198
OTHER											
Cory avel	.	.	.	.	1	.	.	.	.	.	1
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	3	1	1	5	8	4	4	3	5	.	34
TOTAL	65	188	13	515	1226	756	685	405	172	494	4519

KEY: * = only 50 per cent of the sample has been analysed.

Table 4.10e Carbonized seeds from Thorpe Thewles.

PHASE:	II							I+II
SAMPLE NO.:	JS 16	JS 17	JS 18	JS 19	JS 23	JS 25	JS 27	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	1344
GRAIN								
Trit dico	.	.	.	.	.	.	.	1
Trit spel	.	.	.	.	.	.	3	66
Trit sp.	1	1	.	.	.	1	1	69
Hord vulg	5	3	1	2	.	2	5	86
Cere inde	2	3	10	1	.	1	.	365
CHAFF								
glum dico	.	.	.	.	.	.	1	1
glum spel	3	36	22	1	3	2	25	804
glum inde	2	19	8	.	.	3	8	771
glumes	.	6	1	.	.	.	1	53
rach brit	.	10	6	.	.	1	15	278
base Trit	.	1	.	.	.	.	.	3
rach Hord	.	6	1	.	.	.	4	110
base Hord	.	.	.	.	.	.	.	1
flor Avef	.	.	.	.	.	.	.	1
awns Aven	.	2	.	.	.	.	2	18
culm node	.	.	.	.	.	.	1	4
chaf inde	.	.	.	.	.	.	.	2
WEEDS								
Ranu acri	.	.	.	.	.	.	.	.
Ranu repe	.	1	.	.	.	.	.	3
Ranu Ranu	1	1	1	.	.	.	1	21
Ranu flam	.	.	.	.	.	.	17	19
Papa arge	.	.	.	.	.	.	.	1
Papa rh/d	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	2
Bras sp.	.	.	.	.	.	.	.	1
Crucif.	.	.	.	.	.	.	.	3
Viol Mela	.	.	.	.	.	.	.	2
Mont font	17	6	2	.	.	.	7	1018
Stel medi	.	.	.	.	.	.	.	11
Chen albu	.	3	.	.	.	.	52	133
Chen sp.	.	.	1	.	.	1	28	76
Atri spp.	.	2	1	.	.	1	.	36
Chenop.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.
Vici Lath	.	1	.	.	.	.	2	16
Legumin.	4	4	2	.	.	.	9	148
Apha arve	.	.	.	.	.	.	.	.
Pote erec	.	1	.	.	.	.	2	42
Hera spon	.	.	.	.	.	.	.	1
Poly avic	.	.	.	.	.	.	.	18
Poly conv	.	.	.	.	.	.	.	7
Poly lapa	.	.	.	.	.	.	4	20

Table 4.10e (cont.)

PHASE:	II							I+II
SAMPLE NO.:	JS 16	JS 17	JS 18	JS 19	JS 23	JS 25	JS 27	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	1344
WEEDS								
Poly pers	.	.	.	.	.	.	4	13
Poly l/p	.	1	.	.	.	.	4	8
Rume acet	.	.	.	.	1	.	.	7
Rume spp.	.	2	1	.	.	.	5	126
Polygon.	1	.	.	.	.	.	.	6
Urti dioc	.	.	.	.	.	.	.	3
Urti uren	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.
Odon vern	.	.	.	.	.	.	1	3
Verb sp.	.	.	.	.	.	.	.	1
Lami a/p	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.
Prun vulg	1	.	.	.	.	.	1	8
Plan lanc	1	.	.	.	.	.	.	25
Plan majo	.	2	.	.	.	.	.	7
Gali apar	.	.	.	.	.	.	2	16
Gali palu	.	.	.	.	.	.	1	1
Sher arve	.	.	.	.	.	.	1	3
Vale dent	.	.	.	.	.	.	.	.
Trip inod	.	1	.	.	.	.	2	55
Laps comm	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	4
Aven sp.	.	.	.	.	.	.	.	20
Brom m/s	.	18	6	.	.	.	21	621
Sieg decu	13	5	14	2	3	4	57	1658
Smal gras	2	2	3	2	.	.	2	284
Gramin.	5	10	5	1	.	2	30	358
Arrh elat	1	.	1	.	.	.	1	22
rhiz Gram	.	3	12	1	.	.	8	421
Junc sp.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	3	9
Isol seta	.	.	.	.	.	.	.	3
Care pilu	.	.	.	.	.	1	1	15
Care puli	.	.	.	.	.	.	.	11
Care spp.	2	4	4	1	.	1	213	532
OTHER								
Cory avel	.	2	.	.	.	.	.	7
Crat mono	.	.	.	.	.	.	.	.
INDET.	4	2	3	2	.	.	4	127
TOTAL	65	158	105	13	7	20	549	8585

Table 4.10f Carbonized seeds from Thorpe Thewles.

PHASE:	II/III										II/III
SAMPLE NO.:	LS 8	LS 329	LS 340	LS 362	LS 374	LS 385	LS 397	LS 405	JS 1	JS 8*	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	.	.	.	.	.	.	.	.	2	17	19
Trit sp.	.	.	2	2	.	.	.	2	1	13	20
Hord vulg	1	6	1	.	.	.	1	.	18	202	229
Cere inde	4	8	7	4	.	.	1	6	8	108	146
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	1	1
glum spel	.	25	22	1	.	1	.	.	2	278	329
glum inde	.	12	28	1	.	2	2	.	13	195	253
glumes	.	3	.	.	.	.	1	.	.	4	8
rach brit	.	.	.	2	.	1	1	1	3	48	56
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	1	.	.	.	.	.	.	.	14	37	52
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	3	3
awns Aven	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	1	1
Ranu repe	.	.	.	.	.	.	.	.	.	1	1
Ranu Ranu	.	.	.	.	.	.	.	1	.	.	1
Ranu flam	.	.	.	.	.	.	.	.	.	.	.
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papaver sp.	.	.	.	.	.	.	.	.	.	1	1
Raph raph	.	.	.	.	.	.	.	.	.	1	1
Bras sp.	.	.	1	.	.	.	.	.	.	.	1
Crucif.	.	.	.	.	.	.	.	.	.	29	29
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	.	7	3	1	2	.	.	4	14	1	32
Stel medi	.	.	.	.	.	.	.	.	.	2	2
Chen albu	.	.	.	.	.	.	.	.	2	112	114
Chen sp.	.	.	.	.	.	.	.	.	4	.	4
Atri spp.	.	.	.	.	.	.	.	.	.	42	42
Chenop.	.	.	.	.	.	.	.	.	.	54	54
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	1	.	.	.	.	.	.	.	2	3
Legumin.	.	2	1	1	.	.	.	.	3	.	7
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	.	.	.	.	.	.	.	1	1
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	.	.	.	.	.	1	3	1	5
Poly conv	.	1	.	.	.	.	.	.	.	2	3
Poly lapa	.	.	.	.	.	.	.	.	1	.	1

Table 4.10f (cont.)

PHASE:	II/III										II/III
SAMPLE NO.:	LS 8	LS 329	LS 340	LS 362	LS 374	LS 385	LS 397	LS 405	JS 1	JS 8*	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	1	.	.	.	.	.	1	2
Poly l/p	.	.	.	.	.	.	.	.	.	1	1
Rume acet	.	.	.	.	.	.	.	.	1	.	1
Rume spp.	.	.	2	.	.	.	.	.	3	92	97
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sloa nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	1	.	.	.	.	.	.	.	1
Odon vern	1	.	.	.	.	.	.	.	.	1	2
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	.	1	.	1
Plan lanc	.	1	.	.	.	.	.	.	.	.	1
Plan majo	.	.	.	.	.	.	.	.	.	2	2
Gali apar	.	3	1	.	.	.	.	.	.	1	5
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	1	.	1	.	.	.	2	21	25
Laps comm	.	.	.	.	.	.	.	.	.	2	2
Sonc aspe	.	.	.	.	.	.	.	.	.	5	5
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	.	.	.	52	52
Brom m/s	.	2	.	1	.	.	.	2	2	349	356
Sieg decu	8	20	16	7	.	3	6	12	40	3	115
smal gras	2	.	.	.	.	1	1	2	32	17	55
Gramin.	.	3	6	1	.	.	1	1	6	121	139
Arrh elat	.	.	.	.	.	.	.	.	.	.	.
rhiz Gram	.	6	5	.	.	.	2	5	10	.	28
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	.	.	.	.	.
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	.	4	6	.	1	2	.	.	3	.	16
OTHER											
Cory avel	.	3	3	.	.	.	.	.	1	.	7
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	2	3	1	2	.	.	.	.	10	12	30
TOTAL	19	110	107	24	4	10	16	37	199	1836	2362

Table 4.10g Carbonized seeds from Thorpe Thewles.

PHASE:	III										sub-
SAMPLE NO.:	LS 178	LS 194	LS 208	LS 229	LS 238	LS 246	LS 291	LS 422	LS 431	LS 443	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	5	.	.	.	.	1	1	6	4	.	17
Trit sp.	4	2	1	.	.	1	3	9	2	.	22
Hord vulg	12	7	.	.	1	3	4	21	2	3	53
Cere inde	12	13	4	2	6	8	11	36	15	3	110
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	33	.	1	4	22	26	56	7	16	2	167
glum inde	24	2	1	3	25	32	54	7	19	.	167
glumes	2	.	.	.	.	1	2	.	.	.	5
rach brit	3	3	.	3	10	12	14	1	5	.	51
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	.	.	.	1	.	.	.	1
base Hord	.	.	.	.	.	.	1	.	.	.	1
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	2	1	.	.	.	.	.	3
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	1	1	.	.	.	1	.	2	.	5
Ranu flam	.	1	.	.	.	.	.	.	.	.	1
Papa arge	.	6	.	.	.	.	.	.	.	.	6
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papaver sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.	.
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	14	87	6	1	5	2	6	.	.	.	121
Stel medi	2	1	.	.	.	.	1	.	.	.	4
Chen albu	.	2	.	.	.	1	1	2	2	.	8
Chen sp.	.	.	.	.	.	1	.	1	.	.	2
Atri spp.	.	.	.	.	.	.	2	.	.	.	2
Chenop.	.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	3	.	.	.	1	.	3	.	7
Legumin.	.	1	1	.	.	.	4	.	.	.	6
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	1	.	1	.	.	.	.	1	3
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	.	.	.	1	1	.	.	.	2
Poly conv	1	.	.	.	.	.	.	.	.	.	1
Poly lapa	.	.	.	.	.	.	.	.	.	.	.

Table 4.10g (cont.)

PHASE:	III										sub-
SAMPLE NO.:	LS 178	LS 194	LS 208	LS 229	LS 238	LS 246	LS 291	LS 422	LS 431	LS 443	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	1	.	.	.	.	1	.	.	.	2
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	1	.	.	.	.	.	.	2	.	3
Rume spp.	5	5	2	.	1	2	1	1	2	1	20
Polygon.	.	1	.	.	.	.	.	.	.	.	1
Urti dioc	.	.	.	.	.	1	.	.	.	.	1
Urti uren	.	.	.	.	.	2	.	.	.	.	2
Sloa nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	12	.	.	.	.	1	.	.	.	13
Odon vern	.	.	.	.	.	.	.	1	.	.	1
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	3	.	.	.	3
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	1	.	.	.	.	.	.	.	.	.	1
Plan lanc	1	2	1	.	.	.	.	.	.	.	4
Plan majo	1	2	.	.	.	.	1	.	.	.	4
Gali apar	4	1	1	.	.	.	1	5	3	.	15
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	2	.	.	2	2	.	.	4	.	2	12
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	1	.	.	.	1
Brom m/s	11	10	1	2	2	2	12	5	8	2	55
Sieg decu	52	37	20	11	27	15	30	64	53	6	315
smal gras	8	3	4	1	3	.	8	2	6	3	38
Gramin.	12	6	4	4	7	4	16	11	14	1	79
Arrh elat	.	1	1	.	.	.	.	.	.	.	2
rhiz Gram	5	9	4	.	9	2	1	27	11	1	69
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	1	.	.	.	1	.	.	.	1	.	3
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	1	.	.	.	.	.	.	.	1
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	1	4	6	1	2	4	8	11	6	3	46
OTHER											
Cory avel	1	.	.	.	.	.	.	.	.	.	1
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	4	4	2	.	7	.	5	7	3	4	36
TOTAL	221	225	66	36	132	121	253	228	179	32	1493

Table 4.10h Carbonized seeds from Thorpe Thewles.

PHASE:	III										sub-
SAMPLE NO.:	LS 450	LS 465	LS 470	LS 483	LS 499	LS 597	PF 12	PF 49	PF 78	JS 6	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	1	3	1	6	.	.	.	.	1	3	15
Trit sp.	.	2	.	2	.	.	.	2	.	3	9
Hord vulg	4	8	1	4	1	.	.	.	.	15	33
Cere inde	5	25	8	21	2	1	4	5	4	10	85
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	.	36	4	1	2	.	3	2	.	27	75
glum inde	.	36	4	1	2	1	3	.	1	25	73
glumes	.	2	.	.	1	.	.	.	.	2	5
rach brit	1	5	4	.	1	.	.	.	.	13	24
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	.	7	.	.	2	.	.	.	.	9	18
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	1	.	.	.	.	.	.	1	2
awns Aven	.	.	.	.	.	.	2	.	.	.	2
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	3	3
WEEDS											
Ranu acri	.	.	.	.	.	.	.	1	.	.	1
Ranu repe	.	.	.	.	.	.	1	.	.	.	1
Ranu Ranu	1	2	1	.	.	.	1	.	.	.	5
Ranu flam	.	.	.	.	.	.	.	.	.	.	.
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papaver sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	1	.	.	.	.	.	.	.	.	1
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	1	3	1	3	.	1	3	32	12	3	59
Stel medi	.	.	.	.	.	.	.	.	.	.	.
Chen albu	.	1	.	1	.	.	.	1	1	4	8
Chen sp.	.	.	2	1	1	.	.	.	.	2	6
Atri spp.	.	3	.	.	.	.	.	1	.	.	4
Chenop.	.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	.	.	.	.	.	.
Legumin.	.	2	.	.	1	.	1	5	4	.	13
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	1	.	.	.	.	.	.	.	.	1
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	.	.	.	.	1	.	1	.	2
Poly conv	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	1	.	1

Table 4.10h (cont.)

PHASE:	III										sub-
SAMPLE NO.:	LS 450	LS 465	LS 470	LS 483	LS 499	LS 597	PF 12	PF 49	PF 78	JS 6	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	1	.	2	.	.	.	.	.	.	3
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	.	.	.
Rume spp.	.	.	1	.	.	.	.	7	.	11	19
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sloa nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	2	.	.	.	.	.	.	.	.	2
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	2	.	.	.	.	.	2
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	.	.	.	1	.	.	.	.	1
Plan majo	.	.	.	1	1	.	.	.	.	.	2
Gali apar	1	.	.	1	.	.	1	2	2	.	7
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	11	.	1	.	.	2	.	.	1	15
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	2	.	.	.	.	.	1	3
Brom m/s	2	5	1	.	1	.	5	4	2	20	40
Sieg decu	38	26	33	32	6	3	17	23	8	18	204
smal gras	2	9	3	2	4	.	5	2	4	6	37
Gramin.	2	4	3	1	1	.	3	2	2	11	29
Arrh elat	.	.	.	1	1	.	.	.	.	.	2
rhiz Gram	10	9	2	31	1	.	8	9	4	3	77
Junc sp.	.	.	.	.	.	.	.	1	.	.	1
Eleo sp.	.	2	.	.	.	.	.	.	.	.	2
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	2	9	1	3	1	.	2	2	5	1	26
OTHER											
Cory avel	.	.	.	.	.	.	.	.	.	.	.
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	3	4	3	5	8	.	4	3	2	5	37
TOTAL	73	219	74	122	39	7	66	104	54	197	955

Table 4.10i Carbonized seeds from Thorpe Thewles.

PHASE:	III									III
SAMPLE NO.:	JS 10	JS 11	JS 12*	JS 14	JS 15	JS 20	JS 22	JS 26	JS 28	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	1092
GRAIN										
Trit dico	.	.	.	.	.	.	.	.	.	.
Trit spel	.	3	4	9	.	5	1	.	.	54
Trit sp.	1	4	3	5	1	4	.	.	.	49
Hord vulg	11	9	12	16	1	10	.	2	1	148
Cere inde	37	27	18	50	2	13	.	3	.	345
CHAFF										
glum dico	.	.	.	.	.	.	.	.	.	.
glum spel	7	95	120	366	7	4	17	28	.	886
glum inde	5	71	98	448	5	6	11	36	1	921
glumes	.	.	7	1	1	.	.	1	.	20
rach brit	.	16	32	61	3	1	3	11	1	203
base Trit	.	.	.	.	.	.	.	.	.	.
rach Hord	.	3	8	15	.	1	.	.	.	46
base Hord	.	.	.	.	.	.	.	.	.	1
flor Avef	.	.	.	.	.	.	.	.	.	2
awns Aven	.	1	.	.	.	.	.	.	.	6
culm node	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	3
WEEDS										
Ranu acri	.	.	.	.	.	.	.	.	.	1
Ranu repe	.	.	.	.	.	.	.	.	.	1
Ranu Ranu	.	.	.	1	.	.	.	.	1	12
Ranu flam	.	.	.	.	.	.	.	1	.	2
Papa arge	.	.	.	.	.	.	.	.	.	6
Papa rh/d	.	.	1	.	.	.	.	.	.	1
Papaver sp.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	1
Bras sp.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.
Mont font	5	7	23	.	33	.	.	2	241	491
Stel medi	.	2	.	2	.	.	.	.	6	14
Chen albu	6	4	5	.	4	3	1	3	.	42
Chen sp.	2	4	8	4	2	.	.	2	4	34
Atri spp.	1	.	.	21	3	.	.	.	.	31
Chenop.	.	.	.	.	.	.	.	.	.	.
Malv sylv	.	.	.	.	.	.	.	1	.	1
Malv sp.	6	.	.	.	.	.	.	.	.	6
Vici Lath	.	.	.	.	.	.	.	.	.	7
Legumin.	1	3	2	3	14	6	.	2	32	82
Apha arve	.	.	.	.	.	.	.	.	.	.
Pote erec	.	1	.	1	.	.	.	.	2	8
Hera spon	.	.	.	.	.	.	.	.	.	.
Poly avic	1	.	.	.	1	.		.	3	9
Poly conv	.	.	1	5	.	.	1	.	.	8
Poly lapa	.	2	2	.	.	.	.	2	.	7

Table 4.10i (cont.)

PHASE:	III									III
SAMPLE NO.:	JS 10	JS 11	JS 12*	JS 14	JS 15	JS 20	JS 22	JS 26	JS 28	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	1092
WEEDS										
Poly pers	.	2	.	2	.	.	.	.	.	9
Poly l/p	.	2	1	4	.	1	.	.	.	8
Rume acet	1	.	1	.	.	.	.	.	.	5
Rume spp.	2	6	6	9	.	4	.	3	78	147
Polygon.	.	1	.	.	.	.	.	.	.	2
Urti dioc	.	.	.	.	.	.	.	.	.	1
Urti uren	.	.	.	.	.	.	.	.	.	2
Sloa nigr	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	13
Odon vern	.	1	.	.	1	.	.	1	.	6
Verb sp.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	5
Ment a/a	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	.	6	7
Plan lanc	.	.	.	.	.	1	.	.	4	10
Plan majo	.	.	.	.	.	.	.	1	1	8
Gali apar	2	1	.	1	.	.	.	.	4	30
Gali palu	.	.	.	.	1	.	.	.	.	1
Sher arve	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.
Trip inod	.	4	5	45	.	.	1	1	1	84
Laps comm	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	.	.	.	4
Brom m/s	6	22	62	20	.	4	.	4	.	213
Sieg decu	19	64	35	266	49	51	12	38	102	1155
smal gras	1	10	12	.	.	4	1	7	11	121
Gramin.	3	17	80	29	8	2	1	5	1	254
Arrh elat	.	1	1	.	2	.	.	3	2	13
rhiz Gram	7	3	4	84	3	13	1	2	10	273
Junc sp.	.	.	.	.	.	.	.	.	.	1
Eleo sp.	.	.	.	.	.	1	.	.	.	6
Isol seta	.	.	.	.	.	.	.	.	.	.
Care pilu	.	2	1	2	.	2	.	.	.	8
Care puli	.	.	.	32	.	2	.	.	.	34
Care spp.	3	10	19	71	9	4	1	21	17	227
OTHER										
Cory avel	.	.	.	.	.	.	.	.	.	1
Crat mono	.	.	.	.	.	.	.	.	1	1
INDET.	5	7	.	.	2	2	1	.	8	98
TOTAL	132	405	571	1573	152	144	52	180	538	6195

Table 4.10j Carbonized seeds from Thorpe Thewles.

PHASE:	III/IV										sub-
SAMPLE NO.:	LS 69	ML 1	ML2	ML 3	ML 4	ML 5	ML 6	ML 7	ML 8	ML 9	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	3	12	4	9	1	2	1	2	.	.	34
Trit sp.	6	4	.	2	.	2	2	.	2	4	22
Hord vulg	36	9	3	7	6	2	5	1	2	12	83
Cere inde	50	24	12	33	8	12	18	2	8	14	181
CHAFF											
glum dico	1	.	.	.	.	.	.	.	.	.	1
glum spel	59	43	29	97	22	32	15	6	23	38	364
glum inde	18	12	12	56	8	26	8	1	10	15	166
glumes	2	1	.	8	4	1	.	.	.	.	16
rach brit	2	7	3	13	2	7	.	.	6	2	42
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	14	.	.	2	.	.	1	.	5	2	24
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	1	1	.	.	.	.	.	2
culm node	.	.	.	.	.	.	.	.	1	1	2
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	.	.	1	.	.	.	.	.	.	1
Ranu flam	.	.	.	.	.	.	.	.	1	.	1
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/p	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.	.
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	1	.	.	.	1	.	.	.	.	2
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	34	17	8	21	6	9	7	2	5	11	120
Stel medi	1	1	.	1	.	.	.	.	.	.	3
Chen albu	1	2	1	3	1	4	7	1	5	3	28
Chen sp.	.	1	1	.	.	.	.	.	3	.	5
Atri spp.	.	.	2	.	.	1	.	1	1	1	6
Chenop.	1	.	.	.	.	.	.	.	.	1	2
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	1	1	.	.	.	2	1	.	.	.	5
Legumin.	9	6	4	5	.	3	2	1	1	2	33
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	3	1	.	.	.	.	.	1	2	.	7
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	1	.	.	.	1	.	.	4	.	6
Poly conv	2	1	.	.	.	1	.	.	.	.	4
Poly lapa	1	.	.	1	.	.	.	.	.	1	3

Table 4.10j (cont.)

PHASE:	III/IV										sub-
SAMPLE NO.:	LS 69	ML 1	ML2	ML 3	ML 4	ML 5	ML 6	ML 7	ML 8	ML 9	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	1	.	.	.	.	.	.	.	.	.	1
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	2	.	1	.	.	3
Rume spp.	8	3	3	9	.	3	.	1	.	3	30
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	1	.	.	.	.	1
Odon vern	3	.	.	.	.	.	.	.	.	.	3
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	1	.	.	.	.	.	.	.	1
Plan lanc	1	1	.	2	.	.	.	.	2	.	6
Plan majo	.	.	.	.	.	.	.	.	.	.	.
Gali apar	.	2	.	2	.	.	.	.	1	.	5
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	1	.	.	.	.	1
Vale dent	.	1	.	.	.	.	.	.	.	.	1
Trip inod	.	.	.	.	.	.	1	1	1	.	3
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	2	.	.	.	.	2	.	2	1	7
Brom m/s	3	34	16	107	11	19	19	2	9	16	236
Sieg decu	72	135	38	84	28	105	58	36	50	98	704
smal gras	25	9	6	14	7	17	3	2	3	13	99
Gramin.	4	11	7	11	7	7	10	2	7	13	79
Arrh elat	.	3	.	2	2	3	2	.	.	4	16
rhiz Gram	29	46	23	10	.	12	15	21	24	33	213
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	1	.	.	.	.	1	.	.	.	.	2
Isol seta	.	.	.	.	.	.	.	1	.	.	1
Care pilu	2	.	.	.	.	.	.	.	1	.	3
Care puli	.	1	1	1	.	2	.	.	.	1	6
Care spp.	26	23	18	26	4	8	12	5	5	5	132
OTHER											
Cory avel	.	2	.	.	.	.	2	1	2	1	8
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	3	8	2	7	4	5	3	4	.	3	39
TOTAL	422	425	194	535	122	292	194	95	186	298	2763

Table 4.10k Carbonized seeds from Thorpe Thewles.

PHASE:	III/IV										sub-
SAMPLE NO.:	ML 10	ML 11	ML 12	ML 13	ML 14	ML 15	ML 16	ML 17	ML 18	ML 19	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	1	.	2	.	.	.	3	.	1	.	7
Trit sp.	1	.	3	.	.	.	1	1	2	1	9
Hord vulg	12	1	7	4	33	2	3	2	3	1	68
Cere inde	12	5	10	9	23	1	9	2	6	3	80
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	11	5	14	9	12	1	18	3	13	4	90
glum inde	3	1	9	5	5	.	16	3	7	2	51
glumes	1	.	.	.	.	.	.	2	.	.	3
rach brit	2	.	3	1	2	2	4	.	1	1	16
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	3	.	5	3	17	.	1	2	.	1	32
base Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	1	.	.	.	.	1	1	.	3
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	1	.	.	.	.	.	.	1	.	.	2
Ranu flam	.	.	.	.	.	.	.	.	.	.	.
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/p	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	1	.	.	.	.	.	.	.	.	.	1
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	5	.	.	.	.	.	.	1	.	.	6
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	12	3	6	3	5	3	3	2	1	2	40
Stel medi	2	.	.	1	1	.	2	.	.	.	6
Chen albu	8	.	5	7	1	.	.	1	.	.	22
Chen sp.	12	.	6	.	.	.	.	.	.	.	18
Atri spp.	1	.	2	1	2	.	.	.	.	.	6
Chenop.	.	.	.	.	2	.	2	.	.	.	4
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	.	.	.	.	.	.
Legumin.	2	.	5	2	.	.	.	.	.	.	9
Apha arve	.	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	2	.	.	.	.	3	1	.	6
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	7	1	6	.	.	.	.	.	.	.	14
Poly conv	1	.	.	1	.	.	.	.	.	.	2
Poly lapa	3	1	1	1	.	.	.	.	.	.	6

Table 4.10k (cont.)

PHASE:	III/IV										sub-
SAMPLE NO.:	ML 10	ML 11	ML 12	ML 13	ML 14	ML 15	ML 16	ML 17	ML 18	ML 19	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	.	.	.	.	.	.	1	.	.	1
Poly l/p	3	.	1	.	.	.	.	.	.	.	4
Rume acet	.	.	.	.	.	.	.	.	.	.	.
Rume spp.	2	1	6	2	14	.	.	1	2	1	29
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	1	.	.	.	.	.	1
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	6	.	.	.	.	.	1	.	7
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	1	.	.	.	.	.	1
Plan lanc	1	.	.	.	.	.	.	1	.	.	2
Plan majo	.	.	.	1	.	.	.	.	.	.	1
Gali apar	1	.	.	.	.	.	2	.	.	.	3
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	2	.	.	.	.	.	1	.	3
Laps comm	.	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	1	.	.	.	.	.	.	1	.	.	2
Aven sp.	1	.	1	.	.	.	.	.	.	.	2
Brom m/s	8	2	9	7	9	2	16	2	8	5	68
Sieg decu	53	29	44	63	33	7	38	18	21	10	316
smal gras	17	1	8	3	3	2	6	2	3	1	46
Gramin.	6	3	11	8	10	.	15	3	4	3	63
Arrh elat	1	.	.	.	.	.	.	1	1	2	5
rhiz Gram	15	5	15	6	12	.	4	2	6	3	68
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	1	.	.	.	1	.	1	.	3
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	1	.	.	.	.	.	.	3	.	.	4
Care puli	.	.	.	2	.	.	.	.	.	1	3
Care spp.	4	2	10	4	9	1	4	17	9	5	65
OTHER											
Cory avel	.	.	.	.	.	.	.	.	.	.	.
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	5	2	6	5	1	1	5	3	4	4	36
TOTAL	220	62	207	148	196	22	153	79	97	50	1234

Table 4.10l Carbonized seeds from Thorpe Thewles.

PHASE:	III/IV									III/IV
SAMPLE NO.:	ML 20	ML 21	ML 22	ML 23	ML 25	ML 26	ML 27	ML 28	ML 29	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	812
GRAIN										
Trit dico	.	.	.	.	.	.	.	.	.	.
Trit spel	.	.	1	.	1	1	1	1	3	49
Trit sp.	.	.	2	2	2	4	3	3	1	48
Hord vulg	.	.	10	6	28	11	13	8	1	228
Cere inde	4	3	10	7	30	24	14	21	4	378
CHAFF										
glum dico	.	.	.	.	.	.	.	.	.	1
glum spel	12	3	23	11	19	38	9	2	5	576
glum inde	8	4	5	10	21	18	6	1	5	295
glumes	.	.	.	2	1	5	.	.	.	27
rach brit	3	1	2	1	4	15	1	.	2	87
base Trit	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	1	6	2	3	2	1	71
base Hord	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	.	1	1
awns Aven	.	.	.	.	.	.	.	.	.	5
culm node	.	.	.	1	.	.	.	.	.	3
chaf inde	.	.	.	.	.	.	.	.	.	.
WEEDS										
Ranu acri	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	.	.	.	1	.	.	1	.	5
Ranu flam	.	.	.	1	.	1	.	.	.	3
Papa arge	.	.	.	.	.	.	.	.	.	.
Papa rh/p	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	3	.	.	.	.	.	.	4
Bras sp.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	1	.	.	.	.	.	.	9
Viol Mela	.	.	.	.	.	.	.	.	.	.
Mont font	3	.	25	11	13	4	7	21	4	248
Stel medi	.	.	.	1	.	.	.	1	.	11
Chen albu	2	1	3	1	6	6	1	4	3	77
Chen sp.	.	.	.	.	2	1	.	.	1	27
Atri spp.	.	.	.	1	.	.	.	1	.	14
Chenop.	.	.	1	.	2	.	.	1	.	10
Malv sylv	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	1	.	.	.	.	.	.	6
Legumin.	.	.	1	9	11	7	1	10	3	84
Apha arve	.	.	.	.	.	.	.	.	.	.
Pote erec	.	.	.	.	1	1	.	1	.	16
Hera spon	.	.	.	.	.	.	.	.	.	.
Poly avic	.	1	2	1	2	4	1	1	1	33
Poly conv	.	.	.	1	.	.	.	.	.	7
Poly lapa	.	.	.	.	.	2	.	.	.	11

Table 4.10l (cont.)

PHASE:	III/IV									III/IV
CONTEXT:	ML 20	ML 21	ML 22	ML 23	ML 25	ML 26	ML 27	ML 28	ML 29	TOTAL
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	812
WEEDS										
Poly pers	.	.	.	1	1	1	.	.	.	5
Poly l/p	.	.	.	.	2	.	.	.	.	6
Rume acet	.	.	.	.	.	.	.	.	.	3
Rume spp.	2	.	.	.	3	4	1	1	1	71
Polygon.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	1
Hyos nige	.	.	.	.	.	.	.	.	.	1
Odon vern	.	.	1	.	.	.	.	.	.	11
Verb sp.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	.	.	.	1	.	3
Plan lanc	.	.	.	.	2	.	1	.	1	12
Plan majo	.	.	.	.	.	.	.	.	.	1
Gali apar	.	1	.	5	5	2	.	.	.	21
Gali palu	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	1	.	.	.	.	2
Vale dent	.	.	.	.	.	.	.	.	.	1
Trip inod	.	.	.	.	1	.	2	.	1	10
Laps comm	.	.	.	.	.	.	.	.	.	.
Sonc aspe	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	2
Aven sp.	.	.	.	.	.	.	.	2	.	11
Brom m/s	2	1	6	4	31	22	7	5	4	386
Sieg decu	12	16	38	68	110	183	78	93	44	1662
smal gras	1	.	2	8	16	6	5	31	5	219
Gramin.	2	.	3	9	27	30	8	15	7	243
Arrh elat	.	.	.	1	2	.	.	.	.	24
rhiz Gram	2	7	27	4	27	9	27	5	9	398
Junc sp.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	1	.	1	1	1	.	9
Isol seta	.	.	.	.	.	.	.	.	.	1
Care pilu	.	.	1	.	.	.	.	.	.	8
Care puli	.	.	.	.	.	1	.	.	.	10
Care spp.	4	5	20	11	2	16	6	15	4	280
OTHER										
Cory avel	.	.	.	.	.	.	.	.	.	8
Crat mono	.	.	.	.	.	.	.	.	.	.
INDET.	2	3	7	5	11	4	6	9	5	127
TOTAL	59	46	195	184	391	423	202	257	116	5870

Table 4.10m Carbonized seeds from Thorpe Thewles.

PHASE:	IV										sub-
SAMPLE NO.:	LS 1	LS 17	LS 19	LS 25	LS 28	LS 33	LS 42	LS 52	LS 58	LS 507	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
GRAIN											
Trit dico	.	.	.	.	.	.	.	.	.	.	.
Trit spel	5	3	.	3	.	1	2	5	.	6	25
Trit sp.	3	2	2	1	.	.	.	4	.	8	20
Hord vulg	16	2	2	2	5	1	.	3	.	4	35
Cere inde	15	2	4	3	2	4	5	20	3	23	81
CHAFF											
glum dico	.	.	.	.	.	.	.	.	.	.	.
glum spel	16	10	16	4	4	5	8	5	.	213	281
glum inde	5	4	1	.	.	4	1	1	3	200	219
glumes	.	.	2	.	.	.	.	.	.	3	5
rach brit	.	1	.	.	.	1	.	1	.	70	73
base Trit	.	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	.	.	.	.	1	.	4	5
base Hord	.	.	.	.	.	.	.	1	.	.	1
flor Aven	1	.	.	.	.	.	.	.	.	.	1
awns Aven	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	.	.	.	.	.	.	.	.	.
chaf inde	.	.	.	.	.	.	.	.	.	.	.
WEEDS											
Ranu acri	.	.	.	.	.	.	.	.	.	.	.
Ranu repe	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	1	.	.	.	.	.	.	.	.	1
Ranu flam	.	1	.	.	.	1	.	.	.	.	2
Papa arge	.	.	.	.	.	.	.	.	.	.	.
Papa rh/d	.	.	.	.	.	.	.	.	.	.	.
Papa sp.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.	.
Bras sp.	.	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Viol Mela	.	.	.	.	.	.	.	.	.	.	.
Mont font	2	3	2	.	5	.	.	2	.	1	15
Stel medi	.	.	.	.	.	.	.	.	.	1	1
Chen albu	1	.	1	1	.	.	.	1	.	.	4
Chen sp.	.	.	3	.	.	.	.	.	1	.	4
Atri spp.	.	.	.	1	.	.	.	.	.	.	1
Chenop.	.	.	.	.	.	.	.	.	.	4	4
Malv sylv	.	.	.	.	.	.	.	.	.	.	.
Malv sp.	.	.	.	.	1	.	.	.	.	.	1
Vici Lath	1	.	.	.	.	.	.	.	.	.	1
Legumin.	.	.	.	1	1	.	.	.	1	.	3
Apha arve	.	1	.	.	.	.	.	.	.	.	1
Pote erec	1	.	.	.	.	.	.	.	.	.	1
Hera spon	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	.	1	.	.	.	.	.	1	3	5
Poly conv	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	.	4	4

Table 4.10m (cont.)

PHASE:	IV										sub-
SAMPLE NO.:	LS 1	LS 17	LS 19	LS 25	LS 28	LS 33	LS 42	LS 52	LS 58	LS 507	total
VOL. IN LITRES:	28	28	28	28	28	28	28	28	28	28	280
WEEDS											
Poly pers	.	1	.	.	2	.	.	.	.	.	3
Poly l/p	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	1	.	.	.	.	.	.	.	.	1
Rume spp.	4	5	4	4	1	.	.	.	.	2	20
Polygon.	.	.	.	.	.	.	.	.	.	.	.
Urti dioc	.	.	.	.	.	.	.	.	.	.	.
Urti uren	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	.	.	.	.	.	.	.	.
Odon vern	.	.	.	1	.	.	.	.	.	.	1
Verb sp.	.	.	.	.	.	.	.	.	.	.	.
Lami a/p	.	.	.	.	.	.	.	.	.	.	.
Ment a/a	.	1	1	.	.	.	.	.	.	.	2
Prun vulg	.	.	.	2	.	.	.	.	.	.	2
Plan lanc	2	.	.	.	.	.	.	2	.	.	4
Plan majo	1	.	.	.	.	.	.	.	.	.	1
Gali apar	1	.	.	.	.	.	.	1	.	1	3
Gali palu	.	.	.	.	.	.	.	.	.	.	.
Sher arve	.	.	.	.	.	.	.	.	.	.	.
Vale dent	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	1	.	.	.	.	.	.	6	7
Laps comm	.	.	.	1	.	.	.	.	.	.	1
Sonc aspe	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	.	.	.	.	.	.	.	.	.	1	1
Brom m/s	5	5	3	4	2	.	2	1	.	9	31
Sieg decu	32	18	32	27	20	13	13	14	3	7	179
smal gras	1	2	1	.	.	1	1	1	1	7	15
Gramin.	6	4	5	3	2	.	1	.	.	11	32
Arrh elat	.	.	1	.	.	.	.	.	.	1	2
rhiz Gram	21	19	15	14	26	3	2	18	.	.	118
Junc sp.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	.	.	.	.	.
Isol seta	.	.	.	.	.	.	.	.	.	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.
Care puli	2	.	.	.	.	.	.	1	.	.	3
Care spp.	25	6	5	1	5	3	1	2	1	.	49
OTHER											
Cory avel	.	.	.	.	.	.	.	.	.	.	.
Crat mono	.	.	.	.	.	.	.	.	.	.	.
INDET.	.	2	3	6	.	.	.	1	2	2	16
TOTAL	166	94	105	79	76	37	36	85	16	591	1285

Table 4.10n Carbonized seeds from Thorpe Thewles.

PHASE:			IV
CONTEXT:	JS 21	JS 24	TOTAL
VOL. IN LITRES:	28	28	336
GRAIN			
Trit dico	.	.	.
Trit spel	.	1	26
Trit sp.	.	.	20
Hord vulg	.	.	35
Cere inde	.	4	85
CHAFF			
glum dico	.	.	.
glum spel	5	1	287
glum inde	3	.	222
glumes	.	.	5
rach brit	1	.	74
base Trit	.	.	.
rach Hord	.	.	5
base Hord	.	.	1
flor Aven	.	.	1
awns Aven	.	.	.
culm node	.	.	.
chaf inde	.	.	.
WEEDS			
Ranu acri	.	.	.
Ranu repe	.	.	.
Ranu Ranu	.	.	1
Ranu flam	.	.	2
Papa arge	.	.	.
Papa rh/d	.	.	.
Papa sp.	.	.	.
Raph raph	.	.	.
Bras sp.	.	.	.
Crucif.	.	.	.
Viol Mela	.	.	.
Mont font	3	.	18
Stel medi	.	.	1
Chen albu	1	.	5
Chen sp.	3	.	7
Atri spp.	.	.	1
Chenop.	.	.	4
Malv sylv	.	.	.
Malv sp.	.	.	1
Vici Lath	.	.	1
Legumin.	2	.	5
Apha arve	.	.	1
Pote erec	.	.	1
Hera spon	.	.	.
Poly avic	.	.	5
Poly conv	.	.	.
Poly lapa	.	.	4

Table 4.10n (cont.)

PHASE:			IV
CONTEXT:	JS 21	JS 24	TOTAL
VOL. IN LITRES:	28	28	336
WEEDS			
Poly pers	.	.	3
Poly l/p	.	.	.
Rume acet	.	.	1
Rume spp.	.	.	20
Polygon.	.	.	.
Urti dioc	.	.	.
Urti uren	.	.	.
Sola nigr	.	.	.
Hyos nige	.	.	.
Odon vern	.	.	1
Verb sp.	.	.	.
Lami a/p	.	.	.
Ment a/a	.	.	2
Prun vulg	.	.	2
Plan lanc	.	.	4
Plan majo	.	.	1
Gali apar	.	.	3
Gali palu	.	.	.
Sher arve	.	.	.
Vale dent	.	.	.
Trip inod	3	.	10
Laps comm	.	.	1
Sonc aspe	.	.	.
Compos.	.	.	.
Aven sp.	.	.	1
Brom m/s	.	1	32
Sieg decu	11	3	193
smal gras	4	.	19
Gramin.	4	.	36
Arrh elat	.	.	2
rhiz Gram	.	.	118
Junc sp.	.	.	.
Eleo sp.	.	.	.
Isol seta	.	.	.
Care pilu	.	.	.
Care puli	.	.	3
Care spp.	3	.	52
OTHER			
Cory avel	.	.	.
Crat mono	.	.	.
INDET.	.	.	16
TOTAL	43	10	1338

Table 4.10o Carbonized seeds from Thorpe Thewles - Summary.

PHASE:	I/II	II/III	III	III/IV	IV	TOTAL
NO. OF SAMPLES:	47	10	29	29	12	127
VOL. IN LITRES:	1316	280	812	812	336	3556
GRAIN						
Trit dico	1	.	.	.	.	1
Trit spel	66	19	54	49	26	214
Trit sp.	69	20	49	48	20	206
Hord vulg	86	229	148	228	35	726
Cere inde	365	146	345	378	85	1319
CHAFF						
glum dico	1	1	.	1	.	3
glum spel	804	329	886	576	287	2882
glum inde	771	253	918	295	222	2459
glumes	53	8	23	27	5	116
rach brit	278	56	203	87	74	698
base Trit	3	.	.	.	5	8
rach Hord	110	52	46	71	1	280
base Hord	1	.	1	.	1	3
flor Aven	1	3	2	1	.	7
awns Aven	18	.	6	5	.	29
culm node	4	.	.	3	.	7
chaf inde	2	.	3	.	.	5
WEEDS						
Ranu acri	.	1	1	.	.	2
Ranu repe	3	1	1	.	.	5
Ranu Ranu	21	1	12	5	1	40
Ranu flam	19	.	2	3	2	26
Papa arge	1	.	6	.	.	7
Papa rh/d	.	.	1	.	.	1
Papa sp.	.	1	.	.	.	1
Raph raph	2	1	1	4	.	8
Bras sp.	1	1	.	.	.	2
Crucif.	3	29	.	9	.	41
Viol Mela	2	.	.	.	.	2
Mont font	1018	32	491	248	18	1807
Stel medi	11	2	14	11	1	39
Chen albu	133	114	42	77	5	371
Chen sp.	76	4	34	27	7	148
Atri spp.	36	42	31	14	1	124
Chenop.	.	54	.	10	4	68
Malv sylv	.	.	1	.	.	1
Malv sp.	.	.	6	.	1	7
Vici Lath	16	3	7	6	1	33
Legumin.	148	7	82	84	5	326
Apha arve	.	.	.	.	1	1
Pote erec	42	1	8	16	1	68
Hera spon	1	.	.	.	.	1
Poly avic	18	5	9	33	5	70
Poly conv	7	3	8	7	.	25
Poly lapa	20	1	7	11	4	43

Table 4.10o (cont.)

PHASE:	I/II	II/III	III	III/IV	IV	TOTAL
NO. OF SAMPLES:	47	10	29	29	12	127
VOL. IN LITRES:	1316	280	812	812	336	3556
WEEDS						
Poly pers	13	2	9	5	3	32
Poly l/p	8	1	8	6	.	23
Rume acet	7	1	5	3	1	17
Rume spp.	126	97	147	71	20	461
Polygon.	6	.	2	.	.	8
Urti dioc	3	.	1	.	.	4
Urti uren	.	.	2	.	.	2
Sola nigr	.	.	.	1	.	1
Hyos nige	.	1	13	1	.	15
Odon vern	3	2	6	11	1	23
Verb sp.	1	.	.	.	.	1
Lami a/p	.	.	5	.	.	5
Ment a/a	.	.	.	.	2	2
Prun vulg	8	1	7	3	2	21
Plan lanc	25	1	10	12	4	52
Plan majo	7	2	8	1	1	19
Gali apar	16	5	30	21	3	75
Gali palu	1	.	1	.	.	2
Sher arve	3	.	.	2	.	5
Vale dent	.	.	.	1	.	1
Trip inod	55	25	84	10	10	184
Laps comm	.	2	.	.	1	3
Sonc aspe	.	5	.	.	.	5
Compos.	4	.	.	2	.	6
Aven sp.	20	52	4	11	1	88
Brom m/s	621	356	213	386	32	1608
Sieg decu	1658	115	1155	1662	193	4783
smal gras	284	55	121	219	19	698
Gramin.	358	139	254	243	36	1030
Arrh elat	22	.	13	24	2	61
rhiz Gram	421	28	273	398	118	1238
Junc sp.	.	.	1	.	.	1
Eleo sp.	9	.	6	9	.	24
Isol seta	3	.	.	1	.	4
Care pilu	15	.	8	8	.	31
Care puli	11	.	34	10	3	58
Care spp.	532	16	227	280	52	1107
OTHER						
Cory avel	7	7	1	8	.	23
Crat mono	.	.	1	.	.	1
INDET.	127	30	98	127	16	398
TOTAL	8585	2362	6195	5870	1338	24350

Table 4.11 Sample contexts from Stanwick.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
2209	lowest fill of post pit	15
1095	fill of post pit	15
2163	deep posthole cut by pennanular gulley	10
1085	'old soil' layer	15
2065	fill of posthole or pipe in post pit	15
2201	fill of posthole or pipe in post pit	15
2064	lowest fill of post pit	15
2043	above 2064, contained much charcoal	10
1112	fill of post pit	30
1110	fill of posthole in pit (?post pit)	15
2160	gravel layer beneath industrial/domestic deposits	15
2180	fill of posthole or pipe in post pit	10
2182	fill in a post pit	10
2196	fill of west side of pennanular gulley	15
2156	burnt layer above hearth or similar (2195)	10
1027	dump layer, possibly associated with use of latest hearths	15
1084	layer from across the top of a ditch	15
2045	fill of ditch, below arching wall	15
2051	fill of ditch, below context 2045	15
2195	hearth (or similar)	15
2119	fill of several possible stakeholes	1
2192	fill of post pit	10
1064	layer across the top of a ditch	30
1078	'old soil' layer	15
1013	fill of post setting	15
1022	dump of burnt material	15
1023	spread of loam with some charcoal	15
2006	soil matrix from stone spread	15
2012	soil matrix between stones of arching wall	15
2042	soil matrix between stones of arching wall	10
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	431

Table 4.12a Carbonized seeds from Stanwick.

CONTEXTS:	2209	1095	2163	1085	2065	2201	2064	2043	1112	1112	1110	2160	2180	2182	total
SAMPLE NO.:	79	41	38	32	63	74	65	48	45	46	42	77	50	52	
VOL. IN LITRES:	15	15	10	15	15	15	15	10	15	15	15	15	10	10	190
GRAIN															
Trit spel	.	1	.	.	.	.	.	.	.	.	.	.	2	.	3
Trit sp.	.	3	.	.	.	.	.	.	.	.	1	.	.	2	6
Hord vulg	12	15	5	58	2	13	2	4	13	7	3	3	2	12	151
Cere inde	8	6	2	12	.	4	2	4	4	3	4	4	6	10	69
CHAFF															
glum spel	9	6	5	19	.	8	2	5	1	6	2	4	5	5	77
glum inde	9	6	3	11	.	7	3	3	4	9	3	2	7	7	74
glumes	1	2	.	2	.	2	4	.	2	2	1	.	.	1	17
rach brit	3	4	1	8	.	3	6	.	7	2	3	1	2	4	44
rach Hord	.	.	.	4	.	1	.	.	.	.	.	1	1	2	9
lemm Hord	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
flor Avef	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
flor Aven	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
lemm Aven	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	.	.	.	.	1	.	.	.	1	1	.	.	3
WEEDS															
Ranu repe	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	.	.	.	2	.	.	.	.	.	.	.	.	.	.	2
Bras sp.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Raph raph	1	.	.	1	.	.	.	.	.	.	.	.	.	1	3
Stel medi	1	1	.	.	.	.	.	1	.	.	2	1	.	1	7
Stel palu	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Mont font	2	1	1	.	2	.	.	.	.	.	.	.	2	.	8
Chen albu	.	1	2	1	.	2	1	3	1	1	.	.	1	2	15
Chen sp.	.	.	.	1	.	1	.	.	.	1	.	.	.	.	3
Atri spp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Chenop.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Legumin.	3	1	7	8	6	1	2	4	2	2	8	6	.	6	56
Pote erec	.	.	.	.	8	.	1	.	2	.	1	.	.	.	12
Apha arve	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Poly avic	1	.	1	1	.	.	.	.	.	.	.	.	.	.	3
Poly conv	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1
Poly lapa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Poly pers	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Poly l/p	.	.	1	.	.	.	.	1	.	.	.	.	.	.	2
Poly sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rume acet	1	.	.	1	.	.	.	1	.	.	.	.	.	.	3
Rume spp.	2	.	.	.	.	1	.	.	.	.	.	.	2	1	6
Urti uren	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sola nigr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hyos nige	.	.	.	1	.	.	1	.	.	.	.	.	.	.	2
Vero arve	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhin sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Odon vern	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Ment a/a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Table 4.12a (cont.)

CONTEXTS:	2209	1095	2163	1085	2065	2201	2064	2043	1112	1112	1110	2160	2180	2182	sub-total
SAMPLE NO.:	79	41	38	32	63	74	65	48	45	46	42	77	50	52	
VOL. IN LITRES:	15	15	10	15	15	15	15	10	15	15	15	15	10	10	190
WEEDS															
Prun vulg	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gale sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	1	.	.	.	.	.	1	.	.	.	2	.	2	.	6
Plan majo	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gali apar	.	1	.	.	.	.	.	.	.	.	1	.	.	1	3
Trip inod	.	.	.	2	.	1	.	.	.	1	.	.	2	.	6
Aven sp.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Brom m/s	12	17	4	15	6	3	4	7	4	3	6	2	5	6	94
Sieg decu	9	19	14	24	11	7	8	26	14	5	4	9	16	27	193
smal gras	4	6	2	10	2	.	7	4	3	2	2	1	3	5	51
Gramin.	3	1	.	1	.	2	2	.	1	.	.	.	.	1	11
rhiz Gram	7	1	.	13	1	.	3	7	3	.	5	7	.	2	49
Junc squa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Junc sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	2	.	.	.	.	.	.	.	.	.	.	.	1	3
Care pilu	.	1	.	2	.	1	.	2	1	1	.	.	.	3	11
Care spp.	2	.	3	6	12	1	2	5	.	1	2	.	1	3	38
OTHER															
Cory avel	1	.	2	.	.	.	.	3	.	.	.	1	1	.	8
Samb nigr	1	.	.	1	.	.	2	.	.	.	.	.	.	.	4
Rosa sp.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Call leaf	1	.	.	1	.	2	.	.	.	.	.	.	.	.	4
Call flow	1	1	.	2	.	.	.	.	3	.	2	.	1	1	11
Eric flow	.	1	.	.	1	.	.	.	.	.	.	.	.	.	2
Cath palu	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
INDET.	7	2	3	4	3	4	4	3	.	3	3	3	2	.	41
TOTAL	104	100	56	211	54	64	58	83	65	49	59	46	64	104	1117

Table 4.12b Carbonized seeds from Stanwick.

CONTEXTS:	2196	2156	1027	1084	2045	2051	2195	2119	2192	1064	1064	1078	sub-total
SAMPLE NO.:	76	60	4	29	51	55	85	21	58	19	23	25	
VOL. IN LITRES:	15	10	15	15	15	15	15	1	10	15	15	15	156
GRAIN													
Trit spel	1	1	.	1	2	.	.	.	2	.	.	.	7
Trit sp.	3	2	.	1	5	2	2	.	.	.	.	.	15
Hord vulg	30	97	2	5	21	2	25	.	11	22	13	1	229
Cere inde	13	50	8	9	15	4	21	2	7	14	3	2	148
CHAFF													
glum spel	25	27	1	5	45	18	3	1	8	5	.	3	141
glum inde	20	34	2	4	43	14	2	.	5	5	1	3	133
glumes	1	7	.	1	4	2	.	.	3	.	.	.	18
rach brit	13	17	.	2	22	8	.	.	7	2	.	.	71
rach Hord	4	5	1	.	8	5	.	.	5	1	.	.	29
lemm Hord	.	.	.	.	.	.	.	.	2	.	.	.	2
flor Avef	.	.	.	.	2	.	.	.	.	.	.	.	2
flor Aven	.	.	.	.	.	.	.	.	.	.	.	.	.
lemm Aven	.	.	.	.	.	.	.	.	.	.	.	.	.
culm node	.	.	2	.	.	.	.	.	.	.	.	.	2
WEEDS													
Ranu repe	.	.	.	.	1	.	.	.	.	.	.	.	1
Ranu Ranu	1	.	.	.	.	1	1	.	.	1	.	.	4
Bras sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	1	1	1	.	.	1	.	.	.	.	.	.	4
Stel medi	.	1	1	1	1	2	3	.	.	.	.	.	9
Stel palu	.	.	.	.	.	.	.	.	.	.	.	.	.
Mont font	.	1	2	.	7	2	.	.	.	2	.	2	16
Chen albu	4	5	.	.	8	.	4	.	.	3	1	3	28
Chen sp.	.	1	.	.	2	.	5	.	2	1	.	.	11
Atri spp.	.	1	.	.	2	.	.	.	.	.	.	.	3
Chenop.	.	.	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	1	1	1	.	.	.	.	.	.	.	.	.	3
Legumin.	3	3	.	1	23	8	7	.	4	1	.	9	59
Pote erec	.	.	1	.	9	.	.	.	.	1	.	6	17
Apha arve	.	2	.	.	.	.	.	.	.	.	.	.	2
Poly avic	.	2	.	.	.	.	.	.	.	.	.	.	2
Poly conv	.	.	1	.	.	.	.	.	.	.	.	.	1
Poly lapa	.	.	.	.	1	.	.	.	.	.	.	.	1
Poly pers	.	.	.	.	2	.	.	.	.	.	.	.	2
Poly l/p	.	1	.	.	.	1	.	.	.	.	.	.	2
Poly sp.	.	7	.	.	1	.	4	.	.	.	.	.	12
Rume acet	.	12	1	.	.	6	15	.	.	.	.	.	34
Rume spp.	.	116	.	.	28	.	122	.	.	3	1	2	272
Urti uren	.	3	.	.	.	.	9	.	.	.	.	.	12
Sola nigr	.	.	.	.	.	.	1	.	.	.	.	.	1
Hyos nige	.	42	.	.	1	.	145	.	.	.	.	.	188
Vero arve	.	1	.	.	.	.	.	.	.	.	.	.	1
Rhin sp.	.	.	.	.	.	.	1	.	.	.	.	.	1
Odon vern	.	1	.	.	.	.	1	.	.	.	.	.	2
Ment a/a	.	.	.	.	1	.	.	.	.	1	.	.	2

Table 4.12b (cont.)

CONTEXTS:	2196	2156	1027	1084	2045	2051	2195	2119	2192	1064	1064	1078	sub-total
SAMPLE NO.:	76	60	4	29	51	55	85	21	58	19	23	25	
VOL. IN LITRES:	15	10	15	15	15	15	15	1	10	15	15	15	156
WEEDS													
Prun vulg	.	.	.	.	1	.	.	.	.	.	.	.	1
Gale sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	1	.	.	1	2	.	.	.	1	.	5
Plan majo	.	1	.	.	.	.	.	.	.	.	.	.	1
Gali apar	1	.	.	.	1	2	1	.	.	.	.	.	5
Trip inod	.	.	.	.	5	.	.	.	.	.	.	.	5
Aven sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Brom m/s	11	18	4	9	31	9	10	1	4	8	3	5	113
Sieg decu	18	12	5	14	141	36	4	.	13	16	7	45	311
smal gras	7	28	.	2	16	10	26	.	8	2	2	25	126
Gramin.	.	6	.	.	.	1	1	.	.	.	.	.	8
rhiz Gram	1	.	.	.	17	.	.	.	.	4	2	15	39
Junc squa	.	1	.	.	1	.	.	.	.	.	.	.	2
Junc sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	1	.	.	.	.	.	.	.	1
Care pilu	1	.	.	1	18	.	.	.	.	.	.	11	31
Care spp.	2	.	2	5	37	7	.	.	3	1	1	9	67
OTHER													
Cory avel	.	.	.	1	12	.	.	.	.	.	.	.	13
Samb nigr	.	.	.	.	.	.	.	.	.	.	.	.	.
Rosa sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Call leaf	.	.	.	.	1	.	.	.	.	.	.	.	1
Call flow	.	.	.	.	1	.	.	.	.	.	.	.	1
Eric flow	.	.	.	.	1	.	.	.	.	.	.	.	1
Cath palu	.	.	.	.	.	.	.	.	.	.	.	.	.
INDET.	2	1	.	3	4	3	2	2	.	5	.	9	31
TOTAL	163	508	36	65	542	145	417	6	84	98	35	150	2249

Table 4.12c Carbonized seeds from Stanwick.

CONTEXTS:	1013	1022	1023	2006	2012	2042	TOTAL
SAMPLE NO.:	1	5	6	1	2	40	
VOL. IN LITRES:	15	15	15	15	15	10	431
GRAIN							
Trit spel	.	.	40	.	.	1	49
Trit sp.	1	.	38	.	2	1	63
Hord vulg	2	10	63	3	18	10	486
Cere inde	2	6	49	1	9	8	292
CHAFF							
glum spel	5	4	9	.	6	24	266
glum inde	17	3	8	1	5	14	255
glumes	2	1	1	.	1	3	43
rach brit	3	1	3	.	2	8	132
rach Hord	.	.	.	.	.	2	40
lemm Hord	.	.	.	.	.	.	3
flor Avef	.	.	.	.	.	.	2
flor Aven	.	1	.	.	.	.	1
lemm Aven	.	.	.	.	1	.	1
culm node	.	.	4	1	.	.	10
WEEDS							
Ranu repe	.	.	.	.	.	.	1
Ranu Ranu	.	.	1	.	.	.	7
Bras sp.	.	.	.	.	.	.	1
Raph raph	1	3	.	.	1	.	12
Stel medi	.	1	2	.	.	.	19
Stel palu	.	.	1	.	.	.	2
Mont font	.	5	2	.	.	3	34
Chen albu	2	1	25	.	2	2	75
Chen sp.	.	.	2	.	4	.	20
Atri spp.	1	.	.	.	1	.	5
Chenop.	2	.	.	.	.	2	4
Vici Lath	2	.	1	.	.	.	6
Legumin.	1	7	5	.	4	23	155
Pote erec	.	2	.	.	1	8	40
Apha arve	.	1	.	.	.	.	3
Poly avic	1	1	2	.	.	1	10
Poly conv	.	3	2	.	.	.	7
Poly lapa	.	.	1	1	.	.	3
Poly pers	.	.	1	.	1	.	4
Poly l/p	.	.	.	.	.	.	4
Poly sp.	.	.	.	.	.	.	12
Rume acet	.	.	1	.	.	1	39
Rume spp.	11	.	6	.	3	3	301
Urti uren	.	.	.	.	.	.	12
Sola nigr	.	.	.	.	.	.	1
Hyos nige	.	.	.	.	.	1	191
Vero arve	1	.	.	.	.	.	2
Rhin sp.	.	.	.	.	.	.	1
Odon vern	.	.	.	.	.	.	3
Ment a/a	.	.	.	.	.	.	2

Table 4.12c (cont.)

CONTEXTS:	1013	1022	1023	2006	2012	2042	TOTAL
SAMPLE NO.:	1	5	6	1	2	40	
VOL. IN LITRES:	15	15	15	15	15	10	431
WEEDS							
Prun vulg	.	1	.	.	.	.	2
Gale sp.	.	1	1	.	.	.	2
Plan lanc	.	.	.	.	.	2	13
Plan majo	.	.	.	.	.	.	1
Gali apar	3	2	7	.	1	1	22
Trip inod	.	.	.	.	.	2	13
Aven sp.	.	.	1	.	.	.	2
Brom m/s	6	15	183	1	11	21	444
Sieg decu	15	37	13	3	48	129	749
smal gras	.	11	19	1	4	24	236
Gramin.	2	.	.	.	7	2	30
rhiz Gram	6	6	4	1	6	22	133
Junc squa	.	.	.	.	.	.	2
Junc sp.	.	.	1	.	.	.	1
Eleo sp.	1	.	.	.	.	.	5
Care pilu	1	3	.	.	3	3	52
Care spp.	7	9	6	4	12	22	165
OTHER							
Cory avel	1	.	.	.	1	3	26
Samb nigr	1	2	2	1	.	.	10
Rosa sp.	.	.	.	.	.	.	1
Call leaf	.	2	.	.	2	1	10
Call flow	1	10	3	.	2	1	29
Eric flow	1	.	.	.	1	1	6
Cath palu	1	.	.	.	.	.	1
INDET.	3	5	4	1	4	7	96
TOTAL	103	154	511	19	163	356	4672

Table 4.13 Sample contexts from Rock Castle.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
47	fill of ring ditch of 'early' house	12
61	fill of ring ditch of 'early' house	60
74	fill of ring groove of 'early' house	16
24	fill of ring groove of 'main' house	30
59	fill of posthole at entrance of 'main' house	30
60	fill of posthole at entrance of 'main' house	30
50	fill of pit inside surrounds of 'main' house	30
2	fill of ditch 25	60
14	fill of pit/posthole	15
69	fill of pit/posthole	15
12.1	fill of ring ditch of 'main' house section 4	20
12.2	fill of ring ditch of 'main' house section 4/5	30
12.3	fill of ring ditch of 'main' house section 5/6	30
12.4	fill of ring ditch of 'main' house section 5/6	30
12.5	fill of ring ditch of 'main' house section 6/7	30
12.6	fill of ring ditch of 'main' house section 7/10	30
12.7	fill of ring ditch of 'main' house section 8	30
12.8	fill of ring ditch of 'main' house section 9/10	30
12.9	fill of ring ditch of 'main' house section 10	30
38	fill of ring ditch of 'main' house	10
54	fill of ring ditch of 'main' house	30
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	598

Table 4.14a Carbonized seeds from Rock Castle.

CONTEXTS:	47	61a	61b	74	24	59	60	50*	2a*	2b*	14	69	sub-total
VOL. IN LITRES:	12	30	30	16	30	30	30	30	30	30	14	15	297
GRAIN													
Trit spel	2	1	.	4	6	4	14	4	8	6	3	1	53
Trit aest	.	.	.	.	.	.	.	1	.	.	.	.	1
Trit sp.	2	1	4	10	4	4	8	3	5	8	1	1	51
Hord vulg	10	4	2	19	8	12	8	19	8	1	2	.	93
Cere inde	8	5	5	30	13	7	25	19	16	10	8	2	148
CHAFF													
glum spel	13	6	13	35	21	10	52	11	23	71	1	3	259
glum dico	.	.	.	.	.	.	.	1	.	.	.	.	1
glum inde	7	6	11	48	24	12	111	44	14	58	2	9	346
glumes	.	.	.	8	5	.	13	6	4	12	.	2	50
rach brit	3	.	3	16	11	3	24	38	8	19	.	.	125
rach aest	.	.	.	.	.	.	.	125	.	.	.	.	125
awns Trit	.	.	.	.	.	.	.	.	.	.	.	.	.
rach Hord	8	.	.	12	2	6	1	12	.	1	.	.	42
flor Aven	.	.	.	.	1	.	.	.	.	.	.	.	1
awns Aven	.	.	.	1	1	.	1	2	.	.	.	.	5
culm node	.	.	.	1	2	.	.	2	.	.	.	1	6
chaf inde	.	.	.	.	.	.	7	35	1	2	.	.	45
WEEDS													
Ranu flam	1	.	.	.	.	.	.	.	1	.	.	.	2
Ranu repe	.	.	.	.	.	.	.	.	.	.	.	.	.
Ranu Ranu	1	1	2	.	.	1	.	.	1	.	.	1	7
Bras sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	1	1	.	.	.	.	.	2
Viol Mela	.	.	.	.	.	.	.	.	1	.	.	.	1
Stel medi	1	.	4	2	8	2	20	3	11	3	.	1	55
Stel palu	.	.	.	.	.	.	.	.	1	.	.	.	1
Sper arve	.	.	.	.	.	.	.	.	.	.	.	1	1
Mont font	.	.	.	1	2	.	1	4	13	2	.	.	23
Chen albu	2	.	2	4	5	7	8	2	5	5	3	.	43
Chen sp.	.	.	3	3	6	13	20	9	5	3	4	21	87
Atri spp.	.	.	.	1	1	9	4	1	1	2	.	15	34
Chenop.	4	.	.	.	.	.	.	.	.	.	.	.	4
Malv sp.	.	.	.	.	.	.	.	.	.	.	.	.	.
Linu cath	.	.	.	.	2	.	.	.	.	.	.	.	2
Vici Lath	.	.	.	2	12	9	13	7	.	.	1	6	50
Legumin.	.	1	9	8	19	15	23	5	120	74	7	2	283
Pote erec	1	.	3	5	7	2	1	.	.	11	.	.	30
Apha arve	.	.	.	.	.	.	.	.	.	.	.	.	.
Anth cauc	.	.	.	.	.	.	.	.	.	.	.	.	.
Hera spon	.	.	.	.	.	.	.	.	.	.	.	.	.
Poly avic	.	1	3	1	5	4	5	4	1	.	.	.	24
Poly conv	2	.	.	.	2	1	1	1	.	.	.	1	8
Poly lapa	.	.	.	.	.	1	.	.	.	.	.	.	1
Poly pers	.	.	.	.	.	.	.	.	.	.	.	.	.
Poly l/p	.	.	.	.	.	.	.	1	.	.	.	.	1
Poly sp.	1	.	1	.	3	.	4	.	1	1	.	4	15

Table 4.14a (cont.)

CONTEXTS:	47	61a	61b	74	24	59	60	50*	2a*	2b*	14	69	sub-total
VOL. IN LITRES:	12	30	30	16	30	30	30	30	30	30	14	15	297
WEEDS													
Rume acet	2	.	.	.	1	1	1	1	.	.	.	.	6
Rume spp.	1	.	.	.	1	9	7	10	.	.	.	.	28
Urti uren	.	.	.	.	6	.	1	.	.	.	.	.	7
Sola nigr	.	.	.	.	.	.	.	.	.	1	.	.	1
Vero arve	.	.	.	.	1	.	.	.	.	1	.	.	2
Odon vern	.	.	.	.	.	.	.	.	.	.	.	.	.
Prun vulg	.	.	.	.	1	.	.	.	1	.	.	.	2
Plan lanc	2	.	.	.	5	1	3	.	8	4	.	1	24
Gali apar	.	1	.	.	4	5	6	1	1	.	1	2	21
Gali palu	.	.	.	.	.	.	.	.	.	.	.	.	.
Trip inod	1	.	14	3	17	12	33	3	2	6	1	4	96
Hypo g/r	.	.	.	.	.	.	.	.	1	.	.	.	1
Compos.	.	.	.	.	1	.	.	.	.	.	.	.	1
Aven sp.	.	1	.	.	3	1	2	.	1	3	.	1	12
Brom m/s	6	6	3	42	8	4	5	9	20	23	1	4	131
Sieg decu	10	9	21	23	66	94	49	34	85	140	20	10	561
smal gras	22	10	18	11	34	25	39	17	38	41	11	14	280
Gramin.	.	.	.	1	8	7	7	7	2	2	.	2	36
Arrh elat	.	.	.	.	.	.	.	.	3	.	.	.	3
rhiz Gram	5	1	5	17	21	26	6	.	37	31	5	.	154
Junc squa	.	.	1	.	1	1	1	1	.	2	1	.	8
Junc sp.	1	1	.	.	.	.	.	.	2	.	.	.	4
Eleo sp.	.	.	.	.	1	.	1	.	.	.	.	.	2
Care pilu	1	.	.	1	2	1	4	.	.	2	.	.	11
Care spp.	7	2	4	7	16	17	7	5	27	11	9	.	112
OTHER													
Cory avel	.	.	.	.	.	1	2	1	2	.	.	.	6
Prun spin	.	.	.	.	.	.	.	.	.	.	.	.	.
Call leaf	4	.	.	5	.	3	2	1	9	2	2	.	28
Call flow	6	.	2	4	1	4	1	2	.	1	1	.	22
Vacc myrt	.	.	.	.	.	.	.	.	1	.	.	.	1
Viol Viol	.	.	.	.	.	.	.	.	.	1	.	.	1
Meny trif	.	.	.	.	1	.	.	.	3	.	.	.	4
Pota spp.	.	.	.	.	.	.	.	.	3	.	.	.	3
INDET.	4	5	6	6	7	9	11	11	15	7	3	3	87
TOTAL	138	62	139	331	376	344	553	462*	509*	567*	87	112	3680

KEY: * = only 50 per cent of this sample is analysed.

Table 4.14b Carbonized seeds from Rock Castle.

CONTEXTS:	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	38	54	TOTAL
VOL. IN LITRES:	20	30	30	30	30	30	30	30	30	10	30	598
GRAIN												
Trit spel	.	.	.	1	2	1	10	2	2	1	2	74
Trit aest	.	.	.	.	.	.	.	.	.	.	.	1
Trit sp.	1	.	2	2	2	2	5	2	2	2	3	74
Hord vulg	3	4	1	2	8	8	9	2	6	1	7	144
Cere inde	4	3	2	4	7	14	20	7	12	3	14	238
CHAFF												
glum spel	7	6	5	27	17	14	25	2	7	9	6	384
glum dico	.	.	.	.	.	.	.	.	.	.	.	1
glum Trit	4	10	12	27	29	14	19	14	20	9	12	516
glum inde	1	5	.	2	1	2	5	1	3	.	.	70
rach brit	2	1	.	10	12	4	10	1	6	2	2	175
rach aest	.	.	.	.	.	.	.	.	.	.	.	125
awns Trit	.	.	.	.	.	.	.	.	1	.	.	1
rach Hord	.	3	1	3	4	.	.	.	3	.	2	58
flor Aven	.	.	.	.	.	.	.	.	.	.	.	1
awns Aven	2	4	.	3	3	3	1	.	1	.	1	23
culm node	.	.	.	2	2	2	1	2	10	.	.	25
chaff inde	.	.	.	.	.	.	1	.	.	.	.	46
WEEDS												
Ranu flam	.	.	.	.	.	.	.	.	1	.	1	4
Ranu repe	.	.	.	.	.	.	1	.	.	.	.	1
Ranu Ranu	1	.	1	1	1	.	1	1	.	1	.	14
Bras sp.	.	.	.	.	.	1	.	.	.	.	.	1
Raph raph	.	.	.	.	1	.	.	.	.	.	2	5
Viol Mela	.	.	.	.	.	.	.	.	.	.	.	1
Stel medi	3	4	2	3	7	26	6	7	13	3	6	135
Stel palu	.	.	.	.	.	.	.	.	.	.	.	1
Sper arve	.	.	.	.	.	.	.	.	.	.	.	1
Mont font	12	.	1	.	.	3	7	.	3	.	2	51
Chen albu	1	1	1	3	8	3	5	1	4	3	6	79
Chen sp.	3	1	3	3	19	14	8	9	14	12	8	181
Atri spp.	2	1	1	1	4	6	1	1	4	5	7	67
Chenop.	.	.	.	.	.	.	.	.	.	.	.	4
Malv sp.	.	.	.	.	.	.	.	1	.	.	.	1
Linu cath	.	.	.	.	.	.	.	.	.	.	.	2
Vici Lath	3	.	1	3	6	10	12	12	40	4	5	146
Legumin.	13	4	1	8	8	14	38	10	13	2	11	405
Pote erec	1	.	.	1	1	.	2	2	1	3	2	43
Apha arve	.	.	.	.	.	.	.	.	5	.	.	5
Anth cauc	.	.	.	.	.	.	.	.	1	.	.	1
Hera spon	.	.	.	.	.	.	.	1	.	.	.	1
Poly avic	2	.	.	.	4	2	5	2	15	4	9	67
Poly conv	.	.	.	.	.	.	1	.	.	1	1	11
Poly lapa	.	.	.	.	.	.	.	.	.	.	.	1
Poly pers	.	1	.	.	.	.	.	.	.	.	.	1
Poly l/p	.	.	.	.	.	2	.	.	2	.	.	5
Poly sp.	.	.	1	1	.	.	2	.	.	.	.	19

Table 4.14b (cont.)

CONTEXTS:	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	38	54	TOTAL
VOL. IN LITRES:	20	30	30	30	30	30	30	30	30	10	30	598
WEEDS												
Rume acet	.	2	.	2	2	1	1	.	.	.	3	17
Rume spp.	.	.	2	.	1	.	2	.	1	.	3	37
Urti uren	.	.	.	.	.	.	.	.	3	.	1	11
Sola nigr	.	.	.	.	.	.	.	.	.	.	.	1
Vero arve	.	.	.	.	.	.	.	.	1	.	.	3
Odon vern	.	.	.	.	.	.	.	.	.	.	1	1
Prun vulg	.	.	.	.	.	.	.	.	1	.	.	3
Plan lanc	.	.	1	1	.	1	2	1	.	1	.	31
Gali apar	3	.	1	2	3	7	11	7	18	2	4	79
Gali palu	.	1	.	.	.	.	.	.	.	.	.	1
Trip inod	9	2	2	2	15	14	25	10	18	11	10	214
Hypo g/r	.	.	.	.	.	.	.	.	.	.	.	1
Compos.	.	.	.	.	.	.	.	.	.	.	.	1
Aven sp.	1	.	1	4	3	.	6	1	3	.	5	36
Brom m/s	2	3	3	4	6	6	7	3	8	5	7	185
Sieg decu	60	27	11	43	51	34	206	9	36	33	47	1118
smal gras	22	23	6	21	39	27	40	24	90	11	19	602
Gramin.	4	.	1	1	3	.	5	4	28	4	8	94
Arrh elat	.	.	.	.	.	.	.	.	.	.	.	3
rhiz Gram	20	4	1	3	7	4	26	2	.	9	5	235
Junc squa	3	1	.	.	1	1	.	.	.	.	1	15
Junc sp.	.	.	.	.	.	.	.	1	.	.	1	6
Eleo sp.	.	.	.	.	.	1	.	.	1	.	.	4
Care pilu	1	.	.	.	.	.	5	1	.	2	1	21
Care spp.	29	10	.	5	5	3	42	7	2	7	8	230
OTHER												
Cory avel	.	.	.	1	.	2	.	.	.	.	.	9
Prun spin	.	.	.	.	1	1	.	.	.	.	.	2
Call leaf	1	1	.	.	2	.	.	.	.	.	.	32
Call flow	2	.	.	1	5	2	1	.	.	1	.	34
Vacc myrt	.	.	.	.	.	.	.	.	.	.	.	1
Viol Viol	.	.	.	.	.	.	.	1	.	.	.	2
Meny trif	.	.	.	.	.	.	.	.	.	.	1	5
Pota spp.	.	.	.	.	.	.	.	.	.	.	.	3
INDET.	6	8	.	1	6	8	4	9	6	8	2	145
TOTAL	228	130	64	198	296	257	578	160	405	159	236	6391

Table 4.15 Sample contexts from Thornbrough.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
1983		
2	fill of posthole	15
5	fill of rectangular posthole	30
10	sediment in between cobbled area	30
17	fill of gulley	30
39	sediment in between cobbled area	25
40	fill of posthole	10
41	fill of posthole	30
43	fill of rectangular posthole	35
45	fill of pit below context 10	17
46	fill of posthole	22
49	fill of posthole	16
54a	fill of gulley, same as context 17	34
55	fill of posthole	14
1984		
44	fill of posthole	60
46	sediment in between cobbled area	60
54b	sediment in between cobbled area	60
58	fill of posthole/trench	30
110	fill of posthole	12
120	fill of posthole/trench	30
123	fill of posthole	5
125	fill of posthole	15
127	fill of posthole	25
134	fill of posthole, below context 58	30
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	635

Table 4.16a Carbonized seeds from Thornbrough.

1983 CONTEXTS:	2	5	10	17	39	40	41	43	45*	46	49	54a	55	sub-total
VOL. IN LITRES:	15	30	30	30	25	10	30	35	17	22	16	34	14	308
GRAIN														
Trit spel	.	10	235	1	38	10	10	25	116	62	30	4	1	542
Trit sp.	.	.	5	2	4	3	7	14	9	1	4	.	.	49
Hord vulg	.	32	580	8	105	35	49	128	146	149	117	10	6	1365
Seca cere	.	2	20	.	2	2	.	3	8	5	5	.	.	47
Cere inde	4	36	598	7	128	23	47	129	450	125	87	11	3	1648
coleopti.	.	.	9	.	.	.	.	.	4	.	1	.	.	14
CHAFF														
glum spel	.	6	372	1	26	16	7	6	427	17	9	17	2	906
glum dico	.	.	6	.	.	.	.	.	3	.	.	.	.	9
glum inde	.	2	256	1	2	3	.	.	412	10	3	11	1	701
glumes	.	.	63	.	1	.	3	2	85	.	1	3	.	158
rach brit	.	.	150	.	2	2	.	.	181	1	.	5	.	341
base Hord	.	.	.	.	.	.	.	.	3	.	.	1	.	4
rach Hord	.	.	11	.	.	.	.	.	12	.	1	.	.	24
lemm Hord	.	.	.	.	.	.	.	.	.	.	.	.	.	.
rach Seca	.	.	15	.	.	.	.	.	23	.	.	.	.	38
awns Aven	.	.	3	.	.	.	.	.	4	.	.	.	.	7
culm node	.	.	.	2	.	1	.	1	4	.	.	10	.	18
chaf inde	.	.	15	.	.	.	.	.	11	.	.	.	.	26
WEEDS														
Ranu flam	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Ranu repe	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Ranu Ranu	.	.	.	.	.	.	.	1	.	.	.	.	.	1
Raph raph	.	.	.	.	.	.	2	.	.	.	.	1	.	3
Stel medi	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Agro gith	.	.	1	.	.	.	.	.	1	.	.	.	.	2
Mont font	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Chen albu	.	.	2	.	.	.	1	.	3	.	.	.	.	6
Chen sp.	.	.	1	.	.	.	.	.	1	.	.	.	.	2
Atri spp.	.	.	.	.	.	.	.	.	2	.	.	.	.	2
Vici Lath	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Legumin.	.	.	1	.	.	.	.	.	2	1	.	.	.	4
Pote erec	.	.	.	.	.	.	.	.	1	.	.	.	.	1
Poly avic	.	.	.	.	1	.	.	.	3	.	1	1	.	6
Poly conv	.	.	1	.	.	.	.	.	2	.	.	1	.	4
Poly lapa	.	.	.	.	.	.	.	.	2	.	.	.	.	2
Poly pers	.	.	.	.	.	.	.	.	2	.	.	.	.	2
Poly l/p	.	.	.	.	.	.	.	1	.	.	.	.	.	1
Rume acet	.	.	.	.	1	.	.	.	.	.	.	1	.	2
Rume spp.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Ment a/a	.	.	.	.	.	.	.	.	2	.	.	.	.	2
Prun vulg	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Plan lanc	.	.	.	.	.	.	.	2	.	.	.	1	.	3
Gali apar	.	.	1	.	.	.	.	.	2	.	.	1	1	5
Gali palu	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	1	.	.	.	.	.	1	.	.	.	.	2
Brom m/s	.	.	59	.	18	1	.	4	93	2	5	2	.	184

Table 4.16a (cont.)

1983 CONTEXTS:	2	5	10	17	39	40	41	43	45*	46	49	54a	55	sub-total
VOL. IN LITRES:	15	30	30	30	25	10	30	35	17	22	16	34	14	308
WEEDS														
Aven sp.	.	.	1	.	.	.	.	1	.	.	.	.	.	2
Sieg decu	.	.	3	.	1	.	.	2	4	1	.	1	.	12
smal gras	.	.	1	1	1	.	1	.	1	2	1	14	.	22
Gramin.	.	.	27	.	.	.	.	.	23	.	.	4	.	54
Arrh elat	.	1	.	.	.	.	.	.	.	.	.	.	.	1
rhiz Gram	.	.	.	.	.	1	1	.	3	1	.	1	.	7
Junc squa	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eleo sp.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Care pilu	.	.	.	.	.	.	.	.	2	.	.	.	.	2
Care spp.	.	.	3	1	2	1	.	1	15	1	.	3	.	27
OTHER														
Linu usit	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cory avel	.	.	1	.	2	4	.	.	1	.	.	1	.	9
Rubu frut	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Prun spin	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Call leaf	.	.	.	.	.	.	.	.	1	.	.	.	.	1
Call flow	.	.	.	.	.	.	.	.	1	.	.	.	.	1
Eric flow	.	.	.	.	.	.	.	.	1	.	.	.	.	1
INDET.	.	.	.	2	.	.	.	.	1	.	.	4	.	7
TOTAL	4	89	2441	26	334	102	128	320	2068*	379	265	115	14	6285

KEY: * = only 50 per cent of this sample has been analysed.

Table 4.16b Carbonized seeds from Thornbrough.

1984 CONTEXTS:	44	46	54b	58	110	120	123	125	127	134	TOTAL
VOL. IN LITRES:	60	60	60	30	12	30	5	15	25	30	635
GRAIN											
Trit spel	3	.	12	18	1	10	2	3	16	18	625
Trit sp.	1	3	2	4	2	.	2	.	.	3	66
Hord vulg	10	6	26	50	1	182	16	133	91	109	1989
Seca cere	.	.	1	1	.	.	.	.	.	1	50
Cere inde	9	8	31	77	6	143	6	51	60	69	2108
coleopti.	.	.	.	.	.	.	.	.	.	.	14
CHAFF											
glum spel	6	1	6	92	1	19	4	6	3	53	1097
glum dico	.	.	.	.	1	.	.	.	.	.	10
glum inde	3	.	1	40	2	7	.	7	1	54	816
glumes	.	.	.	11	.	1	.	2	2	4	178
rach brit	.	.	.	25	1	1	1	3	.	18	390
base Trit	.	.	.	1	.	.	.	.	.	.	5
rach Hord	.	1	.	4	.	1	.	2	.	3	35
lemm Hord	.	.	.	.	.	1	.	.	.	.	1
rach Seca	.	.	.	1	.	.	.	.	.	.	39
awns Aven	.	.	.	.	.	.	.	.	.	.	7
culm node	.	.	.	1	.	.	.	.	.	.	19
chaf inde	.	.	.	.	.	.	.	.	.	.	26
WEEDS											
Ranu flam	.	.	.	.	.	.	.	.	.	.	1
Ranu repe	.	.	.	.	.	.	.	.	.	.	1
Ranu Ranu	.	1	.	.	.	.	.	.	.	.	2
Raph raph	.	.	.	3	.	1	.	.	.	.	7
Stel medi	1	.	.	.	.	.	.	.	.	.	1
Agro gith	.	.	.	.	.	.	.	.	.	.	2
Mont font	.	.	.	.	.	.	.	.	.	.	1
Chen albu	1	.	.	5	.	1	.	.	.	3	16
Chen sp.	.	.	.	2	1	.	.	.	.	.	5
Atri spp.	1	.	.	.	.	.	.	.	.	.	3
Vici Lath	1	.	.	.	.	1	.	.	.	.	3
Legumin.	3	.	.	.	1	.	.	.	.	.	8
Pote erec	.	.	.	.	.	1	.	.	.	1	3
Poly avic	.	.	.	.	.	1	.	.	.	1	8
Poly conv	1	.	.	.	.	.	.	.	.	.	5
Poly lapa	.	.	.	.	.	1	.	.	.	.	3
Poly pers	.	.	.	.	.	.	.	.	.	.	2
Poly l/p	1	.	.	.	.	2	.	.	.	.	4
Rume acet	.	.	.	3	.	.	.	1	.	.	6
Rume spp.	.	.	.	.	.	2	.	.	.	.	3
Ment a/a	.	.	.	.	.	.	.	.	.	.	2
Prun vulg	.	.	.	.	.	.	.	.	.	.	1
Plan lanc	2	1	1	.	.	.	.	.	.	1	8
Gali apar	.	.	.	.	.	.	.	.	.	.	5
Gali palu	.	.	.	.	.	.	.	1	.	.	1
Trip inod	.	.	.	.	.	.	.	.	.	.	2
Brom m/s	1	.	1	31	.	6	1	.	.	11	235

Table 4.16b (cont.)

1984 CONTEXTS:	44	46	54b	58	110	120	123	125	127	134	TOTAL
VOL. IN LITRES:	60	60	60	30	12	30	5	15	25	30	635
WEEDS											
Aven sp.	1	.	.	.	1	1	.	.	.	.	5
Sieg decu	.	2	.	2	.	4	.	.	1	1	22
smal gras	5	.	.	2	.	.	1	1	.	2	33
Gramin.	.	.	.	.	.	.	.	.	.	.	54
Arrh elat	2	.	.	4	1	.	.	.	.	.	8
rhiz Gram	1	3	.	.	1	.	.	.	.	.	12
Junc squa	.	.	.	.	.	.	.	1	.	.	1
Eleo sp.	.	.	.	1	.	.	.	.	.	.	2
Care pilu	.	.	.	.	.	.	.	.	.	.	2
Care spp.	.	2	1	2	.	.	.	.	.	.	32
OTHER											
Linu usit	1	.	.	.	.	.	.	.	.	.	1
Cory avel	2	1	.	1	.	.	.	.	1	3	17
Rubu frut	.	.	1	.	.	.	.	.	.	.	2
Prun spin	.	.	.	.	.	1	.	.	.	.	1
Call leaf	.	.	.	.	.	.	.	.	.	.	1
Call flow	.	.	.	.	.	.	.	.	.	.	1
Eric flow	.	.	.	.	.	.	.	.	.	.	1
INDET.	4	1	1	2	1	2	.	1	.	.	19
TOTAL	60	30	84	383	21	389	33	212	175	355	8027

Table 4.17 Sample contexts from South Shields.

CONTEXT	DESCRIPTION	VOLUME IN LITRES
12236	lower deposit in between the sleeper walls of the forecourt granary, consisting of clay and clay-silt, flakes of sandstone and mortar, charcoal and grain. Sealed when the flagstone floor was coated with a layer of opus signinum. The grain from this deposit probably represents spillage through the cracks of the floor 33 samples	465
12176	layer of debris accumulated over the floor of the granary 30 samples	427
	TOTAL VOLUME OF SIEVED SEDIMENT IN LITRES:	892

Table 4.18a Carbonized seeds from South Shields, deposit 12236.

CONTEXT:	12236										
SAMPLE NO.:	1	2	3	4	5	6	7a	7b	8	9	10a
VOL. IN LITRES:	9.5	20	23	30	11.5	16	24	29	14.5	15	10.5
GRAIN											
Trit aest	77	186	126	348	171	64	239	38	57	105	185
Trit spel	106	256	226	316	272	89	322	64	81	145	221
Trit sp.	197	602	718	1078	912	186	347	185	205	284	757
Hord vulg	2	3	9	4	6	1	10	.	4	6	13
CHAFF											
glum spel	3	20	4	10	3	5	9	5	5	2	5
glum inde	1	11	7	5	.	1	5	6	.	2	5
rach brit	.	.	.	.	.	1	.	.	.	.	.
rach Hord	.	.	.	.	.	.	.	.	.	.	.
flor Avef	.	.	.	.	.	.	.	1	.	.	.
flor Aven	.	.	.	.	.	.	.	.	1	.	.
WEEDS											
Raph raph	1	1	1	1	.	2	.	1	.	1	1
Crucif.	.	.	.	.	.	.	.	.	.	.	.
Mont font	.	.	.	.	.	.	.	1	.	.	.
Agro gith	.	1	.	.	1	.	2	2	.	1	1
Stel medi	.	.	.	.	.	.	.	.	.	.	.
Atri spp.	.	.	.	.	1	.	.	.	.	.	.
Chen sp.	.	.	.	.	.	.	.	1	.	.	.
Vici hirs	.	.	.	2	.	.	.	.	.	.	.
Vici Lath	.	.	.	1	.	1	.	.	.	2	.
Legumin.	.	1	.	.	.	.	2	.	1	.	.
Pote erec	.	.	.	.	.	.	.	.	.	.	.
Coni macu	.	.	.	.	.	.	.	.	.	.	.
Poly conv	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	.	.	.
Rume spp.	.	.	.	1	2	.	1	2	3	.	.
Odon vern	.	.	.	.	.	.	.	.	.	.	.
Plan lanc	.	.	1	.	.	.	.	.	.	.	.
Gali apar	2	.	.	.	.	.	.	1	.	1	.
Trip inod	.	.	.	.	.	.	.	.	.	.	.
Cent cyan	.	.	.	1	.	.	.	.	.	.	1
Compos.	.	.	.	.	.	.	.	.	.	.	.
Aven sp.	6	4	1	9	3	5	6	3	2	7	6
Brom m/s	11	8	9	13	10	8	9	6	6	8	13
Brom ster	.	1	.	.	.	.	1	1	.	.	.
Sieg decu	1	.	4	5	1	2	.	13	3	.	2
smal gras	.	.	1	1	1	.	1	.	.	.	1
Gramin.	.	.	.	.	.	.	.	.	.	.	1
Eleo sp.	.	1	.	.	.	.	.	.	.	.	.
Care pilu	.	1	2	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.	.
Care spp.	1	1	2	.	1	.	1	2	3	.	1

Table 4.18a (cont.)

CONTEXT:	12236										
SAMPLE NO.:	1	2	3	4	5	6	7a	7b	8	9	10a
VOL. IN LITRES:	9.5	20	23	30	11.5	16	24	29	14.5	15	10.5
OTHER											
Cory avel	.	.	.	.	.	.	.	.	1	.	.
Call leaf	.	.	.	1	.	.	.	.	.	.	.
Thel sang	.	.	.	.	.	.	.	.	.	.	.
INDET.	.	.	1	.	1	.	2	1	2	1	1
TOTAL	408	1097	1112	1796	1385	365	957	333	374	565	1214

Table 4.18b Carbonized seeds from South Shields, deposit 12236.

CONTEXT:	12236											
SAMPLE NO.:	10b	10c	10d	11	12	13	14	15	16	17	18	19
VOL. IN LITRES:	5	4	6	13	11	10	13.5	12	15	13.5	16	18
GRAIN												
Trit aest	32	51	118	105	156	149	106	325	7	119	199	433
Trit spel	30	83	193	163	200	263	136	408	4	180	265	444
Trit sp.	181	172	527	484	960	252	221	618	22	333	650	1210
Hord vulg	2	3	6	4	9	19	4	8	1	10	14	17
CHAFF												
glum spel	2	5	8	8	15	10	6	16	1	10	8	41
glum inde	.	2	2	5	11	4	.	17	1	4	5	18
rach brit	.	.	.	.	.	.	.	.	.	1	.	.
rach Hord	.	.	.	.	.	.	.	.	1	1	.	.
flor Avef	.	.	.	.	.	.	.	.	.	.	.	.
flor Aven	.	.	.	.	.	.	.	.	.	.	.	.
WEEDS												
Raph raph	.	.	1	.	1	.	.	1	.	.	.	1
Crucif.	.	.	.	.	.	.	.	.	.	.	.	.
Mont font	.	.	.	.	.	.	.	.	.	.	.	.
Agro gith	.	.	.	.	1	1	1	6	.	1	4	3
Stel medi	.	.	.	.	.	.	.	.	.	.	.	.
Atri spp.	.	.	.	.	.	.	.	.	.	.	.	.
Chen sp.	.	.	.	.	.	.	.	.	.	.	.	.
Vici hirs	1	.	.	.	.	.	.	.	.	.	.	.
Vici Lath	.	.	1	.	.	.	.	.	.	.	.	.
Legumin.	.	.	1	.	.	.	.	.	1	.	.	.
Pote erec	.	.	.	1	.	.	.	.	.	.	.	1
Coni macu	.	.	.	.	.	.	.	.	.	.	.	.
Poly conv	.	.	.	.	.	.	.	.	.	.	.	.
Poly lapa	.	.	.	.	.	.	.	.	.	.	.	1
Rume acet	.	1	.	.	2	.	.	.	.	.	.	1
Rume spp.	.	.	.	.	.	1	1	3	.	1	1	2
Odon vern	.	.	.	.	.	.	.	.	.	.	.	1
Plan lanc	.	.	.	.	.	.	.	.	.	.	.	.
Gali apar	.	.	.	.	.	.	.	.	.	.	.	.
Trip inod	.	.	.	.	.	.	.	.	.	.	.	.
Cent cyan	.	.	.	.	.	.	.	.	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	1	.	.
Aven sp.	1	.	3	6	1	1	6	7	.	4	2	4
Brom m/s	1	10	13	15	22	11	8	36	2	18	8	23
Brom ster	.	.	.	.	.	.	.	1	.	.	.	.
Sieg decu	2	.	.	2	3	.	.	.	4	10	6	2
smal gras	.	1	1	.	1	1	.	.	1	.	1	2
Gramin.	.	.	.	.	.	.	1	.	.	.	.	1
Eleo sp.	1	.	.	.	.	.	.	.	.	1	.	.
Care pilu	.	.	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	1	.	.	.	.	.	.	.
Care spp.	1	.	.	1	2	2	3	.	.	4	3	1

Table 4.18b (cont.)

CONTEXT:	12236											
SAMPLE NO.:	10b	10c	10d	11	12	13	14	15	16	17	18	19
VOL. IN LITRES:	5	4	6	13	11	10	13.5	12	15	13.5	16	18
OTHER												
Cory avel	.	.	.	.	.	.	.	.	1	.	.	.
Call leaf	.	.	.	.	.	.	.	1	.	.	.	.
Thel sang	.	.	.	.	.	.	.	.	.	.	.	.
INDET.	.	.	.	.	.	.	.	.	.	1	1	.
TOTAL	254	328	874	794	1385	714	493	1447	46	699	1167	2206

Table 4.18c Carbonized seeds from South Shields, deposit 12236.

CONTEXT:											
SAMPLE NO.:	21	22	23	24	25	26	27	28	29	30	TOTAL
VOL. IN LITRES:	10	12.5	15	13	10.5	12.5	13	14.5	14	10	465
GRAIN											
Trit aest	118	485	536	29	505	58	92	54	362	485	6120
Trit spel	200	723	663	13	516	89	158	55	238	987	8109
Trit sp.	541	1016	847	54	1072	169	379	109	402	1229	16919
Hord vulg	12	20	13	.	23	1	10	2	8	26	270
CHAFF											
glum spel	10	32	16	36	42	47	21	18	16	47	486
glum inde	5	15	11	22	12	23	12	12	6	44	274
rach brit	1	2	.	2	.	3	.	2	1	.	13
rach Hord	.	.	.	1	.	.	.	.	.	.	3
flor Avef	.	2	2	.	.	.	.	.	.	1	6
flor Aven	.	.	.	1	1	.	.	.	.	.	3
WEEDS											
Raph raph	1	1	1	5	1	2	.	2	.	2	28
Crucif.	.	.	.	2	.	6	.	1	.	1	10
Mont font	.	.	.	.	.	.	.	.	.	.	1
Agro gith	3	2	1	1	5	1	3	2	1	2	46
Stel medi	1	.	.	.	.	.	.	.	.	.	1
Atri spp.	.	.	.	.	.	.	1	2	.	.	4
Chen sp.	.	.	.	.	.	.	.	.	.	.	1
Vici hirs	.	.	.	.	1	.	.	.	.	1	5
Vici Lath	1	.	1	.	3	1	.	1	.	4	16
Legumin.	.	.	.	.	.	.	.	1	.	.	7
Pote erec	.	.	.	.	.	.	.	.	.	.	2
Coni macu	.	.	.	.	.	.	.	.	.	1	1
Poly conv	.	.	.	.	.	.	.	.	.	1	1
Poly lapa	.	.	.	.	.	.	.	.	.	.	1
Rume acet	.	.	.	1	.	3	.	4	.	.	12
Rume spp.	.	4	1	15	2	11	1	8	2	3	65
Odon vern	.	.	.	.	.	.	.	.	.	.	1
Plan lanc	.	.	.	.	.	.	.	.	.	1	2
Gali apar	.	.	.	.	.	.	.	.	.	2	6
Trip inod	.	.	.	.	.	1	.	.	.	.	1
Cent cyan	.	.	.	.	.	.	.	.	.	.	2
Compos.	.	.	.	1	.	.	.	.	.	.	2
Aven sp.	2	4	5	8	11	8	1	3	2	11	142
Brom m/s	13	33	15	84	38	76	31	34	15	58	665
Brom ster	.	.	.	1	1	1	2	1	.	3	13
Sieg decu	.	4	2	8	.	3	5	10	4	3	99
smal gras	.	.	.	1	.	1	1	1	.	2	19
Gramin.	.	.	.	.	.	.	1	.	.	.	4
Eleo sp.	.	.	.	.	.	.	.	.	.	.	3
Care pilu	.	.	.	.	.	.	1	1	2	.	7
Care puli	.	.	.	.	.	.	.	.	.	.	1
Care spp.	.	1	1	6	1	1	.	3	7	2	51

Table 4.18c (cont.)

CONTEXT:											
SAMPLE NO.:	21	22	23	24	25	26	27	28	29	30	TOTAL
VOL. IN LITRES:	9.5	12.5	15	13	10.5	12.5	13	14.5	14	10	464.5
OTHER											
Cory avel	.	.	.	.	.	.	.	1	1	.	4
Call leaf	.	.	.	.	.	.	.	.	1	.	3
Thel sang	.	.	.	.	.	1	.	.	.	.	1
INDET.	.	.	.	4	1	1	.	1	1	.	19
TOTAL	908	2344	2115	295	2235	507	719	328	1069	2916	33449

Table 4.18d Carbonized seeds from South Shields, deposit 12176.

CONTEXT:	12176									
SAMPLE NO.:	1	2	3	4	5	6	7	8	9	10
VOL. IN LITRES:	15	10	10	12	14.5	16	14	16	20.5	14.5
GRAIN										
Trit aest	20	7	1	19	.	4	3	.	.	.
Trit spel	34	18	.	44	.	4	11	.	1	1
Trit sp.	324	189	32	366	39	42	49	17	28	16
Hord vulg	2	.	.	1	.	.	1	.	1	.
CHAFF										
glum spel	2	3	.	1	1	2	2	2	.	1
glum inde	.	.	1	.	.	.	.	.	.	2
rach brit	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	.	.	.	.	.	.	.
awns Aven	.	.	.	.	1	.	.	.	.	.
flor Aven	.	.	1	.	.	.	.	.	.	.
WEEDS										
Ranu flam	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.
Mont font	.	.	.	.	.	.	.	.	.	.
Stel medi	.	.	.	.	.	.	.	.	.	.
Caryoph.	.	.	.	.	.	.	.	.	.	.
Atri spp.	.	.	.	.	.	.	.	.	.	.
Chen albu	.	.	.	.	.	.	.	.	.	.
Chen sp.	.	.	.	.	.	.	.	.	1	.
Vici hirs	.	.	.	.	.	.	.	.	.	.
Vici Lath	1	.	.	.	1	.	.	.	.	.
Legumin.	1	.	.	.	.	.	.	.	.	.
Coni macu	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	.	.
Rume spp.	.	.	.	.	3	.	1	3	.	.
Plan lanc	.	.	.	1	1	.	.	.	.	.
Gali apar	.	.	1	.	.	2	.	.	.	.
Compos.	.	.	.	.	.	.	.	.	.	.
Aven sp.	3	2	.	2	.	1	1	.	.	.
Brom m/s	4	3	.	4	.	.	.	.	3	.
Sieg decu	1	.	.	3	1	4	2	5	4	4
smal gras	1	.	.	.	.	.	.	.	.	1
Gramin.	.	.	.	.	.	.	.	.	.	.
rhiz Gram	.	.	.	.	.	1	.	.	1	.
Care pilu	.	.	.	.	.	.	.	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.
Care spp.	.	.	.	.	1	.	1	2	.	1
OTHER										
Cory avel	.	.	.	.	.	.	.	.	.	.
INDET.	.	.	1	1	.	.	.	1	.	.
TOTAL	393	222	37	442	48	60	71	30	39	26

Table 4.18e Carbonized seeds from South Shields, deposit 12176.

CONTEXT:	12176									
SAMPLE NO.:	11	12	13	14	15	16	17	18	19	20
VOL. IN LITRES:	14.5	17	12	18	16	18	15	12	15	11.5
GRAIN										
Trit aest	1	2	.	.	8	1	2	.	3	1
Trit spel	4	1	2	1	9	3	2	2	2	2
Trit sp.	8	25	11	20	79	23	13	4	27	13
Hord vulg	.	1	1	5	1	.	2	.	.	.
CHAFF										
glum spel	1	1	1	5	3	.	3	.	.	2
glum inde	1	.	.	2	.	1	.	.	1	1
rach brit	.	.	.	.	.	.	.	.	.	.
rach Hord	.	.	.	.	.	.	1	.	.	.
awns Aven	.	.	.	.	.	.	.	.	.	.
flor Aven	.	.	.	.	.	.	.	.	.	.
WEEDS										
Ranu flam	.	.	.	.	.	.	.	.	.	.
Raph raph	.	.	.	.	.	.	.	.	.	.
Crucif.	.	.	.	.	.	.	.	.	.	.
Mont font	.	.	.	.	.	.	.	.	.	.
Stel medi	.	.	.	.	.	.	2	.	.	.
Caryoph.	.	1	.	.	.	.	1	.	.	.
Atri spp.	.	.	.	.	.	.	.	.	.	.
Chen albu	.	.	.	.	.	.	.	.	.	.
Chen sp.	.	.	.	.	.	.	.	1	.	.
Vici hirs	.	.	.	.	.	.	.	1	.	.
Vici Lath	1	1	.	2	1	.	.	.	.	.
Legumin.	.	.	.	.	1	1	1	.	1	.
Coni macu	.	.	.	.	.	.	.	.	.	.
Rume acet	.	.	.	.	.	.	.	.	.	.
Rume spp.	.	.	1	.	3	.	4	2	.	.
Plan lanc	1	.	.	.	.	.	.	.	.	.
Gali apar	.	3	.	1	2	1	1	1	1	.
Compos.	.	.	.	.	.	.	1	.	.	.
Aven sp.	1	.	.	5	1	1	.	.	.	.
Brom m/s	2	.	.	1	3	.	.	.	.	.
Sieg decu	5	10	4	5	5	4	5	6	8	7
smal gras	.	.	1	2	.	.	.	.	.	.
Gramin.	.	.	.	.	.	1	.	.	.	.
rhiz Gram	1	.	.	.	2	.	.	1	.	.
Care pilu	.	.	.	.	.	1	1	.	.	.
Care puli	.	.	.	.	.	.	.	.	.	.
Care spp.	5	1	.	2	2	7	2	1	1	7
OTHER										
Cory avel	.	1	.	.	.	.	.	.	.	.
INDET.	.	1	.	.	.	1	4	1	2	.
TOTAL	31	48	21	51	120	45	45	20	46	33

Table 4.18f Carbonized seeds from South Shields, deposit 12176.

CONTEXT:	12176										
SAMPLE NO.:	21	22	23	24	25	26	27	28	29	30	TOTAL
VOL. IN LITRES:	11	12.5	13	10.5	14	12.5	15	16	14	17	427
GRAIN											
Trit aest	1	2	9	.	10	.	1	2	.	4	101
Trit spel	1	4	8	3	9	1	.	3	.	5	175
Trit sp.	4	19	55	9	107	4	1	28	6	30	1588
Hord vulg	.	2	.	.	1	2	1	1	.	1	23
CHAFF											
glum spel	2	.	2	.	1	2	.	8	4	4	53
glum inde	1	.	.	.	.	.	.	2	.	.	12
rach brit	1	.	.	.	.	.	.	.	.	.	1
rach Hord	.	.	.	.	.	.	.	.	.	.	1
awns Aven	.	.	.	.	.	.	.	.	.	.	1
flor Aven	.	.	.	.	.	.	.	.	.	.	1
WEEDS											
Ranu flam	.	.	1	.	.	.	.	.	.	.	1
Raph raph	.	.	.	.	.	.	.	2	.	.	2
Crucif.	.	.	.	1	.	.	.	.	.	.	1
Mont font	.	.	.	1	.	.	.	.	.	.	1
Stel medi	.	1	.	.	.	.	.	.	.	.	3
Caryoph.	.	.	.	1	.	.	.	.	2	.	5
Atri spp.	1	.	.	.	.	.	.	.	.	.	1
Chen albu	.	.	.	.	1	.	.	.	.	.	1
Chen sp.	.	.	.	.	.	.	.	.	1	2	5
Vici hirs	.	.	.	.	.	.	.	.	.	.	1
Vici Lath	.	.	.	.	.	.	.	.	.	.	7
Legumin.	2	1	.	.	1	.	.	1	1	2	13
Coni macu	.	.	1	.	.	.	2	.	.	4	7
Rume acet	.	.	.	.	.	.	.	.	.	1	1
Rume spp.	12	1	8	.	1	1	3	10	4	7	64
Plan lanc	1	.	.	.	.	.	.	.	.	.	4
Gali apar	3	1	.	.	.	1	.	.	1	.	19
Compos.	1	.	.	.	.	.	.	.	.	.	2
Aven sp.	.	.	1	.	.	.	.	2	.	.	20
Brom m/s	.	.	2	.	4	1	.	10	.	1	38
Sieg decu	14	7	8	3	6	3	7	7	6	12	156
smal gras	1	.	1	.	.	.	.	.	1	2	10
Gramin.	2	1	.	.	1	.	2	2	.	4	13
rhiz Gram	4	.	.	1	.	.	1	.	.	.	12
Care pilu	1	.	.	.	.	.	.	.	.	.	3
Care puli	.	1	.	.	.	.	.	.	.	.	1
Care spp.	4	1	4	1	2	.	4	6	4	8	67
OTHER											
Cory avel	.	.	.	.	.	.	.	1	.	.	2
INDET.	1	.	.	.	1	3	.	1	1	3	22
TOTAL	57	41	100	20	145	18	22	86	31	90	2438

Table 5.1 Calibrated age ranges for all radio-carbon dates.

	68.3% (1 SIGMA)	95.4% (2 SIGMA)
Hallshill		
HAR-8184	1510 cal BC-1478 cal BC	1522 cal BC-1296 cal BC
	1460 cal BC-1382 cal BC	1292 cal BC-1266 cal BC
	1344 cal BC-1320 cal BC	
HAR-8183	1302 cal BC-1286 cal BC	1386 cal BC-1342 cal BC
	1268 cal BC-1096 cal BC	1320 cal BC-1012 cal BC
OxA-1764	1252 cal BC-1246 cal BC	1308 cal BC-1280 cal BC
	1212 cal BC-1182 cal BC	1272 cal BC- 912 cal BC
	1168 cal BC-1000 cal BC	
OxA-1763	1124 cal BC-1115 cal BC	1256 cal BC-1240 cal BC
	1104 cal BC- 910 cal BC	1216 cal BC- 890 cal BC
		884 cal BC- 844 cal BC
HAR-4800	1020 cal BC- 838 cal BC	1202 cal BC-1194 cal BC
		1162 cal BC-1142 cal BC
		1136 cal BC- 806 cal BC
OxA-1765	988 cal BC- 956 cal BC	1090 cal BC-1076 cal BC
	940 cal BC- 832 cal BC	1062 cal BC- 802 cal BC
HAR-8185	920 cal BC- 810 cal BC	1016 cal BC- 794 cal BC
HAR-4789	810 cal BC- 760 cal BC	836 cal BC- 510 cal BC
	686 cal BC- 656 cal BC	492 cal BC- 488 cal BC
	636 cal BC- 592 cal BC	436 cal BC- 414 cal BC
	586 cal BC- 550 cal BC	
OxA-1766	812 cal BC- 758 cal BC	840 cal BC- 474 cal BC
	690 cal BC- 652 cal BC	446 cal BC- 412 cal BC
	642 cal BC- 542 cal BC	
HAR-4788	798 cal BC- 754 cal BC	806 cal BC- 466 cal BC
	702 cal BC- 532 cal BC	448 cal BC- 410 cal BC
Murton		
GrN-15673	3022 cal BC-3000 cal BC	3034 cal BC-2944 cal BC
	2926 cal BC-2882 cal BC	2942 cal BC-2872 cal BC
	2798 cal BC-2782 cal BC	2806 cal BC-2776 cal BC
		2720 cal BC-2702 cal BC
GrN-15672	1510 cal BC-1472 cal BC	1584 cal BC-1576 cal BC
	1466 cal BC-1414 cal BC	1528 cal BC-1372 cal BC
		1348 cal BC-1314 cal BC
HAR-6201	1308 cal BC-1280 cal BC	1408 cal BC- 990 cal BC
	1272 cal BC-1086 cal BC	950 cal BC- 946 cal BC
	1082 cal BC-1060 cal BC	
HAR-6202	358 cal BC- 290 cal BC	382 cal BC- 0 cal AD
	250 cal BC- 94 cal BC	
HAR-6200	200 cal BC- 60 cal AD	370 cal BC- 120 cal AD
OxA-1742	94 cal BC- 64 cal AD	190 cal BC- 130 cal AD
OxA-1741	46 cal BC- 116 cal AD	156 cal BC- 146 cal BC
		114 cal BC- 216 cal AD
OxA-1740	8 cal AD- 142 cal AD	88 cal BC- 62 cal BC
	164 cal AD- 200 cal AD	60 cal BC- 242 cal AD

Table 5.1 (cont.)

	68.3% (1 SIGMA)	95.4% (2 SIGMA)
Dod Law		
GrN-15677	394 cal BC- 360 cal BC	398 cal BC- 350 cal BC
	286 cal BC- 254 cal BC	312 cal BC- 208 cal BC
GrN-15674	386 cal BC- 354 cal BC	392 cal BC- 342 cal BC
	306 cal BC- 246 cal BC	324 cal BC- 202 cal BC
	224 cal BC- 212 cal BC	
GrN-15675	368 cal BC- 350 cal BC	382 cal BC- 198 cal BC
	314 cal BC- 274 cal BC	
	266 cal BC- 208 cal BC	
GrN-15676	172 cal BC- 102 cal BC	194 cal BC- 50 cal BC
OxA-1735	86 cal BC- 70 cal BC	164 cal BC- 138 cal BC
	54 cal BC- 88 cal AD	122 cal BC- 146 cal AD
	102 cal AD- 108 cal AD	160 cal AD- 208 cal AD
OxA-1734	46 cal BC- 116 cal AD	156 cal BC- 146 cal BC
		114 cal BC- 216 cal AD
OxA-1736	6 cal AD- 146 cal AD	102 cal BC- 254 cal AD
	158 cal AD- 212 cal AD	298 cal AD- 318 cal AD
Chester House		
GrN-15709	804 cal BC- 752 cal BC	812 cal BC- 460 cal BC
	706 cal BC- 530 cal BC	456 cal BC- 410 cal BC
GrN-15708	752 cal BC- 724 cal BC	764 cal BC- 678 cal BC
	528 cal BC- 388 cal BC	664 cal BC- 624 cal BC
		606 cal BC- 364 cal BC
		282 cal BC- 258 cal BC
GrN-15707	402 cal BC- 356 cal BC	406 cal BC- 336 cal BC
	298 cal BC- 248 cal BC	330 cal BC- 200 cal BC
OxA-1743	156 cal BC- 146 cal BC	342 cal BC- 324 cal BC
	116 cal BC- 28 cal AD	202 cal BC- 118 cal AD
	38 cal AD- 54 cal AD	
Thorpe Thewles		
GrN-15661	980 cal BC- 964 cal BC	1096 cal BC- 782 cal BC
	932 cal BC- 810 cal BC	
GrN-15662	760 cal BC- 686 cal BC	782 cal BC- 390 cal BC
	656 cal BC- 638 cal BC	
	548 cal BC- 400 cal BC	
GrN-15663	402 cal BC- 370 cal BC	408 cal BC- 356 cal BC
		298 cal BC- 248 cal BC
OxA-1731	480 cal BC- 440 cal BC	758 cal BC- 688 cal BC
	412 cal BC- 350 cal BC	654 cal BC- 640 cal BC
	316 cal BC- 206 cal BC	546 cal BC- 186 cal BC
GrN-15658	366 cal BC- 346 cal BC	380 cal BC- 194 cal BC
	320 cal BC- 280 cal BC	
	262 cal BC- 204 cal BC	
GrN-15659	366 cal BC- 338 cal BC	390 cal BC- 166 cal BC
	328 cal BC- 278 cal BC	136 cal BC- 122 cal BC
	262 cal BC- 200 cal BC	
OxA-1732	368 cal BC- 272 cal BC	394 cal BC- 104 cal BC
	268 cal BC- 190 cal BC	
GrN-15660	354 cal BC- 308 cal BC	370 cal BC- 36 cal BC
	244 cal BC- 226 cal BC	
	212 cal BC- 98 cal BC	
OxA-1733	164 cal BC- 136 cal BC	348 cal BC- 316 cal BC
	122 cal BC- 22 cal AD	206 cal BC- 114 cal AD
OxA-1745	1228 cal AD-1300 cal AD	1172 cal AD-1330 cal AD
	1358 cal AD-1380 cal AD	1332 cal AD-1396 cal AD

Table 5.1 (cont.)

	68.3% (1 SIGMA)	95.4% (2 SIGMA)
Stanwick		
GrN-15664	404 cal BC- 382 cal BC	508 cal BC- 498 cal BC
		484 cal BC- 438 cal BC
		414 cal BC- 362 cal BC
		284 cal BC- 256 cal BC
GrN-15665	86 cal BC- 70 cal BC	164 cal BC- 138 cal BC
	54 cal BC- 68 cal AD	120 cal BC- 126 cal AD
GrN-15666	32 cal BC- 22 cal AD	43 cal BC- 61 cal AD
GrN-15667	44 cal BC- 28 cal AD	94 cal BC- 68 cal AD
	36 cal AD- 56 cal AD	
Rock Castle		
GrN-15668	1302 cal BC-1288 cal BC	1398 cal BC- 976 cal BC
	1268 cal BC-1030 cal BC	970 cal BC- 928 cal BC
GrN-15671	808 cal BC- 770 cal BC	820 cal BC- 760 cal BC
		684 cal BC- 658 cal BC
		634 cal BC- 596 cal BC
		578 cal BC- 552 cal BC
GrN-15669	770 cal BC- 748 cal BC	790 cal BC- 464 cal BC
	734 cal BC- 522 cal BC	452 cal BC- 410 cal BC
GrN-15670	756 cal BC- 698 cal BC	764 cal BC- 678 cal BC
	536 cal BC- 404 cal BC	666 cal BC- 624 cal BC
		606 cal BC- 398 cal BC
OxA-1738	108 cal BC- 56 cal AD	334 cal BC- 330 cal BC
		198 cal BC- 124 cal AD
OxA-1739	94 cal BC- 64 cal AD	190 cal BC- 130 cal AD
OxA-1737	86 cal BC- 70 cal BC	164 cal BC- 138 cal BC
	54 cal BC- 88 cal AD	122 cal BC- 146 cal AD
	102 cal AD- 108 cal AD	160 cal AD- 208 cal AD
OxA-2132	8 cal BC- 142 cal AD	92 cal BC- 234 cal AD
	166 cal AD- 188 cal AD	
OxA-1737}		
OxA-2132}	28 cal BC- 86 cal AD	94 cal BC- 130 cal AD
Thornbrough		
GrN-15678	796 cal BC- 762 cal BC	802 cal BC- 756 cal BC
	682 cal BC- 660 cal BC	696 cal BC- 536 cal BC
	632 cal BC- 598 cal BC	
	576 cal BC- 556 cal BC	
GrN-15679	156 cal BC- 146 cal BC	174 cal BC- 4 cal AD
	116 cal BC- 34 cal BC	
GrN-12608	232 cal AD- 270 cal AD	142 cal AD- 166 cal AD
	276 cal AD- 338 cal AD	190 cal AD- 196 cal AD
		198 cal AD- 392 cal AD
GrN-12607	340 cal AD- 424 cal AD	254 cal AD- 298 cal AD
		320 cal AD- 452 cal AD
		484 cal AD- 506 cal AD
		512 cal AD- 526 cal AD
OxA-2130	340 cal AD- 460 cal AD	246 cal AD- 562 cal AD
	474 cal AD- 532 cal AD	582 cal AD- 590 cal AD
OxA-2131	252 cal AD- 304 cal AD	142 cal AD- 164 cal AD
	314 cal AD- 418 cal AD	202 cal AD- 536 cal AD

Table 6.1 Total number of seeds for each species.

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84	TOTAL
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63	325
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892	7,630
GRAIN										
Trit dico	104	2	10	0	1	0	0	0	0	117
Trit spel	29	2	17	1	214	53	74	625	8284	9299
Trit aest	0	0	0	0	0	0	1	0	6221	6222
Trit sp.	123	6	41	7	206	63	74	66	18507	19093
Hord vulg	40	141	1040	33	726	486	144	1989	293	4892
Seca cere	0	0	0	0	0	0	0	50	0	50
Cere inde	177	74	819	59	1319	290	238	2108	0	5084
coleopti.	0	0	0	0	0	0	0	14	0	14
CHAFF										
glum dico	1057	37	324	49	3	0	1	10	0	1481
glum spel	35	18	54	4	2882	266	384	1097	539	5279
glum inde	997	24	232	36	2459	255	516	816	286	5621
glumes	0	1	4	0	116	43	70	178	0	412
rach brit	142	15	99	21	698	132	175	390	14	1686
rach aest	0	0	0	0	0	0	125	0	0	125
base Trit	6	0	0	0	3	0	0	5	0	14
rach Hord	48	104	538	40	284	40	58	35	4	1151
base Hord	0	2	31	0	3	0	0	0	0	36
flor Avef	0	0	3	2	8	2	0	0	6	21
flor Aven	0	0	0	2	0	2	1	0	4	9
awns Aven	7	0	19	2	29	0	23	7	1	88
culm node	6	0	8	1	7	10	25	19	0	76
awns Trit	0	0	0	0	0	0	1	0	0	1
lemma Hord	0	0	0	0	0	3	0	1	0	4
chaff inde	0	2	1	2	5	0	46	26	0	82
rach Seca	0	0	0	0	0	0	0	39	0	39
WEEDS										
Ranu acri	0	0	0	0	2	0	0	0	0	2
Ranu repe	0	0	2	0	5	1	1	1	0	10
Ranu Ranu	4	1	0	49	40	7	14	2	0	117
Ranu flam	0	2	2	0	26	0	4	1	1	36
Papa arge	0	0	0	0	7	0	0	0	0	7
Papa rh/d	0	0	0	0	1	0	0	0	0	1
Papa sp.	0	0	0	0	1	0	0	0	0	1
Raph raph	0	1	4	0	8	12	5	7	30	67
Bras sp.	1	0	8	0	2	1	1	0	0	13
Crucif.	0	0	0	1	41	0	0	0	11	53
Viol Mela	0	0	0	0	2	0	1	0	0	3
Mont font	0	0	1	0	1807	34	51	1	2	1896
Stel medi	4	48	23	0	39	19	135	1	4	273
Stel palu	0	0	0	0	0	2	1	0	0	3
Agro gith	0	0	0	0	0	0	0	2	46	48
Sper arve	1	1	19	1	0	0	1	0	0	23
Caryoph.	0	0	0	0	0	0	0	0	5	5
Cheno albu	28	61	437	1	371	75	79	16	1	1069
Cheno sp.	2	32	386	2	148	20	181	5	6	782
Atri spp.	13	4	7	1	124	5	67	3	5	229

Table 6.1 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84	Total
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63	325
NO. OF LITRES:	252	68	308	890	3556	431	598	635	892	7630
WEEDS										
Chenop.	0	0	0	2	68	4	4	0	0	78
Malv sylv	0	0	0	0	1	0	0	0	0	1
Malv sp.	0	0	0	0	7	0	1	0	0	8
Linu cath	0	0	0	0	0	0	2	0	0	2
Vici hirs	0	0	0	0	0	0	0	0	5	5
Vici Lath	0	2	8	3	33	6	146	3	24	225
Legumin.	6	7	15	8	326	155	405	8	20	950
Apha arve	0	0	0	0	1	3	5	0	0	9
Pote erec	0	4	11	0	68	40	43	3	2	171
Hera spon	0	0	0	0	1	0	1	0	0	2
Coni macu	0	0	0	0	0	0	0	0	8	8
Anth cauc	0	0	0	0	0	0	1	0	0	1
Poly avic	0	9	12	0	70	10	67	8	0	176
Poly conv	1	2	7	1	25	7	11	5	1	60
Poly lapa	12	12	15	1	43	3	1	3	1	91
Poly pers	12	11	20	1	32	4	1	2	0	83
Poly l/p	7	2	14	2	23	4	5	4	0	61
Poly sp.	0	1	14	0	0	12	19	0	0	46
Rume acet	1	3	23	3	17	39	17	6	13	122
Rume spp.	4	6	30	0	461	301	37	3	129	971
Polygon.	0	0	0	0	8	0	0	0	0	8
Urti dioc	0	0	0	0	4	0	0	0	0	4
Urti uren	0	15	4	0	2	12	11	0	0	44
Sola nigr	0	0	0	0	1	1	1	0	0	3
Hyos nige	0	0	0	0	15	191	0	0	0	206
Odon vern	0	0	0	0	23	3	1	0	1	28
Vero arve	0	0	1	0	0	2	3	0	0	6
Vero scut	12	0	0	0	0	0	0	0	0	12
Rhin sp.	0	0	0	0	0	1	0	0	0	1
Verb sp.	0	0	0	0	1	0	0	0	0	1
Ajug rept	3	0	1	0	0	0	0	0	0	4
Lami a/p	0	0	2	0	5	0	0	0	0	7
Stac arve	1	1	0	0	0	0	0	0	0	2
Ment a/a	0	0	0	0	2	2	0	2	0	6
Gale sp.	0	1	1	0	0	2	0	0	0	4
Prun vulg	0	1	0	0	21	2	3	1	0	28
Plan lanc	3	6	26	1	52	13	31	8	6	146
Plan majo	3	0	0	0	19	1	0	0	0	23
Gali apar	0	0	1	0	75	22	79	5	25	207
Gali palu	0	0	0	0	2	0	1	1	0	4
Sher arve	0	0	0	0	5	0	0	0	0	5
Vale dent	0	0	0	0	1	0	0	0	0	1
Trip inod	0	1	0	0	184	13	214	2	1	415
Laps comm	0	0	0	0	3	0	0	0	0	3
Sonc aspe	0	0	0	0	5	0	0	0	0	5
Hypo g/r	0	0	0	0	0	0	1	0	0	1
Cent cyan	0	0	0	0	0	0	0	0	2	2
Compos.	0	0	0	0	6	0	1	0	4	11
Aven sp.	3	1	15	7	88	2	36	5	162	319

Table 6.1 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84	Total
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63	325
NO. OF LITRES:	252	68	308	890	3556	431	598	635	892	7630
WEEDS										
Brom m/s	8	3	20	4	1608	444	185	235	703	3210
Brom ster	0	0	0	0	0	0	0	0	13	13
Sieg decu	1	14	11	15	4783	749	1118	22	255	6968
smal gras	46	94	279	14	698	236	602	33	29	2031
Gramin.	14	26	22	6	1030	30	94	54	17	1293
Arrh elat	0	0	1	0	61	0	3	8	0	73
rhiz Gram	1	0	27	7	1238	133	235	12	12	1665
Junc sp.	1	0	13	2	1	1	6	0	0	24
Junc squa	0	0	0	0	0	2	15	1	0	18
Eleo sp.	0	0	0	0	24	5	4	2	3	38
Isol seta	0	0	0	0	4	0	0	0	0	4
Care pilu	0	7	22	1	31	52	21	2	10	146
Care puli	0	13	0	0	58	0	0	0	2	73
Care spp.	25	95	133	8	1107	165	230	32	118	1913
OTHER										
Linu usit	2	0	0	0	0	0	0	1	0	3
Cory avel	44	2	106	4	23	26	9	17	6	237
Crat mono	0	0	0	0	1	0	0	0	0	1
Prun spin	0	0	0	0	0	0	2	1	0	3
Samb nigr	0	0	0	0	0	10	0	0	0	10
tree buds	0	0	9	1	0	0	0	0	0	10
Rosa sp.	0	0	4	0	0	1	0	0	0	5
Rubu frut	0	0	0	0	0	0	0	2	0	2
Rubu sp.	3	0	2	0	0	0	0	0	0	5
Thel sang	0	0	0	0	0	0	0	0	1	1
Call leaf	2	8	53	1	0	10	32	1	3	110
Call flow	0	0	543	3	0	29	34	1	0	610
Eric flow	1	0	0	0	0	6	0	1	0	8
Vacc myrt	0	0	0	0	0	0	1	0	0	1
Empe nigr	0	1	2	0	0	0	0	0	0	3
Pter aqui	44	0	10	3	0	0	0	0	0	57
Lyco euro	3	0	0	0	0	0	0	0	0	3
Viol Viol	0	0	0	0	0	0	2	0	0	2
Calt palu	0	0	0	0	0	1	0	0	0	1
Meny trif	0	0	0	0	0	0	5	0	0	5
Pota spp.	0	0	0	0	0	0	3	0	0	3
INDET.	37	50	78	27	398	96	145	19	41	891
TOTAL	3,124	976	5,685	439	24,350	4,672	6,391	8,027	35,887	89,550

Table 6.2 Relative proportions of each species per caregory of data.

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
GRAIN									
Trit dico	21.99	.89	.52	.00	.04	.00	.00	.00	.00
Trit spel	6.13	.89	.88	1.00	8.68	5.94	13.94	12.88	24.87
Trit aest	.00	.00	.00	.00	.00	.00	.19	.00	18.68
Trit sp.	26.00	2.67	2.13	7.00	8.35	7.06	13.94	1.36	55.57
Hord vulg	8.46	62.67	53.97	33.00	29.44	54.48	27.12	40.99	.88
Seca cere	.00	.00	.00	.00	.00	.00	.00	1.03	.00
Cere inde	37.42	32.89	42.50	59.00	53.49	32.51	44.82	43.45	.00
coleopti.	.00	.00	.00	.00	.00	.00	.00	.29	.00
GRAIN TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
CHAFF									
glum dico	46.00	18.23	24.68	30.82	.05	.00	.07	.38	.00
glum spel	1.52	8.87	4.11	2.52	44.36	35.33	26.95	41.82	63.11
glum inde	43.39	11.82	17.67	22.64	37.85	33.86	36.21	31.11	33.49
glumes	.00	.49	.30	.00	1.79	5.71	4.91	6.79	.00
rach brit	6.18	7.39	7.54	13.21	10.74	17.53	12.28	14.87	1.64
rach aest	.00	.00	.00	.00	.00	.00	8.77	.00	.00
base Trit	.26	.00	.00	.00	.05	.00	.00	.19	.00
rach Hord	2.09	51.23	40.97	25.16	4.37	5.31	4.07	1.33	.47
base Hord	.00	.99	2.36	.00	.05	.00	.00	.00	.00
flor Avef	.00	.00	.23	1.26	.12	.27	.00	.00	.70
flor Aven	.00	.00	.00	1.26	.00	.27	.07	.00	.47
awns Aven	.30	.00	1.45	1.26	.45	.00	1.61	.27	.12
culm node	.26	.00	.61	.63	.11	1.33	1.75	.72	.00
awns Trit	.00	.00	.00	.00	.00	.00	.07	.00	.00
lemma Hord	.00	.00	.00	.00	.00	.40	.00	.04	.00
chaff inde	.00	.99	.08	1.26	.08	.00	3.23	.99	.00
rach Seca	.00	.00	.00	.00	.00	.00	.00	1.49	.00
TOTAL CHAFF	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
WEEDS									
Ranu acri	.00	.00	.00	.00	.01	.00	.00	.00	.00
Ranu repe	.00	.00	.12	.00	.03	.04	.02	.20	.00
Ranu Ranu	1.84	.21	.00	34.75	.27	.25	.33	.39	.00
Ranu flam	.00	.41	.12	.00	.17	.00	.10	.20	.06
Papa arge	.00	.00	.00	.00	.05	.00	.00	.00	.00
Papa rh/d	.00	.00	.00	.00	.01	.00	.00	.00	.00
Papa sp.	.00	.00	.00	.00	.01	.00	.00	.00	.00
Raph raph	.00	.21	.24	.00	.05	.42	.12	1.38	1.79
Bras sp.	.46	.00	.49	.00	.01	.04	.02	.00	.00
Crucif.	.00	.00	.00	.71	.27	.00	.00	.00	.66
Viol Mela	.00	.00	.00	.00	.01	.00	.02	.00	.00
Mont font	.00	.00	.06	.00	12.07	1.19	1.21	.20	.12
Stel medi	1.84	9.86	1.41	.00	.26	.67	3.21	.20	.24
Stel palu	.00	.00	.00	.00	.00	.07	.02	.00	.00
Agro gith	.00	.00	.00	.00	.00	.00	.00	.39	2.74
Sper arve	.46	.21	1.16	.71	.00	.00	.02	.00	.00

Table 6.2 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
WEEDS									
Caryoph.	.00	.00	.00	.00	.00	.00	.00	.00	.30
Cheno albu	12.90	12.53	26.70	.71	2.48	2.63	1.88	3.14	.06
Cheno sp.	.92	6.57	23.58	1.42	.99	.70	4.31	.98	.36
Atri spp.	5.99	.82	.43	.71	.83	.18	1.59	.59	.30
Chenop.	.00	.00	.00	1.42	.45	.14	.10	.00	.00
Malv sylv	.00	.00	.00	.00	.01	.00	.00	.00	.00
Malv sp.	.00	.00	.00	.00	.05	.00	.02	.00	.00
Linu cath	.00	.00	.00	.00	.00	.00	.05	.00	.00
Vici hirs	.00	.00	.00	.00	.00	.00	.00	.00	.30
Vici Lath	.00	.41	.49	2.13	.22	.21	3.47	.59	1.43
Legumin.	2.76	1.44	.92	5.67	2.18	5.44	9.64	1.57	1.19
Apha arve	.00	.00	.00	.00	.01	.11	.12	.00	.00
Pote erec	.00	.82	.67	.00	.45	1.40	1.02	.59	.12
Hera spon	.00	.00	.00	.00	.01	.00	.02	.00	.00
Coni macu	.00	.00	.00	.00	.00	.00	.00	.00	.48
Anth cauc	.00	.00	.00	.00	.00	.00	.02	.00	.00
Poly avic	.00	1.85	.73	.00	.47	.35	1.59	1.57	.00
Poly conv	.46	.41	.43	.71	.17	.25	.26	.98	.06
Poly lapa	5.53	2.46	.92	.71	.29	.11	.02	.59	.06
Poly pers	5.53	2.26	1.22	.71	.21	.14	.02	.39	.00
Poly l/p	3.23	.41	.86	1.42	.15	.14	.12	.79	.00
Poly sp.	.00	.21	.86	.00	.00	.42	.45	.00	.00
Rume acet	.46	.62	1.41	2.13	.11	1.37	.40	1.18	.78
Rume spp.	1.84	1.23	1.83	.00	3.08	10.57	.88	.59	7.69
Polygon.	.00	.00	.00	.00	.05	.00	.00	.00	.00
Urti dioc	.00	.00	.00	.00	.03	.00	.00	.00	.00
Urti uren	.00	3.08	.24	.00	.01	.42	.26	.00	.00
Sola nigr	.00	.00	.00	.00	.01	.04	.02	.00	.00
Hyos nige	.00	.00	.00	.00	.10	6.71	.00	.00	.00
Odon vern	.00	.00	.00	.00	.15	.11	.02	.00	.06
Vero arve	.00	.00	.06	.00	.00	.07	.07	.00	.00
Vero scut	5.53	.00	.00	.00	.00	.00	.00	.00	.00
Rhin sp.	.00	.00	.00	.00	.00	.04	.00	.00	.00
Verb sp.	.00	.00	.00	.00	.01	.00	.00	.00	.00
Ajug rept	1.38	.00	.06	.00	.00	.00	.00	.00	.00
Lami a/p	.00	.00	.12	.00	.03	.00	.00	.00	.00
Stac arve	.46	.21	.00	.00	.00	.00	.00	.00	.00
Ment a/a	.00	.00	.00	.00	.01	.07	.00	.39	.00
Gale sp.	.00	.21	.06	.00	.00	.07	.00	.00	.00
Prun vulg	.00	.21	.00	.00	.14	.07	.07	.20	.00
Plan lanc	1.38	1.23	1.59	.71	.35	.46	.74	1.57	.36
Plan majo	1.38	.00	.00	.00	.13	.04	.00	.00	.00
Gali apar	.00	.00	.06	.00	.50	.77	1.88	.98	1.49
Gali palu	.00	.00	.00	.00	.01	.00	.02	.20	.00
Sher arve	.00	.00	.00	.00	.03	.00	.00	.00	.00
Vale dent	.00	.00	.00	.00	.01	.00	.00	.00	.00
Trip inod	.00	.21	.00	.00	1.23	.46	5.09	.39	.06
Laps comm	.00	.00	.00	.00	.02	.00	.00	.00	.00
Sonc aspe	.00	.00	.00	.00	.03	.00	.00	.00	.00

Table 6.2 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
WEEDS									
Hypo g/r	.00	.00	.00	.00	.00	.00	.02	.00	.00
Cent cyan	.00	.00	.00	.00	.00	.00	.00	.00	.12
Compos.	.00	.00	.00	.00	.04	.00	.02	.00	.24
Aven sp.	1.38	.21	.92	4.96	.59	.07	.86	.98	9.66
Brom m/s	3.69	.62	1.22	2.84	10.75	15.59	4.40	46.17	41.92
Brom ster	.00	.00	.00	.00	.00	.00	.00	.00	.78
Sieg decu	.46	2.87	.67	10.64	31.96	26.30	26.61	4.32	15.21
smal gras	21.20	19.30	17.04	9.93	4.66	8.29	14.33	6.48	1.73
Gramin.	6.45	5.34	1.34	4.26	6.88	1.05	2.24	10.61	1.01
Arrh elat	.00	.00	.06	.00	.41	.00	.07	1.57	.00
rhiz Gram	.46	.00	1.65	4.96	8.27	4.67	5.59	2.36	.72
Junc sp.	.46	.00	.79	1.42	.01	.04	.14	.00	.00
Junc squa	.00	.00	.00	.00	.00	.07	.36	.20	.00
Eleo sp.	.00	.00	.00	.00	.16	.18	.10	.39	.18
Isol seta	.00	.00	.00	.00	.03	.00	.00	.00	.00
Care pilu	.00	1.44	1.34	.71	.21	1.83	.50	.39	.60
Care puli	.00	2.67	.00	.00	.39	.00	.00	.00	.12
Care spp.	11.52	19.51	8.12	5.67	7.40	5.79	5.47	6.29	7.04
TOTAL WEEDS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
OTHER									
Linu usit	2.02	.00	.00	.00	.00	.00	.00	4.17	.00
Cory avel	44.44	18.18	14.54	33.33	95.83	31.33	10.23	70.83	60.00
Crat mono	.00	.00	.00	.00	4.17	.00	.00	.00	.00
Prun spin	.00	.00	.00	.00	.00	.00	2.27	4.17	.00
Samb nigr	.00	.00	.00	.00	.00	12.05	.00	.00	.00
tree buds	.00	.00	1.23	8.33	.00	.00	.00	.00	.00
Rosa sp.	.00	.00	.55	.00	.00	1.20	.00	.00	.00
Rubu frut	.00	.00	.00	.00	.00	.00	.00	8.33	.00
Rubu sp.	3.03	.00	.27	.00	.00	.00	.00	.00	.00
Thel sang	.00	.00	.00	.00	.00	.00	.00	.00	10.00
Call leaf	2.02	72.73	7.27	8.33	.00	12.05	36.36	4.17	30.00
Call flow	.00	.00	74.49	25.00	.00	34.94	38.64	4.17	.00
Eric flow	1.01	.00	.00	.00	.00	7.23	.00	4.17	.00
Vacc myrt	.00	.00	.00	.00	.00	.00	1.14	.00	.00
Empe nigr	.00	9.09	.27	.00	.00	.00	.00	.00	.00
Pter aqui	44.44	.00	1.37	25.00	.00	.00	.00	.00	.00
Lyco euro	3.03	.00	.00	.00	.00	.00	.00	.00	.00
Viol Viol	.00	.00	.00	.00	.00	.00	2.27	.00	.00
Calt palu	.00	.00	.00	.00	.00	1.20	.00	.00	.00
Meny trif	.00	.00	.00	.00	.00	.00	5.68	.00	.00
Pota spp.	.00	.00	.00	.00	.00	.00	3.41	.00	.00
TOTAL OTHER	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 6.3 Number of seeds per 1 litre of sieved sediment.

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
GRAIN									
Trit dico	.41	.03	.03	.00	.00	.00	.00	.00	.00
Trit spel	.12	.03	.06	.00	.06	.12	.12	.98	9.29
Trit aest	.00	.00	.00	.00	.00	.00	.00	.00	6.97
Trit sp.	.49	.09	.13	.01	.06	.15	.12	.10	20.75
Hord vulg	.16	2.07	3.38	.04	.20	1.13	.24	3.13	.33
Seca cere	.00	.00	.00	.00	.00	.00	.00	.08	.00
Cere inde	.70	1.09	2.66	.07	.37	.67	.40	3.32	.00
coleopti.	.00	.00	.00	.00	.00	.00	.00	.02	.00
CHAFF									
glum dico	4.19	.54	1.05	.06	.00	.00	.00	.02	.00
glum spel	.14	.26	.18	.00	.81	.62	.64	1.73	.60
glum inde	3.96	.35	.75	.04	.69	.59	.86	1.29	.32
glumes	.00	.01	.01	.00	.03	.10	.12	.28	.00
rach brit	.56	.22	.32	.02	.20	.31	.29	.61	.02
rach aest	.00	.00	.00	.00	.00	.00	.21	.00	.00
base Trit	.02	.00	.00	.00	.00	.00	.00	.01	.00
rach Hord	.19	1.53	1.75	.04	.08	.09	.10	.06	.00
base Hord	.00	.03	.10	.00	.00	.00	.00	.00	.00
flor Avef	.00	.00	.01	.00	.00	.00	.00	.00	.01
flor Aven	.00	.00	.00	.00	.00	.00	.00	.00	.00
awns Aven	.03	.00	.06	.00	.01	.00	.04	.01	.00
culm node	.02	.00	.03	.00	.00	.02	.04	.03	.00
awns Trit	.00	.00	.00	.00	.00	.00	.00	.00	.00
lemma Hord	.00	.00	.00	.00	.00	.01	.00	.00	.00
chaff inde	.00	.03	.00	.00	.00	.00	.08	.04	.00
rach Seca	.00	.00	.00	.00	.00	.00	.00	.06	.00
WEEDS									
Ranu acri	.00	.00	.00	.00	.00	.00	.00	.00	.00
Ranu repe	.00	.00	.01	.00	.00	.00	.00	.00	.00
Ranu Ranu	.02	.01	.00	.06	.01	.02	.02	.00	.00
Ranu flam	.00	.03	.01	.00	.01	.00	.01	.00	.00
Papa arge	.00	.00	.00	.00	.00	.00	.00	.00	.00
Papa rh/d	.00	.00	.00	.00	.00	.00	.00	.00	.00
Papa sp.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Raph raph	.00	.01	.01	.00	.00	.03	.01	.01	.03
Bras sp.	.00	.00	.03	.00	.00	.00	.00	.00	.00
Crucif.	.00	.00	.00	.00	.01	.00	.00	.00	.01
Viol Mela	.00	.00	.00	.00	.00	.00	.00	.00	.00
Mont font	.00	.00	.00	.00	.51	.08	.09	.00	.00
Stel medi	.02	.71	.07	.00	.01	.04	.23	.00	.00
Stel palu	.00	.00	.00	.00	.00	.00	.00	.00	.00
Agro gith	.00	.00	.00	.00	.00	.00	.00	.00	.05
Sper arve	.00	.01	.06	.00	.00	.00	.00	.00	.00
Caryoph.	.00	.00	.00	.00	.00	.00	.00	.00	.01
Cheno albu	.11	.90	1.42	.00	.10	.17	.13	.03	.00
Cheno sp.	.01	.47	1.25	.00	.04	.05	.30	.01	.01
Atri spp.	.05	.06	.02	.00	.03	.01	.11	.00	.01

Table 6.3 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
WEEDS									
Chenop.	.00	.00	.00	.00	.02	.01	.01	.00	.00
Malv sylv	.00	.00	.00	.00	.00	.00	.00	.00	.00
Malv sp.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Linu cath	.00	.00	.00	.00	.00	.00	.00	.00	.00
Vici hirs	.00	.00	.00	.00	.00	.00	.00	.00	.01
Vici Lath	.00	.03	.03	.00	.01	.01	.24	.00	.03
Legumin.	.02	.10	.05	.01	.09	.36	.68	.01	.02
Apha arve	.00	.00	.00	.00	.00	.01	.01	.00	.00
Pote erec	.00	.06	.04	.00	.02	.09	.07	.00	.00
Hera spon	.00	.00	.00	.00	.00	.00	.00	.00	.00
Coni macu	.00	.00	.00	.00	.00	.00	.00	.00	.01
Anth cauc	.00	.00	.00	.00	.00	.00	.00	.00	.00
Poly avic	.00	.13	.04	.00	.02	.02	.11	.01	.00
Poly conv	.00	.03	.02	.00	.01	.02	.02	.01	.00
Poly lapa	.05	.18	.05	.00	.01	.01	.00	.00	.00
Poly pers	.05	.16	.06	.00	.01	.01	.00	.00	.00
Poly l/p	.03	.03	.05	.00	.01	.01	.01	.01	.00
Poly sp.	.00	.01	.05	.00	.00	.03	.03	.00	.00
Rume acet	.00	.04	.07	.00	.00	.09	.03	.01	.01
Rume spp.	.02	.09	.10	.00	.13	.70	.06	.00	.14
Polygon.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Urti dioc	.00	.00	.00	.00	.00	.00	.00	.00	.00
Urti uren	.00	.22	.01	.00	.00	.03	.02	.00	.00
Sola nigr	.00	.00	.00	.00	.00	.00	.00	.00	.00
Hyos nige	.00	.00	.00	.00	.00	.44	.00	.00	.00
Odon vern	.00	.00	.00	.00	.01	.01	.00	.00	.00
Vero arve	.00	.00	.00	.00	.00	.00	.01	.00	.00
Vero scut	.05	.00	.00	.00	.00	.00	.00	.00	.00
Rhin sp.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Verb sp.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Ajug rept	.01	.00	.00	.00	.00	.00	.00	.00	.00
Lami a/p	.00	.00	.01	.00	.00	.00	.00	.00	.00
Stac arve	.00	.01	.00	.00	.00	.00	.00	.00	.00
Ment a/a	.00	.00	.00	.00	.00	.00	.00	.00	.00
Gale sp.	.00	.01	.00	.00	.00	.00	.00	.00	.00
Prun vulg	.00	.01	.00	.00	.01	.00	.01	.00	.00
Plan lanc	.01	.09	.08	.00	.01	.03	.05	.01	.01
Plan majo	.01	.00	.00	.00	.01	.00	.00	.00	.00
Gali apar	.00	.00	.00	.00	.02	.05	.13	.01	.03
Gali palu	.00	.00	.00	.00	.00	.00	.00	.00	.00
Sher arve	.00	.00	.00	.00	.00	.00	.00	.00	.00
Vale dent	.00	.00	.00	.00	.00	.00	.00	.00	.00
Trip inod	.00	.01	.00	.00	.05	.03	.36	.00	.00
Laps comm	.00	.00	.00	.00	.00	.00	.00	.00	.00
Sonc aspe	.00	.00	.00	.00	.00	.00	.00	.00	.00
Hypo g/r	.00	.00	.00	.00	.00	.00	.00	.00	.00
Cent cyan	.00	.00	.00	.00	.00	.00	.00	.00	.00
Compos.	.00	.00	.00	.00	.00	.00	.00	.00	.00
Aven sp.	.01	.01	.05	.01	.02	.00	.06	.01	.18

Table 6.3 (cont.)

SITE:	HH86	MT83	DL85	CH85	TT81	SW85	RC87	TH84	SS84
NO. OF SAMPLES:	21	10	12	14	127	32	23	23	63
NO. OF LITRES:	252	68	308	890	3,556	431	598	635	892
GRAIN									
Brom m/s	.03	.04	.06	.00	.45	1.03	.31	.37	.79
Brom ster	.00	.00	.00	.00	.00	.00	.00	.00	.01
Sieg decu	.00	.21	.04	.02	1.35	1.74	1.87	.03	.29
smal gras	.18	1.38	.91	.02	.20	.55	1.01	.05	.03
Gramin.	.06	.38	.07	.01	.29	.07	.16	.09	.02
Arrh elat	.00	.00	.00	.00	.02	.00	.01	.01	.00
rhiz Gram	.00	.00	.09	.01	.35	.31	.39	.02	.01
Junc sp.	.00	.00	.04	.00	.00	.00	.01	.00	.00
Junc squa	.00	.00	.00	.00	.00	.00	.03	.00	.00
Eleo sp.	.00	.00	.00	.00	.01	.01	...		
Isol seta									

Table 6.4 Occurrence in arable fields.

** The majority of its modern find-spots is in arable fields
* The minority of its modern find-spots is in arable fields
- None of its modern find-spots is in arable fields

CEREALS	
Triticum dicoccum (Schrank) Schübl.	**
Triticum spelta L.	**
Triticum aestivo-compactum Schiem.	**
Hordeum vulgare L.	**
Secale cereale L.	**
WEEDS	
Ranunculus acris L.	*
Ranunculus repens L.	*
Ranunculus Subgenus Ranunculus	*
Ranunculus flammula L.	-
Papaver argemone L.	**
Papaver rhoeas/dubium L.	**
Papaver sp.	**
Raphanus raphanistrum L.	**
Brassica sp.	*
Viola Subgenus Melanium	*
Montia fontana, ssp. chondrosperma (Fenzl) Walters	*
Stellaria media (L.) Vill.	**
Stellaria palustris Retz.	-
Spergula arvensis L.	**
Agrostemma githago L.	**
Chenopodium album L.	**
Chenopodium sp.	**
Atriplex spp.	*
Chenopodiaceae indet.	*
Malva sylvestris L.	*
Malva sp.	*
Linum catharticum L.	*
Vicia hirsuta (L.) S. F. Gray	*
Vicia/Lathyrus	*
Leguminosae indet. (small)	*
Aphanes arvensis agg.	*
Potentilla cf. erecta (L.) Räusch	*
Heracleum spondylium L.	*
Conium maculatum L.	*
Anthriscus caucalis Bieb.	*
Polygonum aviculare agg.	**
Polygonum convolvulus L.	**
Polygonum lapathifolium L.	**
Polygonum persicaria L.	**
Polygonum lapathifolium/persicaria	**
Rumex acetosella agg.	*
Rumex spp.	*
Urtica dioica L.	*
Urtica urens L.	*
Solanum nigrum L.	*
Hyoscyamus niger L.	*
Odontites verna (Bell.) Dum.	*
Veronica arvensis L.	**

Table 6.4 (cont.)

Veronica cf. scutellata L.	-
Rhinanthus sp.	*
Verbascum sp.	*
Ajuga reptans L.	*
Lamium album/purpureum L.	*
Stachys arvensis (L.) L.	*
Mentha arvensis/aquatica L.	*
Galeopsis sp.	*
Prunella vulgaris L.	*
Plantago lanceolata L.	*
Plantago major L.	**
Galium aparine L.	**
Galium palustre L.	-
Sherardia arvensis L.	**
Valerianella dentata (L.) Poll.	**
Tripleurospermum inodorum(L.) Schultz Bip.	**
Lapsana communis L.	*
Sonchus asper (L.) Hill	**
Hypocheris glabra/radicata L.	*
Centaurea cf. cyanus L.	**
Compositae indet.	*
Avena sp.	**
Bromus mollis/secalinus	*
Bromus sterilis L.	*
Sieglingia decumbens (L.)Bernh.	-
small grasses (including Poa annua)	**
Gramineae indet.	**
Arrhenatherum elatius,ssp. bulbosum (Willd.) Spenn.	**
Juncus spp.	-
Eleocharis sp.	-
Isolepis setacea (L.) R. Br.	-
Carex pilulifera L.	-
Carex pulicaris L.	-
Carex spp.	-
OTHER	
Linum cf. ussitatissimum	**
Corylus avellana L.	-
Crataegus cf. monogyna Jacq.	-
Prunus spinosa L.	-
Sambucus nigra L.	-
tree buds indet.	-
Rosa sp.	-
Rubus fruticosus agg.	-
Rubus sp.	-
Thelycrania sanguinea (L.) Fourr.	-
Calluna vulgaris (L.) Hull	-
Erica sp.	-
Vaccinium myrtillus L.	-
Empetrum nigrum L.	-
Pteridium aquilinium (L.) Kuhn	-
Lycopus europaeus L.	-
Viola Subgenus Viola	-
Caltha palustris L.	-
Menyanthes trifoliata L.	-
Potamogeton spp.	-

Table 7.1 Crop processing sequence.

A - FREE THRESHING CEREALS

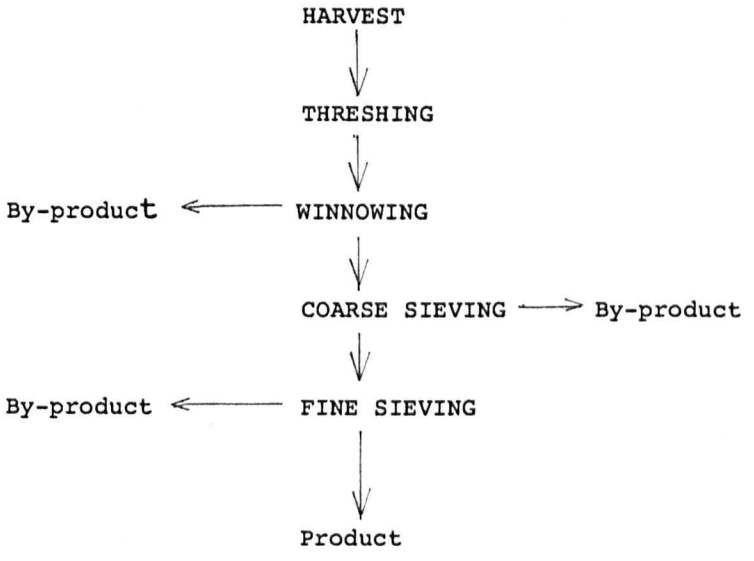
Harvesting	- to remove the crop from the field
Threshing	- to release the grain from the straw and chaff
Raking	- to remove the large straw fragments
Winnowing	- to remove the light chaff and straw fragments and the light weed seeds
Coarse Sieving	- to remove weed heads, large weeds, unthreshed ears and straw nodes
Fine Sieving	- to remove the small weed seed
GRAIN STORE	- seeds of similar size as the grains need to be removed by hand (this stage may, in fact, take place before fine sieving)

B - GLUME WHEATS

Harvesting	- to remove the crop from the field
Threshing	- to break the ear into spikelets
Raking	- to remove the large straw fragments
1st Winnowing	- to remove the light chaff and straw fragments and the light weed seeds
1st Coarse Sieving	- to remove weed heads, large weeds, untreshed ears and straw nodes
(SPIKELET STORE)	- from this point domestic processing is often done on a day to day basis
Parching	- to render the glumes brittle
Pounding	- to release the grains from the glumes
2nd Winnowing	- to remove the light chaff and light weed seeds
2nd Coarse Sieving	- to remove remaining weed heads, large weeds, straw nodes etc.
Fine Sieving	- to remove the glume bases and small weed seeds
GRAIN STORE	- weed seeds of similar size as the grains need to be removed by hand (this stage may, in fact, be omitted if the sequence 'parching to fine sieving' is done piecemeal, just before use)

Table 7.2 Simplified crop processing sequence.

A - SIMPLIFIED CROP PROCESSING SEQUENCE



B - PROCESSING SEQUENCE INDICATING EFFECTS ON WEED SEED CATEGORIES

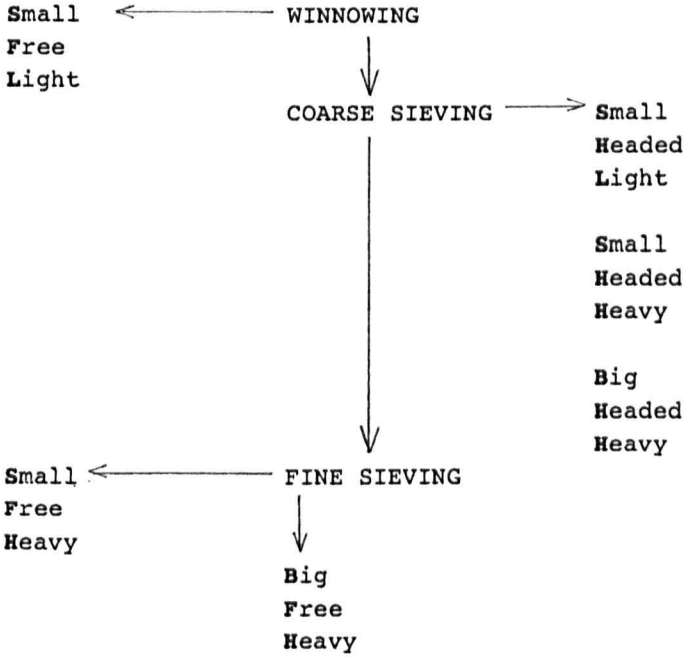


Table 7.3 Classification of samples to crop processing stages, using ratios (Method 1).

Ratio 1: no. of glume bases to no. of glume wheat grains.
Ratio 2: no. barley rachis internodes to no. of barley grains (unless otherwise stated).
Ratio 3: no. of weed seeds to no. of cereal grains.

SITE AND CONTEXT	RATIO 1	RATIO 2	RATIO 3
Hallshill			
18	139: 3=46.3	9: 2= 4.5	9: 5= 1.8
26	104: 3=34.7	1: 0= -	6: 3= -
27	74: 0=74	2: 0= -	15: 0=15
30	77: 0=77	3: 4= -	12: 4= 3
8	5: 79= 0.1	0: 9= -	4: 88= 0.1
23A	189: 10=18.9	6: 6= 1	18: 16= 1.1
23B	90: 14= 6.4	0: 9= -	21: 23= 0.9
23C	131: 12=10.9	2: 0= -	11: 12= 0.9
23D	241: 11=21.9	3: 8= 0.4	42: 19= 2.2
23E	141: 14=10.1	4: 4= -	39: 18= 2.2
23F	190: 5=38	6: 2= -	20: 7= 2.9
25L	253: 78= 3.2	4: 7= 0.6	14: 85= 0.2
25U	338:171= 2	2: 8= 0.3	15:178= 0.1
Murton			
623	10: 1=10	39: 46= 0.8	45: 47= 1
624	13: 1=13	28: 69= 0.4	320: 70= 4.6
625	53: 15= 3.5	12: 52= 0.2	118: 67= 1.8
630	0: 0= -	6: 17= 0.4	27: 17= 1.6
Dod Law			
45(8)	6: 2= -	4: 9= 0.4	112: 11=10.2
40(10)	115: 11=10.5	137:151= 0.9	206:162= 1.3
40(11)	177: 13=13.6	220:630= 0.3	479:643= 0.7
38(7)	107: 27= 3.9	71:406= 0.2	367:433= 0.9
25(3)	1: 13= 0.1	0:136= 0	11:149= 0.1
25(5)	97: 23= 4.2	43:267= 0.2	212:290= 0.7
30(6)	90: 24= 3.8	69:154= 0.5	199:178= 1.1
51(13)	15: 0=15	15: 29= 0.5	45: 29= 1.6
Chester House			
117	31: 8= 3.9	14: 33= 0.4	68: 41= 1.7
Thorpe Thewles			
LS268	35: 12= 2.9	1: 2= -	87: 14= 6.2
PF1	1: 4= -	35: 7= 5	49: 11= 4.5
LS112	120: 15= 8	0: 11= 0	114: 26= 4.4
LS120	512: 42=12.2	21: 31= 0.7	591: 73= 8.1
LS138	108: 27= 4	2: 23= 0.1	237: 50= 4.7
LS150	57: 11= 5.2	1: 13= 0.1	81: 24= 3.4
LS160	19: 7= 2.7	0: 3= -	46: 10= 4.6
LS233	12: 4= 3	2: 4= -	62: 8= 7.8
LS248	35: 0=35	0: 10= 0	21: 10= 2.1
LS523	4: 0= -	0: 0= -	57: 5=11.4

Table 7.3 (cont.)

CONTEXT	RATIO 1	RATIO 2	RATIO 3
Thorpe Thewles			
LS551	31: 0=31	2: 2= -	63: 2=31.5
LS637	6: 0= -	1: 0= -	103: 2=51.5
PF29	3: 0= -	0: 3= -	58: 3=19.3
PF41	86: 4=21.5	0: 4= -	68: 9= 7.6
PF57	189: 13=14.5	3: 17= 0.2	256: 30= 8.5
JS2	15: 18= 0.8	12:120= 0.1	961:138= 7
JS3	5: 35= 0.2	0: 26= 0	616: 61=10.1
JS4	34: 8= 4.3	0: 12= 0	587: 20=29.4
JS7	7: 8= 0.9	0:127= 0	242:135= 1.8
JS9	9: 0= -	2: 12= 0.2	123: 12=10.3
JS13	115: 18= 6.4	15: 13= 1.2	284: 31= 9.2
JS16	5: 1= -	0: 7= -	52: 8= 6.5
JS17	55: 2=27.5	6: 5= 1.2	66: 7= 9.4
JS18	30: 0=30	1: 11= 0.1	44: 11= 4
JS27	34: 4= 8.5	4: 5= -	475: 9=52.8
LS178	57: 14= 4.1	0: 19= 0	120: 33= 3.6
LS194	2: 5= -	0: 17= 0	189: 22= 8.6
LS208	2: 5= -	0: 0= -	55: 5=11
LS238	47: 0=47	0: 7= -	58: 7= 8.3
LS246	58: 5=11.6	0: 8= -	35: 13= 2.7
LS291	110: 9=12.2	2: 9= 0.2	105: 19= 5.5
LS422	14: 30= 0.5	0: 42= 0	114: 72= 1.6
LS431	35: 17= 2.1	0: 6= -	105: 23= 4.6
LS450	0: 2= -	0: 8= -	52: 10= 5.2
LS465	72: 15= 4.8	7: 23= 0.3	86: 38= 2.3
LS470	8: 5= 1.6	0: 5= -	346: 10=34.6
LS483	2: 22= 0.1	0: 11= 0	56: 33= 1.7
PF12	6: 0= -	0: 0= -	46: 4=11.5
PF49	2: 7= -	0: 0= -	86: 7=12.3
PF78	1: 5= -	0: 0= -	44: 5= 8.8
JS6	52: 9= 5.8	9: 22= 0.4	83: 31= 2.7
JS10	12: 4= 3	0: 45= 0	64: 49= 1.3
JS11	166: 19= 8.7	3: 24= 0.1	173: 43= 4
JS12	218: 14=15.6	8: 23= 0.3	265: 37= 7.2
JS14	814: 38=21.4	15: 42= 0.4	518: 80= 6.5
JS15	12: 2= 6	0: 2= -	129: 4=32.3
JS20	10: 15= 0.7	1: 17= 0.1	87: 32= 2.7
JS22	28: 1=28	0: 0= -	19: 1=19
JS26	64: 0=64	0: 5= -	97: 5=19.4
JS28	1: 0= -	0: 1= -	524: 1=524
LS69	78: 22= 3.5	14: 73= 0.2	202: 95= 2.1
ML1	55: 31= 1.8	0: 18= 0	256: 49=52
ML2	41: 11= 3.7	0: 8= -	108: 19= 5.7
ML3	153: 31= 4.9	2: 20= 0.1	297: 51= 5.8
ML4	30: 2=15	0: 13= 0	70: 15= 4.7
ML5	58: 12= 4.8	0: 6= -	196: 18=10.9
ML6	23: 10= 2.3	1: 16= 0.1	127: 26= 4.9
ML7	7: 3= 2.3	0: 2= -	61: 5=12.2
ML8	33: 6= 5.5	5: 6= 0.8	103: 12= 8.6
ML9	53: 8= 6.6	2: 22= 0.1	176: 30= 5.9
ML10	14: 4= 3.5	3: 22= 0.1	159: 26= 6.1

Table 7.3 (cont.)

CONTEXT	RATIO 1	RATIO 2	RATIO 3
Thorpe Thewles			
ML11	6: 0= -	0: 6= -	45: 6= 7.5
ML12	23: 9= 2.6	5: 13= 0.4	138: 22= 6.3
ML13	14: 0=14	3: 13= 0.2	111: 13= 8.5
ML14	17: 0=17	17: 56= 0.3	92: 56= 1.6
ML16	34: 9= 3.8	1: 7= -	94: 16= 5.9
ML17	6: 2= -	2: 3= -	61: 5=12.2
ML18	20: 6= 3.3	0: 6= -	57: 12= 4.8
ML19	6: 2= -	1: 2= -	34: 5= 6.8
ML20	20: 0=20	0: 0= -	32: 4= 8
ML22	28: 5= 5.6	0: 18= 0	142: 23= 6.2
ML23	21: 4= 5.3	1: 11= 0.1	143: 15= 9.5
ML25	40: 6= 6.7	6: 55= 0.1	279: 61= 4.6
ML26	56: 12= 4.7	2: 28= 0.1	305: 40= 7.6
ML27	15: 7= 2.1	3: 24= 0.1	152: 31= 4.9
ML28	3: 11= 0.3	2: 22= 0.1	219: 33= 6.6
ML29	10: 7= 1.4	1: 2= -	93: 9=10.3
LS1	21: 13= 1.6	0: 26= 0	84: 39= 2.2
LS17	14: 6= 2.3	0: 3= -	51: 9= 5.7
LS19	17: 4= 4.3	0: 4= -	63: 8= 7.9
LS25	4: 6= 0.7	0: 3= -	52: 9= 5.8
LS28	4: 0= -	0: 7= -	39: 7= 5.6
LS52	6: 24= 0.3	2: 8= 0.3	26: 32= 0.8
LS507	413: 32=12.9	4: 9= 0.4	60: 41= 1.5
Stanwick			
2209	18: 0=18	0: 20= 0	51: 20= 2.6
1095	12: 5= 2.4	0: 20= 0	54: 25= 2.2
2163	8: 0= -	0: 7= -	38: 7= 5.4
1085	30: 0=30	4: 70= 0.1	80: 70= 1.1
2063	0: 0= -	0: 2= -	50: 2=25
2201	15: 0=15	1: 17= 0.1	24: 17= 1.4
2064	5: 0= -	0: 4= -	33: 4= 8.3
2043	8: 0= -	0: 8= -	57: 8= 7.1
1112(45)	5: 0= -	0: 17= 0	28: 17= 1.6
1110	5: 2= -	0: 6= -	33: 8= 4.1
2180	12: 5= 2.4	1: 5= -	36: 10= 3.6
2182	12: 3= 4	2: 21= 0.1	58: 24= 2.4
2196	45: 6= 7.5	4: 41= 0.1	52: 47= 1.1
2156	61: 5=12.2	5:145= 0.03	268:150= 1.8
1084	9: 5= 1.8	0: 11= 0	36: 16= 2.3
2045	88: 11= 8	8: 32= 0.3	343: 43= 8
2051	32: 4= 8	5: 4= -	90: 8=11.3
2195	5: 3= -	0: 45= 0	364: 48= 7.6
2193	13: 3= 4.3	5: 17= 0.3	34: 20= 1.7
1064(19)	10: 0=10	1: 36= 0.03	45: 36= 1.3
1078	6: 0= -	0: 3= -	126: 3=42
1013	22: 2=11	0: 3= -	60: 5=12
1022	7: 0= -	0: 16= 0	108: 16= 6.8
1023	17:104= 0.2	0: 84= 0	287:188= 1.5
2012	11: 3= 3.7	0: 26= 0	107: 29= 3.7
2042	38: 3=12.7	2: 17= 0.1	257: 20=12.9

Table 7.3 (cont.)

CONTEXT	RATIO 1	RATIO 2	RATIO 3
Rock Castle			
47	20: 6= 3.3	8: 16= 0.5	69: 22= 3.1
61a	12: 4= 3	0: 7= -	37: 11= 3.4
61b	24: 7= 3.4	0: 4= -	93: 11= 8.5
74	83: 27= 3.1	12: 36= 0.3	121: 63= 1.9
24	45: 17= 2.6	2: 14= 0.1	254: 31= 8.2
59	22: 11= 2	6: 16= 0.4	251: 27= 9.3
60	163: 40= 4.1	1: 15= 0.1	277: 55= 5
50	56: 12= 4.7	12: 33= 0.4	135: 45= 3
2a	37: 23= 1.6	0: 14= 0	365: 37= 9.9
2b	129: 23= 5.6	1: 2= -	343: 25=13.7
14	3: 9= 0.3	0: 5= -	61: 14= 4.4
69	12: 4= 3	0: 0= -	93: 4=23.3
12.1	11: 2= 5.5	0: 6= -	178: 8=22.3
12.2	16: 0=16	3: 7= 0.4	88: 7=12.6
12.3	17: 3= 5.7	1: 2= -	40: 5= 8
12.4	54: 6= 9	3: 3= -	110: 9=12.2
12.5	46: 7= 6.6	4: 12= 0.3	193: 19=10.2
12.6	28: 7= 4	0: 18= 0	183: 25= 7.3
12.7	44: 28=16	0: 16= 0	445: 44=10.1
12.8	18: 8= 2.3	0: 5= -	124: 13= 9.5
12.9	27: 9= 3	3: 13= 0.2	332: 22=15.1
38	18: 5= 3.6	0: 2= -	122: 7=17.4
54	18: 11= 1.6	2: 15= 0.1	179: 26= 6.9
Ratio 2 for bread wheat			
50		125: 7=17.9	
Thornbrough			
5	8: 18= 0.4	0: 58= 0	1: 80= 0.01
10	634:413= 1.5	11:993= 0.01	102:1438= 0.07
39	28: 78= 0.4	0:196= 0	24: 277= 0.09
40	19: 19= 1	0: 51= 0	2: 73= 0.03
41	7: 29= 0.2	0: 84= 0	4: 113= 0.03
43	6: 69= 0.09	0:225= 0	12: 299= 0.04
45	842:328= 2.6	12:380= 0.03	163: 729= 0.2
46	27: 99= 0.3	0:235= 0	8: 342= 0.02
49	12: 53= 0.2	1:182= 0.005	7: 243= 0.03
54	28: 7= 4	0: 18= 0	40: 25= 1.6
44	9: 7= 1.3	0: 16= 0	24: 23= 1
54	7: 24= 0.3	0: 46= 0	4: 72= 0.06
58	132: 45= 2.9	4:103= 0.04	57: 150= 0.4
120	26: 17= 1.5	1:318= 0.003	23: 335= 0.07
125	13: 4= 3.3	2:183= 0.01	5: 187= 0.03
127	4: 25= 0.2	0:142= 0	1: 167= 0.006
134	107: 32= 3.3	3:166= 0.02	20: 200= 0.1
Ratio 2 for rye:			
10		15: 32= 0.5	
23		23: 21= 1.1	

Table 7.3 (cont.)

CONTEXT	RATIO 1	RATIO 2	RATIO 3
South Shields - Deposit 12236			
Ratio 2 is that for bread wheat.			
1	4: 220= 0.02	0: 160= 0	22: 380= 0.06
2	31: 605= 0.05	0: 439= 0	19:1044= 0.02
3	11: 686= 0.02	0: 384= 0	22:1070= 0.02
4	15: 833= 0.02	0: 909= 0	34:1742= 0.02
5	3: 438= 0.01	0: 344= 0	21: 782= 0.03
6	6: 197= 0.03	0: 142= 0	18: 339= 0.05
7a	14: 520= 0.03	0: 388= 0	25: 908= 0.03
7b	11: 181= 0.06	0: 106= 0	34: 287= 0.1
8	5: 202= 0.02	0: 141= 0	20: 343= 0.06
9	4: 310= 0.01	0: 224= 0	21: 534= 0.04
10a	10: 630= 0.02	0: 533= 0	28:1163= 0.02
10b	2: 117= 0.02	0: 126= 0	7: 243= 0.03
10c	7: 190= 0.04	0: 116= 0	12: 306= 0.04
10d	10: 520= 0.02	0: 318= 0	20: 838= 0.02
11	13: 458= 0.03	0: 294= 0	25: 752= 0.03
12	25: 738= 0.03	0: 578= 0	34:1316= 0.03
13	14: 424= 0.03	0: 240= 0	17: 664= 0.03
14	6: 269= 0.02	0: 203= 0	20: 463= 0.04
15	33: 346= 0.1	0: 272= 0	54: 618= 0.09
17	14: 380= 0.04	0: 252= 0	41: 632= 0.06
18	13: 635= 0.02	0: 479= 0	29:1114= 0.03
19	59:1061= 0.06	0:1026= 0	43:2087= 0.02
21	15: 541= 0.03	0: 318= 0	21: 859= 0.02
22	47:1333= 0.04	0: 891= 0	49:2224= 0.02
23	27:1129= 0.02	0: 917= 0	27: 204= 0.1
24	58: 30= 1.9	0: 66= 0	138: 96= 1.4
25	54:1063= 0.05	0:1030= 0	64:2093= 0.03
26	70: 192= 0.4	0: 124= 0	116: 316= 0.4
27	33: 397= 0.08	0: 232= 0	47: 629= 0.07
28	30: 109= 0.3	0: 109= 0	75: 218= 0.3
29	22: 399= 0.06	0: 603= 0	34:1002= 0.03
30	91:1810= 0.05	0: 891= 0	97:2701= 0.04
South Shields - Deposit 12176			
Ratio 2 is that for bread wheat.			
1	2: 238= 0.01	0: 140= 0	11: 378= 0.03
2	3: 154= 0.02	0: 60= 0	5: 214= 0.02
4	1: 299= 0.01	0: 129= 0	11: 428= 0.03
6	2: 25= 0.08	0: 25= 0	7: 50= 0.1
7	2: 50= 0.04	0: 13= 0	6: 63= 0.08
14	7: 21= 0.3	0: 0= -	18: 21= 0.9
15	3: 51= 0.06	0: 45= 0	18: 96= 0.2
21	3: 3= -	0: 3= -	43: 6= 7.2
23	2: 34= 0.06	0: 38= 0	26: 72= 0.4
25	1: 59= 0.02	0: 67= 0	17: 126= 0.1
28	10: 20= 0.5	0: 13= 0	41: 33= 1.2
30	4: 22= 0.2	0: 17= 0	46: 39= 1.2

Table 7.4 Weed seed categories relevant to crop processing.

Big-Headed-Heavy (BHH)

Raphanus raphanistrum

Big-Free-Heavy (BFH)

Ranunculus Subgenus Ranunculus
Agrostemma githago
Vicia hirsuta
Vicia/Lathyrus
Polygonum convolvulus
Galeopsis sp.
Galium aparine
Bromus mollis/secalinus
Avena sp.
Gramineae

Small-Headed-Heavy (SHH)

-

Small-Headed-Light (SHL)

-

Small-Free-Heavy (SFH)

Ranunculus flammula
Stellaria media
Montia fontana
Chenopodium album
Chenopodium sp.
Atriplex spp.
Potentilla cf. erecta
Polygonum aviculare
Polygonum lapathifolium
Polygonum persicaria
Rumex acetosella
Rumex spp.
Prunella vulgaris
Plantago lanceolata
Plantago major
Veronica arvensis
Veronica cf. officinalis
Urtica urens
Hyoscyamus niger
Brassica sp.
Spergula arvensis
Ajuga reptans
Sieglingia decumbens
Carex pilulifera
Carex pulicaris
Carex spp.
Eleocharis sp.
small grasses ??

Small-Free-Light (SFL)

Tripleurospermum inodorum
Conium maculatum
Odontites verna
Bromus sterilis
small grassess ??

Table 7.5 Classification of samples to crop processing group using weed seed categories (Method 2).

KEY:
1 = winnowing by-product 2 = coarse-sieve by-product
3 = fine-sieve by-product 4 = fine-sieve product
SFH = Small-Free-Heavy SFL = Small-Free-Light
Column A = classification
Column B = probability of the classification
Column C = next most probable classification

	ANALYSIS 1 small grasses = SFH			ANALYSIS 2 small grasses = SFL		
	A	B	C	A	B	C
Hallshill						
18	3	1.0000	(1)	3.	1.0000	(1)
26	3	0.9999	(1)	1	0.5580	(3)
30	3	1.0000	(4)	3	0.9749	(1)
8	3	0.9883	(4)	3	0.9883	(4)
23A	3	0.9866	(4)	3	0.3817	(4)
23B	3	1.0000	(4)	3	0.9687	(1)
23C	3	1.0000	(1)	3	1.0000	(1)
23D	3	0.9999	(4)	3	0.9991	(4)
23E	3	1.0000	(4)	3	0.9997	(1)
23F	3	1.0000	(4)	3	0.9999	(1)
25L	3	1.0000	(4)	3	0.7726	(1)
25U	3	0.9983	(4)	1	0.9304	(3)
Murton						
623	3	1.0000	(4)	3	0.9993	(1)
624	3	1.0000	(4)	3	0.9998	(1)
625	3	1.0000	(4)	3	1.0000	(4)
630	3	0.9999	(4)	3	0.9922	(1)
Dod Law						
45(8)	3	1.0000	(4)	3	0.9910	(1)
40(10)	3	1.0000	(4)	3	0.9998	(1)
40(11)	3	1.0000	(4)	3	1.0000	(1)
38(7)	3	1.0000	(4)	3	1.0000	(1)
25(3)	3	0.7040	(4)	3	0.7040	(4)
25(5)	3	1.0000	(4)	3	0.9997	(1)
30(6)	3	1.0000	(4)	3	0.9991	(1)
51(13)	3	0.9996	(4)	3	0.9986	(4)
Chester House						
117	3	0.9537	(4)	4	0.5337	(3)
Thorpe Thewles						
ML1	3	0.9976	(4)	3	0.9894	(4)
ML2	3	0.9998	(4)	3	0.9988	(4)
ML3	3	0.9894	(4)	3	0.9433	(4)
ML4	3	0.9935	(4)	3	0.9138	(4)
ML5	3	0.9997	(4)	3	0.9966	(4)
ML6	3	0.9696	(4)	3	0.9029	(4)
ML7	3	0.9999	(4)	3	0.9992	(1)
ML8	3	0.9998	(4)	3	0.9992	(4)
ML9	3	0.9995	(4)	3	0.9950	(4)
ML10	3	1.0000	(4)	3	0.9998	(4)

Table 7.5 (cont.)

	A	B	C	A	B	C
Thorpe Thewles						
ML11	3	0.9997	(4)	3	0.9990	(4)
ML12	3	1.0000	(4)	3	0.9987	(1)
ML13	3	0.9998	(4)	3	0.9994	(4)
ML14	3	0.9999	(4)	3	0.9996	(4)
ML16	3	0.9690	(4)	3	0.8066	(4)
ML17	3	1.0000	(4)	3	0.9999	(4)
ML18	3	0.9974	(4)	3	0.9602	(1)
ML19	3	0.9973	(4)	3	0.9884	(4)
ML20	3	0.9998	(4)	3	0.9992	(4)
ML22	3	0.9999	(4)	3	0.9996	(4)
ML23	3	0.9996	(4)	3	0.9972	(4)
ML25	3	0.9968	(4)	3	0.9750	(4)
ML26	3	0.9996	(4)	3	0.9987	(4)
ML27	3	0.9996	(4)	3	0.9962	(1)
ML28	3	0.9999	(4)	3	0.9980	(4)
ML29	3	0.9998	(4)	3	0.9973	(1)
LS69	3	1.0000	(4)	3	0.9992	(1)
LS268	3	1.0000	(4)	3	0.9998	(4)
PF1	3	0.9996	(4)	3	0.9996	(4)
LS112	3	0.9557	(4)	1	0.4825	(4)
LS120	3	0.9990	(4)	3	0.9925	(4)
LS138	3	0.9981	(4)	3	0.9893	(4)
LS150	3	0.9946	(4)	3	0.9116	(4)
LS160	3	0.9957	(4)	3	0.9864	(4)
LS233	3	0.9989	(4)	3	0.9970	(4)
LS248	3	0.9978	(4)	3	0.9978	(4)
LS523	3	1.0000	(4)	3	0.9991	(1)
LS551	3	0.9995	(4)	3	0.9876	(1)
LS637	3	0.9999	(4)	3	0.9996	(4)
PF29	3	1.0000	(4)	3	0.9999	(1)
PF41	3	0.9737	(4)	3	0.8453	(4)
PF57	3	0.9966	(4)	3	0.9910	(4)
JS2	3	0.9992	(4)	3	0.9949	(4)
JS3	3	1.0000	(4)	3	0.9996	(1)
JS4	3	1.0000	(4)	3	0.9998	(4)
JS7	3	0.9999	(4)	3	0.9998	(4)
JS9	3	1.0000	(4)	3	0.9999	(4)
JS13	3	0.9978	(4)	3	0.9822	(4)
JS16	3	0.9997	(4)	3	0.9981	(4)
JS17	3	0.9053	(4)	3	0.6991	(4)
JS18	3	0.9932	(4)	3	0.9427	(4)
JS27	3	1.0000	(4)	3	1.0000	(4)
LS178	3	0.9960	(4)	3	0.9695	(4)
LS194	3	0.9999	(4)	3	0.9998	(4)
LS208	3	0.9982	(4)	3	O.9844	(4)
LS238	3	0.9990	(4)	3	0.9829	(1)
LS246	3	0.9997	(4)	3	0.9997	(4)
LS291	3	0.9862	(4)	3	0.8789	(4)
LS422	3	0.9720	(4)	3	0.9083	(4)
LS431	3	0.9140	(4)	3	0.6186	(4)
LS450	3	0.9852	(4)	3	0.9301	(4)

Table 7.5 (cont.)

	A	B	C	A	B	C
Thorpe Thewles						
LS465	3	0.9962	(1)	1	0.6452	(3)
LS470	3	0.9990	(4)	3	0.9906	(4)
LS483	3	0.9998	(4)	3	0.9984	(1)
PF12	3	0.8503	(4)	4	0.6961	(3)
PF49	3	0.9995	(4)	3	0.9982	(4)
PF78	3	0.9997	(4)	3	0.9959	(4)
JS6	3	0.9740	(4)	3	0.8112	(4)
JS10	3	0.9998	(4)	3	0.9995	(4)
JS11	3	0.9997	(4)	3	0.9977	(4)
JS12	3	0.9555	(4)	3	0.8026	(4)
JS14	3	0.9992	(4)	3	0.9992	(4)
JS15	3	1.0000	(4)	3	1.0000	(4)
JS20	3	1.0000	(4)	3	0.9998	(4)
JS22	3	0.9953	(4)	3	0.8438	(1)
JS26	3	1.0000	(4)	3	0.9978	(1)
JS28	3	1.0000	(1)	3	1.0000	(1)
LS1	3	0.9997	(4)	3	0.9994	(4)
LS17	3	0.9995	(4)	3	0.9974	(4)
LS19	3	0.9998	(4)	3	0.9993	(4)
LS25	3	0.9982	(4)	3	0.9982	(4)
LS28	3	0.9997	(4)	3	0.9997	(4)
LS52	3	1.0000	(4)	3	0.9997	(4)
LS507	3	0.9353	(4)	4	0.4764	(3)
Stanwick						
2209	3	0.9967	(4)	3	0.9404	(4)
1095	3	0.9645	(4)	3	0.6536	(4)
2163	3	1.0000	(4)	3	0.9992	(1)
1085	3	0.9975	(4)	3	0.8606	(1)
2063	3	0.9999	(4)	3	0.9989	(1)
2201	3	0.9956	(4)	3	0.9956	(4)
2064	3	0.9996	(4)	3	0.9468	(1)
2043	3	1.0000	(4)	3	0.9992	(1)
1112(45)	3	0.9985	(4)	3	0.9698	(4)
1110	3	0.9979	(4)	3	0.9745	(4)
2180	3	0.9997	(1)	3	0.9580	(1)
2182	3	0.9996	(4)	3	0.9930	(4)
2196	3	0.9588	(4)	3	0.5151	(4)
2156	3	1.0000	(4)	3	0.9981	(1)
1084	3	0.9986	(4)	3	0.9869	(4)
2045	3	1.0000	(4)	3	0.9999	(1)
2051	3	0.9994	(4)	3	0.9866	(4)
2195	3	1.0000	(4)	3	0.9990	(1)
2193	3	0.9997	(4)	3	0.6308	(1)
1064(19)	3	0.9998	(4)	3	0.9985	(4)
1078	3	1.0000	(4)	3	0.9899	(1)
1013	3	0.9978	(4)	3	0.9978	(4)
1022	3	0.9992	(4)	3	0.9835	(4)
1023	3	0.7921	(4)	4	0.6685	(3)
2012	3	0.9997	(4)	3	0.9983	(4)
2042	3	1.0000	(4)	3	0.9986	(1)

Table 7.5 (cont.)

	A	B	C	A	B	C
Rock Castle						
47	3	1.0000	(4)	3	0.9649	(1)
61A	3	0.9294	(4)	4	0.7464	(1)
61B	3	0.9992	(1)	1	0.8991	(3)
74	3	0.9977	(4)	3	0.9688	(4)
24	3	0.9999	(4)	3	0.9971	(4)
59	3	0.9998	(4)	3	0.9955	(4)
60	3	0.9998	(4)	3	0.9763	(1)
50	3	0.9996	(4)	3	0.9922	(4)
2A	3	1.0000	(4)	3	0.9979	(1)
2B	3	0.9999	(4)	3	0.9865	(1)
14	3	0.9998	(4)	3	0.7851	(1)
69	3	0.9466	(4)	4	0.5527	(3)
12.1	3	0.9998	(4)	3	0.9872	(1)
12.2	3	1.0000	(1)	3	0.6490	(1)
12.3	3	0.9942	(4)	3	0.8799	(4)
12.4	3	0.9987	(4)	3	0.9404	(4)
12.5	3	0.9994	(4)	3	0.8390	(1)
12.6	3	0.9999	(4)	3	0.9817	(1)
12.7	3	0.9993	(4)	3	0.9889	(4)
12.8	3	0.9835	(4)	3	0.5253	(4)
12.9	3	0.9949	(4)	3	0.7045	(4)
38	3	0.9995	(4)	3	0.9912	(4)
54	3	0.9997	(4)	3	0.9952	(4)
Thornbrough						
10	4	0.9994	(3)	4	0.9997	(3)
39	3	0.7662	(4)	4	0.5939	(3)
40	3	0.5873	(4)	3	0.5873	(4)
41	1	0.8010	(3)	1	0.9999	(2)
43	3	0.6179	(4)	3	0.6179	(4)
45	4	0.9161	(3)	4	0.9531	(3)
46	3	0.9920	(4)	1	0.8222	(3)
49	4	0.6066	(3)	4	0.8831	(1)
54	3	0.8874	(4)	4	0.8926	(1)
44	3	0.9563	(4)	4	0.7657	(3)
54	3	0.9735	(4)	3	0.9735	(4)
58	3	0.9576	(4)	3	0.8172	(4)
120	3	0.9817	(4)	3	0.9817	(4)
125	3	0.9995	(1)	1	0.9971	(3)
127	3	0.9955	(1)	3	0.9955	(1)
134	3	0.9904	(4)	3	0.8904	(4)
5	-			-		
South Shields (12236)						
1	4	0.9996	(3)	4	0.9996	(3)
2	4	0.9990	(3)	4	0.9990	(3)
3	3	0.7969	(4)	4	0.5761	(3)
4	4	0.9985	(3)	4	0.9996	(3)
5	4	0.9503	(3)	4	0.9911	(3)
6	4	0.9996	(3)	4	0.9996	(3)
7A	4	0.9984	(3)	4	0.9994	(3)

Table 7.5 (cont.)

	A	B	C	A	B	C
South Shields						
7B	4	0.8722	(3)	4	0.8722	(3)
8	3	0.8087	(4)	3	0.8087	(4)
9	4	1.0000	(3)	4	1.0000	(3)
10A	4	0.9990	(3)	4	0.9998	(3)
10B	4	0.8936	(3)	4	0.8936	(3)
10C	4	0.8643	(3)	4	0.9657	(1)
10D	4	0.9997	(3)	4	0.9997	(1)
11	4	0.9941	(3)	4	0.9941	(3)
12	4	0.9683	(3)	4	0.9948	(3)
13	4	0.9992	(3)	4	0.9992	(3)
14	4	0.9998	(3)	4	0.9998	(3)
15	3	0.9784	(4)	3	0.4635	(1)
17	4	0.8429	(3)	4	0.8429	(3)
18	4	0.7369	(3)	4	0.9294	(3)
19	4	0.9908	(3)	4	0.9983	(3)
21	4	1.0000	(3)	4	1.0000	(3)
22	4	0.9893	(3)	4	0.9893	(3)
23	4	0.9990	(3)	4	0.9990	(3)
24	4	0.9070	(3)	4	0.9493	(3)
25	4	1.0000	(3)	4	1.0000	(3)
26	4	0.9830	(3)	4	0.9916	(3)
27	4	0.9923	(3)	4	0.9972	(3)
28	4	0.6329	(3)	4	0.8122	(3)
29	3	0.6136	(4)	3	0.6136	(4)
30	4	0.9998	(3)	4	0.9999	(3)
South Shields (12176)						
1	4	0.9975	(3)	4	0.9997	(3)
2	4	0.9998	(3)	4	0.9998	(3)
4	4	0.8393	(3)	4	0.8393	(3)
6	4	0.7191	(3)	4	0.7191	(3)
7	3	0.9984	(4)	3	0.9984	(4)
14	4	0.8664	(3)	4	0.9881	(3)
15	4	0.6623	(3)	4	0.6623	(3)
21	3	0.9995	(4)	3	0.9980	(4)
23	3	0.9985	(4)	3	0.9783	(1)
25	3	0.9813	(4)	3	0.9813	(4)
28	3	0.8299	(4)	3	0.8299	(4)
30	3	0.9984	(1)	3	0.9337	(1)

Table 9.1 Ellenberg's indicator values (Ellenberg 1979).

LIGHT

L1 full shadow plant
L2 between 1 and 3
L3 shadow plant
L4 between 3 and 5
L5 half shadow plant
L6 between 5 and 7
L7 half light plant
L8 between 7 and 9
L9 full light plant
Lx indifferent

TEMPERATURE

T1 only in cold climate
T2 between 1 and 3
T3 mostly in cold climate
T4 between 3 and 5
T5 intermediate
T6 between 5 and 7
T7 mostly in warm climate
T8 between 7 and 9
T9 in very warm climate
Tx indifferent

CONTINENTALITY

K1 euoceanic
K2 oceanic
K3 between 2 and 4
K4 suboceanic
K5 intermediate
K6 subcontinental
K7 between 6 and 8
K8 continental
K9 eucontinental
Kx indifferent

MOISTURE

F1 in extremely dry soils
F2 between 1 and 3
F3 in dry soils
F4 between 3 and 5
F5 in fresh soils
F6 between 5 and 7
F7 in moist soils
F8 between 7 and 9
F9 in wet soils
F10 freq. inundated soils
F11 water plant
F12 underwater plant
Fx indifferent

ACIDITY

R1 in very acid soils
R2 between 1 and 3
R3 mostly in acid soils
R4 between 3 and 5
R5 in weakly acid soils
R6 between 5 and 7
R7 mostly in neutral soils
R8 between 7 and 9
R9 neutral or basic soils

NITROGEN

N1 very poor in nitrogen
N2 between 1 and 3
N3 mostly in poor soils
N4 between 3 and 5
N5 in intermediate soils
N6 between 5 and 7
N7 rich in mineral nitrogen
N8 nitrogen indicator
N9 very rich in nitrogen

Table 9.2 Runhaar's codes for ecological groups (Runhaar *et al.* 1987)

STRUCTURE OF THE VEGETATION AND STAGE OF SUCCESSION

G - grassland
H - woodland and shrub
P - pioneer vegetation
R - tall herb vegetation
V - semi aquatic helophytic vegetation
W - water vegetation

MOISTURE REGIME (first figure)

1 - aquatic
2 - wet
4 - moist
6 - dry

NUTRIENT AVAILABILITY AND ACIDITY (second figure)

1 - low nutrient availability, acid
2 - low nutrient availability, moderately acid to neutral
3 - low nutrient availability, basic
4 - low nutrient availability
7 - moderate nutrient availability
8 - high nutrient availability
9 - moderate to high nutrient availability

Table 9.3 Fitter's habitat information (Fitter 1978).

WETNESS - DRYNESS

(1) Standing water above the surface for all or most of the year.
(2) Wet soils which are saturated with water for most of the year.
(3) Damp soils which may be occasionally wet.
(4) 'Normal' moist soils, such as a typical field soil.
(5) Dry soils which crumble to the touch and are usually found on high ground or above very porous rock.

ACIDITY

(1) Very acid soils with no chalk or limestone and usually found in sandy or peaty places.
(2) Lightly acid soils which are often again found on sands and peats, but also on milder soils which have become acid because of the plants growing on them, such as pines, gorse and sometimes beech.
(3) Neutral soils typical of lowland meadows and river-plains. These soils tend to be farmed.
(4) Slightly calcareous soils formed over chalks and limestones but without bits of rock in the soil.
(5) Very calcareous soils which are usually very thin, formed on chalk and limestone and with pieces of the rock visible in the soil or lying on the surface. Limestone cliffs and pavements fit in here too, and saltmarsh soils are included for convenience.

FERTILITY

(1) Very fertile soils often fertilized, with vigorous, tall vegetation or trees with dense undergrowth.
(2) Fertile soils, usually in lowland sites or on alluvial deposits.
(3) Intermediate fertility, typical of well-developed but unfertilized soils.
(4) Poor soils, usually with a complete plant cover, but of short plants, or trees with little undergrowth.
(5) Very poor soils, often with large patches of bare ground.

SHADE

(1) Very dense shade, as in some beechwoods and conifer plantations.
(2) Most woodlands fall into this category with full shade cast particularly in summer.
(3) Open woods with the trees well-spaced, so that the sun still reaches the ground at times, e.g. natural pinewoods.
(4) Hedges, open scrub, and woodland edges, where the light is still bright but the full sun may be shielded off.
(5) Open habitats with no trees or tall shrubs, e.g. grassland, lakes, heaths.

Table 10.1 Summary results of PCA-1-4.

Principal Component Analysis - Prehistoric Assemblages

ANALYSIS	VARIABLES	TRANSFORMATION
PCA-1	grain/chaff/weeds (weeds>10%)	square root
PCA-2	grain/chaff/weeds (weeds> 5%)	square root
PCA-3	grain/chaff/weeds (weeds>10%)	octave scale
PCA-4	grain/chaff/weeds (weeds> 5%)	octave scale

EIGENVALUE	% OF VAR.	FIVE HIGHEST LOADINGS ON FIRST AXIS			
PCA-1:					
Axis 1 5.53	14.2	Sieg decu	-0.88	glum dico	0.87
Axis 2 3.67	9.4	glum spel	-0.81	Trit dico	0.67
Axis 3 2.83	7.3	Mony font	-0.54	Chen albu	0.67
CUM. % VAR	30.9	Brom m/s	-0.39	Poly l/p	0.62
		Arrh elat	-0.31	smal gras	0.50
PCA-2:					
Axis 1 5.89	13.7	Sieg decu	-0.88	glum dico	0.87
Axis 2 3.74	8.7	glum spel	-0.81	Chen albu	0.66
Axis 3 2.91	6.8	Mont font	-0.54	Trit dico	0.65
CUM. % VAR	29.2	Brom m/s	-0.40	Poly l/p	0.60
		Arrh elat	-0.31	Sper arve	0.51
PCA-3:					
Axis 1 5.22	13.4	Sieg decu	-0.90	glum dico	0.89
Axis 2 3.78	9.7	glum spel	-0.72	Trit dico	0.72
Axis 3 2.49	6.4	Mont font	-0.63	Poly l/p	0.58
CUM. % VAR	29.5	Brom m/s	-0.47	Chen albu	0.53
		Arrh elat	-0.32	Atri spp.	0.40
PCA-4:					
Axis 1 5.65	13.2	Sieg decu	-0.89	glum dico	0.89
Axis 2 3.83	8.9	glum spel	-0.72	Trit dico	0.69
Axis 3 2.57	6.0	Mont font	-0.62	Sper arve	0.55
CUM. % VAR	28.0	Brom m/s	-0.47	Poly l/p	0.55
		Arrh elat	-0.32	Chen albu	0.51

Table 10.2 Summary results of CA-1-4.

Cluster Analysis - Prehistoric Assemblages

ANALYSIS	VARIABLES	TRANSFORMATION
CA-1	grain/chaff/weeds (weeds>10%)	square root
CA-2	grain/chaff/weeds (weeds> 5%)	square root
CA-3	grain/chaff/weeds (weeds>10%)	octave scale
CA-4	grain/chaff/weeds (weeds> 5%)	octave scale

CA-1:
Group A and B form separate clusters, which only join at fusion coefficient 25. Sample Thorpe Thewles PF1 'wrongly' classified.
CA-2:
Group A and B form separate clusters, which only join at fusion coefficient 25. Sample Thorpe Thewles PF1 'wrongly' classified.
CA-3:
Group A and B form separate clusters, which only join at fusion coefficient 25. Sample Murton 630 'wrongly' classified.
CA-4:
Group A and B form separate clusters, which only join at fusion coefficient 25. Sample Murton 630 'wrongly' classified.

Table 10.3 Summary results of CA-5-8.

Cluster Analysis - Prehistoric Assemblages

ANALYSIS	VARIABLES	TRANSFORMATION
CA-5	weeds (>10%)	square root
CA-6	weeds (> 5%)	square root
CA-7	weeds (>10%)	octave scale
CA-8	weeds (> 5%)	octave scale

CA-5:
Group A and B form separate clusters, which only join at fusion coefficient 25. Samples Murton 630 and Chester House 117 'wrongly' classified.
CA-6:
Group A and B form separate clusters, which only join at fusion coefficient 25. Samples Murton 630 and Chester House 117 'wrongly' classified.
CA-7:
Group A and B form separate clusters, which only join at fusion coefficient 25. Samples Murton 630, Chester House 117, and Rock Castle 47 'wrongly' classified.
CA-8:
Group A and B form separate clusters, which only join at fusion point 25. Samples Murton 630 and Chester House 117 'wrongly' classified.

Table 10.4 Summary results of DA-1-4.

Discriminant Analysis - Prehistoric Assemblages

ANALYSIS	VARIABLES	TRANSFORMATION
DA-1	grain/chaff/weeds (weeds>10%)	square root
DA-2	grain/chaff/weeds (weeds> 5%)	square root
DA-3	grain/chaff/weeds (weeds>10%)	octave scale
DA-4	grain/chaff/weeds (weeds> 5%)	octave scale

		FIVE HIGHEST DISCRIMINANT SCORES					
DA-1:							
eigenvalue	25.97	glum dico	-0.55	Sieg decu	+0.30		
Wilk's Lambda	0.04	Trit dico	-0.18	glum spel	+0.24		
% correct clas.	100.00	Poly l/p	-0.16	Mont font	+0.09		
		Chen albu	-0.14	Brom m/s	+0.08		
		rach Hord	-0.08	Gali apar	+0.06		
DA-2:							
eigenvalue	29.29	glum dico	-0.52	Sieg decu	+0.28		
Wilk's Lambda	0.08	Trit dico	-0.17	glum spel	+0.23		
% correct clas.	100.00	Poly l/p	-0.15	Mont font	+0.09		
		Chen albu	-0.13	Brom m/s	+0.08		
		Sper arve	-0.09	Gali apar	+0.06		
DA-3:							
eigenvalue	26.21	glum dico	-0.64	Sieg decu	+0.39		
Wilk's Lambda	0.04	Trit dico	-0.31	glum spel	+0.21		
% correct clas.	100.00	Poly l/p	-0.14	Mont font	+0.12		
		Chen albu	-0.08	Brom m/s	+0.09		
		rach Hord	-0.07	Gali apar	+0.06		
DA-4:							
eigenvalue	28.47	glum dico	-0.61	Sieg decu	+0.37		
Wilk's Lambda	0.03	Trit dico	-0.20	glum spel	+0.20		
% correct clas.	100.00	Poly l/p	-0.13	Mont font	+0.11		
		Sper arve	-0.10	Brom m/s	+0.09		
		Chen albu	-0.08	Gali apar	+0.06		

Table 10.5 Summary results of DA-5-8.

Discriminant Analysis - Prehistoric Assemblages

ANALYSIS	VARIABLES	TRANSFORMATION
DA-5	weeds (>10%)	square root
DA-6	weeds (> 5%)	square root
DA-7	weeds (>10%)	octave scale
DA-8	weeds (> 5%)	octave scale

		FIVE HIGHEST DISCRIMINANT SCORES					
DA-5:							
eigenvalue	9.43	Poly l/p	-0.28	Sieg decu	+0.50		
Wilk' Lambda	0.10	Chen albu	-0.24	Mont font	+0.16		
% correct clas.	100.00	smal gras	-0.13	Brom m/s	+0.15		
		Atri spp.	-0.11	Gali apar	+0.11		
		Rume acet	-0.08	Trip inod	+0.10		
DA-6:							
eigenvalue	10.07	Poly l/p	-0.26	Sieg decu	+0.49		
Wilk's Lambda	0.09	Chen albu	-0.23	Mont font	+0.15		
% correct clas.	100.00	Sper arve	-0.15	Brom m/s	+0.14		
		smal gras	-0.12	Gali apar	+0.10		
		Atri spp.	-0.10	Trip inod	+0.10		
DA-7:							
eigenvalue	8.96	Poly l/p	-0.24	Sieg decu	+0.68		
Wilk's Lambda	0.10	Chen albu	-0.15	Mont font	+0.20		
% correct clas.	99.00	Atri spp.	-0.09	Brom m/s	+0.17		
		Rume acet	-0.09	Gali apar	+0.11		
		smal gras	-0.07	Trip inod	+0.10		
DA-8:							
eigenvalue	9.78	Poly l/p	-0.23	Sieg decu	+0.65		
Wilk's Lambda	0.09	Sper arve	-0.16	Mont font	+0.20		
% correct clas.	100.00	Chen albu	-0.13	Brom m/s	+0.17		
		Bras sp.	-0.10	Gali apar	+0.11		
		Atri spp.	-0.08	Trip inod	+0.10		

Table 10.6 Ellenberg's indicator values for climatic factors (Ellenberg 1979; see also Table 9.1).

LIGHT

L1, L2, L3, L4, L5, L9 = no species

L6 = Ranunculus repens, Raphanus raphanistrum, Stellaria media, Atriplex spp., Potentilla erecta, Polygonum lapathifolium, Polygonum persicaria, Odontites verna, Plantago lanceolata, Avena fatua, Bromus mollis/secalinus, Carex pilulifera, (Spergula arvensis)

L7 = Ranunculus flammula, Montia fontana, Polygonum aviculare, Polygonum convolvulus, Rumex spp., Prunella vulgaris, Galium aparine, Tripleurospermum inodorum, small grasses (including Poa annua), (Urtica urens)

L8 = Rumex acetosella, Sieglingia decumbens, Arrhenatherum elatius, Eleocharis sp., Carex pulicaris, Juncus sp., (Plantage major)

Lx = Chenopodium album

TEMPERATURE

T1, T2, T3, T7, T8, T9 = no species

T4 = Carex pilulifera

T5 = Raphanus raphanistrum, Atriplex spp., Polygonum persicaria, Rumex acetosella, Rumex spp., Galium aparine, Arrhenatherum elatius, Carex pulicaris

T6 = Montia fontana, Polygonum lapathifolium, (Urtica urens)

Tx = Ranunculus repens, Ranunculus flammula, Stellaria media, Chenopodium album, Potentilla erecta, Polygonum aviculare, Polygonum convolvulus, Odontites verna, Prunella vulgaris, Plantago lanceolata, Tripleurospermum inodorum, Avena fatua, Bromus mollis/secalinus, Sieglingia decumbens, small grasses (including Poa annua), Eleocharis sp., (Spergula arvensis, Plantago major)

CONTINENTALITY

K1, K7, K8, K9 = no species

K2 = Montia fontana, Sieglingia decumbens, Carex pilulifera, Carex pulicaris

K3 = Ranunculus flammula, Raphanus raphanistrum, Potentilla erecta, Polygonum persicaria, Rumex acetosella, Rumex spp., Odontites verna, Prunella vulgaris, Plantago lanceolata, Galium aparine, Tripleurospermum inodorum, Bromus mollis/secalinus, Arrhenatherum elatius, (Spergula arvensis)

K4 = Polygonum lapathifolium

K5 = small grasses (including Poa annua)

K6 = Avena fatua

Kx = Ranunculus repens, Stellaria media, Chenopodium album, Atriplex spp., Polygonum aviculare, Polygonum convolvulus, Eleocharis palustris, (Urtica urens, Plantago major)

Species in brackets occur in <10%, but >5% of the samples.

Table 10.7 Ellenberg's indicator values for edaphic factors (Ellenberg 1979; see also Table 9.1).

MOISTURE

F1, F2, F11, F12 = no species

F3 = Polygonum persicaria

F4 = Stellaria media, Chenopodium album

F5 = Atriplex spp., Rumex acetosella, Odontites verna, Arrhenatherum elatius, Carex pilulifera, (Spergula arvensis, Urtica urens, Plantago major)

F6 = Rumex spp., Avena fatua, small grasses (including Poa annua)

F7 = Ranunculus repens, Polygonum lapathifolium, Juncus sp.

F8 = Montia fontana

F9 = Ranunculus flammula, Carex pulicaris

F10 = Eleocharis sp.

Fx = Raphanus raphanistrum, Potentilla erecta, Polygonum aviculare, Polygonum convolvulus, , Prunella vulgaris, Plantago lanceolata, Galium aparine, Tripleurospermum inodorum, Bromus mollis/secalinus, Sieglingia decumbens

ACIDITY

R1, R5, R8, R9 = no species

R2 = Rumex acetosella, (Spergula arvensis)

R3 = Ranunculus flammula, Montia fontana, Sieglingia decumbens, Carex pilulifera

R4 = Raphanus raphanistrum, Prunella vulgaris

R6 = Galium aparine, Tripleurospermum inodorum

R7 = Stellaria media, Atriplex spp., Avena fatua, Arrhenatherum elatius

Rx = Ranunculus repens, Chenopodium album, Potentilla erecta, Polygonum aviculare, Polygonum convolvulus, Polygonum lapathifolium, Polygonum persicaria, Rumex spp., Odontites verna, Plantago lanceolata, Bromus mollis/secalinus, small grasses (including Poa annua), Eleocharis sp., Carex pulicaris, (Urtica urens, Plantago major)

NITROGEN

N1, N3, N9 = no species

N2 = Ranunculus flammula, Potentilla erecta, Rumex acetosella, Sieglingia decumbens

N4 = Montia fontana

N5 = Raphanus raphanistrum, Rumex spp., Carex pilulifera

N6 = Tripleurospermum inodorum, (Spergula arvensis, Plantago major)

N7 = Chenopodium album, Atriplex spp., Polygonum persicaria, Arrhenatherum elatius

N8 = Stellaria media, Polygonum lapathifolium, Galium aparine, small grasses (including Poa annua), (Urtica urens)

Nx = Ranunculus repens, Polygonum aviculare, Polygonum convolvulus, Odontites verna, Prunella vulgaris, Plantago lanceolata, Avena fatua, Bromus mollis/secalinus

Table 10.8 Ellenberg's indicator values for edaphic factors, grouped into broader categories (see also Tables 9.1 and 10.7).

MOISTURE

F3+4 = Polygonum persicaria, Stellaria media, Chenopodium album

F5+6 = Atriplex spp., Rumex acetosella, Odontites verna, Arrhenatherum elatius, Carex pilulifera, Rumex spp., Avena fatua, small grasses (including Poa annua), (Spergula arvensis, Urtica urens, Plantago major),

F7+8 = Ranunculus repens, Polygonum lapathifolium, Juncus sp., Montia fontana

F9+10 = Ranunculus flammula, Carex pulicaris, Eleocharis sp.

Fx = Raphanus raphanistrum, Potentilla erecta, Polygonum aviculare, Polygonum convolvulus, , Prunella vulgaris, Plantago lanceolata, Galium aparine, Tripleurospermum inodorum, Bromus mollis/secalinus, Sieglingia decumbens

ACIDITY

R2+3 = Rumex acetosella, Ranunculus flammula, Montia fontana, Sieglingia decumbens, Carex pilulifera, (Spergula arvensis)

R4+5+6= Raphanus raphanistrum, Prunella vulgaris, Galium aparine, Tripleurospermum inodorum

R7+8 = Stellaria media, Atriplex spp., Avena fatua, Arrhenatherum elatius

Rx = Ranunculus repens, Chenopodium album, Potentilla erecta, Polygonum aviculare, Polygonum convolvulus, Polygonum lapathifolium, Polygonum persicaria, Rumex spp., Odontites verna, Plantago lanceolata, Bromus mollis/secalinus, small grasses (including Poa annua), Eleocharis sp., Carex pulicaris, (Urtica urens, Plantago major)

NITROGEN

N2+3 = Ranunculus flammula, Potentilla erecta, Rumex acetosella, Sieglingia decumbens

N4+5+6= Montia fontana, Raphanus raphanistrum, Rumex spp., Carex pilulifera, Tripleurospermum inodorum, (Spergula arvensis, Plantago major)

N7+8 = Chenopodium album, Atriplex, Polygonum persicaria, Arrhenatherum elatius, Stellaria media, Polygonum lapathifolium, Galium aparine, small grasses (including Poa annua), (Urtica urens)

Nx = Ranunculus repens, Polygonum aviculare, Polygonum convolvulus, Odontites verna, Prunella vulgaris, Plantago lanceolata, Avena fatua, Bromus mollis/secalinus

Species in brackets occur in <10%, but >5% of the samples.

Table 10.9 Edaphic categories according to Runhaar (Runhaar *et al.* 1987; see also Table 9.2).

WET/MODERATE-HIGH NUTRIENT AVAILABILITY	(12+17+18+20+27+28)
Eleocharis sp.	
WET/LOW-MODERATE NUTRIENT AVAILABILITY	(22+23+27)
Ranunculus flammula	
WET/LOW NUTRIENT AV., MODERATELY ACID TO NEUTRAL	(22)
Carex pulicaris	
WET-MOIST/MODERATELY HIGH NUTRIENT AV.	(27+28+47+48)
Ranunculus repens	
WET-MOIST/MODERATE NUTRIENT AVAILABILITY	(17+27+47)
Montia fontana	
WET-MOIST/LOW NUTRIENT AV., ACID-WEAKLY ACID	(21+22+41+42)
Potentilla erecta	
MOIST/HIGH NUTRIENT AVAILABILITY	(48)
Atriplex spp., Polygonum aviculare, Polygonum lapathifolium, Polygonum persicaria, Rumex spp., Tripleurospermum inodorum, (Plantago major)	
MOIST/MODERATE-HIGH NUTRIENT AVAILABILITY	(47+48)
Arrhenatherum elatius	
MOIST/MODERATE NUTRIENT AVAILABILITY	(47)
Prunella vulgaris	
MOIST/MODERATE-LOW NUTRIENT AVAILABILITY	(43)
Odontites verna	
MOIST-DRY/HIGH NUTRIENT AVAILABILITY	(48+68)
Stellaria media, Chenopodium album, small grasses (including Poa annua), (Urtica urens)	
MOIST-DRY/MODERATE-HIGH NUTRIENT AVAILABILITY	(48+69)
Galium aparine	
MOIST-DRY/MODERATE NUTRIENT AVAILABILITY	(47+67)
Raphanus raphanistrum, Plantago lanceolata, Avena fatua	
MOIST-DRY/LOW NUTRIENT AVAILABILITY	(41+42+61+62)
Sieglingia decumbens, Carex pilulifera	
MOIST-DRY/NUTRIENT INDIFFERENT	(47+48+63+67+69)
Polygonum convolvulus	
DRY/MODERATE NUTRIENT AVAILABILITY	(61+62+67)
Rumex acetosella	
DRY/MODERATE-LOW NUTRIENT AVAILABILITY	(67)
Bromus mollis/secalinus, (Spergula arvensis)	

Species in brackets occur in <10%, but >5% of the samples.

Table 10.10 Weed species in Ellenberg's phytosociological Classes (Ellenberg 1979).

PHRAGMITETEA

Eleocharis sp.

SCHEUCHZERIO-CARICETEA

Ranunculus flammula, Carex pulicaris

ISOETO NANOJUNCETEA

Montia fontana

BIDENTETEA

Polygonum lapathifolium

CHENOPODIETEA

Stellaria media, Chenopodium album, Atriplex spp., Polygonum persicaria, Tripleurospermum inodorum, (Spergula arvensis, Urtica urens)

SECALIETEA

Raphanus raphanistrum, Polygonum convolvulus, Avena fatua, Bromus mollis/secalinus

ARTEMISIETEA

Galium aparine

PLANTAGINETEA

Ranunculus repens, small grasses (including Poa annua), (Plantago major)

NARDO-CALLUNETEA

Potentilla erecta, Rumex acetosella, Sieglingia decumbens, Carex pilulifera

MOLINIO-ARRHENATHERETEA

Odontites verna, Prunella vulgaris, Plantago lanceolata, Arrhenatherum elatius

Species in brackets occur in <10%, but >5% of the samples.

Table 10.11 Preferred time of germination for the weed species according to the Geigi Weed Tables (Häfliger and Brun-Hool 1968-1977).

	ANNUALS			PERENNIALS
	SPRING	*BOTH*	*AUTUMN*	
Ranunculus repens				*
Ranunculus flammula				*
Raphanus raphanistrum		*		
Montia fontana	(no info)			
Stellaria media		*		
Chenopodium album	*			
Atriplex spp.	*			
Potentilla erecta				*
Polygonum aviculare	*			
Polygonum convolvulus	*			
Polygonum lapathifolium	*			
Polygonum persicaria	*			
Rumex acetosella				*
Rumex spp.				*
Odontites verna		*		
Prunella vulgaris				*
Plantago lanceolata				*
Galium aparine		*		
Tripleurospermum inodorum		*		
Avena fatua	*			
Bromus mollis/secalinus		*		
Sieglingia decumbens				*
Poa annua		*		
Arrhenatherum elatius				*
Juncus sp.	(no info)			
Eleocharis sp.				*
Carex pilulifera				*
Carex pulicaris				*
Carex spp.				*

Table 10.12 Maximum flowering height of the weed species (after Clapham *et al.* 1962).

H1 = (1-30 cm)
Potentilla erecta, Odontites verna, Prunella vulgaris, Poa annua, Carex pilulifera, Carex pulicaris.

H2 = (31-40 cm)
Stellaria media, Sieglingia decumbens

H3 = (41-50 cm)
Ranunculus flammula, Montia fontana, Plantago lanceolata

H4 = (51-60)
Ranunculus repens, Raphanus raphanistrum, Tripleurospermum inodorum, Bromus mollis/secalinus, Eleocharis sp.

(N.B. there are no species within the range 61-70 cm)

H5 = (71-80 cm)
Polygonum persicaria

H6 = (81-90 cm)
Avena fatua

H7 = (91-100 cm)
Chenopodium album, Atriplex spp., Polygonum lapathifolium, Prunella vulgaris

H8 = (101-120 cm)
Galium aparine, Arrhenatherum elatius

H9 = (121-200 cm)
Polygonum aviculare, Polygonum convolvulus

Table 10.13 Summary results of DA-15-20.

Discriminant Analysis - Roman Assemblages
(using the Prehistoric assemblages as the control groups)

ANALYSIS	VARIABLES	TRANSFORMATION
DA-15	F3.4, F5.6, F7.8, F9.10, Fx R2.3, R4.5.6, R7.8, Rx N2.3, N4.5.6, N7.8, Nx (weeds>10%) - Thornbrough RESULTS: 5 samples classified as Group A -29.4% 12 samples classified as Group B -70.6%	square root
DA-16	F3.4, F5.6, F7.8, F9.10, Fx R2.3, R4.5.6, R7.8, Rx N2.3, N4.5.6, N7.8, Nx Annuals, Perennials (weeds> 5%) - Thornbrough RESULTS: 4 samples classified as Group A -23.5% 13 samples classified as Group B -76.5%	square root
DA-17	as DA-15, but for South Shields, deposit 12236 RESULTS: 3 samples classified as Group A - 9.4% 29 samples classified as Group B -90.6%	
DA-18	as DA-16, but for South Shields, deposit 12236 RESULTS: 2 samples classified as Group A - 6.3% 30 samples classified as Group B -93.8%	
DA-19	as DA-15, but for South Shields, deposit 12176 RESULTS: 2 samples classified as Group A -16.7% 10 samples classified as Group B -83.3%	
DA-20	as DA-16, but for South Shields, deposit 12176 RESULTS: 1 sample classified as Group A - 8.3% 11 samples classified as Group B -91.7%	

Table 11.1 Soil associations within a 1 km radius of each site.

MURTON	
60% Dunkeswick -	Typical stagnogley soil slowly permeable seasonally waterlogged fine loamy and fine loamy over clayey soils
40% Nercwys -	Stagnogleyic brown earth deep fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging
DOD LAW	
35% Alun -	Typical brown alluvial soil deep stoneless permeable coarse loamy soils
20% Dunkeswick -	Typical stagnogley soil slowly permeable seasonally waterlogged fine loamy and fine loamy over clayey soils
15% Anglezarke -	Humo-ferric podzol well drained very acid coarse loamy soils over sandstone with a bleached surface horizon
15% Newport 1 -	Typical brown sand deep well drained sandy and coarse loamy soils
15% Wick 1 -	Typical brown earth deep well drained coarse loamy and sandy soils
CHESTER HOUSE	
70% Brickfield 3	Cambic stagnogley soil slowly permeable seasonally waterlogged fine loamy, fine loamy over clayey and clayey soils
10% Wick 1 -	Typical brown earth deep well drained coarse loamy and sandy soils
20% unclassified	built-up area
THORPE THEWLES	
60% Crewe -	Pelo-stagnogley soil slowly permeable seasonally waterlogged reddish clayey and fine loamy over clayey soils
40% Salop -	Typical stagnogley soil slowly permeable seasonally waterlogged reddish fine loamy over clayey, fine loamy and clayey soils

Table 11.1 (cont.)

STANWICK	
60% Dunkeswick -	Typical stagnogley soil slowly permeable seasonally waterlogged fine loamy and fine loamy over clayey soils
20% Wick 1 -	Typical brown earth deep well drained coarse loamy and sandy soils
10% Waltham -	Typical brown earth well drained fine loamy soils over limestone, locally deep
10% Dale -	Pelo-stagnogley soil slowly permeable seasonally waterlogged clayey, fine loamy over clayey and fine silty soils
ROCK CASTLE	
30% Brickfield 2	Cambic stagnogley soil slowly permeable seasonally waterlogged fine loamy soils
30% Wick 1	Typical brown earth deep well drained coarse loamy and sandy soils
30% East Keswick 1	Typical brown earth deep well drained fine loamy soils
10% Wharfe -	Typical brown alluvial soil deep stoneless permeable fine loamy soils