Settlement and society in the later prehistory of North-East England

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Settlement and Society in the Later Prehistory of North-East England

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I, Gillian Ferrell, declare that no part of this material has previously been submitted by me for a degree in this or any other University.

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APPENDIX ONE

GAZETTEER OF SITES

The gazetteer contains a record of all known sites in north east England believed to be settlements or agricultural remains of prehistoric or Romano-British date. It is divided into counties and the information for each county is displayed in order of site type and alphabetical order of site name. Only those sites which may be classified with reasonable certainty are included, hence a destroyed site recorded only as a settlement would be excluded.

The listing for each site gives its geographical placename (where sites are recorded in different sources by more than one name, the various names are given), the six figure grid reference for the location and the type. In the case of settlements the type field is given in the following format: morphology (open, curvilinear or rectilinear);presence of a palisaded boundary denoted by P; activity rating ie. no. of recorded structures (AR 1-5: where this information is not available the site is recorded merely as a settlement); other information (the suffix (HF) signifies that the site has been recorded in one or more earlier sources as a hillfort). The likelihood of classification error is also indicated. For instance, if there is some doubt as to the quality of the original data record, a site may be recorded as Open Settlement ? Where the nature of the site is not in doubt but there is some particular question about whether all of the structures have been recorded or whether all are contemporary, a site may be recorded as Rectilinear Settlement AR 2 ? A full explanation of the classificatory system is given in chapter two.

1.1 NORTHUMBERLAND

SITE NAME	GRID REF	SITE TYPE
Addycombe	NU 056029	Cairnfield
Barrow Burn	NT 910050	Cairnfield
Batailshiel Heugh West	NT 881102	Cairnfield
Beanley Moor	NU 100187	Cairnfield
Bewick Moor	NU 087231	Cairnfield
Blackwool Law	NY 811985	Cairnfield
Brough Law	NT 999163	Cairnfield
Cartington Hill	NU 048051	Cairnfield
Charlton Moor North	NU 145225	Cairnfield
Chatton Sandyford	NU 100260	Cairnfield
Chesters	NT 987143	Cairnfield
Chesters Burn	NT 998147	Cairnfield
Cobden Burn	NT 982142	Cairnfield
Colwell North	NY 948761	Cairnfield
Colwell South	NY 951752	Cairnfield
Cunyan Crags	NT 978177	Cairnfield
Cunyan Crags East	NT 987179	Cairnfield
Darney Crag	NY 910876	Cairnfield
Davyshiel Common	NY 878981	Cairnfield
Doddington Moor	NU 012320	Cairnfield
Doddington Moor	NU 002335	Cairnfield
Doddington Moor	NU 006318	Cairnfield
Doddington Moor	NU 007322	Cairnfield
Evistones	NY 831967	Cairnfield
Ewe Hill	NU 004170	Cairnfield
Ewe Hill	NT 999157	Cairnfield
Ewe Hill	NT 997149	Cairnfield
Ferny Law	NU 031275	Cairnfield
Fredden Hill	NT 950271	Cairnfield
Fredden Hill	NT 949268	Cairnfield
Fredden Hill	NT 962263	Cairnfield
Greenside Hill	NT 976164	Cairnfield
Greensidehill North East	NT 984170	Cairnfield
Hangwell Law	NU 123244	Cairnfield

SITE NAME	GRID REF	SITE TYPE
Harbottle	NT 940040	Cairnfield
Hare Law	NT 979193	Cairnfield
Hazeltonrig Hill	NT 963116	Cairnfield
High Knowes	NT 967121	Cairnfield
High Knowes	NT 968123	Cairnfield
Hindsike Hill	NY 803977	Cairnfield
Holystone Common/Five Barrows	NT 953019	Cairnfield
Houseledge	NT 954278	Cairnfield
Kimmer Lough	NU 110170	Cairnfield
Kirkley	NZ 140759	Cairnfield
Knock Hill	NU 001176	Cairnfield
Knock Hill	NT 997177	Cairnfield
Knock Hill	NT 994172	Cairnfield
Langlee Crags	NT 964224	Cairnfield
Leafield Edge	NT 984136	Cairnfield
Lilburn Hill Farm	NU 013256	Cairnfield
Linhope Camp	NT 965163	Cairnfield
Linhope North East	NT 972164	Cairnfield
Linhope North East	NT 970169	Cairnfield
Linhope North/Greaves Ash	NT 967169	Cairnfield
Linkey Law	NU 090290	Cairnfield
Long Crag South East	NT 976174	Cairnfield
Long Crags	NT 966170	Cairnfield
Low Shield Green	NY 890800	Cairnfield
Mallys Crag	NT 795006	Cairnfield
Middleton Dean	NT 991222	Cairnfield
Millstone Hill	NU 088261	Cairnfield
North Pike	NT 974141	Cairnfield
Old Bewick	NU 080215	Cairnfield
Ottercops Moss	NY 964893	Cairnfield
Ottercops South East	NY 969880	Cairnfield
Petty Knowes	NY 835982	Cairnfield
Pike House	NZ 075995	Cairnfield
Pondicherry	NU 046022	Cairnfield

SITE NAME	GRID REF	SITE TYPE
Quarry House	NY 966805	Cairnfield
Ray Fell	NY 960850	Cairnfield
Reaveley Hill	NU 007178	Cairnfield
Rebel Hill	NY 850599	Cairnfield
Roddam Burn	NT 990179	Cairnfield
Rosebrough Moor	NU 114255	Cairnfield
Scald Law	NY 950883	Cairnfield
Stublick	NY 846603	Cairnfield
Swinburne Park	NY 930740	Cairnfield
Tathey Crags	NT 966211	Cairnfield
Tick Law	NU 083212	Cairnfield
Tofts Troughend	NY 862916	Cairnfield
Tom Tallons Crag	NT 931280	Cairnfield
Weetwood Moor	NU 018282	Cairnfield
Whitburn Bank	NU 016278	Cairnfield
Whitefield Edge	NU 079036	Cairnfield
Whitfield	NY 904830	Cairnfield
Whitsun Bank	NU 020290	Cairnfield
Witch Crags	NT 875061	Cairnfield
Witchy Neuk	NY 979994	Cairnfield
Adderstone Mains	NU 131311	Curvilinear Settlement
Adderstone Mains North	NU 134319	Curvilinear Settlement P
Alnham Castle	NT 980111	Curvilinear Settlement AR 1
Alnham Castle Hill	NT 980109	Curvilinear Settlement (HF)
Alnwick Moor	NU 154111	Curvilinear Settlement (HF)
Baldersbury Hill	NT 955537	Curvilinear Settlement ? (HF)
Barcombe Hill	NY 783668	Curvilinear Settlement (HF)
Barley Hill	NT 887343	Curvilinear Settlement ? (HF)
Barracker Rigg	NY 885975	Curvilinear Settlement AR 1
Barrow Burn	NT 914060	Curvilinear Settlement
Battle Moor South West	NT 907452	Curvilinear Settlement
Beacon Hill	NU 186078	Curvilinear Settlement (HF)
Beanley	NU 085181	Curvilinear Settlement P
Beanley Moor	NU 092178	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Beanley Moor West	NU 091182	Curvilinear Settlement
Beanley Ringses	NU 100186	Curvilinear Settlement (HF)
Belford Bricksheds	NU 119334	Curvilinear Settlement ? (HF)
Bells Hunkin	NY 621943	Curvilinear Settlement AR 1
Berrington South/Lickar Dean	NU 015421	Curvilinear Settlement ? (HF)
Berwick Hall	NZ 167756	Curvilinear Settlement
Bewick Bridge	NU 052227	Curvilinear Settlement
Bickerton Hill	NY 993992	Curvilinear Settlement (HF)
Bill Law	NU 018345	Curvilinear Settlement (HF)
Bilton Barns	NU 221100	Curvilinear Settlement ? (HF)
Bilton Barns 2	NU 220101	Curvilinear Settlement
Birley Hill/Kay Hill	NU 073274	Curvilinear Settlement
Bishop Rigg/Corbridge	NY 976653	Curvilinear Settlement P
Blackborough Camp	NU 019232	Curvilinear Settlement (HF)
Blackchesters	NT 963379	Curvilinear Settlement (HF)
Blackhagg North	NT 883250	Curvilinear Settlement (HF)
Blackhagg North	NT 883250	Curvilinear Settlement AR 1
Blakelaw	NU 040273	Curvilinear Settlement ? (HF)
Blawearie	NU 087219	Curvilinear Settlement (HF)
Bleakmoor Hill	NT 960088	Curvilinear Settlement P
Bog House	NZ 200773	Curvilinear Settlement
Bolam House	NZ 086824	Curvilinear Settlement (HF)
Bolam West Houses	NZ 077821	Curvilinear Settlement (HF)
Borewell/Cuddies Cove	NU 018496	Curvilinear Settlement ? (HF)
Bowmont Hill	NT 834309	Curvilinear Settlement (HF)
Brandon Hill	NU 044178	Curvilinear Settlement (HF)
Brandon Hill	NU 045181	Curvilinear Settlement P
Brands Hill 1	NT 983247	Curvilinear Settlement
Brands Hill 10	NT 986238	Curvilinear Settlement AR 1
Brands Hill 2	NT 980245	Curvilinear Settlement AR 2
Brands Hill 5	NT 982245	Curvilinear Settlement
Brands Hill 6	NT 983241	Curvilinear Settlement AR 2
Brands Hill 7	NT 980240	Curvilinear Settlement AR 4
Brands Hill 8	NT 982239	Curvilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Brands Hill 9	NT 985240	Curvilinear Settlement AR 1
Brands Hill North	NT 979248	Curvilinear Settlement
Brans Walls	NY 667975	Curvilinear Settlement AR 4
Branxton Hill East	NT 897367	Curvilinear Settlement
Brinkburn	NZ 117984	Curvilinear Settlement (HF)
Brizlee Wood	NU 140140	Curvilinear Settlement (HF)
Brizlee Wood West	NU 139147	Curvilinear Settlement (HF)
Broome Wood	NU 134118	Curvilinear Settlement (HF)
Broomy Knowe	NU 017307	Curvilinear Settlement (HF)
Brough Law	NT 998163	Curvilinear Settlement (HF)
Brough Law East	NU 006163	Curvilinear Settlement
Brough Law East 1	NU 004164	Curvilinear Settlement AR 1
Brough Law East 2	NU 001162	Curvilinear Settlement AR 2
Brough Law South East 1	NU 002159	Curvilinear Settlement AR 1
Brough Law South East 2	NU 001158	Curvilinear Settlement
Buckton Moor	NU 075376	Curvilinear Settlement
Buckton Moor North	NU 064383	Curvilinear Settlement (HF)
Buckton Moor South	NU 070376	Curvilinear Settlement (HF)
Burnbanks 1	NU 113320	Curvilinear Settlement ? (HF)
Burnbanks 2	NU 112318	Curvilinear Settlement ? (HF)
Burrowses	NT 931307	Curvilinear Settlement ? (HF)
Butteryhaugh/Camp Rigg	NY 634927	Curvilinear Settlement
Buttony Wood	NU 018311	Curvilinear Settlement (HF)
Caistron	NT 997013	Curvilinear Settlement
Callaly Hill/Castle Hill	NU 060097	Curvilinear Settlement (HF)
Callaly/Old Hag	NU 052104	Curvilinear Settlement (HF)
Camp Hill	NT 868343	Curvilinear Settlement (HF)
Camp Hill	NT 975547	Curvilinear Settlement ? (HF)
Camp Hill	NY 989872	Curvilinear Settlement (HF)
Camp House	NZ 140822	Curvilinear Settlement (HF)
Camp Plantation	NU 162231	Curvilinear Settlement (HF)
Camphouses North	NT 971471	Curvilinear Settlement
Campville/Lanternside	NT 947025	Curvilinear Settlement (HF)
Carls Walls	NU 076283	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Castle Hill	NT 881355	Curvilinear Settlement (HF)
Castle Hill	NY 926919	Curvilinear Settlement (HF)
Castle Hill Camp	NU 021244	Curvilinear Settlement (HF)
Chatton Park Hill	NU 072294	Curvilinear Settlement (HF)
Chatton Park Hill	NU 067298	Curvilinear Settlement (HF)
Chester Hill	NU 131341	Curvilinear Settlement ? (HF)
Chesters Denwick	NU 172164	Curvilinear Settlement (HF)
Chesters Hill	NU 103346	Curvilinear Settlement (HF)
Chesters Nesbit	NT 985345	Curvilinear Settlement (HF)
Chillingham Park	NU 067263	Curvilinear Settlement (HF)
Chubden North	NU 018136	Curvilinear Settlement
Clavering/Lilburn Grange	NU 027290	Curvilinear Settlement P
Clennel Hill	NT 925078	Curvilinear Settlement (HF)
Clennel Street	NT 920071	Curvilinear Settlement (HF)
Clennel Street	NT 918076	Curvilinear Settlement P AR 2
Clinch Castle/Castle Knowe	NU 031146	Curvilinear Settlement (HF)
Cochrane Pike South	NU 011136	Curvilinear Settlement
Cochrane Pike West	NU 008139	Curvilinear Settlement AR 3
Cockhill Farm	NZ 158815	Curvilinear Settlement
Cockley Burn Wood	NU 024478	Curvilinear Settlement P ?
Coldberry Hill	NT 971274	Curvilinear Settlement AR 1
Coldberry Hill 2/Browns Law	NT 970272	Curvilinear Settlement
Coldsmouth Hill	NT 853291	Curvilinear Settlement
Coldsmouth Hill	NT 854291	Curvilinear Settlement
Coldsmouth Hill	NT 857293	Curvilinear Settlement AR 3
Coldsmouth Hill	NT 851289	Curvilinear Settlement AR 1
Colwell Hill	NY 907938	Curvilinear Settlement (HF)
Coppath Burn	NT 977123	Curvilinear Settlement AR 2
Corbie Crag East	NU 108186	Curvilinear Settlement AR 3
Corbys Crags	NU 128102	Curvilinear Settlement (HF)
Cornhill	NT 880402	Curvilinear Settlement ? (HF)
Cornhill	NT 860402	Curvilinear Settlement ?
Cornhill	NT 860402	Curvilinear Settlement (HF)
Coronation Wood/Snear Hill	NT 971248	Curvilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Cowboys Cairn North	NT 982234	Curvilinear Settlement AR 1
Cragend	NU 087010	Curvilinear Settlement
Cramond Hill	NT 877403	Curvilinear Settlement P
Craster Crag/Craster Heugh	NU 255195	Curvilinear Settlement (HF)
Crawley Tower South	NU 073161	Curvilinear Settlement
Crook Hill	NU 158335	Curvilinear Settlement (HF)
Crookham Eastfield	NT 911389	Curvilinear Settlement P
Crookham Eastfield	NT 904390	Curvilinear Settlement P
Crowden Syke	NT 872293	Curvilinear Settlement
Deershed Plantation 1	NU 021275	Curvilinear Settlement AR 1
Deershed Plantation 2	NU 023273	Curvilinear Settlement AR 1
Dod Law East	NU 007316	Curvilinear Settlement (HF)
Dod Law Middle	NU 006317	Curvilinear Settlement (HF)
Doddington Dene	NU 001334	Curvilinear Settlement (HF)
Doddington Dene	NU 001335	Curvilinear Settlement P AR 1
Doxford/Dunston Hill	NU 183237	Curvilinear Settlement (HF)
Duddo Camp	NT 956432	Curvilinear Settlement (HF)
Dunsdale	NT 900232	Curvilinear Settlement
Earle Whin	NT 984269	Curvilinear Settlement
East Ancroft	NU 010454	Curvilinear Settlement ? (HF)
East Lilburn	NU 037236	Curvilinear Settlement ? (HF)
East Staw House	NT 893306	Curvilinear Settlement
Easter Tor	NT 918284	Curvilinear Settlement AR 1
Ells Knowe	NT 872278	Curvilinear Settlement P
Ells Knowe North	NT 871282	Curvilinear Settlement
Ells Knowe North West	NT 870280	Curvilinear Settlement
Ells Knowe West	NT 871278	Curvilinear Settlement
Elsdon Burn	NT 869282	Curvilinear Settlement
Elsdon Burn West	NT 866282	Curvilinear Settlement AR 1
Etal Ford	NT 926397	Curvilinear Settlement ? (HF)
Ewe Hill	NT 988448	Curvilinear Settlement (HF)
Ewe Hill	NU 064271	Curvilinear Settlement
Ewe Hill East	NU 009166	Curvilinear Settlement AR 1
Ewe Hill East	NU 009166	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Ewe Hill/Reaveley East Camp	NU 009166	Curvilinear Settlement
Ewe Hill/Reaveley East Camp	NU 004168	Curvilinear Settlement AR 1
Ewesley Fell	NZ 058926	Curvilinear Settlement
Fairney Cleugh 1	NY 878963	Curvilinear Settlement AR 1
Fallowfield West/The Scroggs	NY 923683	Curvilinear Settlement
Farhill Crags	NU 129342	Curvilinear Settlement (HF)
Fawdon Hill	NY 897940	Curvilinear Settlement (HF)
Fenham Hill	NU 069413	Curvilinear Settlement P (HF)
Fenton Hill	NT 979354	Curvilinear Settlement (HF)
Fenton Hill	NT 979354	Curvilinear Settlement P (HF)
Flodden Camp	NT 924351	Curvilinear Settlement ? (HF)
Flodden Camp	NT 924351	Curvilinear Settlement P ?
Fordwood	NT 972365	Curvilinear Settlement (HF)
Fourstones	NY 889678	Curvilinear Settlement ? (HF)
Fowberry Mains	NU 033286	Curvilinear Settlement P
Fox Covert	NU 029329	Curvilinear Settlement (HF)
Fredden Hill	NT 951268	Curvilinear Settlement
Gallowshaw East	NZ 117904	Curvilinear Settlement (HF)
Gallowshaw West	NZ 116904	Curvilinear Settlement (HF)
Garleigh Pike	NZ 061991	Curvilinear Settlement (HF)
Gibbies Knowe	NY 647950	Curvilinear Settlement (HF)
Gibbs Hill	NU 032143	Curvilinear Settlement P AR 2
Girsonfield	NY 892938	Curvilinear Settlement AR 1
Glanton Hill/Hemmel House	NU 063152	Curvilinear Settlement (HF)
Gleadscleugh	NT 951291	Curvilinear Settlement (HF)
Great Hetha Camp	NT 886274	Curvilinear Settlement (HF)
Great Wanney Crag	NY 932833	Curvilinear Settlement (HF)
Greaves Ash	NT 966164	Curvilinear Settlement (HF)
Greaves Ash	NT 965164	Curvilinear Settlement AR 5
Greaves Ash East	NT 966164	Curvilinear Settlement AR 4
Green Dykes	NU 071291	Curvilinear Settlement
Greenlee Lough	NY 776697	Curvilinear Settlement
Greens Bridge	NT 983462	Curvilinear Settlement ? (HF)
Grindstone Law	NZ 003733	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Groat Haugh	NT 885451	Curvilinear Settlement (HF)
Gunnar Peak West	NY 914749	Curvilinear Settlement (HF)
Haddon Hill 1	NT 866291	Curvilinear Settlement AR 3
Haddon Hill 2	NT 866291	Curvilinear Settlement AR 1
Hagg Crossing	NT 858351	Curvilinear Settlement
Halidon Hill	NT 968548	Curvilinear Settlement (HF)
Hanging Crag/Old Bewick	NU 071216	Curvilinear Settlement AR 1
Hangmans Land	NT 913482	Curvilinear Settlement
Harehaugh/H Hill Camp	NY 969998	Curvilinear Settlement (HF)
Harehope Hill	NU 092201	Curvilinear Settlement (HF)
Harelaw Burn/Heddon Hill	NU 002196	Curvilinear Settlement (HF)
Hart Heugh	NT 971253	Curvilinear Settlement
Hart Law	NT 988128	Curvilinear Settlement P AR 3
Harthope Burn	NT 962230	Curvilinear Settlement
Hartside Hill	NT 979154	Curvilinear Settlement AR 1
Hartside Hill	NT 983158	Curvilinear Settlement
Hartside Hill	NT 978153	Curvilinear Settlement AR 1
Hartside Hill Lower South	NT 978154	Curvilinear Settlement
Hartside Hill Middle	NT 983157	Curvilinear Settlement AR 4
Hartside Hill North West	NT 980157	Curvilinear Settlement AR 1
Hartside Hill South	NT 980155	Curvilinear Settlement AR 1
Hartside Hill South West	NT 980156	Curvilinear Settlement AR 1
Hartside Hill West	NT 975156	Curvilinear Settlement AR 3
Hartside Hill/Lower East Hside	NT 988158	Curvilinear Settlement AR 4
Hartside Hill/Upper East Hside	NT 987158	Curvilinear Settlement AR 2
Haugh Head South	NU 001256	Curvilinear Settlement (HF)
Haystack Hill	NU 005150	Curvilinear Settlement AR 4
Haystack Hill North	NU 005152	Curvilinear Settlement AR 4
Hazeltonrig Hill	NT 971102	Curvilinear Settlement
Hazeltonrig Hill	NT 972110	Curvilinear Settlement P
Hazeltonrig Hill	NT 961118	Curvilinear Settlement
Heckley House North West	NU 193167	Curvilinear Settlement
Heddon Hill 1	NU 006204	Curvilinear Settlement
Heddon Hill 2	NU 006204	Curvilinear Settlement AR 1

SITE NAME	GRID REF	SITE TYPE
Heddon Hill 3	NU 006207	Curvilinear Settlement
Heddon Moor North	NU 004230	Curvilinear Settlement (HF)
Heifer Law	NU 180176	Curvilinear Settlement (HF)
Hemphole Plantation	NU 130299	Curvilinear Settlement (HF)
Hepburn Bell	NU 061243	Curvilinear Settlement (HF)
Hepburn Crag	NU 074247	Curvilinear Settlement (HF)
Hepburn Wood	NU 068235	Curvilinear Settlement P
Hepburn Wood	NU 068235	Curvilinear Settlement (HF)
Het Hill	NT 977152	Curvilinear Settlement
Hetha Burn West	NT 878274	Curvilinear Settlement (HF)
Hethpool Bell	NT 902288	Curvilinear Settlement (HF)
Hethpool Bell	NT 901288	Curvilinear Settlement
Hethpool Bell	NT 903291	Curvilinear Settlement AR 1
Hetton Dean/Hetton Steads	NU 036351	Curvilinear Settlement (HF)
Hetton Hall/Town Hill	NU 038331	Curvilinear Settlement (HF)
Hetton Steads South	NU 039349	Curvilinear Settlement (HF)
Hetton Steads South East	NU 041345	Curvilinear Settlement P
High Knowes	NT 973125	Curvilinear Settlement AR 1?
High Knowes A	NT 970124	Curvilinear Settlement P AR 1
High Knowes B	NT 972125	Curvilinear Settlement P AR 4
Hoggy Dean Burn	NT 997481	Curvilinear Settlement
Honey Hill	NU 167190	Curvilinear Settlement (HF)
Horsedean	NU 031287	Curvilinear Settlement P
Horton Moor	NU 013318	Curvilinear Settlement (HF)
Horton Moor East	NU 015318	Curvilinear Settlement
Horton Moor North	NU 018325	Curvilinear Settlement
Hosedon Linn	NT 918081	Curvilinear Settlement P AR 3
Hosedon Linn East	NT 918084	Curvilinear Settlement
Houghton	NZ 122666	Curvilinear Settlement (HF)
Howick Hill	NU 255163	Curvilinear Settlement (HF)
Howtel Castle Hill	NT 898331	Curvilinear Settlement (HF)
Howtel Field	NT 898347	Curvilinear Settlement (HF)
Huckhoe	NZ 073828	Curvilinear Settlement AR 3
Huckhoe	NZ 073828	Curvilinear Settlement P

SITE NAME	GRID REF	SITE TYPE
Humbleton Burn	NT 976275	Curvilinear Settlement
Humbleton Hill	NT 965279	Curvilinear Settlement (HF)
Humbleton Hill East 1	NT 972282	Curvilinear Settlement
Humbleton Hill East 2	NT 974280	Curvilinear Settlement
Ingram Hill	NU 012157	Curvilinear Settlement P
Ingram Hill	NU 011158	Curvilinear Settlement (HF)
Jennys Lantern	NU 119151	Curvilinear Settlement (HF)
Kilham Hill	NT 894305	Curvilinear Settlement AR 1?
Kippy Heugh	NU 126346	Curvilinear Settlement (HF)
Knock Hill	NT 992164	Curvilinear Settlement (HF)
Knock Hill	NU 002173	Curvilinear Settlement
Knock Hill East	NT 995168	Curvilinear Settlement
Knock Hill East	NT 995169	Curvilinear Settlement
Knock Hill Middle	NT 997170	Curvilinear Settlement
Knock Hill North East	NT 998172	Curvilinear Settlement AR 4
Knock Hill South	NT 993164	Curvilinear Settlement
Knock Hill South	NT 992164	Curvilinear Settlement
Kyloe Crags/Kyloe Plantation	NU 052388	Curvilinear Settlement (HF)
Kyloe Hills	NU 048391	Curvilinear Settlement (HF)
Laddies Knowe	NT 885288	Curvilinear Settlement (HF)
Laddies Knowe	NT 883289	Curvilinear Settlement
Lemmington Branch	NU 132116	Curvilinear Settlement
Lickar Dean/South Berrington	NU 014420	Curvilinear Settlement (HF)
Lilburn Grange N/Newtown 2	NU 036252	Curvilinear Settlement
Lilburn Tower East	NU 028247	Curvilinear Settlement P
Lilburn Tower S/Ilderton Stn	NU 020235	Curvilinear Settlement
Linhope Burn/Ritto Hill	NT 961162	Curvilinear Settlement AR 1
Linhope West/Ritto Hill	NT 959164	Curvilinear Settlement AR 2
Linthaugh	NT 930366	Curvilinear Settlement
Little Dod	NT 952138	Curvilinear Settlement AR 1
Little Hetha	NT 886281	Curvilinear Settlement (HF)
Little Hill/Whinny Knowe	NU 074280	Curvilinear Settlement (HF)
Little Mill	NU 080004	Curvilinear Settlement (HF)
Loft Hill North East	NT 882259	Curvilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Long Knowe	NT 872311	Curvilinear Settlement
Lordenshaws	NZ 055993	Curvilinear Settlement (HF)
Lordenshaws	NZ 054993	Curvilinear Settlement AR 2
Loundon Hill	NT 949085	Curvilinear Settlement AR 1
Low Middleton	NU 106364	Curvilinear Settlement (HF)
Low Thor Lawe	NU 070269	Curvilinear Settlement (HF)
Lowick High Stead	NU 012388	Curvilinear Settlement (HF)
Lucker/Ell Hill	NU 164300	Curvilinear Settlement ? (HF)
Lumsden Hill	NU 007134	Curvilinear Settlement
Lyham South	NU 078306	Curvilinear Settlement
Marleyknowe	NT 933321	Curvilinear Settlement AR 2
Meggrims Knowe	NT 964159	Curvilinear Settlement AR 4
Mid Hill Camp	NT 881296	Curvilinear Settlement (HF)
Middle Dean	NU 004146	Curvilinear Settlement (HF)
Middleton Dean South East	NT 997219	Curvilinear Settlement (HF)
Middleton Hall	NU 091357	Curvilinear Settlement (HF)
Middleton Hall/Castle Hill	NT 991252	Curvilinear Settlement
Midstead	NU 123154	Curvilinear Settlement AR 1
Mill Hill	NT 882296	Curvilinear Settlement (HF)
Mill Knock Camp	NY 882793	Curvilinear Settlement AR 3?
Mindrum 2	NT 842325	Curvilinear Settlement AR 1
Mindrum 3	NT 840324	Curvilinear Settlement AR 1
Mindrumill	NT 828337	Curvilinear Settlement
Mindrumill Crag	NT 834343	Curvilinear Settlement
Moatlaw	NZ 011759	Curvilinear Settlement (HF)
Monday Cleugh	NT 956285	Curvilinear Settlement AR 1
Monday Cleugh E/Harehope Hill	NT 960287	Curvilinear Settlement AR 1
Monday Cleugh/Harehope Hill	NT 956285	Curvilinear Settlement (HF)
Moneylaws Hill	NT 873348	Curvilinear Settlement (HF)
Morwick South East	NU 244035	Curvilinear Settlement P
Mousen Bridge	NU 125329	Curvilinear Settlement ? (HF)
Murton High Crags	NT 965496	Curvilinear Settlement P
Murton High Crags	NT 965496	Curvilinear Settlement
Near Norham	NT 918490	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Nesbit	NT 981333	Curvilinear Settlement (HF)
New Deanham	NZ 035824	Curvilinear Settlement
Newburn East	NT 933471	Curvilinear Settlement (HF)
Newtown	NU 039252	Curvilinear Settlement ? (HF)
Newtown Mill	NU 046239	Curvilinear Settlement P
Norham East Mains 1	NT 922488	Curvilinear Settlement
North Lyham	NU 062321	Curvilinear Settlement
North Pike	NT 969136	Curvilinear Settlement P AR 1
North Plantation/Fowberry Moor	NU 020278	Curvilinear Settlement (HF)
North Plantation/Knockwell Cot	NU 033255	Curvilinear Settlement
North Sunderland West Field	NU 206320	Curvilinear Settlement ? (HF)
Northfieldhead Hill	NT 983119	Curvilinear Settlement P AR 4
Old Bewick	NU 075216	Curvilinear Settlement (HF)
Old Bewick	NU 075216	Curvilinear Settlement
Old Deanham Farm	NZ 036829	Curvilinear Settlement
Old Fawdon Hill	NU 022141	Curvilinear Settlement P AR 5
Old Rothbury/Kimmer Nod	NU 046019	Curvilinear Settlement (HF)
Pace Hill	NT 915371	Curvilinear Settlement
Pace Hill	NT 911374	Curvilinear Settlement
Pallinsburn	NT 895384	Curvilinear Settlement
Pattenshiel Knowe	NY 955986	Curvilinear Settlement
Pawston Hill	NT 851318	Curvilinear Settlement (HF)
Peat Law South/S W Kidlandlee	NT 908095	Curvilinear Settlement AR 3
Pike House North	NZ 076996	Curvilinear Settlement (HF)
Prendwick Chesters	NT 984148	Curvilinear Settlement (HF)
Prendwick Chesters/Prickly Knowe	NT 985149	Curvilinear Settlement AR 3
Pressen Hill	NT 829360	Curvilinear Settlement (HF)
Pundershaw	NY 776804	Curvilinear Settlement (HF)
Rabbit Hill	NU 049087	Curvilinear Settlement (HF)
Ratcheugh Crag	NU 225145	Curvilinear Settlement (HF)
Ratchwood	NU 146292	Curvilinear Settlement (HF)
Ravenshill Moor	NY 633953	Curvilinear Settlement (HF)
Rayheugh/Isabellas Mount	NU 133275	Curvilinear Settlement (HF)
Reaveley Hill	NU 005178	Curvilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Reaveley Hill	NU 004178	Curvilinear Settlement AR 1
Reaveley Hill	NU 010181	Curvilinear Settlement AR 1
Redscar Bridge	NT 945338	Curvilinear Settlement P
Ring Chesters	NT 866289	Curvilinear Settlement (HF)
Ringles	NT 989229	Curvilinear Settlement (HF)
Ringses	NU 010186	Curvilinear Settlement (HF)
Ringses	NU 013328	Curvilinear Settlement (HF)
Ros Castle	NU 081254	Curvilinear Settlement (HF)
Roseden Edge	NU 024216	Curvilinear Settlement (HF)
Rothley Crags/The Stell	NZ 043885	Curvilinear Settlement (HF)
Rothley Crags/The Stell	NZ 043885	Curvilinear Settlement AR 1
Rough Castles North	NU 088082	Curvilinear Settlement (HF)
Rough Castles South	NU 088077	Curvilinear Settlement (HF)
Roughting Linn	NT 983367	Curvilinear Settlement (HF)
Roundabout Camp/Ancroft S Moor	NT 979441	Curvilinear Settlement (HF)
Roundabouts Camp	NU 132311	Curvilinear Settlement (HF)
Royalways	NU 105374	Curvilinear Settlement (HF)
Ryle Camp/Low Chubden	NU 024135	Curvilinear Settlement ?
Ryle Camp/Low Chubden	NU 024135	Curvilinear Settlement (HF)
Salters Nick	NZ 053823	Curvilinear Settlement ?
Salters Nick	NZ 053823	Curvilinear Settlement (HF)
Sandy House	NT 932322	Curvilinear Settlement (HF)
Scaldhill Shank	NT 866277	Curvilinear Settlement
Scaud Knowe/Alnhammoor West 1	NT 961152	Curvilinear Settlement
Scaud Knowe/Shark Burn	NT 960149	Curvilinear Settlement
Seghill	NZ 282748	Curvilinear Settlement P
Shaftoe Crags	NZ 052877	Curvilinear Settlement (HF)
Shawdon Hill	NU 081139	Curvilinear Settlement (HF)
Shawdon Wood	NU 085154	Curvilinear Settlement (HF)
Sheep Wash	NU 001469	Curvilinear Settlement ? (HF)
Shildon Hill	NZ 034669	Curvilinear Settlement (HF)
Shillhope Law	NT 878094	Curvilinear Settlement (HF)
Shilvington Bridge	NZ 150799	Curvilinear Settlement ? (HF)
Shipley Moor	NU 139176	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
Shipton Dean	NT 937388	Curvilinear Settlement
Shoresdean	NT 955461	Curvilinear Settlement ? (HF)
Shoreswood South	NT 941457	Curvilinear Settlement ? (HF)
Shoreswood South East	NT 944458	Curvilinear Settlement P
Shoreswood South East/Bleak Rigg	NT 943457	Curvilinear Settlement ? (HF)
Sinkside Hill	NT 884262	Curvilinear Settlement (HF)
Sinkside Hill	NT 884262	Curvilinear Settlement ?
Slate Hill	NZ 078882	Curvilinear Settlement (HF)
Slateford Burn	NT 990477	Curvilinear Settlement
Soldiers Field/Soldiers Fauld	NY 971994	Curvilinear Settlement (HF)
South Ringles/S Middleton	NT 991228	Curvilinear Settlement
South Stor Fold 1	NT 876294	Curvilinear Settlement
South Stor Fold 2	NT 875294	Curvilinear Settlement
Southern Knowe 3	NT 888254	Curvilinear Settlement AR 3
Spartley Burn	NT 969116	Curvilinear Settlement AR 1
Spindlestone Heugh	NU 152339	Curvilinear Settlement (HF)
Springhill	NU 000506	Curvilinear Settlement ? (HF)
Spylaw	NU 049320	Curvilinear Settlement
Spylaw	NU 048313	Curvilinear Settlement
Spylaw North	NU 048318	Curvilinear Settlement (HF)
Spylaw South	NU 049310	Curvilinear Settlement P ?
St Gregorys Hill	NT 916298	Curvilinear Settlement (HF)
Standrop Hill/Harehope Camp	NT 959289	Curvilinear Settlement (HF)
Staw Hill	NT 884301	Curvilinear Settlement (HF)
Staw Hill 1	NT 885298	Curvilinear Settlement AR 3
Staw Hill 2	NT 886299	Curvilinear Settlement
Stoneyhill/Camp Hl Swansfield	NU 181123	Curvilinear Settlement (HF)
Stor Fold/Stor Fold Camp	NT 874296	Curvilinear Settlement
Stots Plantation	NY 907800	Curvilinear Settlement (HF)
Swarland/Chesters	NU 161044	Curvilinear Settlement (HF)
The Haining	NY 921924	Curvilinear Settlement (HF)
The Haugh	NT 927362	Curvilinear Settlement
The Heugh	NU 096362	Curvilinear Settlement (HF)
The Kettles/Maiden Castle	NT 984273	Curvilinear Settlement (HF)

SITE NAME	GRID REF	SITE TYPE
The Skaith	NU 238237	Curvilinear Settlement (HF)
Thorngrafton Common	NY 782664	Curvilinear Settlement (HF)
Tillmouth Farm/Riffington Hill	NT 888444	Curvilinear Settlement (HF)
Titlington East/NW East Boldon	NU 124166	Curvilinear Settlement
Titlington Mount	NU 095161	Curvilinear Settlement (HF)
Titlington South	NU 107152	Curvilinear Settlement (HF)
Torleehouse	NT 913287	Curvilinear Settlement
Tosson Burgh/Burgh Hill	NU 023005	Curvilinear Settlement (HF)
Trewhitt Hall	NU 005068	Curvilinear Settlement (HF)
Trickley Wood	NU 025266	Curvilinear Settlement (HF)
Trows Law	NT 857135	Curvilinear Settlement P AR 1?
Trowupburn	NT 873259	Curvilinear Settlement
Twizel Bridge/Mill Hill	NT 891431	Curvilinear Settlement P
Twizel Mill	NT 885424	Curvilinear Settlement
Union Bridge	NT 935511	Curvilinear Settlement ? (HF)
Uplaw Knowe	NT 914087	Curvilinear Settlement P
Uplaw Knowe North 1	NT 917087	Curvilinear Settlement
Uplaw Knowe North 2	NT 917086	Curvilinear Settlement
Uplaw Knowe South	NT 919082	Curvilinear Settlement AR 4
Wall Hill/W Crags/School Hill	NY 920690	Curvilinear Settlement AR 2
Wall Hill/W Crags/School Hill	NY 920690	Curvilinear Settlement (HF)
Wandystead	NU 099072	Curvilinear Settlement (HF)
Ward Law	NT 864131	Curvilinear Settlement
Ward Law	NT 864133	Curvilinear Settlement (HF)
Warden Hill/High Warden	NY 904678	Curvilinear Settlement (HF)
Weetwood Moor/Clavering	NU 023294	Curvilinear Settlement (HF)
Weetwood Moor/Clavering	NU 023294	Curvilinear Settlement AR 4
Weetwoodhill	NU 013299	Curvilinear Settlement (HF)
West Belsay	NZ 079785	Curvilinear Settlement (HF)
West Burn	NT 908452	Curvilinear Settlement
West Dod Law	NU 004317	Curvilinear Settlement (HF)
West Dod Law	NU 004317	Curvilinear Settlement AR 4
West High House	NZ 181853	Curvilinear Settlement
West Hill	NT 910295	Curvilinear Settlement P

SITE NAME	GRID REF	SITE TYPE
West Hill Camp	NT 910295	Curvilinear Settlement (HF)
West Hills	NU 037020	Curvilinear Settlement (HF)
West Sinkside	NT 882264	Curvilinear Settlement P
West Storfold	NT 867296	Curvilinear Settlement
West Whelpington	NY 975838	Curvilinear Settlement P
Wether Hill	NU 013145	Curvilinear Settlement (HF)AR4
Whidden Hill	NT 901450	Curvilinear Settlement ? (HF)
Whinney Hill	NT 993225	Curvilinear Settlement (HF)
Whinny Hill	NT 983269	Curvilinear Settlement
White Damhead Burn	NT 966535	Curvilinear Settlement
White Hill	NT 963353	Curvilinear Settlement (HF)
White Hill	NT 874323	Curvilinear Settlement (HF)
White Law/Hetton Hall West 2	NU 034334	Curvilinear Settlement
Whiteadder Bridge	NT 958528	Curvilinear Settlement (HF)
Whitehall North	NT 888268	Curvilinear Settlement
Whitehall South East 1	NT 892258	Curvilinear Settlement
Whitehall South East 2	NT 891256	Curvilinear Settlement
Whitelee/Forkings Plantation	NU 107326	Curvilinear Settlement
Whittle Hill	NZ 120857	Curvilinear Settlement (HF)
Witchy Neuk	NY 981993	Curvilinear Settlement (HF)
Witchy Neuk	NY 982994	Curvilinear Settlement P
Wreighill	NT 981014	Curvilinear Settlement (HF)
Yatesfield	NY 859976	Curvilinear Settlement
Yeavering	NT 928304	Curvilinear Settlement P
Yeavering	NT 934303	Curvilinear Settlement P
Yeavering Bell	NT 929293	Curvilinear Settlement P
Yeavering Bell	NT 928294	Curvilinear Settlement (HF)
Yetlington South	NU 030093	Curvilinear Settlement (HF)
Akeld West/West Akeld Hill	NT 945293	Enclosed Settlement
Beanley Ringses/Beanley Moor	NU 100186	Enclosed Settlement
Brands Hill 11	NT 983236	Enclosed Settlement
Brands Hill 3	NT 980245	Enclosed Settlement
Brands Hill 4	NT 983244	Enclosed Settlement
Brough Law	NT 999164	Enclosed Settlement

SITE NAME	GRID REF	SITE TYPE
Cobden Burn	NT 981147	Enclosed Settlement
Coldsmouth Hill	NT 852290	Enclosed Settlement
College Valley	NT 892256	Enclosed Settlement
Dod Law Middle	NU 006317	Enclosed Settlement
Gallow Law	NT 982286	Enclosed Settlement ?
Great Hetha	NT 886274	Enclosed Settlement
Gubeon North/The Gubeon	NZ 173839	Enclosed Settlement ?
Hazeldean	NY 957699	Enclosed Settlement ?
Heddon Moor East South	NT 996211	Enclosed Settlement
Huntersheugh 1	NU 116167	Enclosed Settlement
Huntersheugh 2	NU 116167	Enclosed Settlement
Kidlandlee Dean	NT 916087	Enclosed Settlement
Langlee	NT 965233	Enclosed Settlement ?
Langleeford	NT 949219	Enclosed Settlement ?
Little Mill	NU 080005	Enclosed Settlement
Mid Hill	NT 882296	Enclosed Settlement
Middle Dean	NU 004146	Enclosed Settlement
Old Rothbury/Kimmer Nod	NU 046019	Enclosed Settlement
Old Sheepfold/Worm Hill 2	NT 939293	Enclosed Settlement
Pike House	NZ 075994	Enclosed Settlement
Rayheugh/Isabellas Mount	NU 134276	Enclosed Settlement
Ring Chesters	NT 867289	Enclosed Settlement
Ringses	NU 010186	Enclosed Settlement
Ringses	NU 013428	Enclosed Settlement
Sinkside Hill	NT 884263	Enclosed Settlement
Southern Knowe 1	NT 888252	Enclosed Settlement
St Gregorys Hill/Kirknewton S	NT 916297	Enclosed Settlement
Swint Law North	NT 939287	Enclosed Settlement
The Butts/Birky Gill/Birkys Gill	NY 913908	Enclosed Settlement
The Kettles	NT 986273	Enclosed Settlement
The Oaks	NT 928013	Enclosed Settlement
The Snear/Middleton Hall	NT 990255	Enclosed Settlement
Tranwell	NZ 191840	Enclosed Settlement ?
Warden Hill	NY 904679	Enclosed Settlement

SITE NAME	GRID REF	SITE TYPE
West Hills	NU 038021	Enclosed Settlement
Worm Hill	NT 938291	Enclosed Settlement
Alwinton Burn	NT 916083	Field System/Cord Rig
Barracker Rigg	NY 884975	Field System/Cord Rig
Barrow Law	NT 866116	Field System/Cord Rig
Beanley Moor	NU 099185	Field System/Cord Rig
Belling Law	NY 686882	Field System/Cord Rig
Blakehope	NY 853947	Field System/Cord Rig
Blakemans Law	NY 873964	Field System/Cord Rig
Brands Hill South	NT 978233	Field System
Brocks Bushes	NZ 020640	Field System
Buteland	NY 876819	Field System/Cord Rig
Bywell Hall Moor	NZ 035623	Field System
Carrawbrough	NY 859712	Field System/Cord Rig
Carshope	NT 852114	Field System/Cord Rig
Catcherside	NY 989873	Field System/Cord Rig
Clennel Street	NT 918076	Field System/Cord Rig
Clennel Street	NT 921071	Field System/Cord Rig
Cochrane Pike	NU 012141	Field System/Cord Rig
Cochrane Pike West	NU 008139	Field System/Cord Rig
College Valley	NT 882222	Field System/Cord Rig
Dilston	NY 970630	Field System
Easter Dean	NT 966229	Field System/Cord Rig
Elsdon Burn	NT 869282	Field System/Cord Rig
Fairney Cleugh 1	NY 875964	Field System/Cord Rig
Fairney Cleugh 2	NY 880962	Field System/Cord Rig
Fawdon Hill	NY 897940	Field System/Cord Rig
Fenton Hill	NT 979354	Field System/Cord Rig
Fredden Hill	NT 961268	Field System
Fredden Hill	NT 962263	Field System
Gibbs Hill	NU 030140	Field System/Cord Rig
Greenlee Lough	NY 775696	Field System/Cord Rig
Grindon	NY 818698	Field System/Cord Rig
Halton Chesters	NY 997685	Field System/Cord Rig

SITE NAME	GRID REF	SITE TYPE
Haltwhistle Burn	NY 715662	Field System/Cord Rig
Haltwhistle Burn	NY 716662	Field System/Cord Rig
Haltwhistle Common	NY 708660	Field System/Cord Rig
Hartside Hill	NT 981153	Field System/Cord Rig
Hartside Hill	NT 978156	Field System/Cord Rig
Harwood Head	NY 973902	Field System/Cord Rig
Hazeltonrig Hill	NT 967117	Field System/Cord Rig
Hepburn Moor	NU 086240	Field System/Cord Rig
Hethpool Bell	NT 903290	Field System
High Knowes	NT 967122	Field System/Cord Rig
High Knowes	NT 973125	Field System/Cord Rig
High Knowes South	NT 967121	Field System/Cord Rig
Kidlandlee Dean	NT 916087	Field System/Cord Rig
Kidlandlee Dean	NT 907087	Field System/Cord Rig
Law Knowe	NT 893085	Field System/Cord Rig
Leafield Edge	NT 984136	Field System/Cord Rig
Linhope Burn	NT 957172	Field System/Cord Rig
Linhope North East	NT 969166	Field System
Loft Hill	NT 853128	Field System/Cord Rig
Meadowhaugh	NY 891914	Field System/Cord Rig
Middle Dean	NU 004146	Field System
Middle Moor	NT 898083	Field System/Cord Rig
Netherhouses East	NY 823970	Field System/Cord Rig
Netherhouses West	NY 822971	Field System/Cord Rig
New Bewick West	NU 060205	Field System
Old Fawdon Hill	NU 016137	Field System/Cord Rig
Ottercops Burn 1	NY 977891	Field System/Cord Rig
Ottercops Burn 2	NY 978887	Field System/Cord Rig
Ovington	NZ 060630	Field System
Percys Cross North	NU 056203	Field System
Prendwick Chesters/Prickly Knowe	NT 985149	Field System
Prendwick Chesters/Prickly Knowe	NT 987150	Field System
Rattenraw	NY 846952	Field System/Cord Rig
Reaveley Hill	NU 004183	Field System/Cord Rig

SITE NAME	GRID REF	SITE TYPE
Scaud Knowe	NT 954149	Field System/Cord Rig
Scaud Knowe	NT 954145	Field System/Cord Rig
Scaud Knowe	NT 960144	Field System/Cord Rig
Shillhope Law	NT 878094	Field System/Cord Rig
Snear Hill	NT 964247	Field System/Cord Rig
Spartley Burn	NT 960121	Field System/Cord Rig
Standrop Rigg	NT 951174	Field System
Stanley Plantation	NY 975689	Field System/Cord Rig
Swint Law/White Law	NT 941286	Field System
The Butts	NY 910906	Field System/Cord Rig
Tom Tallons Crag	NT 931280	Field System
Trows Law	NT 857135	Field System/Cord Rig
Uplaw Knowe	NT 914087	Field System/Cord Rig
Ward Law	NT 864134	Field System/Cord Rig
West Hill	NT 909295	Field System/Cord Rig
Wether Hill	NU 014145	Field System/Cord Rig
Whitefield Edge	NU 085035	Field System
Wholehope Knowe	NT 895092	Field System/Cord Rig
Woodburn Common East	NY 919874	Field System/Cord Rig
Woolaw	NY 815985	Field System/Cord Rig
Woolaw East	NY 822982	Field System/Cord Rig
Yatesfield	NY 857974	Field System/Cord Rig
Yeavering South West	NT 927286	Field System
Akeld Burn	NT 945286	Open Settlement AR 1?
Alnham Castle Hill	NT 980111	Open Settlement AR 2
Alnhammoor	NT 975153	Open Settlement AR 1?
Alwinton Burn	NT 916083	Open Settlement AR 1
Barrow Burn 1	NT 908039	Open Settlement AR 2
Barrow Burn 2	NT 870120	Open Settlement AR 1
Barrow Law	NT 869117	Open Settlement AR 1?
Birk Hill	NY 793774	Open Settlement AR 1?
Black Burn	NZ 021953	Open Settlement
Brands Hill South	NT 979236	Open Settlement AR 1
Brands Hill West 1	NT 973232	Open Settlement AR 1

SITE NAME	GRID REF	SITE TYPE
Brands Hill West 2	NT 973231	Open Settlement AR 2
Bridge Farm	NT 893470	Open Settlement
Broadstruther	NT 934248	Open Settlement
Carshope	NT 852114	Open Settlement AR 1
Castle Hill	NU 094229	Open Settlement AR 1
Cat Crag	NT 972171	Open Settlement AR 2
Catcherside	NY 989873	Open Settlement AR 1
Chester House	NU 237025	Open Settlement ?
Chesters Burn	NT 996149	Open Settlement AR 3
Coal Burn	NY 936746	Open Settlement AR 1?
Cochrane Pike/Corbie Cleugh	NU 011140	Open Settlement AR 1
College Valley 13 A/B	NT 895254	Open Settlement
College Valley 14	NT 895259	Open Settlement
College Valley 16	NT 893258	Open Settlement
College Valley 17	NT 891258	Open Settlement
College Valley 18	NT 892257	Open Settlement
College Valley 21	NT 891257	Open Settlement
College Valley 22	NT 891257	Open Settlement
College Valley 23	NT 891259	Open Settlement
College Valley 28	NT 889253	Open Settlement
College Valley 29	NT 889253	Open Settlement
College Valley 6	NT 892255	Open Settlement
College Valley 9	NT 896259	Open Settlement
Crookham Eastfield	NT 910391	Open Settlement AR 1
Debdon Whitefield	NU 080036	Open Settlement
Deer Law	NY 940988	Open Settlement AR 1
Doddington South	NT 999315	Open Settlement
Dry Dean	NT 987139	Open Settlement AR 1
Dryhope Hill/Milkhope	NT 925115	Open Settlement
Earlehillhead	NT 972262	Open Settlement ?
Easter Dean	NT 970229	Open Settlement AR 1
Elsdon Burn	NT 869281	Open Settlement AR 1
Ewe Hill	NU 000157	Open Settlement AR 1?
Ewe Hill	NT 997151	Open Settlement AR 1

SITE NAME	GRID REF	SITE TYPE
Ewe Hill	NT 996134	Open Settlement AR 1?
Fawcett Shank	NT 890236	Open Settlement ?
Fredden Hill	NT 952269	Open Settlement
Gainslawhaugh	NT 948524	Open Settlement
Garleigh Pike	NZ 061991	Open Settlement AR 1
Gleadscleugh	NT 951291	Open Settlement AR 2
Hallshill	NY 907887	Open Settlement AR 1
Harehope Burn 1	NU 085240	Open Settlement
Harehope Burn 2	NU 093241	Open Settlement AR 1
Hartburn	NZ 081867	Open Settlement ?
Hazeltonrig Hill	NT 964113	Open Settlement AR 1
Hazeltonrig Hill	NT 961117	Open Settlement AR 1
Hazeltonrig Hill	NT 965117	Open Settlement AR 1
Hazeltonrig Hill	NT 963107	Open Settlement AR 1
Hazeltonrig Hill	NT 979111	Open Settlement AR 1
Hazeltonrig Hill	NT 966116	Open Settlement Ar 1?
Heddon Hill	NU 006202	Open Settlement AR 1
Heddon Hill	NU 009206	Open Settlement AR 1
Hepburn Crags	NU 077245	Open Settlement AR 2?
Hepburn Moor	NU 086240	Open Settlement AR 1
Hepburn Moor	NU 079248	Open Settlement AR 1
Hetha Burn	NT 881275	Open Settlement AR 1
High Carry House North West	NY 863794	Open Settlement ?
High Knowes	NT 967122	Open Settlement AR 1
High Knowes	NT 967131	Open Settlement AR 1
High Knowes South	NT 967121	Open Settlement AR 2
High Knowes South East	NT 973121	Open Settlement AR 1
Horton Moor West	NU 015317	Open Settlement AR 1
Houseledge East	NT 955279	Open Settlement AR 1
Houseledge West	NT 952280	Open Settlement AR 2
Kidlandlee Dean	NT 914089	Open Settlement AR 1
Kidlandlee Dean	NT 911091	Open Settlement AR 1
Knock Hill	NT 997177	Open Settlement AR 1
Lamb Crags	NT 975226	Open Settlement AR 1

SITE NAME	GRID REF	SITE TYPE
Langlee	NT 969229	Open Settlement AR 1
Langlee Crags	NT 964224	Open Settlement AR 2
Law Knowe	NT 893085	Open Settlement
Linhope Burn	NT 957172	Open Settlement AR 1
Linhope North/Greaves Ash	NT 968168	Open Settlement AR 1
Loft Hill	NT 853128	Open Settlement AR 1
Long Crags 1	NT 957214	Open Settlement AR 2
Long Crags 2	NT 955217	Open Settlement AR 1
Longridge Crags	NT 963494	Open Settlement
Lookout Plantation	NT 912397	Open Settlement AR 1
Low House West	NT 940519	Open Settlement AR 4
Meggrims Knowe West	NT 957155	Open Settlement AR 1
Middle Moor	NT 898083	Open Settlement AR 1
Middleton Dean West	NT 988226	Open Settlement
Monday Cleugh	NT 953285	Open Settlement AR 1
Monday Cleugh West	NT 951284	Open Settlement AR 1
Moralees Crag	NU 044174	Open Settlement AR 1
Mount Pleasant	NU 110025	Open Settlement AR 1
Murton High Crags	NT 965496	Open Settlement
Netherhouses	NY 821968	Open Settlement AR 1
Newton Tors East	NT 924275	Open Settlement ?
Newtown Moor	NU 026263	Open Settlement AR 1?
Old Rothbury	NU 047021	Open Settlement AR 1
Ox Eye Stone	NU 093253	Open Settlement
Pace Hill	NT 917375	Open Settlement AR 1
Pit House	NT 902032	Open Settlement AR 1
Prendwick Chesters/Prickly Knw	NT 987150	Open Settlement AR 1
Rackside	NT 978227	Open Settlement AR 1
Rackside North	NT 983227	Open Settlement AR 2
Ravensheugh Crags/Broadpool Cn	NY 829750	Open Settlement
Reaveley Hill	NU 007178	Open Settlement AR 1
Reaveley Hill	NU 006185	Open Settlement AR 1
Reaveley Hill West	NU 002178	Open Settlement
Red Scar Wood	NU 048220	Open Settlement

SITE NAME	GRID REF	SITE TYPE
Roddam Burn	NT 989184	Open Settlement
Rookland Hill	NT 938091	Open Settlement
Scaud Knowe	NT 954147	Open Settlement AR 1
Scaud Knowe	NT 961150	Open Settlement AR 1
Scaud Knowe	NT 954149	Open Settlement AR 2
Scaud Knowe	NT 960145	Open Settlement AR 2
Scaud Knowe	NT 958150	Open Settlement AR 1
Shillhope Cleugh	NT 866085	Open Settlement
Snear Hill	NT 964247	Open Settlement AR 2
Spartley Burn	NT 960122	Open Settlement AR 1
Standrop Rigg	NT 951174	Open Settlement AR 2?
Staniel Heugh	NY 917875	Open Settlement AR 1
Stob Hill	NZ 044750	Open Settlement
Sweethope Crags	NY 963813	Open Settlement AR 1
Swint Law West	NT 937285	Open Settlement AR 1
Swint Law/White Law	NT 941286	Open Settlement AR 1?
Tathey Crags	NT 964212	Open Settlement AR 3
Threestone Burn	NT 972204	Open Settlement AR 1
Todlaw Pike	NY 900959	Open Settlement AR 1
Todlaw Pike North	NY 903961	Open Settlement AR 1
Turf Knowe	NU 005156	Open Settlement AR 1
Warrior Stone	NZ 044745	Open Settlement
West Whelpington	NY 975838	Open Settlement AR 1
Wether Hill	NU 014146	Open Settlement AR 1
Wholehope Knowe	NT 895092	Open Settlement AR 1
Woolaw	NY 818985	Open Settlement AR 1
Yeavering SE/Old Sheepfold W	NT 935291	Open Settlement
Yeavering South West	NT 927286	Open Settlement
Allerdean Milburn Wood	NT 994473	Rectilinear Settlement
Allerdean North	NT 984470	Rectilinear Settlement
Alnham Castle Hill	NT 980110	Rectilinear Settlement AR 1
Alnham Castle Hill	NT 980109	Rectilinear Settlement AR 1
Ancroft South Moor	NT 979442	Rectilinear Settlement
Angerton Steads	NZ 088836	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Apperley Dene	NZ 056581	Rectilinear Settlement
Bantam Hill	NZ 080785	Rectilinear Settlement
Battle Moor	NT 916458	Rectilinear Settlement
Battle Moor South West	NT 907451	Rectilinear Settlement
Bebside	NZ 275813	Rectilinear Settlement
Belling Law	NY 686882	Rectilinear Settlement
Belling Law/The Law	NY 686882	Rectilinear Settlement P AR 1
Berrington South	NU 004422	Rectilinear Settlement
Berry Hills North	NY 970834	Rectilinear Settlement
Berwick Hill 3	NZ 177766	Rectilinear Settlement
Berwick Low House North	NZ 178771	Rectilinear Settlement
Berwick Low House South	NZ 181766	Rectilinear Settlement
Bewick Bridge	NU 060220	Rectilinear Settlement
Bewick Bridge West	NU 047222	Rectilinear Settlement
Bewick Folly 1/Old Bewick	NU 072226	Rectilinear Settlement
Bewick Folly 2	NU 074226	Rectilinear Settlement
Bewick Hill/East Low Bewick	NU 078215	Rectilinear Settlement
Bield Hill	NY 938834	Rectilinear Settlement
Billy Law East	NT 989495	Rectilinear Settlement
Birtley Shields Dene	NY 875794	Rectilinear Settlement
Birtley W Farm/Goodwifes Hott	NY 872783	Rectilinear Settlement
Bishopside	NY 811586	Rectilinear Settlement
Blakehope	NY 851948	Rectilinear Settlement AR 2
Blakemans Law	NY 873964	Rectilinear Settlement AR 2
Blue Crag	NY 947760	Rectilinear Settlement
Boggle Hill/Rushend	NY 783862	Rectilinear Settlement P
Boggle Hill/Rushend	NY 783862	Rectilinear Settlement
Bolam Low House	NZ 081816	Rectilinear Settlement
Bow Bridge	NZ 022661	Rectilinear Settlement
Brands Hill North	NT 980246	Rectilinear Settlement
Branton Buildings	NU 041154	Rectilinear Settlement
Branxton Hill	NT 893363	Rectilinear Settlement
Branxton Moor	NT 899361	Rectilinear Settlement
Bridge House	NY 824790	Rectilinear Settlement P

SITE NAME	GRID REF	SITE TYPE
Bridge House	NY 824790	Rectilinear Settlement AR 2
Brown Leazes/High Brown Leazes	NY 834793	Rectilinear Settlement
Burdhope	NY 813985	Rectilinear Settlement AR 2
Burton	NU 184332	Rectilinear Settlement
Buteland	NY 876819	Rectilinear Settlement
Butts East	NY 911907	Rectilinear Settlement
Butts West	NY 909906	Rectilinear Settlement
Bywell	NZ 042618	Rectilinear Settlement P
Bywell Hall Moor/Peepy	NZ 035623	Rectilinear Settlement P
Camp Cottage	NY 752862	Rectilinear Settlement
Canada	NU 130038	Rectilinear Settlement
Carry House	NY 868791	Rectilinear Settlement AR 3
Catcherside North	NY 983885	Rectilinear Settlement
Catless	NY 831753	Rectilinear Settlement
Cats Elbow	NY 929754	Rectilinear Settlement AR 1
Charity Hall	NT 967042	Rectilinear Settlement
Chester House	NU 237025	Rectilinear Settlement AR 1
Chester Whitehill	NY 995854	Rectilinear Settlement
Cleugh Head	NY 800876	Rectilinear Settlement
Cock Hill	NZ 165813	Rectilinear Settlement
Cockplay Plantation	NZ 044860	Rectilinear Settlement
Coldrife	NU 183287	Rectilinear Settlement
Coldwell	NZ 001874	Rectilinear Settlement
Common Pltn/Holy Chesters	NT 874421	Rectilinear Settlement
Corbie Crag West	NU 107186	Rectilinear Settlement AR 1
Cornhill on Tweed	NT 867397	Rectilinear Settlement
Countess Park	NY 871807	Rectilinear Settlement
Cowboys Cairn/S Cowboys Cairn	NT 980232	Rectilinear Settlement AR 1
Cowden Camp Hill/Camp Hill	NY 912793	Rectilinear Settlement
Craig Shield/Crag Shield	NY 807774	Rectilinear Settlement
Cramlington 1	NZ 257762	Rectilinear Settlement
Cramlington 2	NZ 261765	Rectilinear Settlement
Cramlington South	NZ 274748	Rectilinear Settlement
Cramond Hill	NT 870401	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Cramond Hill	NT 872398	Rectilinear Settlement
Crawley Tower	NU 069161	Rectilinear Settlement
Crookdene South	NY 973822	Rectilinear Settlement
Crookham South	NT 917378	Rectilinear Settlement
Crowdie Law	NY 799834	Rectilinear Settlement
Dead Mens Graves	NZ 143819	Rectilinear Settlement
Derry Dykes	NU 099326	Rectilinear Settlement
Devils Leap	NY 871796	Rectilinear Settlement
Doddington Bridge	NU 000312	Rectilinear Settlement
Doubstead	NU 007487	Rectilinear Settlement AR 1
Downham	NT 869336	Rectilinear Settlement
Doxford	NU 189236	Rectilinear Settlement
Dunslawholm North	NZ 085675	Rectilinear Settlement
Dyke Nooks	NY 899902	Rectilinear Settlement
East Beechfield	NZ 104776	Rectilinear Settlement
East Chevington/Chibburn	NZ 259979	Rectilinear Settlement
East Coldside	NZ 163846	Rectilinear Settlement
East Edington	NZ 162827	Rectilinear Settlement
East Errington/E Err Hill Head	NY 971705	Rectilinear Homestead
East Moneylaws North	NT 878364	Rectilinear Settlement
East Newbiggin	NT 909463	Rectilinear Settlement
Edge House	NY 891598	Rectilinear Settlement AR 1
Edgehouse	NZ 054806	Rectilinear Settlement
Encampment Farm	NT 920361	Rectilinear Settlement
Ewe Hill	NU 010169	Rectilinear Settlement AR 1
Ewe Hill North	NU 005170	Rectilinear Settlement AR 1
Ewesley Fell Plant	NZ 050926	Rectilinear Settlement ?
Fadden Hill	NT 914424	Rectilinear Settlement
Fairney Cleugh 2	NY 882960	Rectilinear Settlement AR 1
Fairney Hills	NU 202017	Rectilinear Settlement
Fenton Chesters	NT 984346	Rectilinear Settlement
Ferney Chesters	NZ 057808	Rectilinear Settlement
Ferney Rigg	NY 959836	Rectilinear Settlement
Flodden Edge	NT 914349	Rectilinear Settlement AR 2

SITE NAME	GRID REF	SITE TYPE
Flodden Hill/Nursery Pltn	NT 911354	Rectilinear Settlement
Flodden North	NT 922354	Rectilinear Settlement
Floddenford Plantation	NT 943358	Rectilinear Settlement
Folly Camp	NY 935771	Rectilinear Settlement
Folly Moss Camp	NY 939777	Rectilinear Settlement
Fredden Hill	NT 951270	Rectilinear Settlement
Garrett Hott	NY 855817	Rectilinear Settlement
Garrett Shiels	NY 863932	Rectilinear Settlement
Girsonfield East	NY 893937	Rectilinear Settlement
Gloster Hill 1	NU 251043	Rectilinear Settlement
Gloster Hill 2	NU 251043	Rectilinear Settlement
Gowan Burn River	NY 661903	Rectilinear Settlement P AR 1
Gowan Burn River	NY 661903	Rectilinear Settlement AR 1
Green Crag	NY 946761	Rectilinear Settlement
Green Hill	NT 911486	Rectilinear Settlement
Green Hill	NT 915491	Rectilinear Settlement
Green Hill	NT 911488	Rectilinear Settlement AR 1
Greenleighton East/Dodd House	NZ 028936	Rectilinear Settlement
Grindon	NT 897447	Rectilinear Settlement
Gubeon Cottage	NZ 178836	Rectilinear Settlement AR 1
Gunnar Peak East/E Gnr Crags	NY 921753	Rectilinear Settlement
Gunnar Peak West	NY 914749	Rectilinear Settlement AR 1
Hall Hill/Halls Hill	NU 132009	Rectilinear Settlement
Hallions Rock	NZ 053829	Rectilinear Settlement AR 1
Halls Hill	NZ 082863	Rectilinear Settlement
Hartburn	NZ 081867	Rectilinear Settlement AR 1
Hartburn South	NZ 086857	Rectilinear Settlement ?
Hartley West Farm	NZ 335754	Rectilinear Settlement
Hartley West Farm	NZ 328752	Rectilinear Settlement
Hawick Crags	NY 962822	Rectilinear Settlement
Hawick Wood	NY 954822	Rectilinear Settlement
Haydon Dean	NT 972440	Rectilinear Settlement
Haystack Hill	NU 005149	Rectilinear Settlement
Hazeltonrig Hill	NT 961105	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Heddon Moor East	NT 994211	Rectilinear Settlement
Heddon Moor West	NT 994211	Rectilinear Settlement
Herpath	NY 984854	Rectilinear Settlement
Hetchester	NY 948796	Rectilinear Settlement
Hetha Burn East/H B 1	NT 881275	Rectilinear Settlement AR 2
Hetha Burn West/H B 2	NT 878276	Rectilinear Settlement AR 1
Hetton Hall	NU 037333	Rectilinear Settlement
High Callerton	NZ 165704	Rectilinear Settlement
High Close House	NZ 118657	Rectilinear Settlement
High Leam	NY 879873	Rectilinear Settlement
High Shields Green/Nightfolds	NY 892806	Rectilinear Settlement
Highford East House	NY 922633	Rectilinear Settlement P
Hindrigg/Leek Hill	NY 810799	Rectilinear Settlement
Horse Rigg	NT 826340	Rectilinear Settlement
Horsley Wood	NZ 094647	Rectilinear Settlement
Howick Sea Houses	NU 257170	Rectilinear Settlement
Jennys Lantern	NU 120152	Rectilinear Settlement
Keepwick Fell	NY 946695	Rectilinear Settlement
Kennel Hall Knowe	NY 668897	Rectilinear Settlement P AR 1
Kennel Hall Knowe	NY 668897	Rectilinear Settlement AR 1
Kings Crag	NY 801712	Rectilinear Settlement
Knock Hill	NT 995174	Rectilinear Settlement
Labour In Vain	NU 050300	Rectilinear Settlement
Langham	NT 869330	Rectilinear Settlement P
Lanton North	NT 924314	Rectilinear Settlement
Laverock Law	NU 024364	Rectilinear Settlement
Lee Orchard	NY 876833	Rectilinear Settlement
Lewisburn Haugh/Halfpenny Rigg	NY 657899	Rectilinear Settlement
Lickar Dean	NU 023422	Rectilinear Settlement
Little Crag	NY 872953	Rectilinear Settlement AR 1
Loft Hill North East	NT 882259	Rectilinear Settlement
Lonbrough	NY 816737	Rectilinear Settlement
Longhoughton	NU 241163	Rectilinear Settlement
Low Bewick West	NU 076215	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Low Stead	NU 252160	Rectilinear Settlement
Lowick New Bridge	NU 031400	Rectilinear Homestead
Lumsden Hill	NU 007134	Rectilinear Settlement AR 1
Manor Farm	NY 835788	Rectilinear Settlement
Manor House	NZ 234923	Rectilinear Settlement
Manside Cross/Gunners Box	NY 985920	Rectilinear Settlement AR 1
Marldown	NT 872397	Rectilinear Settlement
Meadowhaugh	NY 890913	Rectilinear Settlement AR 1
Middle Duddo	NZ 185792	Rectilinear Settlement
Middle Gunnar Peak	NY 915749	Rectilinear Settlement AR 3
Middle Stannington	NZ 220815	Rectilinear Settlement
Middlerigg	NY 947841	Rectilinear Settlement
Middleton Bank Top	NZ 050830	Rectilinear Settlement AR 1
Milfield Council Houses East 1	NT 938339	Rectilinear Settlement
Milfield Council Houses East 2	NT 937337	Rectilinear Settlement P
Milking Gap	NY 773678	Rectilinear Settlement AR 2
Mill Lane	NZ 126776	Rectilinear Settlement
Mitford Steads	NZ 171847	Rectilinear Settlement
Mitford Steads South	NZ 172840	Rectilinear Settlement
Moneylaws Hill	NT 878347	Rectilinear Settlement
Murton White House	NT 975487	Rectilinear Settlement P
Netherhouses	NY 824968	Rectilinear Settlement
Netherhouses East	NY 823969	Rectilinear Settlement AR 1
Netherhouses West	NY 822970	Rectilinear Settlement AR 1
Netherton Wood	NZ 225813	Rectilinear Settlement
New Hartley	NZ 300770	Rectilinear Settlement
Newbrough	NY 877677	Rectilinear Settlement P
Newhouses	NZ 043846	Rectilinear Settlement
Newsham South 1	NZ 304788	Rectilinear Settlement
Newsham South 2	NZ 308789	Rectilinear Settlement
Newtown	NU 032000	Rectilinear Settlement
Newtown Edlingham	NU 103087	Rectilinear Settlement
Newtown West	NZ 033999	Rectilinear Settlement
Norham East Mains 2	NT 924491	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Norham West Mains	NT 917480	Rectilinear Settlement
North Middleton West	NT 994242	Rectilinear Settlement
Ogle Hill/Oglewell House	NZ 119781	Rectilinear Settlement
Ogle West	NZ 130788	Rectilinear Settlement
Old Deanham/Scarlett Hall 1	NZ 038833	Rectilinear Settlement
Old Deanham/Scarlett Hall 2	NZ 041833	Rectilinear Settlement
Old Deanham/Scarlett Hall 3	NZ 043834	Rectilinear Settlement
Ollerchesters	NY 865916	Rectilinear Settlement
Ottercops Burn	NY 977891	Rectilinear Settlement
Oxcleugh South	NY 794812	Rectilinear Settlement
Pace Hill	NT 916374	Rectilinear Settlement P
Pasture House	NY 851775	Rectilinear Settlement
Pawston Hill	NT 843314	Rectilinear Settlement P
Pity Me/Camp Hill Middle	NY 918768	Rectilinear Settlement
Plashetts	NY 966814	Rectilinear Settlement
Plashetts North	NY 967820	Rectilinear Settlement
Plashetts South	NY 671884	Rectilinear Settlement AR 1
Polka Cottage	NT 847344	Rectilinear Settlement
Prestwick Whins	NZ 195724	Rectilinear Settlement
Quarry House	NY 966806	Rectilinear Settlement AR 2
Rattenraw	NY 847951	Rectilinear Settlement AR 3
Ray Burn	NY 955842	Rectilinear Settlement
Raylees	NY 925913	Rectilinear Settlement
Reaveley Burn East	NU 027148	Rectilinear Settlement AR 2?
Reaver Crag/R Crag hill Camp	NY 931762	Rectilinear Settlement
Rede Bridge	NY 865835	Rectilinear Settlement AR 1
Redeswood Law Fell	NY 863826	Rectilinear Settlement AR 1
Riding Wood	NY 818846	Rectilinear Settlement AR 2
Ripley Plantation/R Hill Pltn	NY 918771	Rectilinear Settlement AR 1
Rushy Knowe	NY 984909	Rectilinear Settlement
Rutchey Burn/East Newbiggin	NT 915461	Rectilinear Settlement
Scaud Knowe/Alnhammoor West 2	NT 963153	Rectilinear Settlement
Sharpley/ Sharpley Plantation	NY 882726	Rectilinear Settlement
Shawdon Wood House	NU 085155	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Shellacres	NT 894433	Rectilinear Settlement
Shield Law	NY 853767	Rectilinear Settlement
Sidwood	NY 773893	Rectilinear Settlement
Smaleswood/Smalesmouth	NY 734855	Rectilinear Settlement
Southern Knowe 2	NT 888253	Rectilinear Settlement
Spindlestone Mill	NU 147335	Rectilinear Settlement
St Cuthberts	NT 866421	Rectilinear Settlement
St Cuthberts	NT 875427	Rectilinear Settlement
Stannington	NZ 196814	Rectilinear Settlement
Stannington East	NZ 217815	Rectilinear Settlement
Stannington North	NZ 218816	Rectilinear Settlement
Stannington West	NZ 222814	Rectilinear Settlement
Stewards Hemmel/Hole House	NY 835773	Rectilinear Settlement
Stickle Heaton	NT 885419	Rectilinear Settlement ?
Stickle Heaton South	NT 885413	Rectilinear Settlement P
Stirks Cleugh	NY 836820	Rectilinear Settlement AR 1?
Stobhill/Park House Morpeth	NZ 212861	Rectilinear Settlement
Sunnyside	NY 951845	Rectilinear Settlement
The Haining	NY 921924	Rectilinear Settlement
The Lint	NT 931367	Rectilinear Settlement
Thirston Airfield	NZ 181986	Rectilinear Settlement
Thornbrough Scar	NZ 011633	Rectilinear Settlement
Thornton Mains	NT 967471	Rectilinear Settlement
Toft Hill	NT 918435	Rectilinear Settlement
Tone Inn	NY 912801	Rectilinear Settlement
Topley 1	NZ 014842	Rectilinear Settlement
Topley 2	NZ 014842	Rectilinear Settlement
Tower Knowe	NY 700871	Rectilinear Settlement P AR 1
Tower Knowe	NY 700871	Rectilinear Settlement AR 1
Tower Tye	NY 886706	Rectilinear Settlement
Tranwell Cottages	NZ 184839	Rectilinear Settlement
Tranwell White House	NZ 184824	Rectilinear Settlement
Trewick North	NZ 104804	Rectilinear Settlement
Tughall Burn	NU 200269	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Turvelaws North	NT 991301	Rectilinear Settlement
Unthank	NT 985488	Rectilinear Settlement
Unthank East 1	NT 995485	Rectilinear Settlement
Unthank East 2	NT 996481	Rectilinear Settlement
Unthank Moor	NT 983481	Rectilinear Settlement
Wandylaw/Windy Law	NU 150254	Rectilinear Settlement
Warkswood	NY 850870	Rectilinear Settlement
Wellhaugh	NY 662894	Rectilinear Settlement
West Allerdean	NT 966467	Rectilinear Settlement
West Hartford Fm/Plessey Check	NZ 246793	Rectilinear Settlement
West High House/High House Dn	NZ 181855	Rectilinear Settlement
West Hill	NT 907297	Rectilinear Settlement
West Hill	NT 911295	Rectilinear Settlement AR 1
West Longlee	NY 823766	Rectilinear Settlement
West Whelpington	NY 975838	Rectilinear Settlement P AR 1
Whitehall	NT 884259	Rectilinear Settlement
Willow Burn	NT 841367	Rectilinear Settlement
Willow Pltn/Whittle Hill Pltn	NU 003423	Rectilinear Settlement
Wood Hill	NY 878921	Rectilinear Settlement
Wood Hill East	NY 879920	Rectilinear Settlement
Wood Hill West	NY 876922	Rectilinear Settlement
Woolaw	NY 815985	Rectilinear Settlement AR 1
Woolaw East	NY 822981	Rectilinear Settlement
Worm Law	NT 937297	Rectilinear Settlement
Worm Law West	NT 936294	Rectilinear Settlement
Yeavering	NT 939301	Rectilinear Settlement
Yeavering North	NT 924298	Rectilinear Settlement

1.2 DURHAM

SITE NAME	GRID REF	SITE TYPE
Burnt Scar Sheepfold	NY 932249	Cairnfield
Crawley Edge	NZ 130970	Cairnfield
Feldon Burn	NZ 240720	Cairnfield
Fell Dyke Sike	NY 856283	Cairnfield
Methodist Chapel	NY 871295	Cairnfield
Pedams Oak 10	NY 980481	Cairnfield
Pedams Oak 18	NY 995482	Cairnfield
Pedams Oak 8	NY 984480	Cairnfield
Stanhope	NZ 330980	Cairnfield
Barforth	NZ 173162	Curvilinear Settlement AR 1
Barmpton	NZ 321176	Curvilinear Settlement
Barningham Moor	NZ 680950	Curvilinear Settlement ?
Black Hill	NY 817284	Curvilinear Settlement AR 1
Black Scar	NZ 174163	Curvilinear Settlement ?
Bleabeck Foot	NY 875280	Curvilinear Settlement AR 2
Bollihope Common 1	NY 977352	Curvilinear Settlement
Bollihope Common 2	NY 983353	Curvilinear Settlement
Bollihope Common 3	NY 984353	Curvilinear Settlement
Bollihope Common 4	NY 985353	Curvilinear Settlement
Brians Folds/Pegs House	NY 982352	Curvilinear Settlement AR 3?
Buck Riggs	NY 921245	Curvilinear Settlement
Buess Lane	NZ 319157	Curvilinear Settlement ?
Calf Holm/Calf House	NY 865284	Curvilinear Settlement AR 1
Carley Green	NY 927247	Curvilinear Settlement
Cockfield Fell 1	NZ 118250	Curvilinear Settlement ?
Cockshot Camp	NZ 124145	Curvilinear Settlement (HF)
Coxhoe Pottery/South Coxhoe	NZ 326351	Curvilinear Settlement ?
Crooks O'Green Fell	NY 903247	Curvilinear Settlement
Crossthwaite Common South East	NY 934247	Curvilinear Settlement AR 1
Crowshouse Moor	NZ 374404	Curvilinear Settlement ?
Croxdale	NZ 269369	Curvilinear Settlement ?
Dubby Sike	NY 795311	Curvilinear Settlement AR 1
East House	NZ 332355	Curvilinear Settlement ?
East Mellwaters Farm	NY 968124	Curvilinear Settlement AR 2

SITE NAME	GRID REF	SITE TYPE
East Park	NZ 158305	Curvilinear Settlement ?
Easter Beck	NY 904255	Curvilinear Settlement AR 1
Esp Green/Woodside	NZ 147493	Curvilinear Settlement ?
Forcegarth Pasture North	NY 875285	Curvilinear Settlement AR 1
Forcegarth Pasture South	NY 876283	Curvilinear Settlement AR 2
Hag Wood	NZ 193431	Curvilinear Settlement ?
Harehill Farm	NZ 373410	Curvilinear Settlement
Harter Fell East	NY 936237	Curvilinear Settlement P
Heights Quarry	NY 929388	Curvilinear Settlement ?
High Force Quarry	NY 880290	Curvilinear Settlement AR 1?
High Northgate	NY 937401	Curvilinear Settlement ?
Littletown	NZ 331430	Curvilinear Settlement AR 1
Lodge Farm	NZ 233447	Curvilinear Settlement ?
Low Copelaw/Woodham	NZ 290260	Curvilinear Settlement ?
Maiden Castle	NZ 282417	Curvilinear Settlement ? (HF)
Marwood/Cooper House	NZ 24195	Curvilinear Settlement (HF)
Middle Farm	NY 906270	Curvilinear Settlement
Middle Rainton	NZ 328470	Curvilinear Settlement AR 1
Mordon South Side/Southside	NZ 331258	Curvilinear Settlement AR 1
North Lodge	NZ 280533	Curvilinear Settlement ?
Old Park Farm 2/Eastgate	NY 926383	Curvilinear Settlement AR 2?
Pasture Foot	NY 872280	Curvilinear Settlement AR 2
Red House	NZ 279460	Curvilinear Settlement ?
Running Waters	NZ 328408	Curvilinear Settlement ?
Shackleton Beacon/Hill	NZ 229233	Curvilinear Settlement (HF)
Skue Trod	NY 849290	Curvilinear Settlement AR 1
St Andrews	NZ 217284	Curvilinear Settlement (HF)
Stockley Beck	NZ 180370	Curvilinear Settlement (HF)
Stone Houses Sheepfold	NY 908253	Curvilinear Settlement AR 3?
Sunderland Cleugh Farm	NY 946395	Curvilinear Settlement ?
The Looms	NY 849305	Curvilinear Settlement ?
Thistle Green	NY 847287	Curvilinear Settlement ?
Toft Hill	NZ 154285	Curvilinear Settlement (HF)
Water Race	NY 911258	Curvilinear Settlement ?

SITE NAME	GRID REF	SITE TYPE
White Earth	NY 906263	Curvilinear Settlement ?
Winch Bridge	NY 901279	Curvilinear Settlement AR 1
Wool Ingles	NY 882271	Curvilinear Settlement AR 1
Wycliffe Wood	NZ 120140	Curvilinear Settlement ?
High Hag	NY 884289	Enclosed Settlement
Hill Top	NZ 216442	Enclosed Settlement
Bowburn Wood	NZ 292475	Field System ?
Carcut Beck	NZ 330175	Field System ?
Cockfield Fell 7	NZ 124247	Field System
Cowburn Rigg	NY 987137	Field System
Dodd House	NY 996369	Field System
Dun Hill	NY 937386	Field System
Forcegarth East	NY 877287	Field System
Fyndoune	NZ 241458	Field System ?
Heights Quarry	NY 929388	Field System
Hill Top	NZ 216442	Field System
Killerby Dyance	NZ 191188	Field System ?
Little Ketton	NZ 312190	Field System ?
Low Force	NY 901280	Field Systems
Middle Farm	NY 906270	Field System
Old Park Farm 1/Eastgate	NY 925384	Field System
Pedams Oak 12	NY 994487	Field System
Pedams Oak 13	NY 986486	Field System
Pedams Oak 2	NY 994488	Field System
Pedams Oak 3	NY 991487	Field System
Pedams Oak 5	NY 988484	Field System
Pithouse Plantation	NZ 220401	Field System
Shittlehopeside/Saugh Sikes Hd	NZ 7396	Field System
Unthank	NY 993387	Field System
Winch Bridge	NY 901279	Field System
Woodwell House	NZ 300452	Field System ?
Bleabeck Washfold	NY 873274	Open Settlement AR 1?
Bollihope Common 5	NY 976350	Open Settlement AR 1?
Bollihope Common 7	NY 976353	Open Settlement AR 1?

SITE NAME	GRID REF	SITE TYPE
Bracken Rigg	NY 882282	Open Settlement AR 1?
Carley Green West	NY 924248	Open Settlement AR 1?
Chester Sike East	NY 882302	Open Settlement AR 1?
Cowburn Rigg	NY 992374	Open Settlement AR 1?
Cronkley Scar	NY 843298	Open Settlement AR 1?
Fairy Dell	NY 912262	Open Settlement AR 1?
Hind Gate	NY 902269	Open Settlement AR 1?
Holmwath	NY 833291	Open Settlement AR 1?
Keld Smithy	NY 889268	Open Settlement AR 1?
Lingy Holm	NY 820281	Open Settlement AR 1?
Low Force	NY 901280	Open Settlement
Methodist Chapel	NY 871295	Open Settlement AR 1?
Middle Farm	NY 906270	Open Settlement AR 1?
Moor Riggs	NY 878295	Open Settlement AR 1?
Pedams Oak 1	NY 992485	Open Settlement AR 1?
Pedams Oak 14	NY 992488	Open Settlement AR 1?
Pedams Oak 15	NY 992487	Open Settlement AR 1?
Pedams Oak 16	NY 993487	Open Settlement AR 1?
Pedams Oak 17	NY 995487	Open Settlement AR 1?
Pedams Oak 4	NY 991485	Open Settlement AR 1?
Pedams Oak 6	NY 989484	Open Settlement AR 1?
Pedams Oak 9	NY 982480	Open Settlement AR 2
Picktree	NZ 280529	Open Settlement AR 1?
Rey Cross	NY 902120	Open Settlement AR 1?
Sedgefield	NZ 357304	Open Settlement AR 1?
Shittlehope Burn	NZ 13414	Open Settlement AR 1?
Skyer Beck	NY 867291	Open Settlement AR 1
Strands Gill	NY 902267	Open Settlement AR 1
Tarn Rigg Fold	NY 851290	Open Settlement AR 1
West Brandon	NZ 201399	Open Settlement AR 1?
Woolpitts Hill	NY 875306	Open Settlement AR 1?
Ash Hill	NY 893288	Rectilinear Settlement
Barforth	NZ 176162	Rectilinear Settlement
Barforth Grange	NZ 165155	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Barmpton	NZ 321180	Rectilinear Settlement
Beacon Hill	NZ 334160	Rectilinear Settlement
Bede College	NZ 265415	Rectilinear Settlement
Belmont South 1	NZ 310429	Rectilinear Settlement
Belmont South 2	NZ 309431	Rectilinear Settlement
Belmont/Broomside	NZ 307435	Rectilinear Settlement
Belmont/Carville	NZ 301453	Rectilinear Settlement AR 1
Birk Rigg East	NY 865279	Rectilinear Settlement
Bishop Middleham	NZ 332329	Rectilinear Settlement
Black Prince	NZ 110406	Rectilinear Settlement
Bolton Garths Farm	NZ 176237	Rectilinear Settlement
Bolton Park Wood	NZ 345089	Rectilinear Settlement
Brandon	NZ 234405	Rectilinear Settlement
Brawns Den 1	NZ 208389	Rectilinear Settlement
Brawns Den 2	NZ 210385	Rectilinear Settlement
Brawns Den 3	NZ 210386	Rectilinear Settlement
Bread & Beer House	NZ 336262	Rectilinear Settlement
Briar Dykes	NY 948199	Rectilinear Settlement P
Brickyard Farm	NZ 311110	Rectilinear Settlement
Bridge House	NZ 287317	Rectilinear Settlement
Buess Lane	NZ 322159	Rectilinear Settlement
Burnhope West	NZ 181548	Rectilinear Settlement
Castle Dene	NZ 135499	Rectilinear Settlement ?
Cocken Farm	NZ 297475	Rectilinear Settlement
Cockfield Fell 2	NZ 121252	Rectilinear Settlement
Cockfield Fell 3/Black Dyke	NZ 116253	Rectilinear Settlement
Cockfield Fell 5	NZ 122248	Rectilinear Settlement
Copeland House	NZ 166261	Rectilinear Settlement
Coxhoe West House	NZ 325360	Rectilinear Settlement AR 1
Crossthwaite Common Sheepfold	NY 923251	Rectilinear Settlement AR 1
Deanacres	NZ 238494	Rectilinear Settlement
Dene House Farm	NZ 353388	Rectilinear Settlement AR 2
Dene House Farm West	NZ 347393	Rectilinear Settlement
Dirt Pit	NY 891286	Rectilinear Settlement AR 1

SITE NAME	GRID REF	SITE TYPE
Dun Hill	NY 937386	Rectilinear Settlement
Easington	NZ 422442	Rectilinear Settlement
Eggleston Abbey	NZ 691500	Rectilinear Settlement AR 1?
Elstob	NZ 238240	Rectilinear Settlement
Evenwood	NZ 159259	Rectilinear Settlement
Field House	NZ 325462	Rectilinear Settlement AR 1
Fighting Cocks	NZ 335139	Rectilinear Settlement
Ford Cottage	NZ 279475	Rectilinear Settlement
Glebe Farm	NZ 312126	Rectilinear Settlement
Greta Farm	NY 997131	Rectilinear Settlement
Hallgarth	NZ 325436	Rectilinear Settlement
Harbour House Farm 1	NZ 279480	Rectilinear Settlement AR 1
Harbour House Farm 2	NZ 284481	Rectilinear Settlement ?
Harrap Hill	NZ 351337	Rectilinear Settlement
Harter Fell East	NY 936237	Rectilinear Settlement
Haswell Moor	NZ 343426	Rectilinear Settlement
Haughton Moor House	NZ 302177	Rectilinear Settlement
Helmington Hall	NZ 185334	Rectilinear Settlement
High Butterby	NZ 293388	Rectilinear Settlement
High Coniscliffe	NZ 231143	Rectilinear Settlement
High Field Farm 1	NZ 345147	Rectilinear Settlement
High Field Farm 2	NZ 341147	Rectilinear Settlement
High Friarside	NZ 158566	Rectilinear Settlement
High Woodside	NZ 136498	Rectilinear Settlement
Highland House	NZ 331330	Rectilinear Settlement
Hill House 1	NZ 336179	Rectilinear Settlement
Hill House 2	NZ 347187	Rectilinear Settlement
Hill House 3	NZ 277211	Rectilinear Settlement
Hilltop Farm/Broomside/Fatfld	NZ 313439	Rectilinear Settlement AR 1
Hilton House	NZ 316103	Rectilinear Settlement
Hutton Magna	NZ 139122	Rectilinear Settlement
Ingleton Grange	NZ 166209	Rectilinear Settlement
Kepier	NZ 282483	Rectilinear Settlement
Ketton Hall 3	NZ 302200	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Ketton Hall 4	NZ 304201	Rectilinear Settlement
Killerby Dyance 1	NZ 191188	Rectilinear Settlement
Killerby Dyance 2	NZ 191188	Rectilinear Settlement
Kimblesworth Grange	NZ 255467	Rectilinear Settlement AR 1
Kirk Merrington	NZ 266315	Rectilinear Settlement AR 1
Little Burdon	NZ 329170	Rectilinear Settlement
Little Stainton 1	NZ 345200	Rectilinear Settlement
Little Stainton 2	NZ 347200	Rectilinear Settlement
Littletown South	NZ 331429	Rectilinear Settlement
Low Carlbury	NZ 217160	Rectilinear Settlement ?
Low Copelaw/Woodham	NZ 290260	Rectilinear Settlement
Low Dinsdale	NZ 341111	Rectilinear Settlement
Low Grange	NZ 298448	Rectilinear Settlement AR 1
Low Maidendale	NZ 326118	Rectilinear Settlement
Low Neasham Springs 1	NZ 322107	Rectilinear Settlement
Low Neasham Springs 2	NZ 320107	Rectilinear Settlement
Low Stanley	NZ 210526	Rectilinear Settlement
Maidendale Farm	NZ 313138	Rectilinear Settlement
Morton Farm	NZ 329132	Rectilinear Settlement
Morton Palms 1	NZ 327135	Rectilinear Settlement
Morton Palms 3	NZ 331133	Rectilinear Settlement
Morton Palms Farm	NZ 337144	Rectilinear Settlement
Mount Haley	NY 855396	Rectilinear Settlement
Mount Pleasant	NY 857307	Rectilinear Settlement
Neasham Abbey 1	NZ 320101	Rectilinear Settlement ?
Neasham Abbey 2	NZ 318099	Rectilinear Settlement ?
Neasham Abbey 3	NZ 315101	Rectilinear Settlement ?
Neasham Hall	NZ 333095	Rectilinear Settlement
Neasham Hill Farm	NZ 334110	Rectilinear Settlement
Nettlesworth	NZ 260478	Rectilinear Settlement
New House	NY 859305	Rectilinear Settlement
Newton Ketton	NZ 312200	Rectilinear Settlement
North Farm	NZ 338240	Rectilinear Settlement
Old Acres	NZ 391284	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Old Park Farm 1/Eastgate	NY 925384	Rectilinear Settlement
Old Spital	NY 906123	Rectilinear Settlement
Ouston Villa Farm	NZ 264539	Rectilinear Settlement
Park Head	NZ 233311	Rectilinear Settlement AR 1
Park House East	NZ 206462	Rectilinear Settlement
Park House West	NZ 203460	Rectilinear Settlement
Pedams Oak 11	NY 980480	Rectilinear Settlement ?
Pedams Oak 7	NY 985485	Rectilinear Settlement AR 1
Penny Hill Camp	NZ 802350	Rectilinear Settlement
Pig Hill	NZ 369444	Rectilinear Settlement P AR 1
Pithouse Plantation	NZ 220401	Rectilinear Settlement AR 1
Pittington	NZ 332396	Rectilinear Settlement ?
Quaking Houses	NZ 189508	Rectilinear Settlement
Ravensflatt Farm	NZ 301429	Rectilinear Settlement
Rey Cross	NY 903123	Rectilinear Settlement
Rough Riggs	NY 911250	Rectilinear Settlement AR 1
Rye Hill	NZ 313377	Rectilinear Settlement
Sacriston Wood	NZ 232486	Rectilinear Settlement ?
Sadberge	NZ 334175	Rectilinear Settlement
Sadberge Hall	NZ 344152	Rectilinear Settlement
Sledge Hill	NZ 252548	Rectilinear Settlement
Sleights House	NZ 246455	Rectilinear Settlement AR 1
St Giles	NZ 284438	Rectilinear Settlement ?
Stillington Cottages	NZ 345241	Rectilinear Settlement AR 1
Strawberry Hill	NZ 338402	Rectilinear Settlement AR 1
Stubb House	NZ 118157	Rectilinear Settlement
Sunderland Cleugh Farm	NY 946396	Rectilinear Settlement
The Ashes	NZ 348092	Rectilinear Settlement ?
Thornley	NZ 353388	Rectilinear Settlement
West Brandon	NZ 201399	Rectilinear Settlement AR 1
West Brandon	NZ 201399	Rectilinear Settlement P AR 1
West High Wood	NZ 672380	Rectilinear Settlement
Wilks Hill Tank	NZ 163446	Rectilinear Settlement
Willow Beds Plantation	NZ 234180	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Winston	NZ 134154	Rectilinear Settlement
Wooley Close	NZ 192385	Rectilinear Settlement

1.3 TYNE & WEAR

SITE NAME	GRID REF	SITE TYPE
Boldon	NZ 377614	Curvilinear Settlement
Callerton Lane End	NZ 161687	Curvilinear Settlement
Hedley Hall West	NZ 217563	Curvilinear Settlement
Sunderland Airport	NZ 333590	Curvilinear Settlement
West Hall	NZ 395615	Curvilinear Settlement
Tynemouth	NZ 373695	Enclosed Settlement ?
Denton Burn	NZ 201655	Field System/Cord Rig
Newcastle	NZ 250640	Field System/Cord Rig
Stotts House Tumulus	NZ 294657	Field System/Cord Rig
Throckley	NZ 160669	Field System/Cord Rig
Wallsend	NZ 301660	Field System/Cord Rig
Burradon	NZ 269730	Open Settlement
Bucks Nook	NZ 114614	Rectilinear Settlement
Burradon 1	NZ 269730	Rectilinear Settlement AR 1
Burradon 2	NZ 269724	Rectilinear Settlement
Burradon 3	NZ 270723	Rectilinear Settlement
Burradon 4	NZ 283730	Rectilinear Settlement AR 1
Damhead Wood	NZ 192611	Rectilinear Settlement
Dudley	NZ 260730	Rectilinear Settlement ?
Gardeners Houses 1	NZ 209744	Rectilinear Settlement AR 1
Gardeners Houses 2	NZ 209744	Rectilinear Settlement
Gateshead Fell	NZ 260600	Rectilinear Settlement ?
Hazlerigg 1	NZ 234717	Rectilinear Settlement AR 1
Hazlerigg 2	NZ 233714	Rectilinear Settlement
Kirkland	NZ 348499	Rectilinear Settlement ?
Laverick Hall Farm	NZ 313605	Rectilinear Settlement ?
Lintzford Wood	NZ 148574	Rectilinear Settlement AR 1
Marden	NZ 353708	Rectilinear Settlement AR 1?
Marsden Hall	NZ 398647	Rectilinear Settlement
Marshall Lands Farm	NZ 213602	Rectilinear Settlement ?
Morley Hill	NZ 224722	Rectilinear Settlement ?
Ravensworth Castle	NZ 232590	Rectilinear Settlement AR 2
Seghill South West	NZ 280734	Rectilinear Settlement
Stella	NZ 170638	Rectilinear Settlement

SITE NAME	GRID REF	SITE TYPE
Stephens Hall	NZ 155632	Rectilinear Settlement
Strother House	NZ 323592	Rectilinear Settlement ?
Usworth Hall	NZ 302592	Rectilinear Settlement AR 1
Walbottle	NZ 179658	Rectilinear Settlement AR 1?
Woolsington	NZ 164690	Rectilinear Settlement

1.4 CLEVELAND

SITE NAME	GRID REF	SITE TYPE
Codhill Slack	NZ 611123	Cairnfield
Guisborough Moor	NZ 604123	Cairnfield
North Ings Moor	NZ 646124	Cairnfield
Burnwood Bridge	NZ 390150	Curvilinear Settlement
Codhill Slack	NZ 611122	Curvilinear Settlement
Danby Low Moor	NZ 700100	Curvilinear Settlement (HF)
Eston Nab	NZ 568183	Curvilinear Settlement (HF)
Eston Nab	NZ 568183	Curvilinear Settlement P
Codhill Heights	NZ 613126	Field System
Eston Moor	NZ 571177	Field System
Catcote	NZ 490316	Open Settlement
Thorpe Thewles	NZ 396243	Open Settlement AR 3?
Barnaby Grange	NZ 573168	Rectilinear Settlement
Barnaby Side	NZ 570160	Rectilinear Settlement
Blue House Farm	NZ 474295	Rectilinear Settlement
Guisborough	NZ 630150	Rectilinear Settlement
Guisborough Park Farm	NZ 597170	Rectilinear Settlement AR 1
Hall Bank	NZ 395236	Rectilinear Settlement ?
Hell Hole	NZ 392239	Rectilinear Settlement
Hilton	NZ 470100	Rectilinear Settlement
Horse Close Farm	NZ 632211	Rectilinear Settlement
Ingleby Barwick	NZ 437150	Rectilinear Settlement
Larberry Pastures	NZ 384179	Rectilinear Settlement AR 1
Thorpe Larches	NZ 391257	Rectilinear Settlement AR 1
Thorpe Thewles	NZ 396243	Rectilinear Settlement AR 2?
Thorpe Thewles 2	NZ 398240	Rectilinear Settlement
Throston Moor	NZ 455336	Rectilinear Settlement AR 1

APPENDIX TWO

AGRICULTURAL POTENTIAL OF SITE LOCATIONS

2.1 INTRODUCTION

Having looked at the physical environment which existed in later prehistoric times (chs 3 and 4), any attempt to understand the pattern of settlement within that environment requires an assessment of the potential viability of particular subsistence strategies throughout space and time. Land-use potential is determined by the interrelationship of a number of factors; in the following study soil parent material, topography and climate are taken as being the major influences. The potential combinations of these factors at the micro-level are so numerous that to produce generalised macro "zones of potential" would be meaningless. This study is therefore site-based.

Each known settlement is "scored" according to its situation in terms of parent material, topography and local climate. This gives an assessment of the potential of what may be termed the "meso-environment" for a few hundred metres around the site. Fulfilment of this potential depends of course on agriculturalists adopting maximising strategies at the micro level i.e. choosing optimum locations in terms of aspect etc. This method has the advantage of allowing for the importance of micro considerations whilst accepting that agricultural activities may be carried out within "territories" of varying size around settlement sites.

2.2 FACTORS AFFECTING AGRICULTURAL POTENTIAL

The factors affecting soil formation and thus agricultural capability are inextricably interlinked but in general, climate is important on a regional level in determining broad changes in soil properties, whereas parent material and topography have a very important localised effect (Stevens & Atkinson 1970). Where drift deposits are present, they are scored as the parent material, where extensive drift deposits are absent, the location is scored in terms of the solid geology (see fig a2.2 P.56 for scoring system). The importance of the solid geology in determining topography should not however be overlooked. It is noteworthy that Stevens and Atkinson's (1970) soil landscapes for County Durham correspond exactly to Beaumont's (1970) geomorphological zones.

An assessment of precise topographical situation is inappropriate here for reasons outlined above, thus only altitude is scored, this being the principal factor affecting climate and length of growing season. Lowland, upland and highland locations have been identified using the altitudinal divisions employed on Royal Meteorological Society maps (see figs 3.16 - 3.19) which are taken as being the divisions most likely to be significant in terms of climate.

Broadly speaking, past soils are likely to have belonged to the main groups present in the region today i.e. brownearths, peats and gleys (Soil Survey of England and Wales 1983). The highland zone would be characterised by acidic and intensely leached peats and gleys with some brownearths on calcareous or base-rich rocks. The uplands will also have produced strongly leached soils and, although blanket peat was absent from most of the area, soils will have been typically mildly acid brownearths with peats and gleys forming on impervious parent rock and podzols occurring on sandy parent materials. Alluvial soils would be of brownearth or gley type, their increased fertility being due to the recent formation of the parent material and to nutrient enrichment because of their topographical situation.

The importance of glacial drift deposits in this region has been discussed (ch 3), and it has been noted that the extent of their influence on soil formation depends heavily on topographic considerations. This is emphasised by Davies who states, 'Because the upland soils reflect the wet climate so strongly a clear contrast between glaciated and unglaciated uplands cannot be demonstrated.' (Davies 1972 p239). He cites the example of Dartmoor which is an unglaciated upland area but which exhibits a soil distribution similar to that of the rest of highland Britain. For this reason, relative levels of precipitation in the region have been mapped (Fig a2.1) and the sites scored accordingly. It is assumed that whatever broad climatic changes took place, relative levels of precipitation would have been similar to those of the present day. The level of precipitation increases from east to west with the Pennine Uplands of west Durham being markedly wetter than the rest of the region.

2.3 SCORING SYSTEM

Each site is given a numeric value as its locational "score" derived from the combination of the factors discussed above. As this assessment is purely relative none of the variables are weighted. However, in order to be of real use, a temporal dimension must be added to the picture so each value is considered in terms of the four climatic phases discussed in chapter four and the location rated as being of good, medium or poor agricultural potential during each of these phases. The scoring system is shown in fig a2.2 and the results of scoring the known sites in each of the three main morphological groups are shown in table a2.1 and figs a2.3-a2.6.

Only the open site locations show a marked change in potential over time with their capacity for agriculture declining considerably during climatic phase 3. Surprisingly, the locations most static in terms of potential are those in which the curvilinear sites are to be found. They have a more limited agricultural capacity than the locations of the rectilinear sites throughout the later prehistoric period. However, this capacity appears remarkably consistent suggesting that claims regarding pressure on land in upland areas during the Iron Age (cf Burgess 1984) may often be exaggerated.

Altitude.

<61m	= 2
<183m	= 1
<299m	= 2
>300m	= 3

Precipitation.

Low	= 1
Moderate	= 2
High	= 3
Very high	= 4

Parent Material.

Alluvium	= 1
Andesite	= 2
Basal Conglomerate	= 3
Basalt & Dolerite	= 3
Boulder Clay	= 2
Carboniferous Limestone	= 2
Cementstone	= 3
Coal Measures	= 3
Fell Sandstone	= 4
Glacial sands & gravels	= 3
Granite	= 4
Lias Deposits	= 3
Lower Palaeozoic Deposits	= 3
Magnesian Limestone	= 2
Marine deposits	= 3
Mercia Mudstones	= 3
Middle Marls	= 4
Namurian deposits	= 3
Peat	= 4
Sherwood Sandstone	= 3

Climatic Phases.

Neo/EBA	
MBA/LBA	>300m= +1
LBA/EIA/MIA	>300m or <61m= +2
LIA/RB	

Score.

3-6	= Good
7-10	= Medium
11-14	= Poor

Fig a2.2 Agricultural potential scoring system

OPEN SITES			
	Good	Medium	Poor
Phase 1	15%	80%	5%
Phase 2	15%	55%	30%
Phase 3	11%	43%	46%
Phase 4	15%	78%	7%

CURVILINEAR SITES			
	Good	Medium	Poor
Phase 1	56%	44%	-
Phase 2	56%	38%	6%
Phase 3	43%	45%	12%
Phase 4	56%	42%	2%

RECTILINEAR SITES			
	Good	Medium	Poor
Phase 1	77%	23%	-
Phase 2	77%	21%	2%
Phase 3	52%	45%	3%
Phase 4	77%	23%	-

Table a2.1 Agricultural potential of site locations

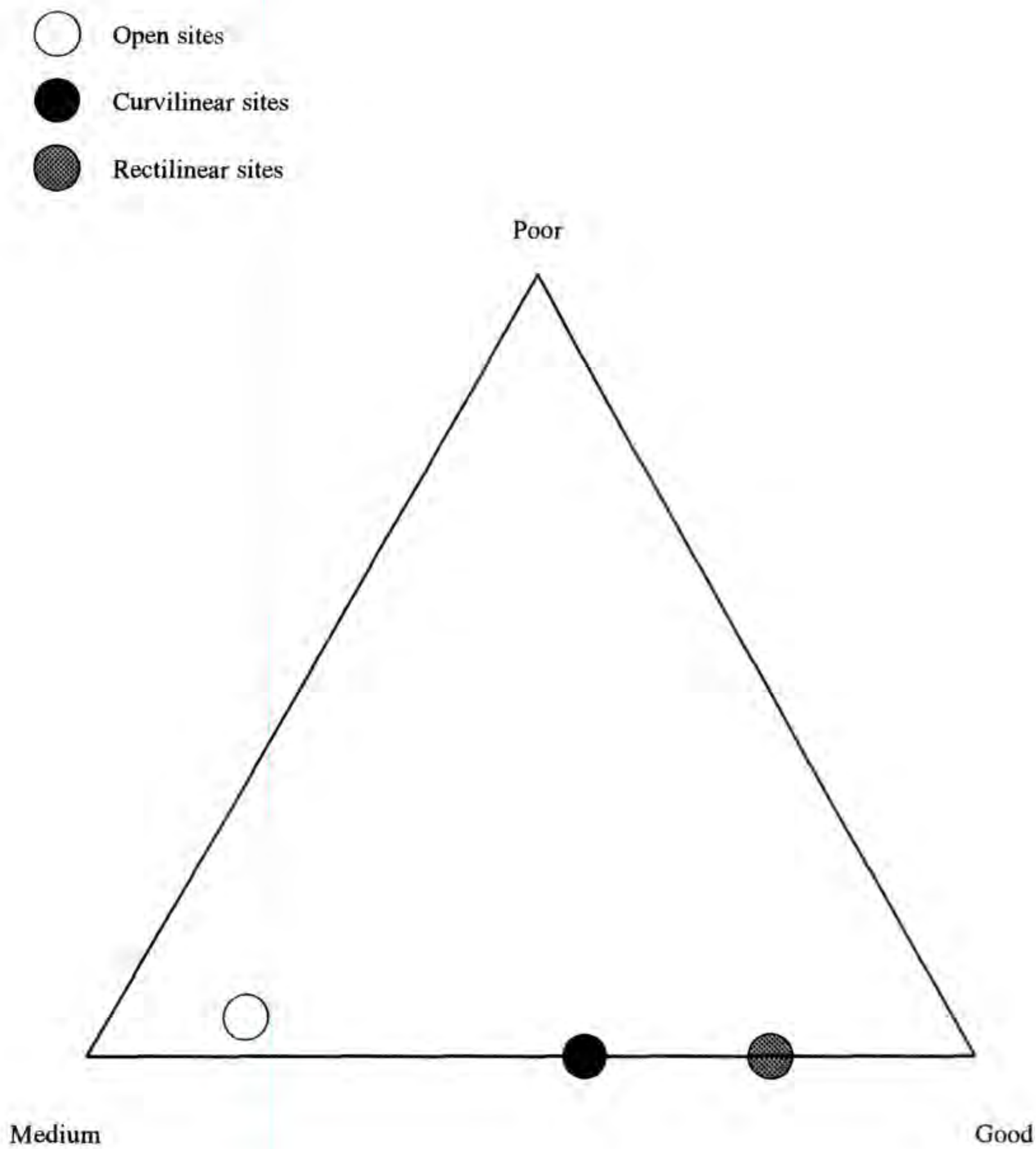


Fig a2.3 Agricultural potential: climatic phase 1

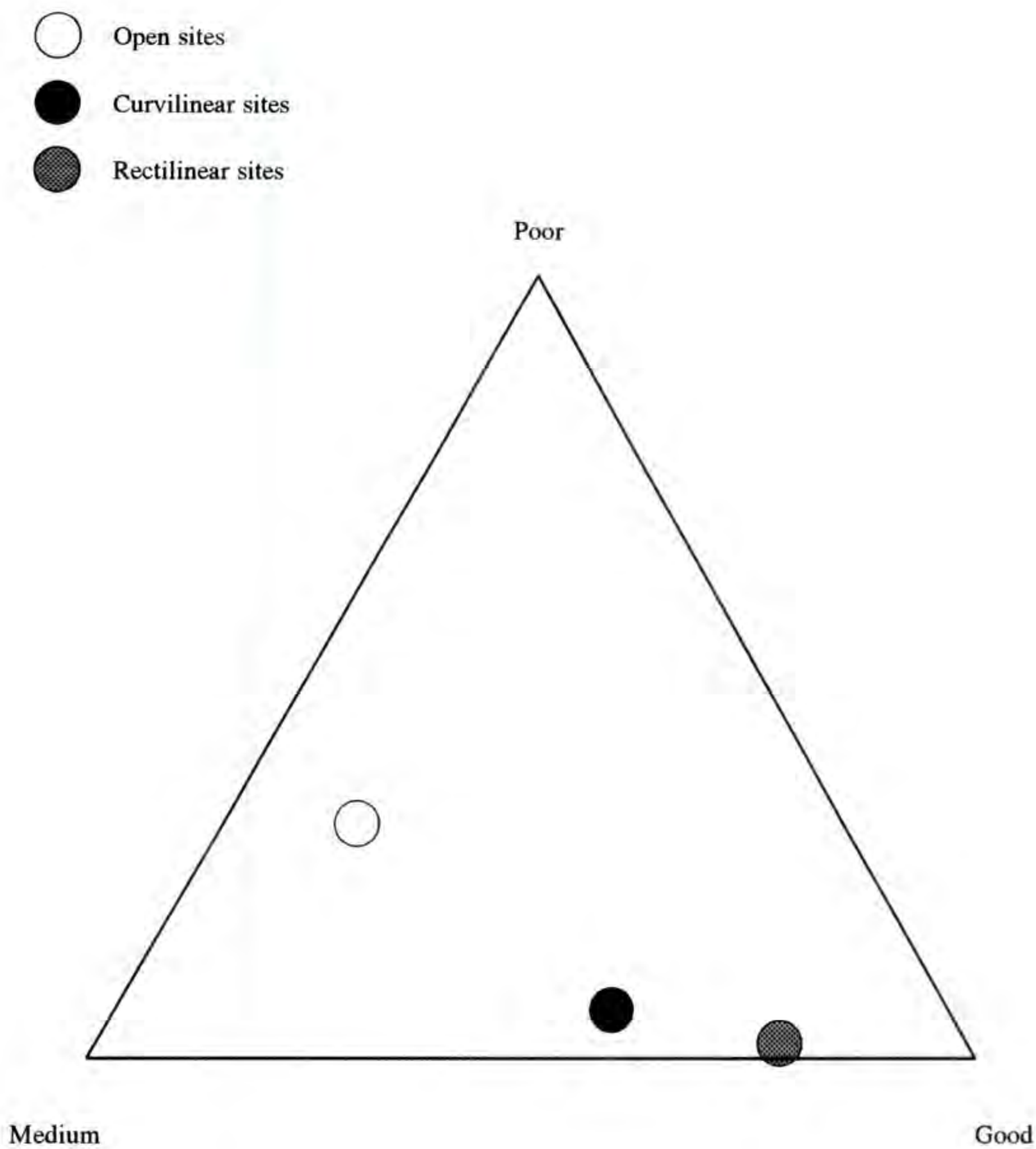


Fig a2.4 Agricultural potential: climatic phase 2

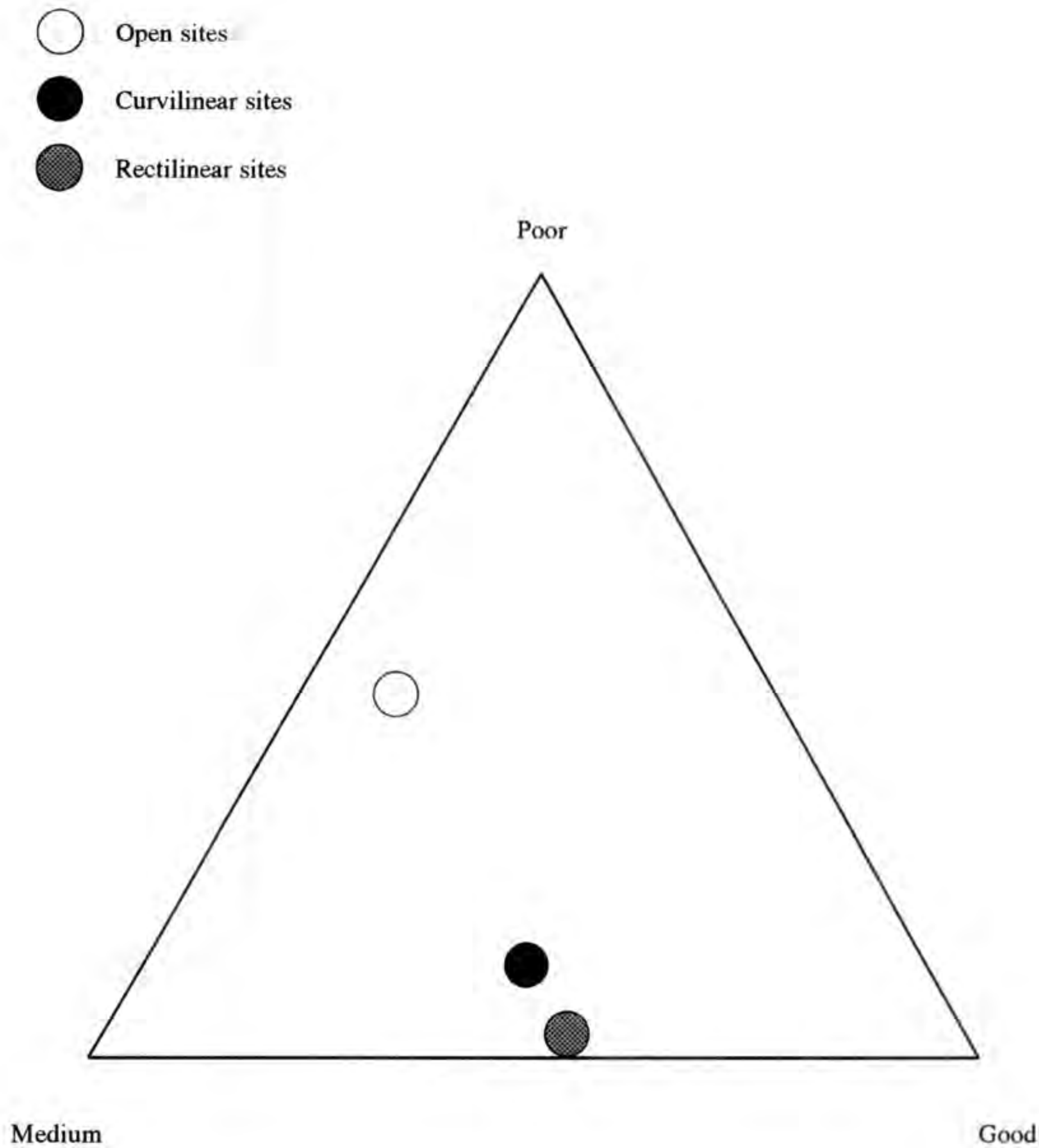


Fig a2.5 Agricultural potential: climatic phase 3

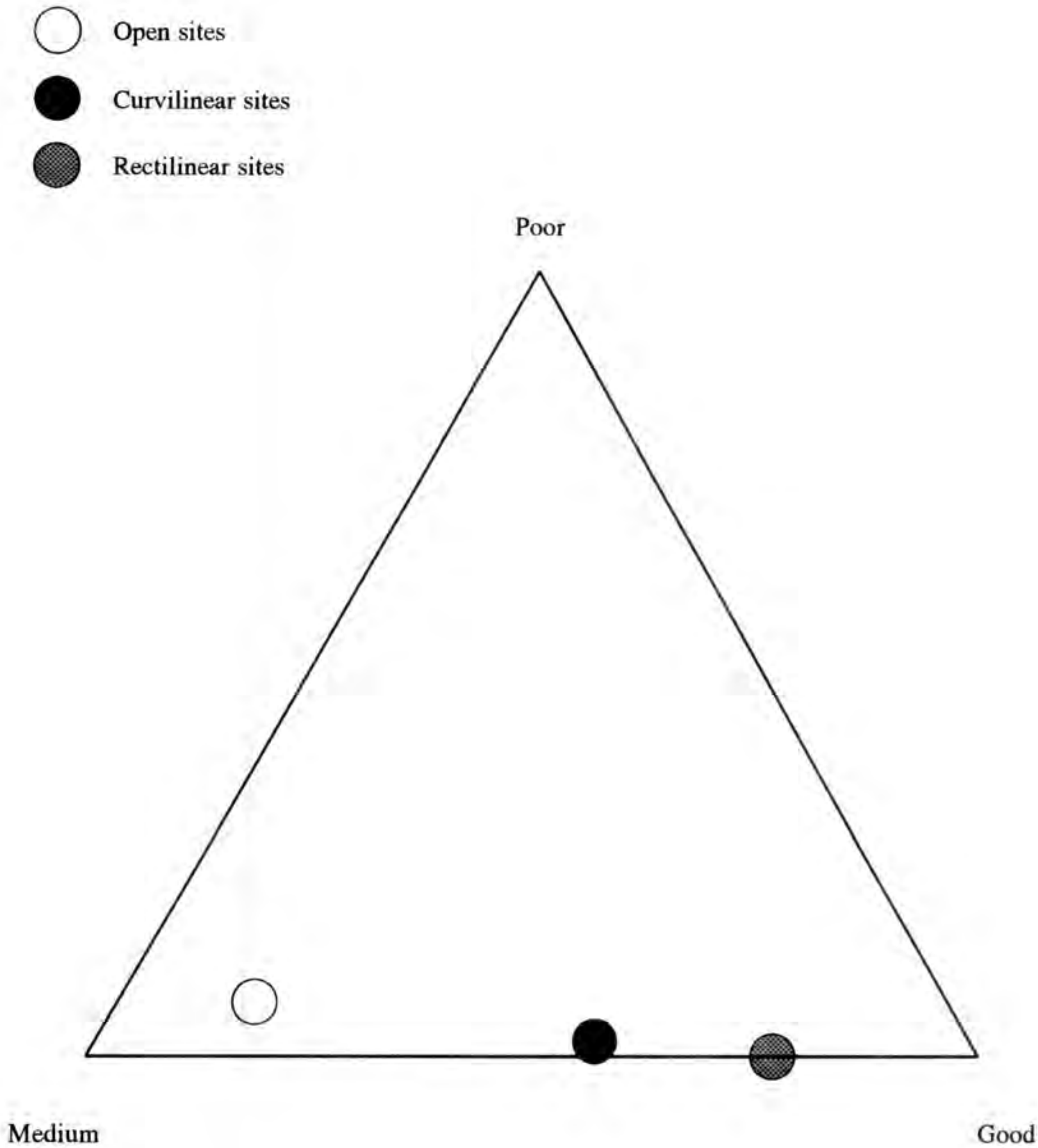


Fig a2.6   Agricultural potential: climatic phase 4

APPENDIX THREE

CASE STUDIES IN LATER PREHISTORIC LAND USE

3.1 INTRODUCTION

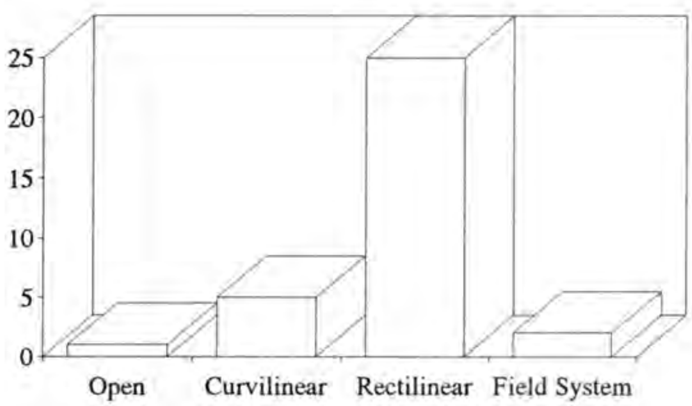
The following study attempts to examine the relationship between environmental changes likely to have resulted from anthropogenic activity and known archaeological sites. Taking into account the factors discussed in chapter four, the pollen cores used in this section were required to meet certain criteria. They had firstly, to be precisely located in order that a valid estimate of the likely catchment area could be made and secondly, securely dated, preferably by radiocarbon determination. Since Northumberland has only three radiocarbon dated sites, a number of others whose zones may be cross-linked to the dated sites are discussed for comparative purposes. However, the margin of error implicit in this form of relative dating should not be overlooked. The calibrated C14 dates for each pollen core are given in table a7.2.

3.1 .1 Mordon Carr

NZ 321 253 (Bartley *et al* 1976)

The site occupies a large basin, 2.5km across, the site of a former glacial lake. It is situated on the Magnesian Limestone in the Tees Lowlands area at a height of 100m OD. The large size of the deposit, 2.5 km across, and the gentle terrain surrounding it, mean that the diagram is likely to reflect an area greater than its immediate surroundings. A catchment area of 10km is postulated. A number of archaeological sites lie within this catchment area (fig a3.1).

Fig a3.1 Mordon Carr: sites within pollen catchment area



The elm decline has been dated at this site to 5305 ± 55 BP (SRR 475). The earliest evidence for human interference with the natural vegetation cover occurs at a level dated to 4736 ± 85 BP (SRR 597) where *Plantago lanceolata* first appears. The spectrum gives an impression of small scale, temporary clearances during the Neolithic. A more definite episode of clearance occurs around 4500 BP, (c. 3500-3000 cal BC) still firmly within the Neolithic period. This shows a continuous curve for *Plantago lanceolata* and a general increase in herbaceous types including *Rumex, Compositae, Caryophyllaceae, Ranunculaceae*, and *Urtica*. It is accompanied by a small rise in *Gramineae* and *Betula* suggesting larger or closer clearings in which Betula was able to colonise woodland edges and abandoned clearings. *Tilia* has been reduced to very low values by this time. Turner, (1962) suggests the decline of *Tilia* can usually be related to anthropogenic activity. There are occasional occurrences of cereal from this time onwards but only a moderate amount of clearance is implied. The date of 4543 ± 70 BP (SRR 474) for the middle of this activity, marks the end of the dated part of the diagram. There is no clear evidence of human influence after the end of this phase. Values for herb pollen remain high and an abundance of *Calluna* and *Sphagnum* indicates waterlogged conditions.

The problem of equating the results of this diagram with the known archaeology is self evident. The end of the dated part of the diagram occurs not later than c.3000 cal BC whereas the recorded settlement sites belong, in all probability, to a considerably later period. Most appear to be of Iron Age date. Bartley *et al* (1976) suggest that the dated activity ends during the middle Bronze Age but state that they have made no attempt to apply any correction factor in converting to calendar years (*ibid* p438).

Although there is no obvious evidence for activity associated with the settlement sites, there is equally no evidence for forest regeneration and tree pollen remains at only 25-30% in the upper part of the diagram (although this could well be explained by the waterlogged conditions). Comparison with the Bishop Middleham pollen core, whose catchment area lies entirely within the northern part of the Mordon Carr catchment is thus of relevance here. Also of interest is the situation at Neasham Fen to the south since many of the known sites around Mordon Carr lie on its south side.

3.1.2 Neasham Fen

NZ 332 116 (Bartley *et al* 1976)

This deposit occupies a kettle hole in the lowlands close to the north bank of the River Tees. It lies on Keuper & Bunter sandstones and Boulder Clay at a height of 45m OD. The limited extent of the deposit, 270m diameter, means that it reflects the vegetation of only a small area around the site. A catchment area of 1km radius is postulated. The only known sites within this catchment area comprise three rectilinear settlements.

The elm decline is dated to 5468 $\pm$ 80 BP (SRR 102) at this site but is accompanied by little evidence of clearance. There are odd occurrences of *Plantago lanceolata* and a single cereal pollen grain. During the next zone which commences c.3500 BP, corresponding to the start of the Bronze Age, there is an increase in the number and frequency of herbaceous species and *Tilia* disappears completely very early in the zone. *Quercus* declines slightly and *Betula* rises. The spectrum is generally indicative of clearance with an extension of pasturing, possibly of a permanent nature. The presence of some arable cultivation is suggested by pollen of *Plantago major-media* and *Chenopodiceae*. Cereal pollen first appears at a level dated to 3242 $\pm$ 70 BP (SRR 101) ie. during the early Bronze Age. The amount of clearance is still only moderate at this time with arboreal pollen still reaching values of 50-60%. At around 3300 BP the picture changes slightly, *Plantago lanceolata* disappears and *Betula* and *Fraxinus* increase. This would appear to indicate a recession of agriculture and colonisation of the clearings by light demanding trees. In the following zone, the largest clearance so far in the area takes place.

Dates for this zone are 2850 $\pm$ 60 BP (SRR 98), 2538 $\pm$ 50 BP (SRR 99) and 2488 $\pm$ 75 BP (SRR 100). The zone thus corresponds to the late Bronze or early Iron Age. The pollen types are similar to those found in earlier periods suggesting that although the scale of activity had increased, the methods in use were still the same. This zone lasts for roughly 500 years and is followed by another recession of agriculture and forest regeneration c.2300 BP. The period of the later Iron Age and Roman occupation is marked by an overall decline in the values of all herbaceous types with no change occurring at the time of the Roman occupation.

This situation seems to be typical of the poorly drained Tees Lowlands and it was not until 1213 ± 60 BP (SRR 96) that large scale clearance for both arable and pastoral farming occurred.

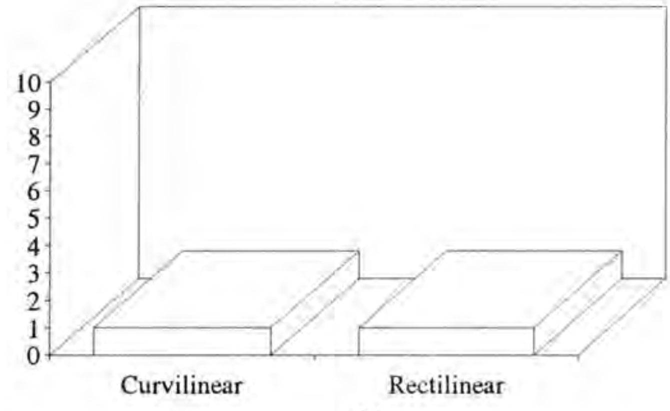
There is an obvious parallel with Mordon Carr here since the known sites within the catchment area are of presumed Iron Age date yet there is no clear evidence for agricultural activity at this time. Both diagrams serve to support the suggestion that the familiar pattern of Iron Age rectilinear settlement in the lowlands may be closely related to the pattern of late Bronze Age activity in this area.

3.1.3 Bishop Middleham

NZ 324 304 (Bartley *et al* 1976)

The site is situated towards the western edge of the East Durham Plateau at a height of 76m OD. It comprised a small peat deposit in the bottom of a glacial meltwater channel which has now been destroyed by the construction of the A1 motorway. It lies in an area of thick glacial drift deposits with the Boulder Clay being overlain by up to 4.5m of sand and gravel. The catchment area of the site is estimated at a 2km radius. Sites within this catchment area are shown in fig a3.2.

Fig a3.2 Bishop Middleham: sites within pollen catchment area



In the zone following the elm decline, *Fraxinus* becomes established whilst *Alnus* declines gradually throughout the zone. *Plantago lanceolata* appears just below the level dated to 5180 ± 110 BP (GaK 2071). *Tilia* values drop dramatically at the level dated to 3660 ± 80 BP (GaK 2072) i.e. during the early Bronze Age, although the species does not disappear altogether from this favourable limestone location. The *Tilia* decline is followed by a more definite occurrence of *Plantago lanceolata* with an accompanying increase in *Rumex acetosella* and *Cruciferae*. This episode continues with a decline in all tree types except *Betula* and sharp increases in *Gramineae, Cyperaceae, Plantago lanceolata, Compositae* and *Potentilla*. Cereal pollen first appears at 3360 ± 80 BP (GaK 2073) in the early to middle Bronze Age in association with very extensive clearance. *Plantago lanceolata* makes up 41% of total pollen at this time and remains at values of c.10% for a lengthy period. Arboreal pollen is reduced to 10% of the total. Such extensive clearance at this period is decidedly unusual, and is paralleled only in the chalklands of southern England. There are no dates for the upper part of this diagram. *Plantago* and other weed types do decline somewhat but forest regeneration does not occur. *Betula* increases slightly at the expense of other arboreal species but there is no increase in the proportion of trees. It thus appears that the vegetation was permanently altered as a result of the Bronze Age clearances.

The results of this diagram are particularly surprising in view of the lack of evidence for post Neolithic activity in the nearby Morden Carr pollen diagram. However the localised nature of this deposit has already been stressed in chapter four with reference to the zone V vegetation.

3.1.4 Thorpe Bulmer

NZ 458 354 (Bartley *et al* 1976)

The site occupies a probable kettle hole in the glacial deposits at the western edge of the East Durham Plateau. It comprises a steep sided basin c.100m in diameter at a height of 80m OD. The small size of the deposit means it is likely to receive mainly locally derived pollen and its catchment area is taken to be a radius of 1km around the site. No known sites fall within this catchment area.

The deposit has a long history commencing during the Older Dryas period, there is however a break in peat formation at about the time of the elm decline. This is possibly due to erosion by the increased precipitation at this time. The zone covering the period from c.9000-2000 BP (the Mesolithic to the late Iron Age) is thus undifferentiated. The zone is characterised by falling values of *Corylus*, an increase in *Alnus, Quercus* and *Ulmus* and the first appearance of *Plantago lanceolata*. On analogy with other sites in the area it may be that the appearance of *Plantago lanceolata* occurs during the Bronze Age but in the absence of radiocarbon dates this must remain speculative. The next dated level probably corresponds to the later part of the pre Roman Iron Age giving a date of 2064 $\pm$ 60 BP (SRR 404). High values of *Gramineae, Plantago lanceolata, Compositae* and *Ranunculus* and low values for trees (except *Alnus* which was presumably growing around the margins of the lake formed in the kettle hole) suggest the area had undergone major clearance by this time. The cleared areas were certainly under arable cultivation as evidenced by pollen of cereals, *Centaurea* and large amounts of *Cannabis* pollen. *Cannabis* values reach 19% of total pollen by 1730 $\pm$ 20 BP (GaK 3713), ie. during the 3rd or 4th century cal AD, indicating that there must have been one or more fields of hemp in the immediate vicinity. *Cannabis* declines after this peak but low values continue until 852 $\pm$ 60 BP (SRR

405), corresponding to the 11th to 13th centuries cal AD. The *Cannabis* decline is accompanied by a rise in grass pollen perhaps indicative of a partial return to pasturing at the end of the Roman period.

The lack of known sites within this catchment area and indeed the paucity of known sites in the general vicinity would not seem to reflect a genuine archaeological phenomenon. The palynological evidence suggests Iron Age activity at least as intense as that seen on the main part of the East Durham Plateau.

3.1.5 Hutton Henry

NZ 41 35 (Bartley *et al* 1976)

This deposit lies in an infilled glacial lake towards the eastern edge of the East Durham Plateau at a height of 137m OD. Here the Magnesian Limestone is overlain by Boulder Clay up to 18m deep. The deposit is fairly small, some 200m in diameter and thus has a catchment area of only 1km around the site. There are no known sites within the catchment area.

The Neolithic period is marked by a slight increase in the dominant arboreal species *Alnus* and in *Fraxinus*. There is also a general increase in the proportion of herbaceous types. *Plantago lanceolata* occurs occasionally between c.5300 BP and 3500 BP. A slight *Tilia* decline is evident. The first major clearance occurs at 3544 $\pm$ 80 BP (SRR 601) during the early Bronze Age. The episode is marked by a large increase in herb pollen, *Plantago lanceolata* forms a continuous curve and *Rumex acetosa*, *Cruciferae* and *Chenopodiaceae* are represented. There are also single occurrences of *Cannabis* and cereal pollen at this level. This clearance appears to have been fairly extensive. There are no specific radiocarbon dates for the zone corresponding to the later part of the Bronze Age and the Iron Age. The intensity of clearance fluctuates throughout the zone but its extent is always greater than that evident in the Tees Lowlands. Values of *Gramineae* and *Cyperaceae* are high throughout the period, those of *Plantago lanceolata* are low but continuous and the relative proportions of arboreal and herbaceous species fluctuate greatly. *Fagus* appears for the first time in this zone. The latest zone, beginning at around 2000 BP is marked by a drop in *Alnus* values followed by a drop in *Quercus*. Herbaceous types increase at the expense of trees throughout this zone. *Plantago lanceolata* increases greatly after the *Quercus* decline. The peak of this episode occurs at 1842 $\pm$ 70 BP (SRR 600) thus corresponding to the period of the Roman occupation.

As with Thorpe Bulmer, this site serves to highlight the need for further archaeological field survey in the coastal zone. The dense cluster of rectilinear sites further to the west on the plateau may be part of a pattern of settlement which continued across as far as the east coast.

3.1.6 Hallowell Moss

NY 251 439 (Donaldson & Turner 1977)

The site is situated in the Wear Lowlands very close to the city of Durham. It comprises a raised bog in a depression in the Browney Valley which lies on Boulder Clay and Coal Measures at 90m OD. The Moss is small, 200m in diameter and thus has a catchment area of only 1km around the site. There are no known sites within this catchment area.

The sequence begins in the early Neolithic period, *Ulmus* is virtually absent from the start of the diagram so it may be that the woodland was not entirely natural at this stage. During the zone dated to 3645 $\pm$ 60 BP (SRR 418) to 2432 $\pm$ 60 BP

(SRR 417) ie. from the early Bronze Age through to the early Iron Age, there is a slight but permanent rise in grass pollen, *Plantago lanceolata* and *Pteridium aquilinum* indicative of cleared areas within the forest cover. *Corylus, Ilex* and *Hedera* appear as does the light demanding *Fraxinus*. *Tilia* declines to the extent where it is virtually absent. It appears that during this period the woods were used for grazing with coppicing of hazel occurring. At 2432 $\pm$ 60 BP, at the start of the Iron Age, grass pollen rises to 10% and other herbs associated with clearance increase proportionately. The spectrum is indicative of a small temporary clearance fairly close to the site which was allowed to revert to woodland again after a relatively short period of use.

Throughout the Iron Age and early Roman period, activity appears to have continued at a level similar to that of the Bronze Age (c.2350 BP to 1956 $\pm$ 70 BP) with only slight grazing pressure on the woodland. The next phase, dated to 1956 $\pm$ 70 BP to 1355 $\pm$ 50 BP, the early Roman to early Mediaeval period, sees a dramatic change culminating in a landscape almost devoid of trees. *Betula* declines first followed by *Quercus* until arboreal pollen comprises less than 5% of the total. There is no proportional increase in *Corylus* or other shrubs suggesting that the cleared areas were being managed as pasture or meadow. Grass pollen comprises 512% of tree pollen and many pasture types are present including *Ranunculaceae, Compositae* and *Rumex acetosa-acetosella*. Cereal pollen first appears at this time along with pollen of arable weeds suggesting a small amount of arable cultivation in the vicinity of the site. Clearance appears to have reached its maximum extent towards the end of this period ie. after the Roman withdrawal from the area. This episode ends abruptly in the 7th or 8th century cal AD with large areas reverting to hazel scrub then woodland.

The picture here is thus rather different to that seen on the East Durham Plateau. Clearance begins at a later date and remains on a small scale throughout later prehistory. The localised nature of this deposit should not however be overlooked.

3.1.7 Bollihope Bog

NY 99 37 (Roberts *et al* 1973)

The bog is situated in the western part of the Pennine Uplands to the south of the Wear Valley. It lies in a tributary valley of the Bollihope Burn at a height of 300m OD. The deposit is extremely small, 40 x 25m and is contained within a very narrow gully thus it contains an extremely large proportion of locally derived pollen. Its catchment area has been estimated at a mere 20-30m around the bog. All of the known sites in the vicinity lie outside this radius. The nearest sites are a group of six curvilinear sites c.2km south west of the bog. It is difficult to place too much emphasis on a site with such a localised pollen spectrum as there is no complementary regional pollen rain to even out minor seasonal fluctuations in the vegetation around the bog.

The deposits from the bog cover a very short period of time beginning during the Iron Age when the environment appears to have been fairly densely wooded. Arboreal pollen appears to have decreased somewhere between 200 cal BC and 300 cal AD, being replaced by pasture and heath species. This episode of land use does not appear to have been particularly intensive. The maximum of this phase is reached at a level just above that dated to 1730 $\pm$ 100 BP (GaK 3031) and may thus lie within the Roman or immediate post Roman period.

3.1.8 Steward Shield Meadow

NY 98 44 (Roberts *et al* 1973)

The deposit consists of a small bog situated in the western part of the Pennine Uplands to the north of the Wear Valley at a height of 380m OD. The bog is extremely small, 60 x 15m but is exposed to the west, south and east so is thought unlikely to contain only locally derived pollen. It is likely to reflect the vegetation of the valley in which it lies thus a catchment area of 2km along the valley is postulated. There are no known sites within this catchment area. Indeed there are few known sites at all in this part of County Durham.

There are no radiocarbon dates available for the start of peat formation in the bog but on analogy with the rest of the northern Pennines, peat growth is believed to have commenced some time after 1200 cal BC as the climate deteriorated. The area was relatively well wooded during the course of the next millennium with *Pinus*, *Betula*, *Alnus* and *Corylus* present. *Quercus* is represented but is relatively unimportant at this altitude. Tree pollen decreases sharply at a date probably towards the end of the Iron Age, a date of 2060 $\pm$ 120 BP (GaK 3033) has been obtained from this level. A cleared landscape as open as that of today is indicated in the spectrum. *Gramineae, Cyperaceae, Calluna* and *Compositae* all have frequencies of over 100% indicating much grassland and heath. Cereal pollen (5%) occurs near the beginning of this phase but is not represented further up the sample indicating a fairly short lived period of arable cultivation. This phase of open grassland appears to have continued until 840 $\pm$ 100 BP (GaK 3032) corresponding to the 11th to 14th centuries cal AD.

Clearance occurs very late at this site hence the paucity of known sites may indeed reflect a genuine lack of settlement, at least during the Bronze and early Iron Ages, in this area. The suddenness of the late Iron Age clearance is however worthy of note and comparison with Pow Hill to the north is of interest here.

3.1.9 Pow Hill

NZ 012 516 (Turner & Hodgson 1981)

The site is situated on Namurian deposits at a height of 228m OD in north Durham. The bog lies in a narrow, steep sided glacial drainage channel on the south side of the Derwent reservoir. It extends for some 200 x 30m and is likely to reflect the vegetation only of its own valley having an elongated catchment area stretching for 2km along the valley. There are no known sites within this catchment area and, as with Steward Shield Meadow, very few sites at all within the general area.

The site is interesting on account of its atypical vegetation having unusually high values for *Pinus* and extremely low values for *Ulmus* throughout. The predominance of *Pinus* continues from c.7000 BP until the destruction of the forest in late prehistoric times. The decrease in arboreal pollen with an accompanying increase in heath and grassland types occurs fairly suddenly. The radiocarbon dates for this change are believed to have been contaminated and it is suggested (Turner and Hodgson 1981), on analogy with other sites in the region, that the clearance took place during late Iron Age or Romano-British times probably somewhere between 300 cal BC and 200 cal AD.

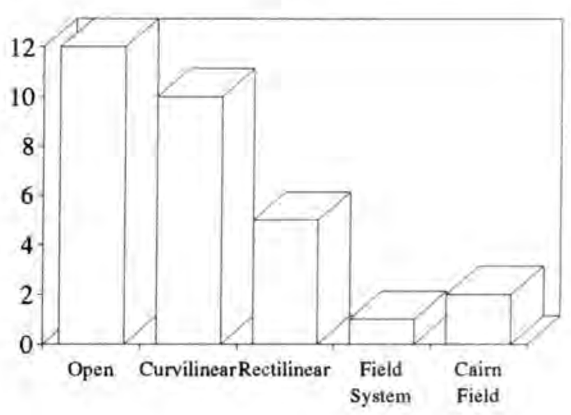
Whilst it is not possible to correlate any archaeological evidence with the results of this diagram, the suddenness of the decrease in arboreal pollen and the similarity with the situation at Steward Shield Meadow and the more distant Hallowell Moss, are worthy of note. The implication is that the paucity of known sites in this area does not reflect a genuine lack of later prehistoric activity.

3.1.10 Weelhead Moss

NY 818 289 (Turner *et al* 1973)

The Moss is situated in Upper Teesdale in the northern Pennines at a height of 500m OD. It comprises a fairly large bog, 900m x 400m, with the pollen core having been taken from near the centre of the deposit and thus may be taken to reflect the vegetation of a catchment area of 4km radius around the site. Sites within this catchment area are shown in fig a3.3.

Fig a3.3 Weelhead Moss: sites within pollen catchment area



The deposit has a history stretching from late glacial or early post glacial times. Large fluctuations in the frequency of *Alnus* occur throughout the diagram and this is believed to reflect its river-head situation which probably resulted in regular flooding. A date of 5220 $\pm$ 120 BP (GaK 2915) was obtained for the elm decline and a hiatus in peat formation between c.5770 BP and 5220 BP was noted. The *Calluna* frequency is high from c.5000 BP onwards and it appears that peat formation was underway well before the first evidence of human activity occurs. A series of fluctuations in *Gramineae* and *Plantago* frequencies occur above a level dated to 3150 $\pm$ 100 BP (GaK 2913), corresponding to the early to middle Bronze Age. These are believed (Turner *et al* 1973) to be similar to and probably synchronous with, variations noted on three unpublished diagrams from Upper Weardale. There are no dates for the levels above this activity and in general the later part of the diagram is dominated by the spread of blanket peat leading to a landscape similar to that of the present day sometime between 3000BP and 2500 BP.

In this case it may be possible to see a distinct correlation between the changes in the pollen diagram and the known sites within its catchment area. The most common type of site in the catchment area is the small open settlement which, on analogy with similar sites in Northumberland, should probably be dated to the early to middle Bronze Age. This is the period which sees fluctuations, suggestive of small scale clearance, in the pollen record. The fact that settlements of presumably later date also exist in some numbers yet are not obviously reflected in the pollen record, perhaps supports the suggestion made in chapter eight that these sites saw only short lived or possibly seasonal, occupation.

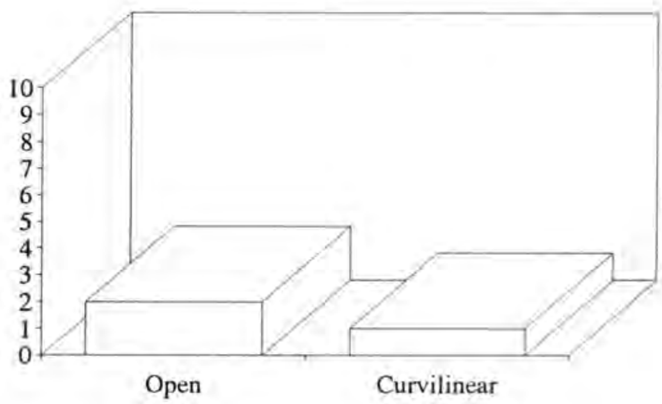
3.1.11 Red Sike Moss/Tinklers Sike 1

NY 819 288 (Turner *et al* 1973)

The Moss is situated in Upper Teesdale in the northern Pennines at a height of 500m OD. The bog covers some 500 x 250m but the pollen core sample was taken towards the edge of the deposit thus a catchment area of 2km radius is postulated.

This may appear somewhat limited for an upland zone site however a number of other undated diagrams from the area show considerable variety during the prehistoric period suggesting changes occurred on a very localised level. Sites within the catchment area are shown in fig a3.4.

Fig a3.4 Red Sike Moss: sites within pollen catchment area



This deposit built up very slowly with a number of breaks in peat formation. A hiatus occurred between c.5770 BP and 3390 $\pm$ 90 BP (GaK 2028) during which time the elm decline occurred. *Pinus* appears to have declined also at this time. The first suggestion of anthropogenic activity occurs at a level dated to 2570 $\pm$ 80 BP (GaK 2027) when there is a rise in the frequencies of *Gramineae*, *Calluna* and *Plantago* and a drop in arboreal pollen. This corresponds to the later part of the Bronze Age or early Iron Age. It is notable that at this site *Calluna* frequencies do not rise until the amount of grassland has increased. *Gramineae* and *Plantago* frequencies continue to fluctuate for some time after the initial increase suggesting phases of human activity from the Bronze Age onwards but in common with many of the other Upper Teesdale diagrams, the later period is dominated by the spread of blanket peat.

This diagram again shows the extent to which both vegetation change during the later prehistoric period and pollen catchment areas may be very localised. It s catchment area lies entirely within that of Weelhead Moss yet the first indication of clearance occurs at a later date. Both diagrams may perhaps hint at a rather more extended chronology for open settlements than the available C14 dates indicate; such a suggestion has already been made in chapter five. Again there is archaeological evidence for later activity but not on such a scale as to show up in the pollen record.

3.1.12 Fellend Moss

NY 679 658 (Davies & Turner 1979; Turner 1979)

The Moss is situated in south Northumberland. It lies in a trough on the south side of the Whin Sill on Carboniferous Limestone covered by Boulder Clay at a height of 210m OD. The vallum of Hadrian's Wall runs along the north edge of the Moss which measures 750 x 375m. It has an estimated catchment area of 3km with pollen arriving mainly from the south, east and west owing to its proximity to the Whin Sill. The only known site within this catchment area is a patch of cord rig cultivation although there are a number of Roman camps in the vicinity.

Evidence of anthropogenic activity in this area first occurs in the late Neolithic or early Bronze Age. *Gramineae, Plantago lanceolata* and *Rumex* are present in quantity and the general spectrum indicates small areas of clearance probably associated with pastoralism. The maximum of this episode occurs at 3888 $\pm$ 60 BP (SRR 877). There is no cereal pollen present at this time but pollen of weeds of arable cultivation occur in small amounts. The episode appears to have lasted for some 200 years. From the end of this phase until a time in the immediate pre Roman period, low values of herbaceous pollen suggest some degree of abandonment of the land. The next evidence for human activity occurs at around 1948 ± 45 BP (SRR 876) corresponding to the late Iron Age or early Roman period. *Gramineae, Plantago lanceolata, Rumex* and *Pteridium* all begin to increase dramatically. Cereal pollen also occurs at this level. The spectrum is indicative of extensive clearance with the land being used predominantly for pasture. Moderately high values of the herbaceous species are maintained until 1330 ± 40 BP (SRR 875), corresponding to the 7th or 8th century cal AD, when forest regeneration resumes.

The suggestion of lengthy abandonment of this area during the Bronze and Iron Ages is interesting in view of the lack of known sites in the vicinity. Davies and Turner (1979 p789) equate the following episode of clearance with the building of Hadrian's Wall. Examination of the calibrated C14 dates (table a7.2) shows that this is indeed possible but that the clearance could equally well date to the later pre Roman Iron Age.

3.1.13 Muckle Moss

NY 805 666 (Pearson 1960; Raistrick & Blackburn 1932)

The site is situated in the south of Northumberland approximately halfway between Newcastle and Carlisle. It lies on Namurian deposits at 210m OD. The Moss is extensive, covering some 2500 x 307m but the pollen core was taken from the edge of the deposit thus the catchment area represented is estimated to be within a 1km radius around the site. There are no known sites within this catchment area.

The site has not been dated by radiocarbon determination and is therefore merely summarised here with reference to Godwin's pollen zones (Godwin *et al* 1957). *Ulmus* values are low throughout the diagram and the division between zones VIIa and VIIb is drawn on the basis of a marked rise in *Ericaceae* values. *Betula* and *Ulmus* increase slightly at the beginning of zone VIII whilst *Alnus* declines and *Tilia* is virtually absent from this zone. Pollen of *Plantago lanceolata* and *major* and *Compositae* first appears in zone VIII, at a level believed to correspond to c.100-200 cal AD and *Gramineae* increases gradually towards modern times. Cereal pollen does not appear until a level believed to date to c.1100 cal AD.

It is obviously difficult to draw conclusions of archaeological relevance from this diagram. The suggestion of increased clearance at about the time when Hadrian's Wall was built is clearly akin to the situation at nearby Fellend Moss but this date has been calculated purely on the assumption of a regular rate of peat growth (the danger of making such an assumption is highlighted in chapter four). The possibility of a certain degree of circularity of argument also cannot be ruled out.

3.1.14 Vindolanda

NY 770 664 (Turner 1979)

The site is situated in south Northumberland in the valley of the South Tyne. The deposit sampled consisted of a marshy hollow situated outside the centurion's house in the civil settlement associated with the Roman fort of Vindolanda. The deposit is dated stratigraphically to AD 100-125. The area represented here is restricted both spatially and chronologically giving a picture only of the immediate surroundings in the early part of the 2nd century. Arboreal pollen is present in very limited quantities and the spectrum is dominated by types indicative of pasture with a small arable element including some cereals.

3.1.15 Coom Rigg Moss

NY 69 79 (Chapman 1964)

The Moss is situated in south west Northumberland on the Carboniferous Limestone at a height of 300m OD. The deposit is extensive, measuring 1000 x 850m but the pollen core samples were taken from relatively near the edge of the moss and thus reflect a catchment area of only 1.5km around the site. There are no known sites within this catchment area and indeed few known sites in this part of Northumberland at all.

The site has not been dated by radiocarbon determination and is therefore merely summarised here with reference to Godwin's pollen zones (Godwin *et al* 1957). The area around the site was peat covered by the start of zone VIIb. Pollen of *Plantago* and other herbaceous species appears in quantity about one third of the way through this zone, during the Neolithic period. *Plantago* peaks just after the start of zone VIII at c.2500 BP during the early Iron Age. The *Plantago* maxima is accompanied by peaks in *Gramineae, Cyperaceae, Ericaceae* and the light demanding *Fraxinus*. This episode of clearance thus appears to have occurred well before the Roman occupation of the area. The next phase of activity occurs at the start of zone VIII modern and is suggestive of a major phase of deforestation beginning c.600 cal AD. The latest clearance is compared to that at Muckle Moss and Chapman (1964) suggests the two may be contemporaneous, the difference in date being due to differences in the placing of the zone VIII boundary.

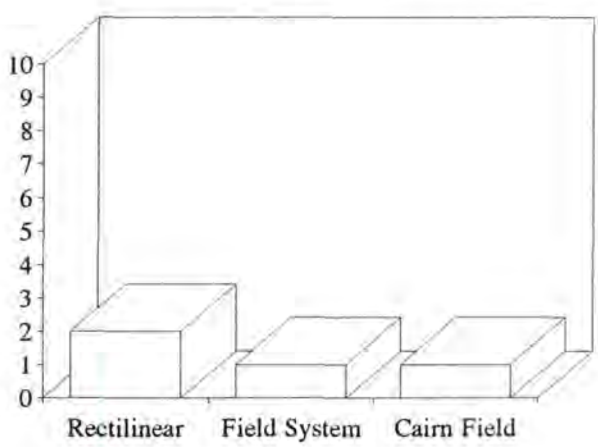
Again it is difficult to draw archaeological inference from this diagram since there is at present no suggestion of archaeological activity which may relate to the Neolithic or early Iron Age clearances.

3.1.16 Steng Moss

NY 965 913 (Davies & Turner 1979; Turner 1979)

The site is situated in central Northumberland on a gently inclined plateau on the Carboniferous Limestone. It comprises a large deposit, 1200 x 900m in extent, but has been damaged by afforestation to the south east. The pollen core was taken from fairly close to the edge of the Moss and so is likely to reflect largely local vegetation. The catchment area is estimated at a 2km radius around the bog. Sites within the catchment area are shown in fig a3.5.

Fig a3.5 Steng Moss: sites within pollen catchment area



The first evidence for human activity on this diagram occurs at around the beginning of the Bronze Age. An episode of small scale clearance is suggested reaching a maximum at 3594 $\pm$ 45 BP (SRR 1945) when the curves for *Plantago lanceolata* and *Fraxinus* become continuous and there is an increase in *Gramineae*. This activity may have been associated with grazing within the forest which affected the natural regeneration of trees. The next episode of clearance marked by an increase in herbaceous species and the appearance of *Hordeum*, peaks at 3015 $\pm$

45 BP (SRR 1044) during the middle Bronze Age. Another peak occurs at 2586 ± 45 BP (SRR 1043) with an increase in *Gramineae* and associated pollen and the appearance of cereal (*Triticum*) pollen. The above agricultural phases appear to have been entirely separate episodes both lasting for approximately 250 years. Immediately after this last phase of clearance, the rate of peat accumulation increased sixfold and continued to form at that rate until 2528 ± 35 BP (SRR 1042). These changes appear to date to the late Bronze Age or very early Iron Age, there is however little differentiation between the two calibrated dates (table a7.2). There are no major vegetation changes associated with the increase and it is believed by Davies and Turner (1979) to be the result of climatic deterioration.

From 2528 ± 35 BP until 1970 ± 60 BP (Q 1520)) ie. throughout the Iron Age, the frequencies of *Gramineae* and other herbaceous species parallel those found at the Bronze Age maxima. Clearance thus appears to have been limited in extent but continuous, on a scale comparable to that of the Bronze Age. The level of activity appears to have increased after this period. The values for herbaceous types rise dramatically and cereal cultivation begins to play a significant part in the agricultural regime with *Hordeum* and *Secale* being represented. This extensive clearance is maintained until 1490 ± 60 BP (Q 1519), during the Roman or immediate post-Roman period, with forest regeneration commencing some time after this, probably after the end of the Roman occupation.

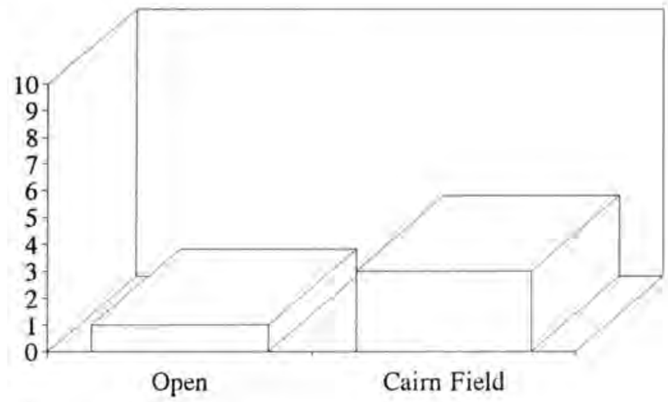
Although there are few sites within the actual catchment area of this pollen core, the site lies immediately to the north of an area densely covered by rectilinear settlements. In view of the probable stability of these settlements noted in chapter eight, the evidence for Bronze Age clearance is unsurprising. Davies and Turner's (1979 p794) claim that the major increase in clearance and rise in the importance of cereal cultivation did not occur until the latter half of the Roman occupation must however be treated with some caution. The calibrated dates (table a7.2) would equally well allow for the change to have taken place during the later Iron Age. It is suggested in chapter ten that south Northumberland in the late Iron Age marks a transitional zone between progressive and conservative modes of production and much more dated archaeobotanical evidence from individual sites is required before these changes can be assessed in detail.

3.1.17 Camp Hill Moss

NU 100 263 (Davies & Turner 1979)

The site is situated in north east Northumberland. It lies in a depression in the Boulder Clay on the Fell Sandstones at a height of 205m OD. The deposit comprises a small moss, 150 x 100m in extent with a fairly localised catchment area. Being in the upland zone, it may be taken to have a catchment area of some 2km around the site. Sites within the catchment area are shown in fig a3.6.

Fig a3.6 Camp Hill Moss: sites within pollen catchment area



The Moss began to form at some time after the elm decline. Changes in the early part of the spectrum i.e. the move from *Alnus* domination to *Betula* domination are believed to be entirely natural occurrences. The first evidence for human interference with the vegetation occurs at 3510 ± 70 BP (HAR 1945) i.e. not until the early Bronze Age. A phase of continuous land-use in the form of temporary clearances is suggested by increased frequencies of *Gramineae, Plantago lanceolata* and *Rumex acetosa/acetosella*. This date accords well with one of 3640 ± 90 BP (HAR 1942) from carbonized material beneath one of the cairns on Millstone Hill (G. Jobey 1981). There is however no evidence for arable cultivation at this time.

The primary clearance phase is followed by a period of greatly decreased activity lasting from 3110 ± 80 BP (HAR 1946) until 2670 ± 70 BP (HAR 1947) thus covering the middle and late Bronze Age. Clearance begins again immediately after this level. This activity is on a fairly small scale but differs in nature from the previous episode with arable cultivation evidenced by the presence of pollen of cereal and associated weeds such as *Centaurea cyanus*. The date of 640 ± 80 BP (HAR 1948), corresponding to the 13th to 15th century cal AD, for the end of this activity is believed to be too recent as a result of contamination (Davies and Turner 1979). The next phase sees the start of intense activity in the area and is marked by a considerable decrease in tree pollen values and the presence of *Cannabis, Juglans, Hordeum, Secale* and *Triticum*. Cereal pollen rises to a peak of 22% of arboreal pollen.

The date of this peak remains uncertain owing to the problem with the radiocarbon dates but it has been suggested (Davies & Turner 1979) that a date around the beginning of the Roman occupation seems not unlikely and would give an acceptable estimated rate of peat formation for the relevant levels. The site does exhibit a greater preponderance of arable cultivation than is apparent in other local diagrams at this time but this may be the result of its limited catchment area.

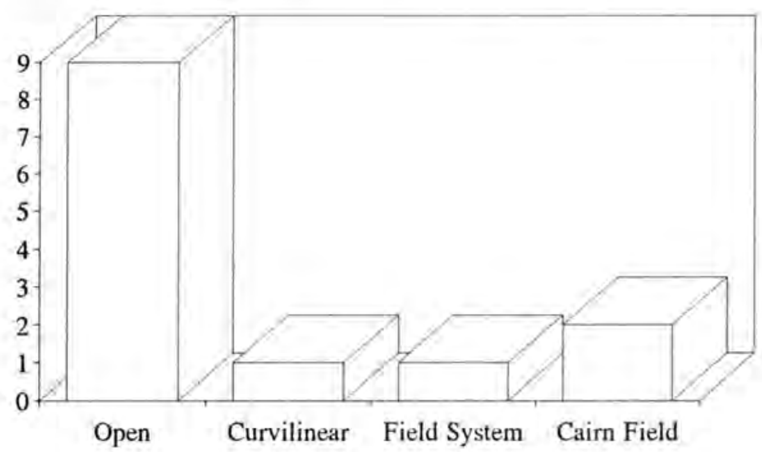
As at Steng Moss and other sites, the tendency to date increased clearance and arable farming to the Roman period may stem more from traditional views about the role of cereal cultivation during the Iron Age in this area than from hard evidence. In view of the uncertainty surrounding the dating, any interpretation of this diagram must remain purely speculative.

3.1.18 Broad Moss

NT 963 215 (Davies & Turner 1979)

The site is situated in the heart of the Cheviot massif. It lies in a col on the south east side of the Harthope Valley at the junction of granite and andesite at a height of 306m OD. The moss is relatively extensive covering an area 800 x 600m but has been disturbed by peat cutting on the western side. In view of the location of the actual sample site and its sheltered setting, a catchment area of 2km around the site is postulated. Sites within the catchment area are shown in fig a3.7

Fig a3.7 Broad Moss: sites within pollen catchment area



A large cluster of curvilinear sites lies immediately to the north east of the catchment area.

The site has not been dated by radiocarbon determination. Davies & Turner (1979) suggest that the pattern of changes in the species indicative of forest clearance is similar to that seen at Fellend and Steng Mosses and thus date the noted clearance episodes on analogy with those sites. The initial opening up of the forest cover is believed to have occurred during the Bronze Age being followed by two distinct episodes of clearance also during the course of the Bronze Age. *Hordeum* is present in these levels in association with small quantities of pollen of arable weeds. A date at the beginning of the Roman occupation is suggested for the next major episode of clearance. The general spectrum at this time is indicative of a largely pastoral economy with *Hordeum* present but not in substantial quantities. A period of extensive clearance with arable cultivation occurs at some time after this phase. It is suggested (Davies & Turner 1979) that in view of the known importance of the area in Anglo-Saxon times, this maxima occurred rather earlier than at the other sites, possibly during the 7th century AD.

In this case a correlation between the recorded open settlements and the Bronze Age clearance episodes does seem highly plausible. However this site illustrates well the circular arguments employed in dating many pollen cores. The next episode of clearance is dated to the Roman period on analogy with Fellend and Steng Mosses where, as seen earlier, the Roman dates are far from certain. One could perhaps make a better case at Broad Moss than at either of the other sites for an increase in activity during the Roman period. It lies close to a large group of curvilinear sites of probable Romano-British date and it was suggested in chapter ten that pastoralism played a major role on these sites and that barley was perhaps grown as fodder. There are also indications that the uplands underwent far greater change during the Roman period than is often thought.

3.2 DISCUSSION

The above case studies perhaps illustrate more than anything else the difficulties involved in attempting to combine palynological evidence with the results of archaeological field survey. It is all too easy to generalise about patterns of change but to establish their nature, date and quantify them, then relate them to known sites involves a quantum leap. Numerous studies have identified an episode of agricultural activity and then looked to the nearest known site (usually inadequately dated) for the origin of this activity, ignoring a multitude of other relevant factors. In the above study, strict adherence to the experimental criteria, particularly in terms of estimated catchment areas, excluded one or two fairly plausible relationships but these were the exception. It was to be hoped that the scale of the study alone would be sufficient to pick out broad correlations. However the most obvious result of the work is in highlighting areas where archaeological knowledge is lacking.

County Durham is the area best served by palynological evidence and here at least it is possible to see patterns in the missing archaeological data. The north west of the county and parts of the Wear Lowlands have not been well served by field survey and the indications from Pow Hill, Steward Shield Meadow and Hallowell Moss are that sites may yet await discovery. Clearance appears to have occurred fairly late and may, for the most part, have been relatively localised in these areas. However, the sudden drop in arboreal pollen on all three sites during the late Iron Age is a phenomenon worthy of investigation. It may be that the apparently flourishing economy of the East Durham Plateau at this time (discussed in chapters eight and ten) led to expansion into this hitherto sparsely populated zone.

The East Durham Plateau itself has produced some of the most interesting palynological results to date. It has already been suggested in chapters seven and eight that the settlement pattern of this area was extremely stable with sites being rebuilt many times on the same spot perhaps from the late Bronze Age onwards. The pollen cores for this area however show that extensive clearances had taken place well before this data, most notably the early Bronze Age clearance at Mordon Carr. The results seem to support the theory (ch 8) that the stability of settlement in this area has contributed to the difficulty of identifying sites of pre-Iron Age date from aerial survey. The evidence from Thorpe Bulmer and Hutton Henry suggests that this pattern of dense settlement and agricultural activity probably continues to the east and, as in Northumberland, the coastal zone would repay further survey.

In Upper Teesdale the correlation between episodes of Bronze Age activity and open settlements would seem to support the hypothesis that sites of this type may be likened to the Northumbrian examples and placed in a Bronze Age context. Whilst a number of sites of putatively later date are known, there is little evidence for agricultural activity after this time and these sites may, as suggested in chapter eight, have been occupied only on a short term or seasonal basis.

The evidence from Northumberland is even less clear-cut, particularly since so few diagrams have been adequately dated. At Broad Moss, as in Upper Teesdale, there is evidence for Bronze Age activity associated with open settlements. There is also evidence for activity at this time at Steng Moss in central Northumberland. It has been tentatively suggested that this may indicate a situation akin to that in East

Durham where the predominant pattern of Iron Age sites closely resembles the pattern of Bronze Age settlement.

Little can be said of Iron Age agriculture from these results. At Coom Rigg Moss there is an episode of early Iron Age clearance in an area practically devoid of known sites. At Fellend Moss, Muckle Moss, Camp Hill Moss and Broad Moss evidence of clearance may date to the late Iron Age or early Roman period. The available C14 dates do not allow us to distinguish whether or not the episodes predate the Roman occupation. It has been stated that the tendency to relate the increase to the Roman occupation (cf Davies and Turner 1979) stems from the traditional view that arable cultivation did not play a major part in the Iron Age economy. In view of the increasing evidence that Hadrian's Wall was constructed across an open arable landscape (Topping 1989a,b) the episodes at Fellend Moss and Muckle Moss might well belong to the earlier period.

This study has served to highlight the difficulties involved in relating palynological evidence to activity on known sites. However, in spite of the problems, the survey has produced a number of points of interest. The calibration of all of the C14 dates using a consistent method (appendix seven) has proven a useful exercise and has led to a reinterpretation of some diagrams. The results also demonstrate clearly the need for a greater understanding of Bronze Age activity in the lowland zone. On the whole the palynological evidence accords reasonably well with the evidence discussed in chapters eight and ten, but more work on sites with relatively large catchment areas is obviously needed to complement the results of investigations such as those carried out by Van der Veen (1990; 1992).

APPENDIX FOUR

SPATIAL ANALYSIS DATA

AREA/PLOT	KNOWN SITES	SAMPLE SIZE
N1 Open	37	95%
N1 I Age	16	94%
N1 R-B	60	75%
N1 Palis	8	88%
N2 Open	10	90%
N2 Palis	3	
N2 I Age	25	64%
N2 R-B	43	35%
N3 Open	29	76%
N3 Palis	2	
N3 I Age	15	73%
N3 R-B	48	33%
S1 Open	2	
S1 I Age	45	24%
S1 R-B	2	
S2 Open	14	93%
S2 Palis	1	
S2 I Age	3	
S2 R-B	22	45%
N Tyne Open	140	71%
N Tyne Palis	49	55%
N Tyne I Age	328	42%
N Tyne R-B	341	46%
S Tyne Open	34	97%
S Tyne I Age	187	32%
S Tyne R-B	50	58%

Table a4.1 Spatial analysis sample sizes

PLOT	FIG	SLOPE	INTERCEPT	STD ERR	r	r^2
N1 I Age	8.18	-0.32	1.67	0.05	-0.89	0.80
N1 R-B	8.19	-1.10	2.34	0.19	-0.94	0.89
N1 Sample 1	8.20	-1.14	1.72	0.19	-0.89	0.80
N1 Sample 2	8.21	-1.59	1.72	0.21	-0.93	0.87
N1 Sample 3	8.22	-0.89	1.73	0.19	-0.84	0.70
N1 Sample 4	8.23	-1.34	2.06	0.13	-0.96	0.92
N1 Open	8.24	-0.65	1.02	0.12	-0.92	0.85
N1 Palis	8.25	-2.06	2.45	0.22	-0.94	0.89
N2 Open	8.26	-0.69	0.65	0.06	-0.97	0.94
N2 I Age	8.27	-0.55	2.13	0.05	-0.97	0.94
N2 R-B	8.28	-0.95	2.05	0.11	-0.94	0.89
N3 Open	8.29	-0.70	1.07	0.16	-0.87	0.75
N3 I Age	8.30	-1.33	2.46	0.16	-0.92	0.85
N3 R-B	8.31	-0.91	1.68	0.16	-0.91	0.82
S1 I Age	8.32	-0.79	2.27	0.06	-0.97	0.95
S2 Open	8.33	-0.43	0.30	0.00	-1.00	1.00
S2 R-B	8.34	-0.52	1.22	0.12	-0.82	0.67
N Tyne Open	8.35	-0.59	1.23	0.08	-0.97	0.94
N Tyne Palis	8.36	-1.00	2.43	0.25	-0.86	0.74
N Tyne I Age	8.37	-0.61	2.56	0.07	-0.98	0.96
N Tyne R-B	8.38	-0.83	2.58	0.18	-0.92	0.85
N Tyne C R-B	8.39	-1.00	2.48	0.17	-0.94	0.88
N Tyne R R-B	8.40	-0.87	2.43	0.16	-0.93	0.86
S Tyne Open	8.41	-0.62	0.74	0.04	-0.98	0.97
S Tyne I Age	8.42	-0.67	2.54	0.10	-0.95	0.90
S Tyne R-B	8.43	-0.64	1.62	0.09	-0.94	0.89

Table a4.2 Spatial analysis plot descriptions

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	40.00	0.00	1.60	1.67
3.00	33.00	0.48	1.52	1.52
5.00	32.00	0.70	1.51	1.45
6.00	30.00	0.78	1.48	1.42
8.00	28.00	0.90	1.45	1.38
10.00	25.00	1.00	1.40	1.35
11.00	24.00	1.04	1.38	1.34
12.00	20.00	1.08	1.30	1.33
13.00	19.00	1.11	1.28	1.32
14.00	18.00	1.15	1.26	1.31
15.00	16.00	1.18	1.20	1.30

Table a4.3 Area N1: Iron Age sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	177.00	0.00	2.25	2.34
2.00	60.00	0.30	1.78	2.01
3.00	51.00	0.48	1.71	1.82
4.00	47.00	0.60	1.67	1.68
5.00	40.00	0.70	1.60	1.58
6.00	35.00	0.78	1.54	1.49
7.00	30.00	0.85	1.48	1.42
8.00	28.00	0.90	1.45	1.35
10.00	25.00	1.00	1.40	1.25
11.00	20.00	1.04	1.30	1.20
17.00	16.00	1.23	1.20	1.00
19.00	15.00	1.28	1.18	0.94
23.00	11.00	1.36	1.04	0.85
26.00	10.00	1.41	1.00	0.79
27.00	9.00	1.43	0.95	0.78
28.00	6.00	1.45	0.78	0.76
31.00	5.00	1.49	0.70	0.71
35.00	4.00	1.54	0.60	0.65
36.00	3.00	1.56	0.48	0.64
40.00	2.00	1.60	0.30	0.59
43.00	1.00	1.63	0.00	0.55

Table a4.4 Area N1: Romano-British sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	47.00	0.00	1.67	1.72
2.00	20.00	0.30	1.30	1.38
5.00	15.00	0.70	1.18	0.93
6.00	11.00	0.78	1.04	0.84
7.00	6.00	0.85	0.78	0.76
9.00	2.00	0.95	0.30	0.64

Table a4.5 Area N1: R-B sites 20% sample no. 1

Rank	Size	Log rank	Log size	Fitted y data
1.00	35.00	0.00	1.54	1.72
2.00	20.00	0.30	1.30	1.24
4.00	15.00	0.60	1.18	0.76
6.00	3.00	0.78	0.48	0.48
7.00	2.00	0.85	0.30	0.38
9.00	1.00	0.95	0.00	0.20

Table a4.6 Area N1: R-B sites 20% sample no. 2

Rank	Size	Log rank	Log size	Fitted y data
1.00	40.00	0.00	1.60	1.73
2.00	30.00	0.30	1.48	1.46
3.00	25.00	0.48	1.40	1.30
4.00	20.00	0.60	1.30	1.19
7.00	15.00	0.85	1.18	0.98
8.00	11.00	0.90	1.04	0.93
9.00	3.00	0.95	0.48	0.88

Table a4.7 Area N1: R-B sites 20% sample no. 3

Rank	Size	Log rank	Log size	Fitted y data
1.00	177.00	0.00	2.25	2.06
2.00	28.00	0.30	1.45	1.66
3.00	20.00	0.48	1.30	1.42
5.00	15.00	0.70	1.18	1.13
8.00	9.00	0.90	0.95	0.85
9.00	6.00	0.95	0.78	0.78

Table a4.8 Area N1: R-B sites 20% sample no. 4

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	10.00	0.00	1.00	1.02
2.00	6.00	0.30	0.78	0.83
3.00	5.00	0.48	0.70	0.71
8.00	4.00	0.90	0.60	0.43
11.00	3.00	1.04	0.48	0.34
13.00	2.00	1.11	0.30	0.30
17.00	1.00	1.23	0.00	0.22

Table a4.9 Area N1: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	227.00	0.00	2.36	2.45
2.00	64.00	0.30	1.81	1.83
3.00	40.00	0.48	1.60	1.47
4.00	20.00	0.60	1.30	1.21
6.00	14.00	0.78	1.15	0.85
7.00	2.00	0.85	0.30	0.71

Table a4.10 Area N1: palisaded sites

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	4.00	0.00	0.60	0.65
2.00	3.00	0.30	0.48	0.44
4.00	2.00	0.60	0.30	0.23
7.00	1.00	0.85	0.00	0.06

Table a4.11 Area N2: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	110.00	0.00	2.04	2.13
2.00	100.00	0.30	2.00	1.97
3.00	80.00	0.48	1.90	1.87
4.00	75.00	0.60	1.88	1.81
5.00	60.00	0.70	1.78	1.75
6.00	52.00	0.78	1.72	1.71
7.00	50.00	0.85	1.70	1.67
8.00	48.00	0.90	1.68	1.64
9.00	40.00	0.95	1.60	1.61
11.00	36.00	1.04	1.56	1.56
12.00	32.00	1.08	1.51	1.54
13.00	28.00	1.11	1.45	1.53

Table a4.12 Area N2: Iron Age sites

Rank	Size (ha x 100)	Log rank	Log Size	Fitted y data
1.00	75.00	0.00	1.88	2.05
2.00	60.00	0.30	1.78	1.77
3.00	40.00	0.48	1.60	1.60
4.00	36.00	0.60	1.56	1.48
5.00	34.00	0.70	1.53	1.39
6.00	25.00	0.78	1.40	1.32
7.00	24.00	0.85	1.38	1.25
8.00	20.00	0.90	1.30	1.20
9.00	14.00	0.95	1.15	1.15
12.00	10.00	1.08	1.00	1.03
14.00	8.00	1.15	0.90	0.97
15.00	5.00	1.18	0.70	0.94

Table a4.13 Area N2: Romano-British sites

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	9.00	0.00	0.95	1.07
2.00	7.00	0.30	0.85	0.86
4.00	6.00	0.60	0.78	0.65
7.00	5.00	0.85	0.70	0.48
9.00	3.00	0.95	0.48	0.40
12.00	2.00	1.08	0.30	0.31
13.00	1.00	1.11	0.00	0.29

Table a4.14 Area N3: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	520.00	0.00	2.72	2.46
2.00	52.00	0.30	1.72	2.06
3.00	50.00	0.48	1.70	1.83
4.00	49.00	0.60	1.69	1.66
5.00	40.00	0.70	1.60	1.53
6.00	28.00	0.78	1.45	1.42
7.00	24.00	0.85	1.38	1.34
8.00	20.00	0.90	1.30	1.26

Table a4.15 Area N3: Iron Age sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	33.00	0.00	1.52	1.68
2.00	23.00	0.30	1.36	1.41
3.00	20.00	0.48	1.30	1.25
5.00	16.00	0.70	1.20	1.05
6.00	15.00	0.78	1.18	0.97
7.00	10.00	0.85	1.00	0.91
10.00	7.00	1.00	0.85	0.77
13.00	6.00	1.11	0.78	0.67
14.00	3.00	1.15	0.48	0.64
15.00	2.00	1.18	0.30	0.61

Table a4.16 Area N3: Romano-British sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	230.00	0.00	2.36	2.27
2.00	99.00	0.30	2.00	2.03
3.00	60.00	0.48	1.78	1.89
4.00	54.00	0.60	1.73	1.79
5.00	52.00	0.70	1.72	1.71
6.00	48.00	0.78	1.68	1.65
7.00	40.00	0.85	1.60	1.60
8.00	38.00	0.90	1.58	1.55
9.00	36.00	0.95	1.56	1.51
10.00	34.00	1.00	1.53	1.48
11.00	25.00	1.04	1.40	1.44

Table a4.17 Area S1: Iron Age sites

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	2.00	0.00	0.30	0.30
5.00	1.00	0.70	0.00	0.00

Table a4.18 Area S2: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	14.00	0.00	1.15	1.22
2.00	12.00	0.30	1.08	1.07
4.00	10.00	0.60	1.00	0.91
6.00	9.00	0.78	0.95	0.82
7.00	7.00	0.85	0.85	0.78
8.00	6.00	0.90	0.78	0.75
9.00	3.00	0.95	0.48	0.73

Table a4.19 Area S2: Romano-British sites

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	16.00	0.00	1.20	1.23
2.00	10.00	0.30	1.00	1.05
3.00	9.00	0.48	0.95	0.95
4.00	7.00	0.60	0.85	0.87
6.00	6.00	0.78	0.78	0.77
10.00	5.00	1.00	0.70	0.64
19.00	4.00	1.28	0.60	0.48
28.00	3.00	1.45	0.48	0.38
39.00	2.00	1.59	0.30	0.30
58.00	1.00	1.76	0.00	0.19

Table a4.20 North Tyne area: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	227.00	0.00	2.36	2.43
2.00	75.00	0.30	1.88	2.13
3.00	70.00	0.48	1.85	1.95
5.00	64.00	0.70	1.81	1.73
8.00	50.00	0.90	1.70	1.52
10.00	44.00	1.00	1.64	1.43
11.00	40.00	1.04	1.60	1.38
15.00	35.00	1.18	1.54	1.25
16.00	30.00	1.20	1.48	1.22
17.00	20.00	1.23	1.30	1.20
21.00	16.00	1.32	1.20	1.10
23.00	14.00	1.36	1.15	1.06
24.00	12.00	1.38	1.08	1.04
25.00	10.00	1.40	1.00	1.03
26.00	4.00	1.41	0.60	1.01
27.00	2.00	1.43	0.30	0.99

Table a4.21 North Tyne area: palisaded sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	520.00	0.00	2.72	2.56
2.00	240.00	0.30	2.38	2.38
3.00	137.00	0.48	2.14	2.27
4.00	130.00	0.60	2.11	2.19
5.00	110.00	0.70	2.04	2.14
7.00	104.00	0.85	2.02	2.05
8.00	90.00	0.90	1.95	2.01
10.00	80.00	1.00	1.90	1.95
15.00	78.00	1.18	1.89	1.85
16.00	65.00	1.20	1.81	1.83
17.00	60.00	1.23	1.78	1.81
21.00	58.00	1.32	1.76	1.76
22.00	57.00	1.34	1.76	1.74
23.00	53.00	1.36	1.72	1.73
25.00	52.00	1.40	1.72	1.71
27.00	50.00	1.43	1.70	1.69
32.00	49.00	1.51	1.69	1.64
34.00	48.00	1.53	1.68	1.63
37.00	44.00	1.57	1.64	1.61
38.00	42.00	1.58	1.62	1.60
39.00	40.00	1.59	1.60	1.59
57.00	39.00	1.76	1.59	1.49
58.00	38.00	1.76	1.58	1.49
59.00	36.00	1.77	1.56	1.48
64.00	35.00	1.81	1.54	1.46
66.00	33.00	1.82	1.52	1.45
68.00	32.00	1.83	1.51	1.45
72.00	30.00	1.86	1.48	1.43
79.00	28.00	1.90	1.45	1.41
89.00	25.00	1.95	1.40	1.37
95.00	24.00	1.98	1.38	1.36
106.00	20.00	2.03	1.30	1.33
124.00	19.00	2.09	1.28	1.29
125.00	18.00	2.10	1.26	1.28
126.00	16.00	2.10	1.20	1.28
136.00	15.00	2.13	1.18	1.26
137.00	14.00	2.14	1.15	1.26
138.00	12.00	2.14	1.08	1.26

Table a4.22 North Tyne area: Iron Age sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	177.00	0.00	2.25	2.58
2.00	140.00	0.30	2.15	2.33
3.00	100.00	0.48	2.00	2.18
4.00	90.00	0.60	1.95	2.07
5.00	77.00	0.70	1.89	1.99
6.00	75.00	0.78	1.88	1.93
7.00	73.00	0.85	1.86	1.87
8.00	70.00	0.90	1.85	1.82
10.00	60.00	1.00	1.78	1.74
12.00	51.00	1.08	1.71	1.68
13.00	49.00	1.11	1.69	1.65
14.00	47.00	1.15	1.67	1.62
16.00	45.00	1.20	1.65	1.57
17.00	44.00	1.23	1.64	1.55
18.00	40.00	1.26	1.60	1.53
19.00	38.00	1.28	1.58	1.51
20.00	36.00	1.30	1.56	1.49
21.00	35.00	1.32	1.54	1.48
24.00	34.00	1.38	1.53	1.43
26.00	33.00	1.41	1.52	1.40
27.00	30.00	1.43	1.48	1.39
32.00	29.00	1.51	1.46	1.32
34.00	28.00	1.53	1.45	1.30
36.00	27.00	1.56	1.43	1.28
37.00	26.00	1.57	1.41	1.27
38.00	25.00	1.58	1.40	1.26
42.00	24.00	1.62	1.38	1.23
47.00	23.00	1.67	1.36	1.19
48.00	21.00	1.68	1.32	1.18
49.00	20.00	1.69	1.30	1.17
61.00	19.00	1.79	1.28	1.09
62.00	16.00	1.79	1.20	1.09
66.00	15.00	1.82	1.18	1.06
73.00	14.00	1.86	1.15	1.03
78.00	13.00	1.89	1.11	1.00
80.00	12.00	1.90	1.08	0.99
83.00	11.00	1.92	1.04	0.98
88.00	10.00	1.94	1.00	0.96
97.00	9.00	1.99	0.95	0.92
98.00	8.00	1.99	0.90	0.92
103.00	7.00	2.01	0.85	0.90
107.00	6.00	2.03	0.78	0.89
117.00	5.00	2.07	0.70	0.86
128.00	4.00	2.11	0.60	0.82
132.00	3.00	2.12	0.48	0.81
144.00	2.00	2.16	0.30	0.78
150.00	1.00	2.18	0.00	0.77

Table a4.23 North Tyne area: Romano-British sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	140.00	0.00	2.15	2.43
2.00	100.00	0.30	2.00	2.16
3.00	77.00	0.48	1.89	2.01
4.00	73.00	0.60	1.86	1.90
5.00	70.00	0.70	1.85	1.81
6.00	60.00	0.78	1.78	1.75
7.00	49.00	0.85	1.69	1.69
8.00	45.00	0.90	1.65	1.64
9.00	44.00	0.95	1.64	1.59
10.00	38.00	1.00	1.58	1.55
11.00	36.00	1.04	1.56	1.52
12.00	35.00	1.08	1.54	1.48
14.00	34.00	1.15	1.53	1.42
16.00	30.00	1.20	1.48	1.37
18.00	29.00	1.26	1.46	1.33
19.00	28.00	1.28	1.45	1.31
20.00	26.00	1.30	1.41	1.29
21.00	25.00	1.32	1.40	1.27
24.00	24.00	1.38	1.38	1.22
29.00	21.00	1.46	1.32	1.15
30.00	20.00	1.48	1.30	1.14
35.00	19.00	1.54	1.28	1.08
36.00	15.00	1.56	1.18	1.07
39.00	14.00	1.59	1.15	1.04
43.00	13.00	1.63	1.11	1.00
45.00	11.00	1.65	1.04	0.98
46.00	10.00	1.66	1.00	0.97
49.00	8.00	1.69	0.90	0.95
54.00	7.00	1.73	0.85	0.91
56.00	6.00	1.75	0.78	0.90
59.00	5.00	1.77	0.70	0.88
64.00	4.00	1.81	0.60	0.85
67.00	3.00	1.83	0.48	0.83
70.00	2.00	1.85	0.30	0.81

Table a4.24 North Tyne area: rectilinear Romano-British sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	177.00	0.00	2.25	2.48
2.00	90.00	0.30	1.95	2.18
3.00	75.00	0.48	1.88	2.01
4.00	70.00	0.60	1.85	1.88
5.00	60.00	0.70	1.78	1.78
6.00	51.00	0.78	1.71	1.71
7.00	47.00	0.85	1.67	1.64
9.00	40.00	0.95	1.60	1.53
10.00	35.00	1.00	1.54	1.48
11.00	33.00	1.04	1.52	1.44
12.00	30.00	1.08	1.48	1.41
14.00	29.00	1.15	1.46	1.34
15.00	28.00	1.18	1.45	1.31
16.00	27.00	1.20	1.43	1.28
17.00	25.00	1.23	1.40	1.25
18.00	23.00	1.26	1.36	1.23
19.00	20.00	1.28	1.30	1.21
27.00	16.00	1.43	1.20	1.05
30.00	15.00	1.48	1.18	1.01
34.00	12.00	1.53	1.08	0.95
37.00	11.00	1.57	1.04	0.92
41.00	10.00	1.61	1.00	0.87
46.00	9.00	1.66	0.95	0.82
47.00	7.00	1.67	0.85	0.81
49.00	6.00	1.69	0.78	0.80
56.00	5.00	1.75	0.70	0.74
61.00	4.00	1.79	0.60	0.70
62.00	3.00	1.79	0.48	0.69
72.00	2.00	1.86	0.30	0.63
76.00	1.00	1.88	0.00	0.61

Table a4.25 North Tyne area: curvilinear Romano-British sites

Rank	Size (no. huts)	Log rank	Log size	Fitted y data
1.00	5.00	0.00	0.70	0.74
2.00	4.00	0.30	0.60	0.55
3.00	3.00	0.48	0.48	0.44
4.00	2.00	0.60	0.30	0.36
15.00	1.00	1.18	0.00	0.00

Table a4.26 South Tyne area: open sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	230.00	0.00	2.36	2.54
2.00	150.00	0.30	2.18	2.33
3.00	130.00	0.48	2.11	2.22
4.00	125.00	0.60	2.10	2.13
5.00	112.00	0.70	2.05	2.07
6.00	110.00	0.78	2.04	2.01
9.00	99.00	0.95	2.00	1.89
10.00	95.00	1.00	1.98	1.86
11.00	80.00	1.04	1.90	1.83
12.00	78.00	1.08	1.89	1.81
13.00	72.00	1.11	1.86	1.79
15.00	70.00	1.18	1.85	1.74
17.00	63.00	1.23	1.80	1.71
18.00	60.00	1.26	1.78	1.69
21.00	54.00	1.32	1.73	1.65
22.00	53.00	1.34	1.72	1.63
23.00	52.00	1.36	1.72	1.62
24.00	48.00	1.38	1.68	1.61
26.00	45.00	1.41	1.65	1.58
27.00	40.00	1.43	1.60	1.57
30.00	38.00	1.48	1.58	1.54
32.00	37.00	1.51	1.57	1.52
33.00	36.00	1.52	1.56	1.51
36.00	35.00	1.56	1.54	1.49
38.00	34.00	1.58	1.53	1.47
39.00	30.00	1.59	1.48	1.46
43.00	29.00	1.63	1.46	1.44
44.00	28.00	1.64	1.45	1.43
46.00	25.00	1.66	1.40	1.42
48.00	21.00	1.68	1.32	1.40
49.00	20.00	1.69	1.30	1.40
54.00	18.00	1.73	1.26	1.37
55.00	17.00	1.74	1.23	1.36
57.00	16.00	1.76	1.20	1.35
59.00	15.00	1.77	1.18	1.34
60.00	12.00	1.78	1.08	1.34

Table a4.27 South Tyne area: Iron Age sites

Rank	Size (ha x 100)	Log rank	Log size	Fitted y data
1.00	30.00	0.00	1.48	1.62
3.00	21.00	0.48	1.32	1.31
4.00	18.00	0.60	1.26	1.23
5.00	16.00	0.70	1.20	1.17
6.00	15.00	0.78	1.18	1.12
7.00	14.00	0.85	1.15	1.08
8.00	12.00	0.90	1.08	1.04
11.00	10.00	1.04	1.00	0.95
16.00	9.00	1.20	0.95	0.85
19.00	8.00	1.28	0.90	0.80
20.00	7.00	1.30	0.85	0.79
22.00	6.00	1.34	0.78	0.76
24.00	5.00	1.38	0.70	0.74
25.00	4.00	1.40	0.60	0.73
27.00	3.00	1.43	0.48	0.71

Table a4.28 South Tyne area: Romano-British sites

APPENDIX FIVE

NEAREST NEIGHBOUR ANALYSIS OF IRON AGE AND ROMANO-BRITISH SETTLEMENT PATTERNS

5.1 INTRODUCTION

The rank-size based spatial analyses of Iron Age settlement patterns in the region (ch 8) produced some extremely interesting results. It appears that most of north east England lacked a well-defined settlement hierarchy at this time. The exception to this general pattern occurs in the East Durham area where the rectilinear settlements show a higher degree of settlement integration.

The distribution of sites of various sizes is here examined further using the method of nearest neighbour analysis (NNA) as devised by Clark and Evans (1954). This technique measures the extent to which the observed distribution of a population in a given area departs from that which might be expected if the distribution were the result of random processes. The result is given as the numerical value R. The parameters of R vary from 0 when the distribution is absolutely clustered, to 2.15 when the population is as dispersed as possible, in this case each point would be equidistant from six other points forming a regular hexagonal lattice. A value of 1 indicates an approximately random distribution. The formulae used in the calculations are given overleaf.

$$R = \bar{r}A \times 2\sqrt{\rho}$$

$$\rho = \frac{n}{A}$$

$$\bar{r}E = \frac{1}{2\sqrt{\rho}}$$

$$\sigma\,\bar{r}E = \frac{0.21636}{\sqrt{n \times \rho}}$$

$\bar{r}A$ = mean observed distance between nearest neighbours

$\bar{r}E$ = mean distance expected if population were distributed randomly

ρ = density of observed distribution expressed as no. of individuals per unit of area

n = no. of observations

A = total area

5.2 IRON AGE SETTLEMENTS

5.2.1 *Northumberland*

The Iron Age settlements of known size in the Northumberland area were mapped according to size. The sites were split into six size ranges so that differences in the distribution of sites of only slightly varying size, might not be overlooked. Visual examination of the map appeared to suggest the occurrence of clusters of similar sized sites. Initially these classes were simply grouped into small (up to 0.39 ha), medium (0.4 to 0.79 ha) and large (0.8 ha & larger) sites and nearest neighbour analysis was carried out to test the null hypothesis that there is no real difference between the observed and expected distributions. The results are given in table a5.1. For large and medium sites the R value was close to 1 indicating a random distribution, small sites had an R value of 0.7677 indicating a degree of clustering.

The significance of the departure of $\bar{r}A$ from $\bar{r}E$ can be tested using the standard normal variate, z, calculated by the formula:

$$z = \frac{\bar{r}A - \bar{r}E}{\sigma\bar{r}E}$$

Z values of 1.96 and 2.58 represent significance levels of 0.05 and 0.01 respectively i.e. the null hypothesis will be rejected if z is greater than 1.96. The z value will be positive if $\bar{r}A$ is greater than $\bar{r}E$ and negative if $\bar{r}A$ is less than $\bar{r}E$.

In this case z values confirm that the medium and large site distributions are not significantly different to those which would be expected to occur as a result of random processes. The distribution of small sites shows significance at both 0.05 and 0.01 levels.

However, when all six size ranges are used, a slightly different picture emerges. The results of these analyses are shown in table a5.2. In this case all of the groups have R values of less than one indicating a rather more clustered distribution. Interestingly, the mean observed distance between nearest neighbours differs little for the three largest size groups. Sites of over 1 ha are on average 8.4 km apart whilst sites of 0.8-0.99 ha are 7.64 km apart. The suggestion of clustering is only sufficient to show significance at the 0.05 level in the case of sites 0.2-0.39 ha in size (the z value for these sites is also significant at the 0.01 level).

The results nevertheless appear more convincing in the light of similar work in other areas, particularly Wales, Cornwall and Wiltshire (cf Hodder 1971; 1977; Newcomb 1970). Tests on "hillfort" sites in these areas have repeatedly found distributions not significantly different from random, the only exception being a tendency towards regularity in the spacing of sites over 4.8 ha in Wiltshire (Hodder

1977). Various explanations for these results have been proposed, including the problems of edge-effect (Hodder 1971) in the boundary zone (the sites used in these analyses have their nearest neighbour within the bounded area) and problems of site survival and differential fieldwork. One obvious explanation is of course that, unlike the rank-size based analyses, this technique does not help to determine whether there may be chronological differences in the sites under consideration. A number of superimposed distributions may serve to give a random effect.

It is encouraging that in the above example, clusters also appear to occur away from the upland zone which seems to have had a greater degree of settlement mobility than other areas and is thus more likely to be affected by overlapping distributions. The results, although inconclusive, show no sign of the regularities in spacing which might be expected were the sites integrated into a hierarchy of any appreciable scale. On the whole, they support the hypothesis that on the localised scale, groups of very similar sized sites occur.

5.2.2 *East Durham*

The nearest neighbour method was also used to investigate further the settlement pattern of the East Durham area. Since the sample of sites in the original study area was relatively small, the area was enlarged to encompass the entire East Durham area including parts of Tyne & Wear and Cleveland (fig a5.1), a total of 1032 sq km. The sites were mapped using the same size ranges as above.

The result of dividing the sites into small, medium and large sites is shown in table a5.3. Each of the groups has an R value of less than 1, indicating a degree of clustering. The clustering is most marked in the medium sized sites and the R value of 0.64 is significant at both 0.05 and 0.01 confidence levels. There are however very few known sites in the large group. Comparing site numbers and distribution we see there are less than half as many large sites and they are over twice as far apart. There are again almost twice as many small sites as medium but here the spacing is not notably different.

Dividing the sites into six size ranges (table a5.4) produces a pattern more closely approximating to random except in the case of sites 0.4-0.59 ha in size which exhibit a marked clustering ($R = 0.54$) significant at the 0.05 and 0.01 levels. The smallest sites also show distinct clustering but this is not sufficient to be significant at the 0.05 level. Using these groups the mean spacing of sites becomes erratic with the largest sites 6.6 km apart and the second largest sites 12 km apart.

The implication is thus that the northern sites show variation on a very localised scale which is blurred when site sizes are grouped into broader categories (since the area under consideration is relatively large, the overall pattern is far more likely to approximate to random). However the broader categories are more appropriate to studying the patterning of the East Durham area (here differential site survival is likely to accentuate clustering) and begin to hint at the kind of regularities in spacing which might be expected in a more integrated system.

5.3 ROMANO-BRITISH SETTLEMENTS

The method was also applied to the Romano-British sites in the northern area using the same size ranges as above. The results are shown in tables a5.5 - a5.6. Using the categories of small, medium and large sites a greater regularity in spacing is immediately apparent. Although the R values for both medium and large sites approximate closely to randomness, they exhibit a distinct difference in spacing with large sites averaging 13.65 km apart and medium sites only 6.98 km apart.

The small sites are closely spaced at an average interval of 1.18 km and the R value of 0.46 is significant at both 0.05 and 0.01 confidence levels.

As with the East Durham Iron Age sites, the narrower size ranges (table a5.5) seem for the most part, inappropriate at this period and produce inconsistent results. There does however appear for the first time to be a genuine distinction between sites in the 0.2-0.39 ha range and those smaller than this. The very small sites are much more numerous than in the preceding period and group closely together. They average 1.31 km apart whereas the 0.2-0.39 ha sites are spaced at an interval of 2.78 km (as compared to 2.54 km during the Iron Age). This pattern accords well with the results of the rank-size based analyses.

Size (ha)	0.8+	0.4-0.79	<0.39
A	3650	3650	3650
n	21	48	97
p	0.0057	0.0131	0.0266
rA	6.5048	3.7750	2.3546
rE	6.5984	4.3601	3.0671
o rE	1.1220	0.3290	0.1628
R	0.9868	0.8658	0.7677
z	-0.0776	1.7786	-4.3768

Table 5.1 NNA of Iron Age Sites: Northumberland (3 size ranges)

Size (ha)	1+	0.8-0.99	0.6-0.79	0.4-0.59	0.2-0.39	<0.19
A	3650	3650	3650	3650	3650	3650
n	11	10	11	37	75	22
p	0.0030	0.0027	0.0030	0.0101	0.0205	0.0060
rA	8.4000	7.6400	7.6000	4.1500	2.5400	5.6500
rE	9.1079	9.5525	9.1079	4.9661	3.4881	6.4403
o rE	1.4355	1.5790	1.4355	0.4268	0.2105	0.7177
R	0.9221	0.7998	0.8344	0.8357	0.7282	0.8773
z	-0.4900	-1.2100	-1.0500	-1.9100	-4.5000	-1.1000

Table 5.2 NNA of Iron Age Sites: Northumberland (6 size ranges)

Size (ha)	0.8+	0.4-0.79	<0.39
A	1032	1032	1032
n	6	14	25
p	0.0058	0.0136	0.0242
rA	5.5300	2.7857	2.6560
rE	6.5574	4.2928	3.2125
o rE	1.3993	0.5997	0.3358
R	0.8433	0.6489	0.8249
z	-0.7300	2.5131	1.3966

Table 5.3 NNA of Iron Age Sites:
East Durham (3 size ranges)

Size (ha)	1+	0.8-0.99	0.6-0.79	0.4-0.59	0.2-0.39	<0.19
A	1032	1032	1032	1032	1032	1032
n	4	2	6	8	19	6
p	0.0039	0.0019	0.0058	0.0077	0.0155	0.0058
rA	6.6000	12.000	6.7333	3.0750	3.1789	4.1000
rE	8.0321	11.3578	6.5574	5.6789	3.6850	6.5574
o rE	2.0993	4.1981	1.3993	1.0495	4.1981	1.3993
R	0.8218	1.0565	1.0268	0.5415	0.8627	0.6252
z	-0.6822	0.1530	0.1257	-2.4800	-0.1205	1.7560

Table 5.4 NNA of Iron Age Sites :
East Durham (6 size ranges)

Size (ha)	0.8+	0.4-0.79	<0.39
A	3650	3650	3650
n	4	17	137
p	0.0011	0.0046	0.0375
rA	13.65	6.9882	1.1883
rE	15.1	7.3264	2.5808
o rE	3.9475	0.9288	0.1152
R	0.9037	0.9538	0.4604
z	-0.37	-0.3641	-12.0817

Table 5.5 NNA of Romano-British Sites:
Northumberland (3 size ranges)

Size (ha)	1+	0.8-0.99	0.6-0.79	0.4-0.59	0.2-0.39	<0.19
A	3650	3650	3650	3650	3650	3650
n	3	1	7	10	48	89
p	0.0008		0.0019	0.0274	0.0131	0.0244
rA	13.6666		16.0571	8.5400	2.7875	1.3100
rE	17.4404		11.4174	9.5525	4.3601	3.2020
o rE	5.2630		2.2557	1.5790	0.3290	0.1774
R	0.7836		1.4064	0.8940	0.6393	0.4090
z	-0.7170		2.0569	-0.6412	-4.7805	-10.6651

Table 5.6 NNA of Romano-British Sites:
Northumberland (6 size ranges)

APPENDIX SIX

CIRCULAR STRUCTURES ON CURVILINEAR AND RECTILINEAR SITES

This study has concentrated on the analysis of spatial relationships in the built environment at the macro and meso levels i.e. looking at individual settlements (ch 9) and patterns within the landscape (ch 8). One other aspect of the way in which space acts in the structuring and reproduction of social relationships is at the level of the individual building. This has been the subject of various studies e.g. Hillier and Hanson (1984); Fletcher (1977); Foster (1989); Reid (1989). It is not intended to undertake any detailed analysis of this sort here. It is however worth drawing attention to such work as a potentially useful tool for future research in this region. The purpose of this section is merely to take a brief look at differences in buildings on Iron Age and Romano-British sites in general and to consider some possible social implications of these differences which have not hitherto received attention.

The various building forms apparent on different types of site are discussed in chapters five to seven. To summarise, ring-groove, ring-ditch and possible structures of individual post construction are known from curvilinear settlements of Iron Age date and ring-groove structures and buildings of individual post construction are recorded on rectilinear sites of this period. Stone-founded buildings predominate on all sites of the Romano-British period, datable examples belonging to the 1st and 2nd centuries AD.

Building numbers have often been taken as an indication of settlement population and attention drawn to the large numbers of extant stone buildings as compared to timber examples. The question of population was addressed in a paper by Jobey (1974b) where he noted the numerous stone buildings and the possibility of expansion on many Romano-British sites although he later claimed that 'even such raw comparisons cannot be applied universally throughout the area.' (Jobey 1982b p12). Be that as is may, the usual approach has either been to dismiss the structures as non contemporary or to take them as an indication of population increase due to the *pax Romana*. It has been argued in chapter two that quantitative comparison of population statistics is meaningless at a time when even qualitative analysis of social formations is lacking.

Locational analysis (ch 9) suggests that the numerous extant Romano-British settlements and the structures thereon *were* in contemporary use but a brief examination of potential capacity warns against the straightforward equation of more huts with more people. The comparisons made here between Iron Age and Romano-British buildings are qualitative rather than quantitative. That is to say no attempt has been made to compare absolute numbers of structures. Such an exercise would be pointless in view of the lack of knowledge of buildings on Iron Age sites of curvilinear form. It was suggested in chapter nine that most of the recorded buildings occur on sites which are unusual by virtue of the large numbers of buildings thereon (type C3a,b). The lack of spatial order on these sites is taken as symptomatic of a poorly developed social organisation and many of the sites suffered abandonment, presumably within a fairly short time. The more numerous type C4-C6 sites are defined on enclosure morphology alone with a very limited number of known buildings.

Figs a6.1-a6.2 show the diameters of timber buildings recorded on sites of curvilinear and rectilinear form. Those on curvilinear sites show a peak at 7m and those on rectilinear sites peak at both 7m and 11m. The stone buildings (figs a6.3-a6.4) are by comparison much smaller with those on curvilinear sites peaking at 5m and those on rectilinear sites at 6m. The plots are superimposed in figs a6.5-a6.6. The difference between an average diameter of 5m for stone buildings and 7m for timber buildings on curvilinear sites does not appear great at first sight. However this actually represents a doubling of the internal area. The floor area of a building of 7m diameter is 38.48 sq m as opposed to 19.63 sq m for a diameter of 5m. The difference between timber and stone buildings on rectilinear sites is over three times as great (95.03 sq m compared to 28.27 sq m). As well as the larger floor area at ground level, D.M. Reynolds (1982), P Reynolds (1982) and Kendrick (1982) have drawn attention to the potential for timber structures of ring beam construction to support an upper floor. Peter Reynolds stresses that such a feature would considerably strengthen the structure.

The buildings must also be considered in terms of the logistics of construction. The reconstruction of a building of 12.5m diameter excavated at Pimperne Down, Dorset (P. Reynolds 1982) required over two hundred trees. Shortage of timber has often been proposed as a reason for the move to building in stone yet palynological evidence (ch 4) gives no reason to suggest that this may have been the case. There are however other factors which may have been significant. The most obvious of these is the labour involved in building construction. The time, skill and physical strength involved in preparing and manipulating the timbers is far greater than that required to collect stone. Reynolds (*ibid* p188) has indeed suggested that specialists were involved in the construction of timber buildings. The smaller roof span of the stone buildings would also require correspondingly less labour and materials.

The basic similarity of circular form should not therefore mask the fact that these are different types of building. It is currently fashionable to seek out elements of structural continuity in prehistoric and Romano-British buildings (cf Bailey 1990; Hill forthcoming a; Hingley 1990b) but this must not blind the observer to social change. The persistence of the circular form may indeed relate to its symbolic relationship with the Iron Age conceptualisation of the cosmos (cf Hingley 1990b) with features such as the predominance of east facing doorways conforming to spatial and conceptual "rules" (cf Hill forthcoming a). However social change may have occurred without any significant alteration to this basic conceptual framework.

Although the single large roundhouse appears to have been the normal dwelling of the "family" or "household" throughout the greater part of the Iron Age (Barrett 1989b) this pattern was common to a number of different social formations. The roundhouse on rectilinear sites lay within its own compound, signifying the independence of the household and was often rebuilt successively on the same spot, legitimising territorial/occupational rights (Bailey 1990) and emphasising the direct relationship between the individual household and its means of production. Yet this same structural form was also used by the household as part of a community on curvilinear sites.

Hingley (1990b p141) has suggested that the move, evident at least in southern England, from the situation during the Bronze Age where each family occupied a number of buildings, to the single large roundhouse of the Iron Age may represent a change in the status of women. He takes the lack of segregation of the sexes and the preparation of food in the main building to represent a greater degree of integration between the sexes and a greater level of equality. This may well be the case but this is not to say that the move away from a single building per family necessarily reflects a downgrading of the status of women in Roman times. The evidence of *in situ* querns within the main building on Romano-British sites e.g. Bridge House (Charlton and Day 1974) indicates that food preparation at least was not relegated to peripheral or minor buildings. Other plausible reasons for the observed differences include the possibility that the stone buildings were intended to house a different social unit to the earlier timber huts and/or the size of the kin group or other labour force who could be mobilised to assist in the construction had decreased.

Both factors seem inherently likely in view of the evidence discussed in chapter nine for the decline in the importance of the extended family by Romano-British times. This is related in chapter ten to a change in the mode of production. In the upland zone the extended family survived as a residence unit but individual households occupied separate compounds. The distinction between public and private space did not now occur only within the roundhouse (cf Hingley 1990b) but also within its surrounding "territory".

Similar developments appear to have taken place on the rectilinear sites. As the sites became integrated into an ever more complex and hierarchical settlement pattern (ch 8), so social distinctions within individual households appear to have become more marked. From the single large building within a compound, there develop a range of structures hinting at status differentiation. In cases where many or all of the buildings may have been dwellings, one structure, often larger than the others and centrally placed, stands out from the rest e.g. Bridge House (fig 7.7), Tower Knowe (fig 7.9) and Rattenraw (fig 7.11). In other cases e.g. Woolaw (fig 7.10) a pair of identical compounds would appear to comprise the residence of two interdependent families of equal standing who desired to emphasise their separateness and status.

In short, the change from timber to stone buildings and the difference in building dimensions can not be reduced to any simplistic or monocausal explanation. It forms part of a gradual process of social change which is reflected at all levels of spatial patterning. Not until we have an in-depth understanding of these changes in social terms can we begin to consider the minutiae of population statistics. Approaches to the study of buildings have developed significantly in the last few years and papers such as those cited here, point the way to meaningful, contextual analysis. The spatial analysis of buildings is an area of great, but as yet unrealised, potential in this area and as such should form an important theme for future research.

Fig a6.1 Size of timber huts on curvilinear sites

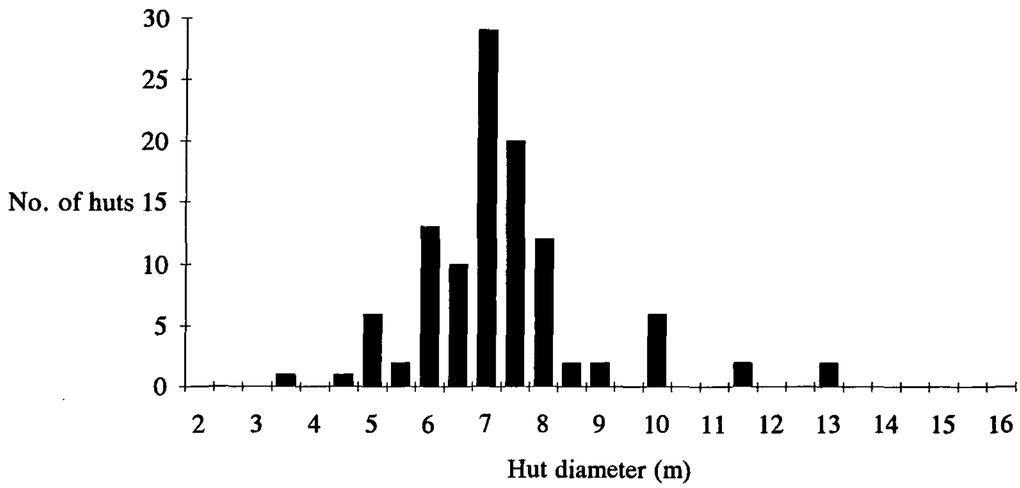


Fig a6.2 Size of timber huts on rectilinear sites

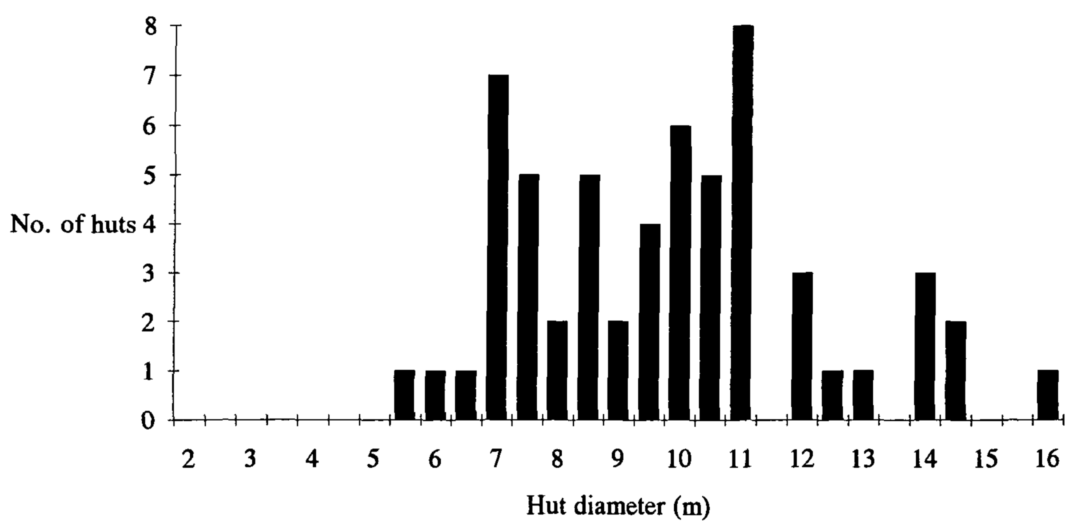


Fig a6.3 Size of stone huts on curvilinear sites

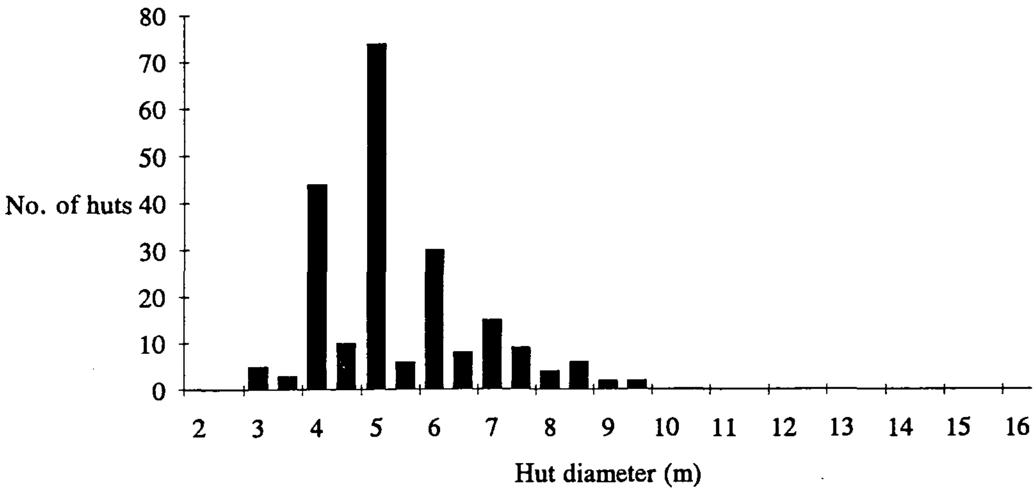


Fig a6.4 Size of stone huts on rectilinear sites

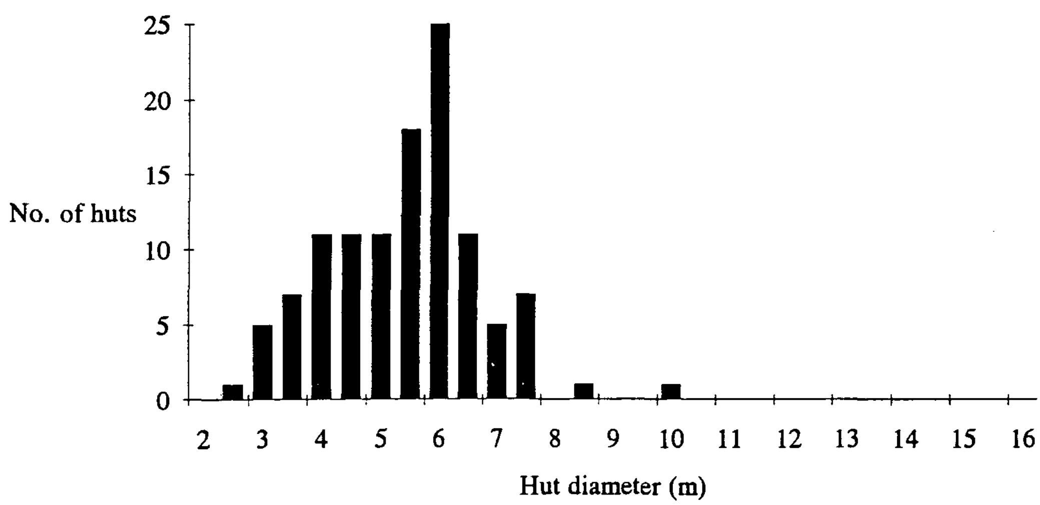


Fig a6.5 Comparative sizes of timber & stone huts on curvilinear sites

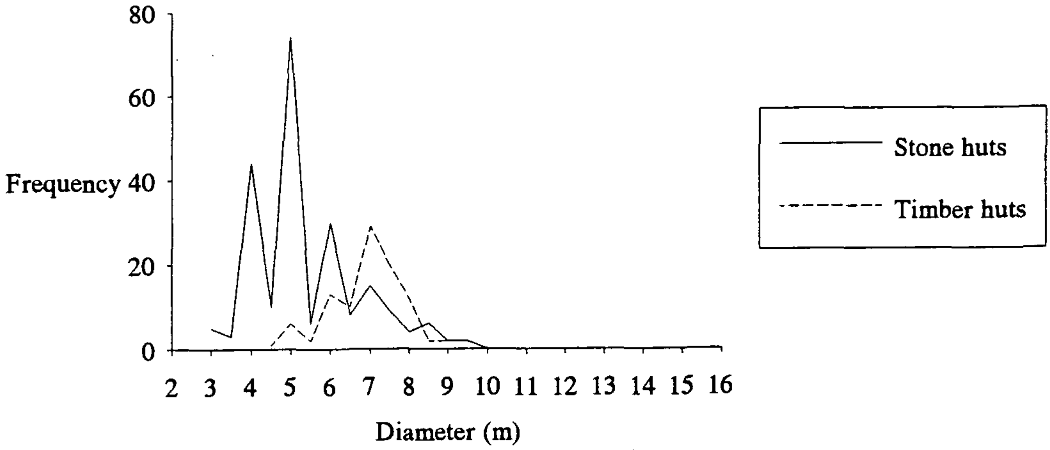
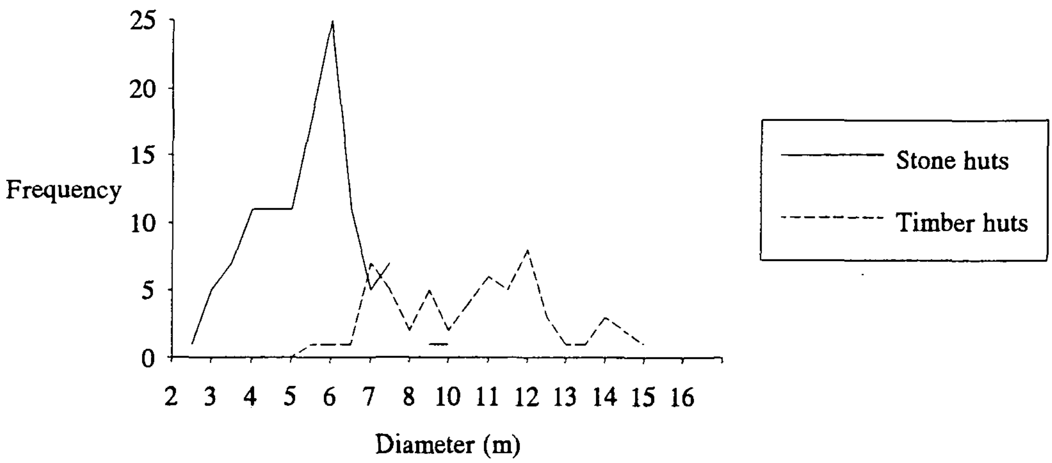


Fig a6.6 Comparative sizes of timber & stone huts on rectilinear sites



APPENDIX SEVEN

CALIBRATION OF RADIOCARBON DATES

7.1 INTRODUCTION

All C14 dates quoted in the text are given in radiocarbon years BP (where the present is defined as AD 1950) with the one sigma error margin. Despite frequent references to the paucity of dating evidence for this area, there has previously been no comprehensive attempt to calibrate and compare the available C14 dates for the region. Most authors have tended to use uncalibrated dates. There have been occasional attempts to calibrate the central date using Clark's (1975) curve (cf Jobey 1983a). The curves recommended for use by the 12th Radiocarbon Conference held at Trondheim in 1985 (Stuiver & Kra 1986) have been used only by Jobey & Jobey (1987).

This study follows the Trondheim recommendations and uses the high precision curves by Stuiver & Pearson (1986), Pearson & Stuiver (1986) and Pearson *et al* (1986) published in the Radiocarbon calibration issue (Stuiver & Kra 1986). Calibration was carried out using a computer program developed by Van der Plicht, Mook & Hasper (Aitchison *et al* 1989; Van der Plicht *et al* forthcoming). The program was first demonstrated at the 2nd International Symposium '14C and Archaeology' held in Groningen in September 1987 (Van der Plicht & Mook 1987). The version used here is that distributed after final revisions in June 1991 (Van der Plicht *et al* forthcoming). The program transforms C14 dates BP into a calendar year probability distribution (cal AD/BC).

7.2 DATES FROM EXCAVATED SITES

The probability distribution graphs for C14 dates from excavated sites in the region are shown in fig a7.1 - a7.18. Each date is represented by two figures. The upper figure shows the probability distribution graph of the C14 age on the left with the probability distribution of the calibrated age below it. The relevant portion of the calibration curve is also shown with spline functions being used to fit the curve to the data. The upper right corner of the figure indicates which curve has been used.

The lower figure is a graph of the calibrated probability distribution showing the location of the 68.3% and 95.4% confidence levels (one and two sigma). The calibrated age ranges corresponding to both the one and two sigma confidence levels are shown in table a7.1. Similar tables give the calibrated age ranges for dates from pollen core sites in the region (table a7.2) and dates from other excavated sites mentioned in the text (table a7.3). Considerations of space however, prevent inclusion of the graphs for these dates.

The majority of dates quoted here correspond to more than one range of calendar dates thus the distribution of the calibrated age does not approximate to normal. It was therefore considered invalid to use the mean of the calibrated ages for comparative purposes. Aitchison *et al* (1989) warn against this practice for the same reason. 'The general recommendation for presentation of calibrated dates from the 14C laboratories to the archaeological users is to provide a combination of graphs and ranges, The use of quoting a calibrated age as a mean and SD is only recommended if the graph on the absolute time scale shows an approximately Gaussian distribution.' (*ibid* p861).

In order to allow visual comparison of the dates for sites in this area, the calibrated age ranges for each of the sites are plotted in figs a7.19 - 17.21. The dates are shown at the two sigma confidence level. Aitchison *et al* (*ibid*), in comparing current calibration methods, found that agreement between the various methods was far better at this level which they refer to as 'scientifically more acceptable' (*ibid* p856) than the one sigma confidence level. The significance of the individual results is discussed in chapters five to seven which consider each of the site types in detail. Suffice it to say that calibration of the dates produced no real surprises and the grouping of dates for various site types accords well with the "phases" defined in the stratigraphic matrix of site relationships (ch 8).

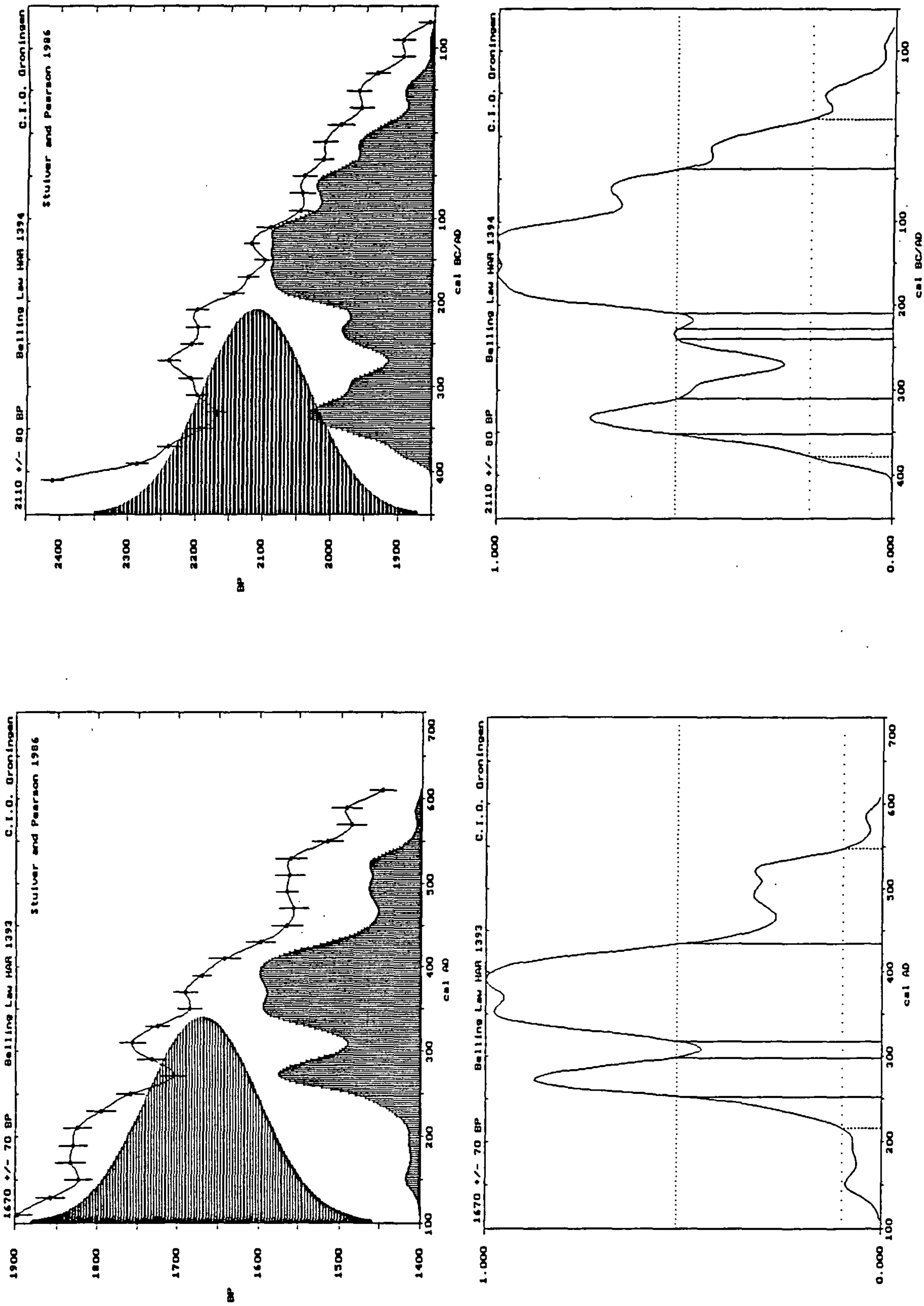


Fig a7.1 C14 calibration: Belling Law

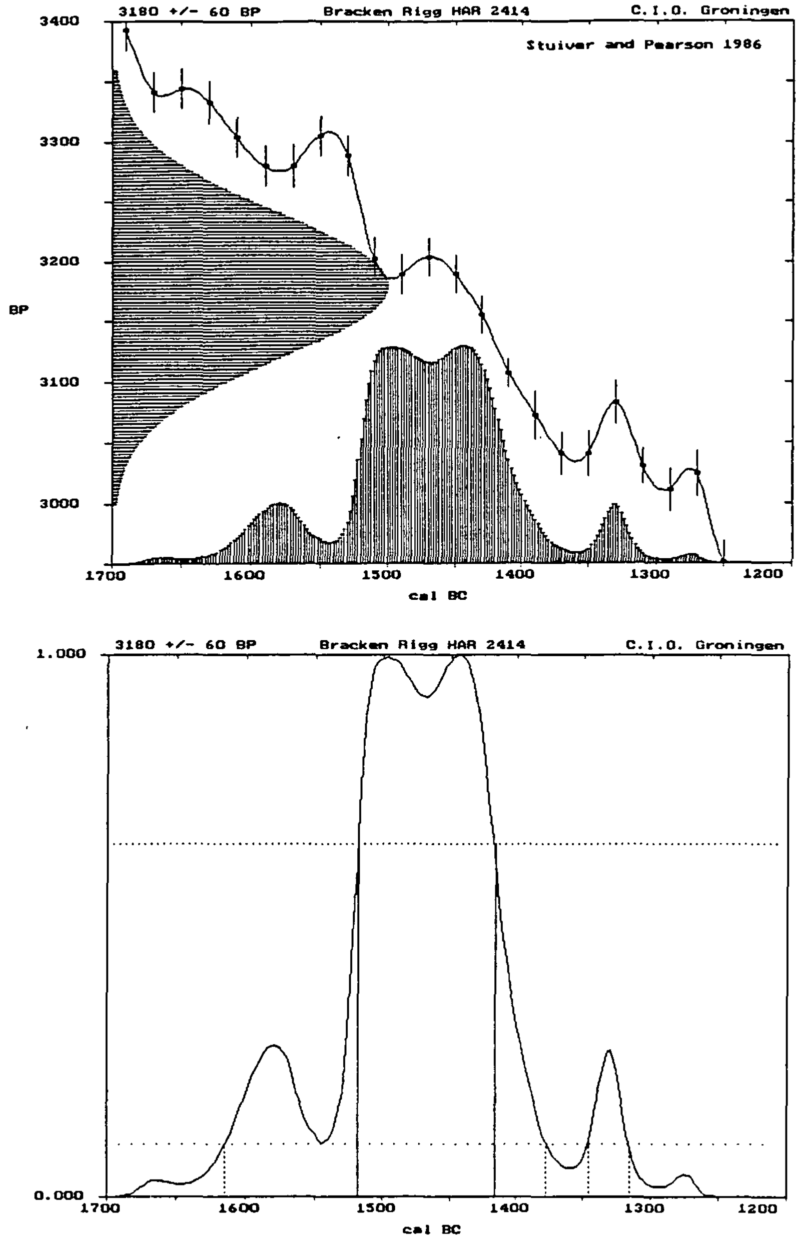


Fig a7.2 C14 calibration: Bracken Rigg

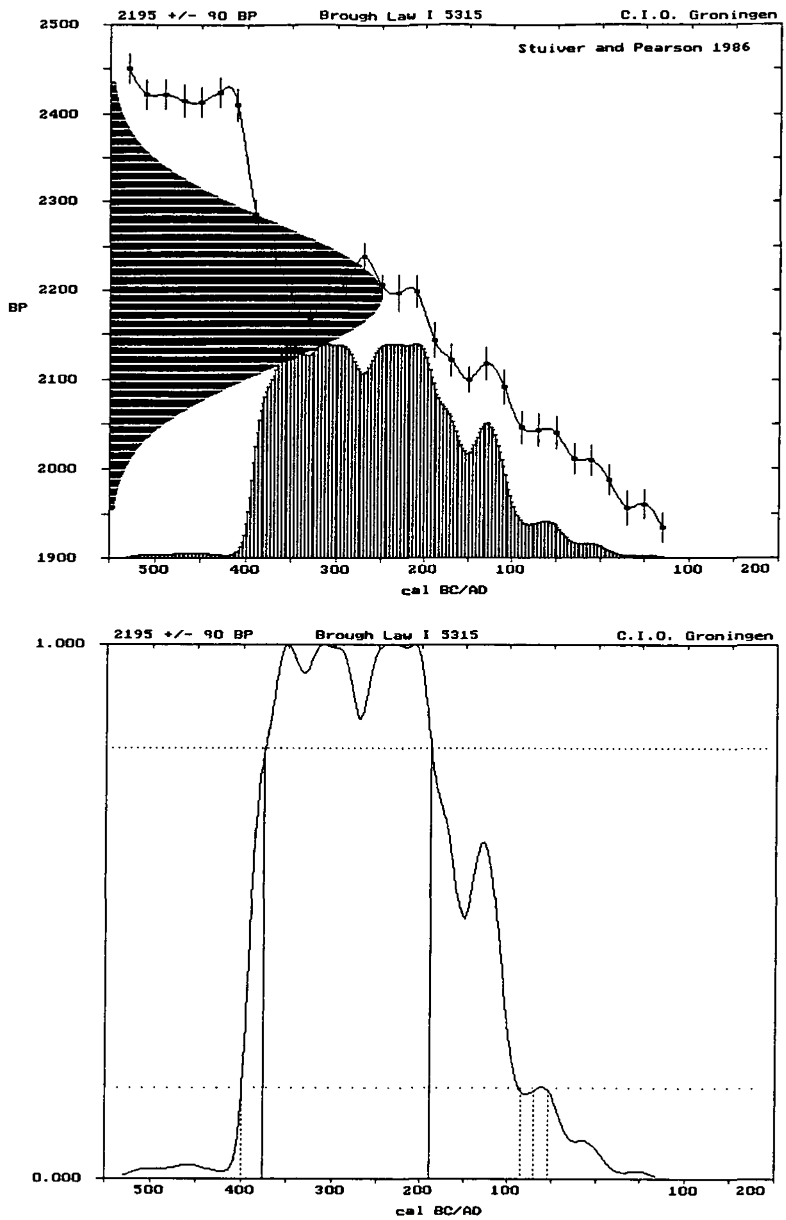


Fig a7.3 C14 calibration: Brough Law

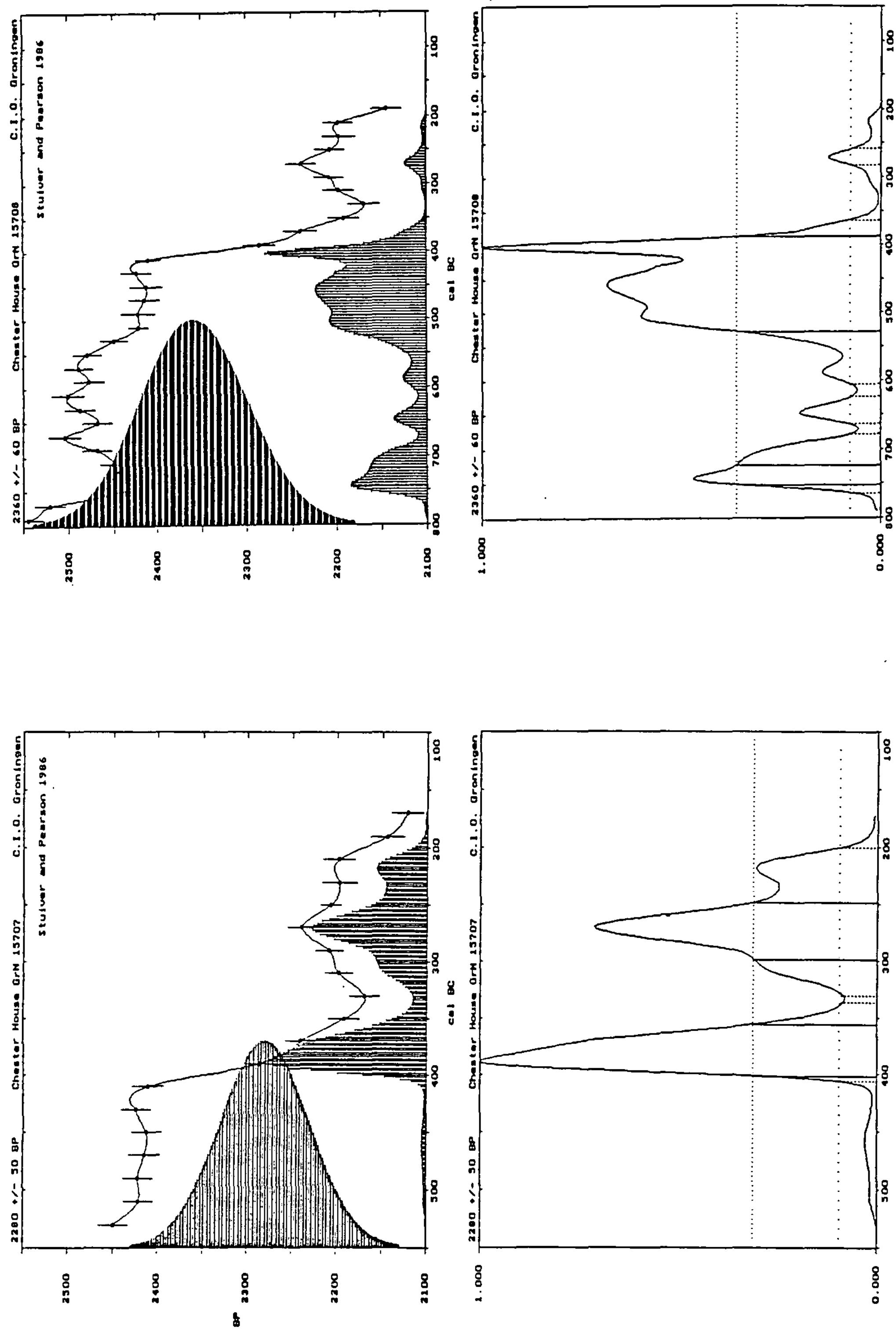


Fig a7.4 C14 calibration: Chester House

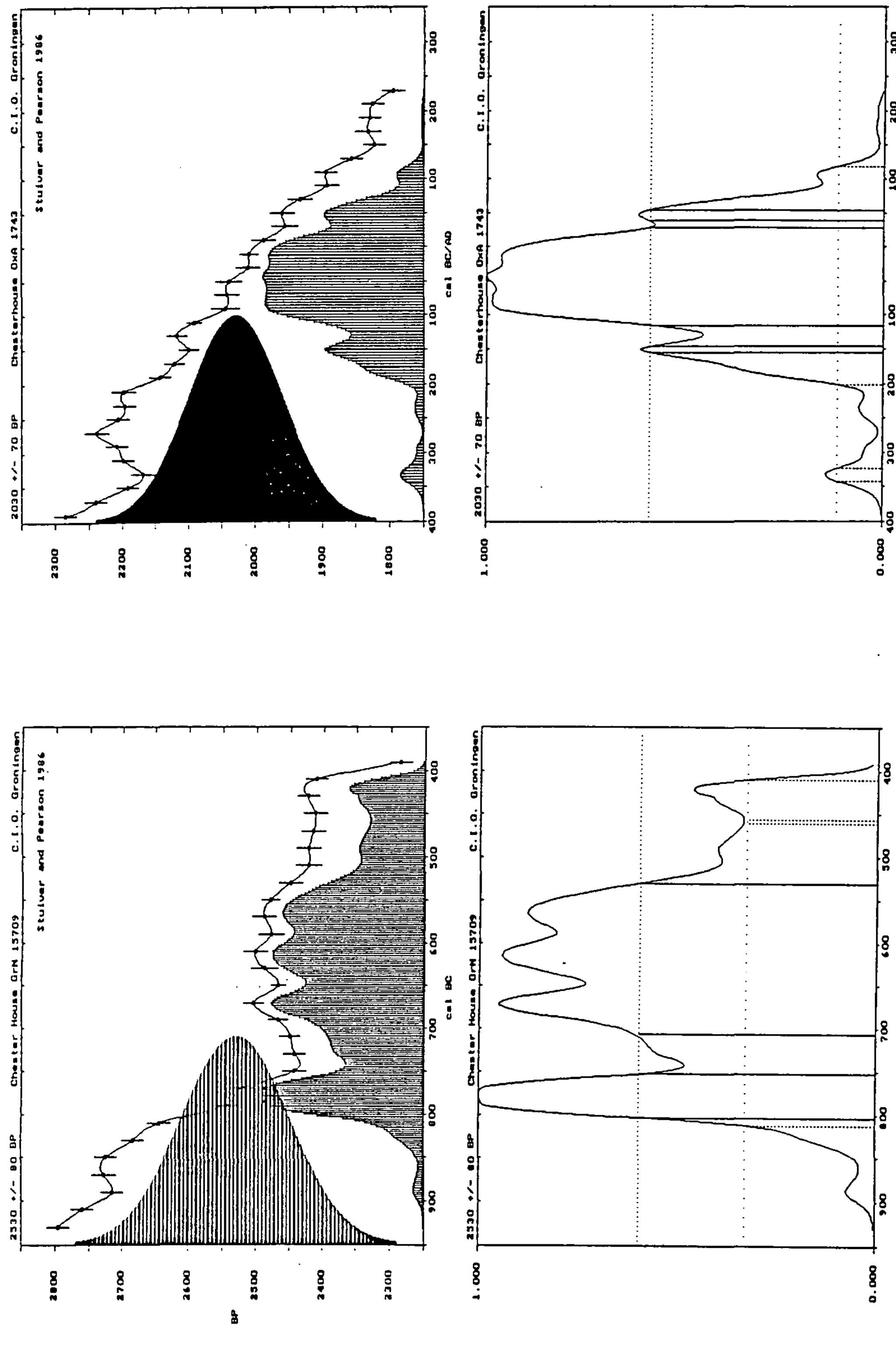


Fig a7.4 contd

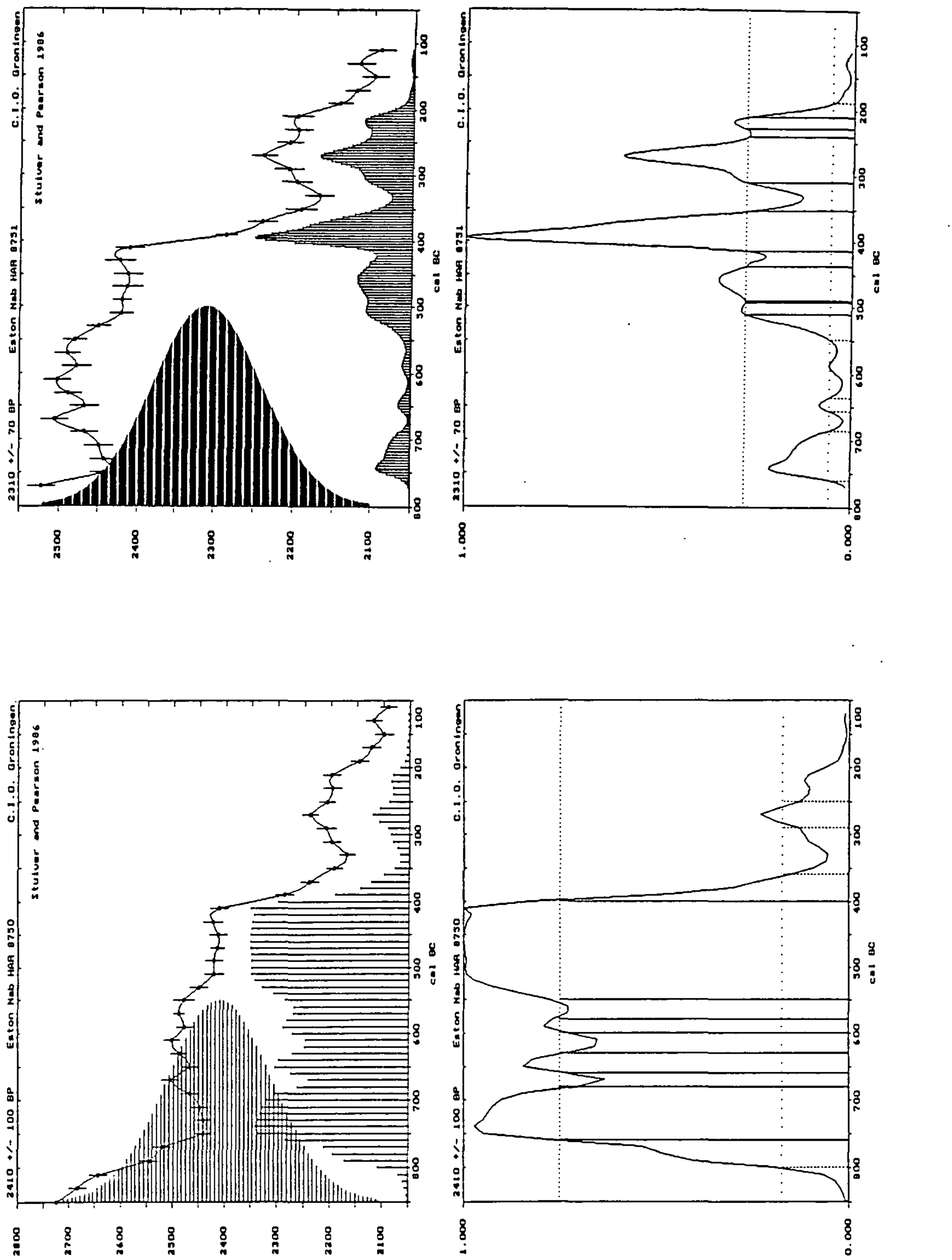


Fig a7.5 C14 calibration: Eston Nab

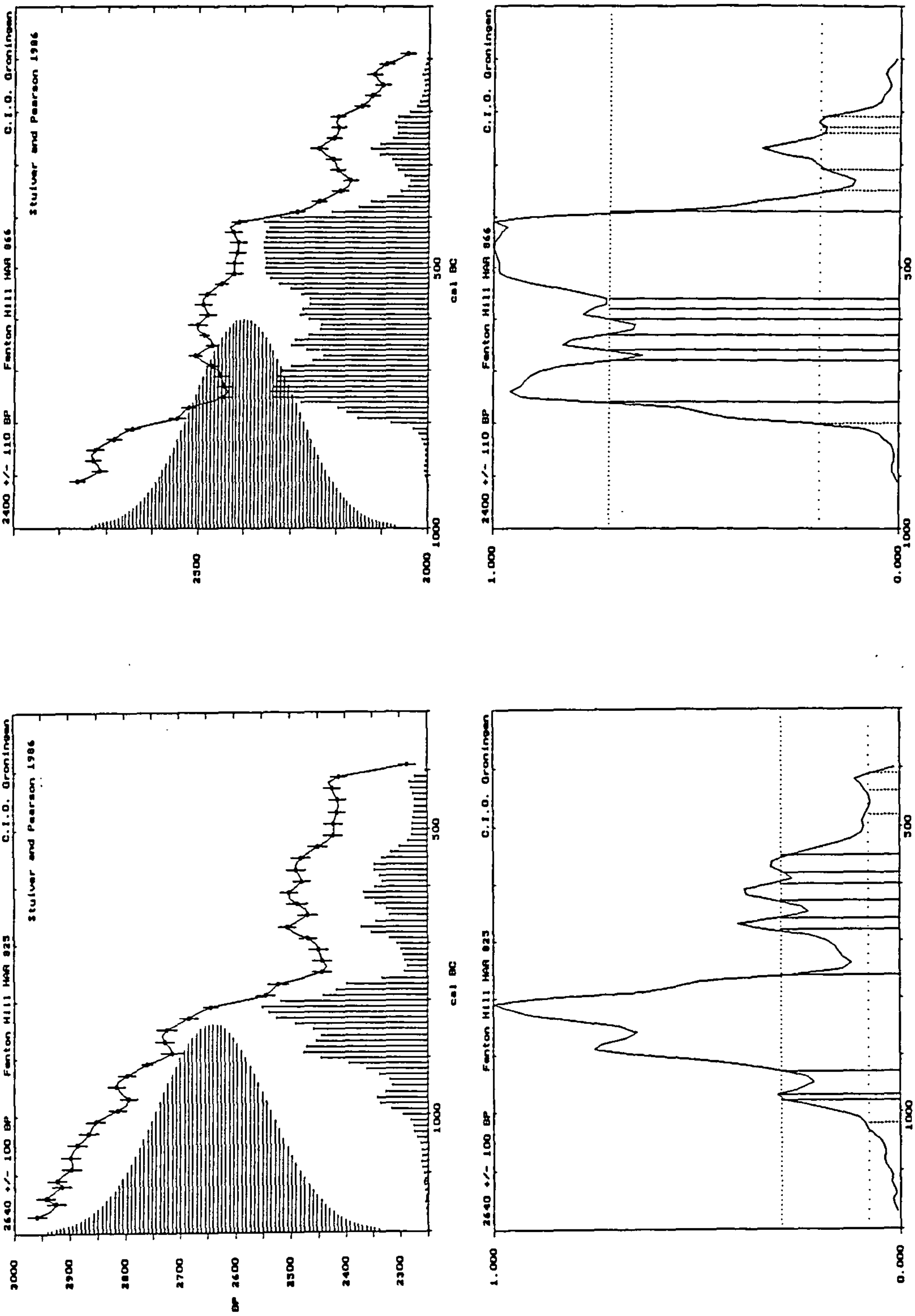


Fig a7.6 C14 calibration: Fenton Hill

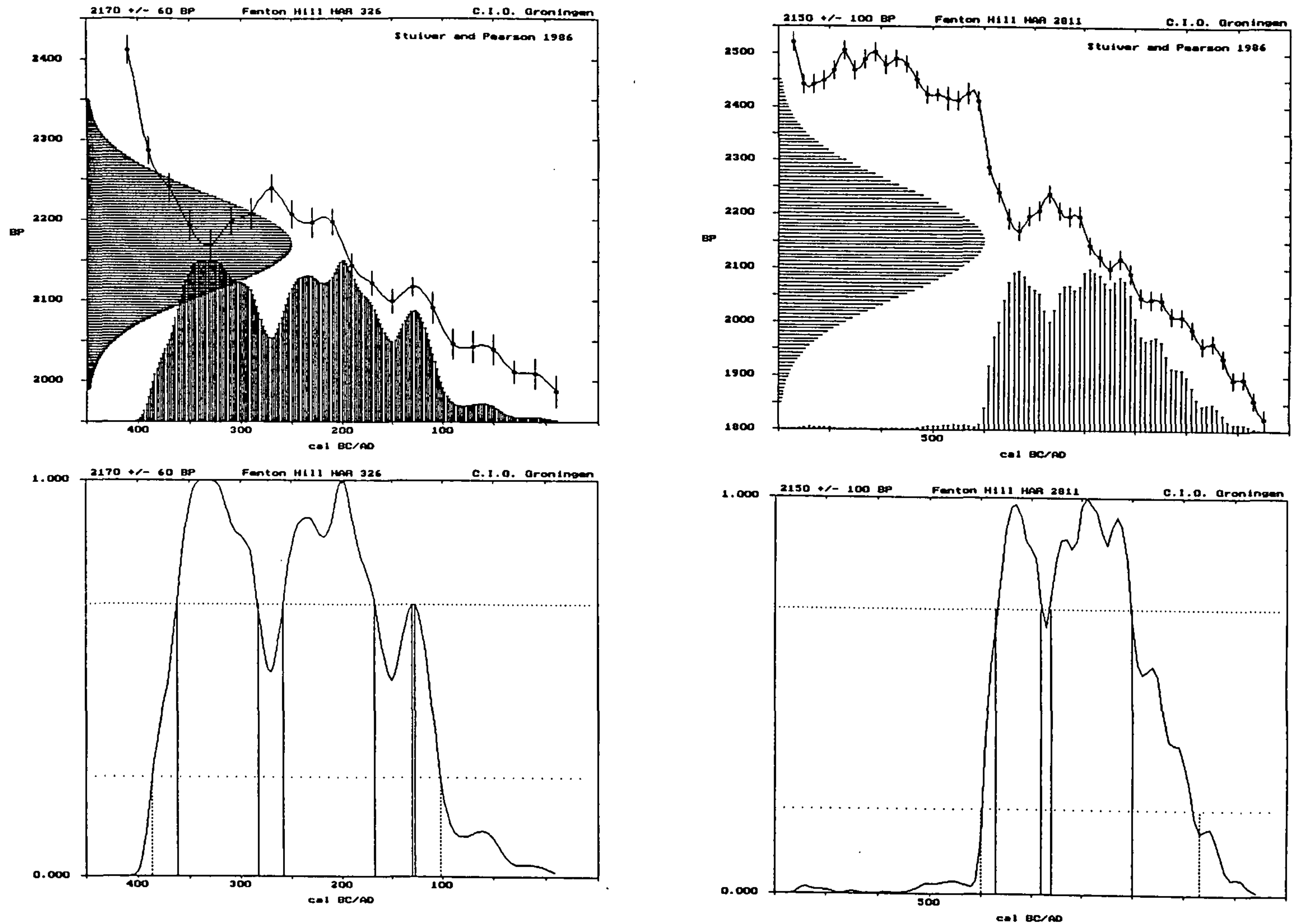


Fig a7.6 contd

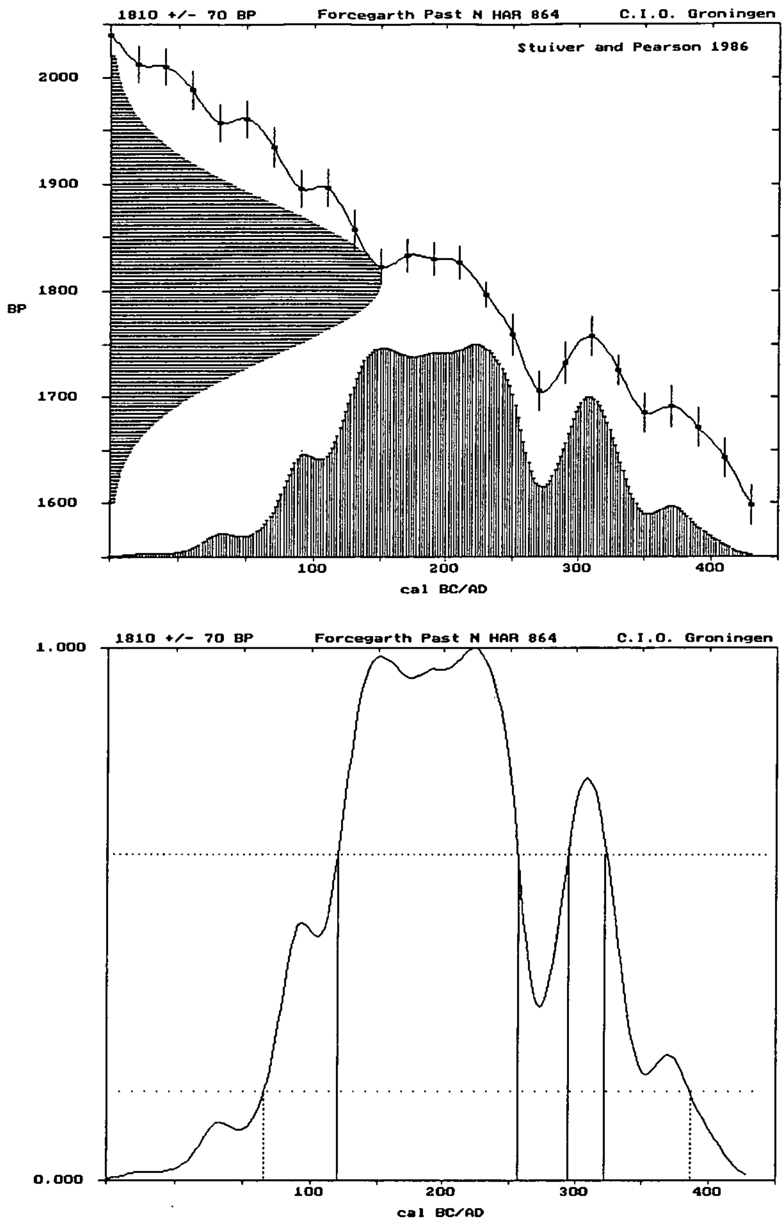


Fig a7.7 C14 calibration: Forcegarth Pasture North

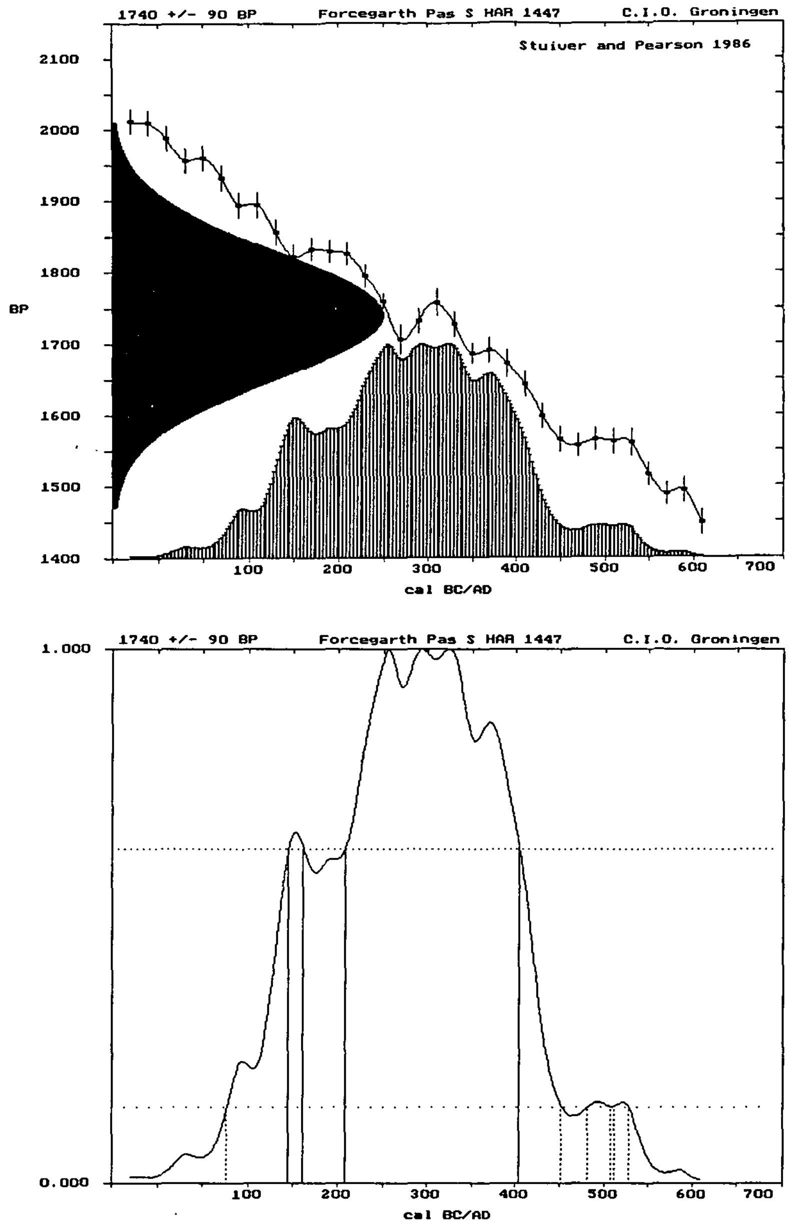


Fig a7.8 C14 calibration: Forcegarth Pasture South

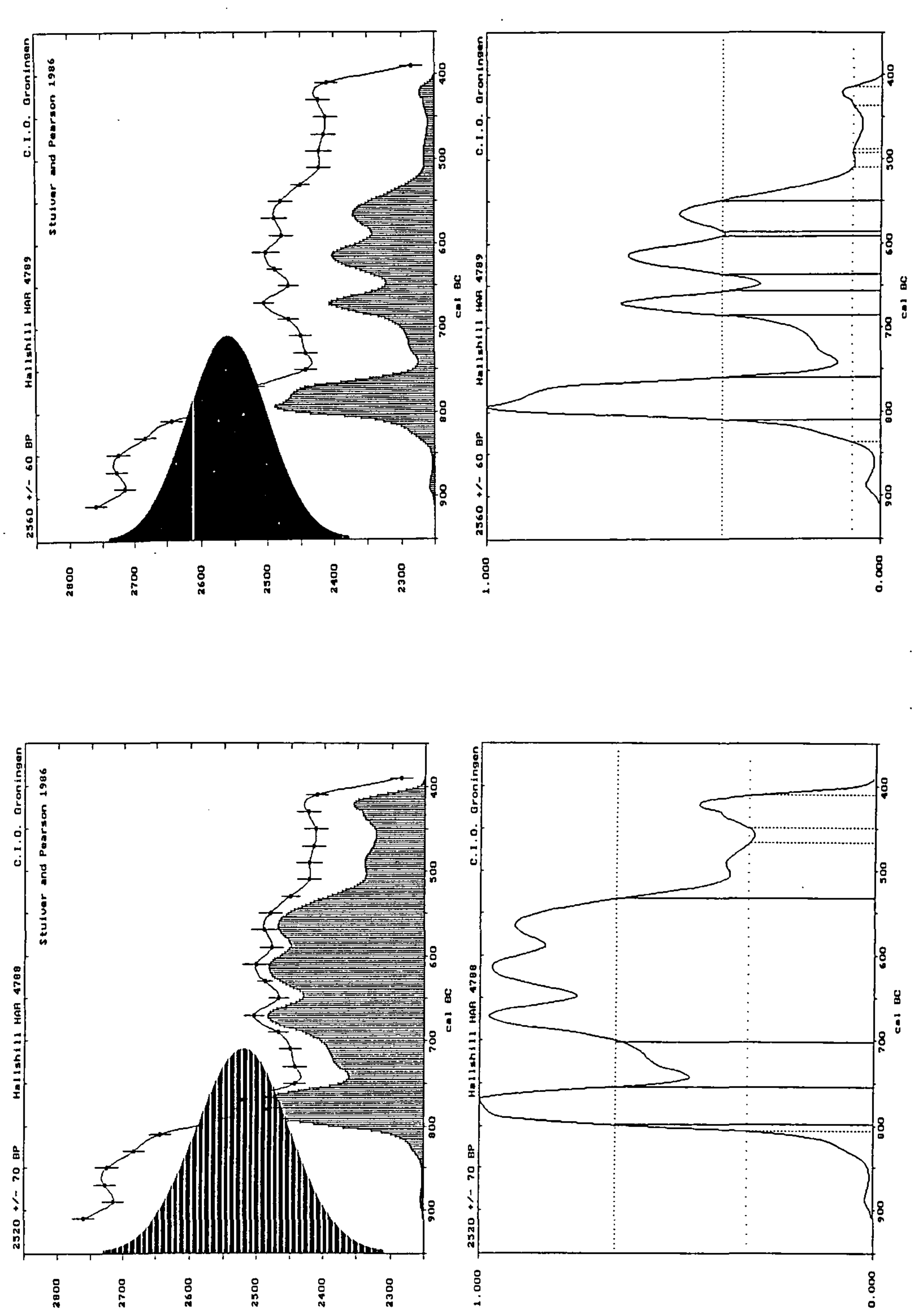


Fig a7.9 C14 calibration: Hallshill

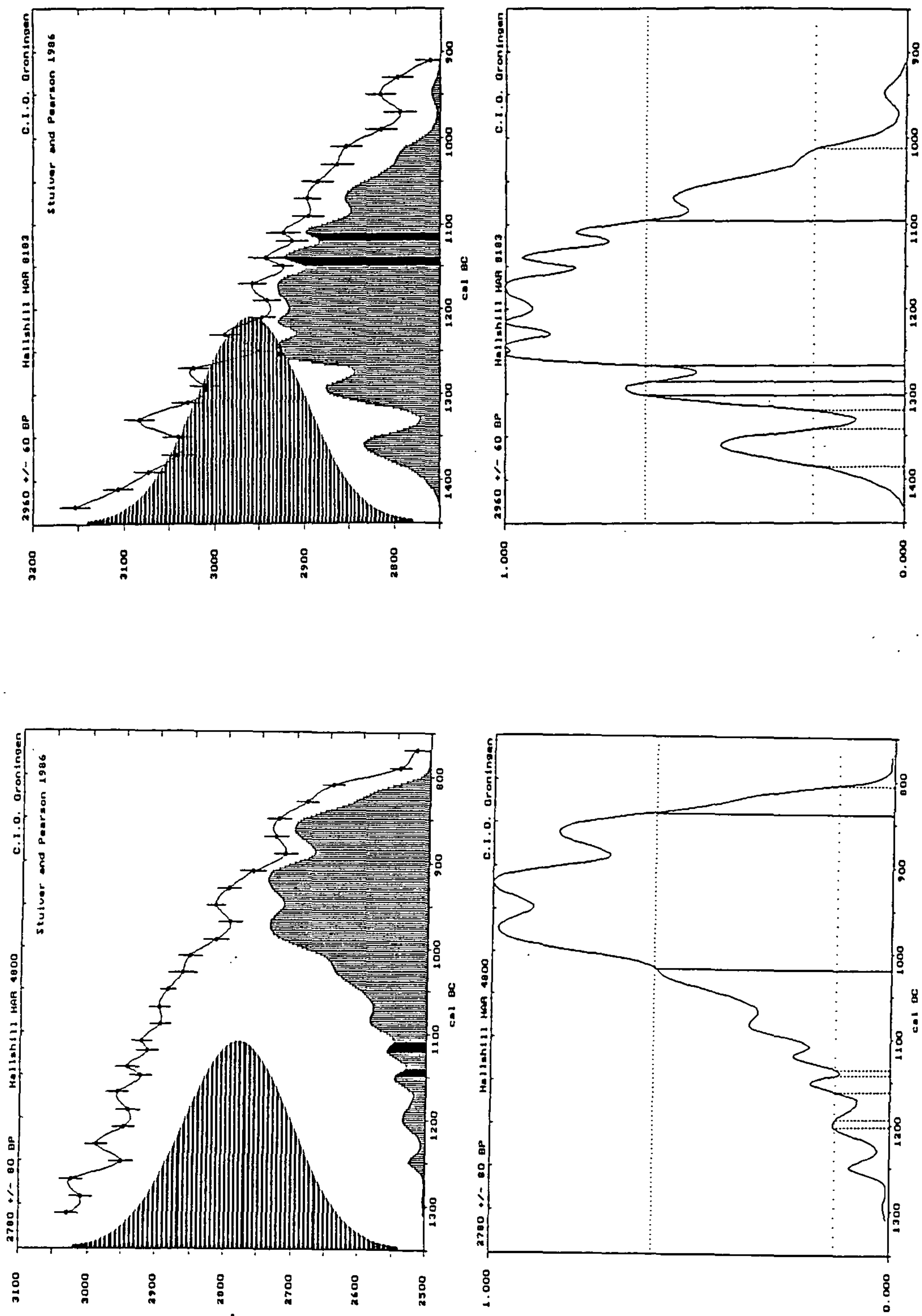


Fig a7.9 contd

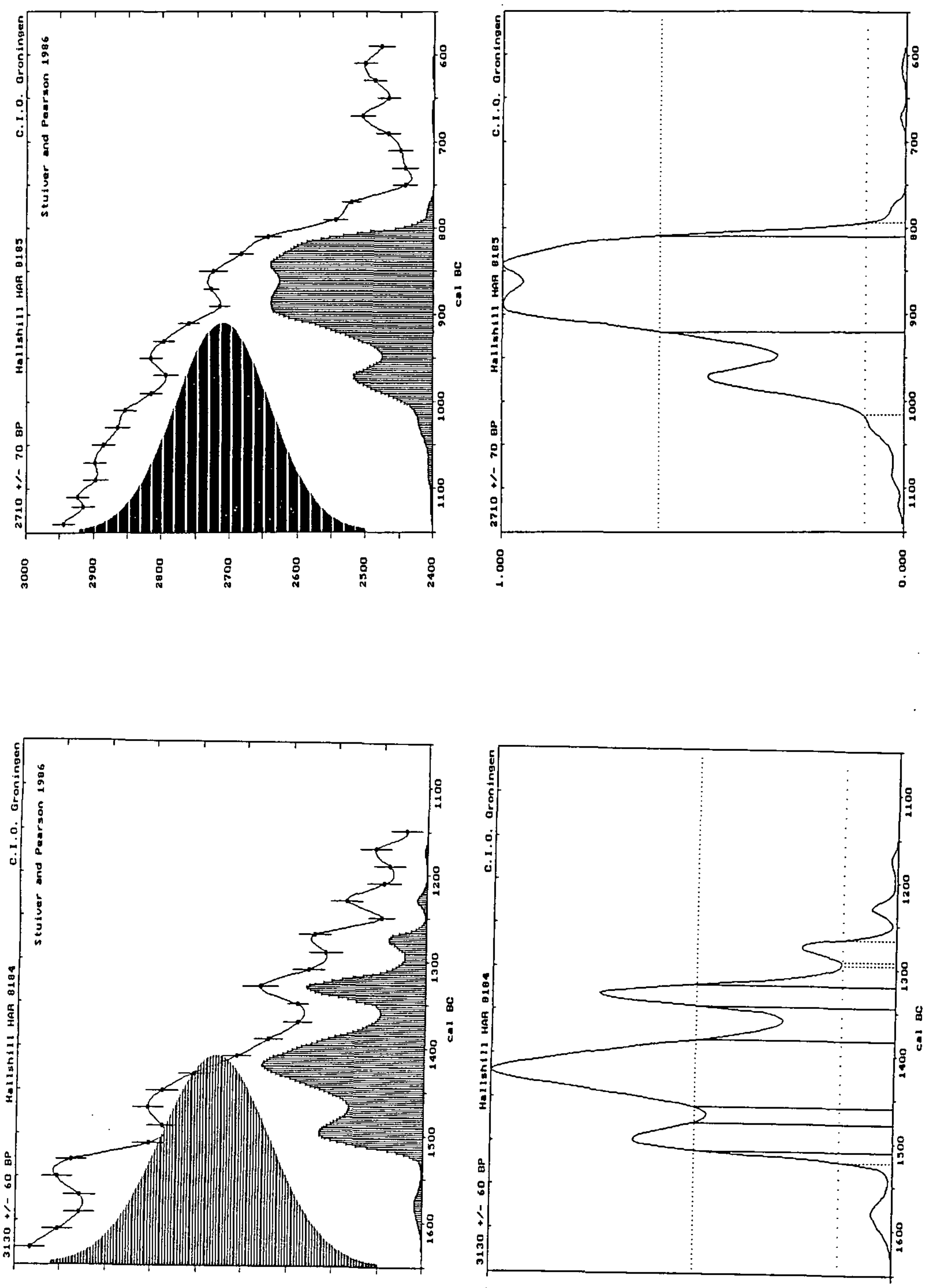


Fig a7.9 contd

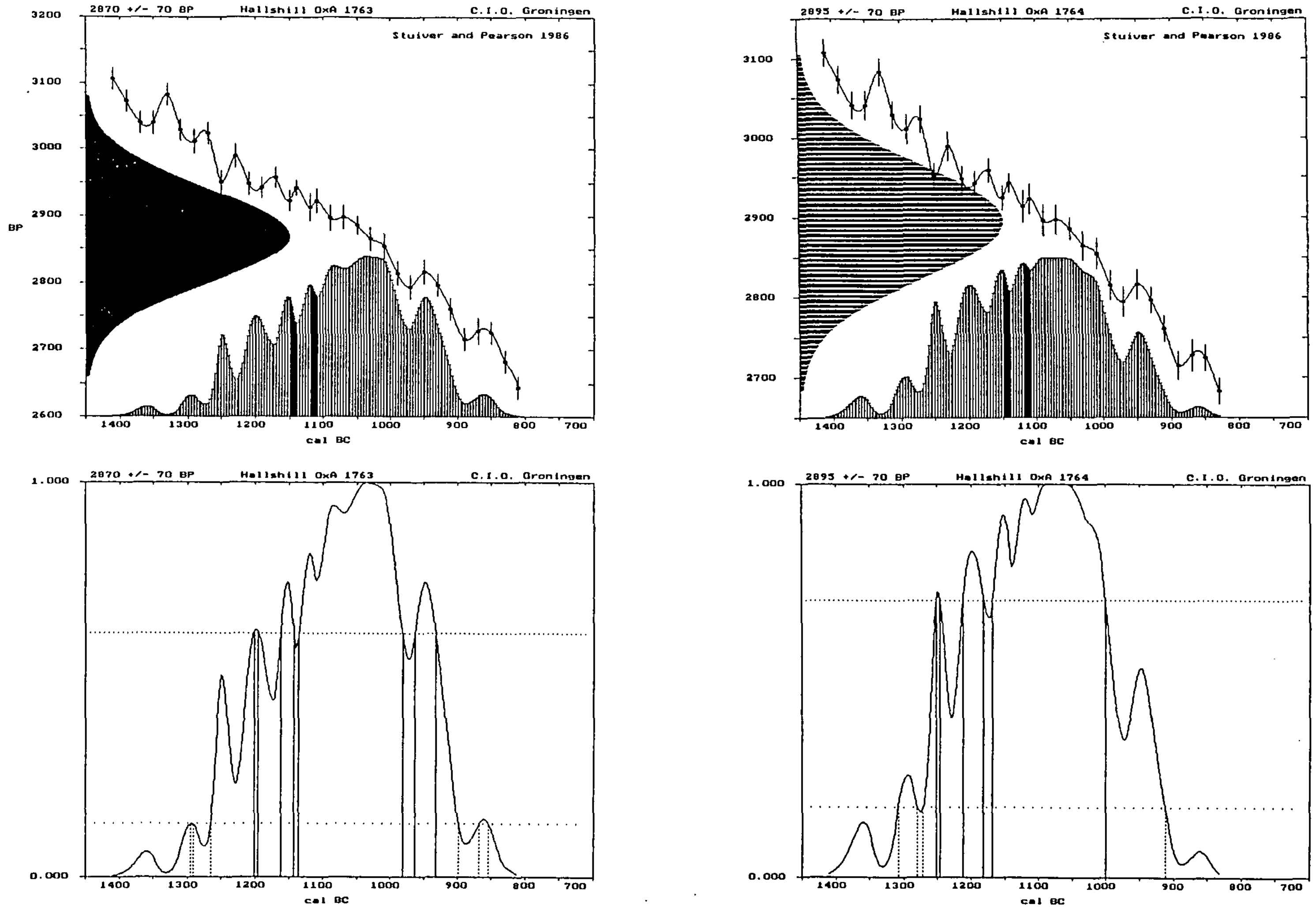


Fig a7.9 contd

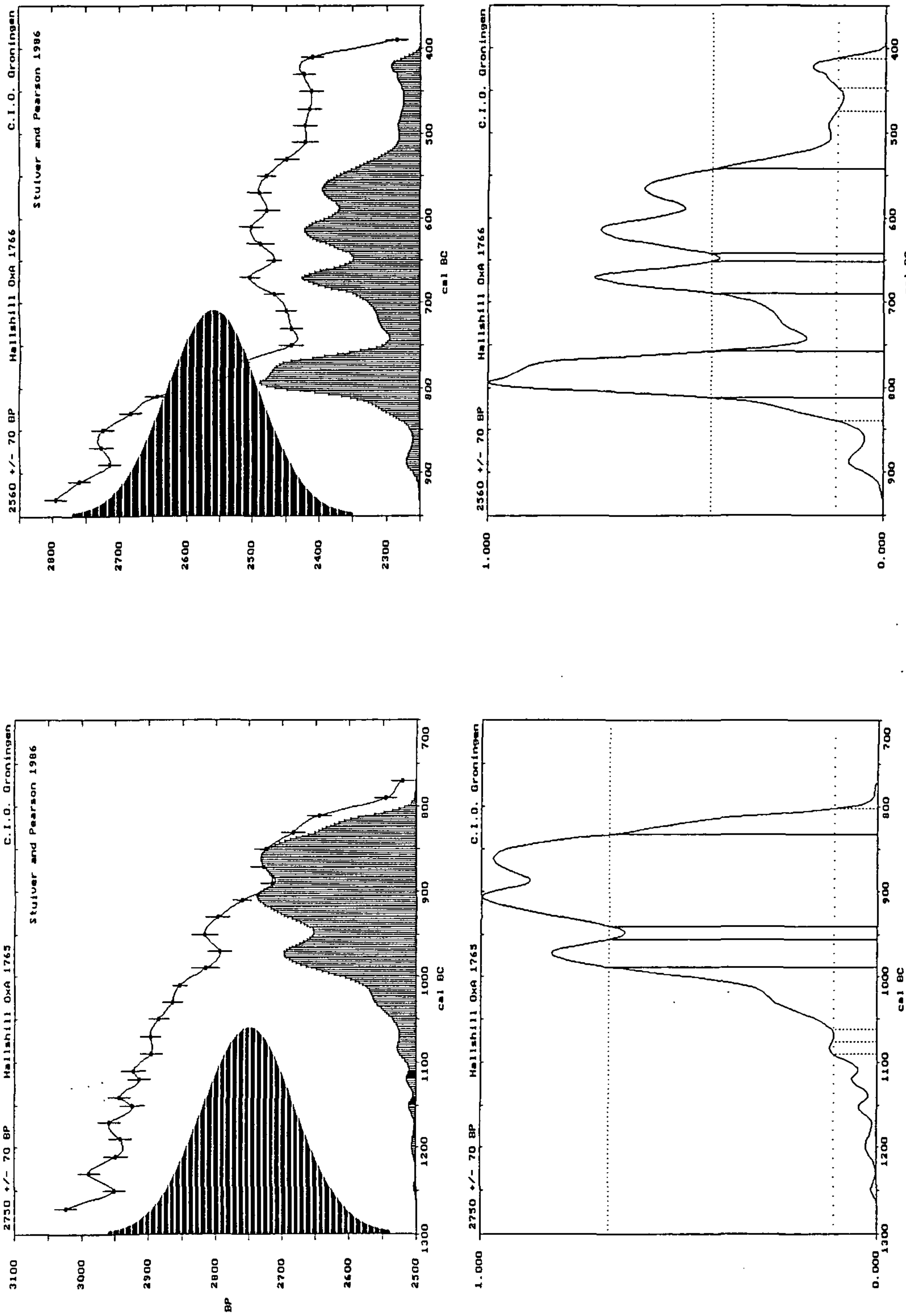


Fig a7.9 contd

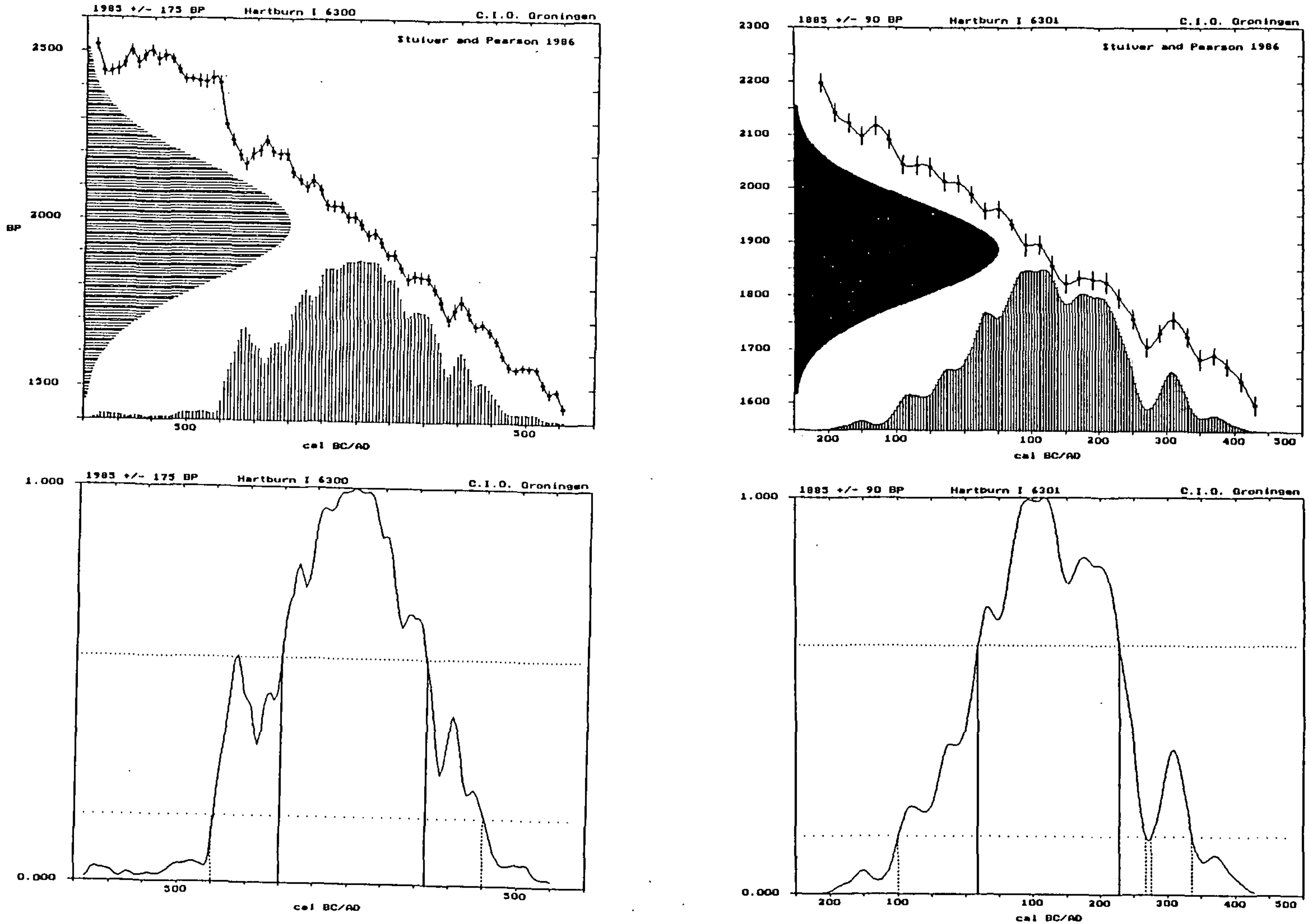


Fig a7.10 C14 calibration: Hartburn

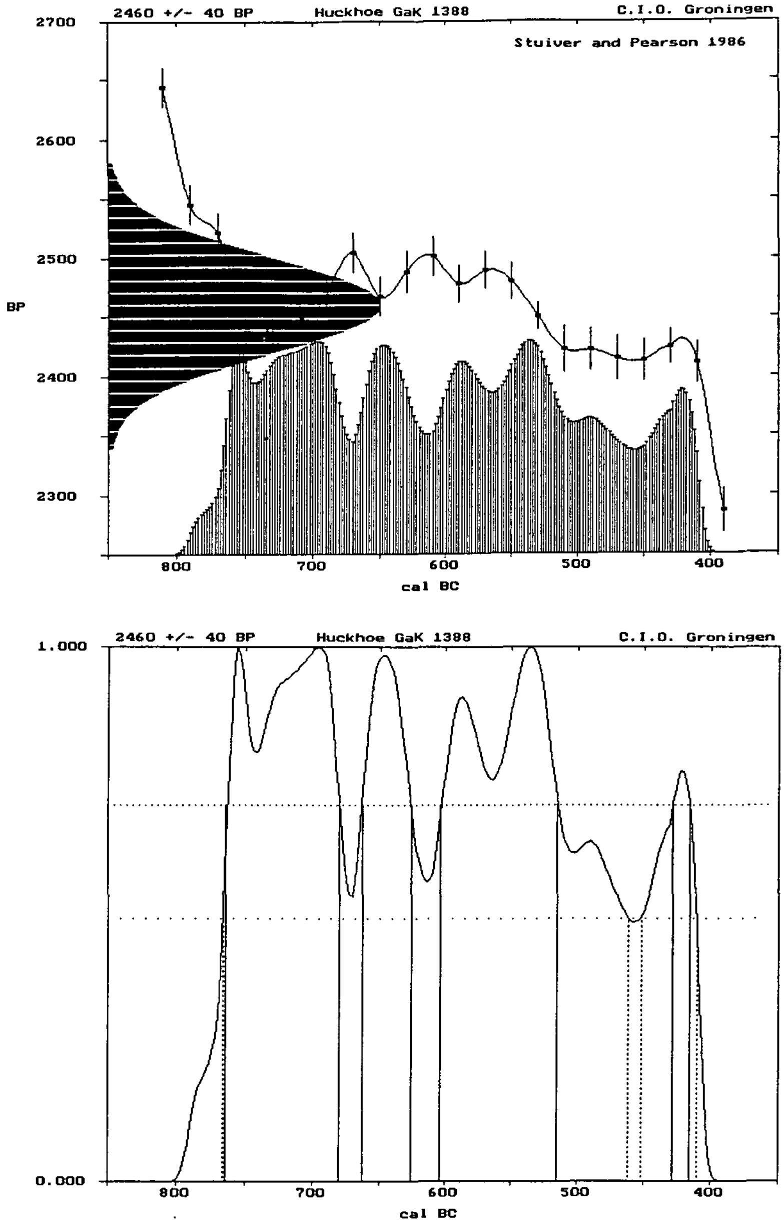


Fig a7.11 C14 calibration: Huckhoe

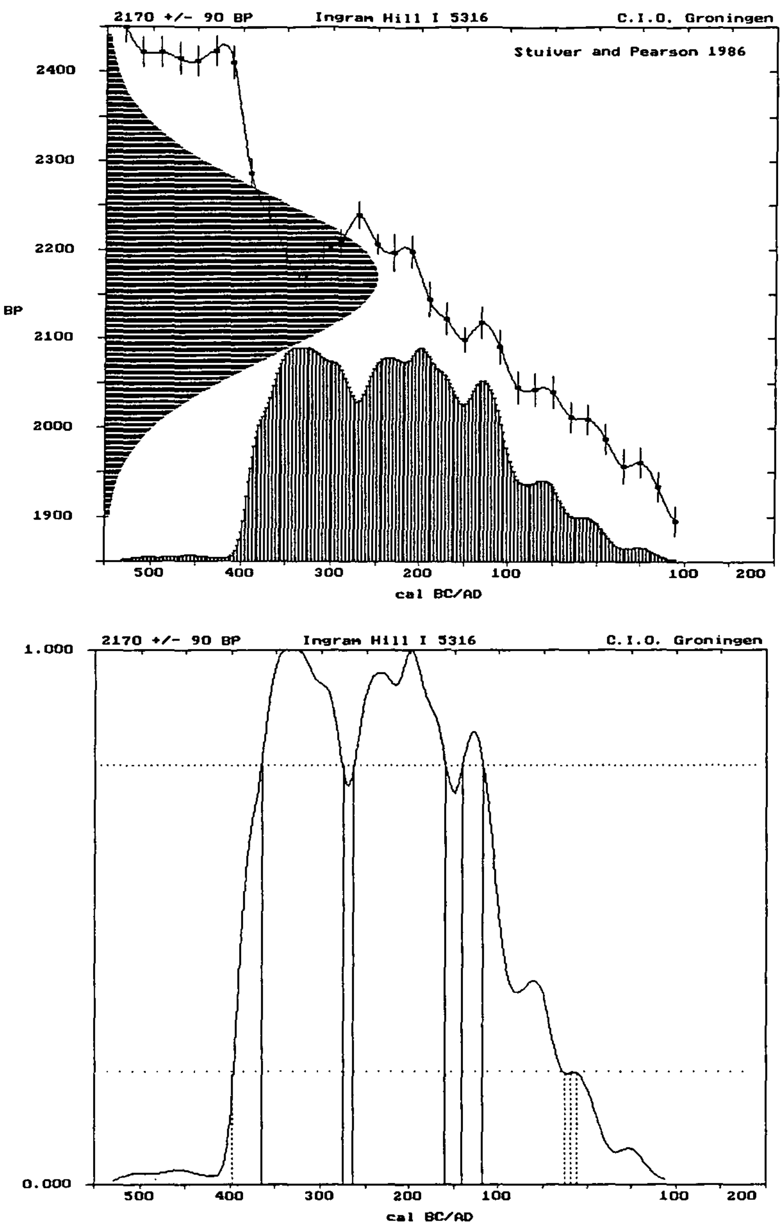


Fig a7.12 C14 calibration: Ingram Hill

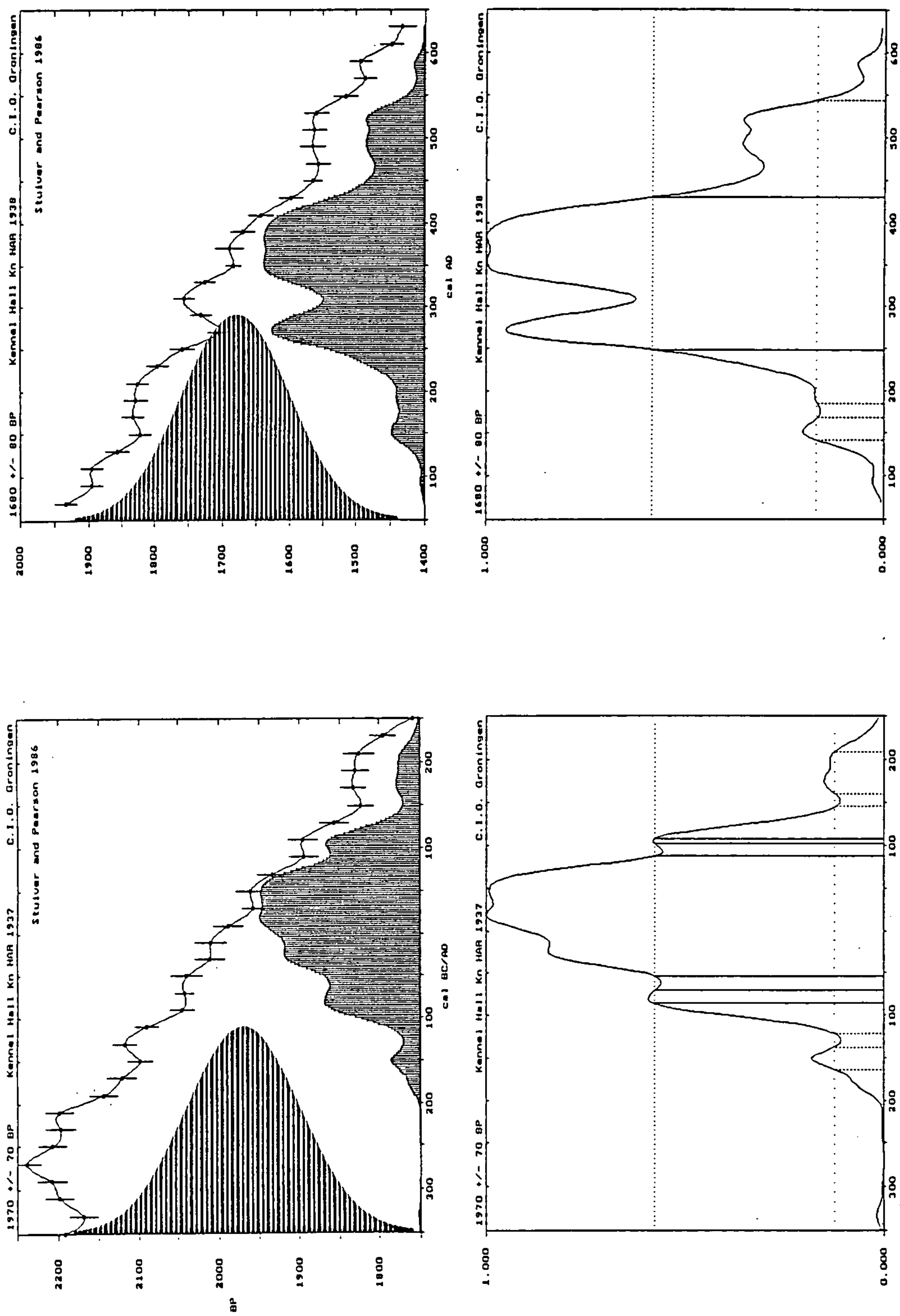


Fig a7.13 C14 calibration: Kennel Hall Knowe

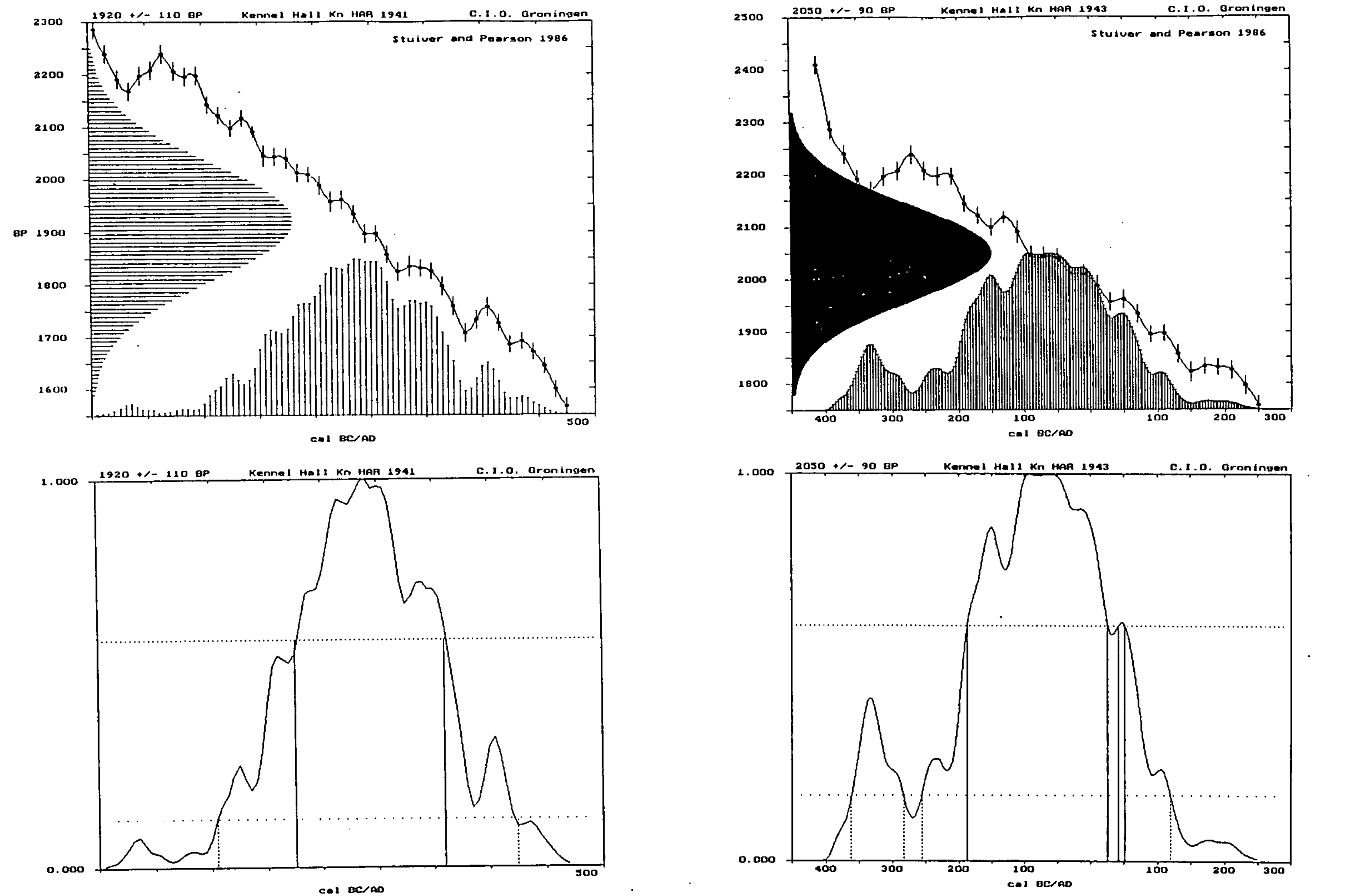


Fig a7.13 contd

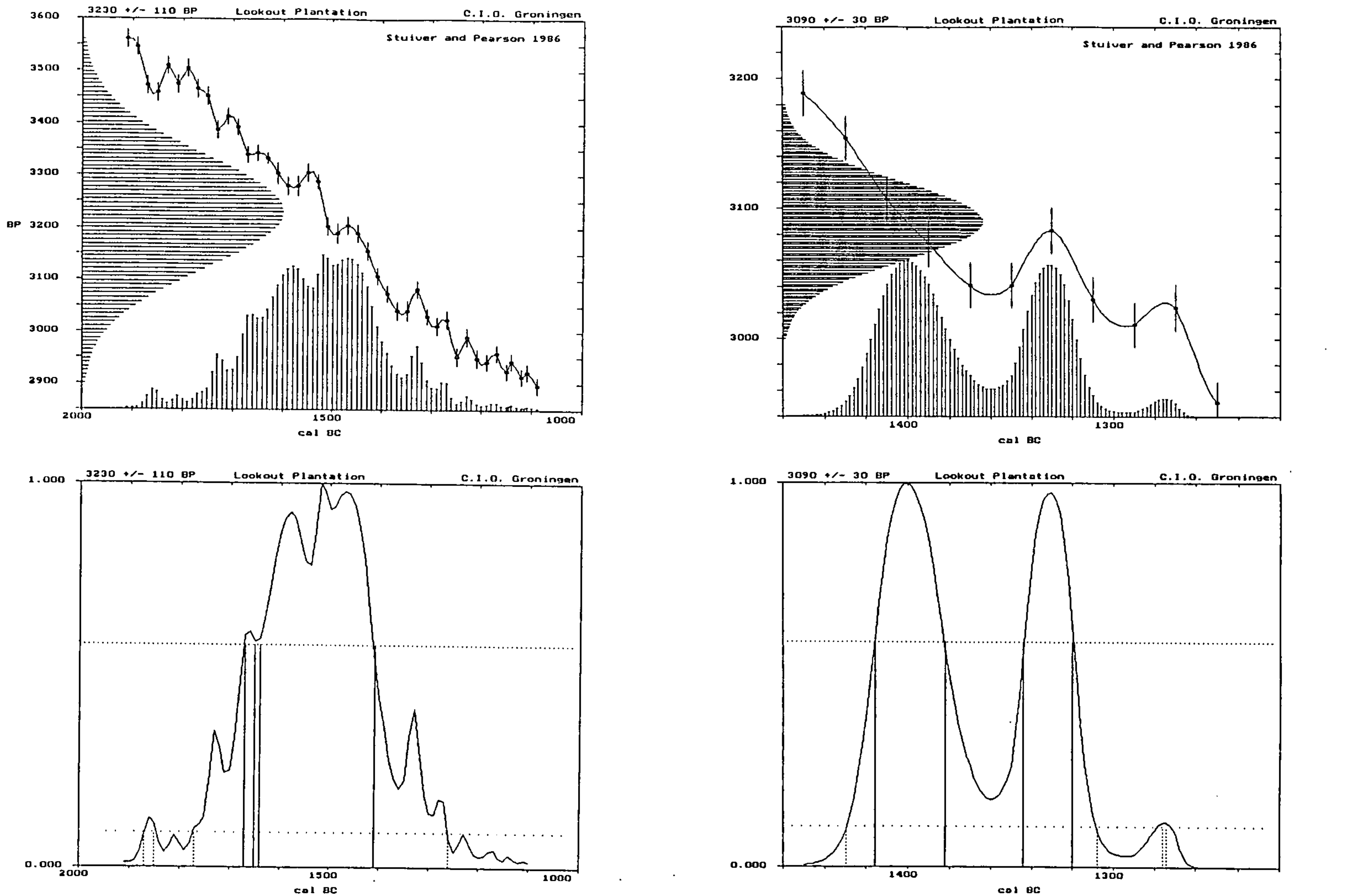


Fig a7.14 C14 calibration: Lookout Plantation

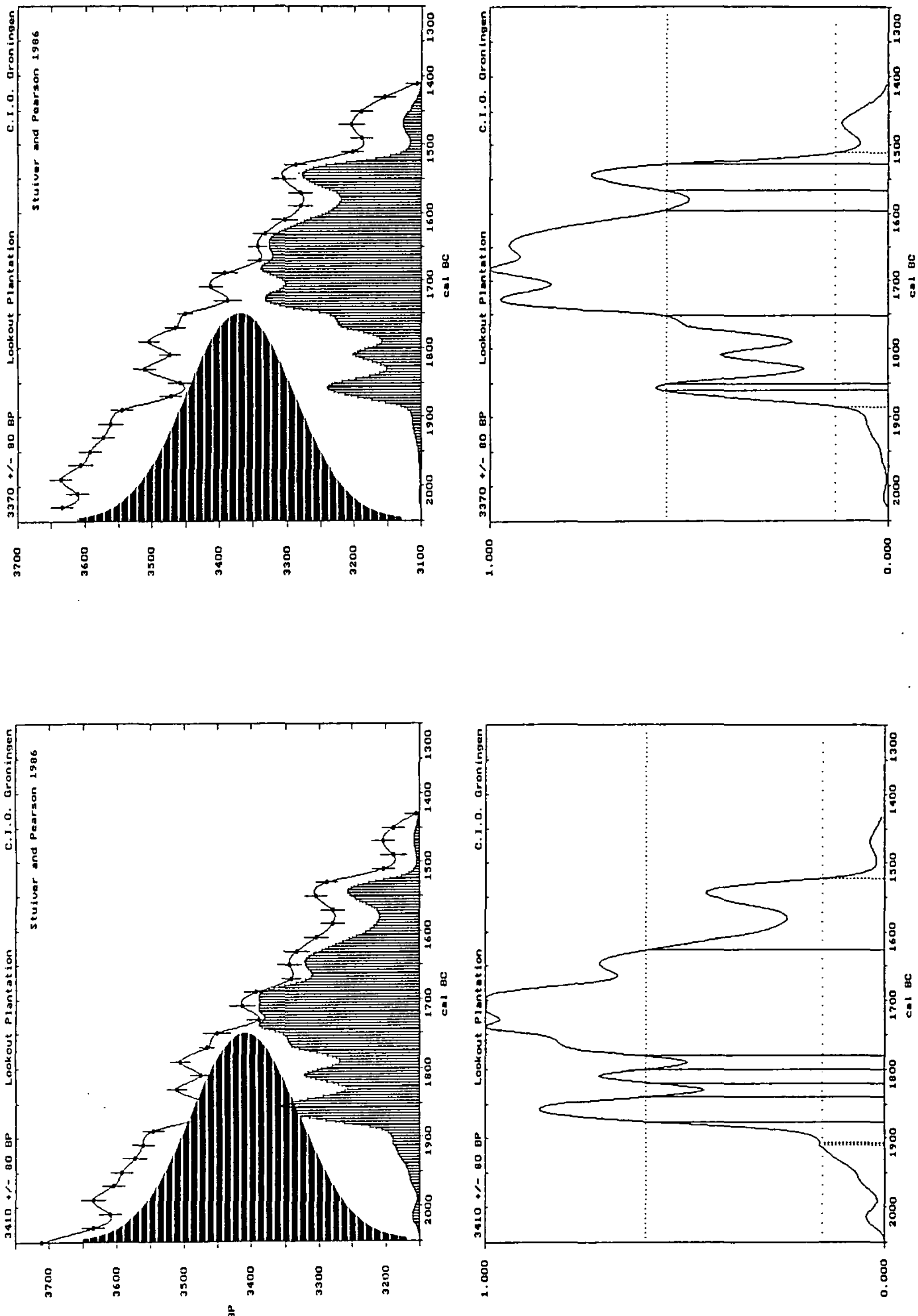


Fig a7.14 contd

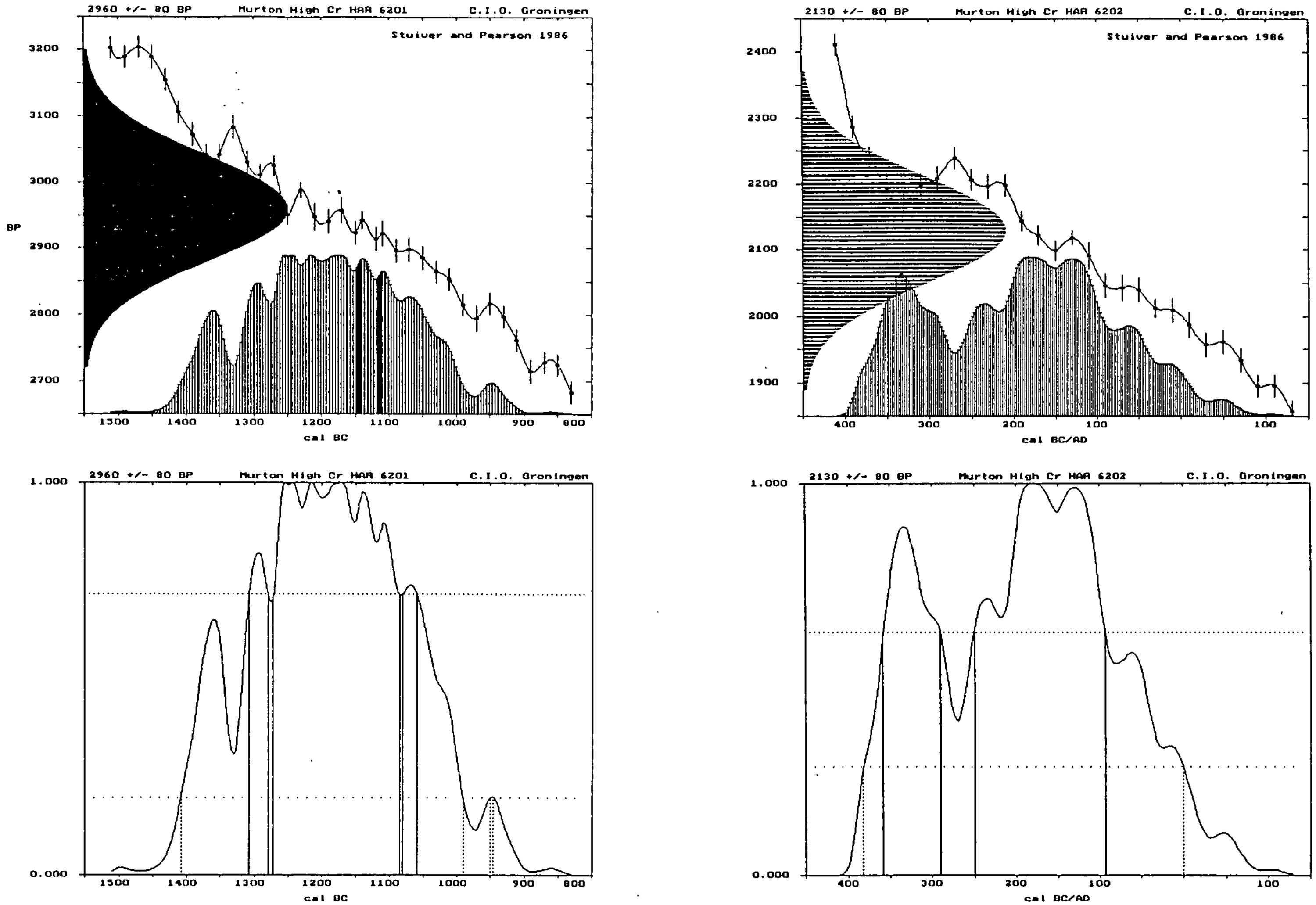


Fig a7.15 C14 calibration: Murton High Crags

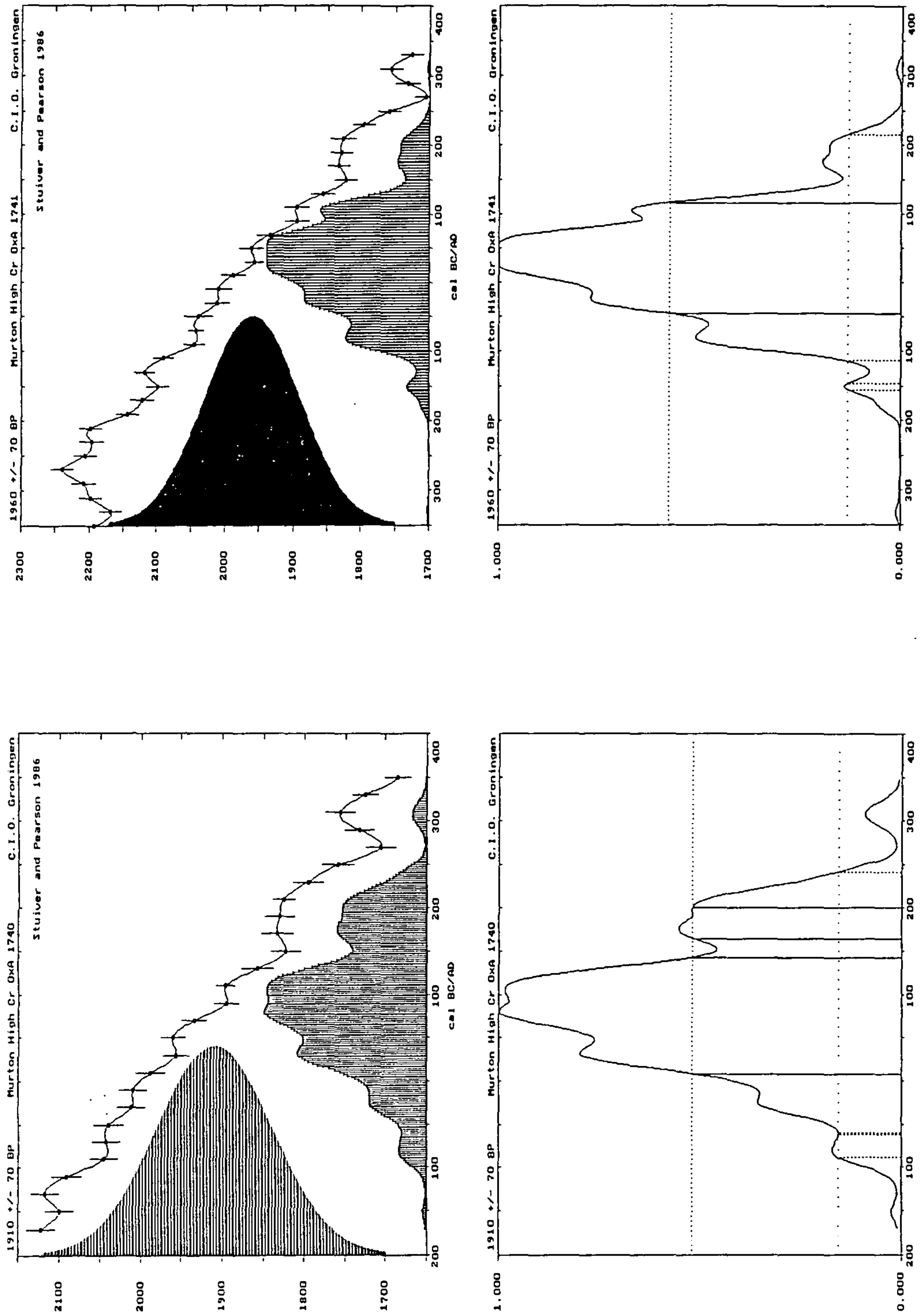


Fig a7.15 contd

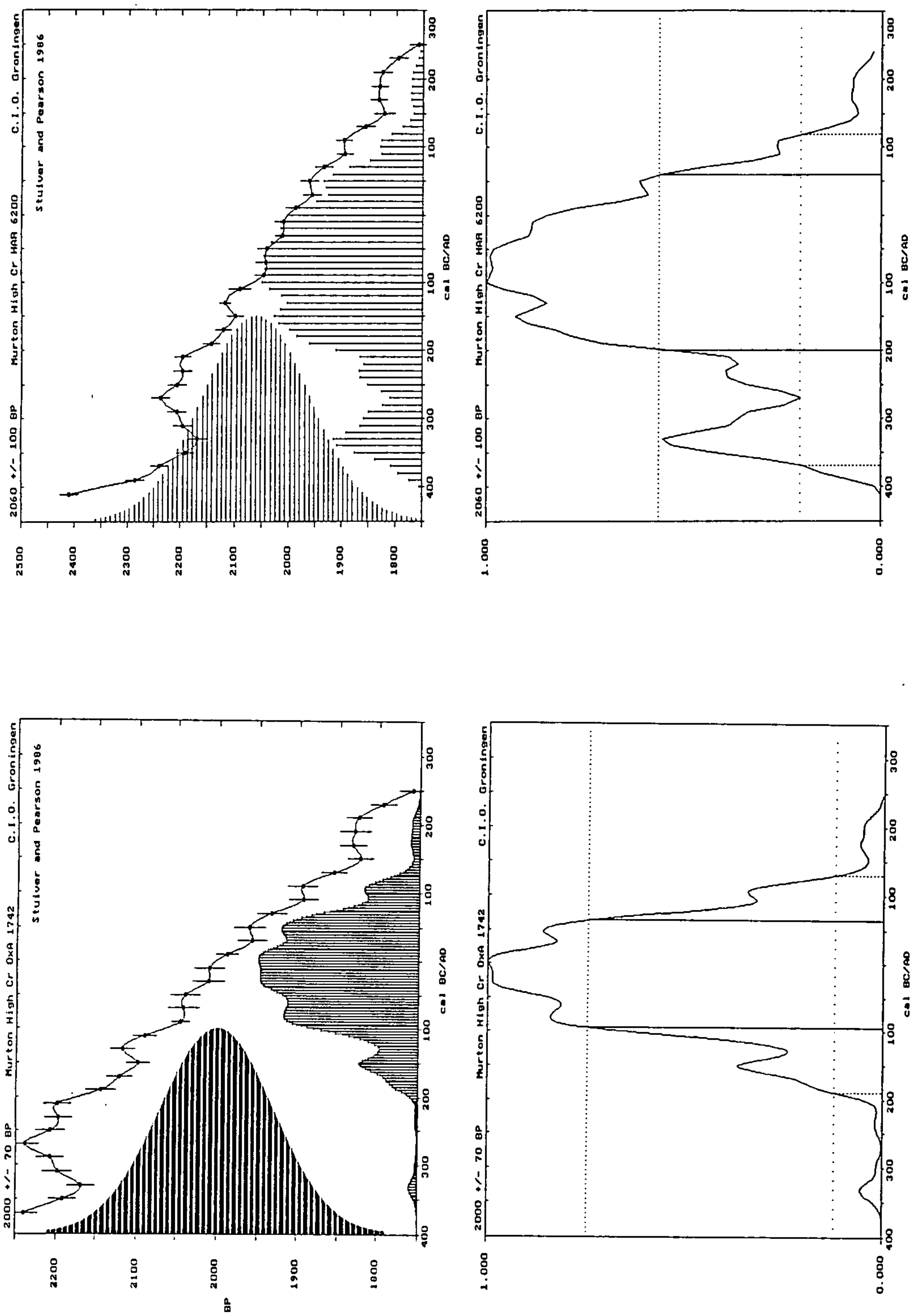


Fig a7.15 contd

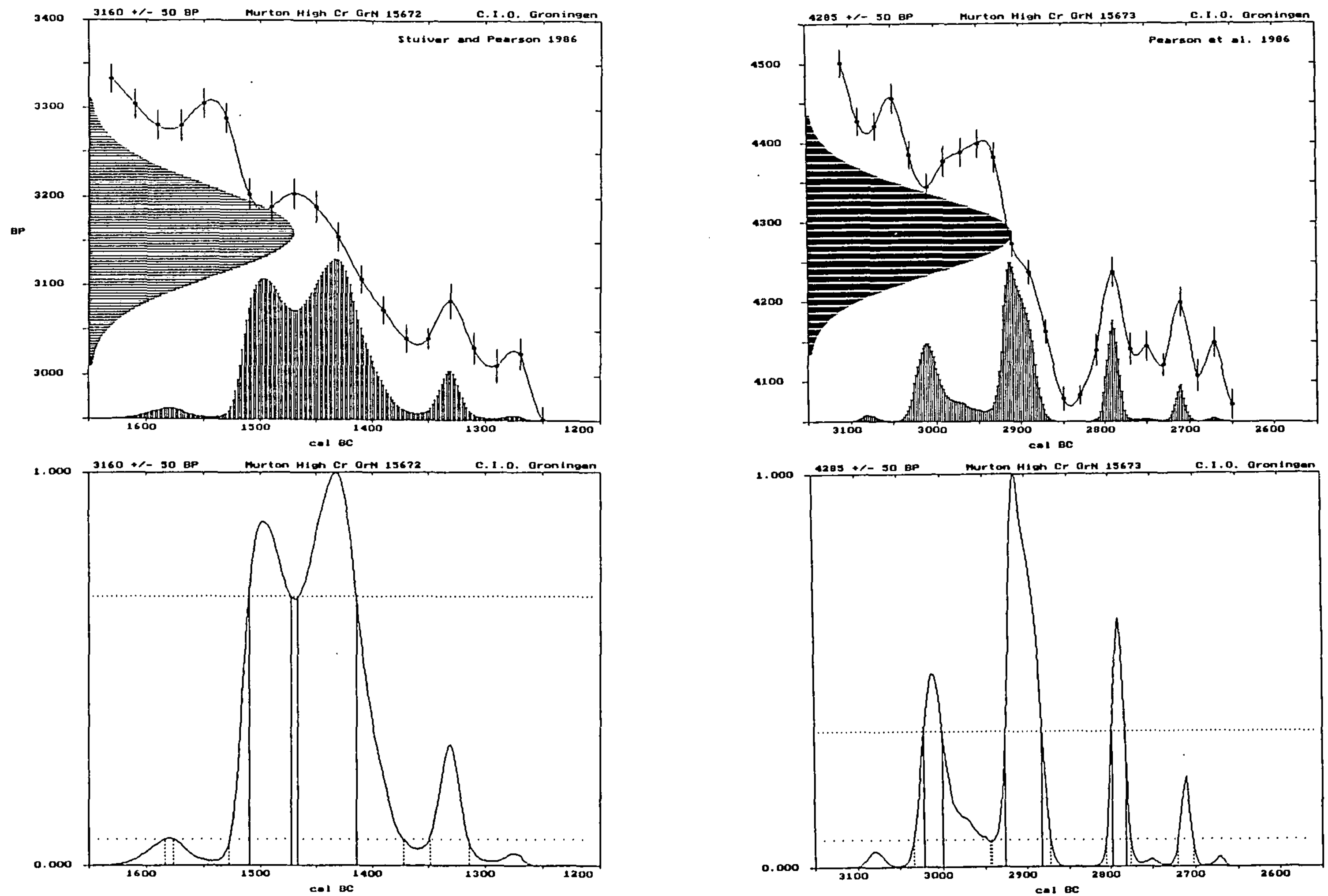


Fig a7.15 contd

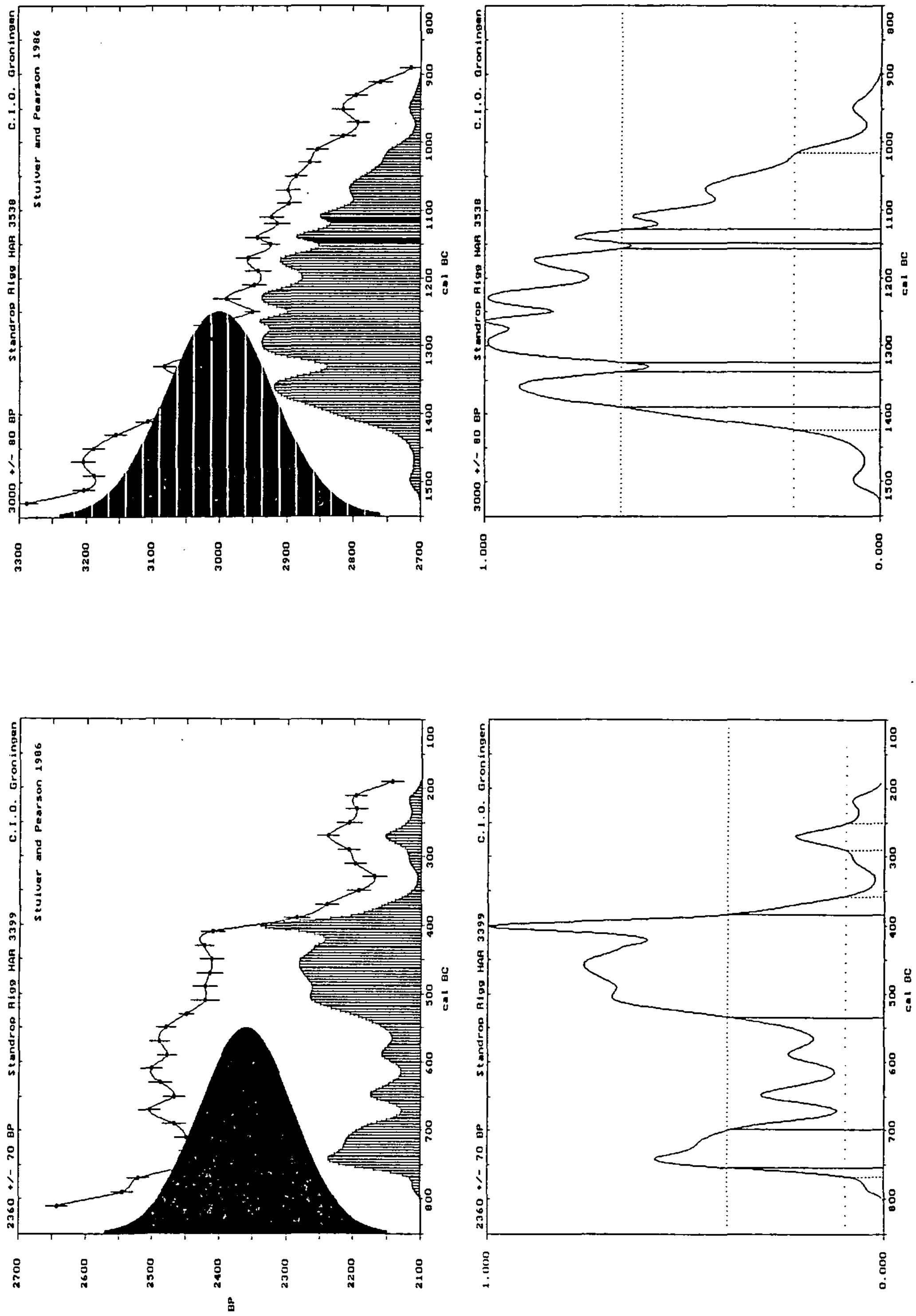


Fig a7.16 C14 calibration: Standrop Rigg

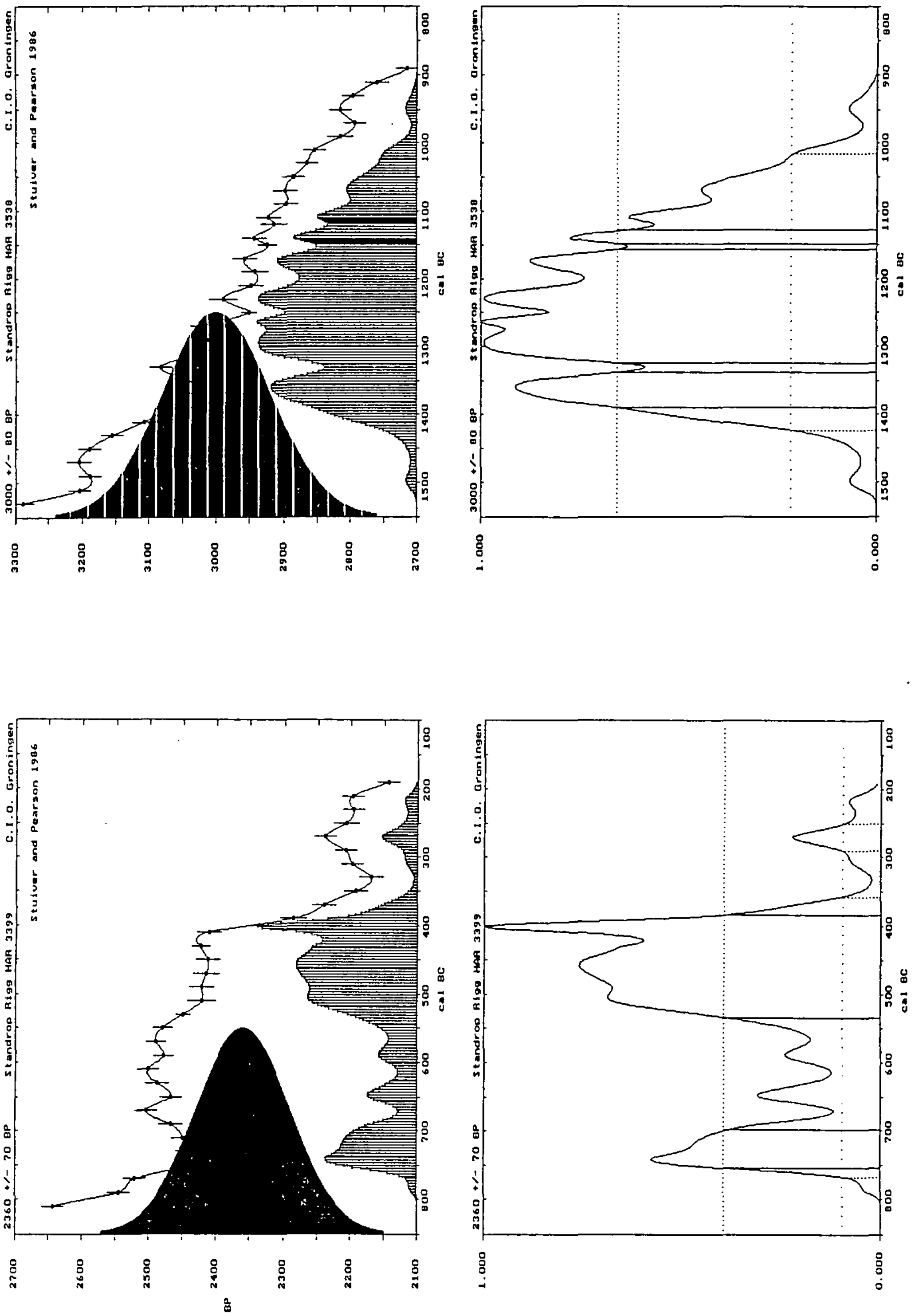


Fig a7.16 C14 calibration: Standrop Rigg

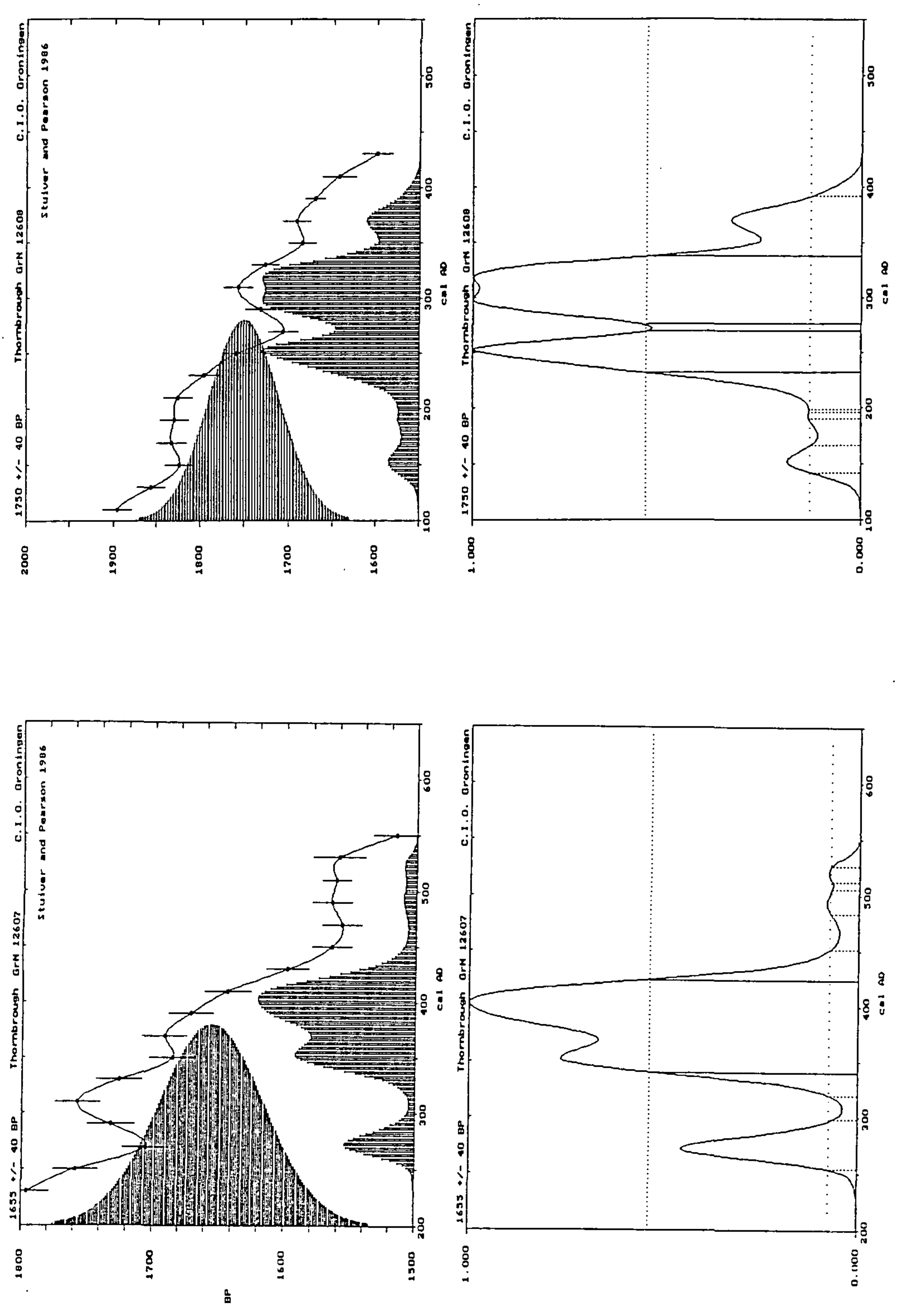


Fig a7.17 C14 calibration: Thornbrough Scar

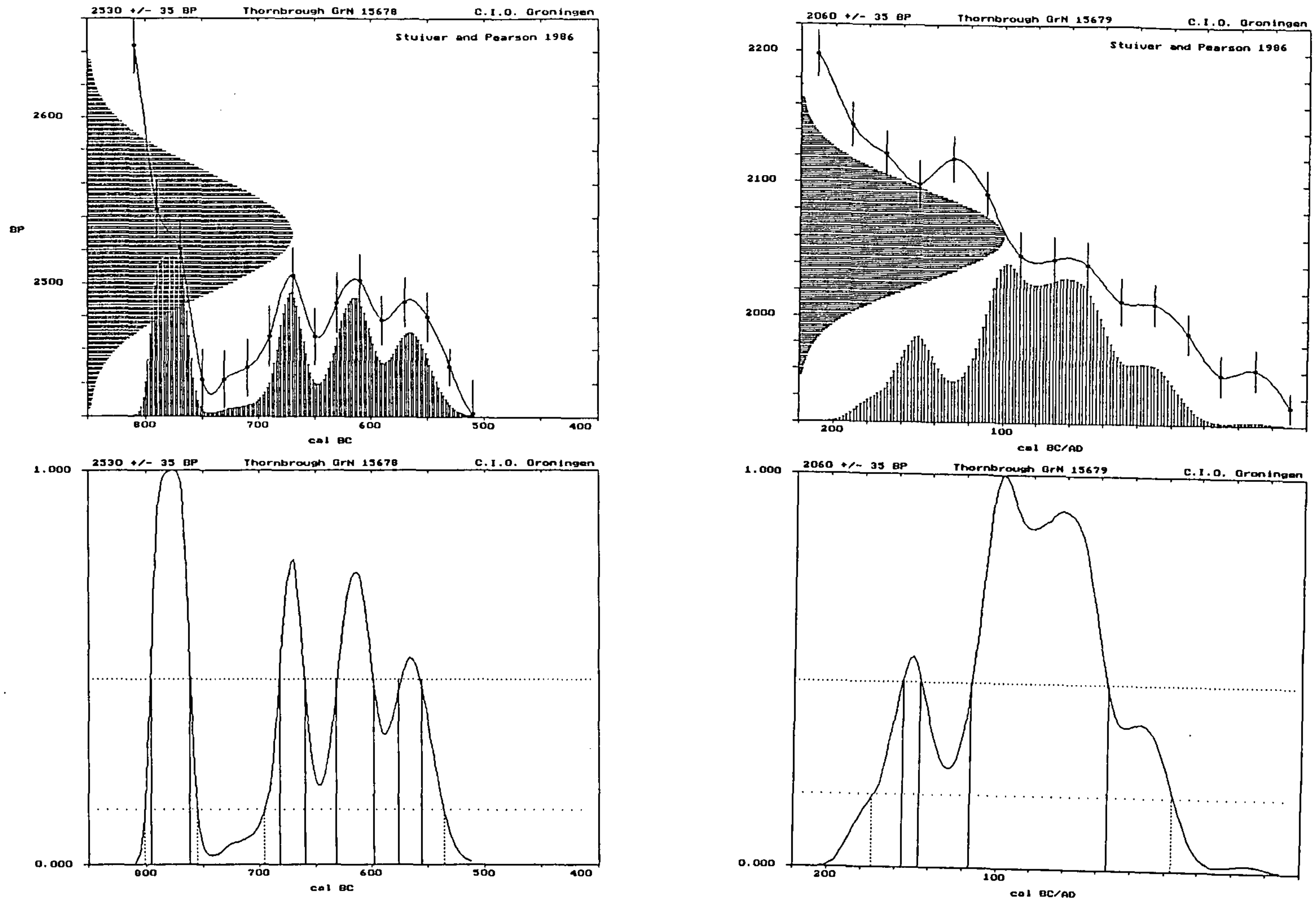


Fig a7.17 contd

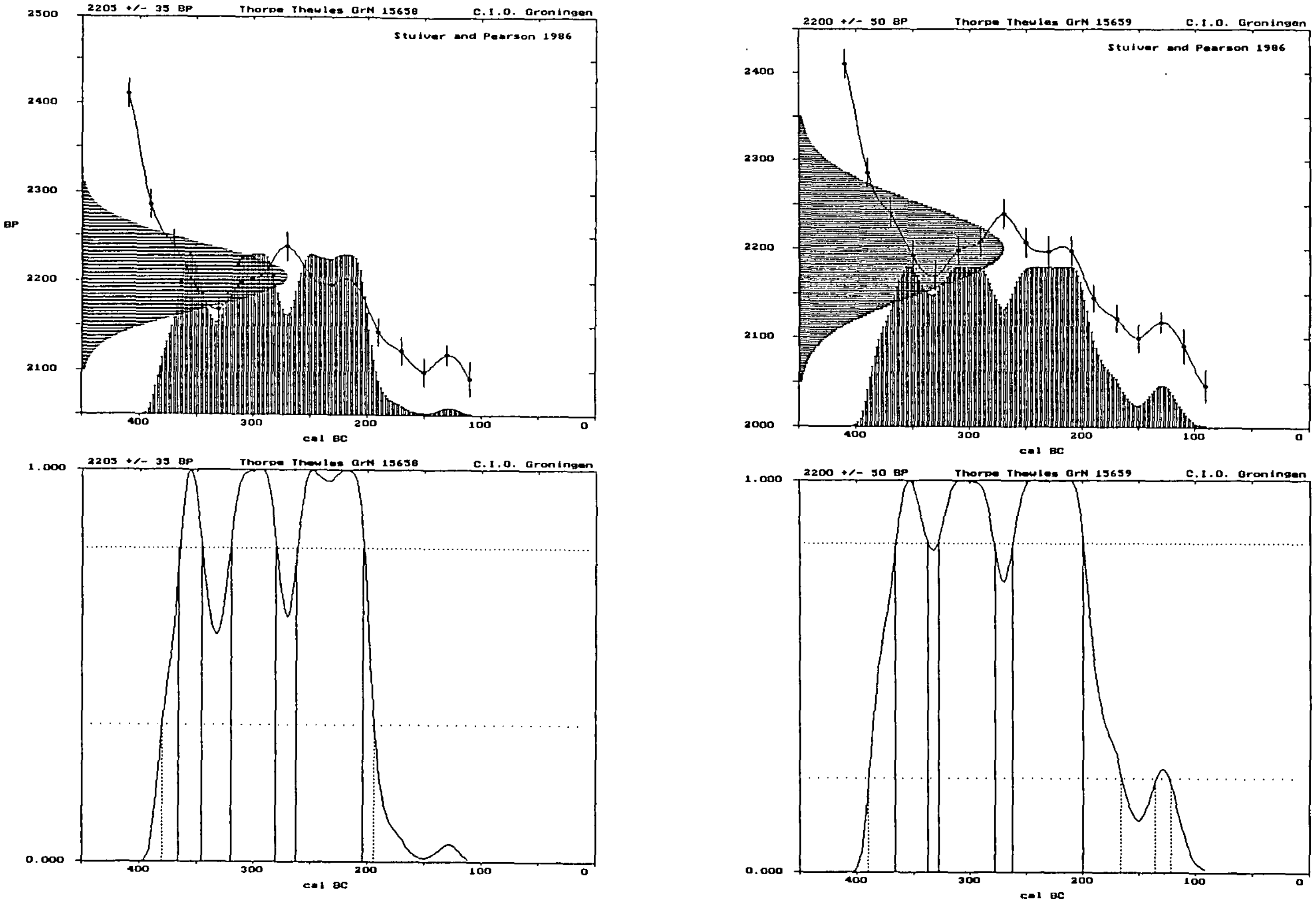


Fig a7.18 C14 calibration: Thorpe Thewles

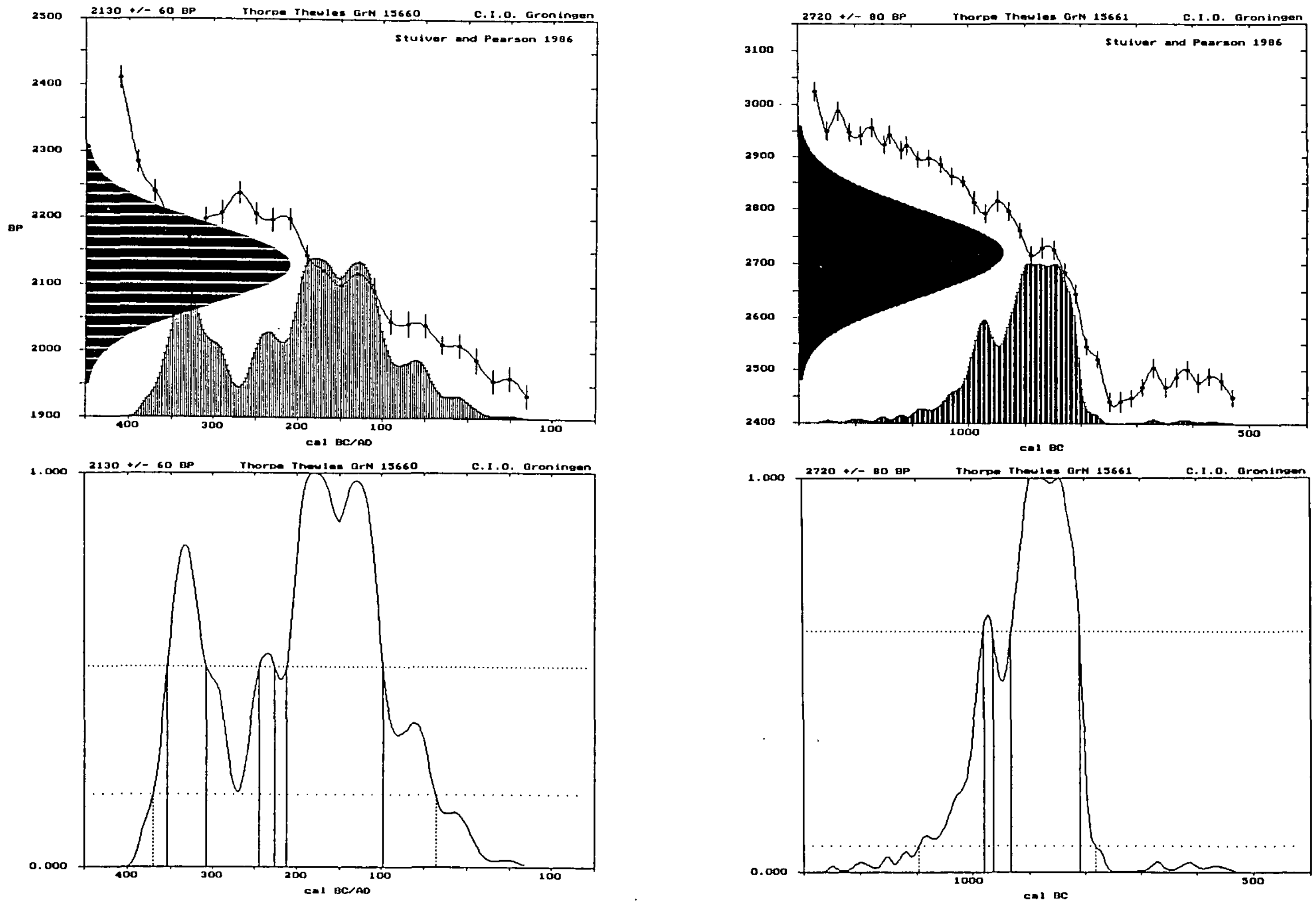


Fig a7.18 contd

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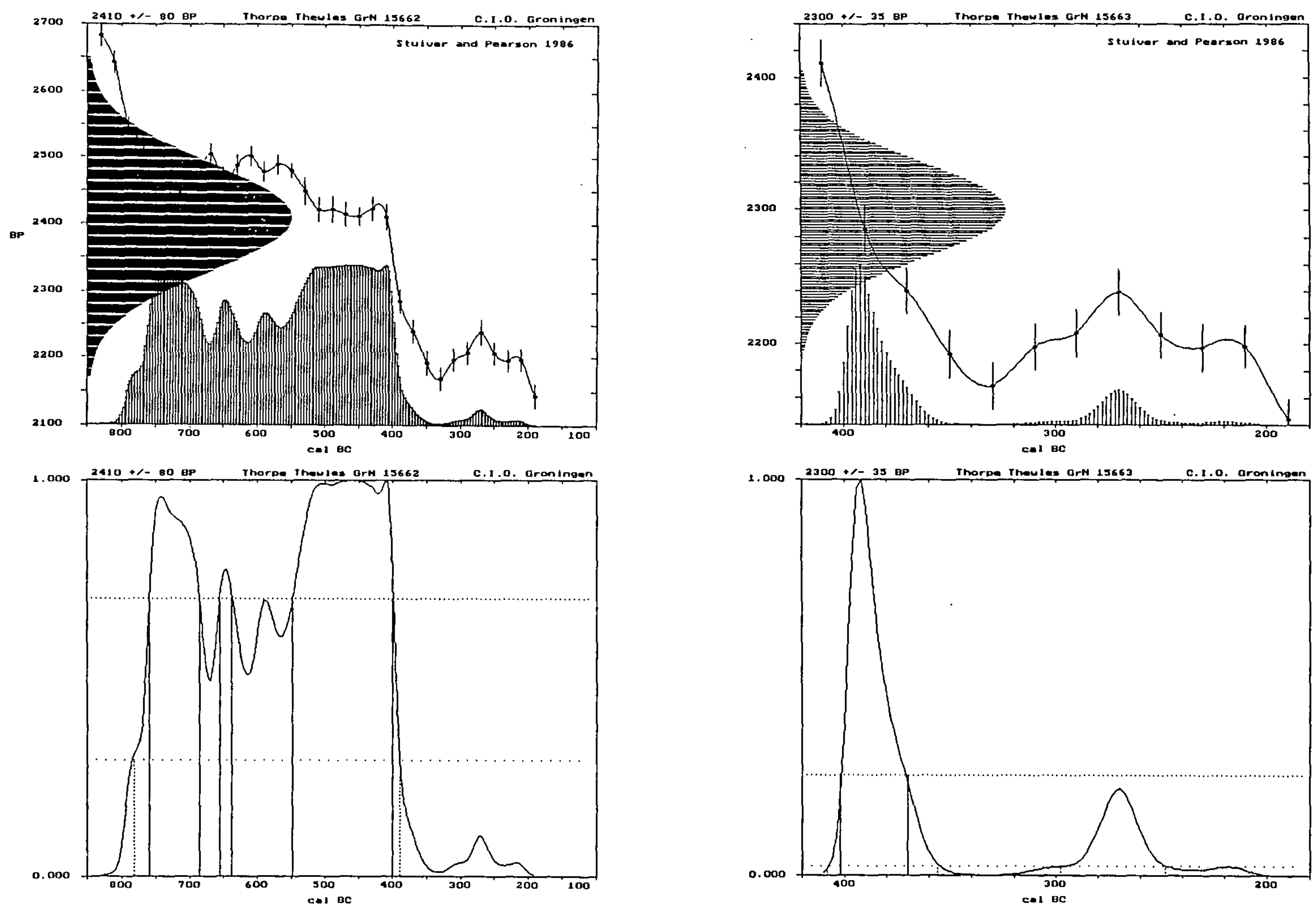


Fig a7.18 contd

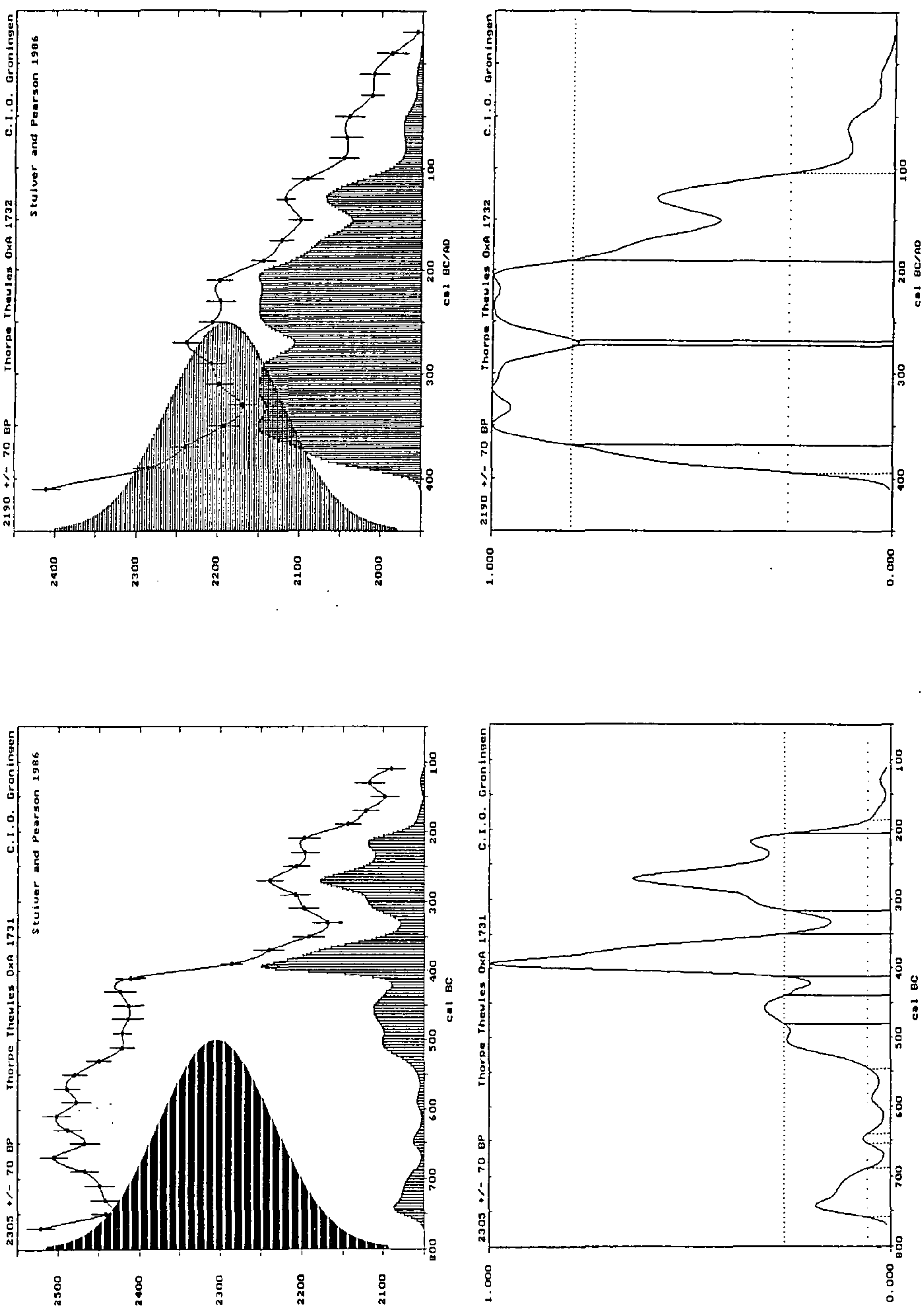


Fig a7.18 contd

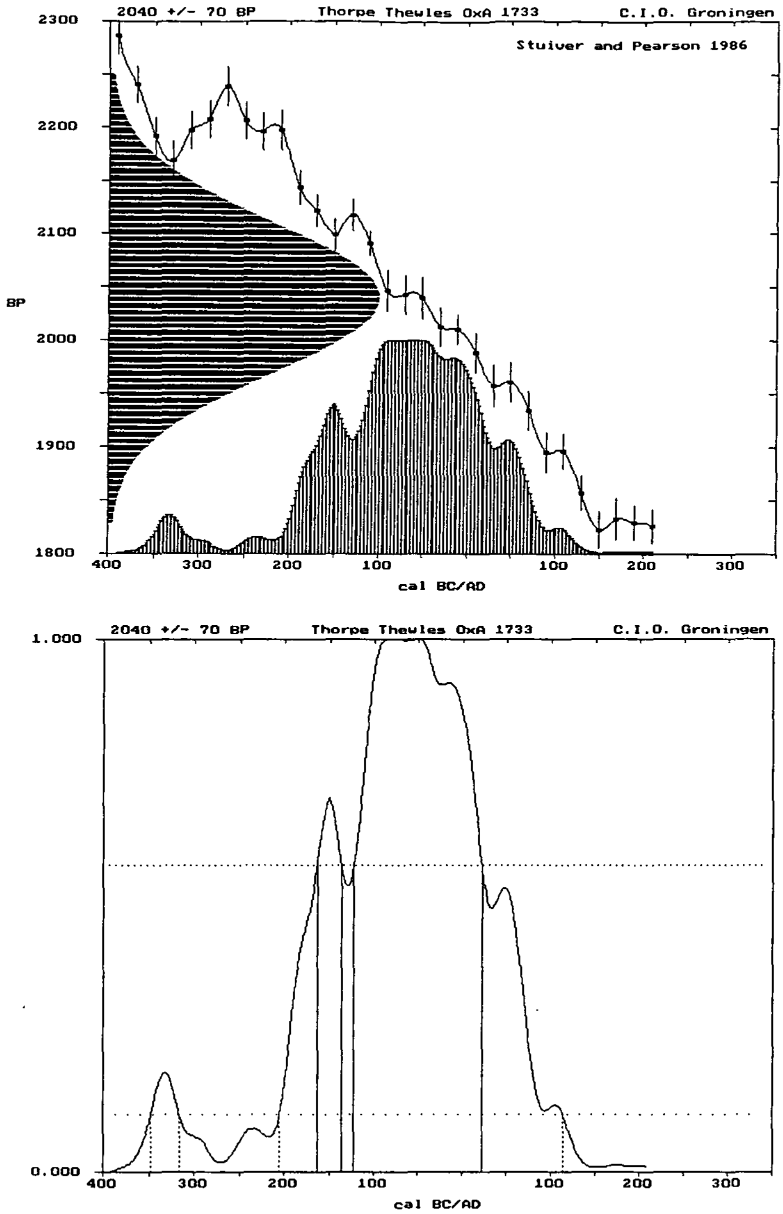


Fig a7.18 contd

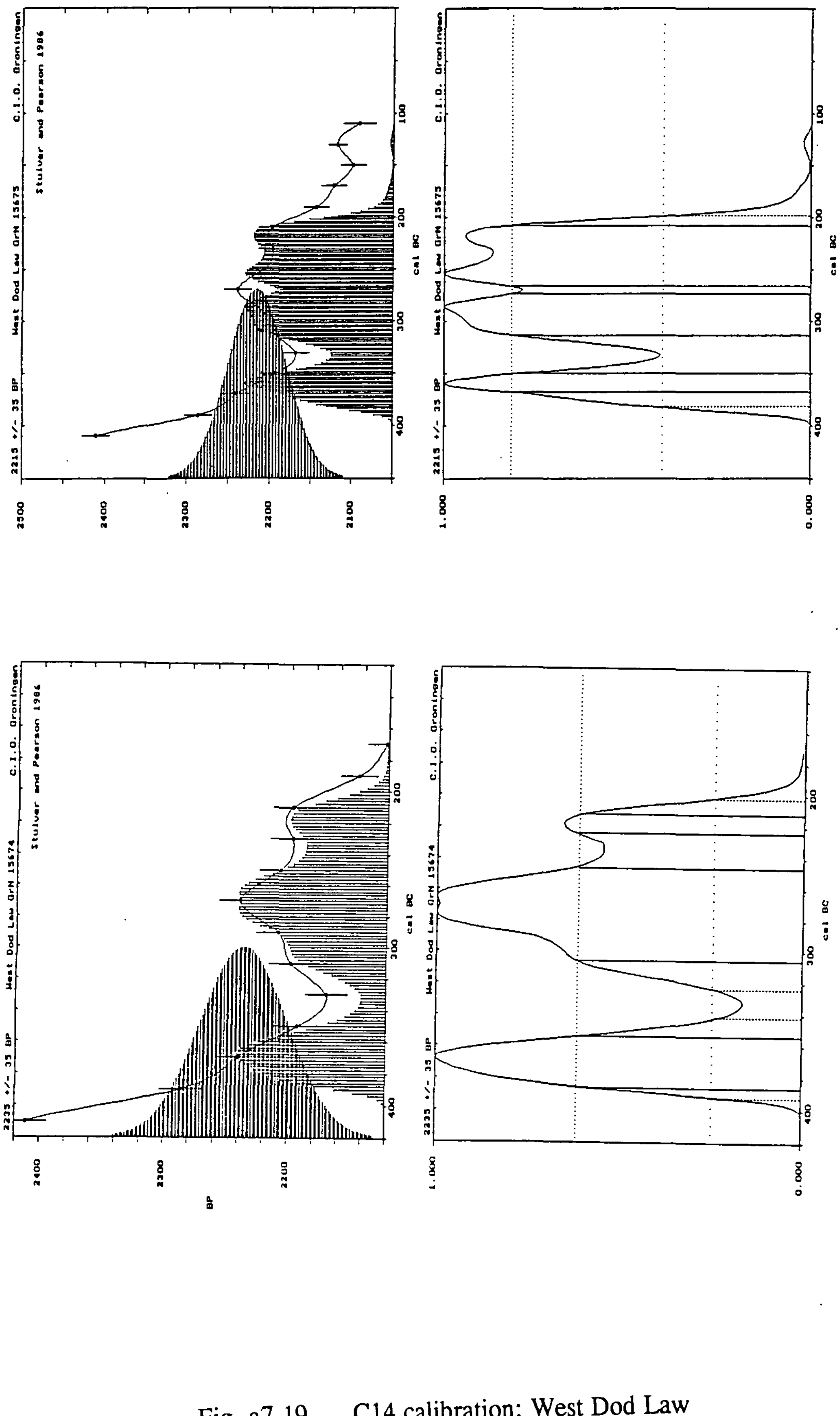


Fig a7.19 C14 calibration: West Dod Law

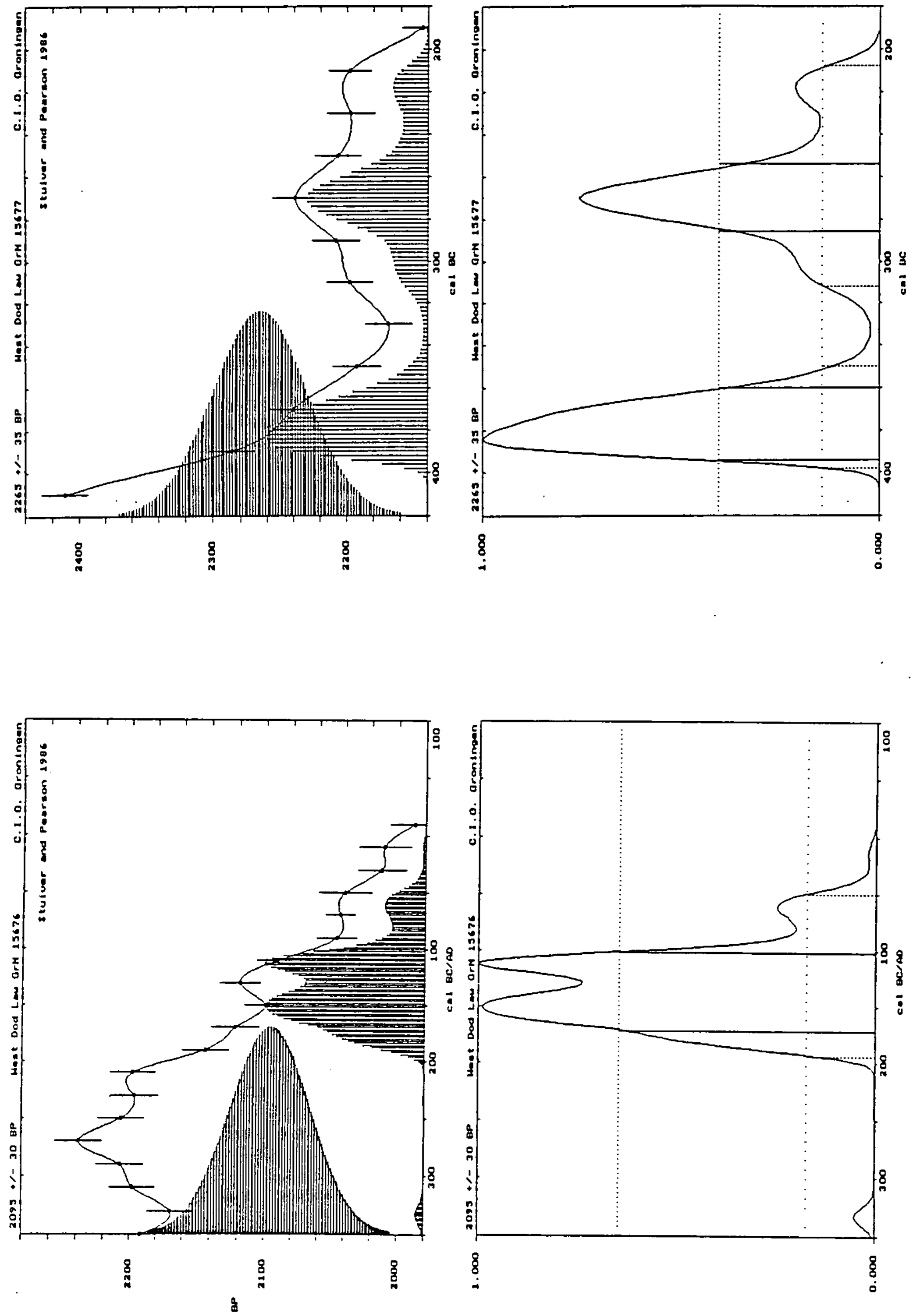


Fig a7.19 contd

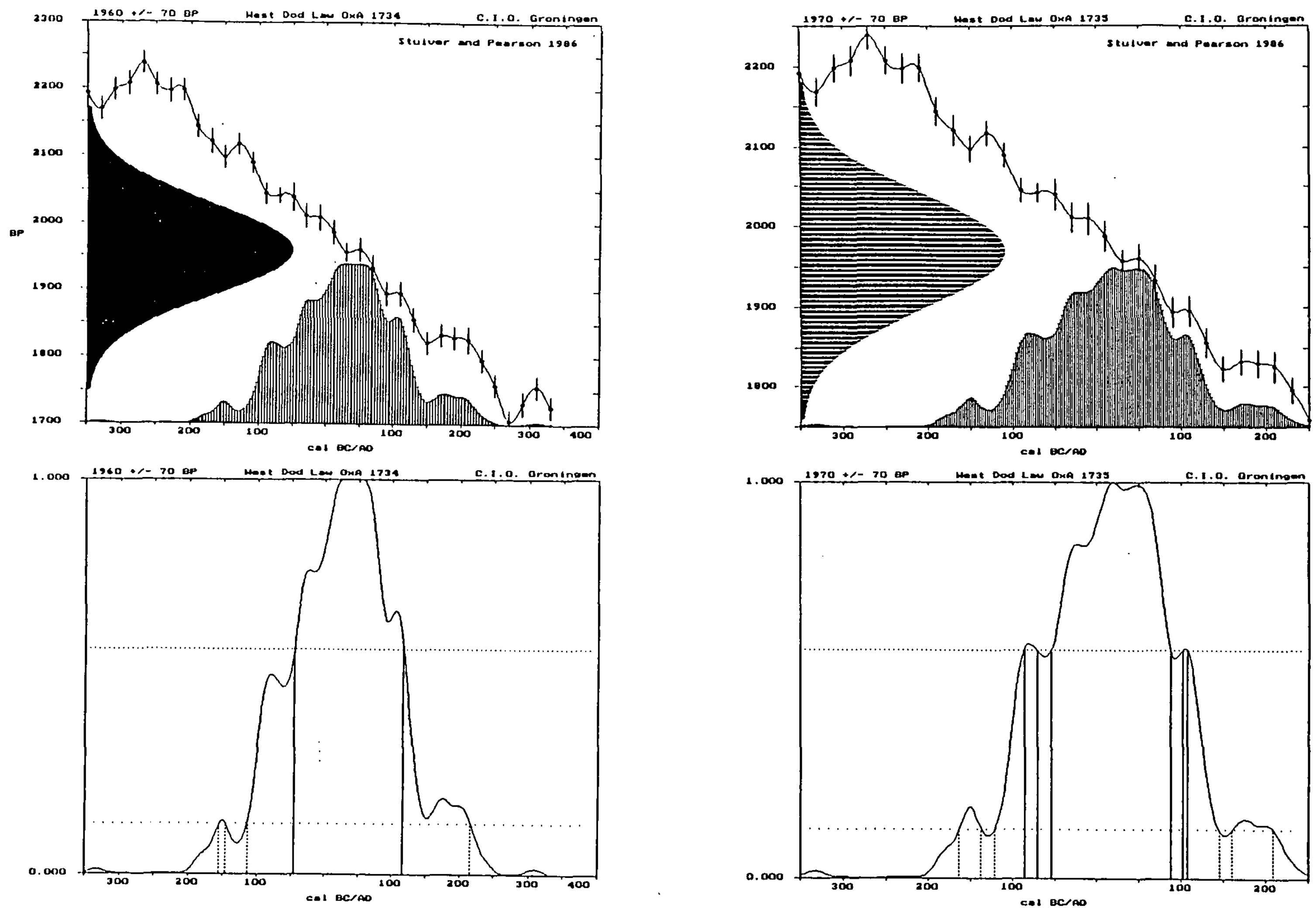


Fig a7.19 contd

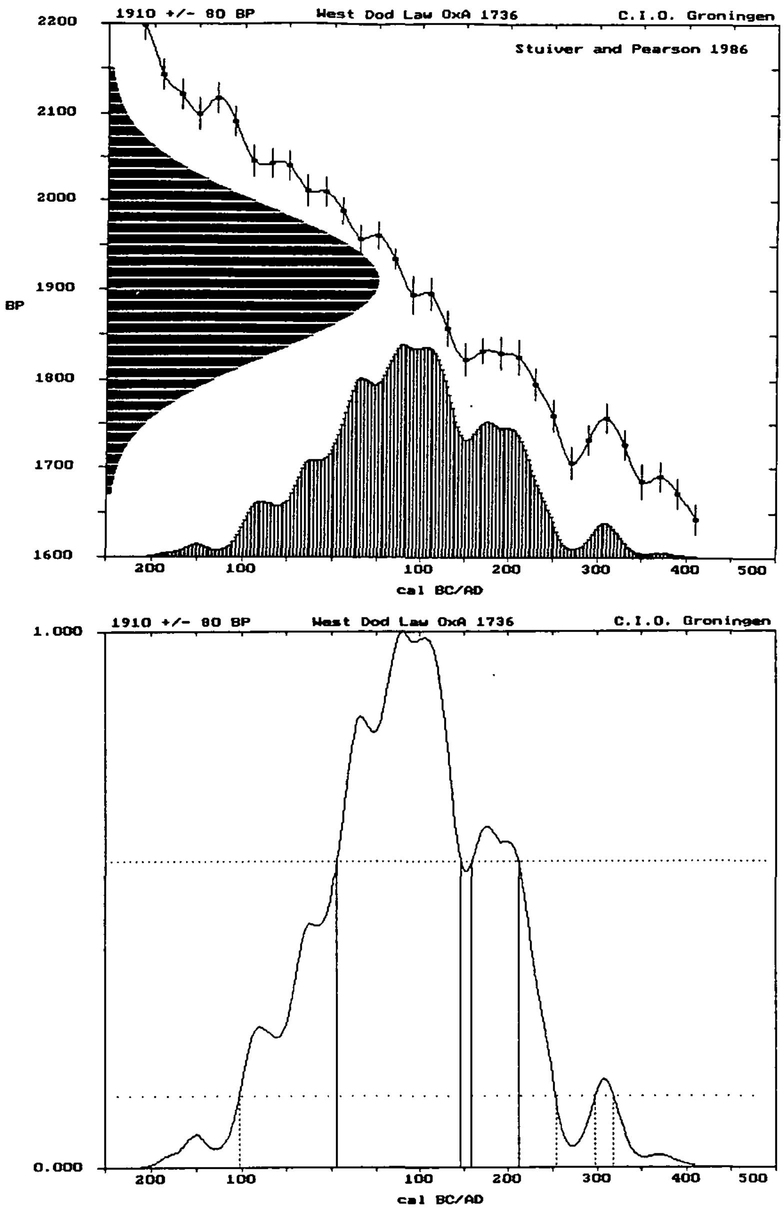


Fig a7.19 contd

Fig a7.20 Open sites: C14 dates to 2 sigma

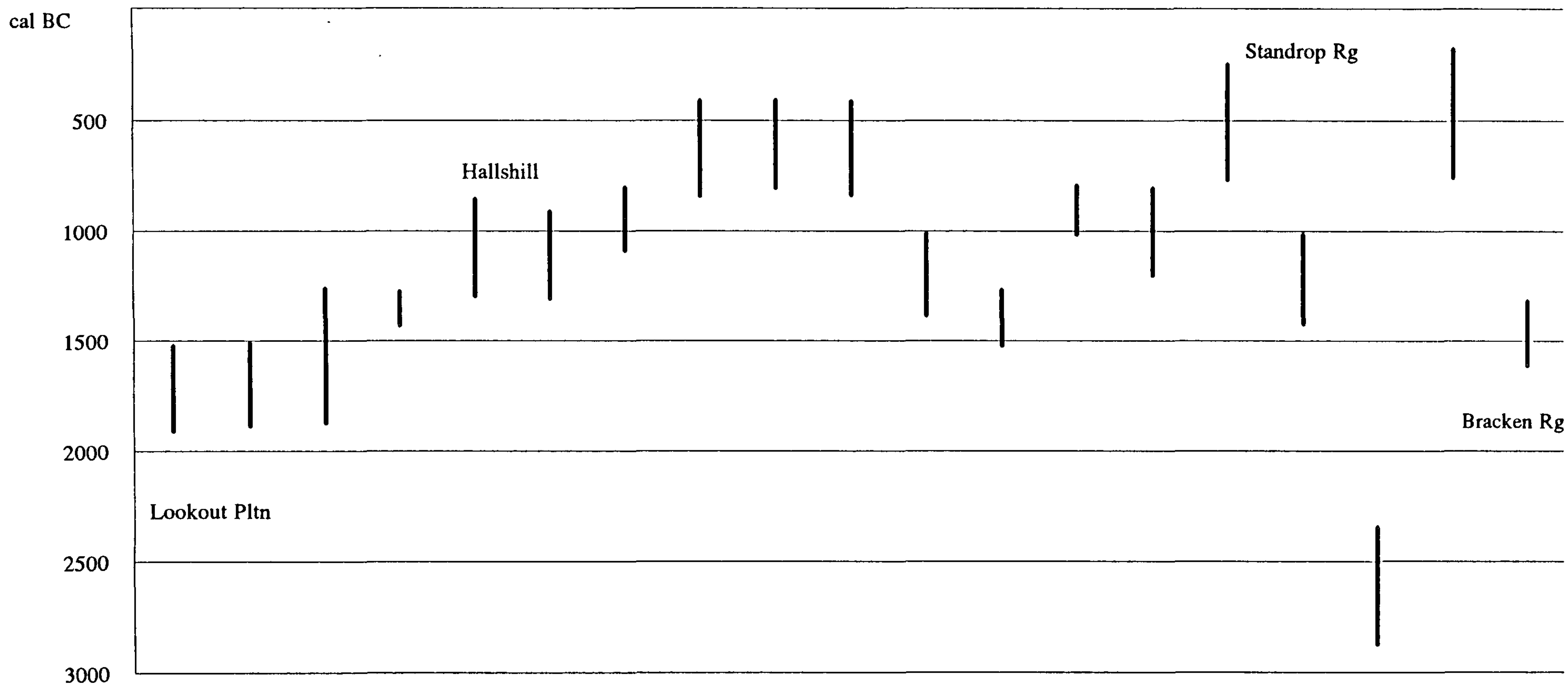


Fig a7.21 Curvilinear sites: C14 dates to 2 sigma

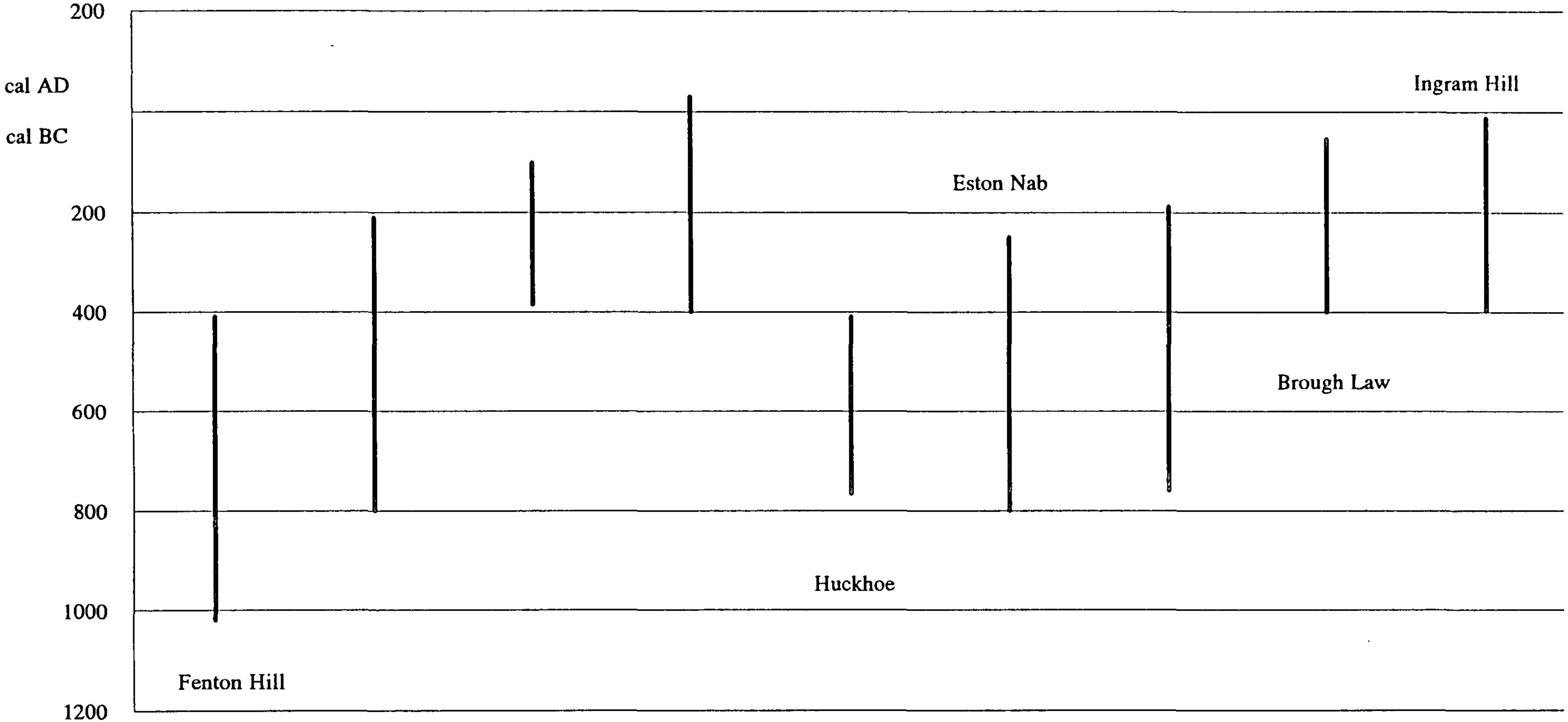


Fig a7.21 contd

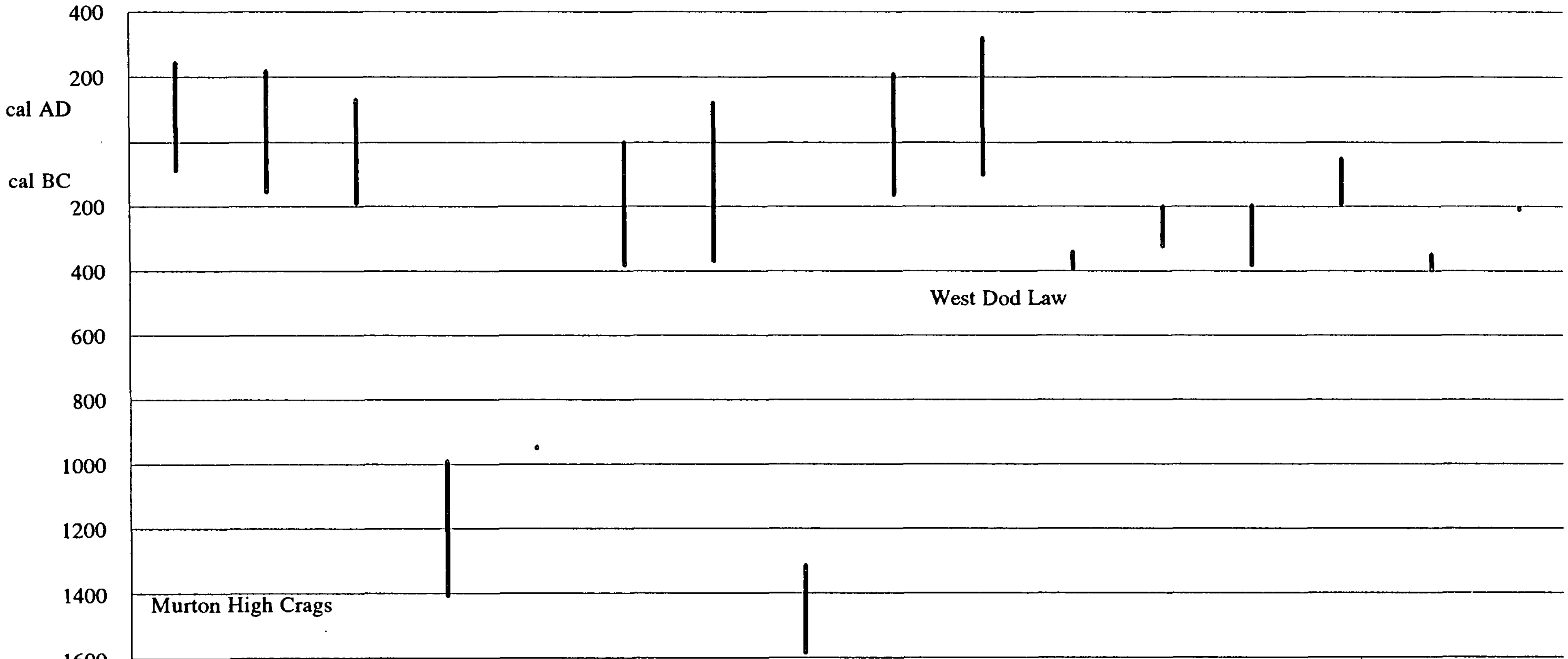


Fig a7.22 Rectilinear sites: C14 dates to 2 sigma

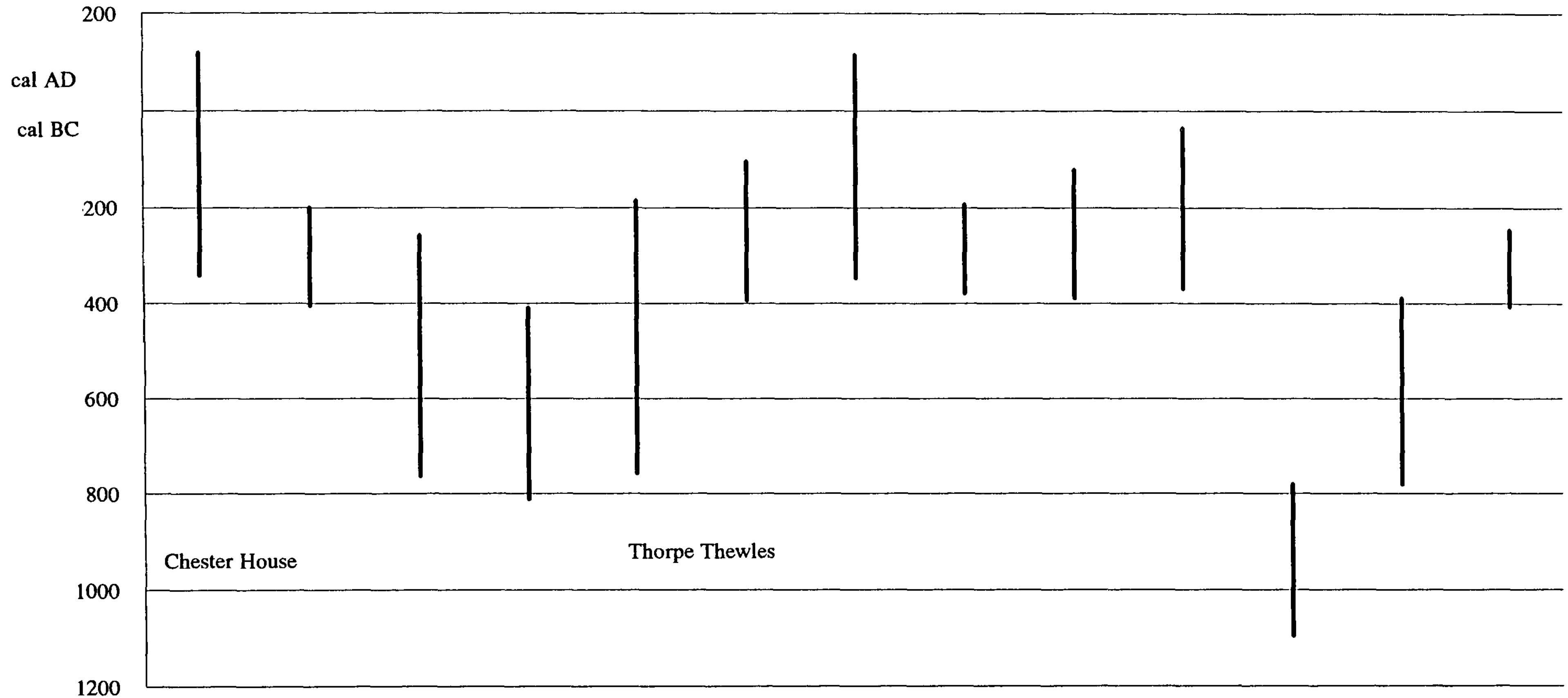
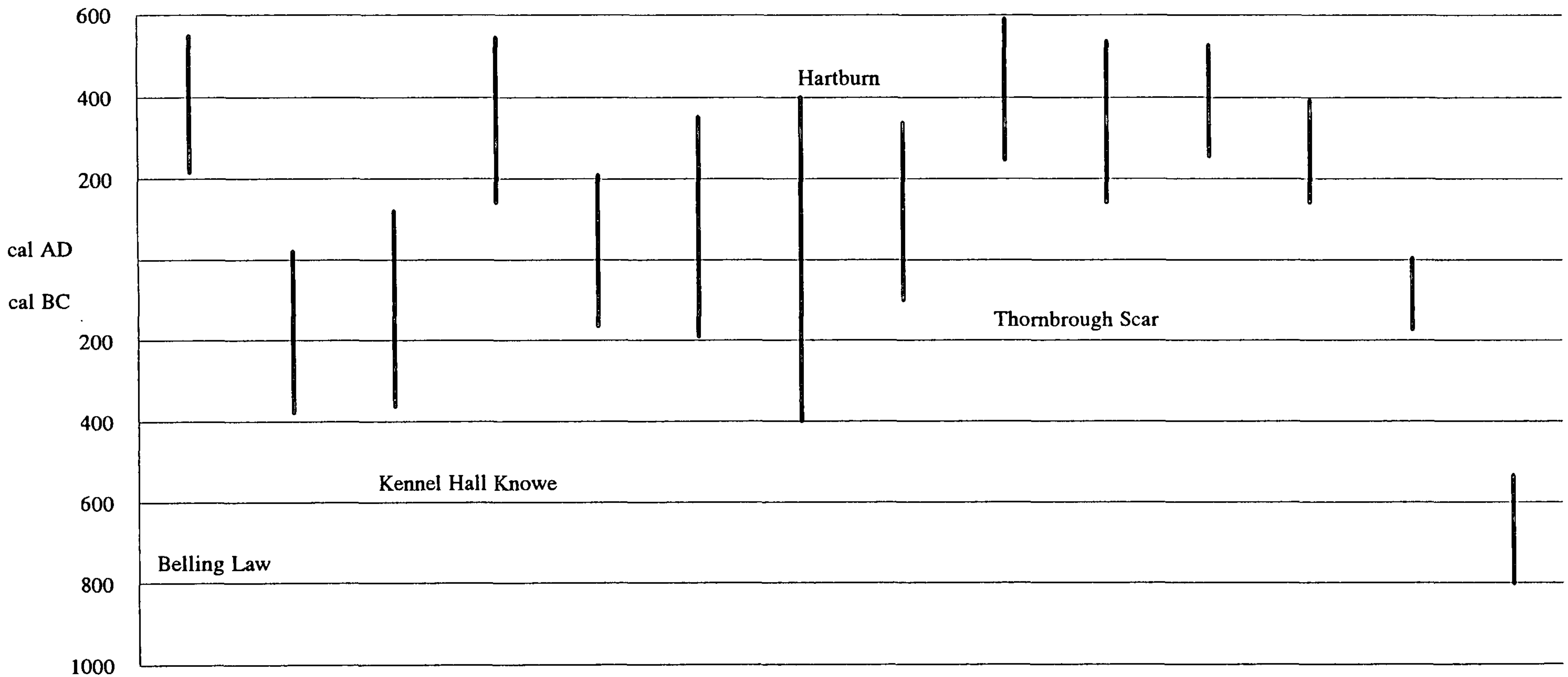


Fig a7.22 contd



SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Belling Law	HAR 1393	1670	70	252 AD - 298 AD	216 AD - 548 AD
				318 AD - 434 AD	
	HAR 1394	2110	80	353 BC - 310 BC	378 BC - 20 AD
				240 BC - 228 BC	
				210 BC - 38 BC	
Bracken Rigg	HAR 2414	3180	60	1518 BC - 1416 BC	1614 BC - 1316 BC
Brough Law	I 5315	2195	90	376 BC - 190 BC	400 BC - 86 BC
					70 BC- 54 BC
Chester House	GrN 15707	2280	50	402 BC - 356 BC	406 BC - 336 BC
				298 BC - 248 BC	330 BC - 200 BC
	GrN 15708	2360	60	752 BC - 724 BC	764 BC - 678 BC
				528 BC - 388 BC	664 BC - 624 BC
					606 BC - 364 BC
					282 BC - 258 BC
	GrN 15709	2530	80	804 BC - 752 BC	812 BC - 460 BC
				706 BC - 530 BC	456 BC - 410 BC
	OxA 1743	2030	70	156 BC - 146 BC	342 BC - 118 BC
				116 BC - 28 AD	
				38 AD - 54 AD	
Eston Nab	HAR 8750	2410	100	760 BC - 680 BC	800 BC - 360 BC
				660 BC - 630 BC	290 BC - 250 BC
				600 BC - 580 BC	
				550 BC - 400 BC	

Table a7.1 Calibration of C14 dates from excavated sites in north east England

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Eston Nab	HAR 8751	2310	70	510 BC - 492 BC	760 BC - 686 BC
				490 BC - 436 BC	656 BC - 636 BC
				414 BC - 352 BC	548 BC - 188 BC
				310 BC - 240 BC	
				228 BC - 210 BC	
Fenton Hill	HAR 825	2640	100	980 BC - 970 BC	1020 BC - 410 BC
				930 BC - 760 BC	
				680 BC - 660 BC	
				630 BC - 600 BC	
				580 BC - 550 BC	
	HAR 866	2400	110	760 BC - 680 BC	800 BC - 210 BC
				660 BC - 630 BC	
				600 BC - 580 BC	
				560 BC - 390 BC	
	HAR 326	2170	60	362 BC - 282 BC	386 BC - 102 BC
				258 BC - 168 BC	
				130 BC - 128 BC	
	HAR 2811	2150	100	370 BC - 280 BC	400 BC - 30 AD
				260 BC - 100 BC	
Forcegarth Pasture N	HAR 864	1810	70	120 AD - 256 AD	66 AD - 366 AD
				294 AD - 322 AD	
Forcegarth Pasture S	HAR 1447	1740	90	144 AD - 160 AD	76 AD - 452 AD
				208 AD- 404 AD	482 AD - 508 AD
					512 AD - 528 AD

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Hallshill	HAR 4788	2520	70	798 BC - 754 BC	806 BC - 466 BC
				702 BC - 532 BC	448 BC - 410 BC
	HAR 4789	2560	60	810 BC - 760 BC	836 BC - 510 BC
				686 BC - 656 BC	492 BC - 488 BC
				636 BC - 592 BC	436 BC - 414 BC
				586 BC - 550 BC	
	HAR 4800	2780	80	1010 BC - 838 BC	1202 BC - 806 BC
	HAR 8183	2960	60	1302 BC - 1286 BC	1386 BC - 1012 BC
				1268 BC - 1096 BC	
	HAR 8184	3130	60	1510 BC - 1478 BC	1522 BC - 1266 BC
				1460 BC - 1382 BC	
				1344 BC - 1320 BC	
	HAR 8185	2710	70	920 BC - 810 BC	1016 BC - 794 BC
	OxA 1763	2870	70	1202 BC - 1196 BC	1296 BC - 854 BC
				1162 BC - 1143 BC	
				1136 BC - 982 BC	
				964 BC - 932 BC	
	OxA 1764	2895	70	1252 BC - 1246 BC	1308 BC - 912 BC
				1212 BC - 1182 BC	
				1168 BC - 1000 BC	
	OxA 1765	2750	70	988 BC - 956 BC	1090 BC - 802 BC
				940 BC - 832 BC	
	OxA 1766	2560	70	812 BC - 758 BC	840 BC - 412 BC
				690 BC - 652 BC	
				642 BC - 542 BC	
Hartburn	I 6300	1985	175	200 BC - 230 AD	400 BC - 400 AD
	I 6301	1885	90	18 AD - 228 AD	100 BC - 336 AD

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Huckhoe	GaK 1388	2460	40	764 BC - 680 BC	766 BC - 410 BC
				662 BC - 626 BC	
				604 BC - 516 BC	
				428 BC - 416 BC	
Ingram Hill	I 5316	2170	90	366 BC - 276 BC	398 BC - 12 BC
				264 BC - 160 BC	
				142 BC - 118 BC	
Kennel Hall Knowe	HAR 1938	1680	80	248 AD - 430 AD	142 AD - 168 AD
					184 AD - 544 AD
	HAR 1943	2050	90	188 BC - 26 AD	362 BC - 284 BC
				42 AD - 52 AD	256 BC - 120 AD
	HAR 1937	1970	70	86 BC - 70 BC	164 BC - 138 BC
				54 BC - 88 AD	122 BC - 146 AD
				102 AD - 108 AD	160 AD - 208 AD
	HAR 1941	1920	110	50 BC - 220 AD	190 BC - 350 AD
Lookout Plantation	*	3410	80	1876 BC - 1840 BC	1910 BC - 1522 BC
				1820 BC - 1800 BC	
				1780 BC - 1626 BC	
	*	3370	80	1862 BC - 1852 BC	1886 BC - 1512 BC
				1752 BC - 1596 BC	
				1566 BC - 1526 BC	
	*	3230	110	1670 BC - 1650 BC	1870 BC - 1260 BC
				1640 BC - 1410 BC	
	*	3090	30	1416 BC - 1382 BC	1430 BC - 1274 BC
				1344 BC - 1320 BC	

Table a7.1 contd

* Unpublished dates given in Jobey 1985

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Murton High Crags	GrN 15672	3160	50	1510 BC - 1472 BC	1584 BC - 1576 BC
				1466 BC - 1414 BC	1528 BC - 1372 BC
					1348 BC - 1314 BC
	GrN 15673	4285	50	3022 BC - 3000 BC	3034 BC - 2944 BC
				2926 BC - 2882 BC	2942 BC - 2872 BC
				2798 BC - 2782 BC	2806 BC - 2776 BC
					2720 BC - 2702 BC
	HAR 6200	2060	100	200 BC - 60 AD	370 BC - 120 AD
	HAR 6201	2960	80	1308 BC - 1280 BC	1408 BC - 990 BC
				1272 BC - 1086 BC	950 BC - 946 BC
	HAR 6202	2130	80	358 BC - 290 BC	382 BC - 1 AD
				250 BC - 94 BC	
	OxA 1740	1910	70	8 AD - 142 AD	88 BC - 242 AD
				164 AD - 200 AD	
	OxA 1741	1960	70	46 BC - 116 AD	156 BC - 216 AD
	OxA 1742	2000	70	94 BC - 64 AD	190 BC - 130 AD
Standrop Rigg	HAR 3399	2360	70	754 BC - 698 BC	768 BC - 250 BC
				534 BC - 384 BC	
	HAR 3538	3000	80	1390 BC - 1338 BC	1424 BC - 1016 BC
				1324 BC - 1156 BC	
				1148 BC - 1128 BC	
	HAR 3981	2300	70	470 BC - 448 BC	758 BC - 182 BC
				412 BC - 348 BC	
				318 BC - 204 BC	
	HAR 3983	4020	80	2860 BC - 2818 BC	2874 BC - 2344 BC
				2692 BC - 2686 BC	
				2660 BC - 2636 BC	
				2620 BC - 2464 BC	

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Thornbrough Scar	GrN 12607	1655	40	340 AD - 424 AD	254 AD - 298 AD
					320 AD - 452 AD
					484 AD - 506 AD
					512 AD - 526 AD
	GrN 12608	1750	40	232 AD - 270 AD	142 AD - 166 AD
				276 AD - 338 AD	190 AD - 196 AD
					198 AD - 392 AD
	GrN 15679	2060	35	156 BC - 146 BC	174 BC - 4 AD
				116 BC - 34 BC	
	GrN 15678	2530	35	796 BC - 762 BC	802 BC - 756 bC
				682 BC - 660 BC	696 BC - 536 BC
				632 BC - 598 BC	
				576 BC - 556 BC	
	OxA 2130	1630	70	340 AD - 460 AD	246 AD - 590 AD
				474 AD - 532 AD	
	OxA 2131	1690	70	252 AD - 304 AD	142 AD - 536 AD
				314 AD - 418 AD	
Thorpe Thewles	GrN 15658	2205	35	366 BC - 346 BC	380 BC - 194 BC
				320 BC - 280 BC	
				262 BC - 204 BC	
	GrN 15659	2200	50	366 BC - 338 BC	390 BC - 166 BC
				328 BC - 278 BC	136 BC - 122 BC
				262 BC - 200 BC	

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Thorpe Thewles	GrN 15660	2130	60	354 BC - 308 BC	370 BC - 36 BC
				244 BC - 226 BC	
				212 BC - 98 BC	
	GrN 15661	2720	80	980 BC - 964 BC	1096 BC - 782 BC
				932 BC - 810 BC	
	GrN 15662	2410	80	760 BC - 686 BC	782 BC - 390 BC
				656 BC - 638 BC	
				548 BC - 400 BC	
	GrN 15663	2300	35	402 BC - 370 BC	408 BC - 356 BC
					298 BC - 248 BC
	OxA 1731	2305	70	480 BC - 440 BC	758 BC - 186 BC
				412 BC - 350 BC	
				316 BC - 206 BC	
	OxA 1732	2190	70	368 BC - 272 BC	394 BC - 104 BC
				268 BC - 190 BC	
	OxA 1733	2040	70	164 BC - 136 BC	348 BC - 114 AD
				122 BC - 22 AD	
West Dod Law	GrN 15674	2235	35	386 BC - 354 BC	392 BC - 342 BC
				306 BC - 246 BC	324 BC - 202 BC
				224 BC - 212 BC	
	GrN 15675	2215	35	368 BC - 350 BC	382 BC - 198 BC
				314 BC - 274 BC	
				266 BC - 208 BC	

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
West Dod Law	GrN 15676	2095	30	172 BC - 102 BC	194 BC - 50 BC
	GrN 15677	2265	35	394 BC - 360 BC	398 BC - 350 BC
				286 BC - 254 BC	212 BC - 208 BC
				310 BC - 240 BC	
				228 BC - 210 BC	
	OxA 1734	1960	70	46 BC - 116 AD	156 BC - 216 AD
	OxA 1735	1970	70	86 BC - 70 BC	164 BC - 208 AD
				54 BC - 88 AD	
				102 AD - 108 AD	
	OxA 1736	1910	80	6 AD - 146 AD	102 BC - 318 AD
				158 AD - 212 AD	

Table a7.1 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Bishop Middleham	Gak 2071	5180	110	4230 BC - 4200 BC	4320 BC - 4290 BC
				4150 BC - 4060 BC	4260 BC - 3780 BC
				4050 BC - 3930 BC	3740 BC - 3710 BC
				3870 BC - 3820 BC	
	GaK 2072	3660	80	2186 BC - 2168 BC	2294 BC - 1876 BC
				2140 BC - 1938 BC	1840 BC - 1820 BC
					1800 BC - 1780 BC
	GaK 2073	3360	80	1746 BC - 1592 BC	1881 BC - 1510 BC
				1570 BC - 1528 BC	1472 BC - 1464 BC
Bollihope Bog	GaK 3031	1730	100	140 AD - 160 AD	80 AD - 540 AD
				200 AD - 420 AD	
Camp Hill Moss	HAR 1945	3510	70	1928 BC - 1748 BC	2034 BC - 1682 BC
	HAR 1946	3110	80	1508 BC - 1480 BC	1598 BC - 1564 BC
				1458 BC - 1306 BC	1530 BC - 1158 BC
				1282 BC - 1270 BC	1146 BC - 1132 BC
	HAR 1947	2670	70	900 BC - 802 BC	1004 BC - 764 BC
					678 BC - 666 BC
					622 BC - 606 BC
	HAR 1948	640	80	1278 AD - 1324 AD	1245 AD - 1430 AD
				1338 AD - 1398 AD	
Fellend Moss	SRR 877	3888	60	2466 BC - 2300 BC	2566 BC - 2540 BC
					2502 BC - 2200 BC
	SRR 876	1948	45	2 AD - 88 AD	88 BC - 68 BC
				98 AD - 110 AD	54 BC - 132 AD
	SRR 875	1330	40	654 AD - 710 AD	646 AD - 772 AD
				746 AD - 758 AD	

Table a7.2 Calibration of C14 dates from pollen cores in north east England

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Hallowell Moss	SRR 418	3645	60	2134 BC - 2070 BC	2198 BC - 2156 BC
				2046 BC - 1946 BC	2148 BC - 1882 BC
	SRR 417	2432	60	758 BC - 688 BC	766 BC - 674 BC
				654 BC - 638 BC	668 BC - 402 BC
				546 BC - 406 BC	
	SRR 415	1956	70	42 AD - 118 AD	14 AD - 220 AD
	SRR 413	1355	50	630 AD - 694 AD	606 AD - 772 AD
				700 AD - 710 AD	
				748 AD - 758 AD	
Hutton Henry	SRR 601	3544	80	2026 BC - 2000 BC	2132 BC - 2070 BC
				1980 BC - 1866 BC	2046 BC - 1730 BC
				1848 BC - 1768 BC	1724 BC - 1690 BC
	SRR 600	1842	70	84 AD - 240 AD	12 AD - 340 AD
Mordon Carr	SRR 475	5305	55	4232 BC - 4214 BC	4326 BC - 4284 BC
				4208 BC - 4190 BC	4244 BC - 4032 BC
				4166 BC - 4134 BC	4024 - 3998 BC
				4128 BC - 4042 BC	
	SRR 597	4736	85	3632 BC - 3562 BC	3768 BC - 3764 BC
				3546 BC - 3496 BC	3700 BC - 3346 BC
				3474 BC - 3446 BC	
				3432 BC - 3378 BC	
	SRR 474	4543	70	3366 BC - 3294 BC	3500 BC - 3414 BC
				3272 BC - 3270 BC	3380 BC - 3034 BC
				3242 BC - 3102 BC	

Table a7.2 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Neasham Fen	SRR 102	5468	80	4454 BC - 4426 BC	4492 BC - 4486 BC
				4396 BC - 4382 BC	4472 BC - 4222 BC
				4368 BC - 4236 BC	4202 BC - 4146 BC
					4114 BC - 4080 BC
					4068 BC - 4046 BC
	SRR 101	3242	70	1612 BC - 1550 BC	1686 BC - 1406 BC
				1538 BC - 1442 BC	
	SRR 96	1213	60	716 AD - 740 AD	672 AD - 900 AD
				764 AD - 886 AD	912 AD - 953 AD
	SRR 98	2850	60	1122 BC - 1117 BC	1256 BC - 1240 BC
				1102 BC - 922 BC	1218 BC - 900 BC
					866 BC - 858 BC
	SRR 99	2538	50	800 BC - 760 BC	812 BC - 518 BC
				686 BC - 656 BC	426 BC - 418 BC
				636 BC - 592 BC	
				584 BC - 550 BC	
	SRR 100	2488	75	786 BC - 748 BC	794 BC - 460 BC
				732 BC - 524 BC	454 BC - 410 BC
Red Sike Moss	GaK 2028	3390	90	1872 BC - 1842 BC	1932 BC - 1510 BC
				1814 BC - 1804 BC	1470 BC - 1466 BC
				1776 BC - 1606 BC	
				1556 BC - 1534 BC	
	GaK 2027	2570	80	824 BC - 756 BC	898 BC - 872 BC
				690 BC - 540 BC	850 BC - 468 BC
					448 BC - 410 BC

Table a7.2 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Steng Moss	SRR 1945	3594	45	2028 BC - 1996 BC	2130 BC - 2076 BC
				1984 BC - 1898 BC	2042 BC - 1878 BC
					1836 BC - 1824 BC
					1794 BC - 1786 BC
	SRR 1044	3015	45	1386 BC - 1340 BC	1408 BC - 1154 BC
				1322 BC - 1256 BC	1149 BC - 1128 BC
				1242 BC - 1216 BC	
	SRR 1043	2586	45	820 BC - 764 BC	838 BC - 758 BC
				676 BC - 668 BC	688 BC - 652 BC
				618 BC - 610 BC	640 BC - 544 BC
	SRR 1042	2528	35	796 BC - 762 BC	802 BC - 754 BC
				684 BC - 660 BC	700 BC - 532 BC
				632 BC - 598 BC	
				576 BC - 554 BC	
	Q 1520	1970	60	52 BC - 86 AD	160 BC - 142 BC
					118 BC - 140 AD
	Q 1519	1490	60	458 AD - 474 AD	174 AD - 176 AD
				530 AD - 640 AD	436 AD - 650 AD
Steward Shield Meadow	GaK 3033	2060	120	350 BC - 320 BC	390 BC - 140 AD
				200 BC - 70 AD	170 AD - 190 AD
	GaK 3032	840	100	1050 AD - 1090 AD	1000 AD - 1300 AD
				1120 AD - 1140 AD	1360 AD - 1370 AD
				1150 AD - 1267 AD	
Thorpe Bulmer	SRR 404	2064	60	168 BC - 132 BC	350 BC - 312 BC
				128 BC - 10 BC	208 BC - 70 AD

Table a7.2 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Thorpe Bulmer	GaK 3713	1730	20	252 AD - 267 AD	244 AD - 346 AD
				277 AD - 300 AD	364 AD - 375 AD
				317 AD - 337 AD	
	SRR 405	852	69	1052 AD - 1080 AD	1038 AD - 1264 AD
				1122 AD - 1136 AD	
				1158 AD - 1253 AD	
Weelhead Moss	GaK 2913	3150	100	1590 BC - 1580 BC	1680 BC - 1160 BC
				1530 BC - 1310 BC	1145 BC - 1140 BC
				1280 BC - 1270 BC	
	GaK 2915	5220	120	4230 BC - 4190 BC	4340 BC - 4270 BC
				4170 BC - 3950 BC	4260 BC - 3790 BC
				3850 BC - 3820 BC	

aTable 7.2 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Douglasmuir	GU 1468	2495	60	788 BC - 752 BC	796 BC - 468 BC
				712 BC - 530 BC	448 BC - 410 BC
	GU 1317	2485	50	772 BC - 752 BC	792 BC - 470 BC
				720 BC - 528 BC	446 BC - 412 BC
	GU 1466	2465	60	764 BC - 674 BC	774 BC - 408 BC
				668 BC - 618 BC	
				610 BC - 516 BC	
				426 BC - 416 BC	
	GU 1471	2400	60	754 BC - 698 BC	764 BC - 676 BC
				534 BC - 400 BC	666 BC - 620 BC
					608 BC - 392 BC
Dryburn Bridge	GU 1283	2280	55	402 BC - 354 BC	476 BC - 442 BC
				302 BC - 246 BC	412 BC - 190 BC
				222 BC - 214 BC	
	GU 1257	2450	50	760 BC - 684 BC	766 BC - 672 BC
				658 BC - 632 BC	668 BC - 408 BC
				596 BC - 576 BC	
				554 BC - 474 BC	
				446 BC - 412 BC	
	GU 1287	2550	50	804 BC - 760 BC	818 BC - 746 BC
				684 BC - 658 BC	736 BC - 522 BC
				634 BC - 596 BC	
				580 BC - 552 BC	

Table a7.3 Calibration of C14 dates from other sites mentioned in the text

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Dryburn Bridge	GU 1284	2615	55	892 BC - 882 BC	906 BC - 760 BC
				844 BC - 768 BC	686 BC- 656 BC
					636 BC - 590 BC
					586 BC - 548 BC
Green Knowe	GU 1012	2975	63	1312 BC - 1124 BC	1396 BC - 1332 BC
				1117 BC - 1102 BC	1330 BC - 1032 BC
	GU 1011	2934	45	1256 BC - 1240 BC	1302 BC - 1288 BC
				1218 BC - 1090 BC	1268 BC - 1010 BC
				1070 BC - 1068 BC	
	GU 1013	2922	87	1260 BC - 1558 BC	1684 BC - 1386 BC
				1226 BC - 1012 BC	1324 BC - 916 BC
	GU 1213	3220	75	1606 BC - 1558 BC	1684 BC - 1386 BC
				1534 BC - 1424 BC	1342 BC - 1322 BC
	GU 1014	2731	75	982 BC - 964 BC	1088 BC - 1080 BC
				934 BC - 816 BC	1060 BC - 796 BC
Stanwick	GrN 15664	2320	35	404 BC - 382 BC	508 BC - 498 BC
					484 BC - 438 BC
					414 BC - 362 BC
					284 BC - 256 BC
	GrN 15665	1990	60	86 BC - 70 BC	164 BC - 138 BC
				54 BC - 68 AD	120 BC - 126 AD
	GrN 15666	1990	20	32 BC - 22 AD	43 BC - 61 AD
	GrN 15667	1995	35	44 BC - 28 AD	94 BC - 68 AD
				36 AD - 56 AD	

Table a7.3 contd

SITE	LAB CODE	DATE BP	ERROR MARGIN +/-	CORRESPONDING DATES cal BC/AD 1 sigma (68%)	CORRESPONDING DATES cal BC/AD 2 sigma (95%)
Stanwick	OxA 3377	2060	65	168 BC - 132 BC	352 BC - 310 BC
				128 BC - 1 AD	242 BC - 228 BC
					210 BC - 76 AD
	OxA 3378	2080	65	192 BC - 26 BC	356 BC - 296 BC
				18 BC - 14 BC	248 BC - 56 AD
	OxA 3379	2090	70	336 BC - 330 BC	362 BC - 282 BC
				200 BC - 24 BC	258 BC - 28 AD
				22 BC - 12 BC	36 AD - 54 AD
	OxA 3380	2050	65	164 BC - 136 BC	350 BC - 314 BC
				122 BC - 12 AD	208 BC - 82 AD
	OxA 3381	2140	65	354 BC - 302 BC	378 BC - 40 BC
				246 BC - 220 BC	
				216 BC - 104 BC	
	OxA 3382	1720	60	248 AD - 386 AD	140 AD - 172 AD
					180 AD - 426 AD

Table a7.3 contd

FIGURES & TABLES

Fig 2.1 Known Sites by County

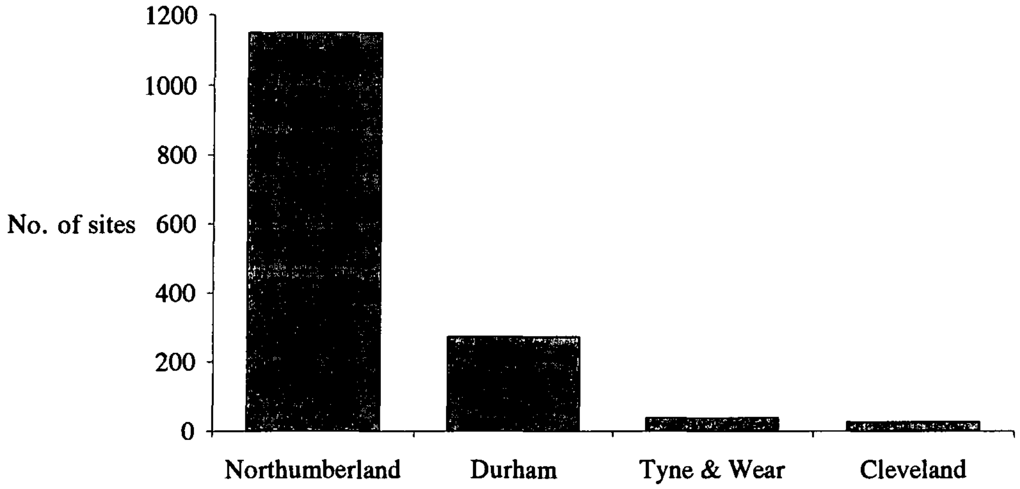


Fig 2.2 Known Sites % of total by County

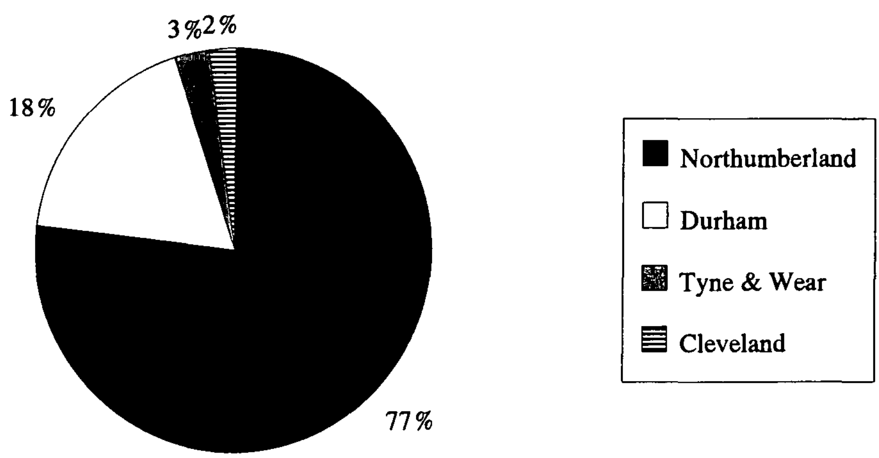
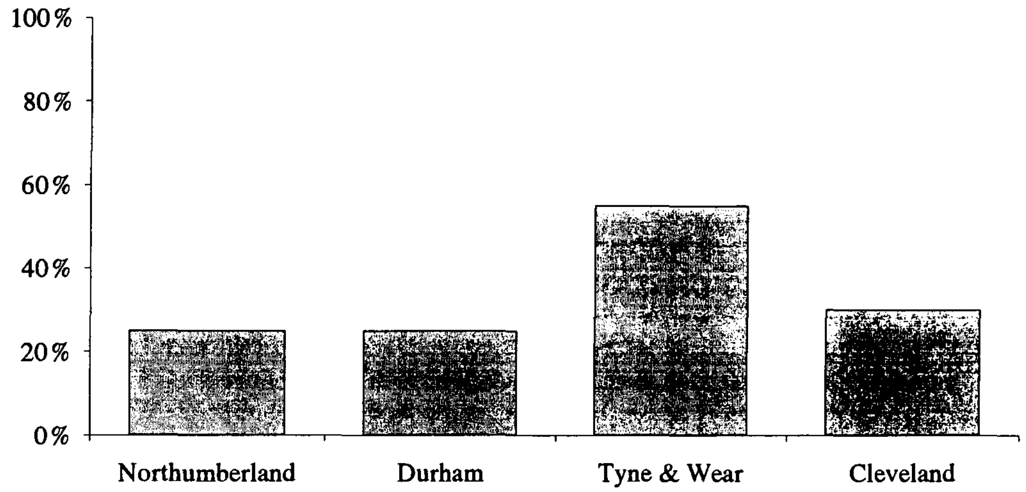


Fig 2.3 Destroyed land: % of county area



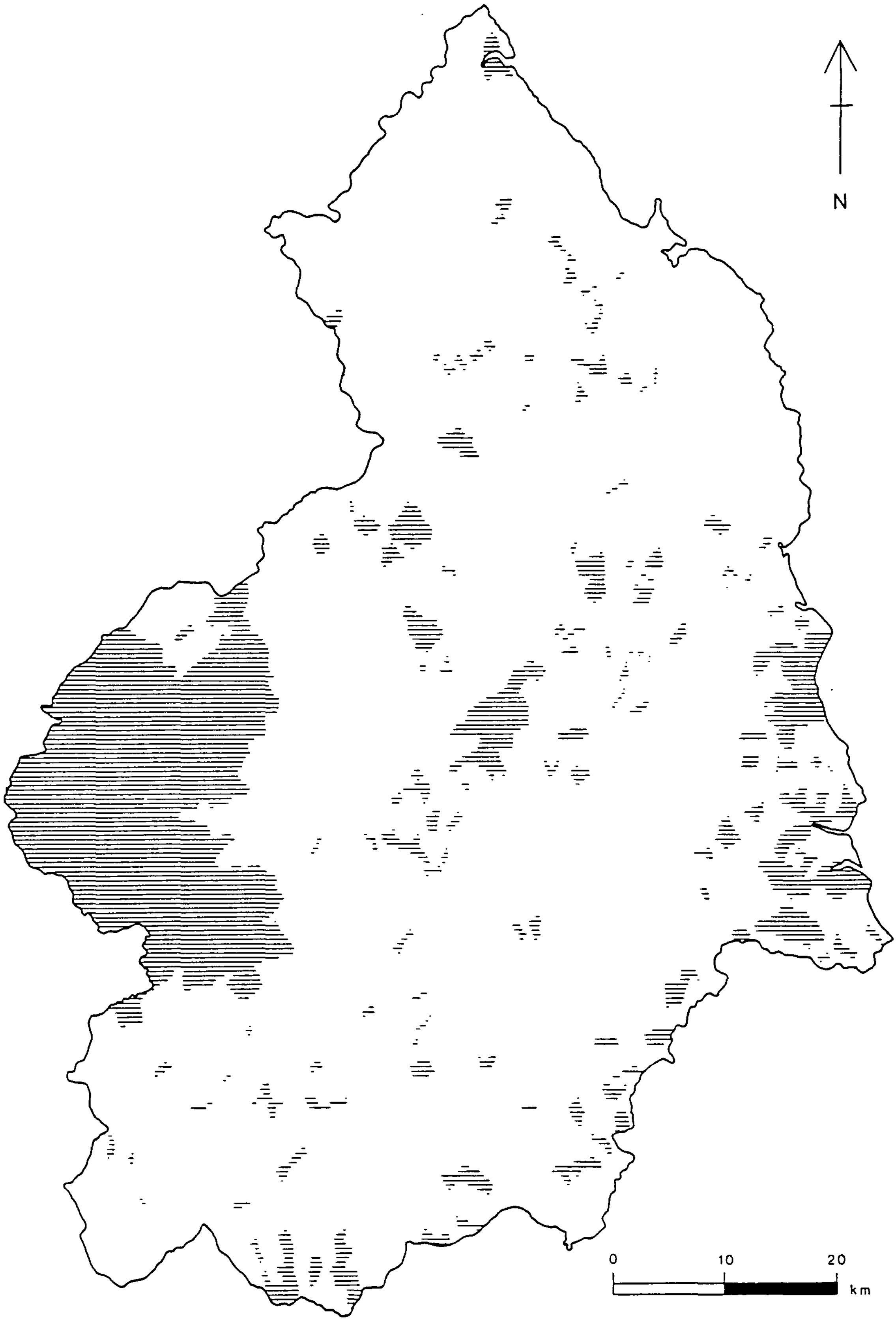


Fig 2.4 Map showing destroyed land: Northumberland

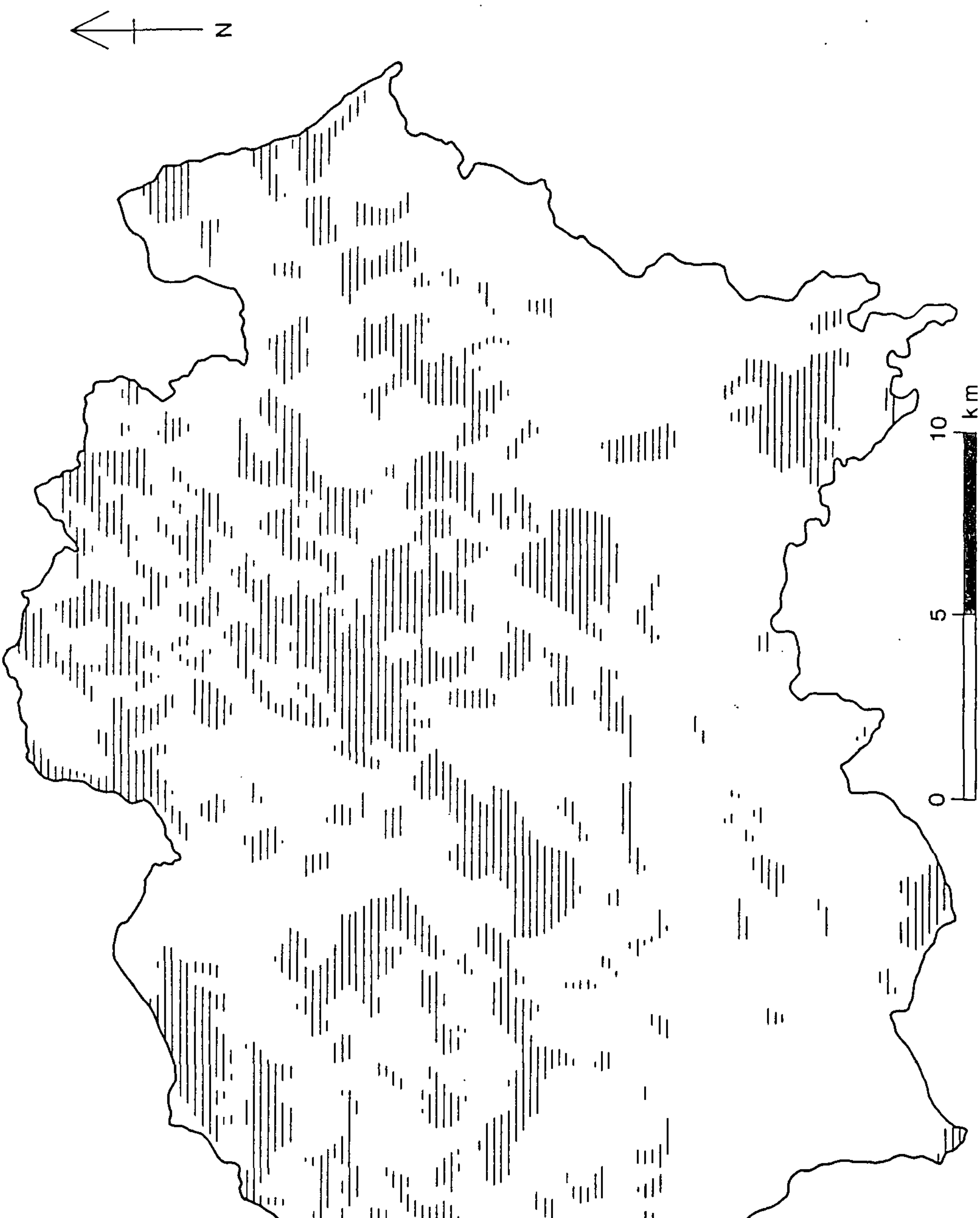


Fig 2.5 Map showing destroyed land: Durham

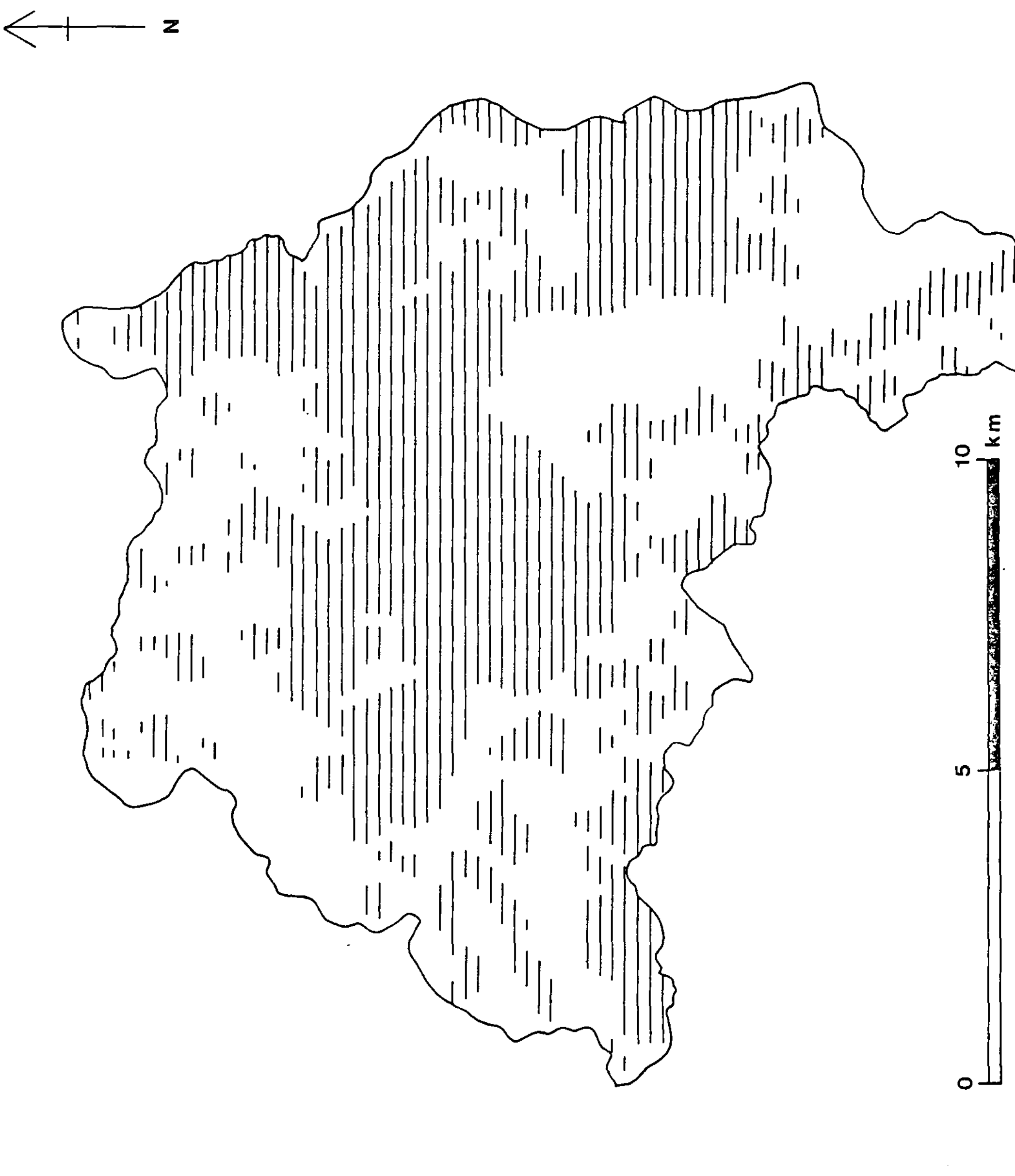


Fig 2.6 Map showing destroyed land: Tyne & Wear

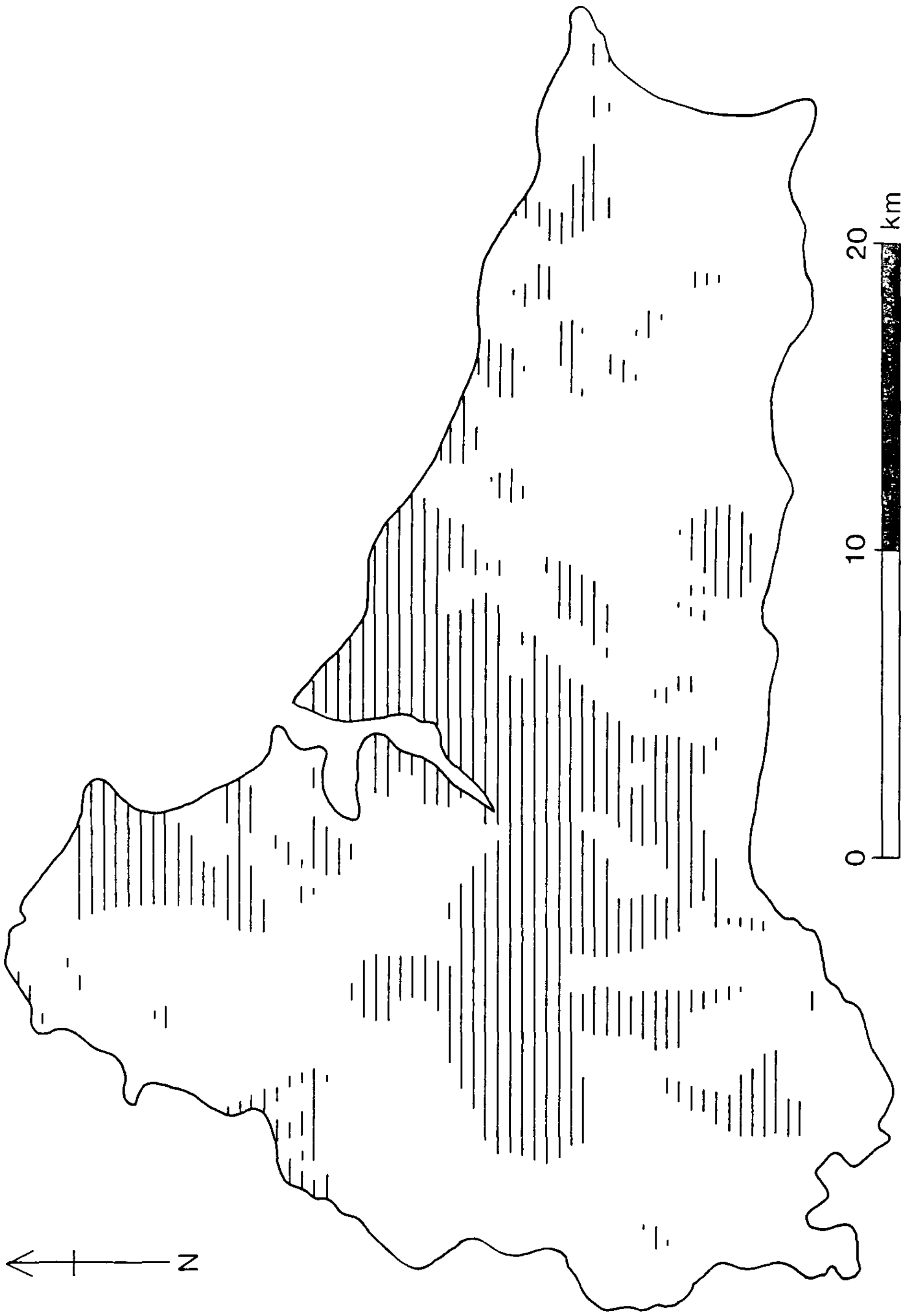


Fig 2.7 Map showing destroyed land: Cleveland

Fig 2.8 Monument types: Northumberland

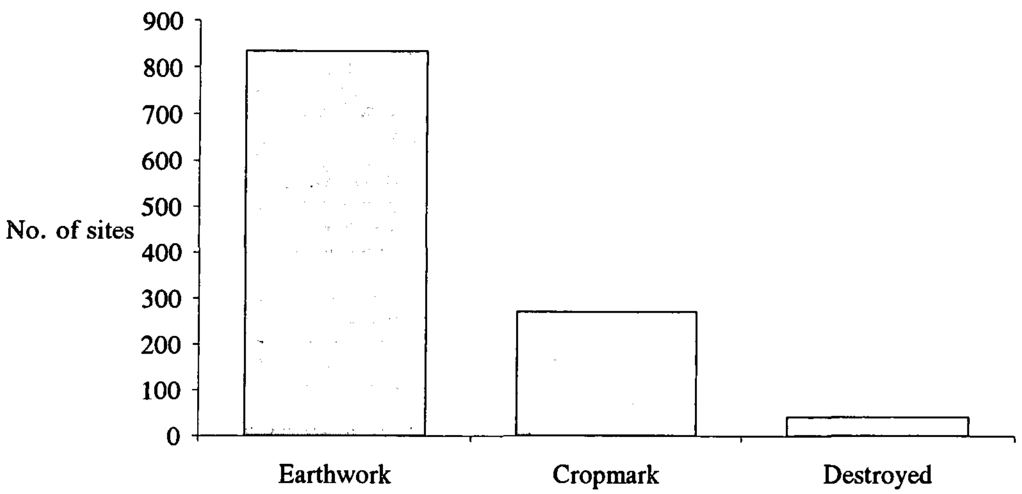


Fig 2.9 Monument Types % of total: Northumberland

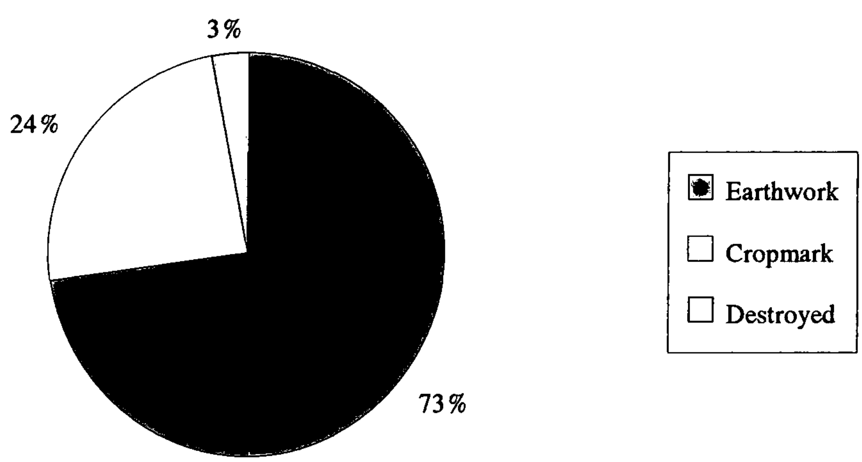


Fig 2.10 Monument Types: Durham

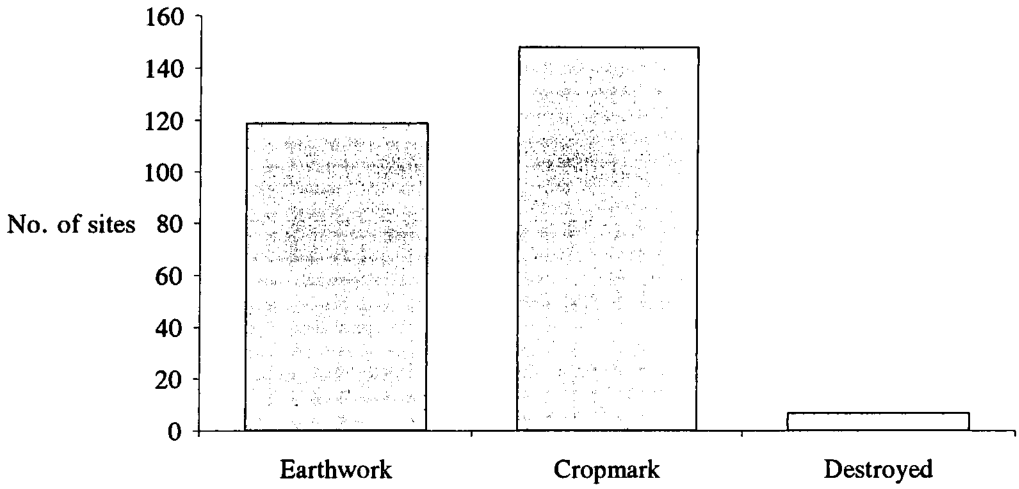


Fig 2.11 Monument types % of total: Durham

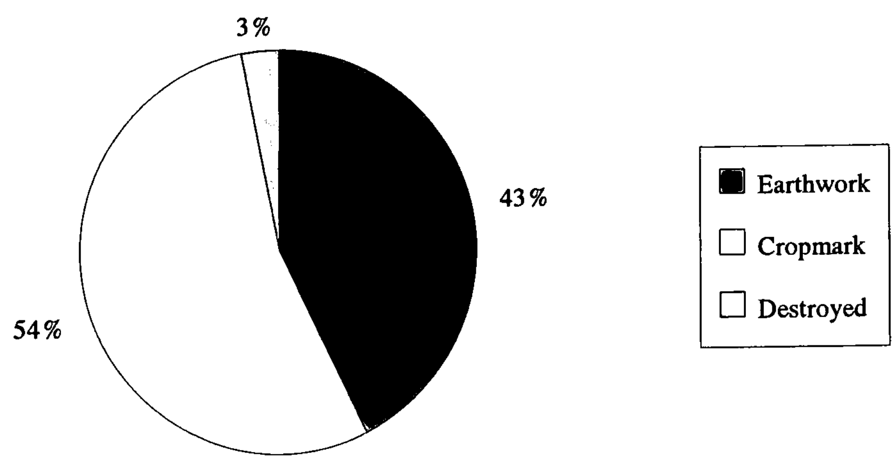


Fig 2.12 Monument Types: Tyne & Wear

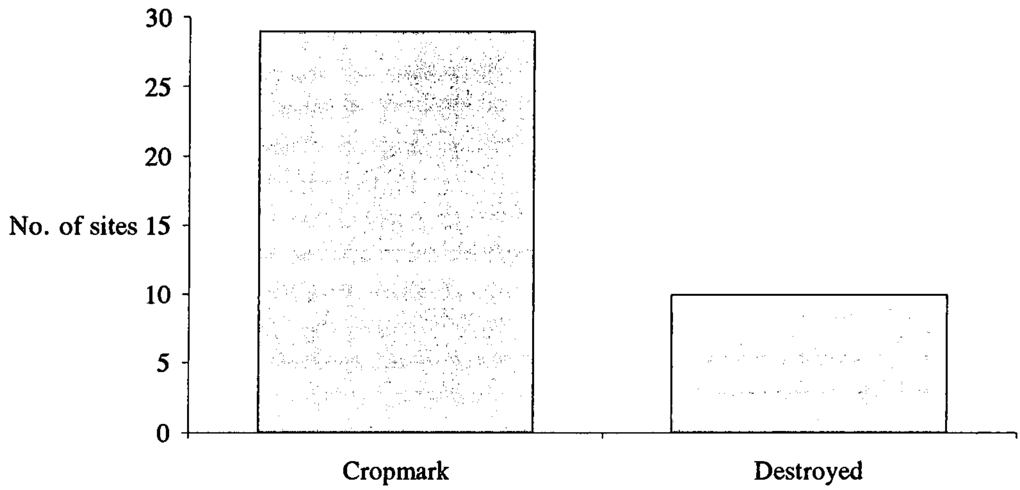


Fig 2.13 Monument Types % of total: Tyne & Wear

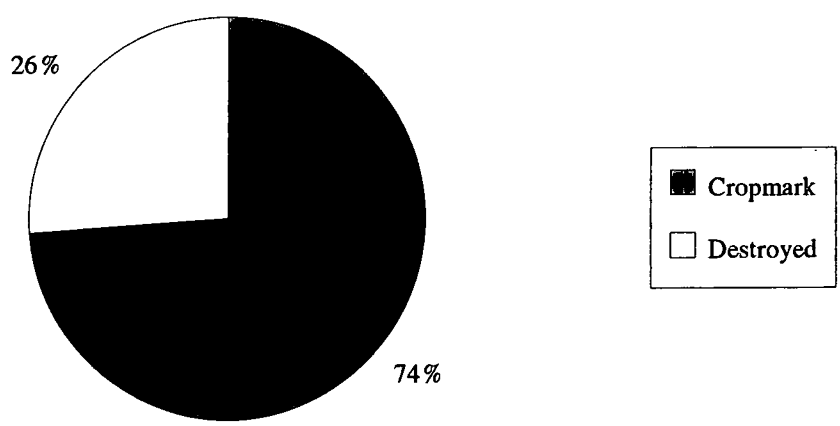


Fig 2.14 Monument Types: Cleveland

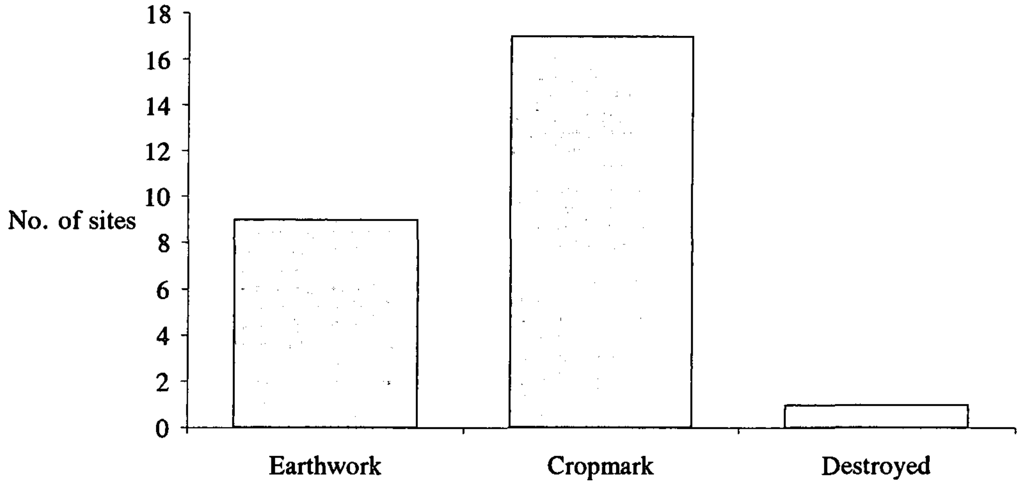


Fig 2.15 Monument Types % of total: Cleveland

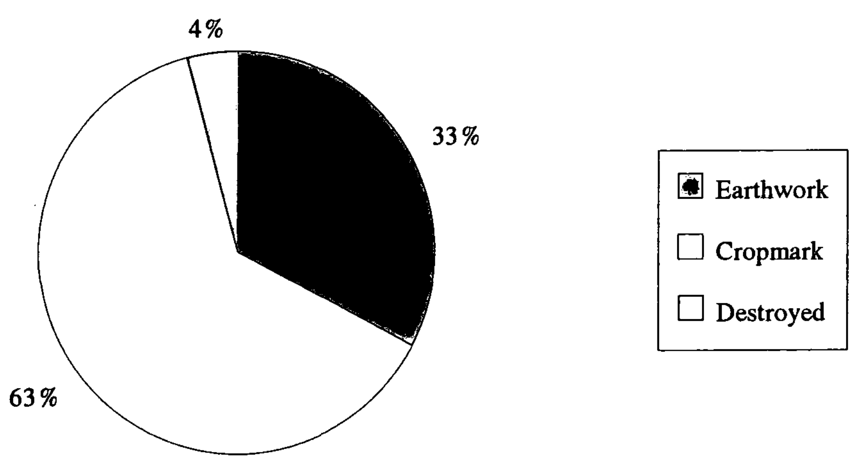


Fig 2.16 Known sites by type

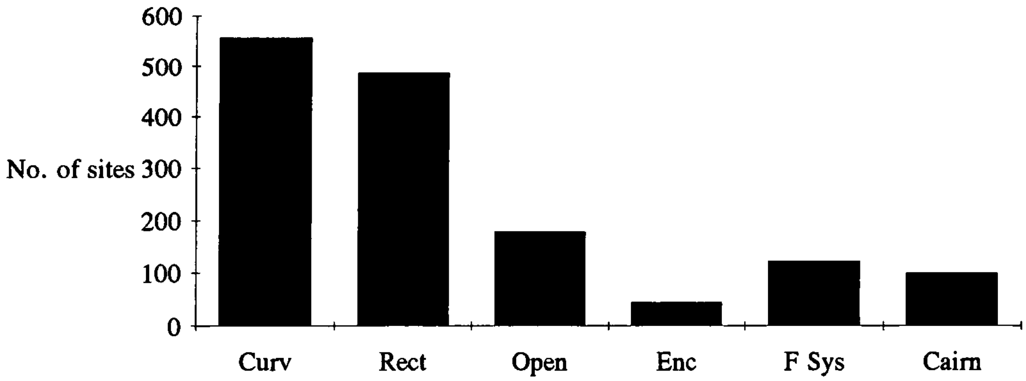


Fig 2.17 Known sites % of total by type

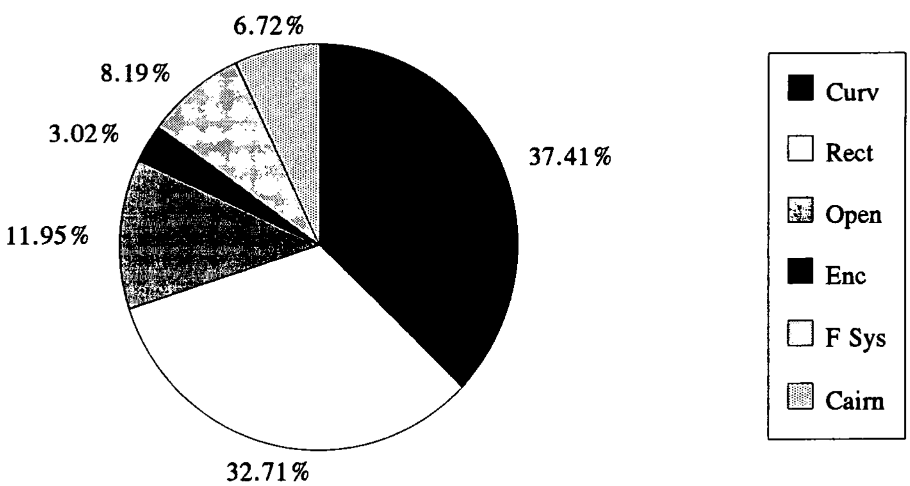


Fig 2.18 Site Types: Northumberland

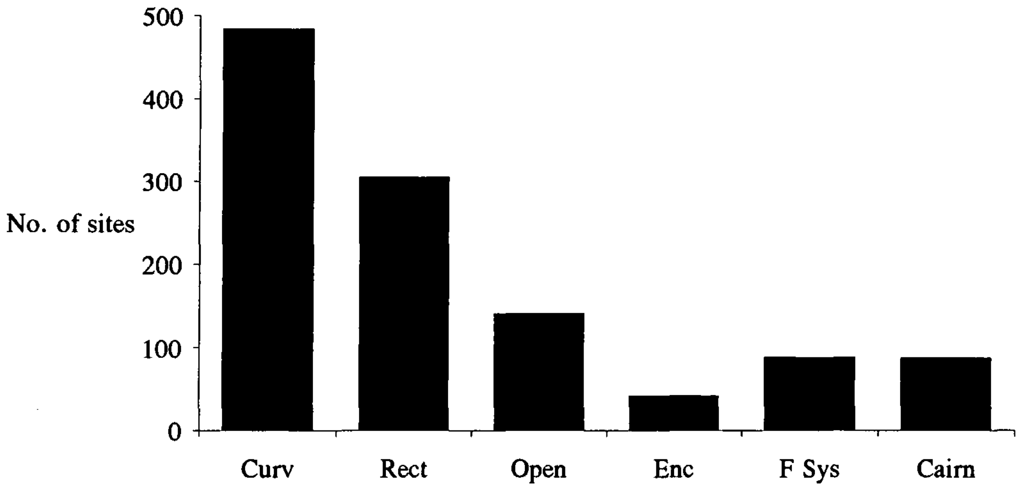


Fig 2.19 Site Types % of total: Northumberland

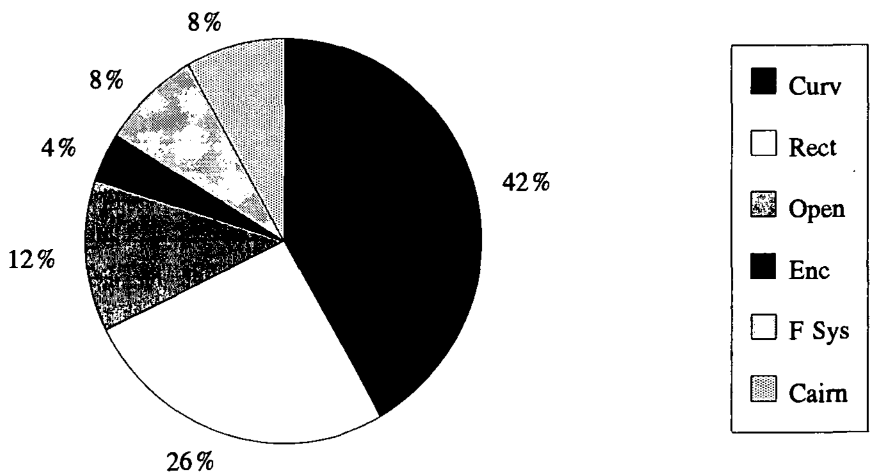


Fig 2.20 Site Types: Durham

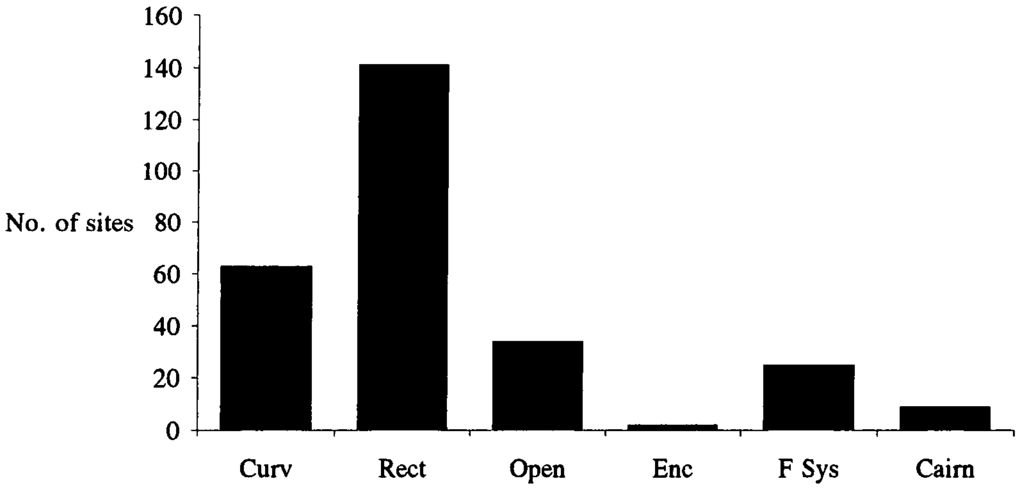


Fig 2.21 Site Types % of total: Durham

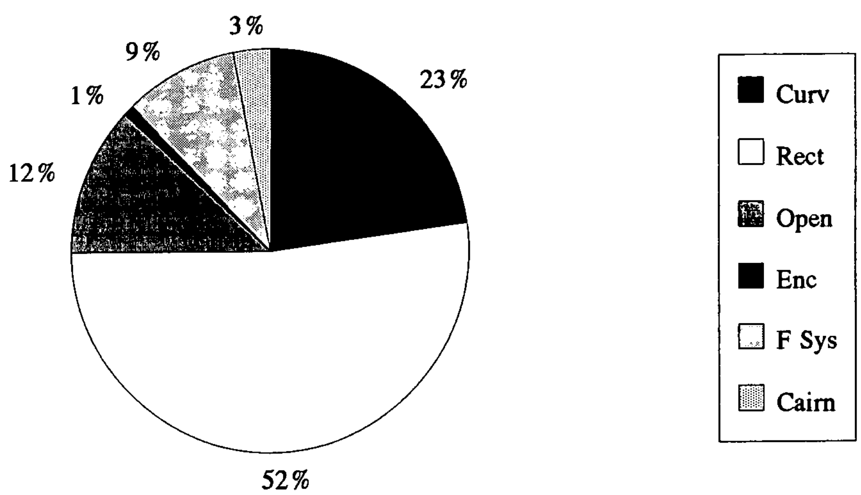


Fig 2.22 Site Types: Tyne & Wear

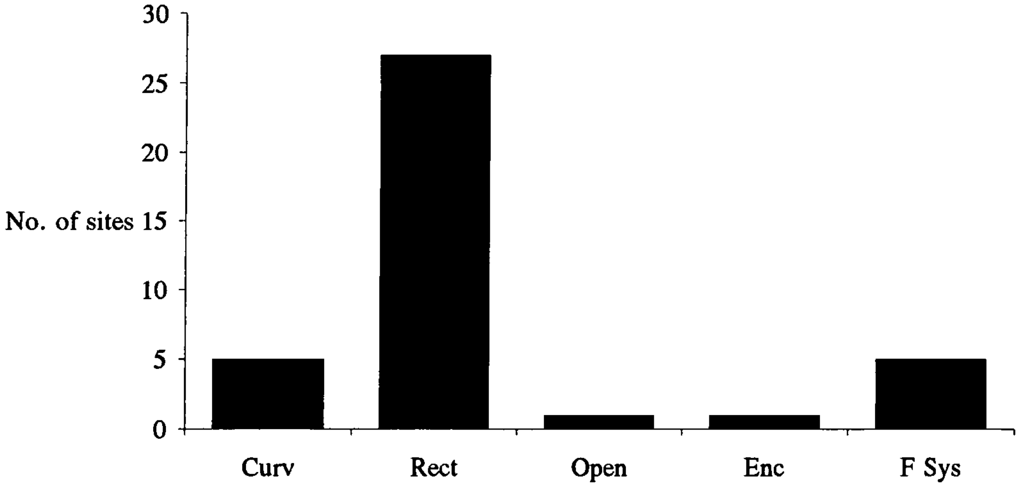


Fig 2.23 Site Types % of total: Tyne & Wear

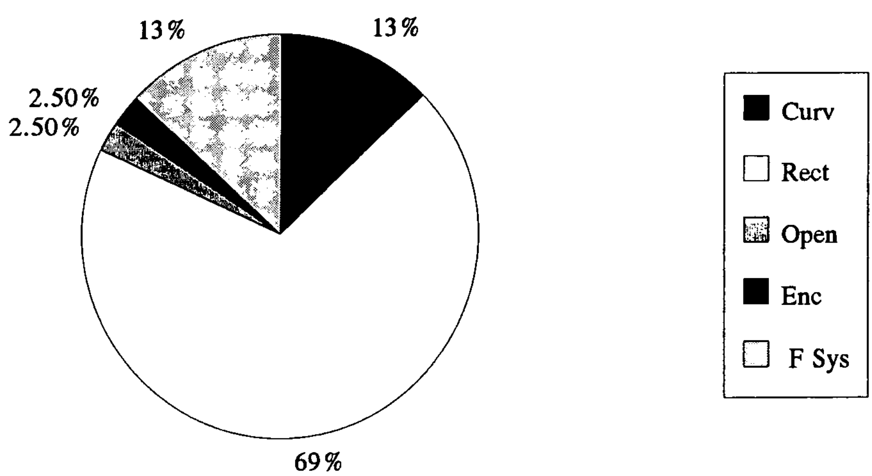


Fig 2.24 Site types: Cleveland

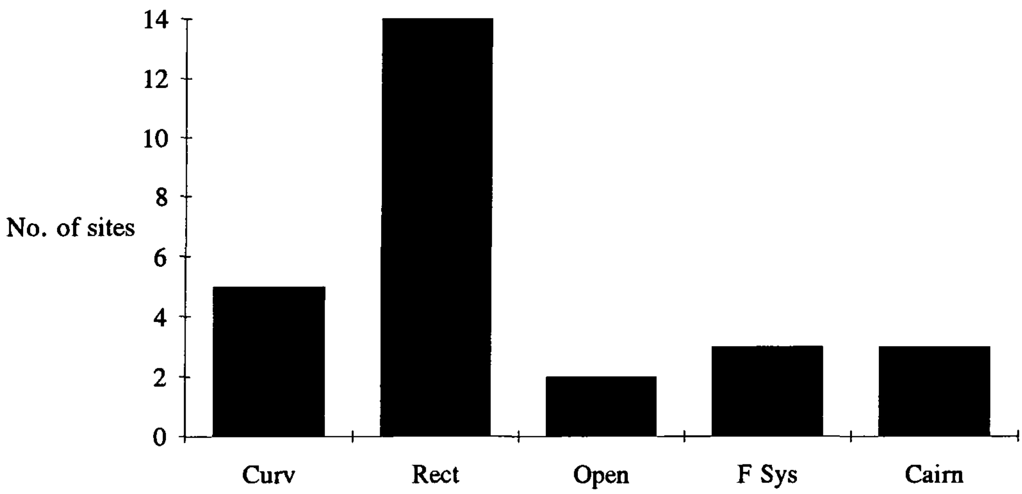


Fig 2.25 Site types % of total: Cleveland

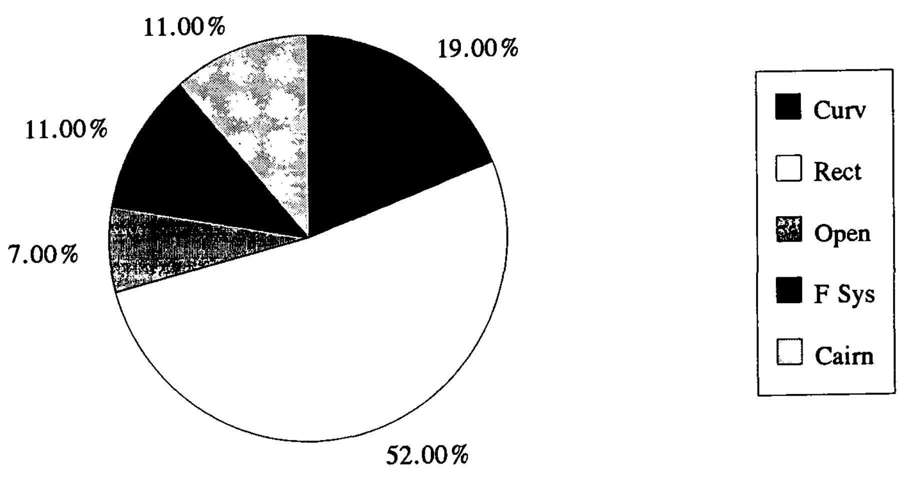


Fig 2.26 No. of Huts: all sites

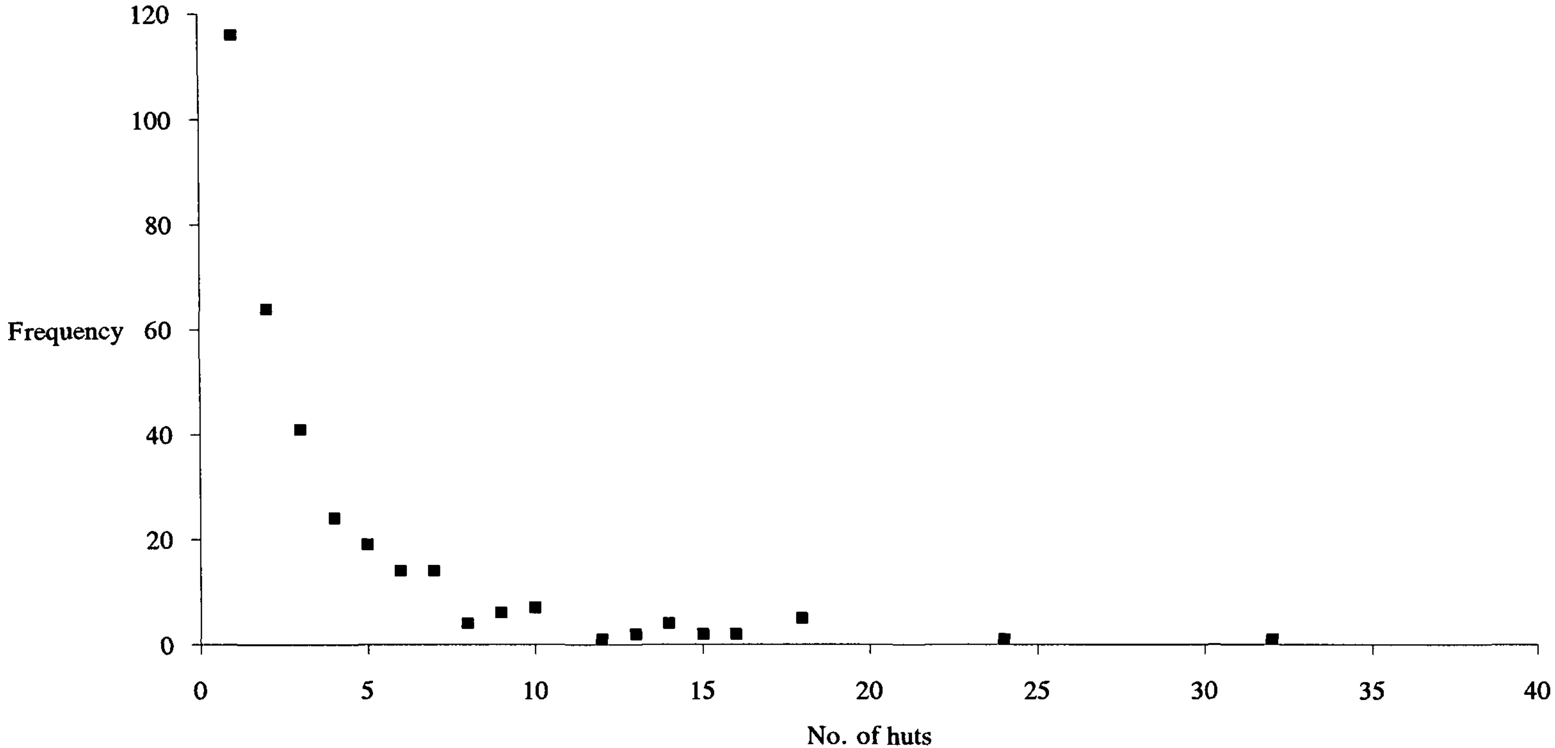


Fig 2.27 Activity rating: open sites

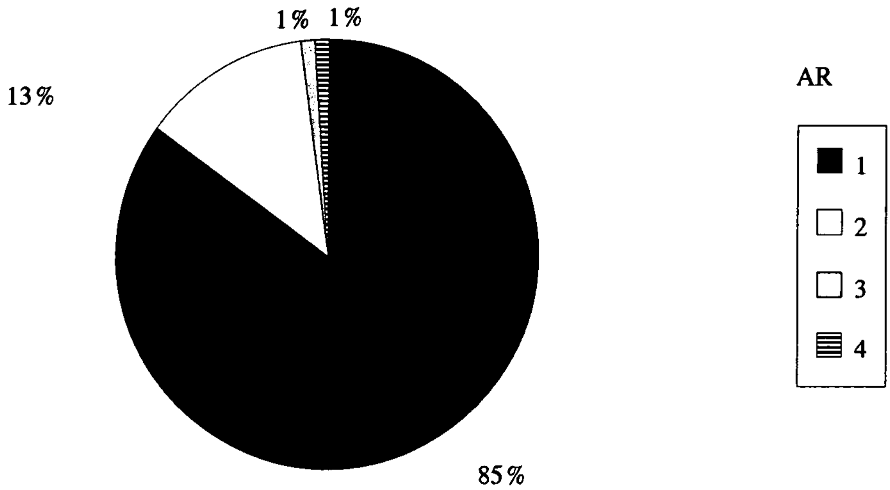


Fig 2.28 Activity rating: curvilinear sites

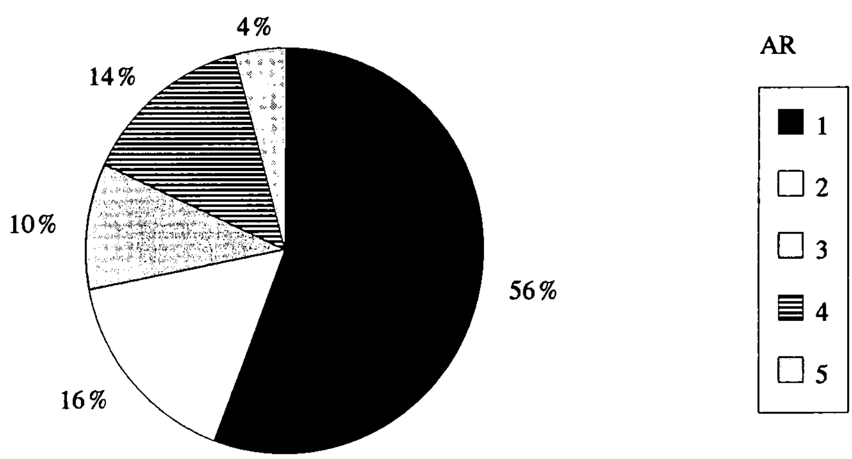
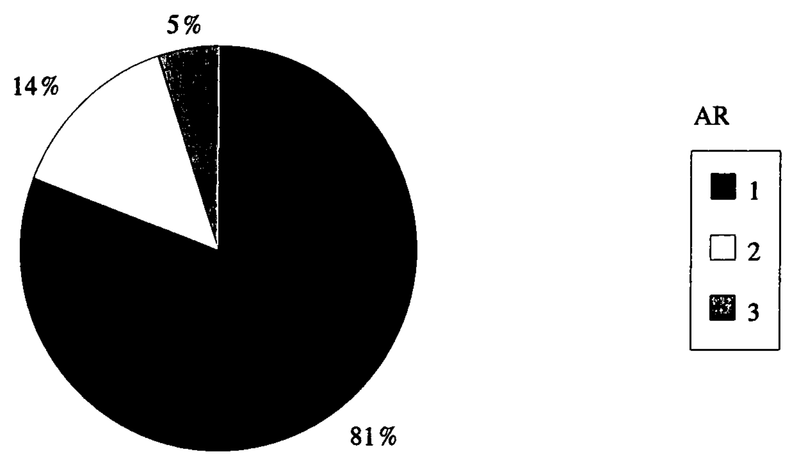


Fig 2.29 Activity rating: rectilinear sites



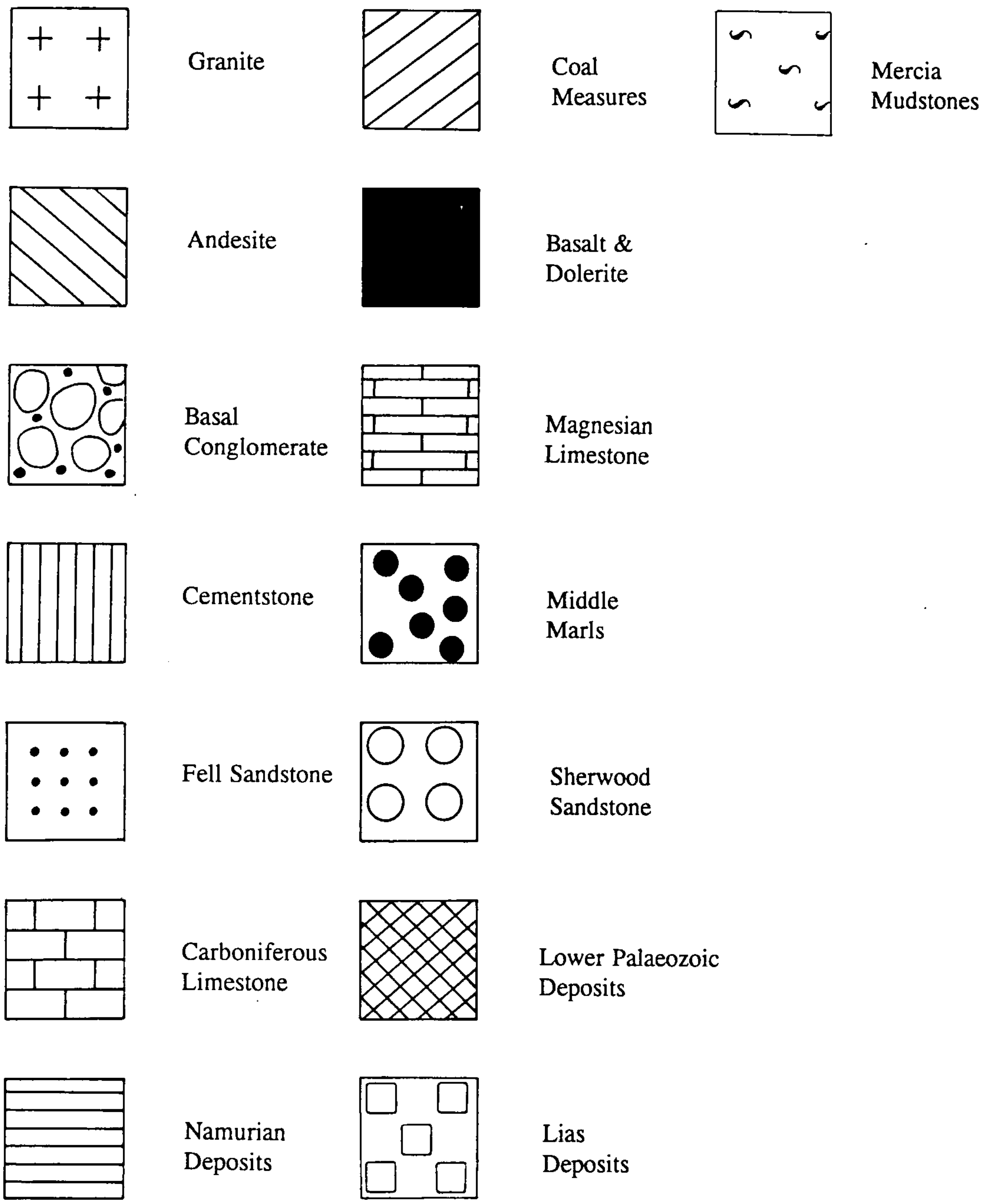


Fig 3.1 Key to solid geology maps

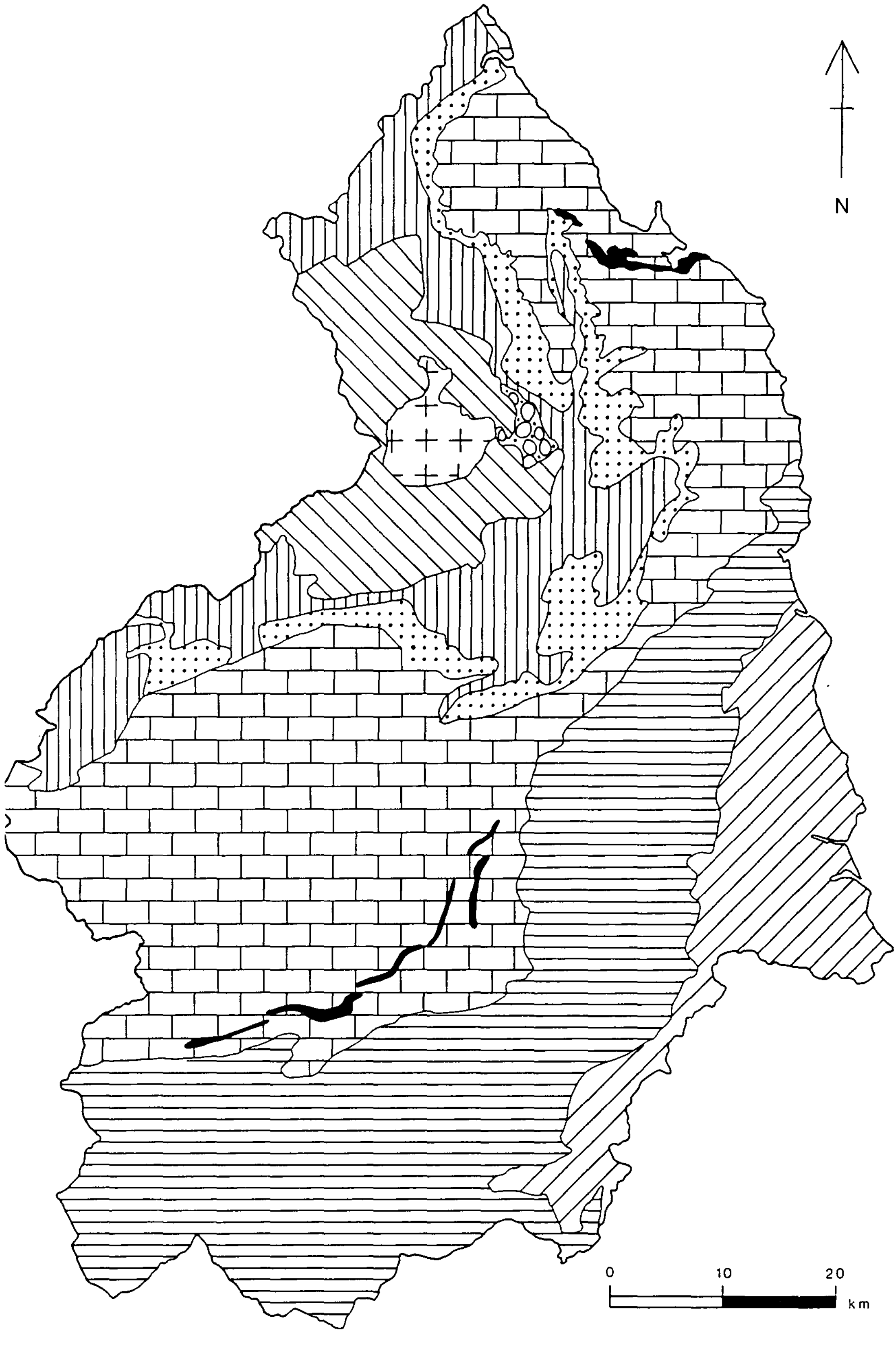


Fig 3.2 Solid geology: Northumberland

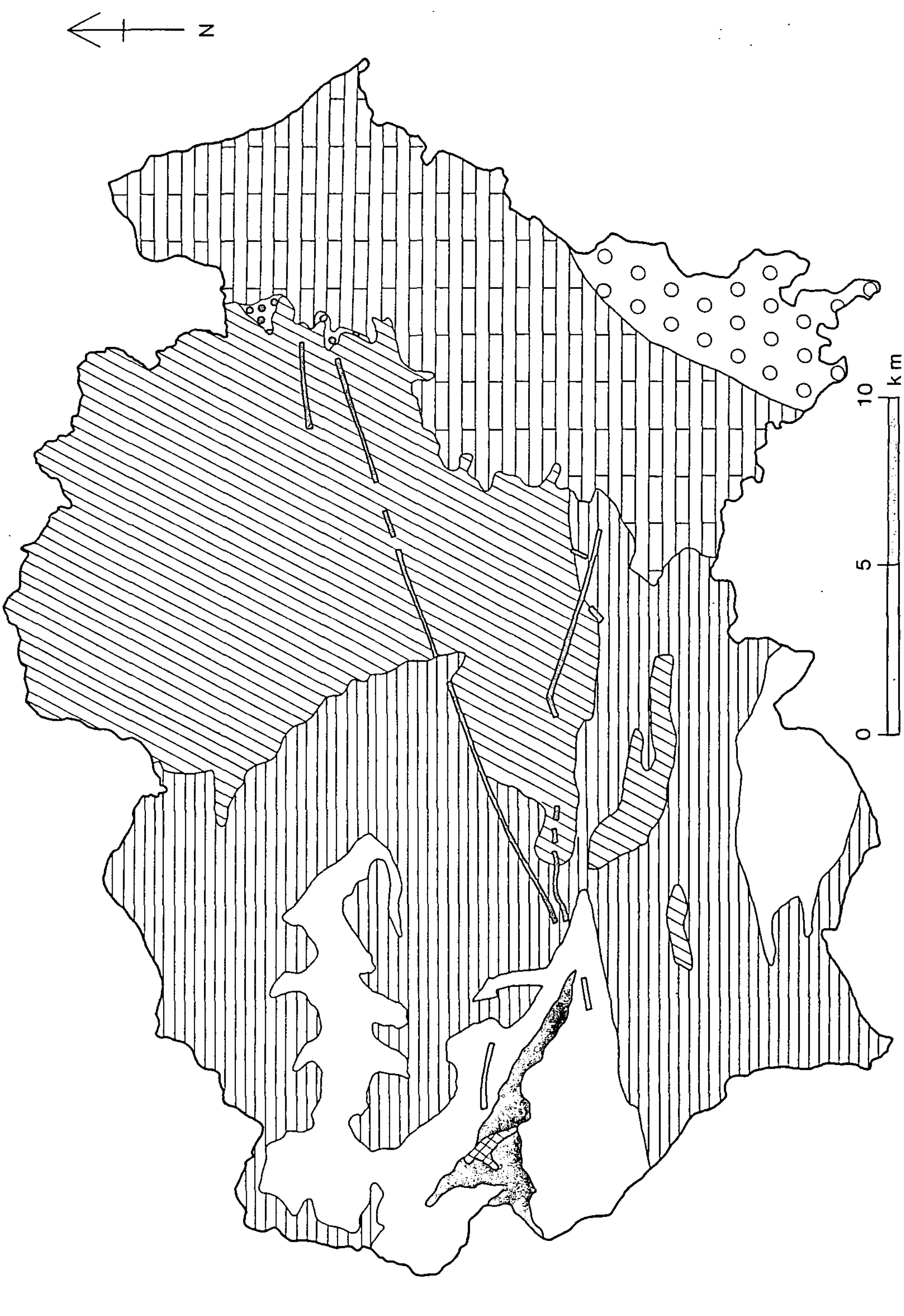


Fig 3.3 Solid geology: Durham

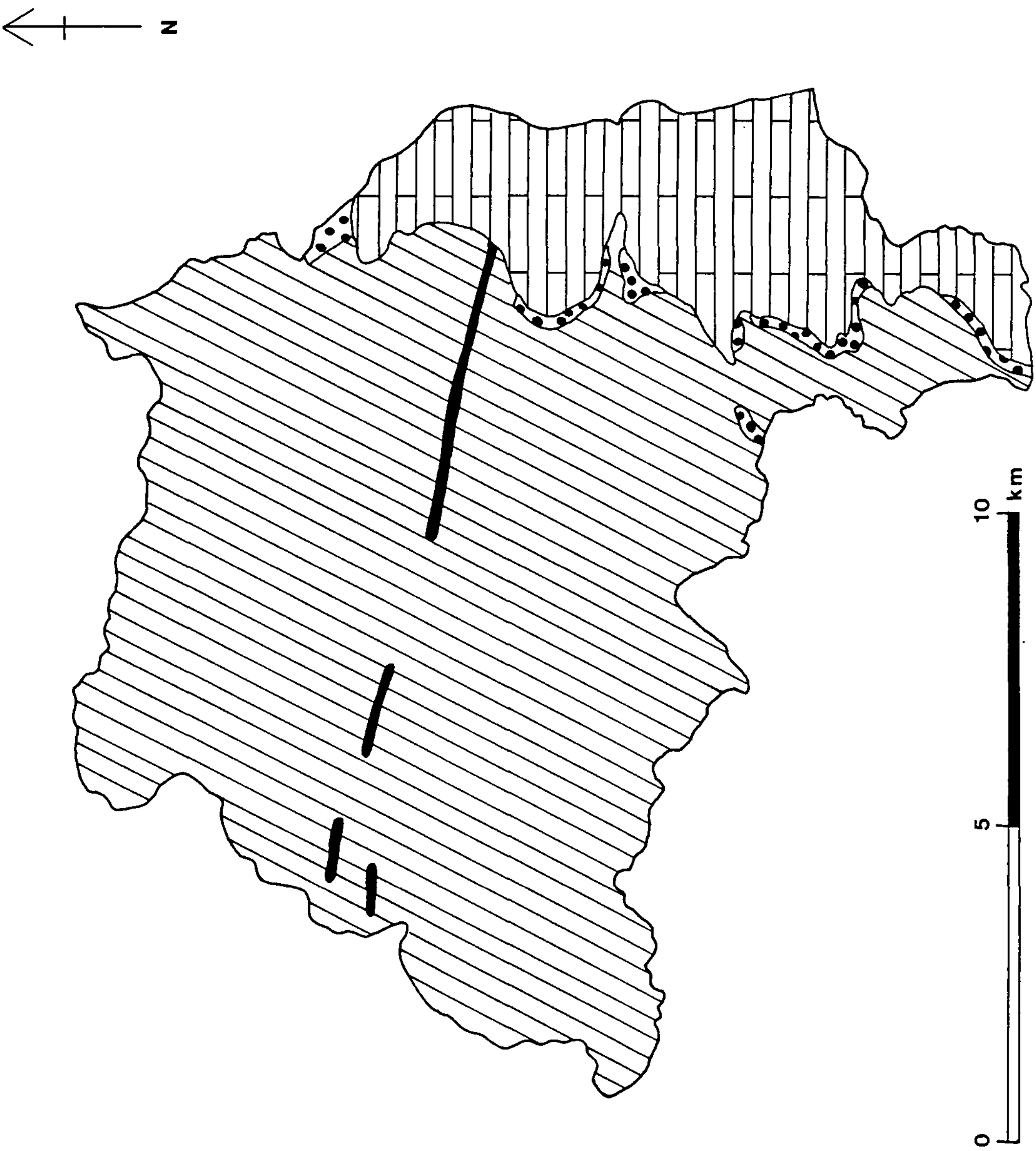


Fig 3.4 Solid geology: Tyne & Wear

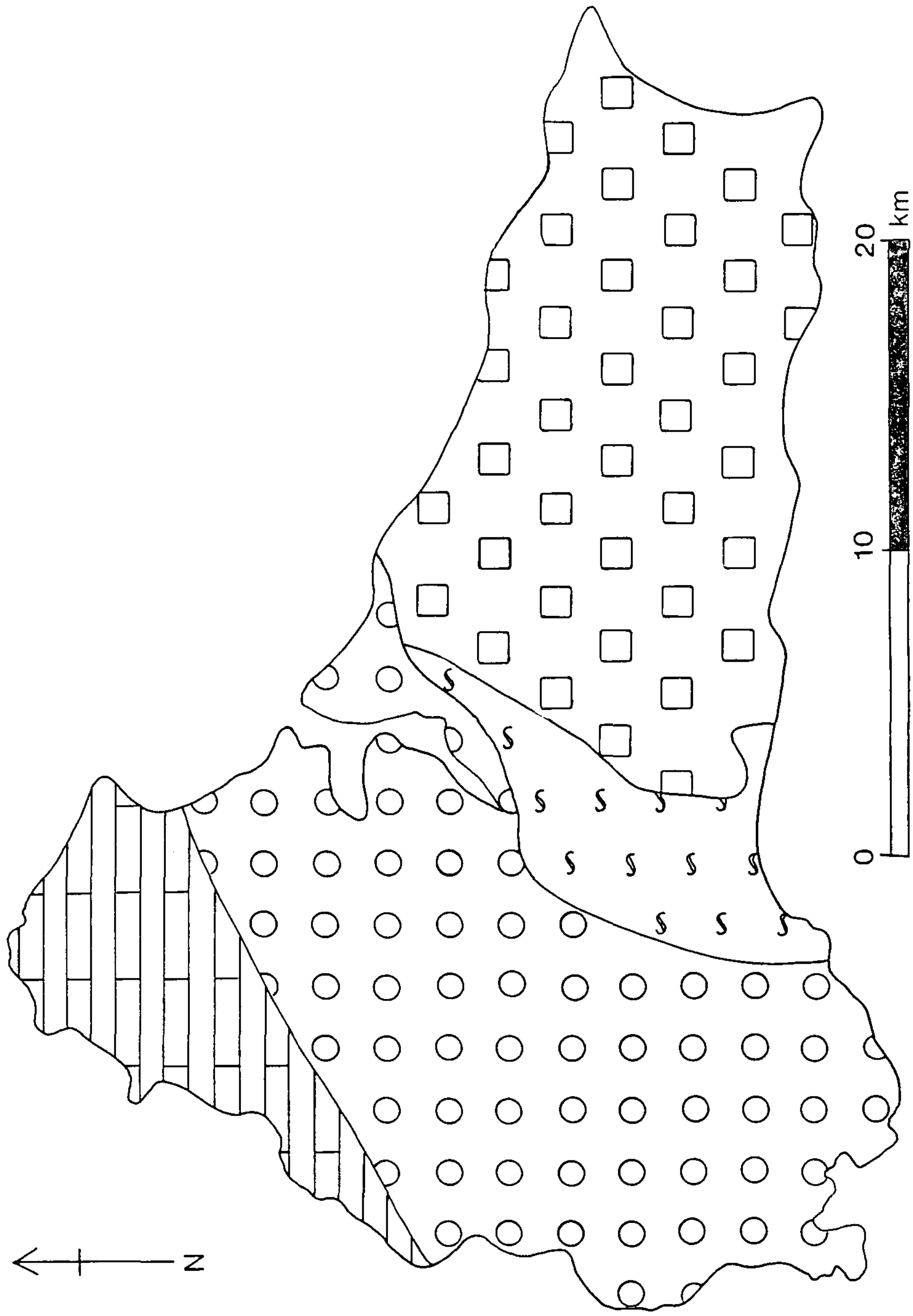


Fig 3.5 Solid geology: Cleveland

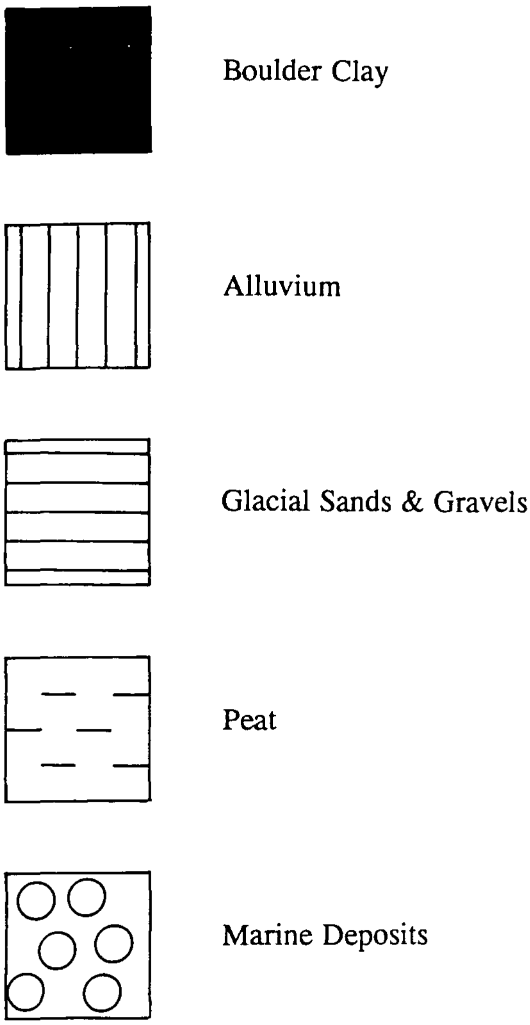


Fig 3.6 Key to drift geology maps

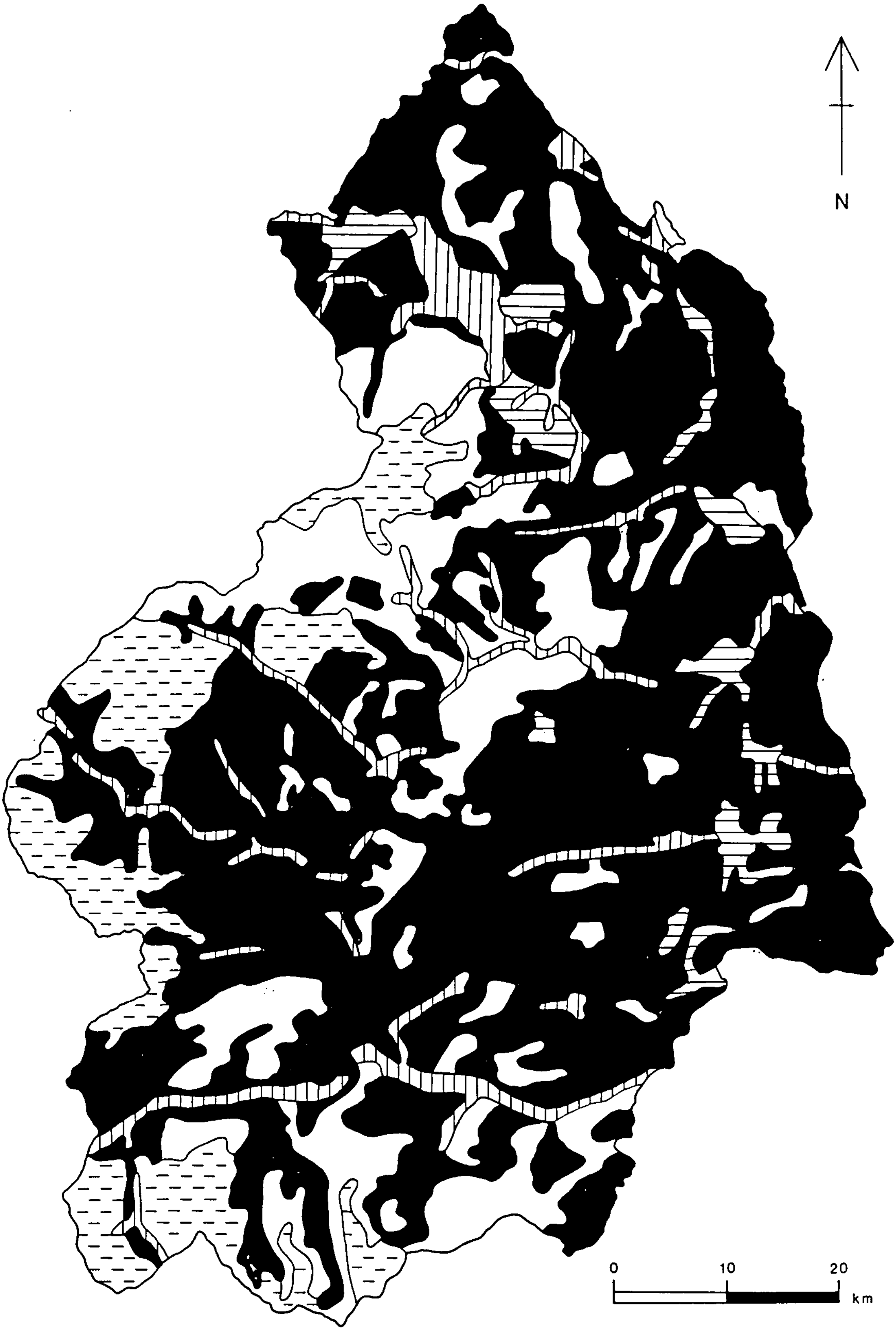


Fig 3.7 Drift geology: Northumberland

Fig 3.8 Drift geology: Durham

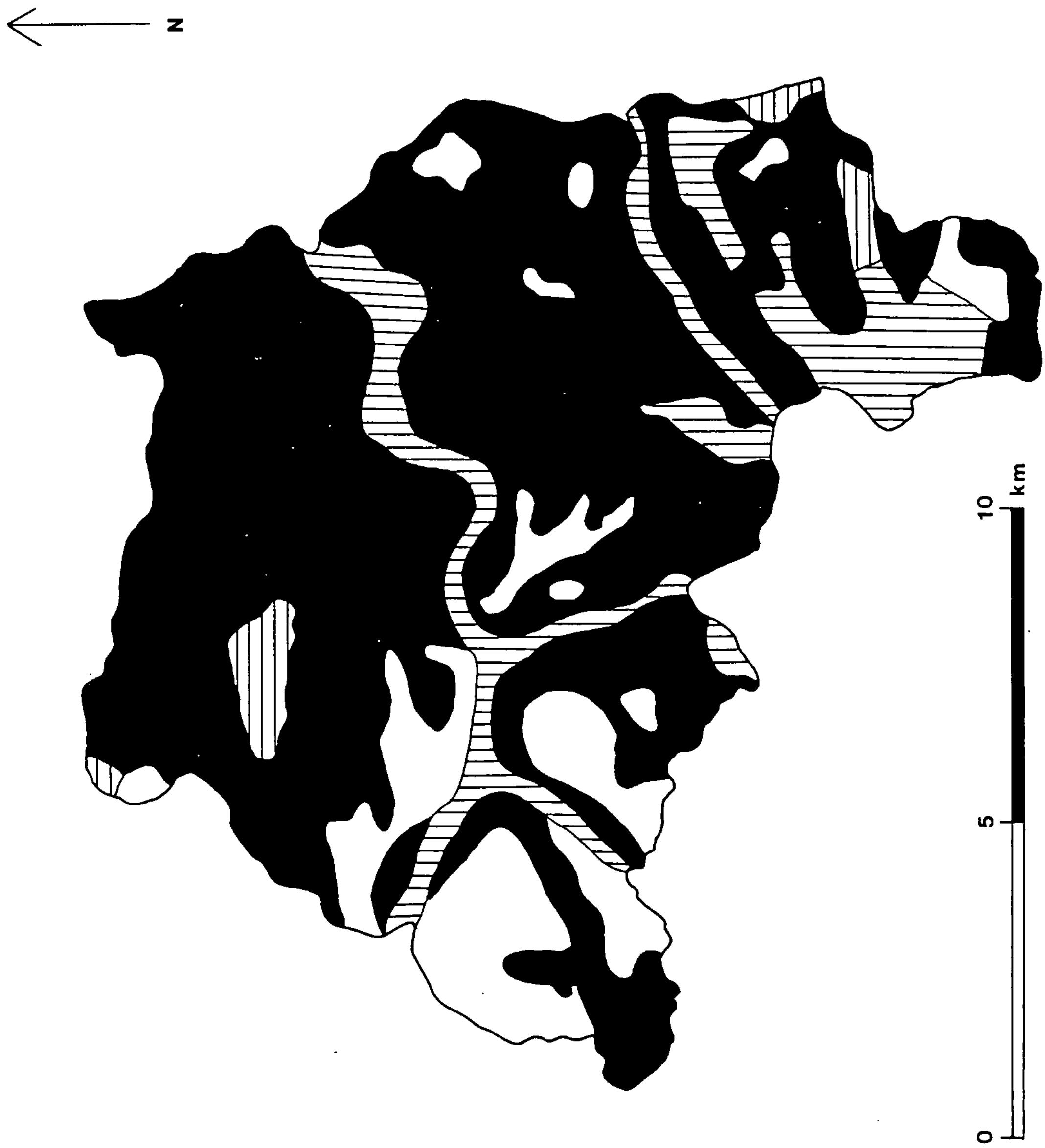


Fig 3.9 Drift geology: Tyne & Wear

Fig 3.10 Drift geology: Cleveland

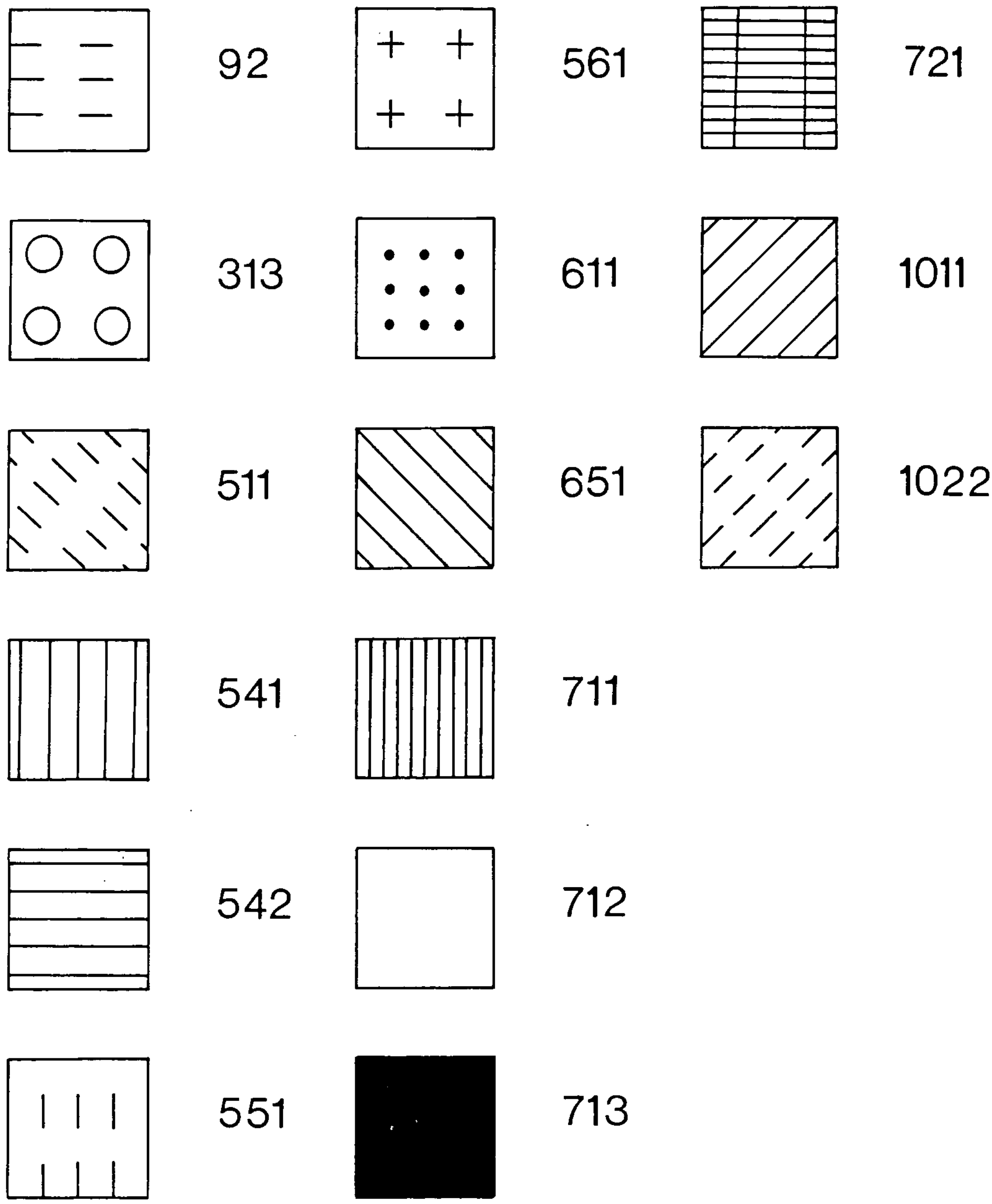


Fig 3.11 Key to soil maps

SOIL DESCRIPTIONS

92	Disturbed soils - restored opencast workings, compacted fine loam and clay, often stony.
313	Dunwell - shallow loam
511	Aberford - shallow, locally brashy, well drained calcareous, fine loamy soils over limestone. Some deeper calcareous soils in colluvium.
541	Eardiston 2/Rivington 1/Wick 1 - Well drained, coarse loam
542	Nercwys - Deep, fine loam.
551	Newport 1 - Deep, well drained, sandy and coarse loamy soils.
561	Wharfe/Alun - Deep stoneless alluvial loam.
611	Malvern - Well drained, very stony loam.
711	Salop/Dunkeswick - Fine loam over clay soil.
712	Dale/Crewe/Windsor/Foggathorpe 1 - Clayey and fine, silty soils, often stoneless.
713	Brickfield 3 - Fine loam and clayey soils.
721	Wilcocks 1 - Fine loam over clayey soil with peaty surface horizon.
1011	Longmoss/Winter Hill - Thick, very acid peat soils.
1022	Altcar - Deep peat soils, very acid in places.
U	Unsurveyed - Urban and industrial areas.

Fig 3.11 contd

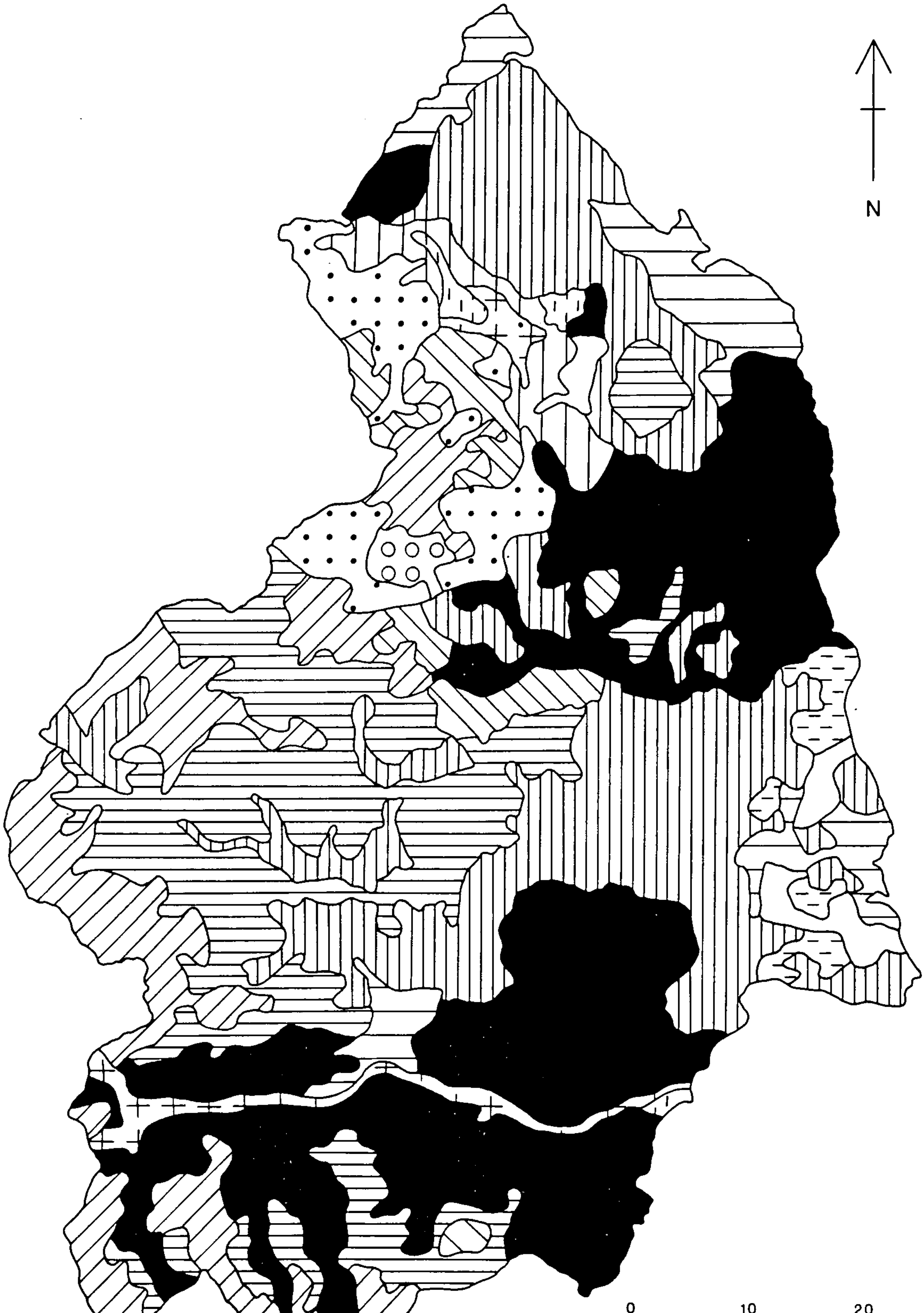


Fig 3.12 Soil types: Northumberland

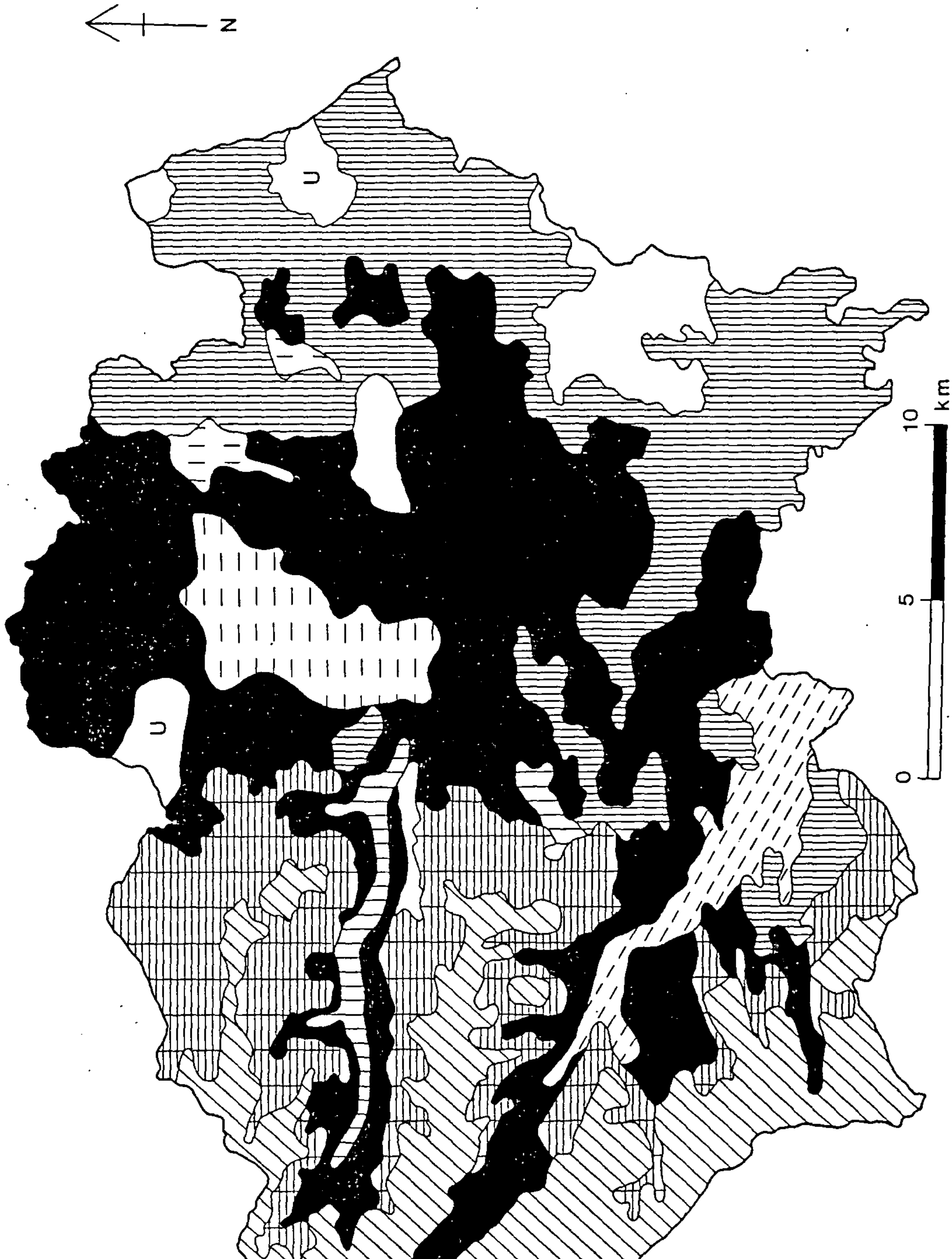


Fig 3.13 Soil types: Durham

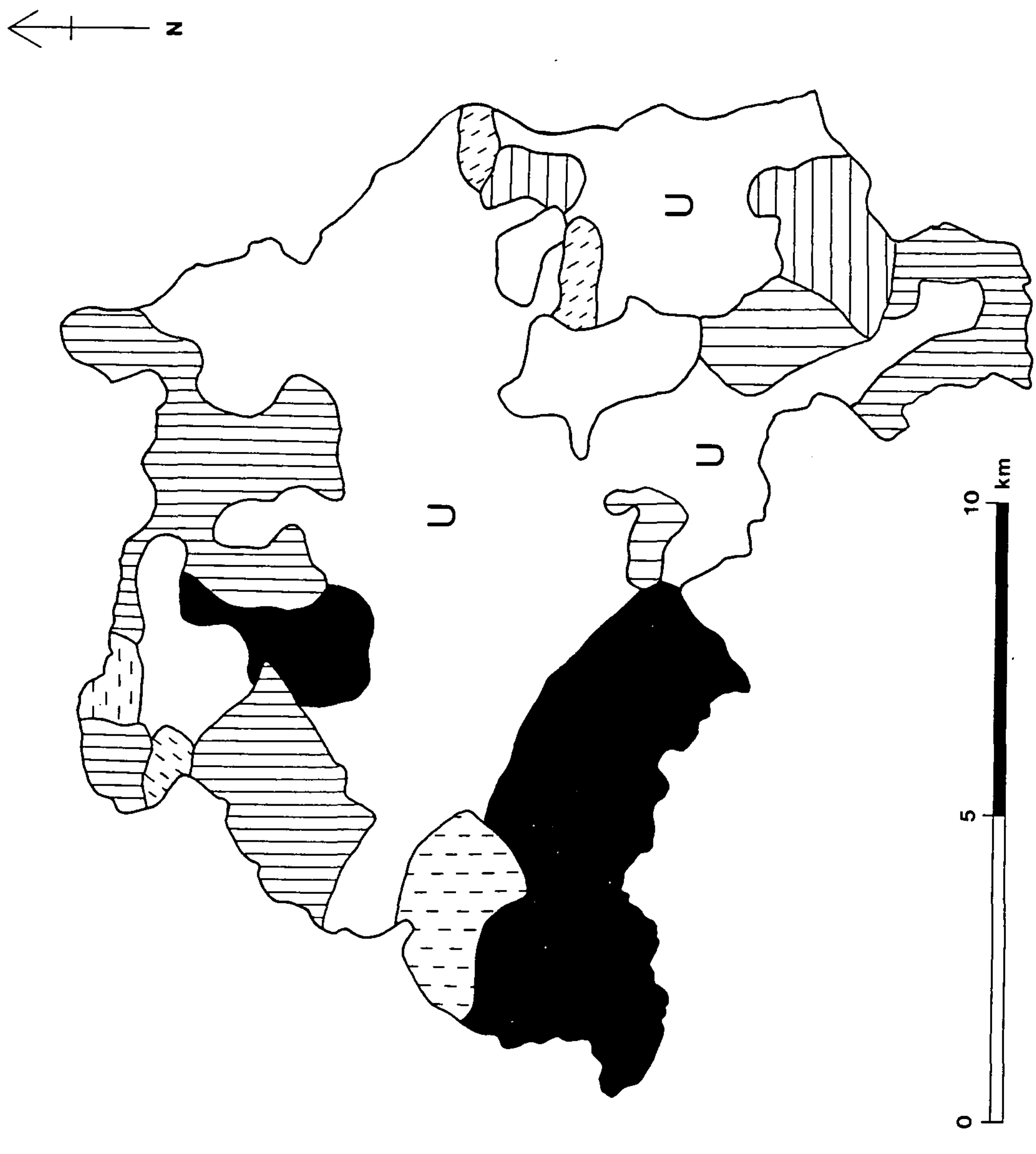


Fig 3.14 Soil types: Tyne & Wear

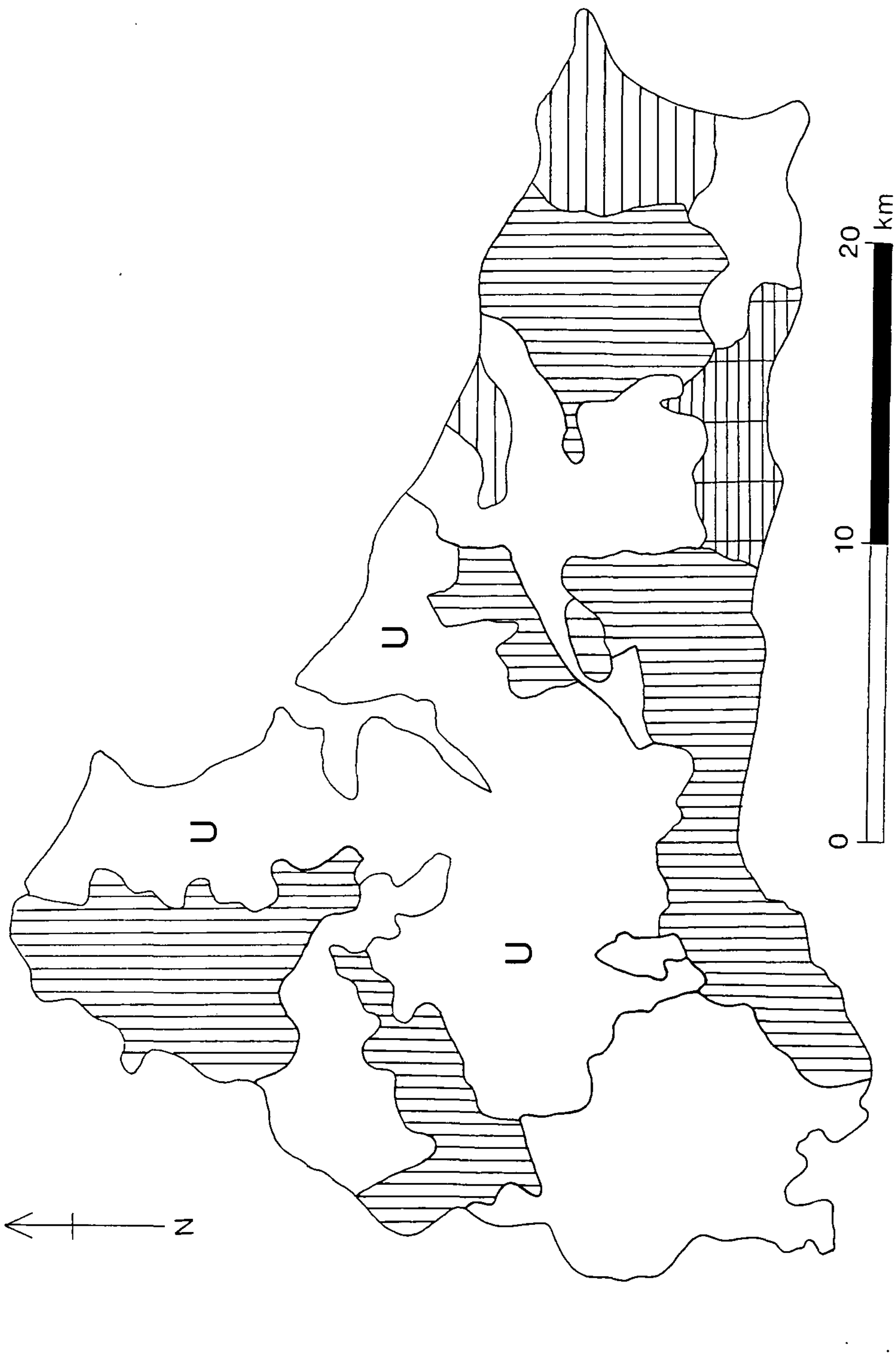


Fig 3.15 Soil types: Cleveland

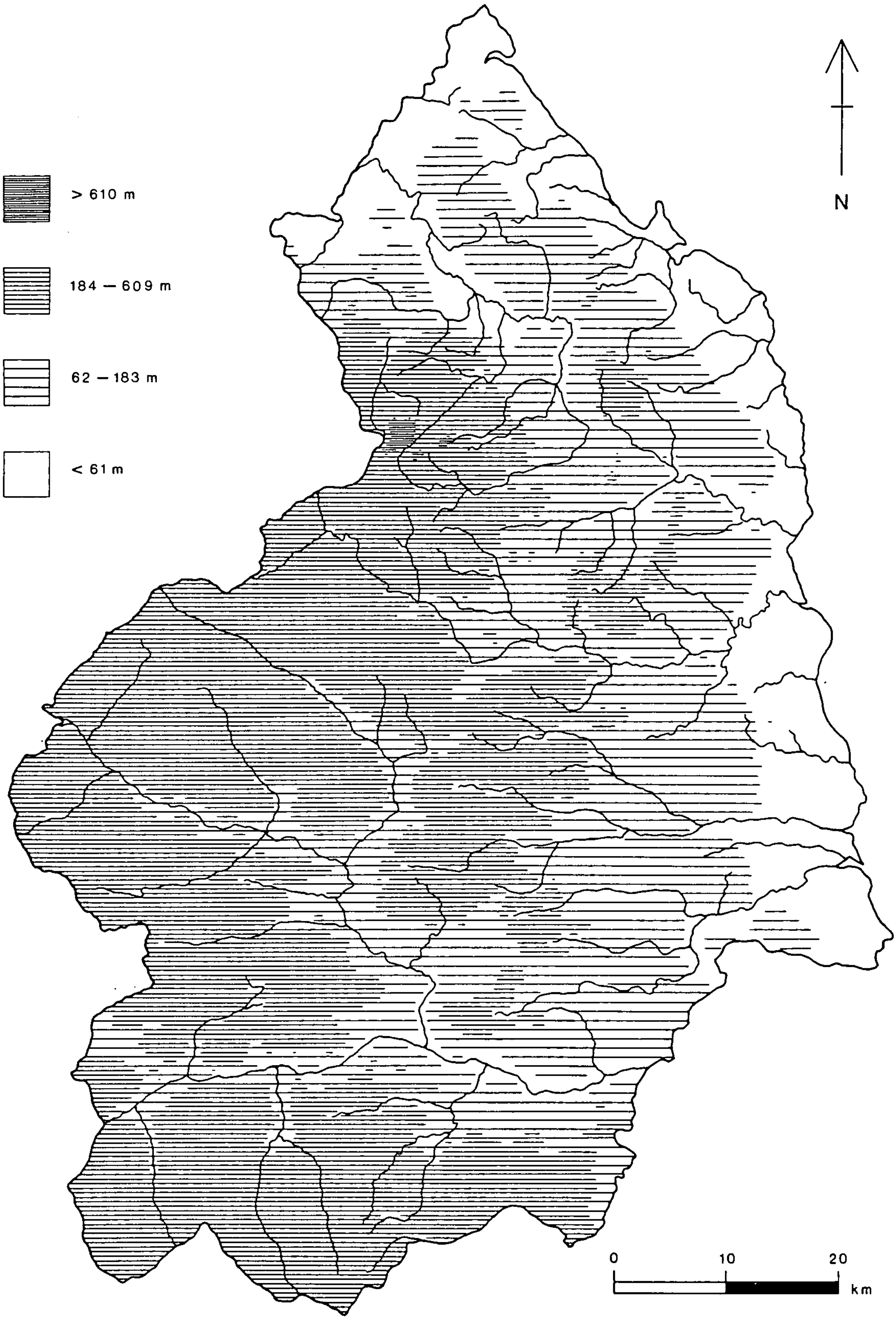


Fig 3.16 Relief and drainage: Northumberland

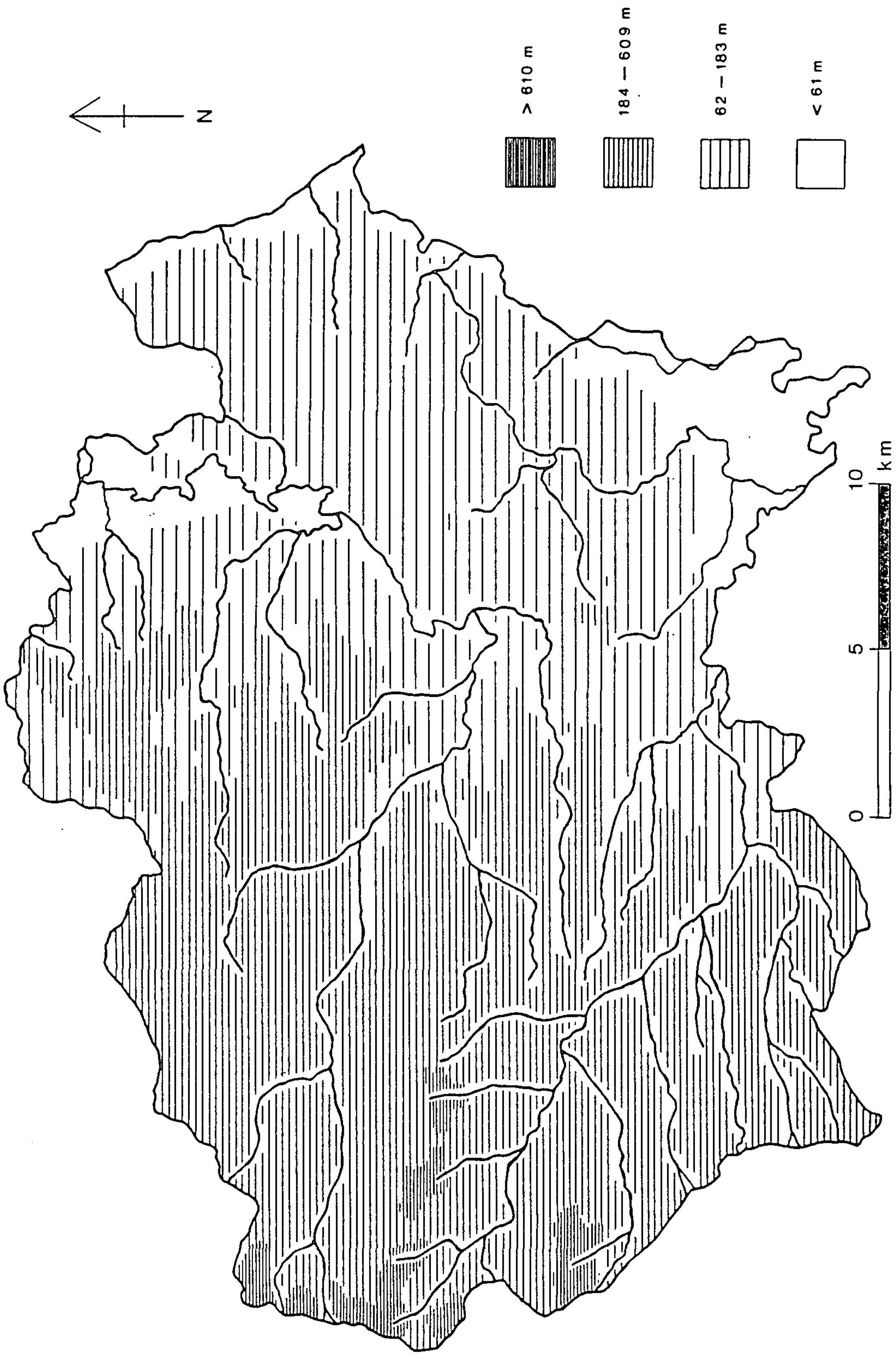


Fig 3.17 Relief and drainage: Durham

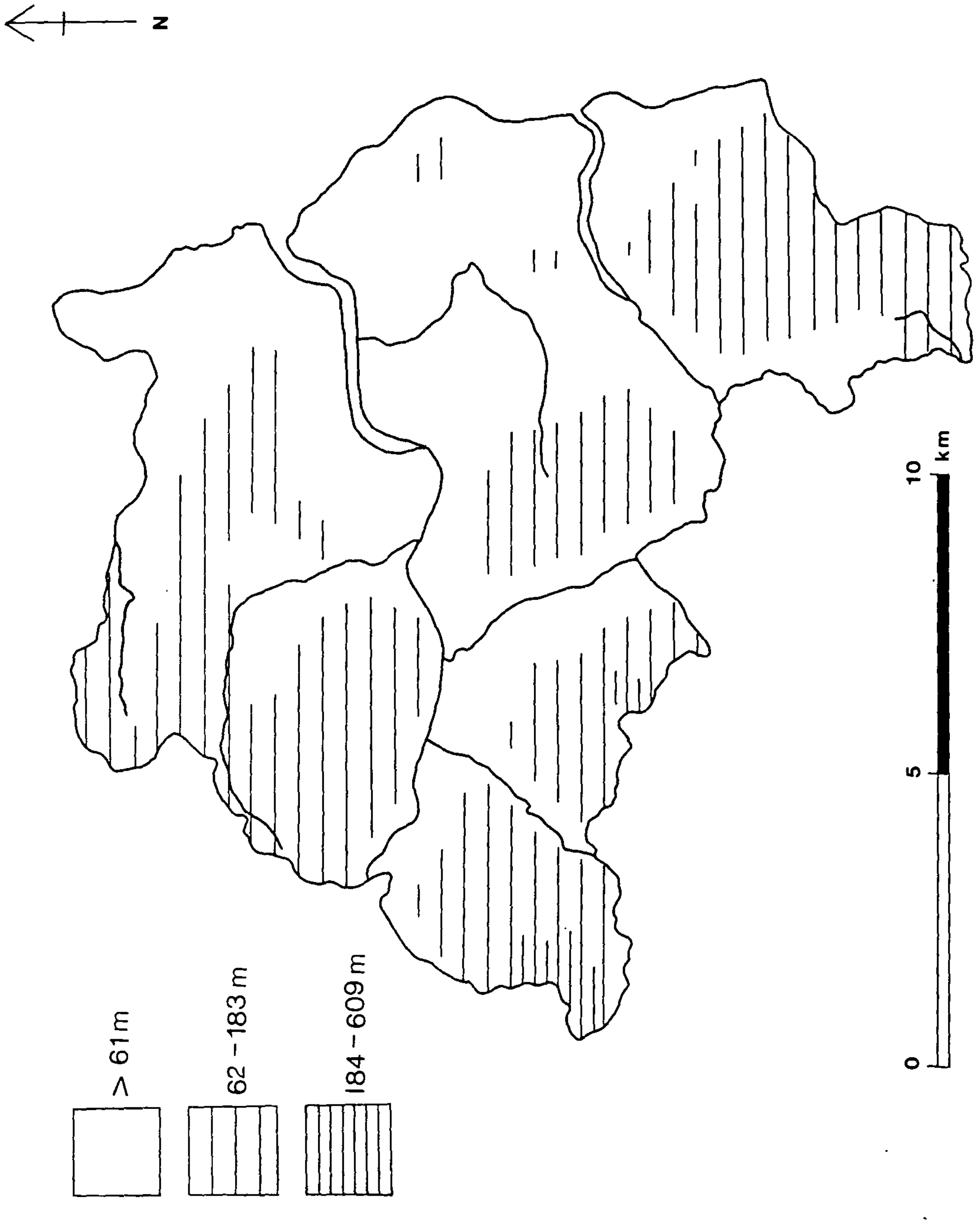


Fig 3.18 Relief and drainage: Tyne & Wear

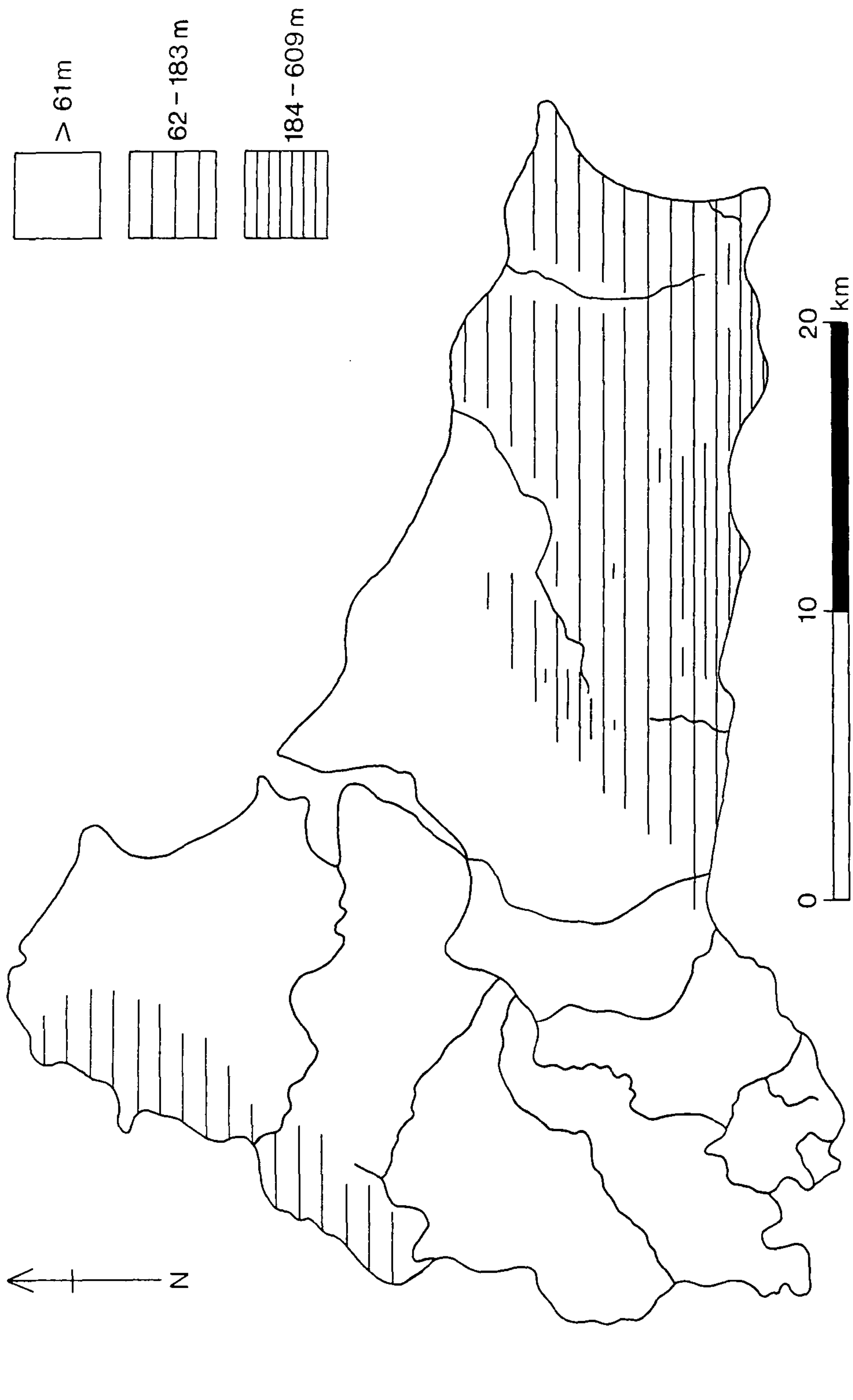


Fig 3.19 Relief and drainage: Cleveland

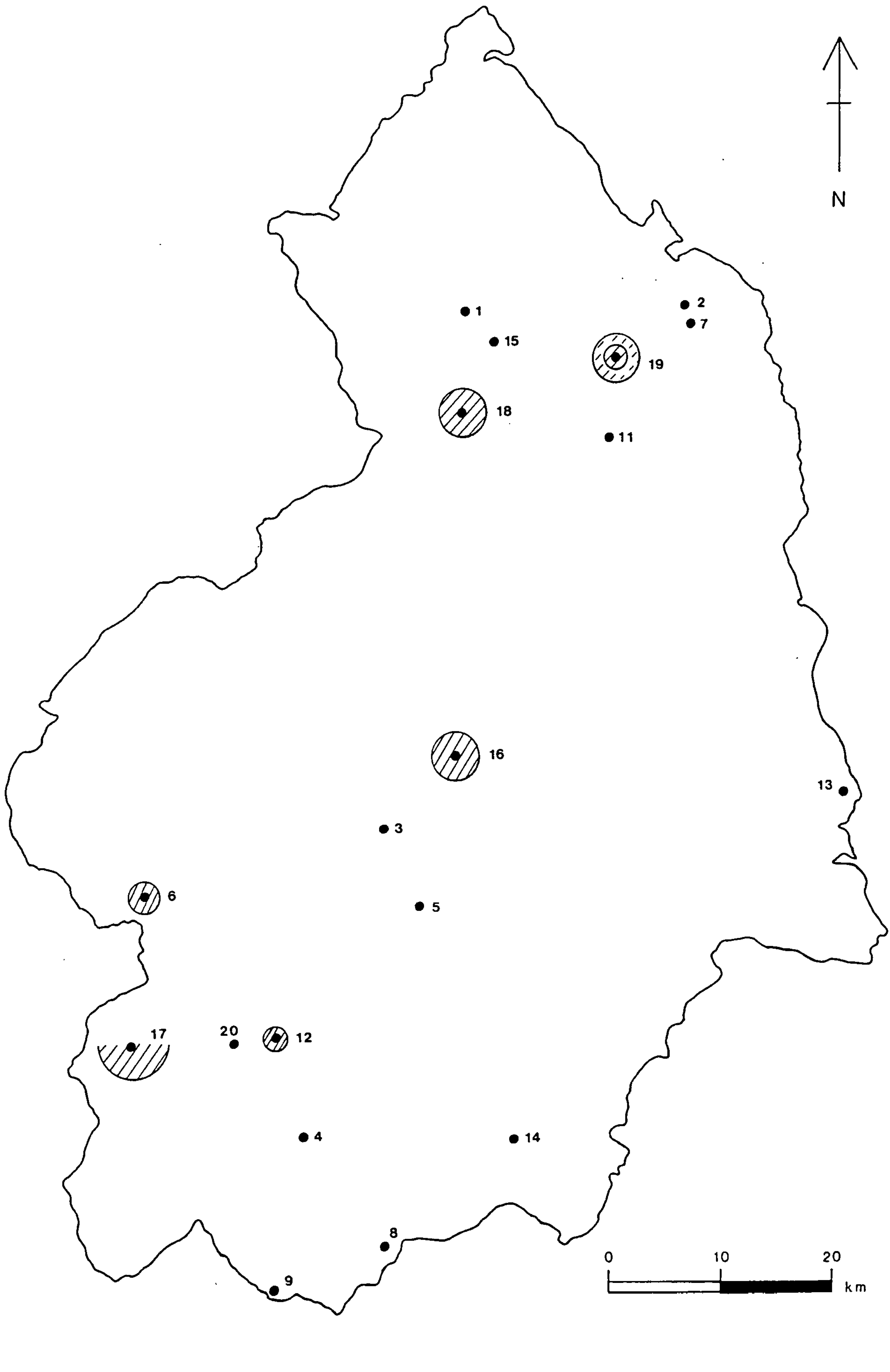


Fig 4.1 Pollen core sites: Northumberland

KEY TO POLLEN CORES

1. Akeld Steads
2. Bradford Kaims
3. Broadgate Fell
4. Catton Carr
5. Colt Crag
6. Coom Rigg Moss
7. Embleton's Bog
8. Fotherley Moss
9. Heathery Burn Moor
10. Kilhope Law
11. Longlee Moor
12. Muckle Moss
13. Newbiggin Carr
14. Prestwick Carr
15. Wooler Water
16. Steng Moss
17. Fell End Moss
18. Broad Moss
19. Camp Hill Moss
20. Vindolanda

catchment area

Fig 4.1 contd

Fig 4.2 Pollen core sites: Durham

KEY TO POLLEN CORES

1. Bishop Middleham
2. Bollihope Bog
3. Hallowell Moss
4. Hutton Henry
5. Mordon Carr
6. Neasham Brick Pit
7. Neasham Fen
8. Pow Hill
9. Quick Cleugh Moss
10. Red Sike Moss
11. Steward Shield Meadow
12. Weelhead Moss
13. Arngill Head Brocks
14. Burnhope Burn
15. Burtree Lane
16. Cranberry Bog
17. Cronkley Fell Base
18. Cronkley Pastures
19. Crookburn
20. Dead Crook Moss
21. Dufton Moss
22. Foolmire Sike
23. Foulsike Burn
24. Fox Earth Gill
25. Great Eggleshope Beck
26. Green Combs
27. Green Swang
28. Harthope Quarry
29. Herdship Fell
30. Hisehope Burn
31. Howden Moss
32. James Hill
33. Kilhope Law
34. Knout Berry
35. Lamb Shield
36. Long Crag
37. Muckleton Moor
38. Mickle Fell
39. Mire Holes
40. Mown Meadows
41. Nunstainton Carrs
42. Pawlaw Pike
43. Pity Me Carr
44. Romaldskirk
45. Sally Grain
46. Scraith Head
47. Shot Moss
48. Smiddy Shaw
49. South Foul Sike
50. Staple Moss
51. Waskerley
52. Widdybank Moss

catchment area

Fig 4.2 contd

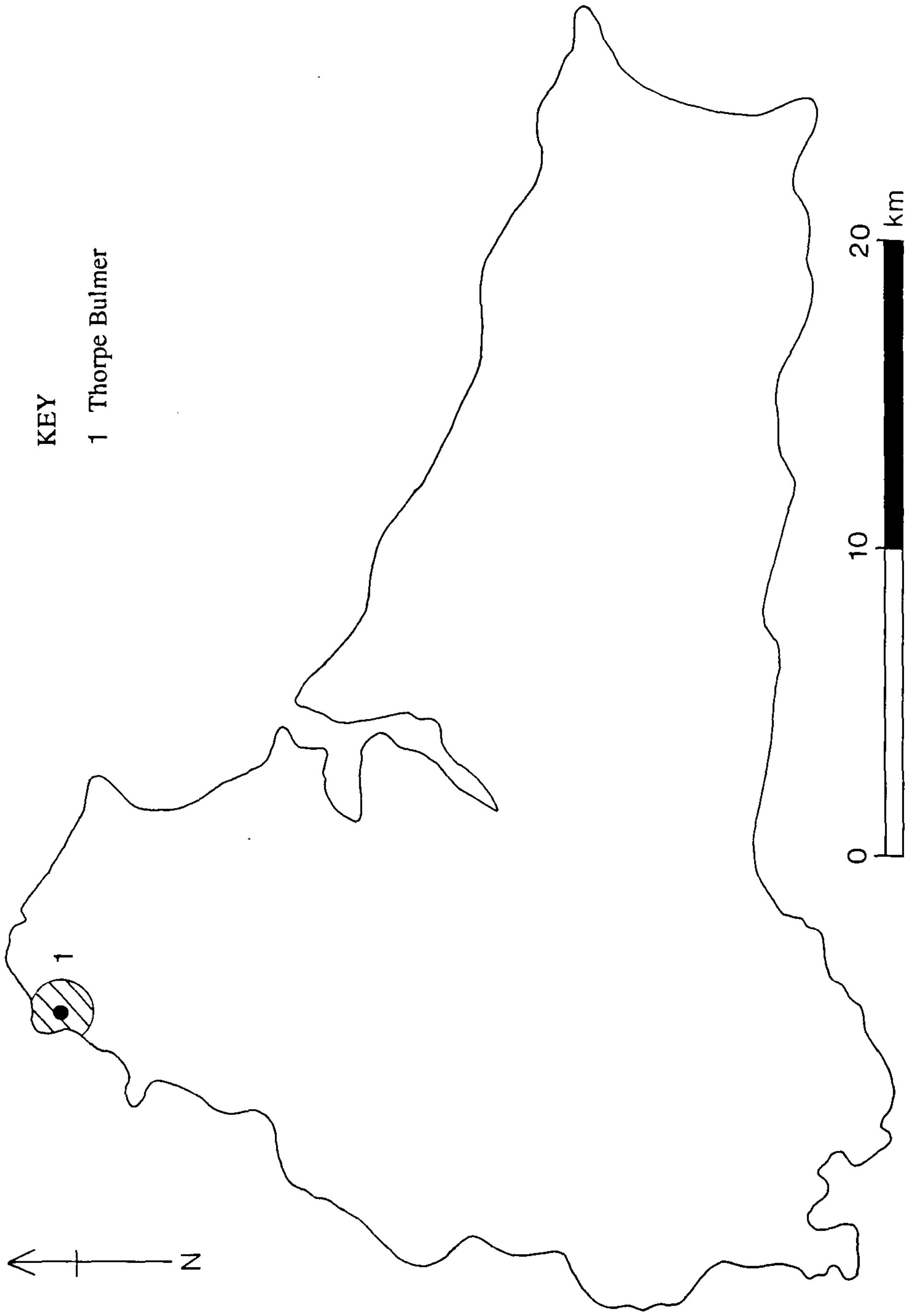


Fig 4.3 Pollen core sites: Cleveland

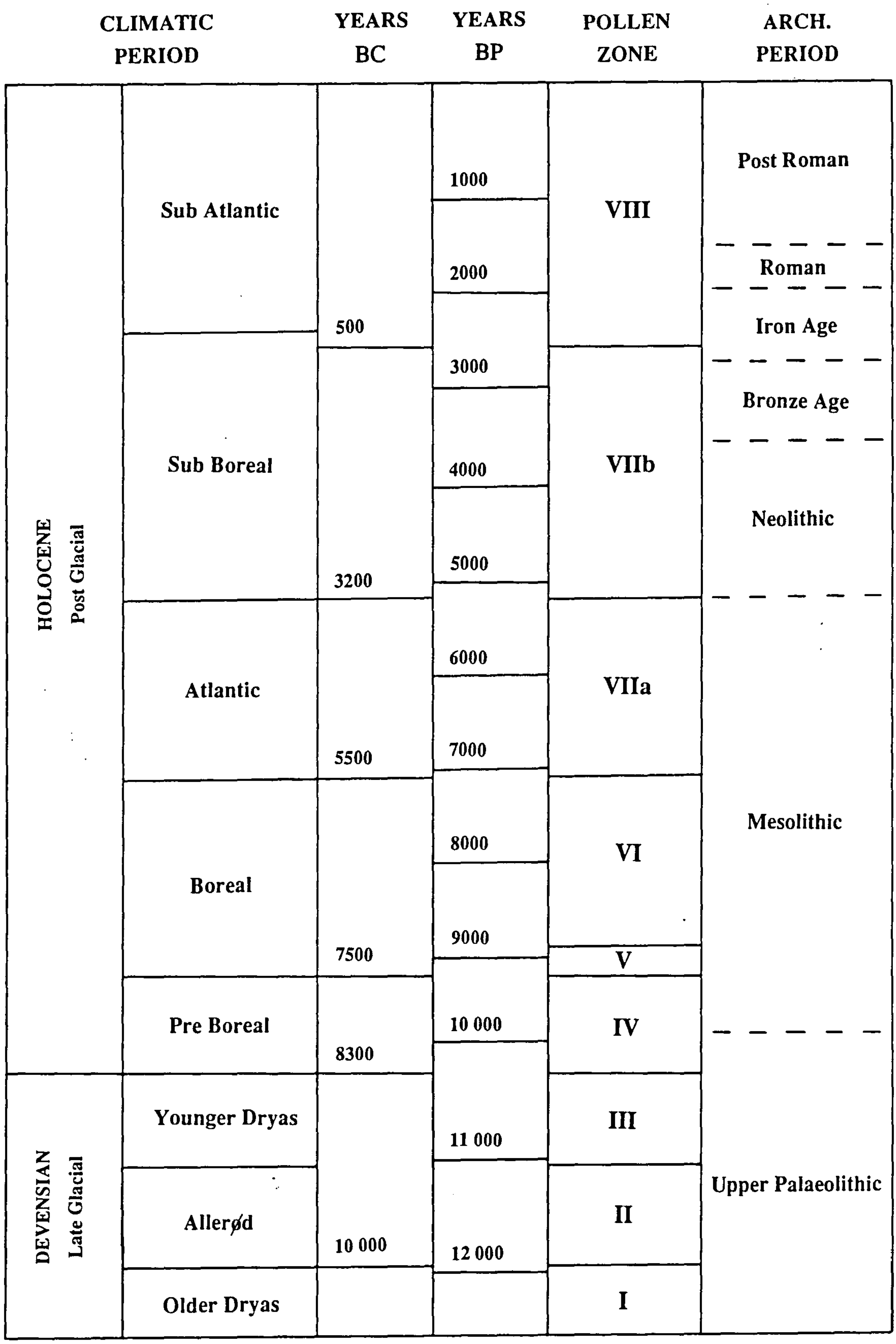


Fig 4.4 Timescale of Godwin's (1957) pollen zones

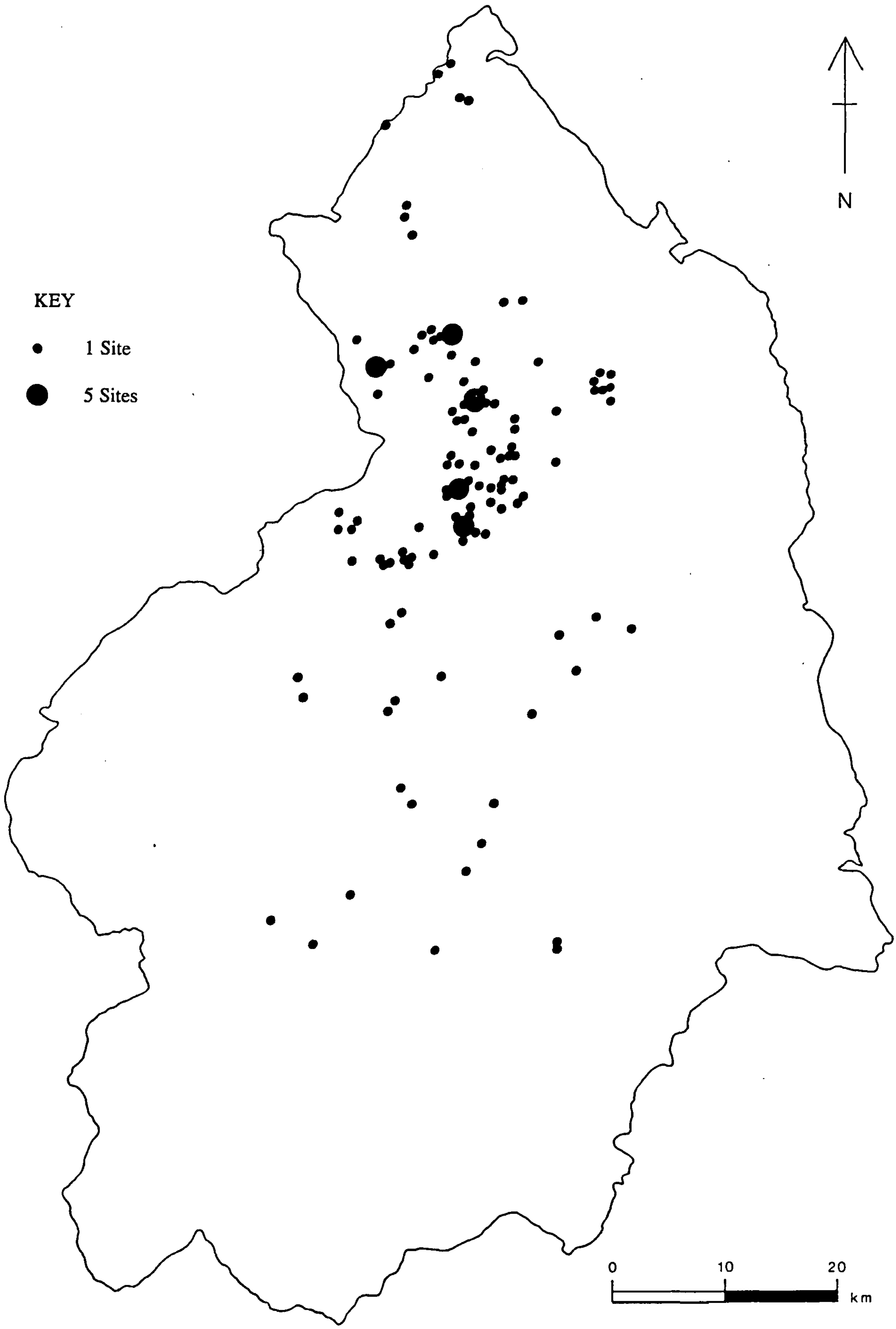


Fig 5.1 Map of open sites: Northumberland

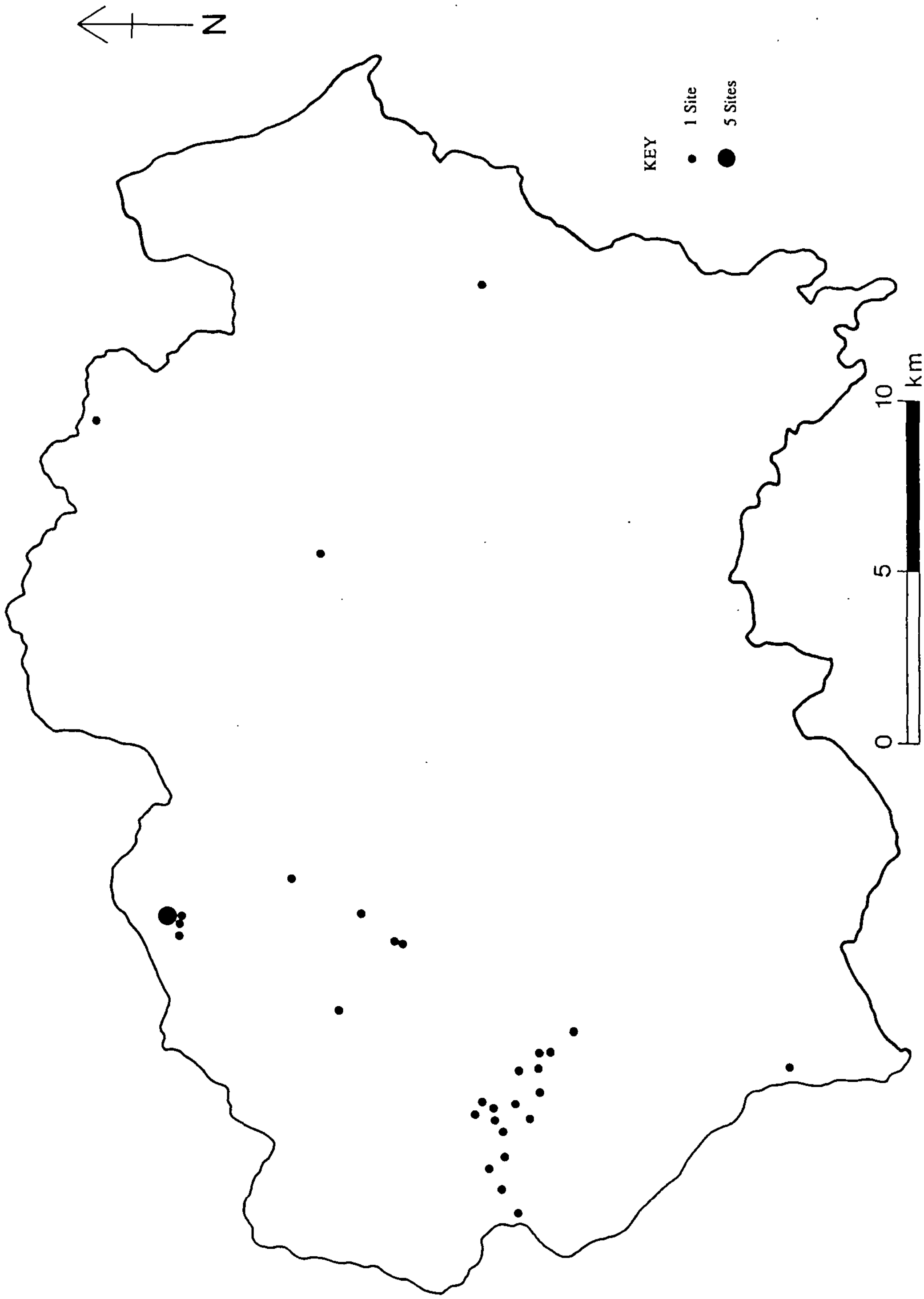


Fig 5.2 Map of open sites: Durham

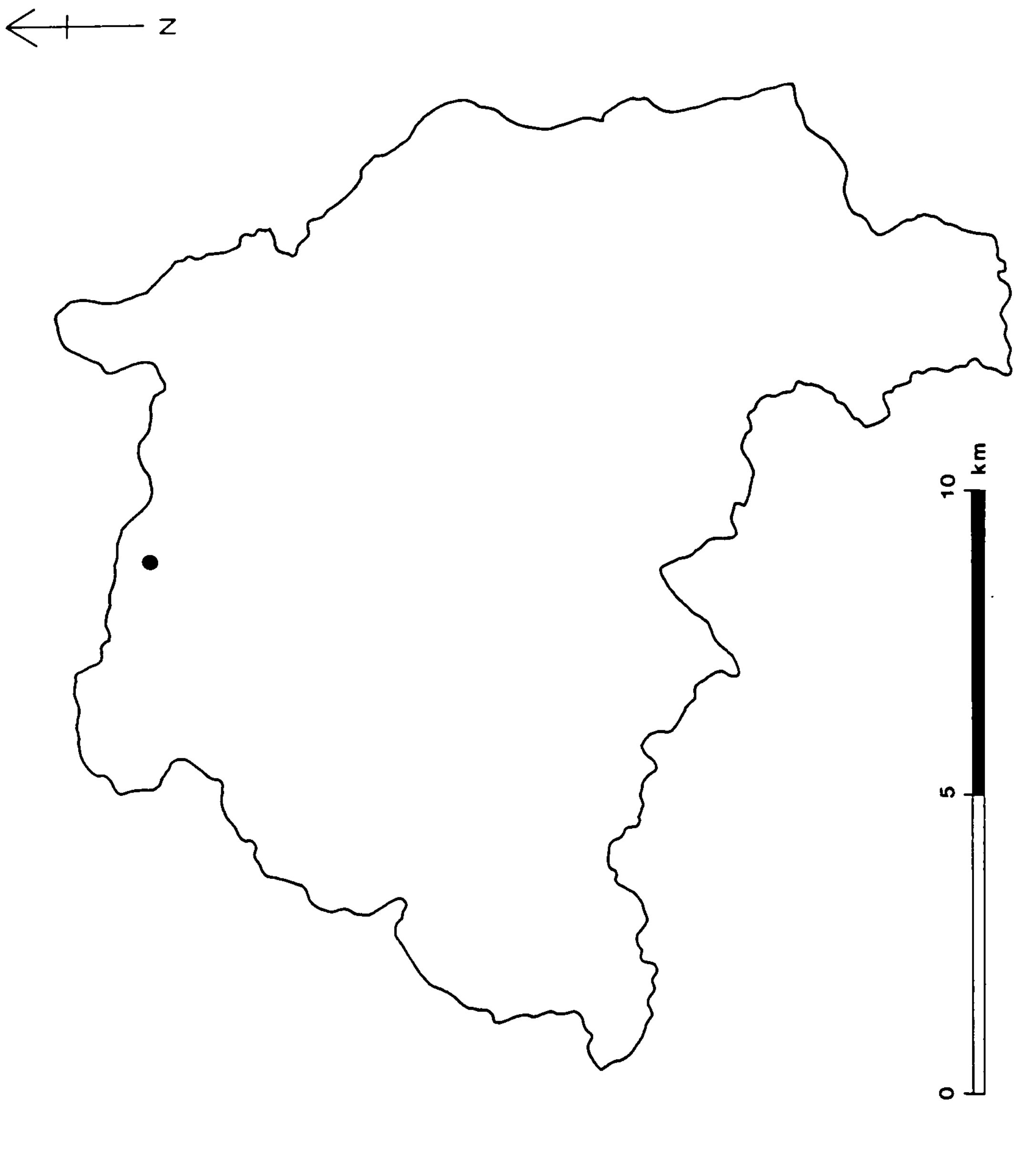


Fig 5.3 Map of open sites: Tyne & Wear

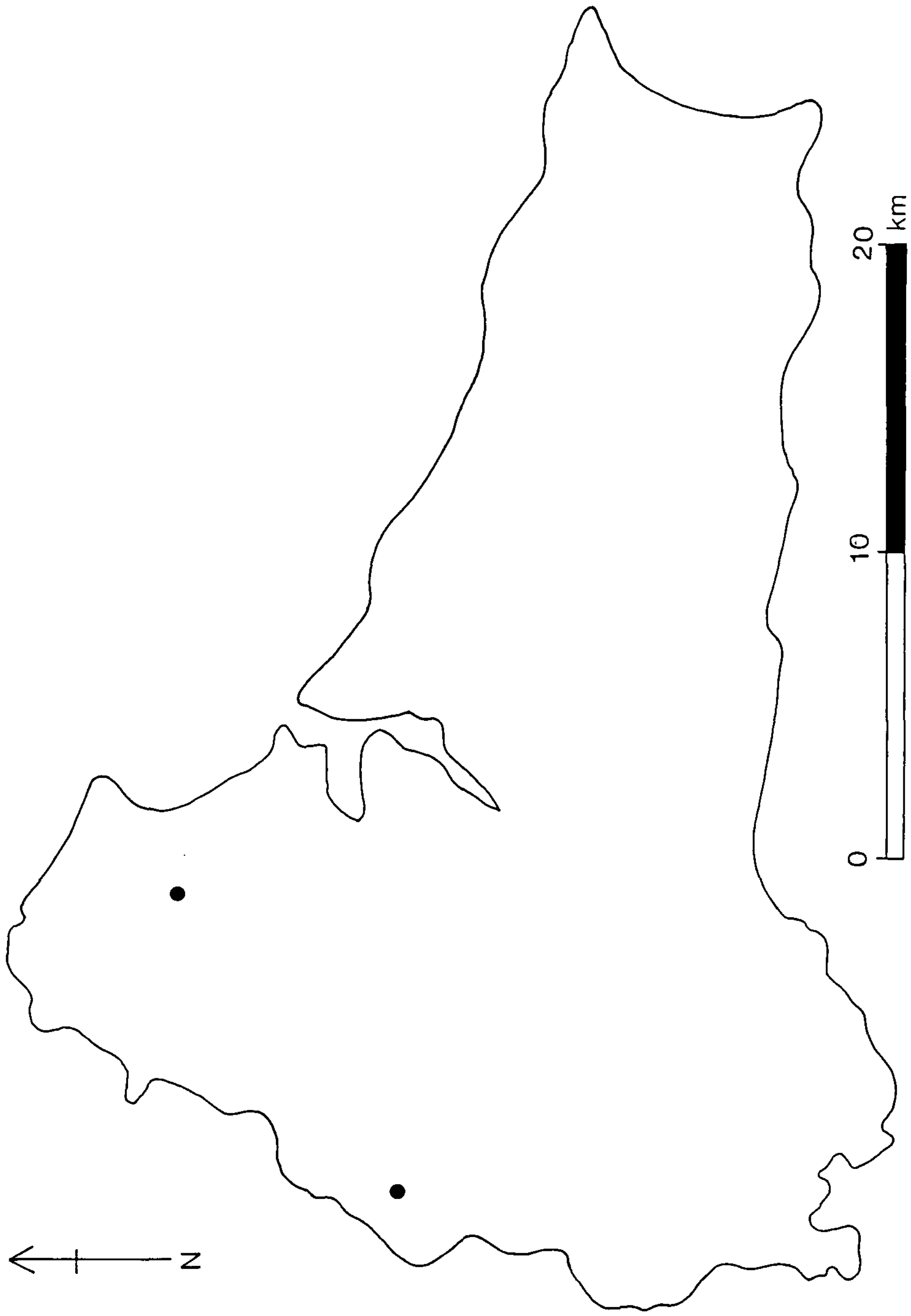
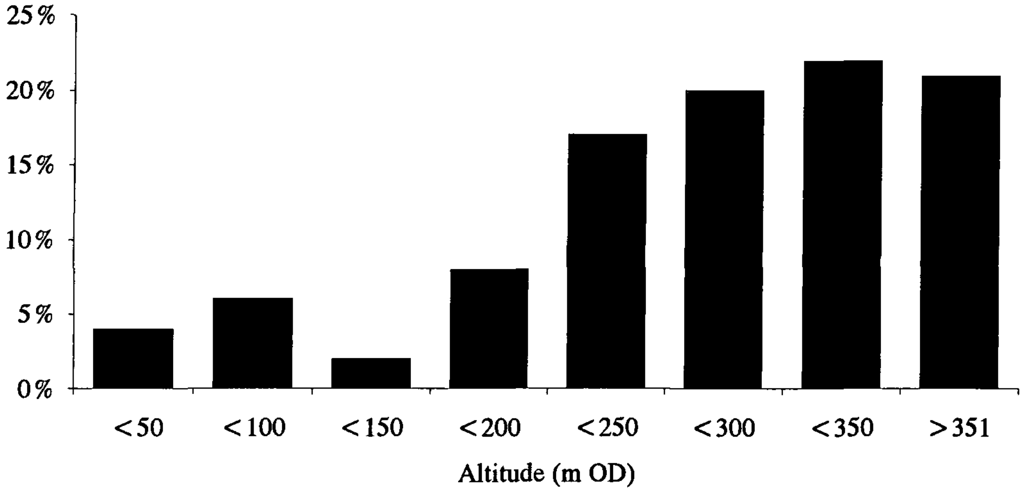


Fig 5.4 Map of open sites: Cleveland

Fig 5.5 Altitude of open sites



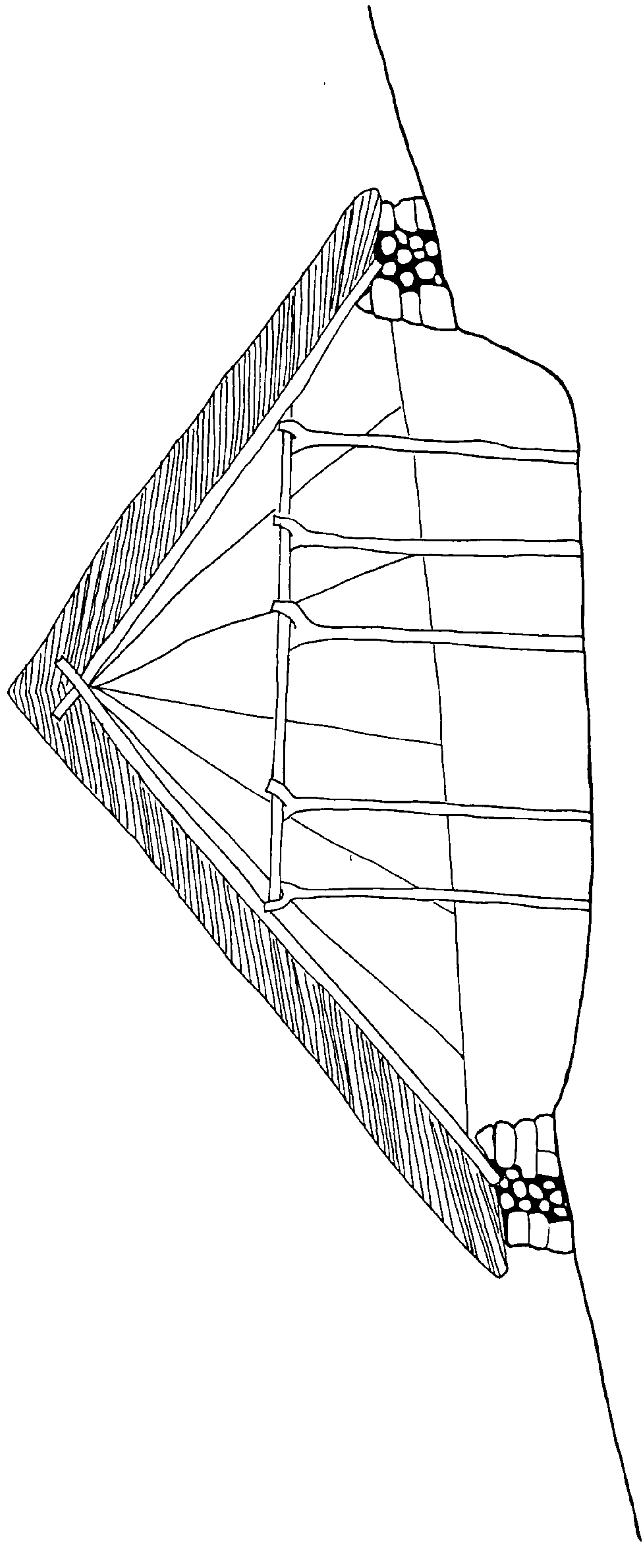


Fig 5.6 Suggested reconstruction of a platform hut (based on Musson 1970)

Fig 5.7 Traces of agricultural activity around Houseledge West (reproduced from original site plans with the permission of C. Burgess)

Fig 5.8 Plan of Houseledge West (reproduced from original site plans with the permission of C. Burgess)

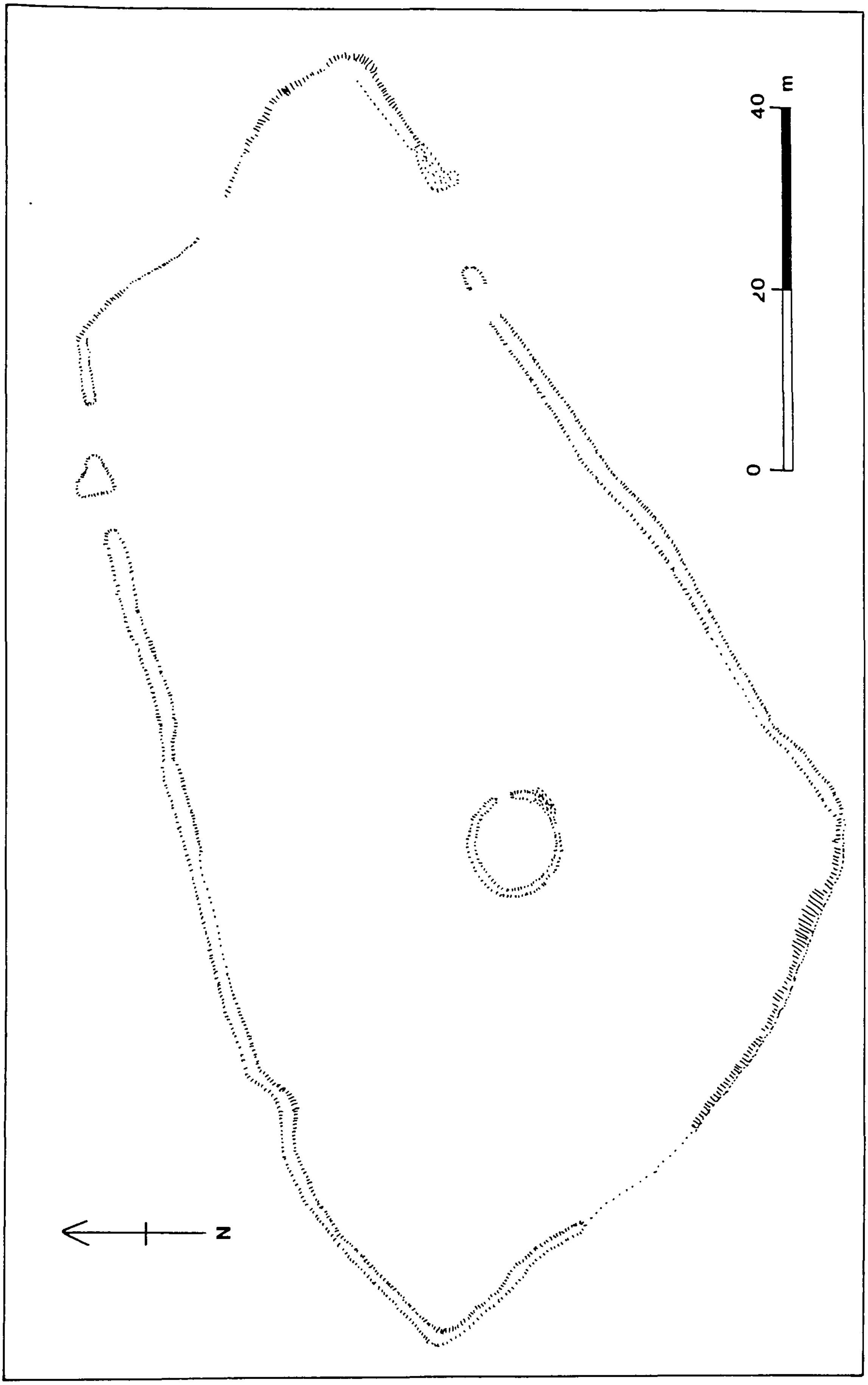


Fig 5.9 Plan of Hazeltonrig Hill 2 (after Gates 1983)

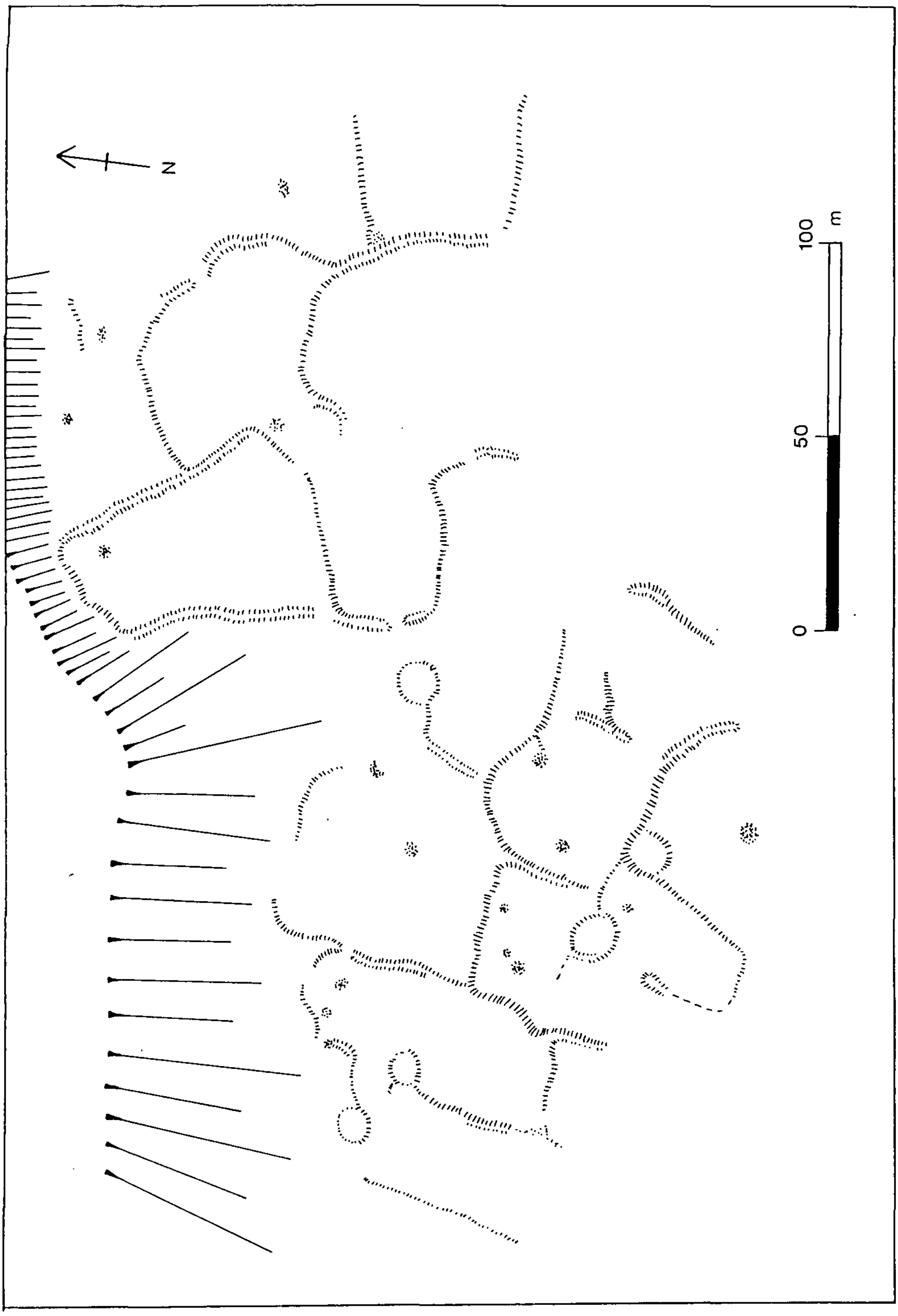


Fig 5.10 Plan of Standrop Rigg (after Jobey 1983a)

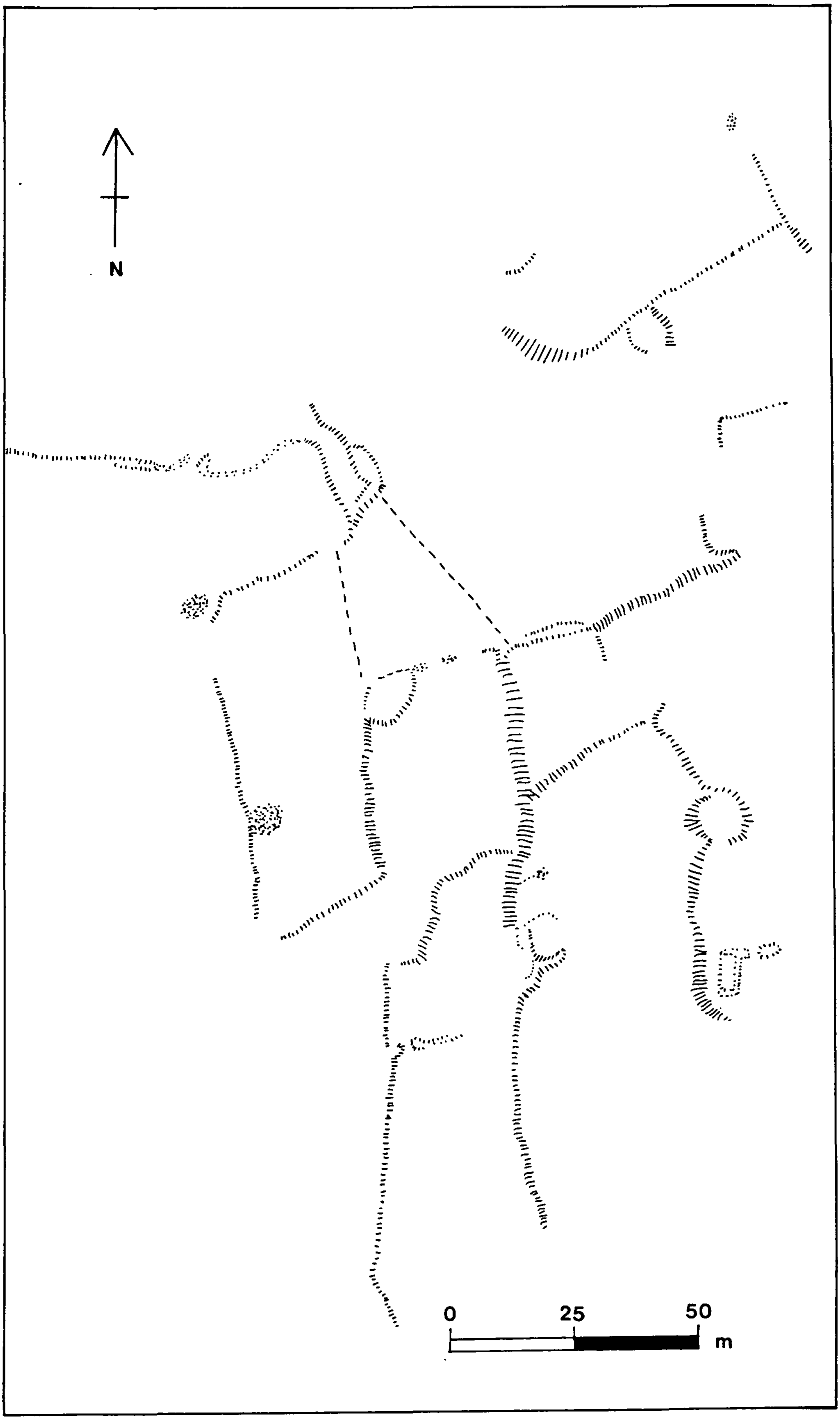


Fig 5.11 Plan of Kidlandlee Dean 1 (after Gates 1983)

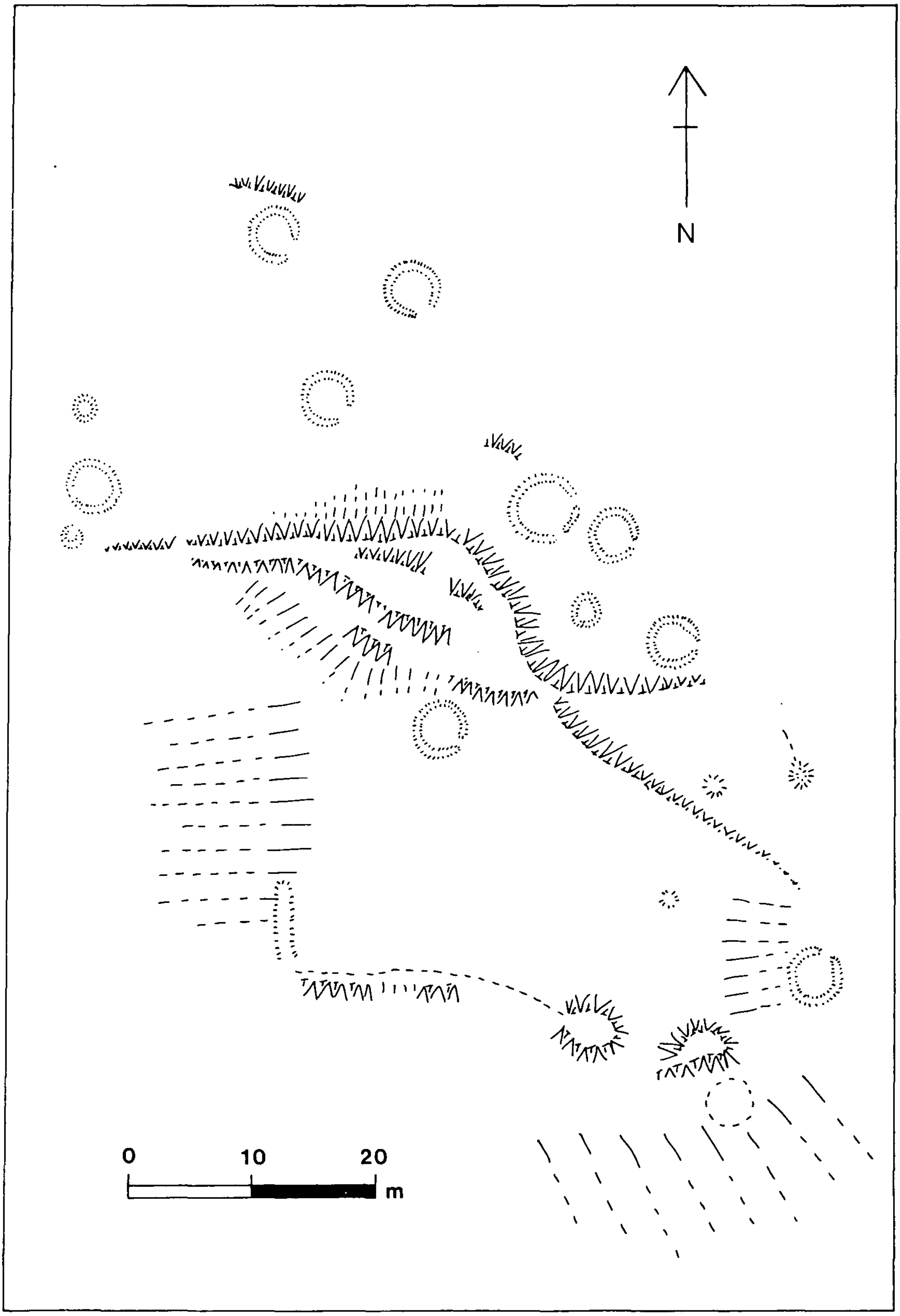


Fig 5.12 Plan of Tathey Crags (after Jobey 1972a)

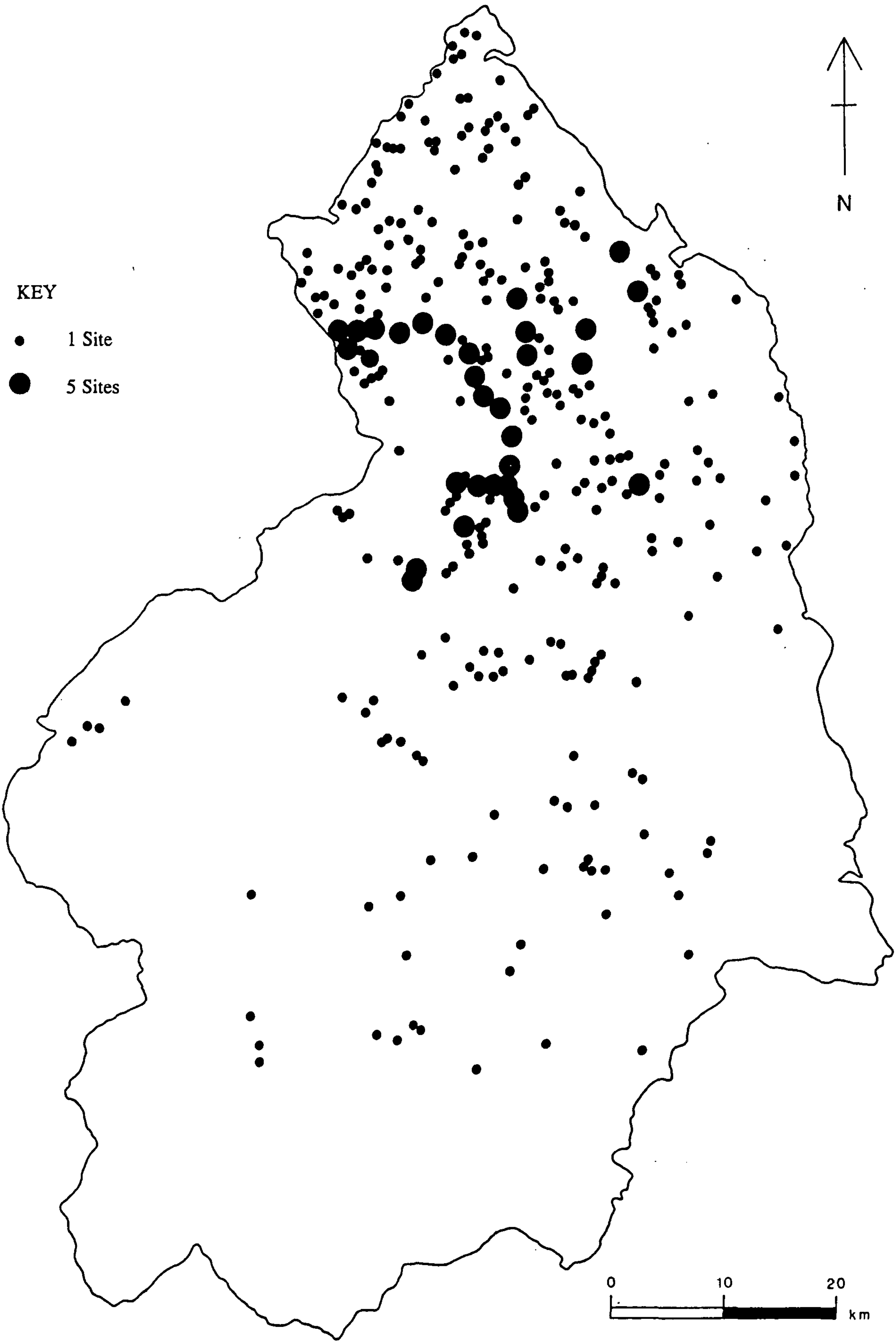


Fig 6.1 Map of curvilinear sites: Northumberland

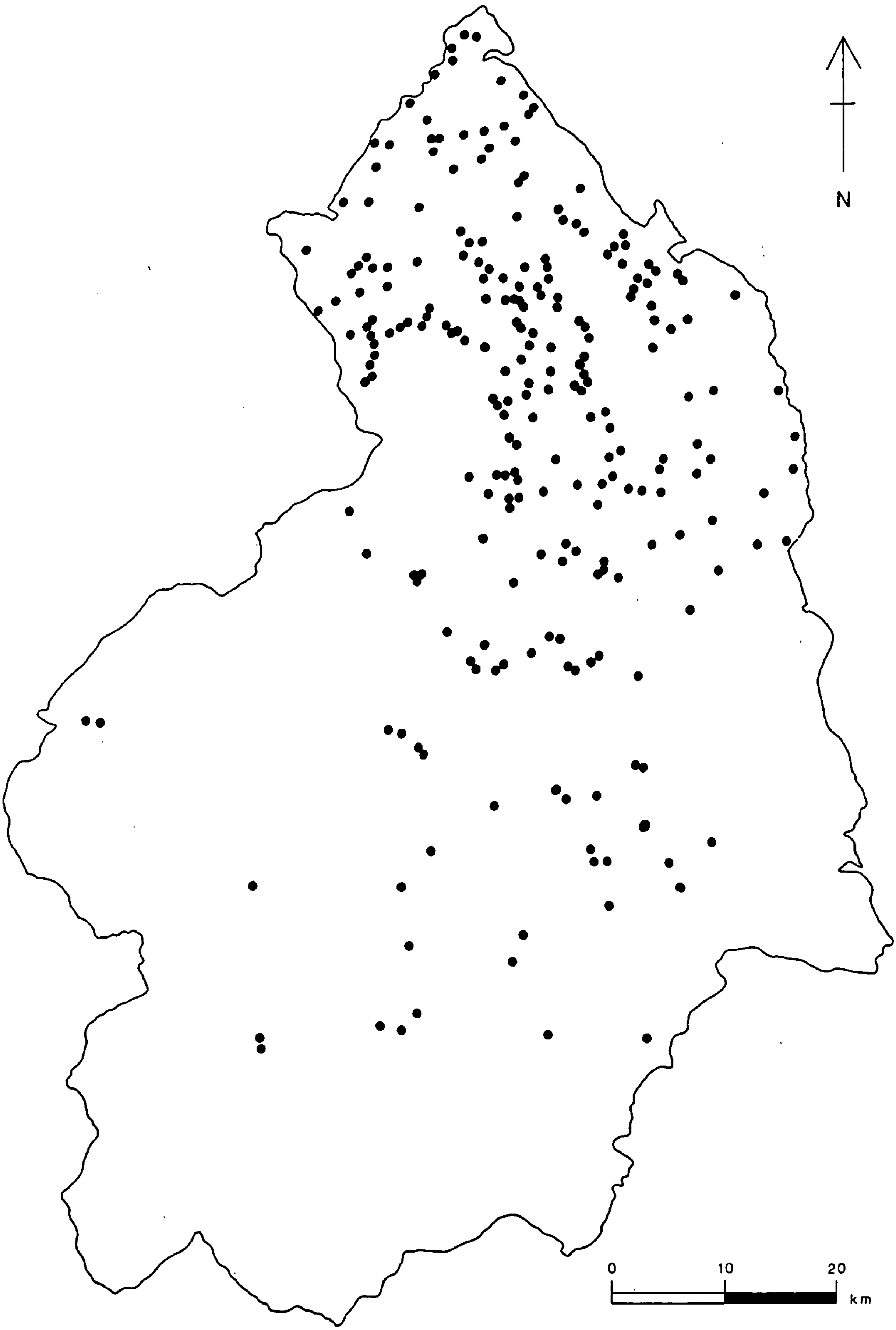


Fig 6.2 Map of sites recorded as "hillforts": Northumberland

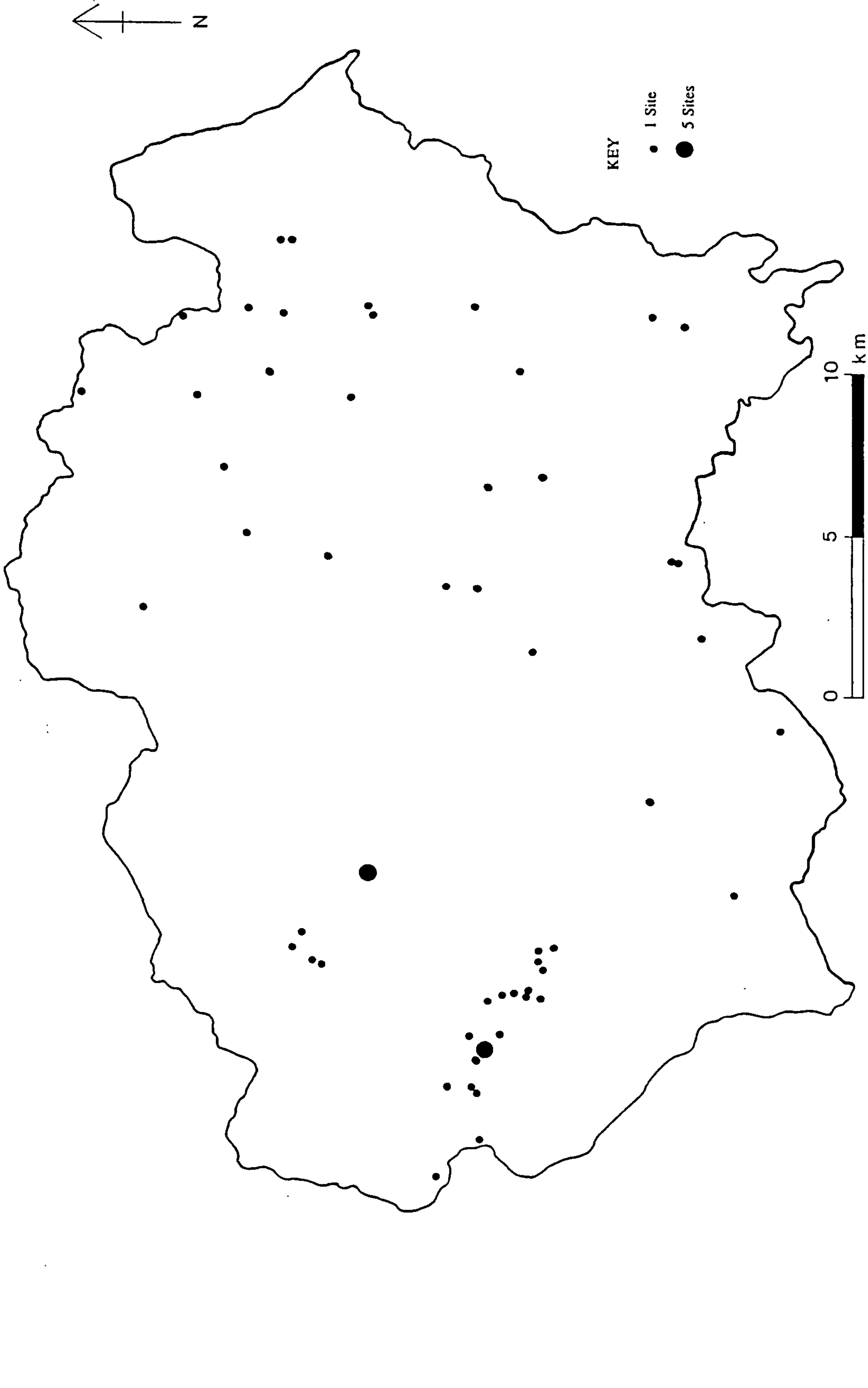


Fig 6.3 Map of curvilinear sites: Durham

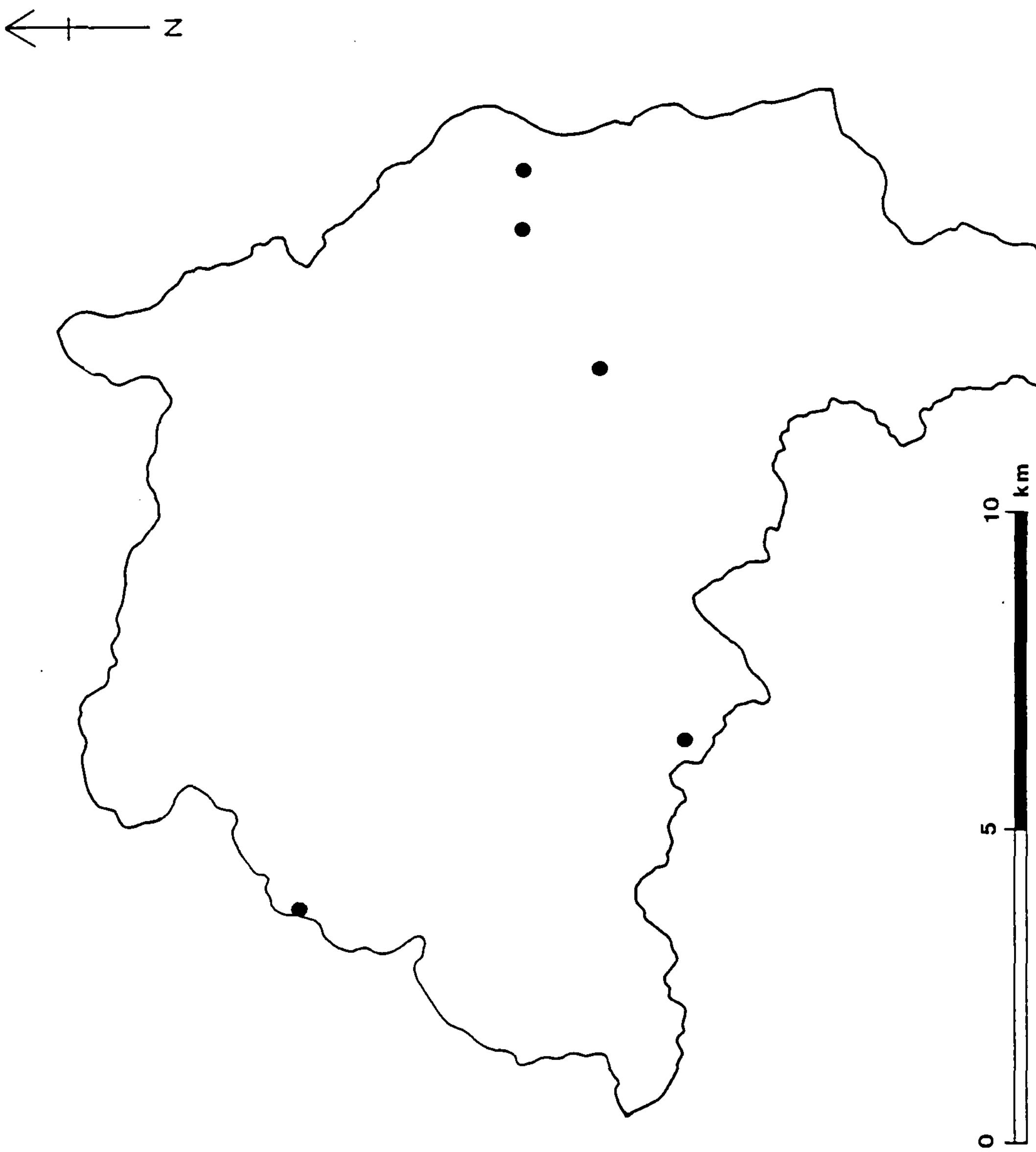


Fig 6.4 Map of curvilinear sites: Tyne & Wear

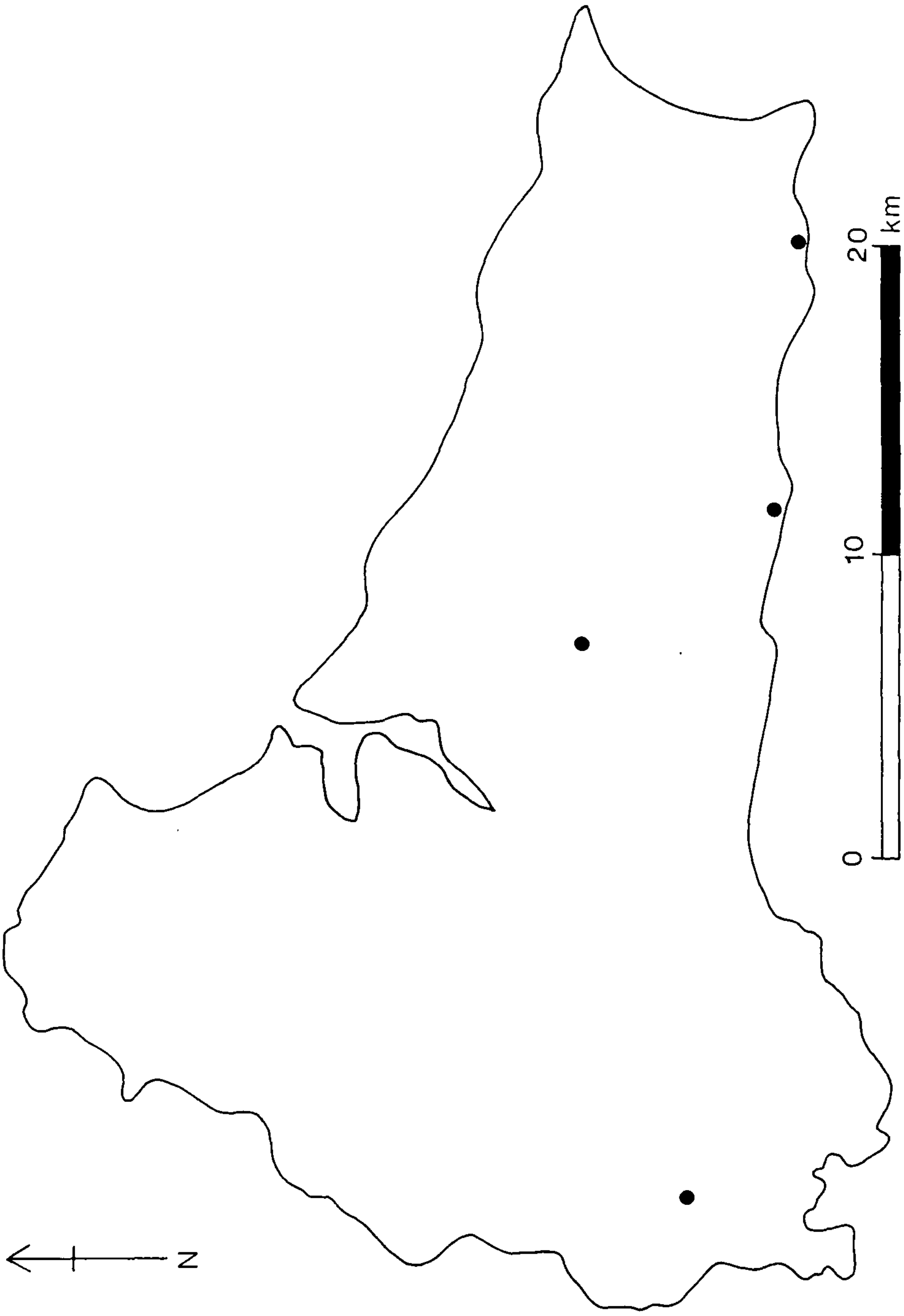


Fig 6.5 Map of curvilinear sites: Cleveland

Fig 6.6 Altitude of curvilinear sites

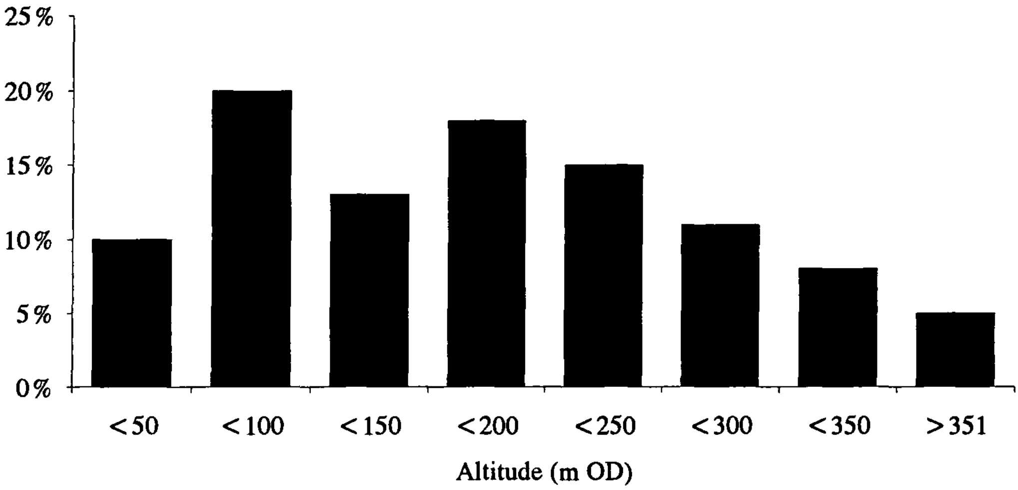


Fig 6.7 Altitude of sites recorded as "hillforts" compared to other curvilinear sites

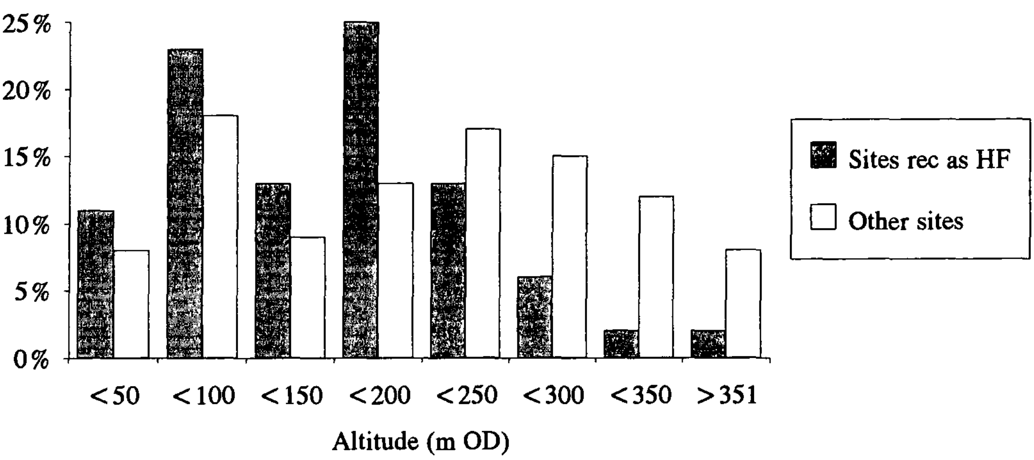
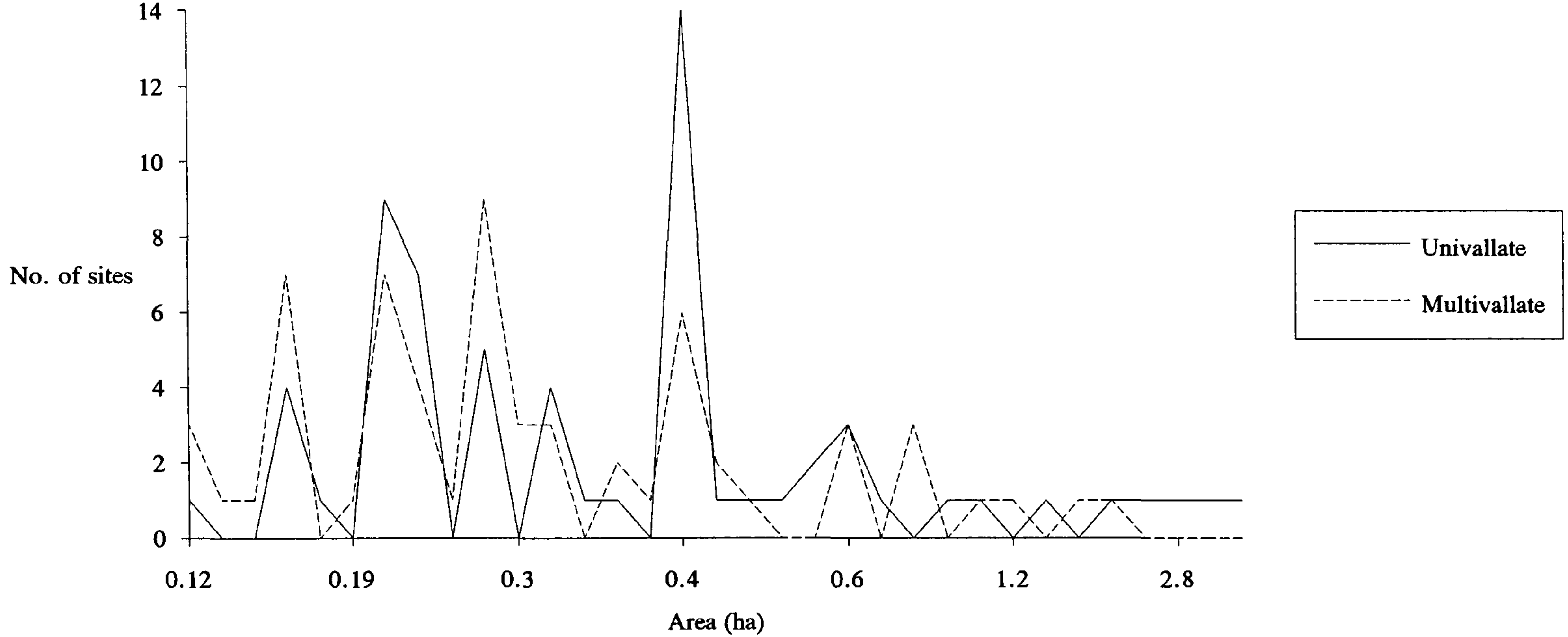


Fig 6.8 Comparative areas of univallate & multivallate "hillforts"



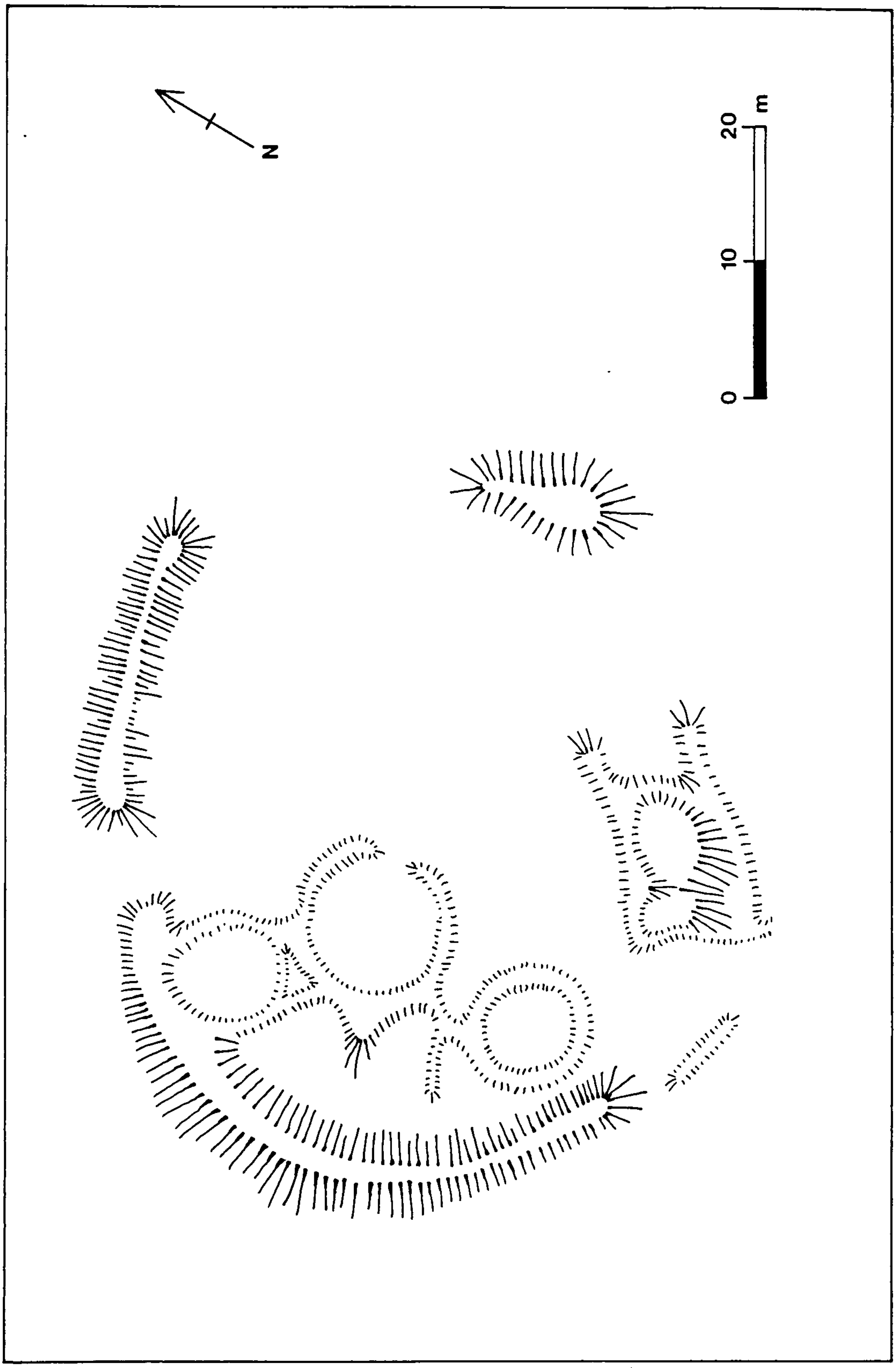


Fig 6.9 Plan of East Mellwaters Farm (after Laurie 1984)

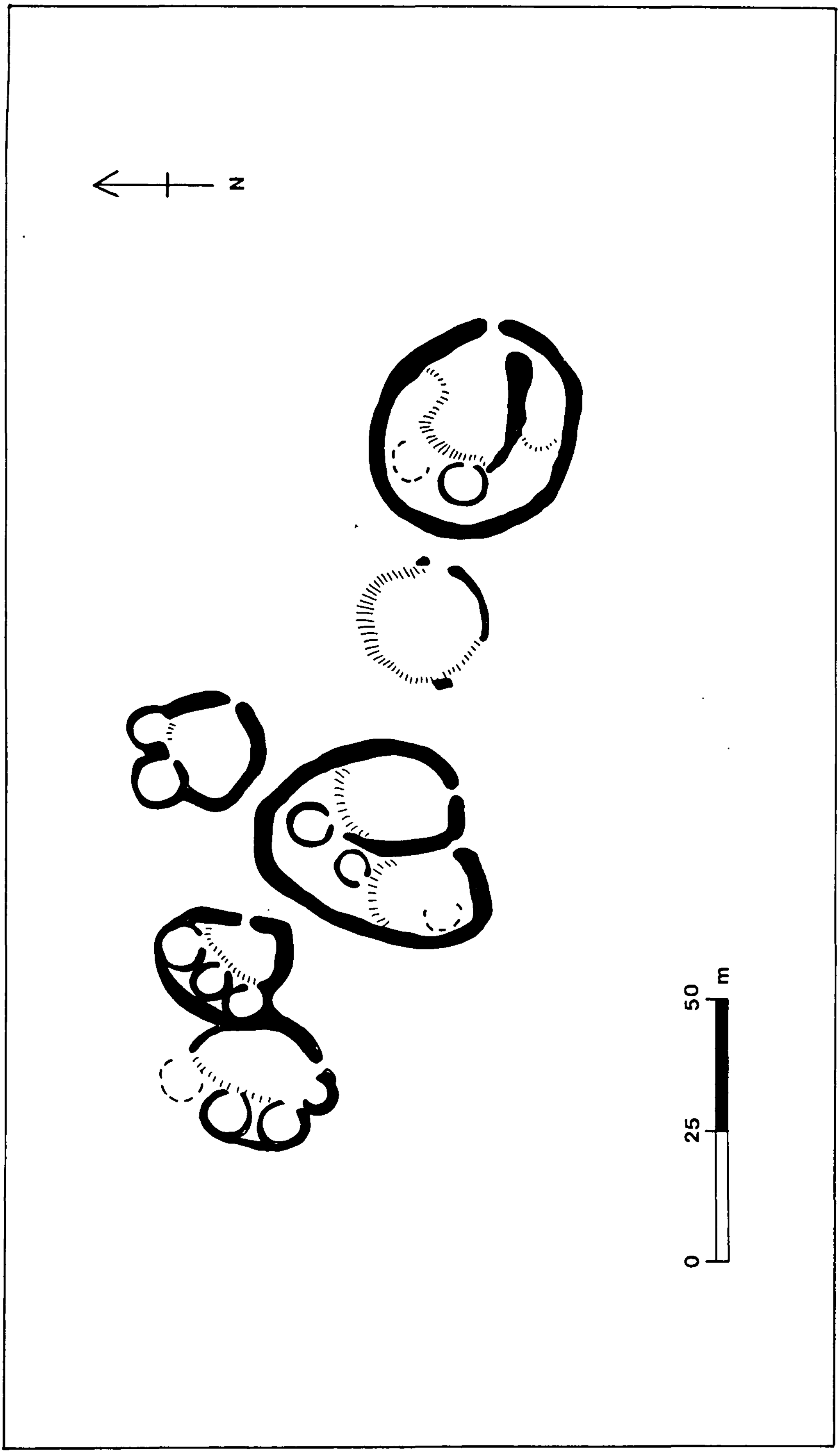


Fig 6.10 Plan of Middle Hartside Hill (after Jobey 1964)

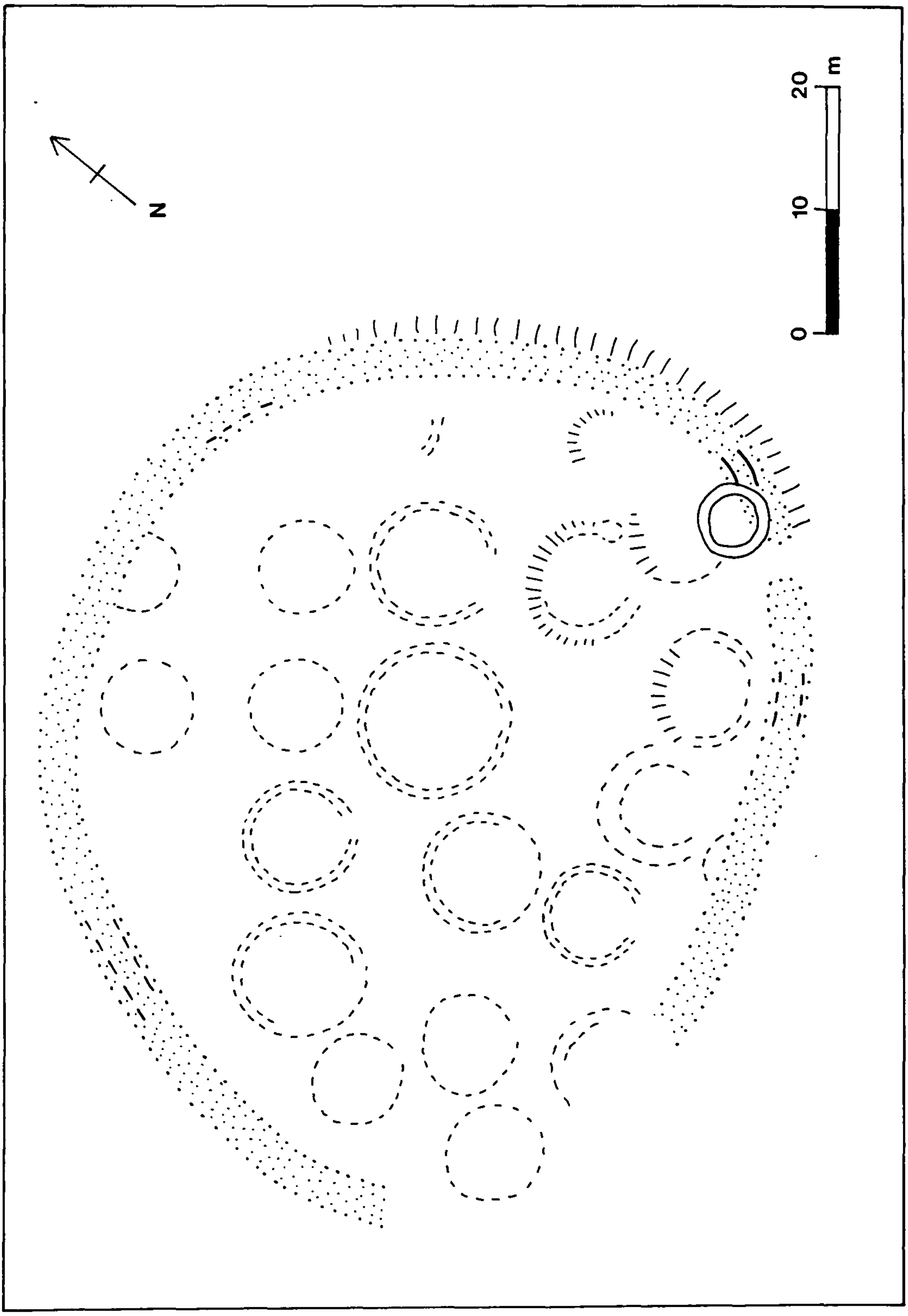


Fig 6.11 Plan of High Knowes B (after Jobey & Tait 1966)

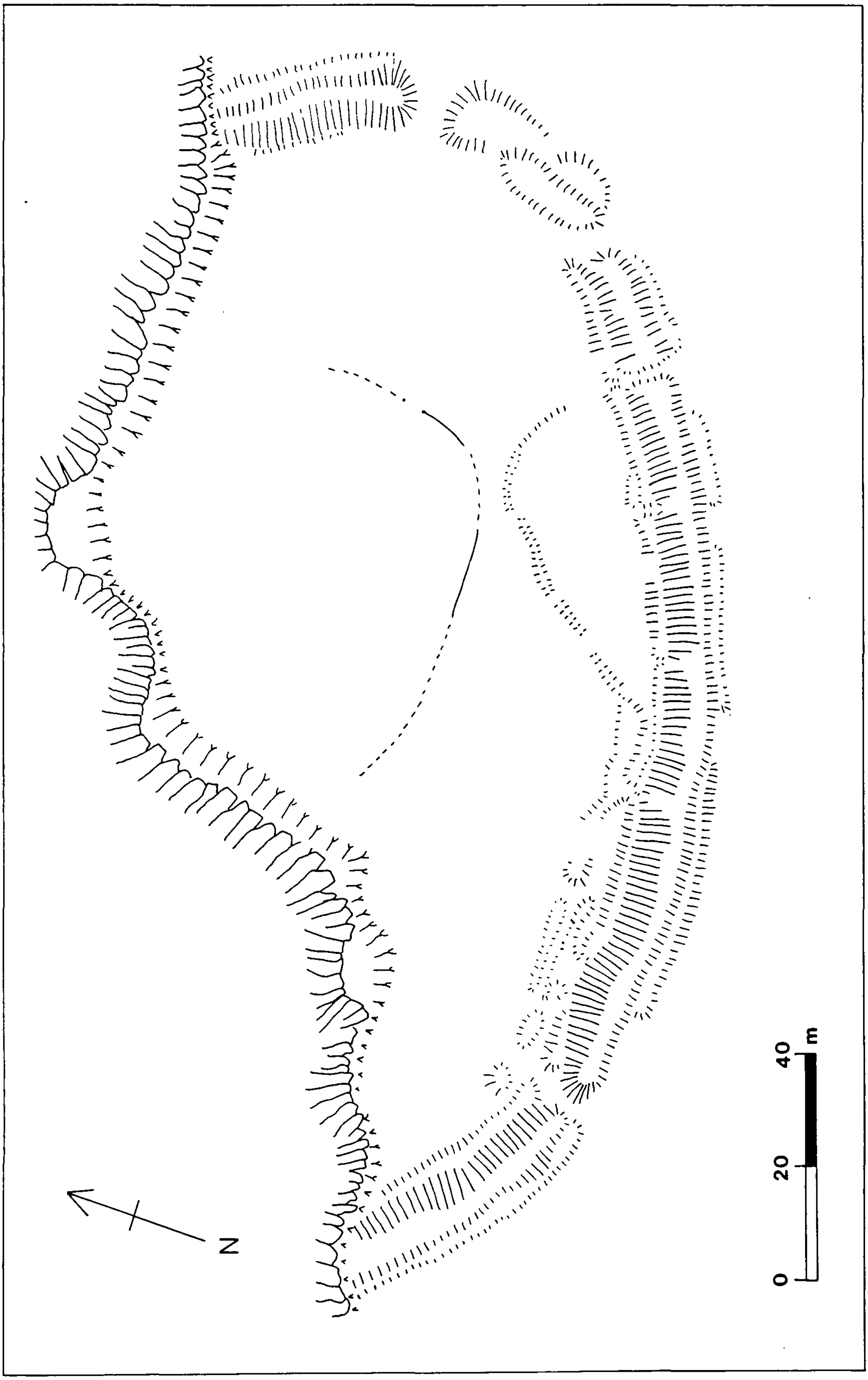


Fig 6.12 Plan of Eston Nab (after Vyner 1988)

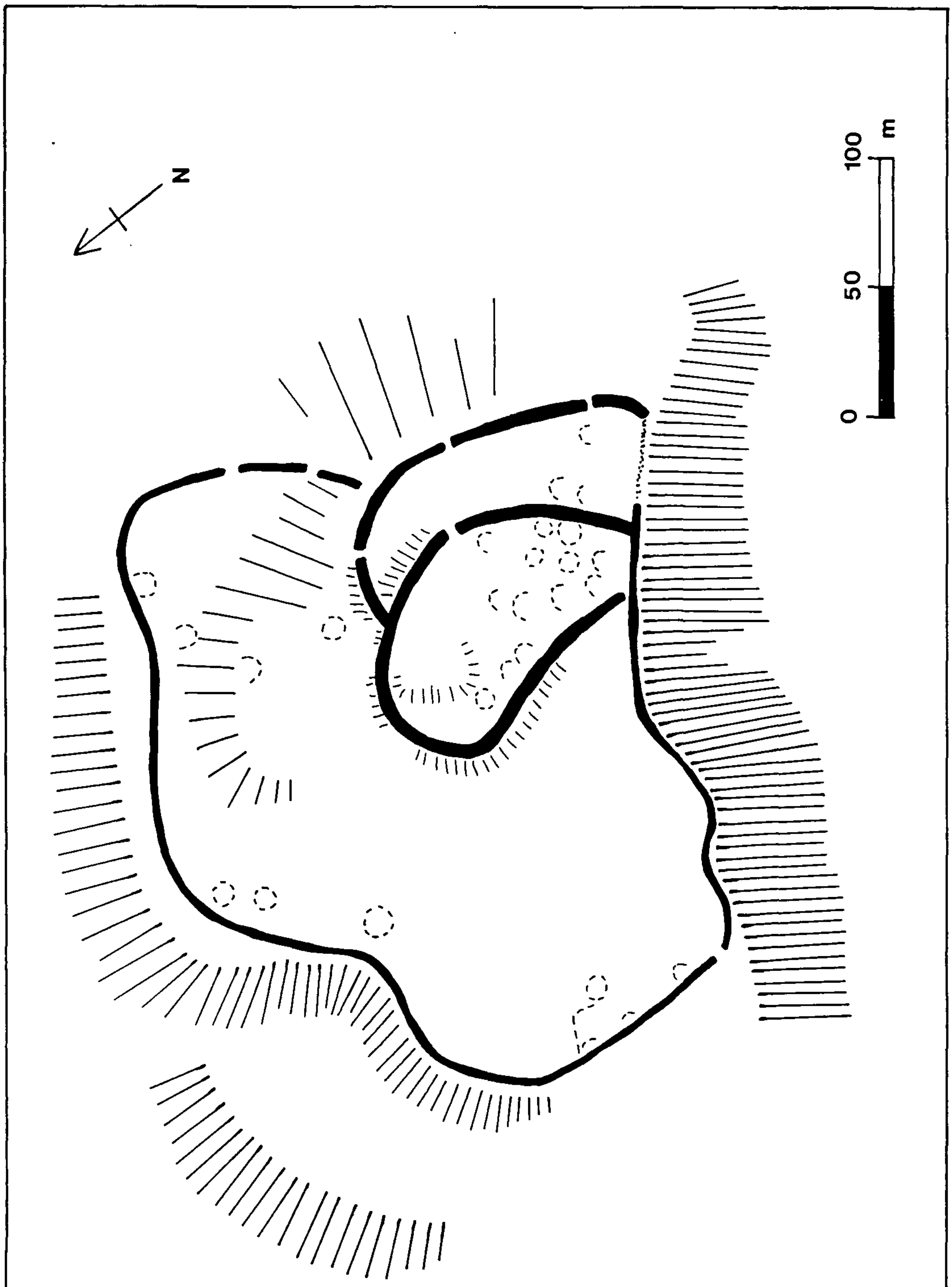


Fig 6.13 Plan of Humbleton Hill (after Jobey 1965a)

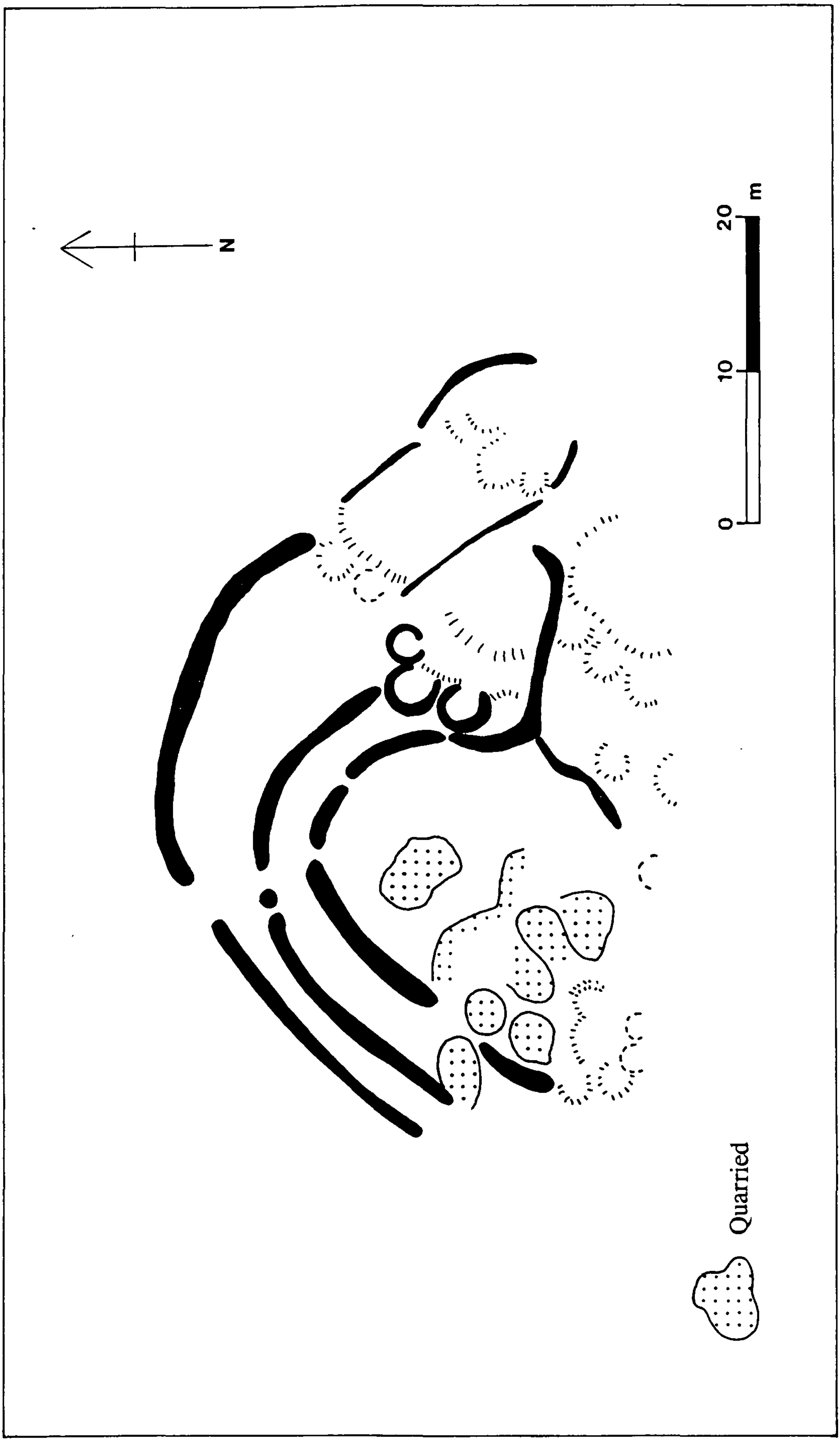


Fig 6.14 Plan of Weetwood Moor (after Jobey 1965a)

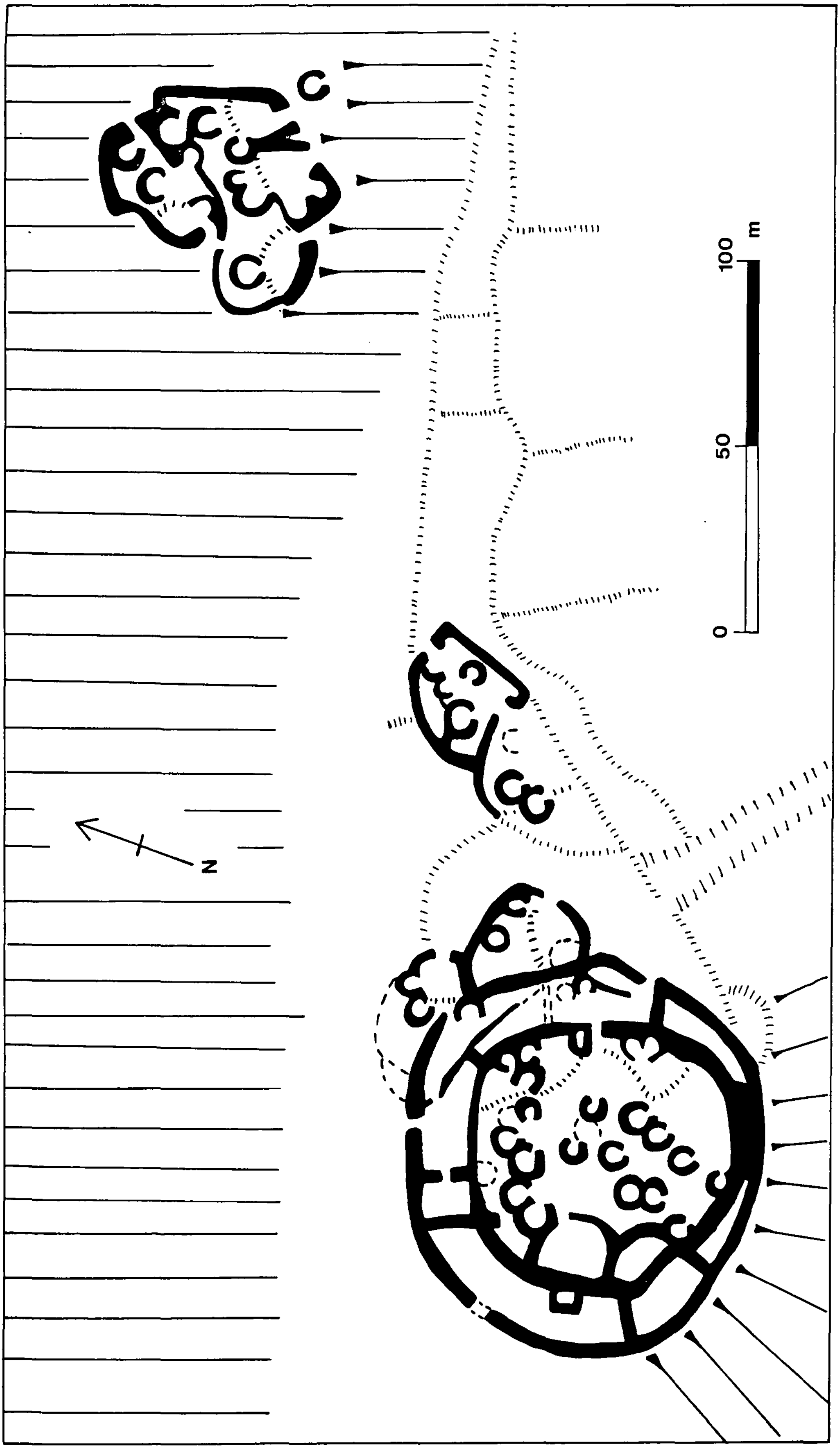


Fig 6.15 Plan of Greaves Ash (after Tate 1862a; Jobey 1965a)

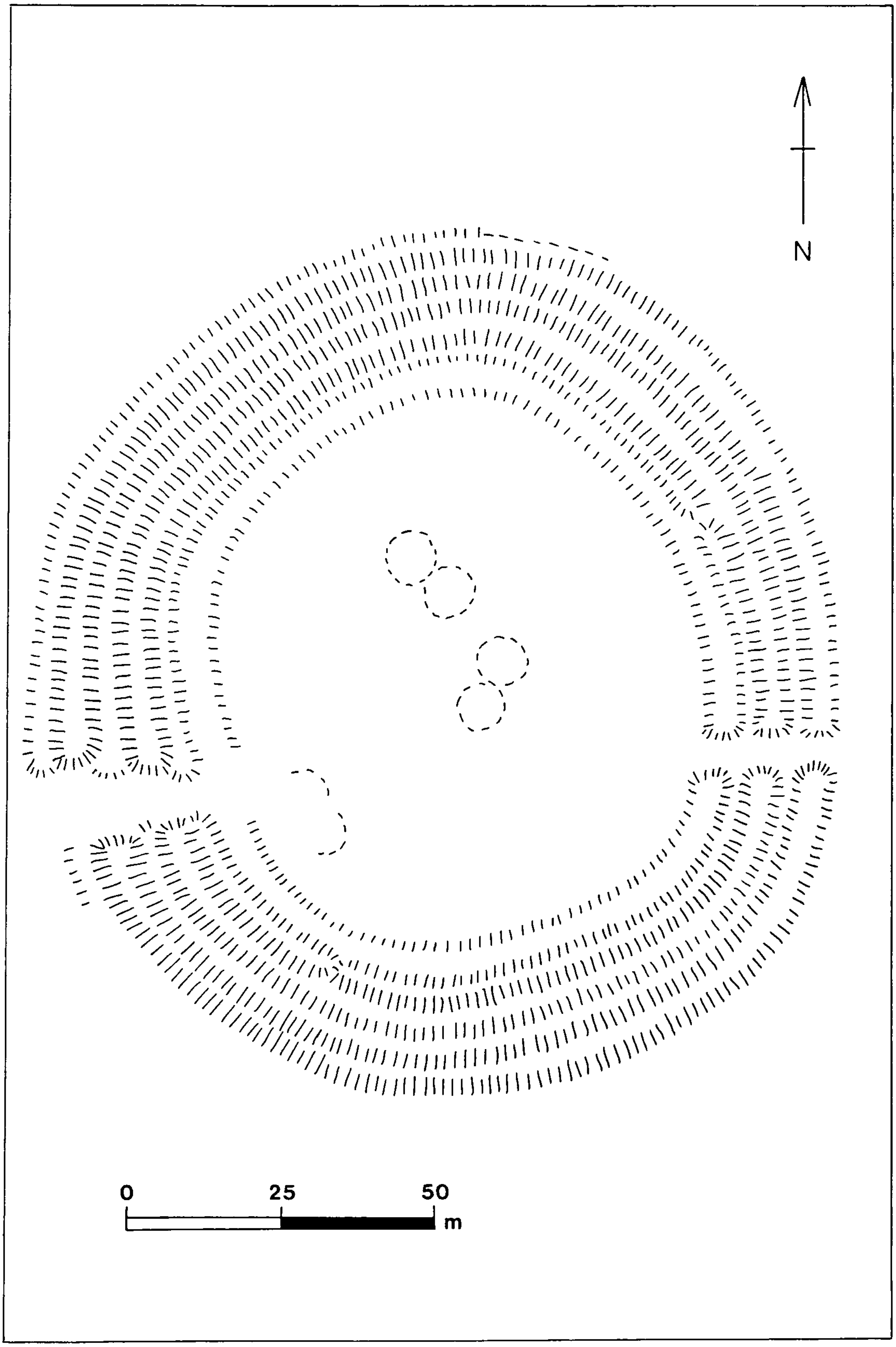


Fig 6.16 Plan of Colwell Hill (after Jobey 1965a)

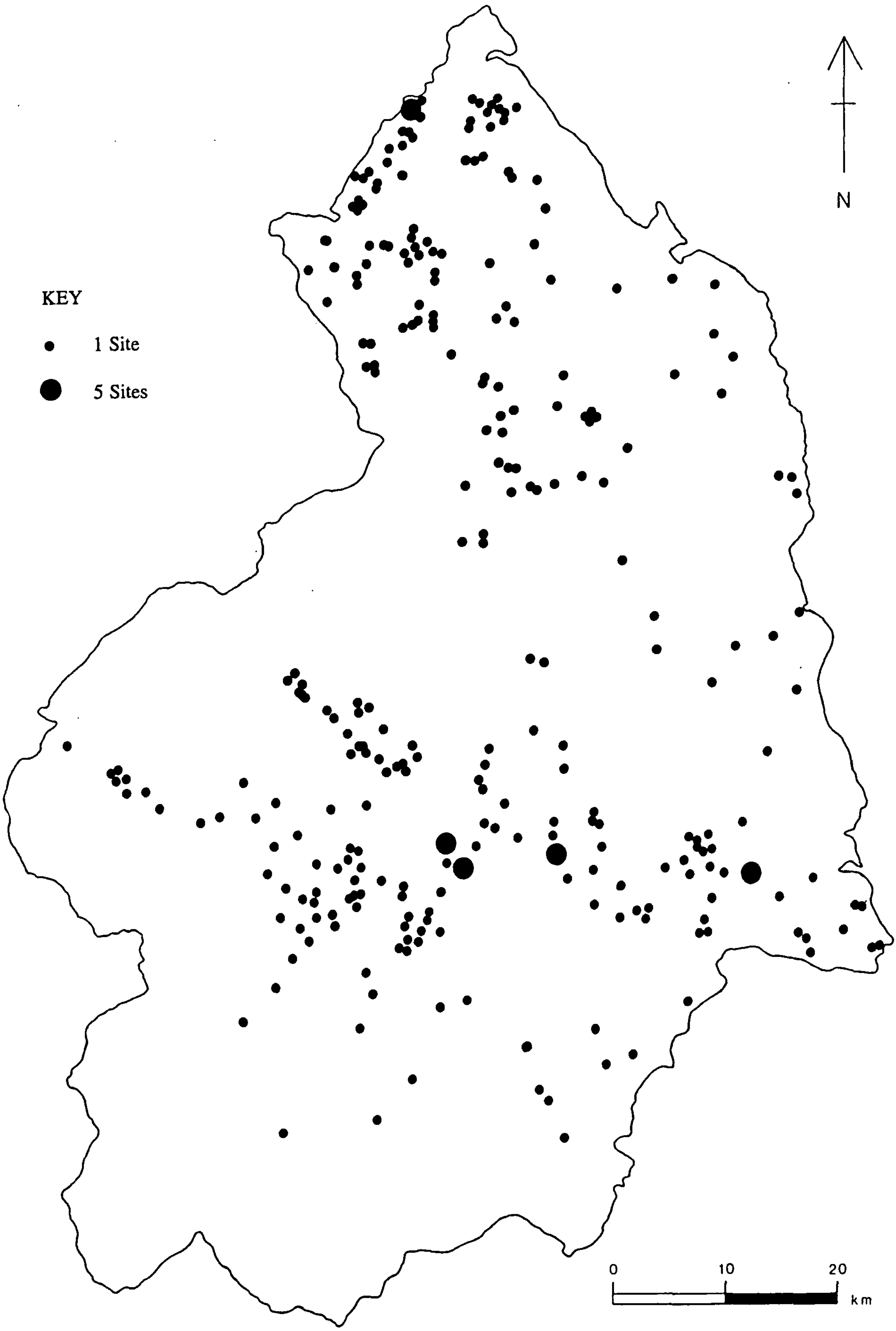


Fig 7.1 Map of rectilinear sites: Northumberland

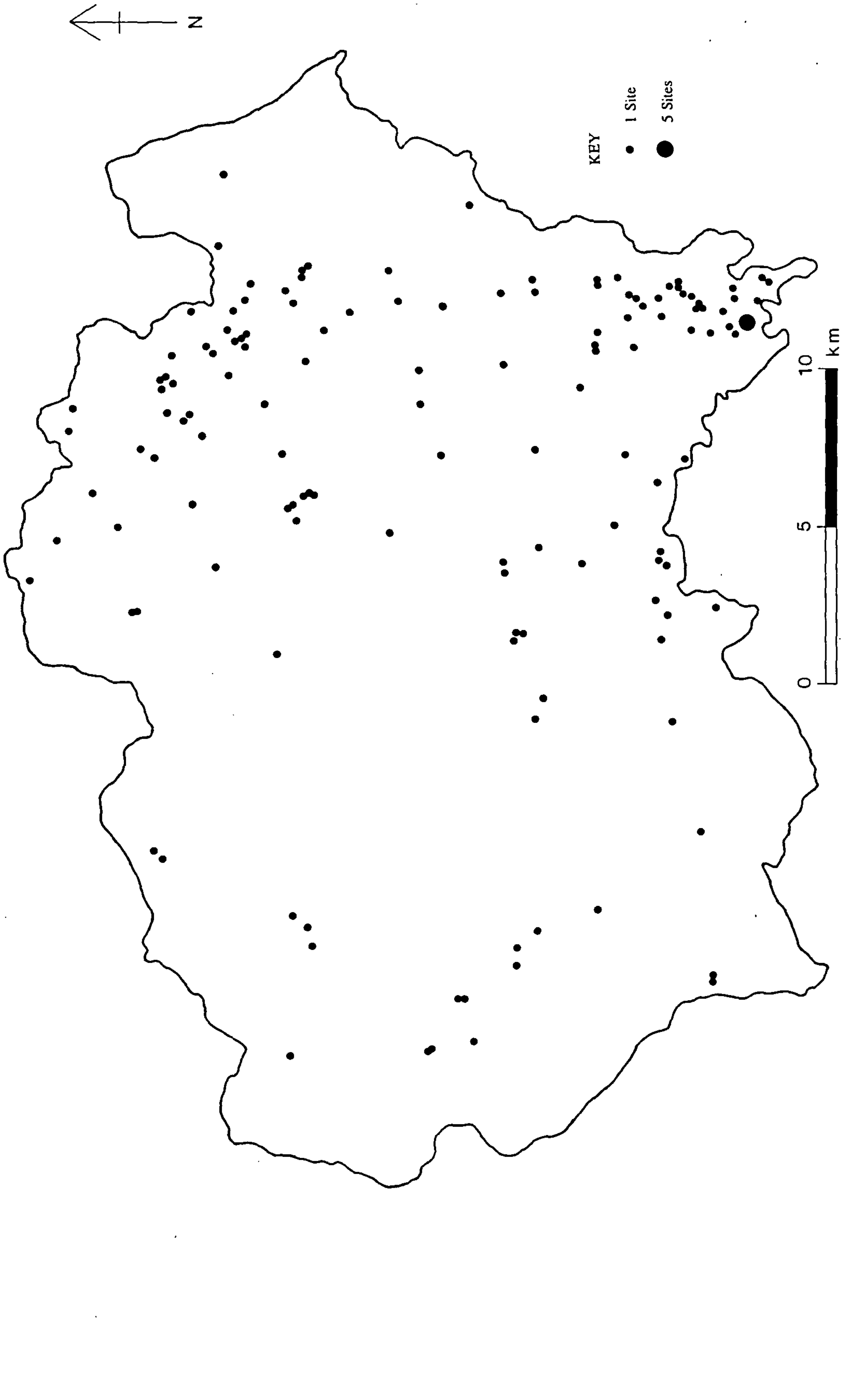


Fig 7.2 Map of rectilinear sites: Durham

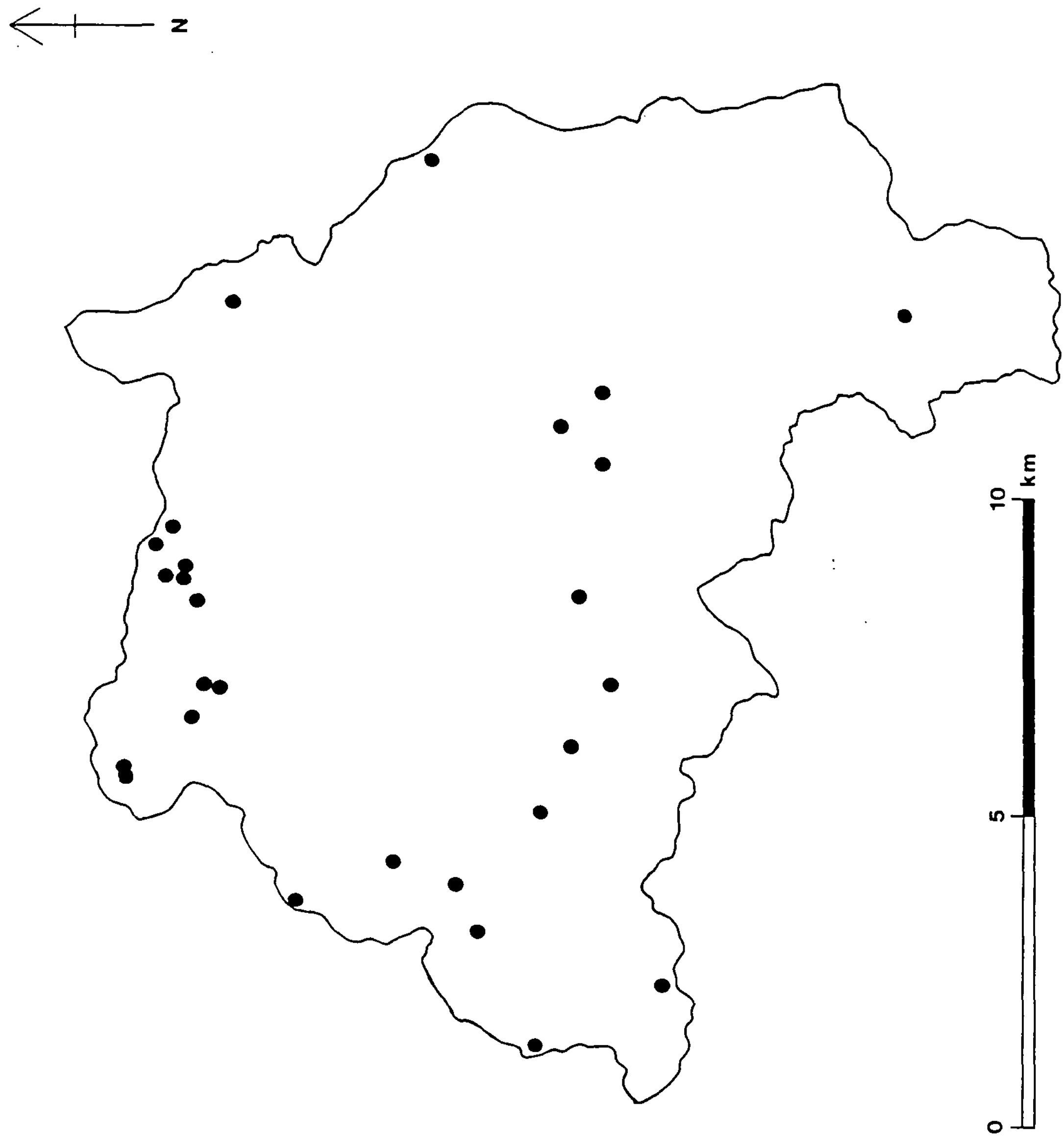
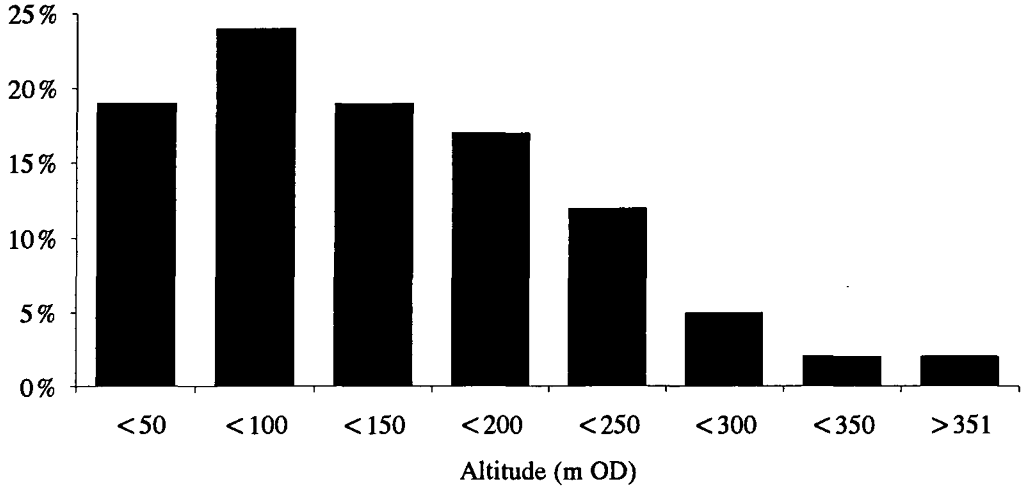


Fig 7.3 Map of rectilinear sites: Tyne & Wear

Fig 7.4 Map of rectilinear sites: Cleveland

Fig 7.5 Altitude of rectilinear sites



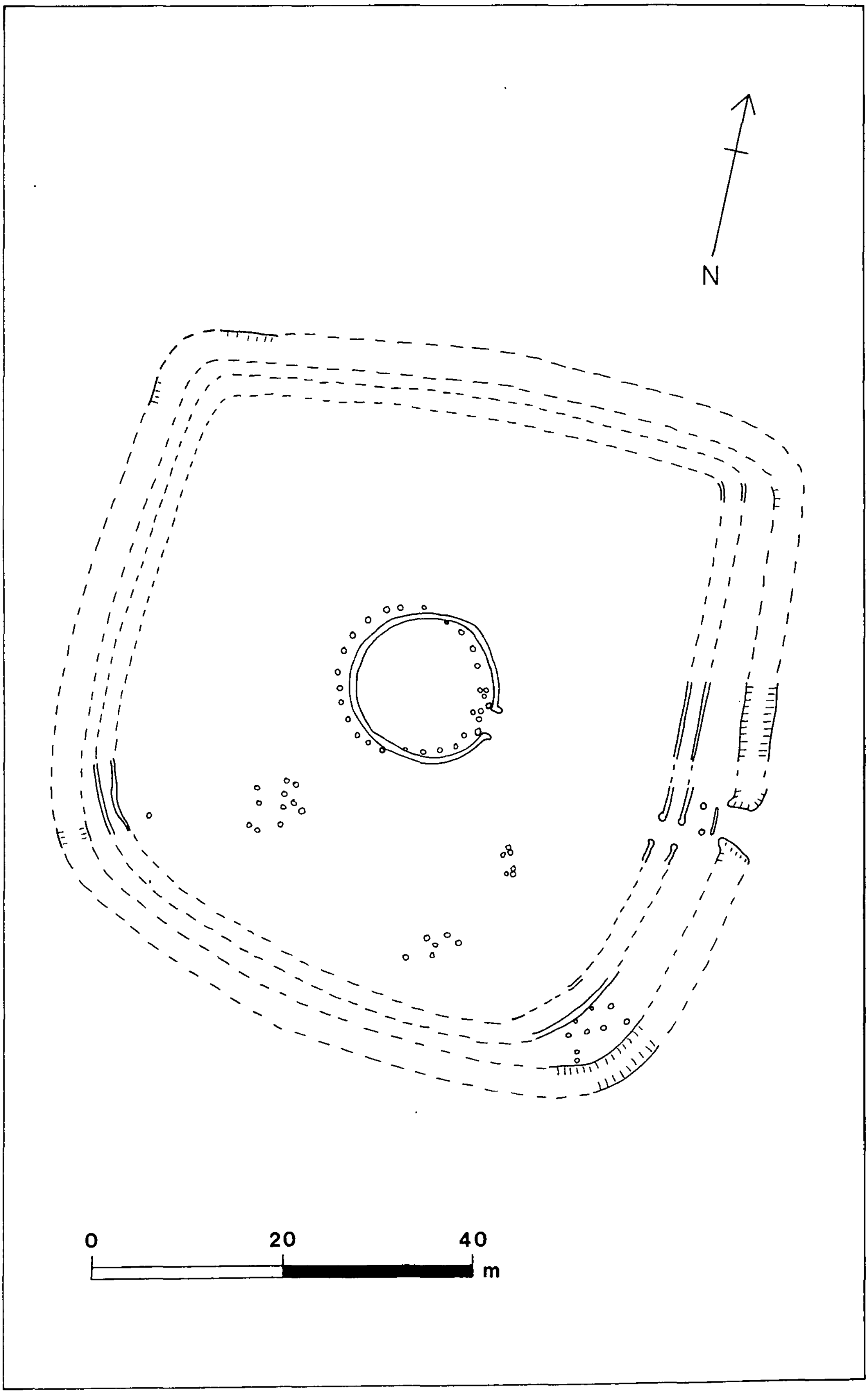


Fig 7.6 Plan of West Brandon (after Jobey 1962a)

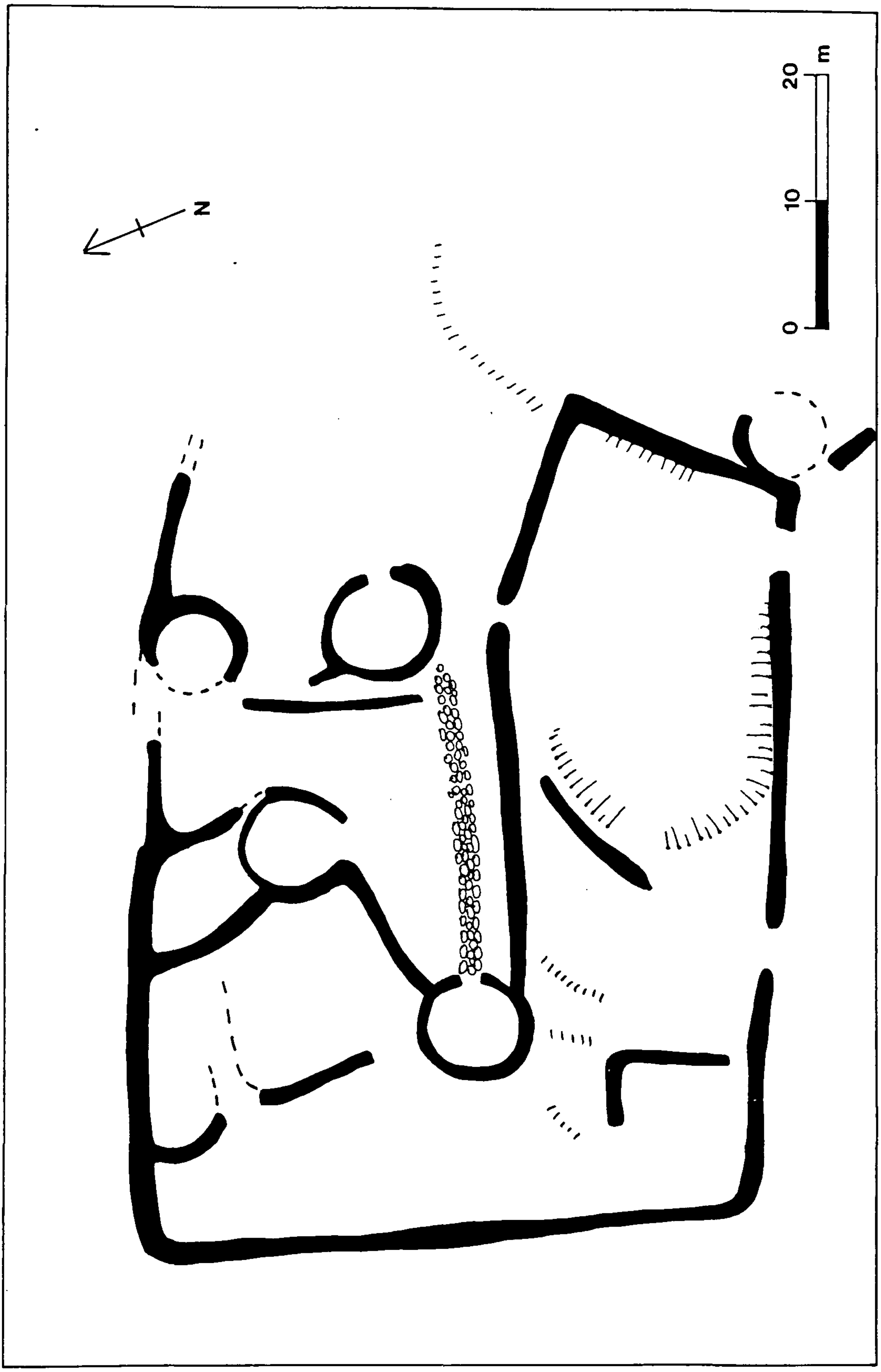


Fig 7.7 Plan of Bridge House (after Jobey 1960)

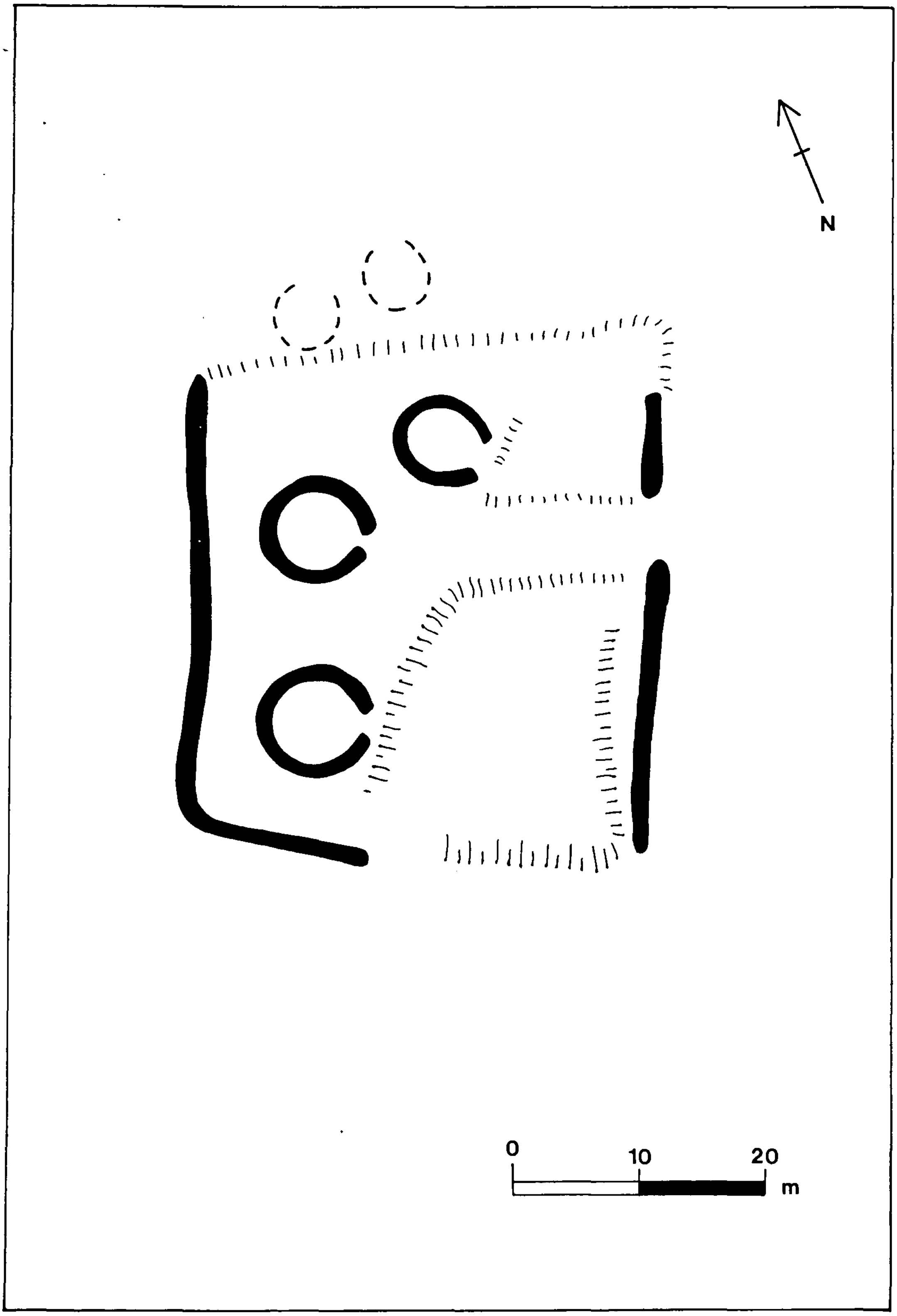


Fig 7.8 Plan of Sidwood (after Jobey 1960)

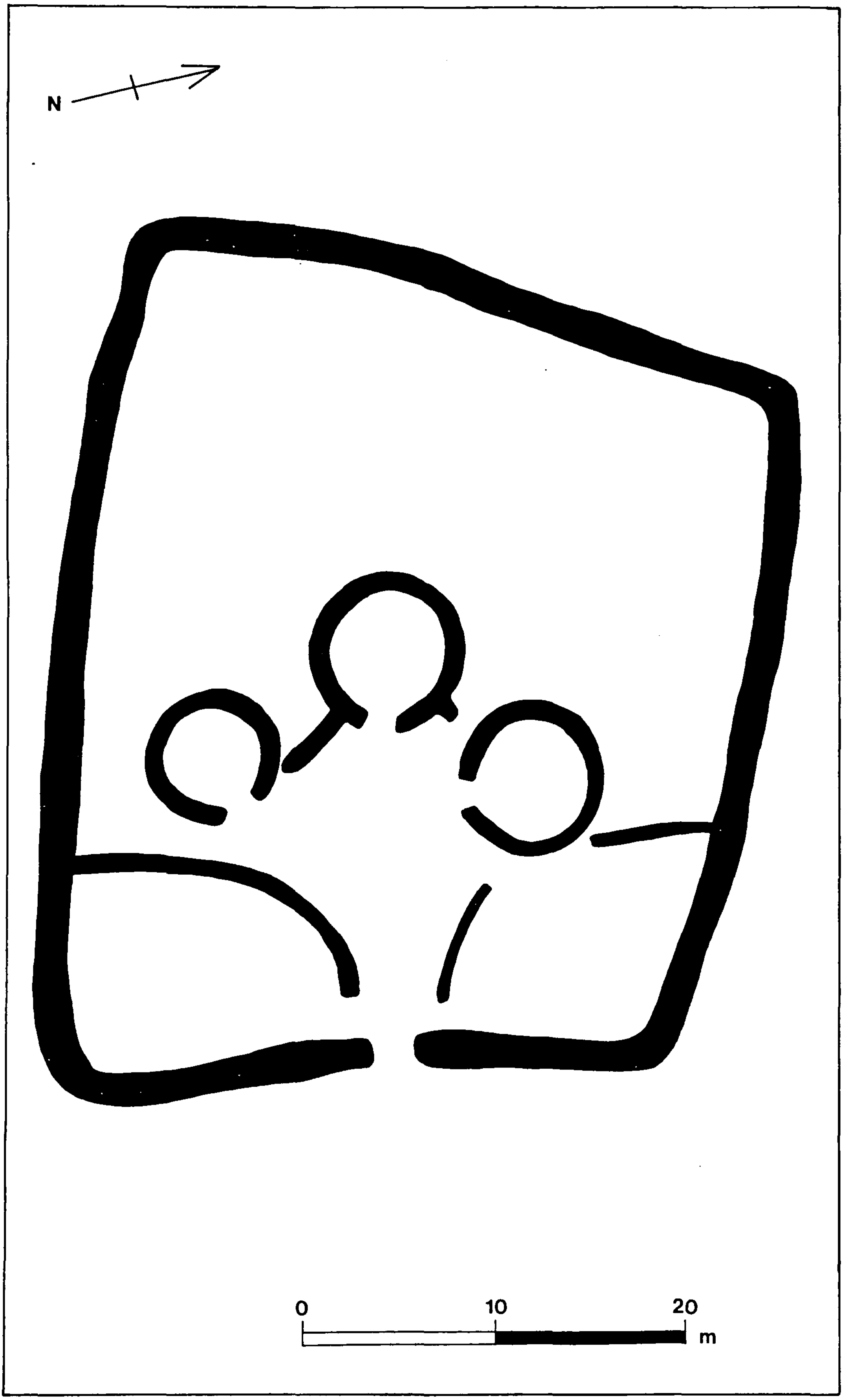


Fig 7.9 Plan of Tower Knowe (after Jobey 1973a)

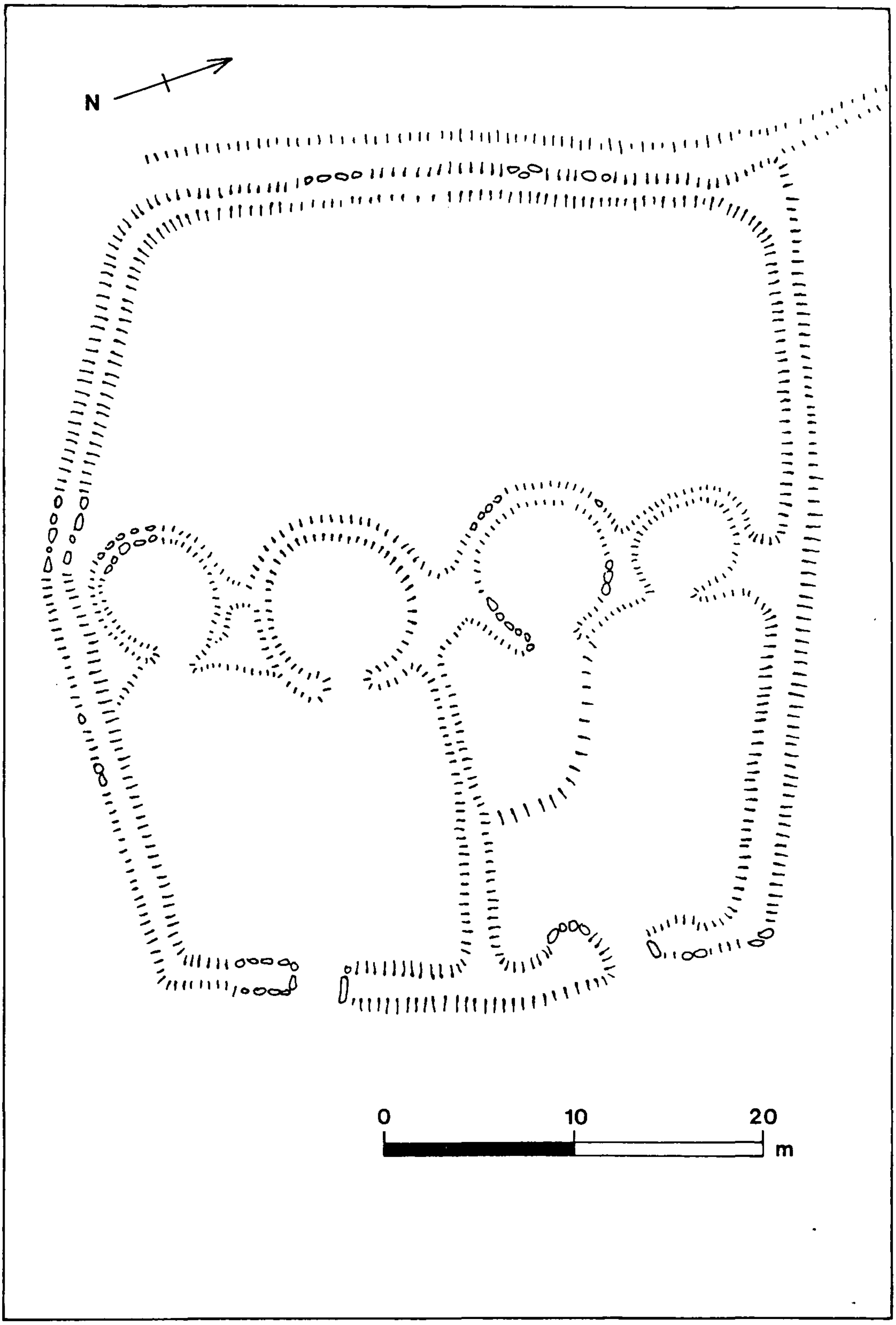


Fig 7.10 Plan of Woolaw (after Charlton & Day 1978)

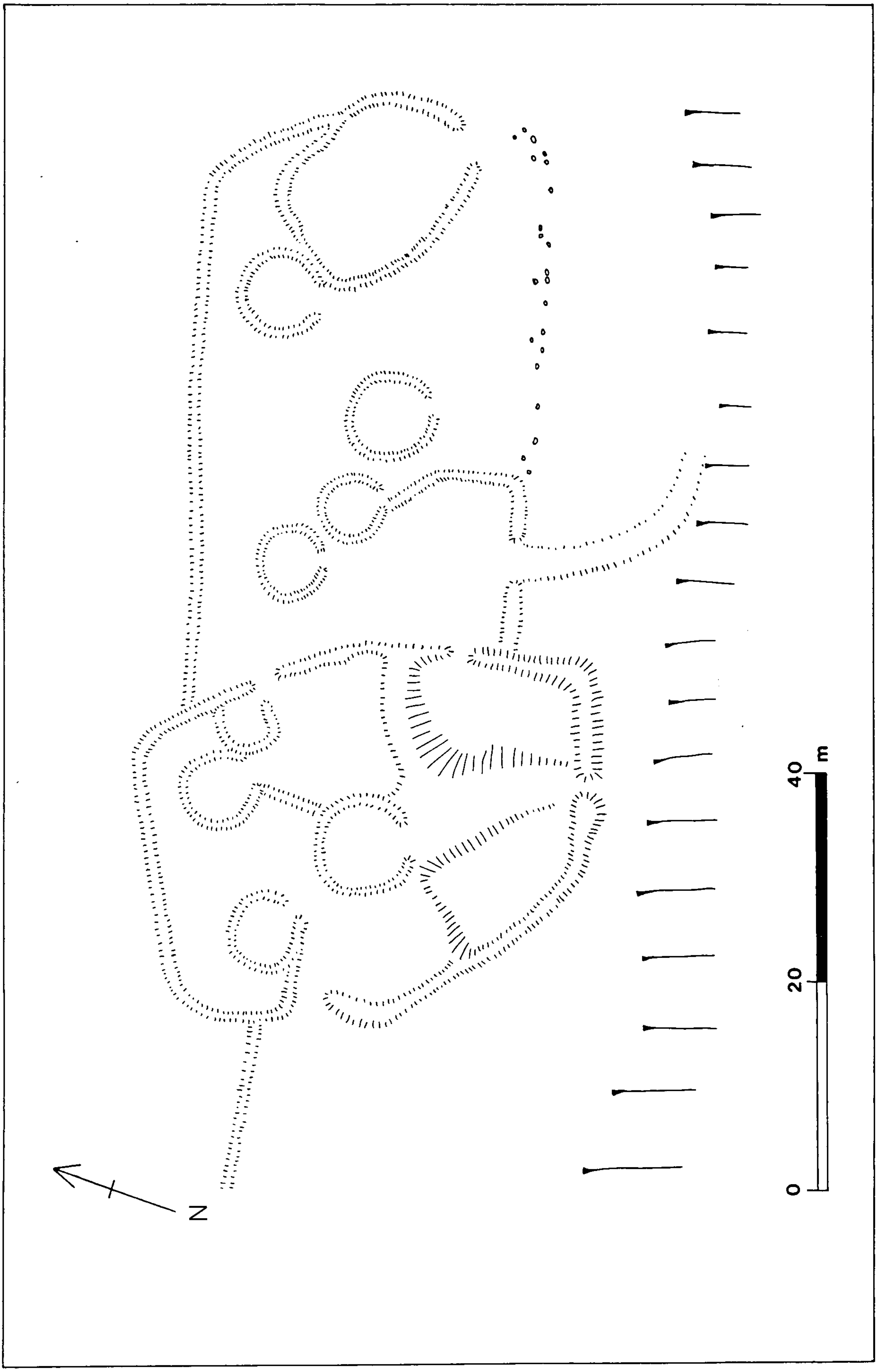


Fig 7.11 Plan of Rattenraw (after Charlton & Day 1978)

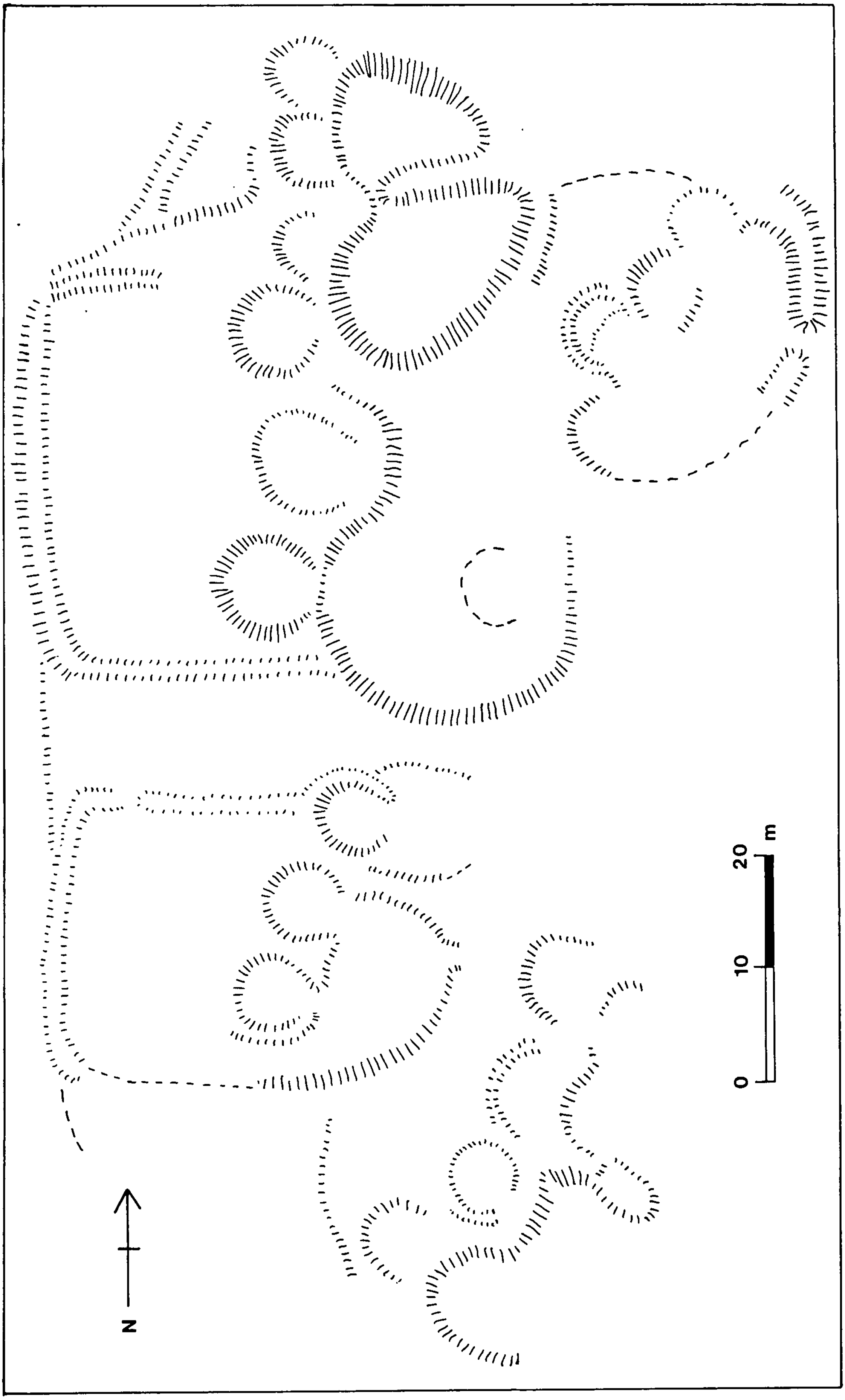


Fig 7.12 Plan of Uplaw Knowe South (after Jobey 1972a)

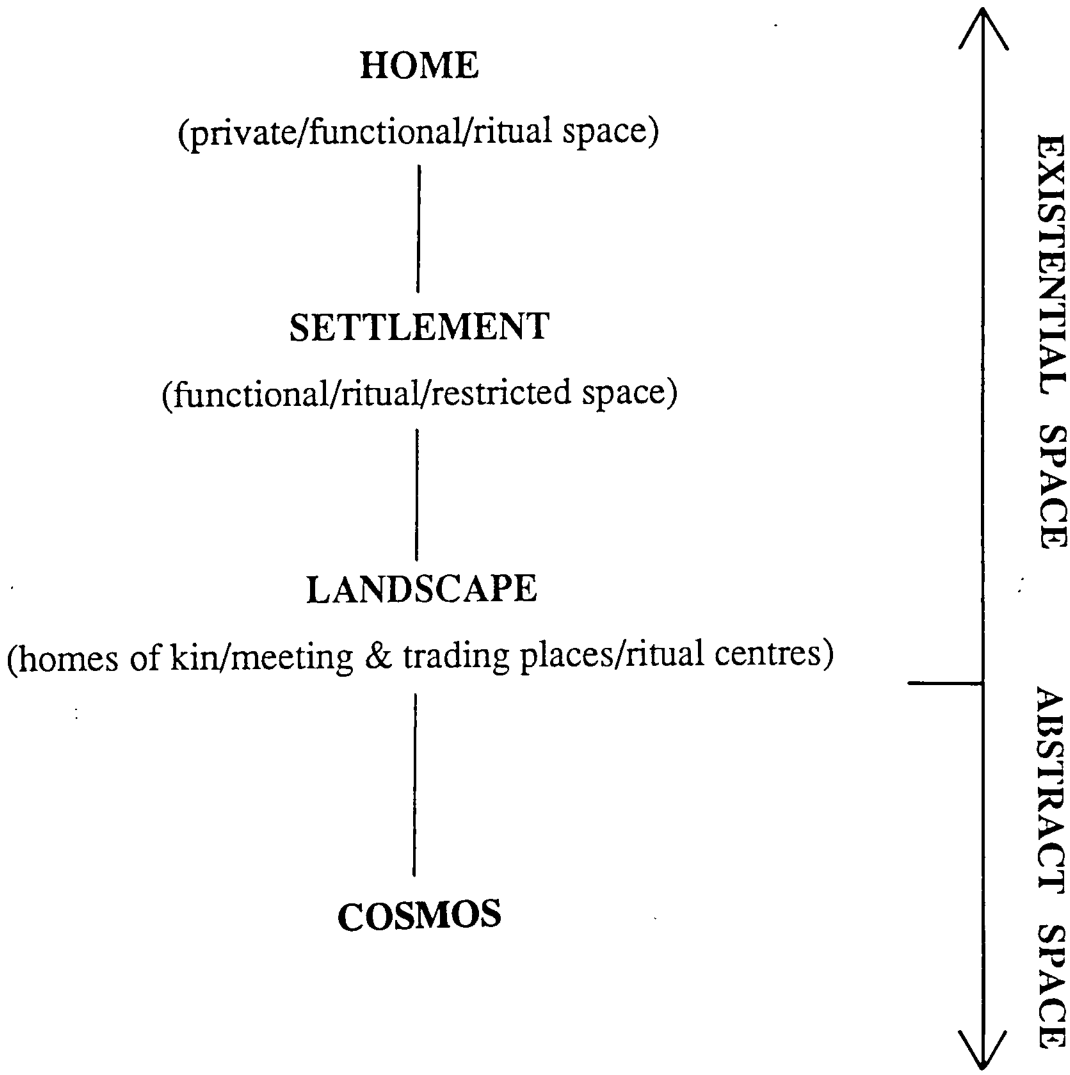
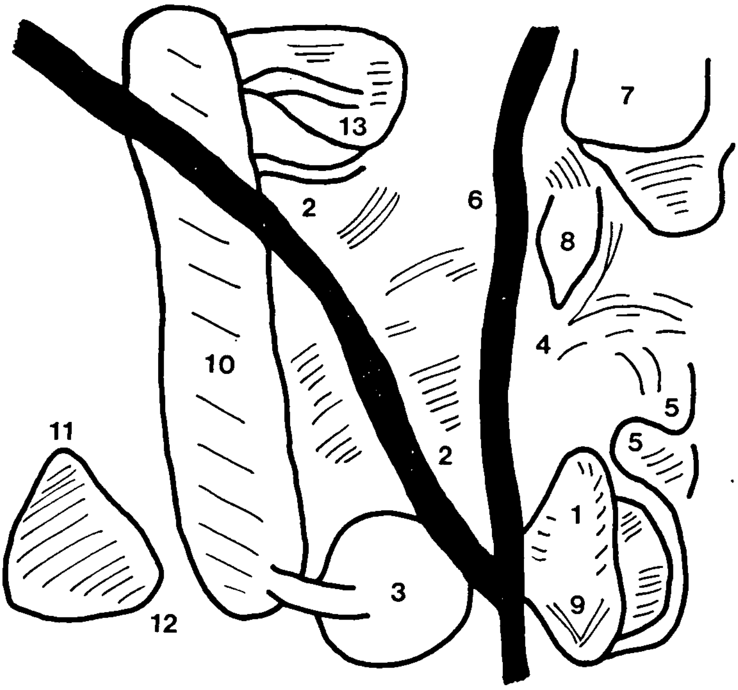


Fig 8.1 A hypothetical structure of space



AN ABORIGINAL MAP OF THE GURUDJMUG AREA (After Berndt & Berndt 1970 p56)

1. Gabari Creek
2. Gabari Waterhole
3. Gunyiguyimi Waterhole
4. A njalaidj ceremony was held close to 2; here people were dancing
5. People from the north who came to the njalaidj ceremony now stand here as rocks
6. Namalaid, an orphan was here
7. The orphan's elder brother went up here and was turned into a rock
8. Fishing net used by the fisherman who came to the njalaidj
9. The elder brother's dog
10. Nabamuli Billabong
11. Gurudjmug Hill
12. Galawan Goanna djang is at the top of this hill
13. Paperbark trees, now djang, left by the drowned people

Djang - spirit associated with specific site or place

Njalaidj - a ceremony with trading

Fig 8.2 An alternative perception of space

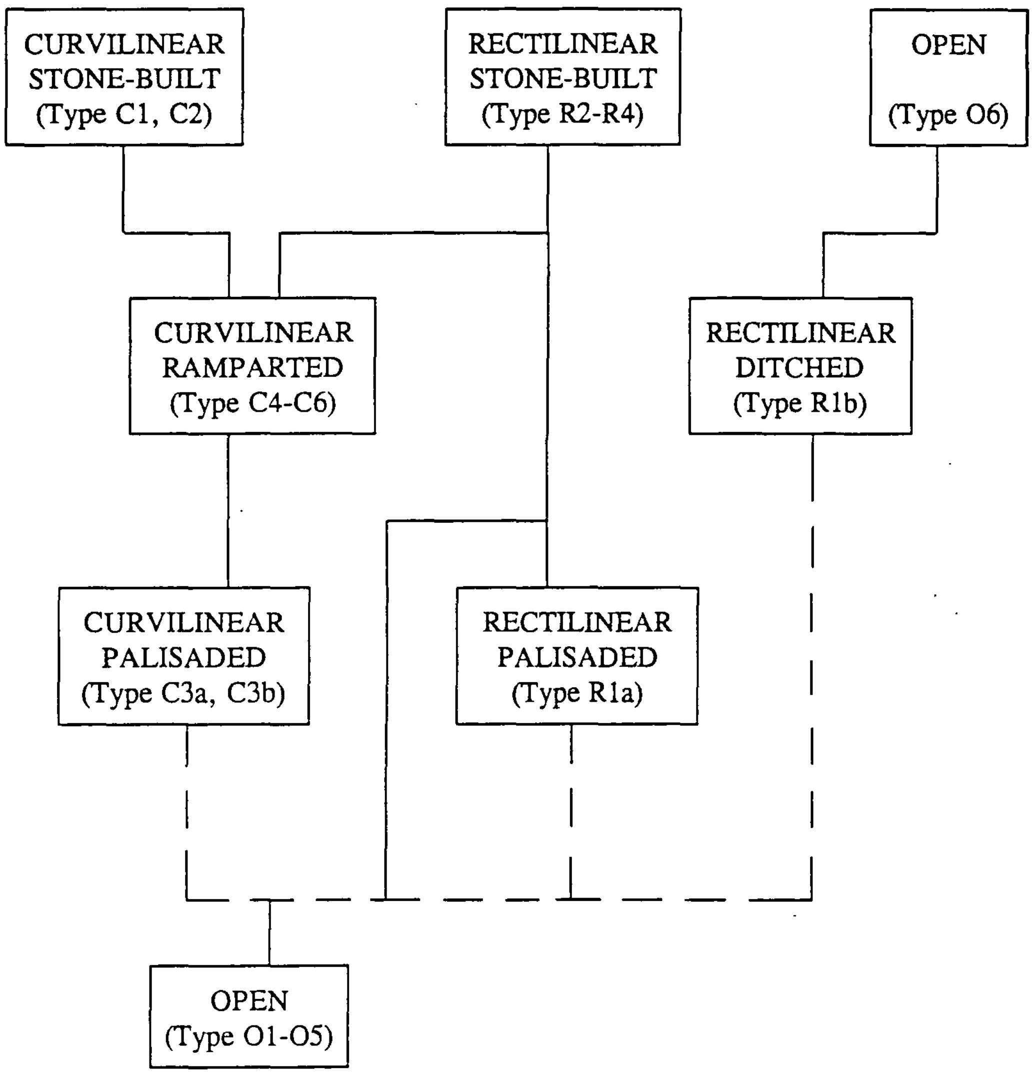


Fig 8.3 Matrix of stratigraphic relationships between site types

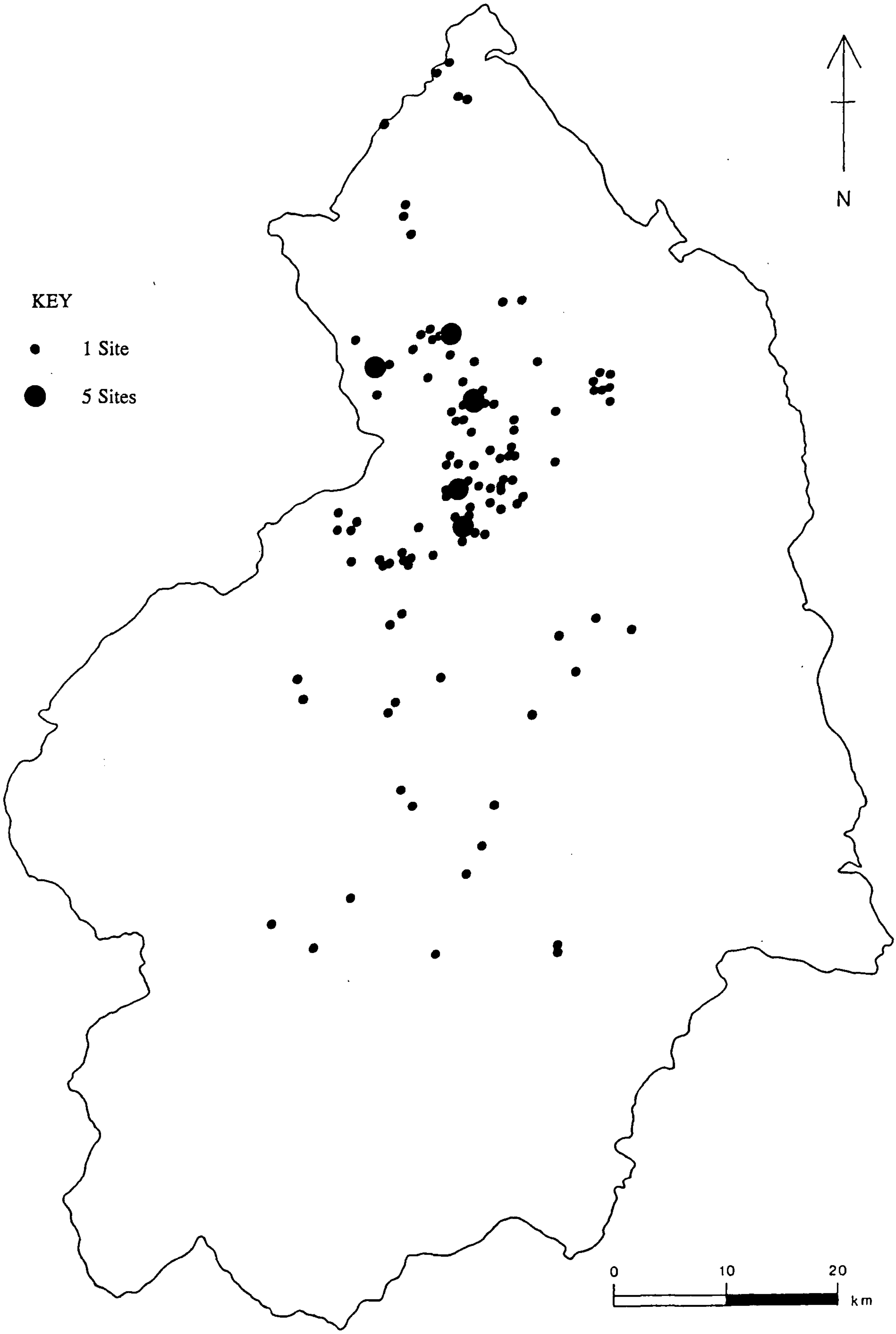


Fig 8.4 Map of sites of possible Bronze Age date: Northumberland

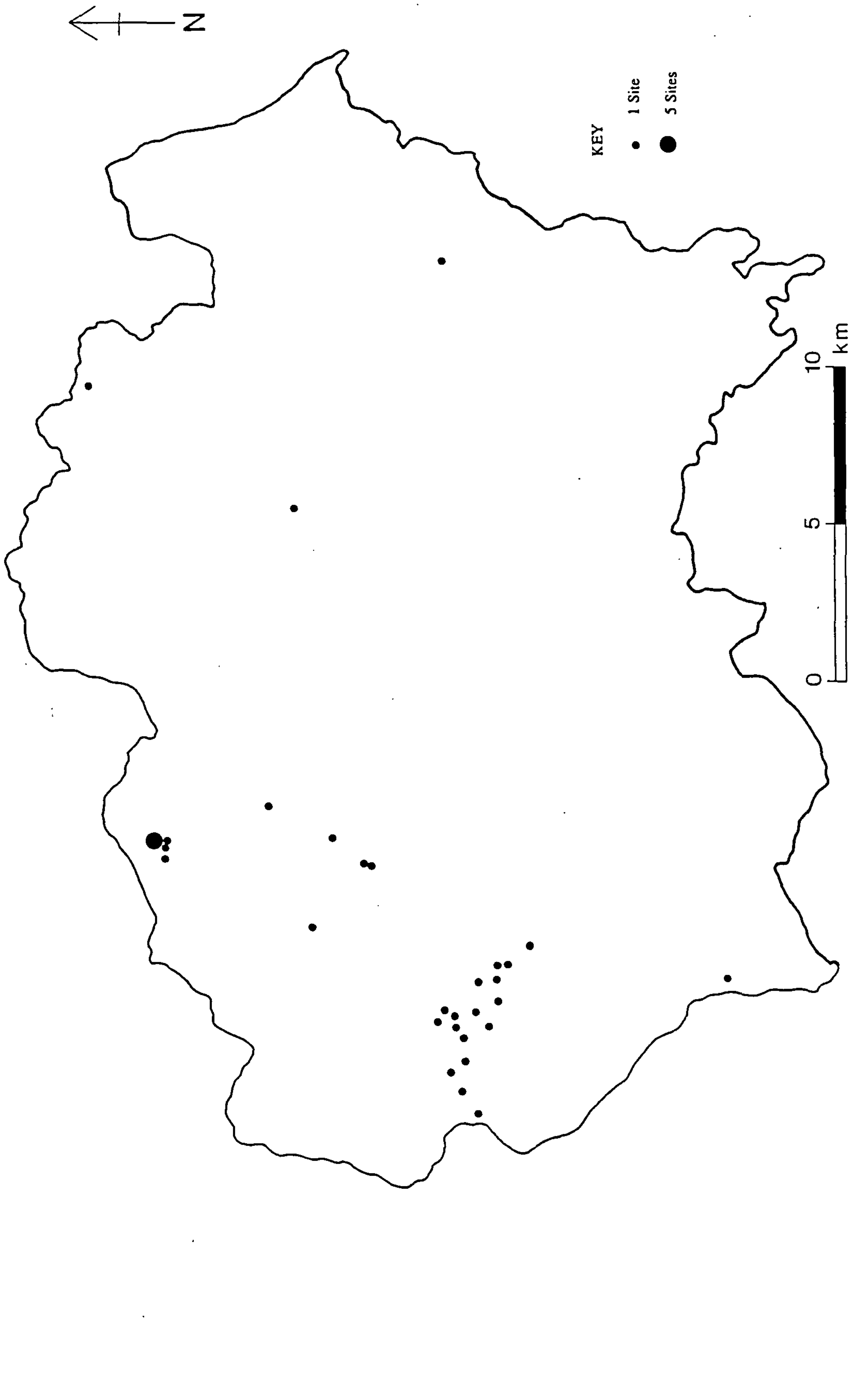


Fig 8.5 Map of sites of possible Bronze Age date: Durham

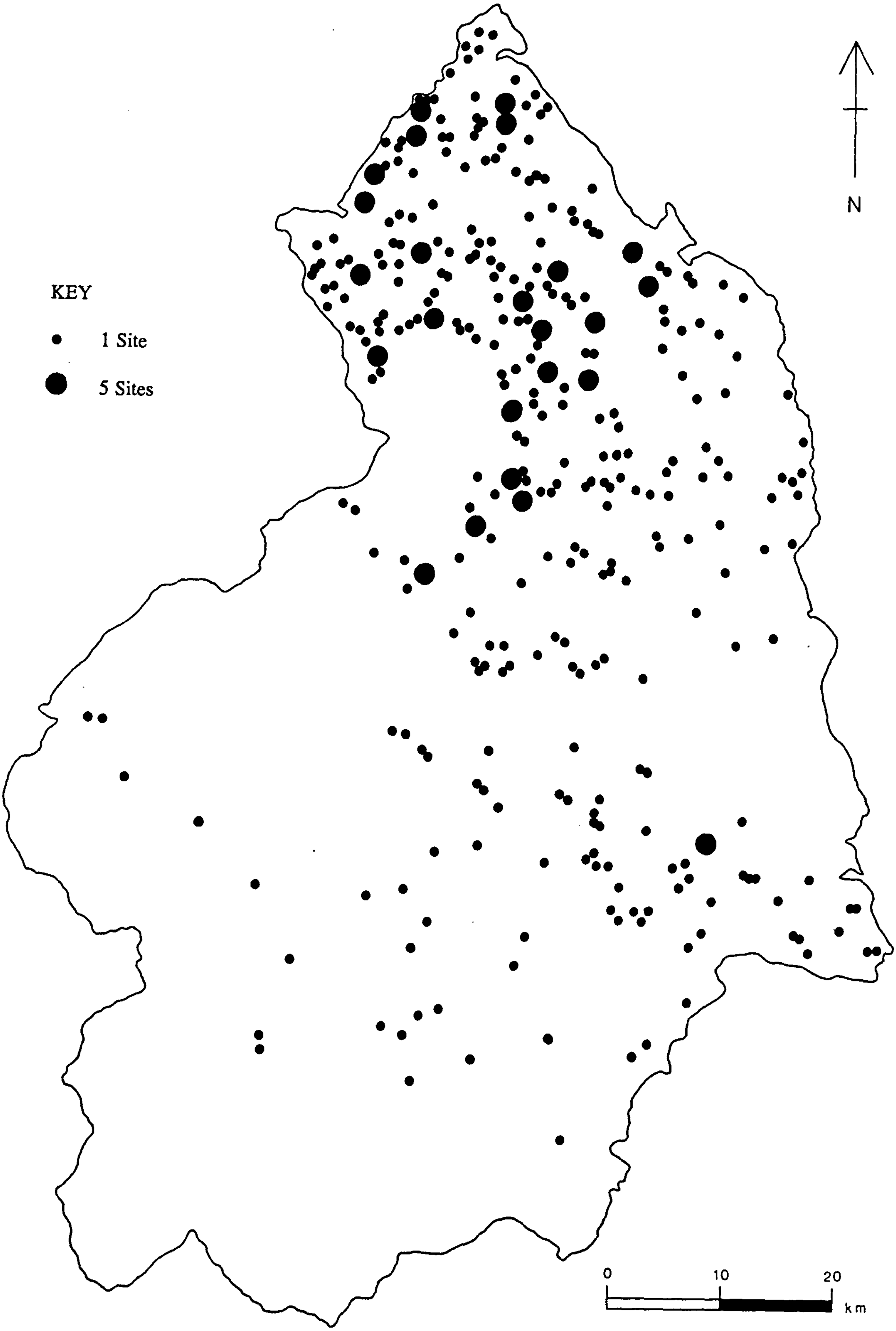


Fig 8.6 Map of sites of possible Iron Age date: Northumberland

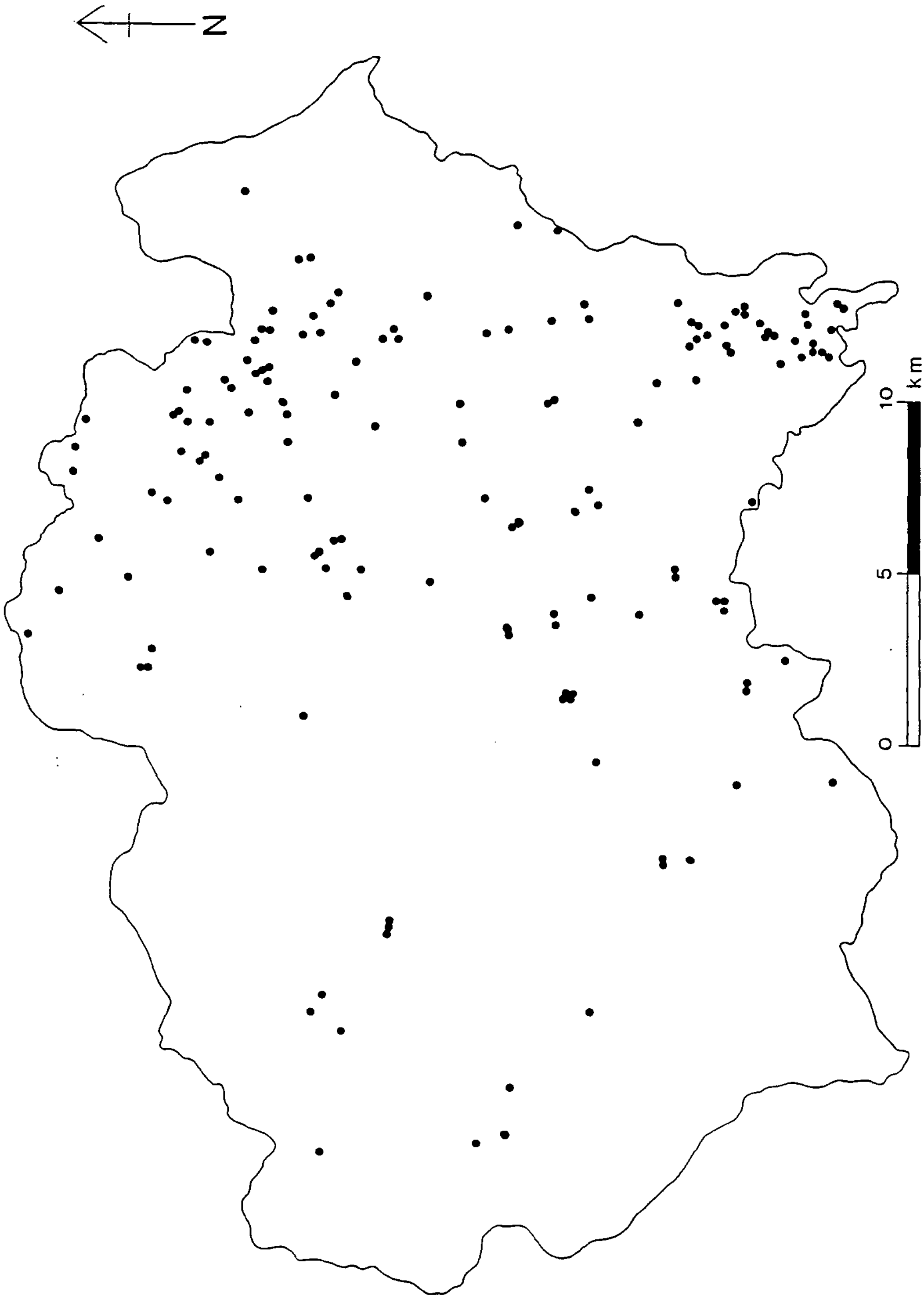


Fig 8.7 Map of sites of possible Iron Age date: Durham

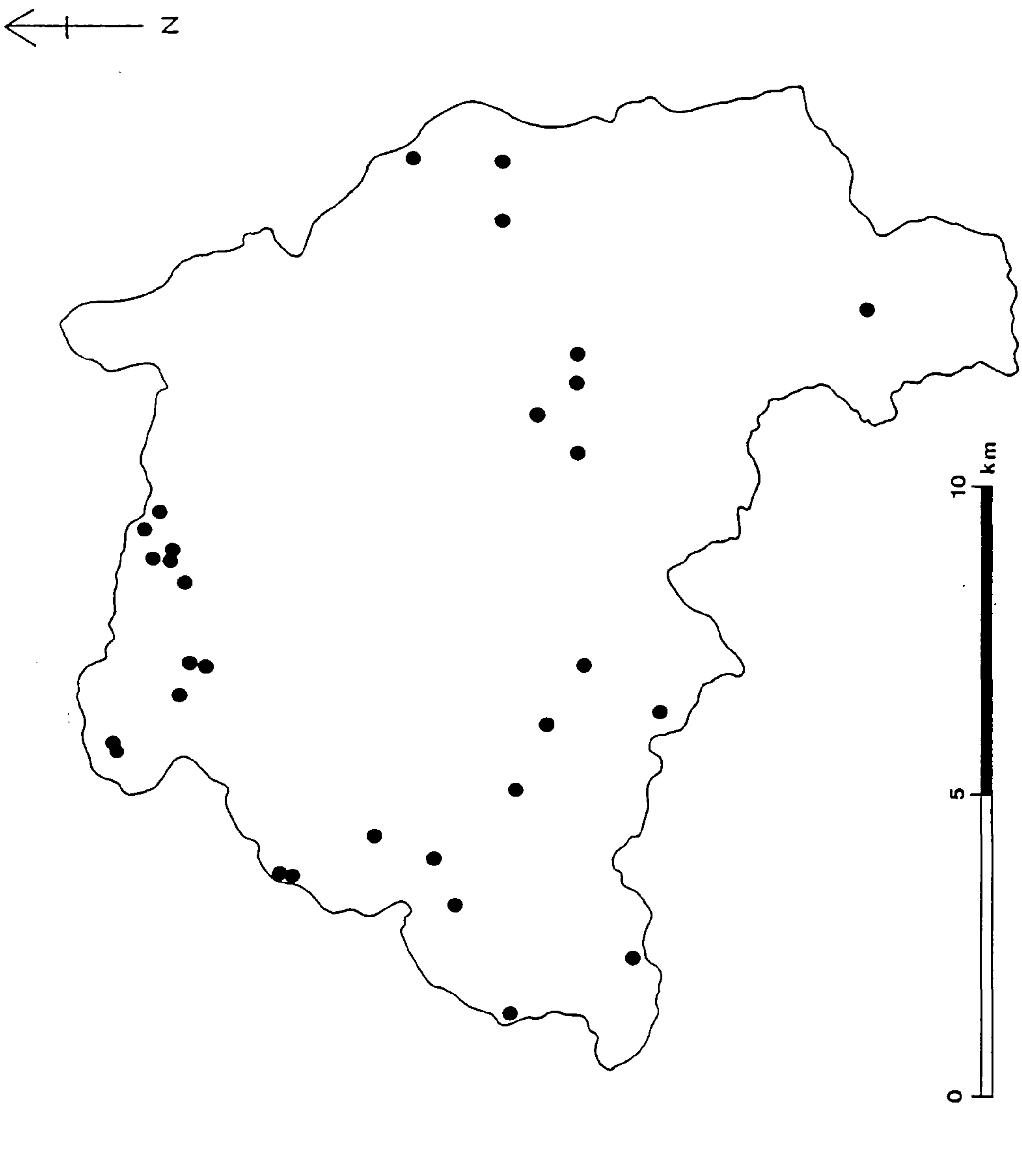


Fig 8.8 Map of sites of possible Iron Age date: Tyne & Wear

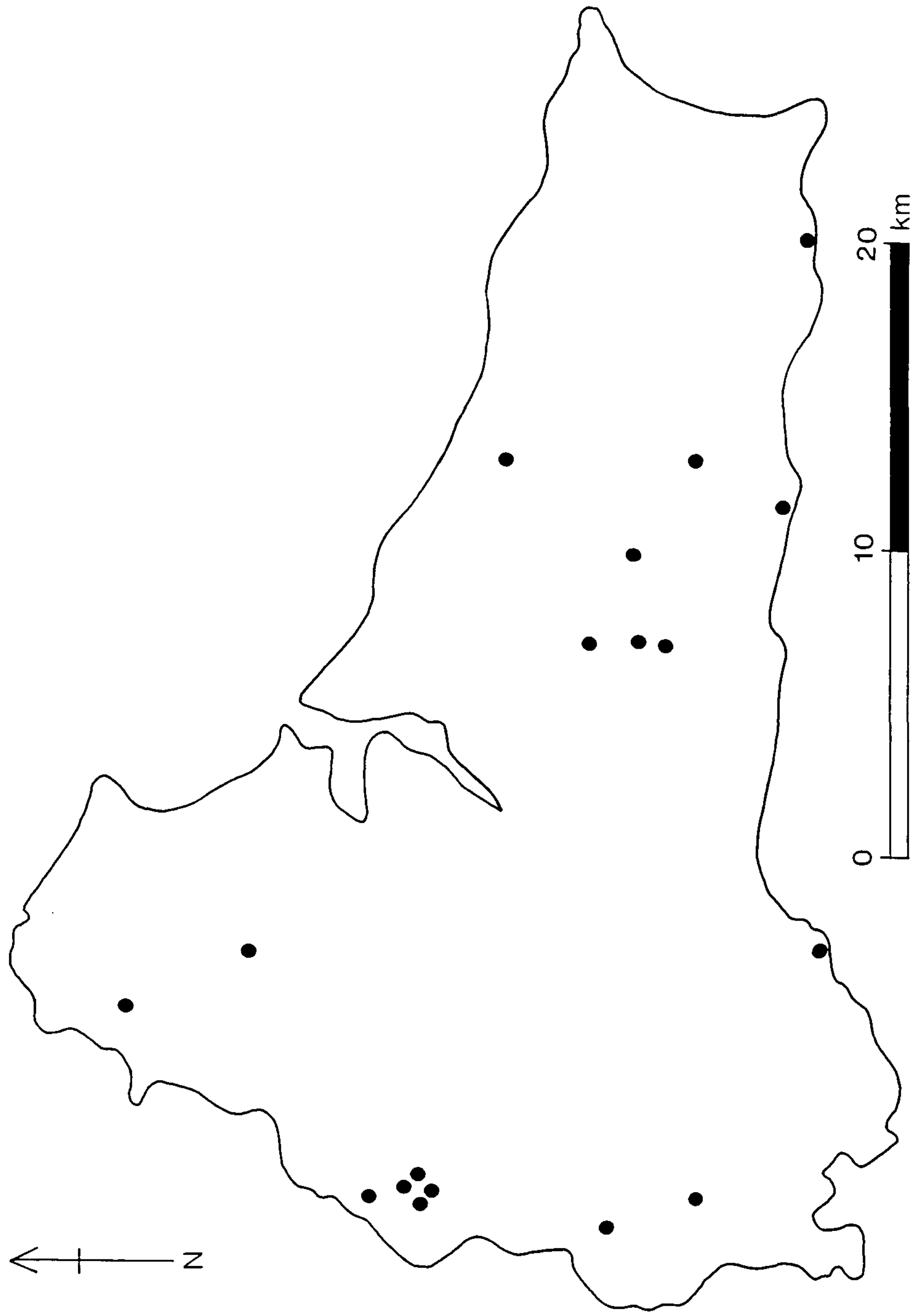


Fig 8.9 Map of sites of possible Iron Age date: Cleveland

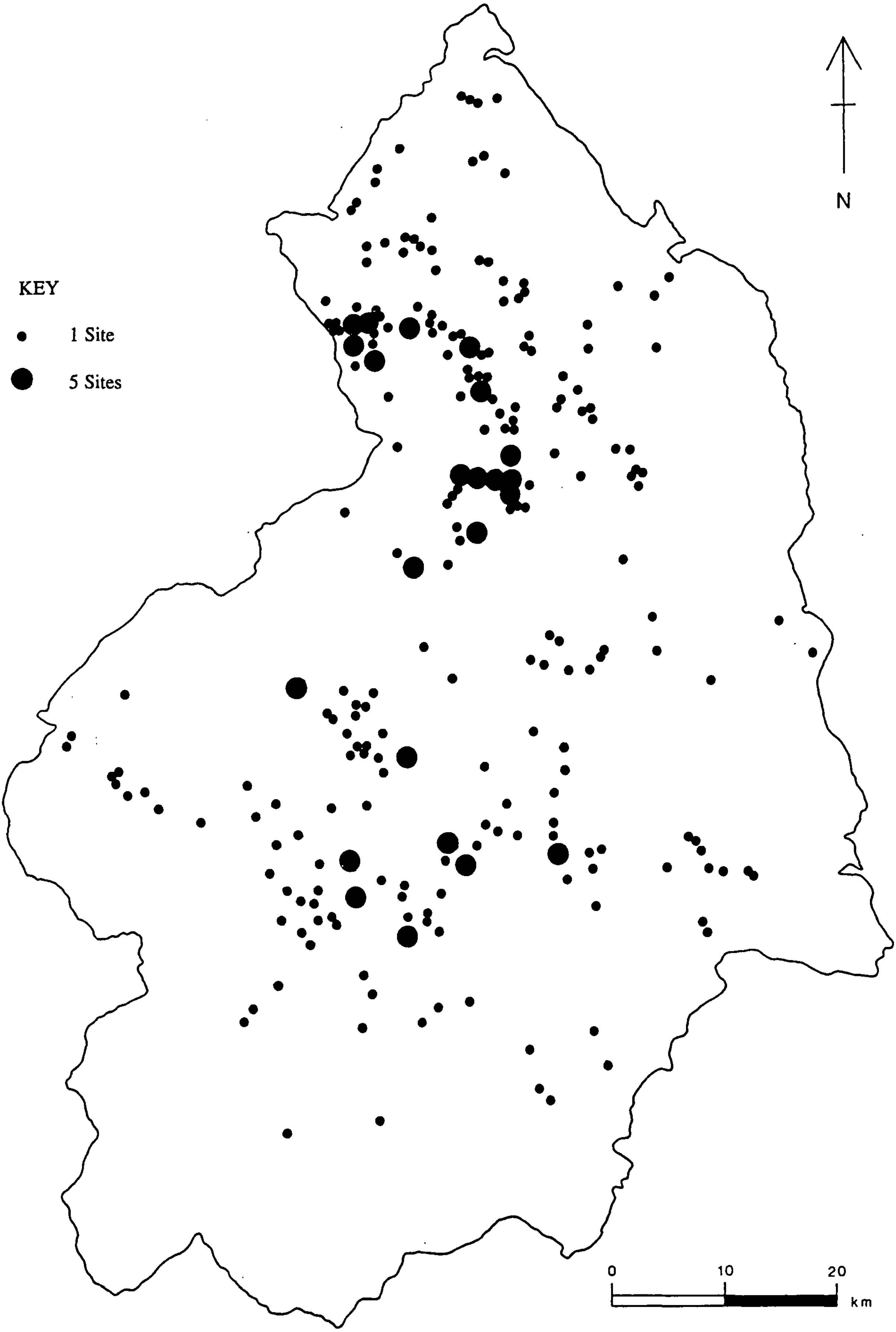


Fig 8.10 Map of sites of possible Romano-British date: Northumberland

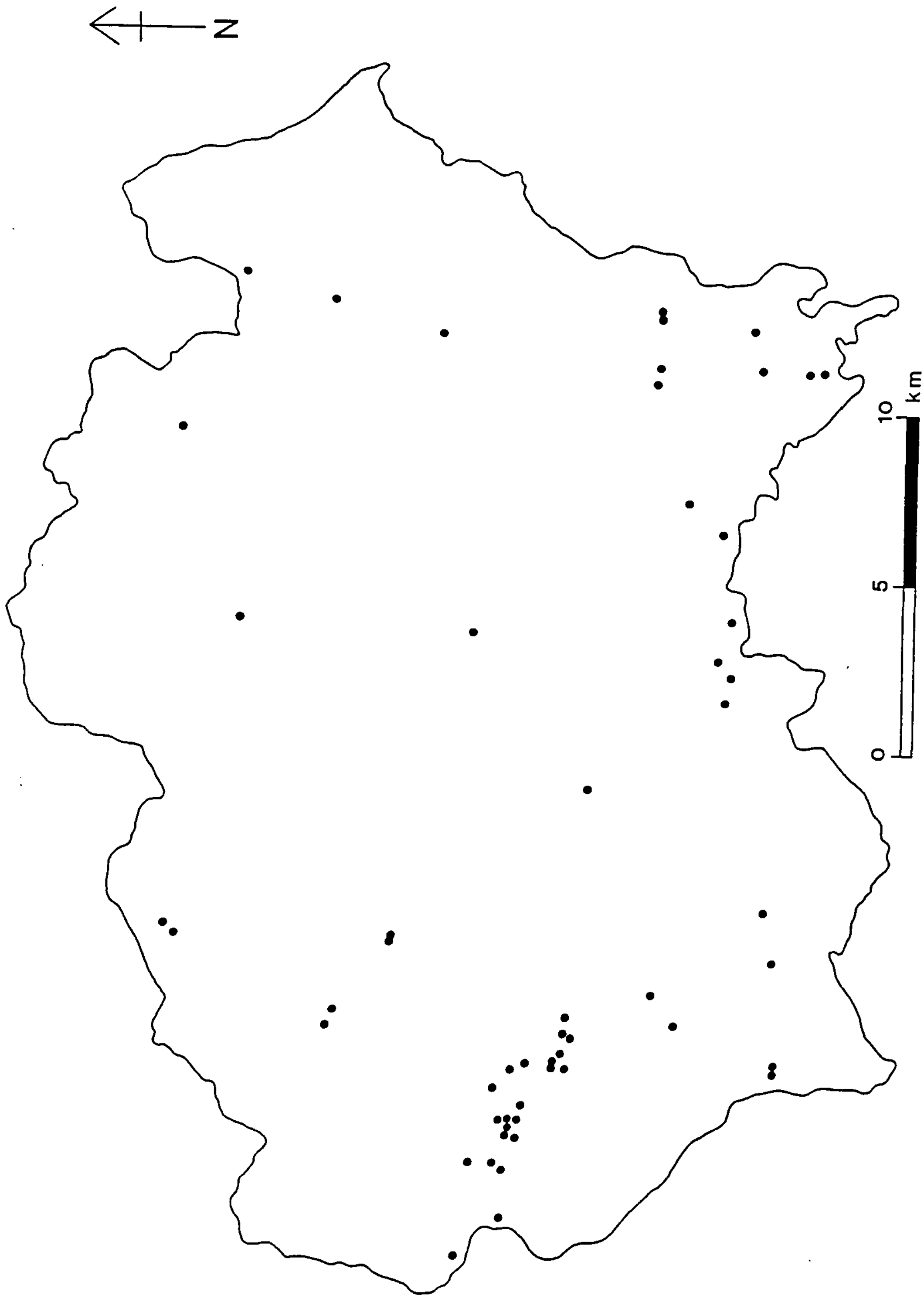


Fig 8.11 Map of sites of possible Romano-British date: Durham

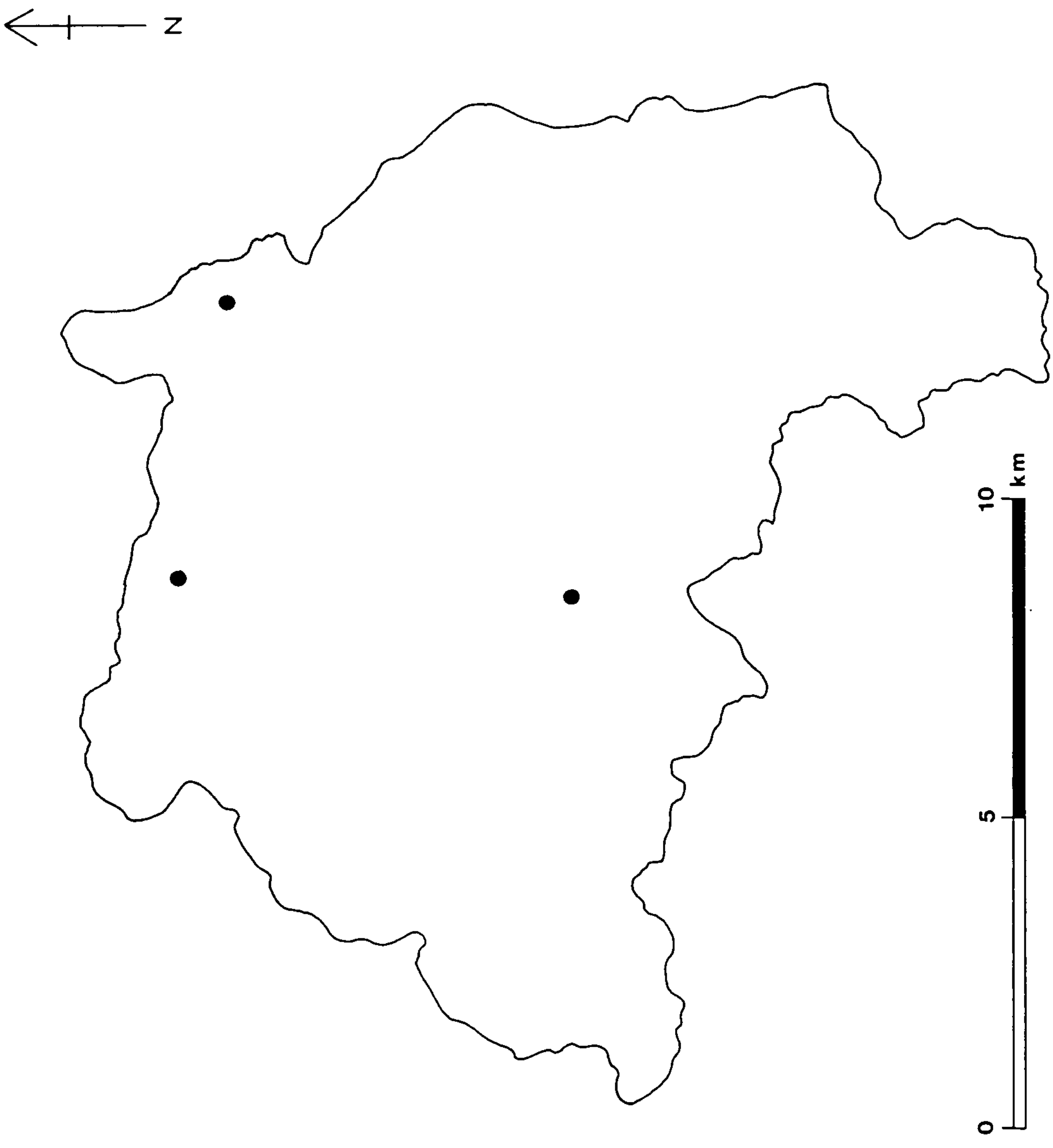


Fig 8.12 Map of sites of possible Romano-British date: Tyne & Wear

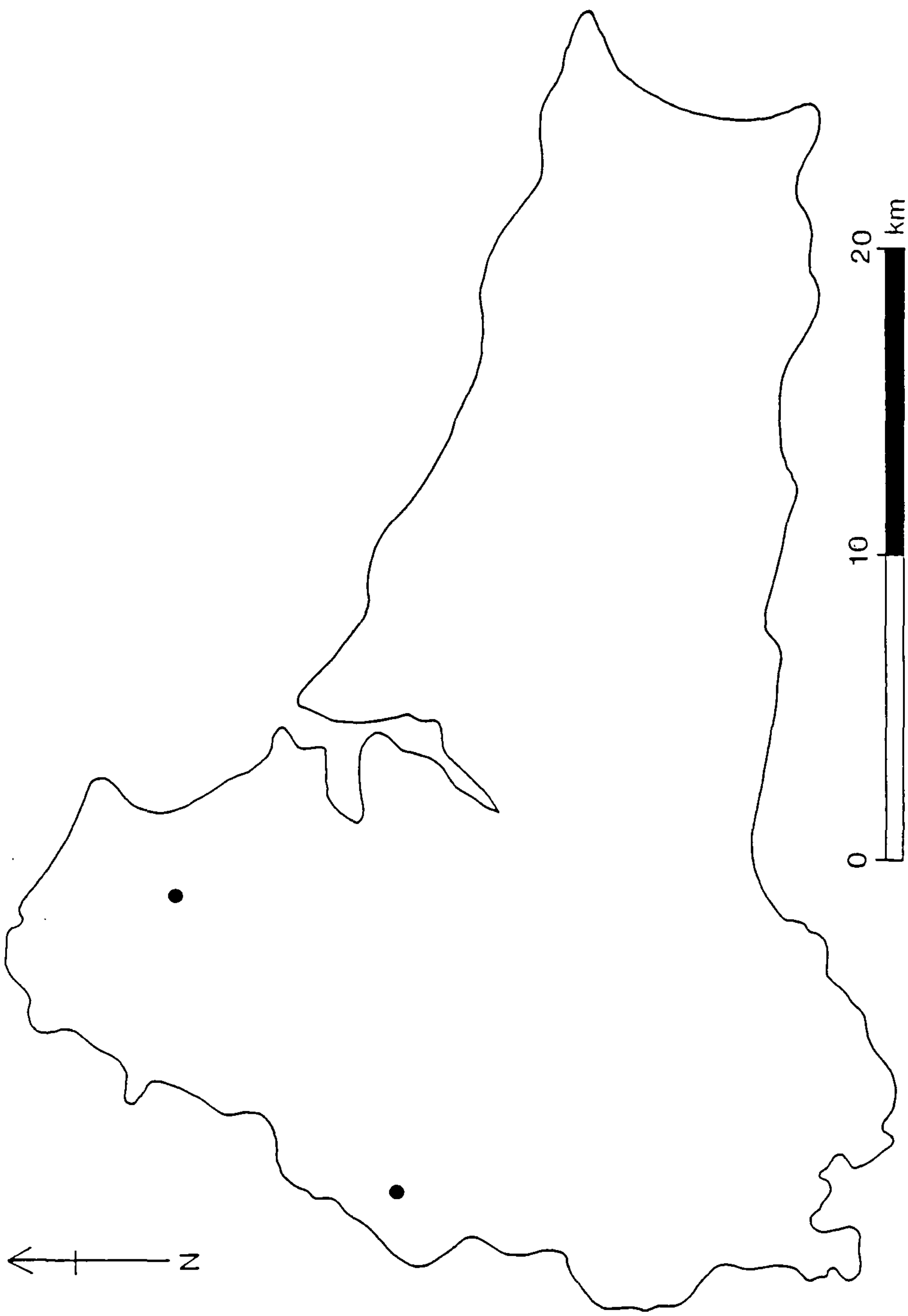


Fig 8.13 Map of sites of possible Romano-British date: Cleveland

Fig 8.14 Map of kilometre squares with 3 or more phases of activity: Northumberland

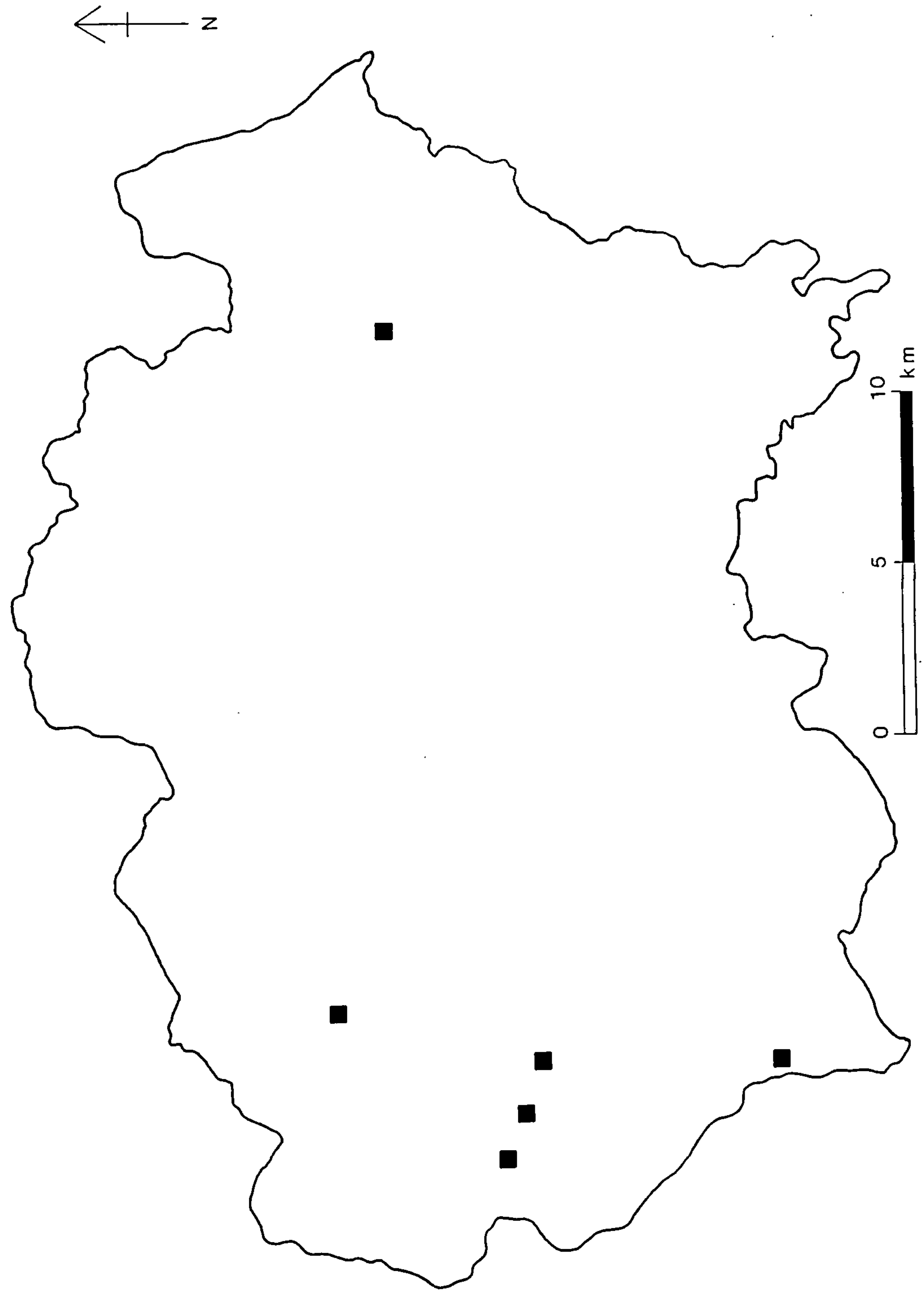


Fig 8.15 Map of kilometre squares with 3 or more phases of activity: Durham

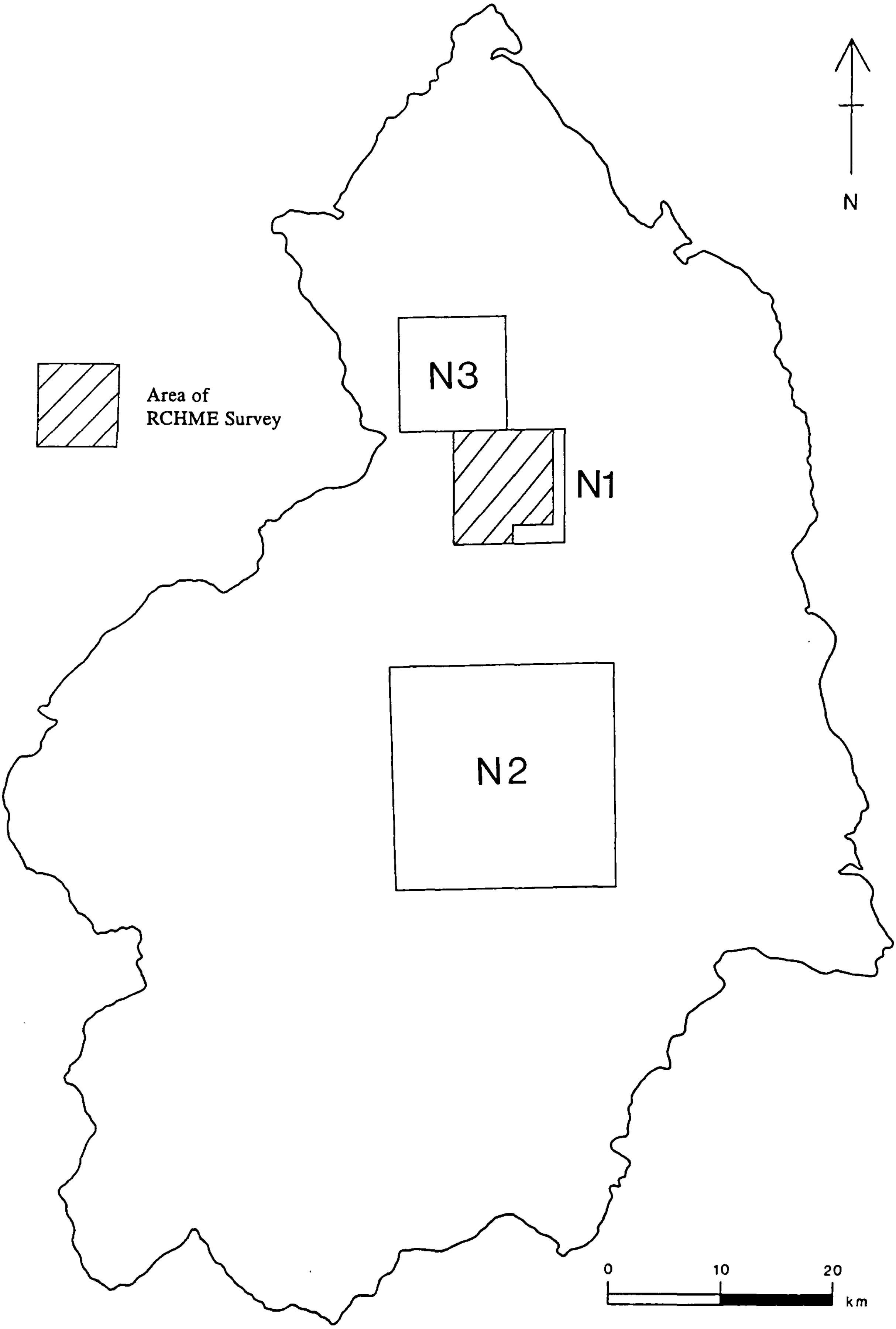


Fig 8.16 Map showing location of study areas N1 to N3

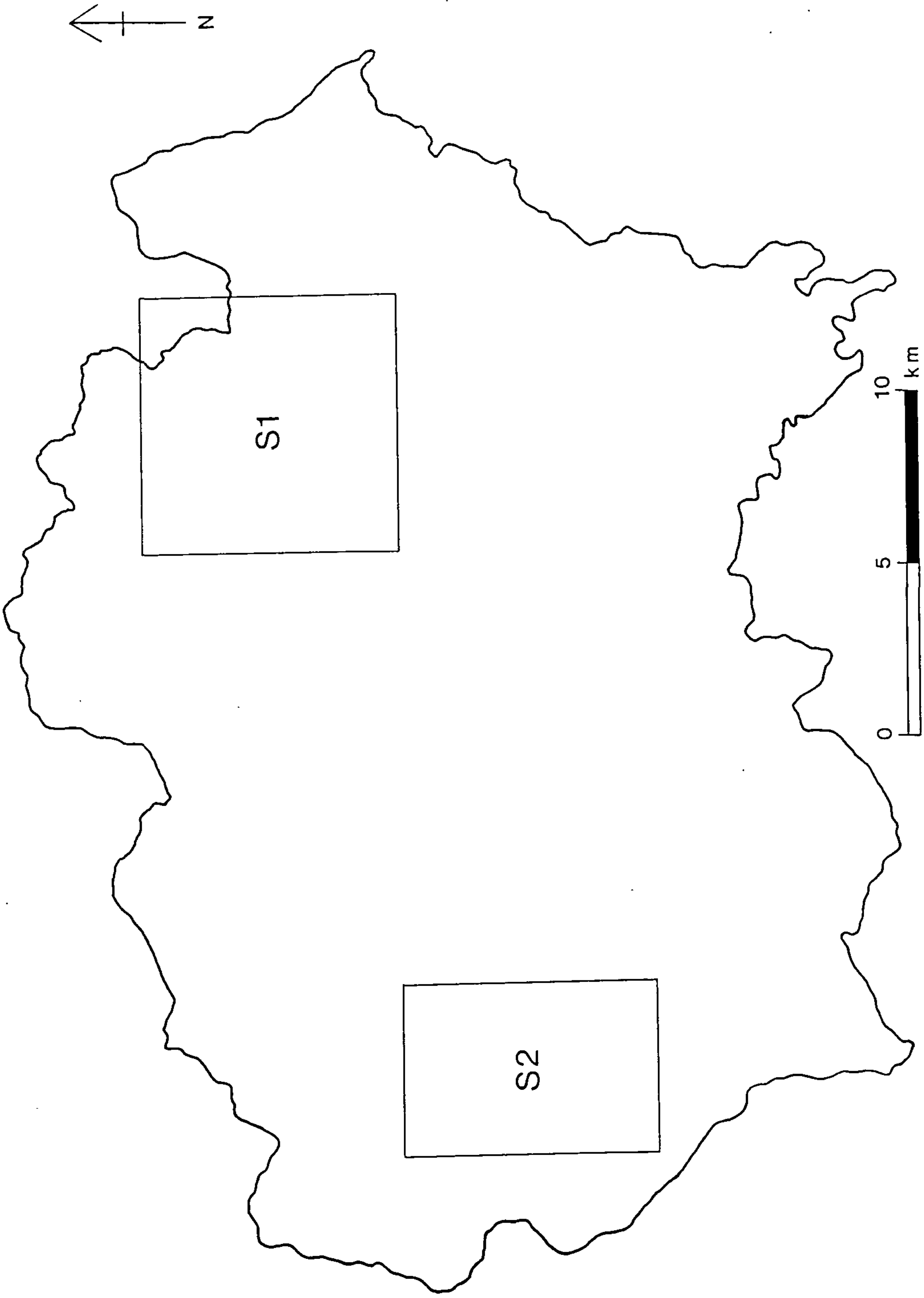


Fig 8.17 Map showing location of study areas S1 and S2

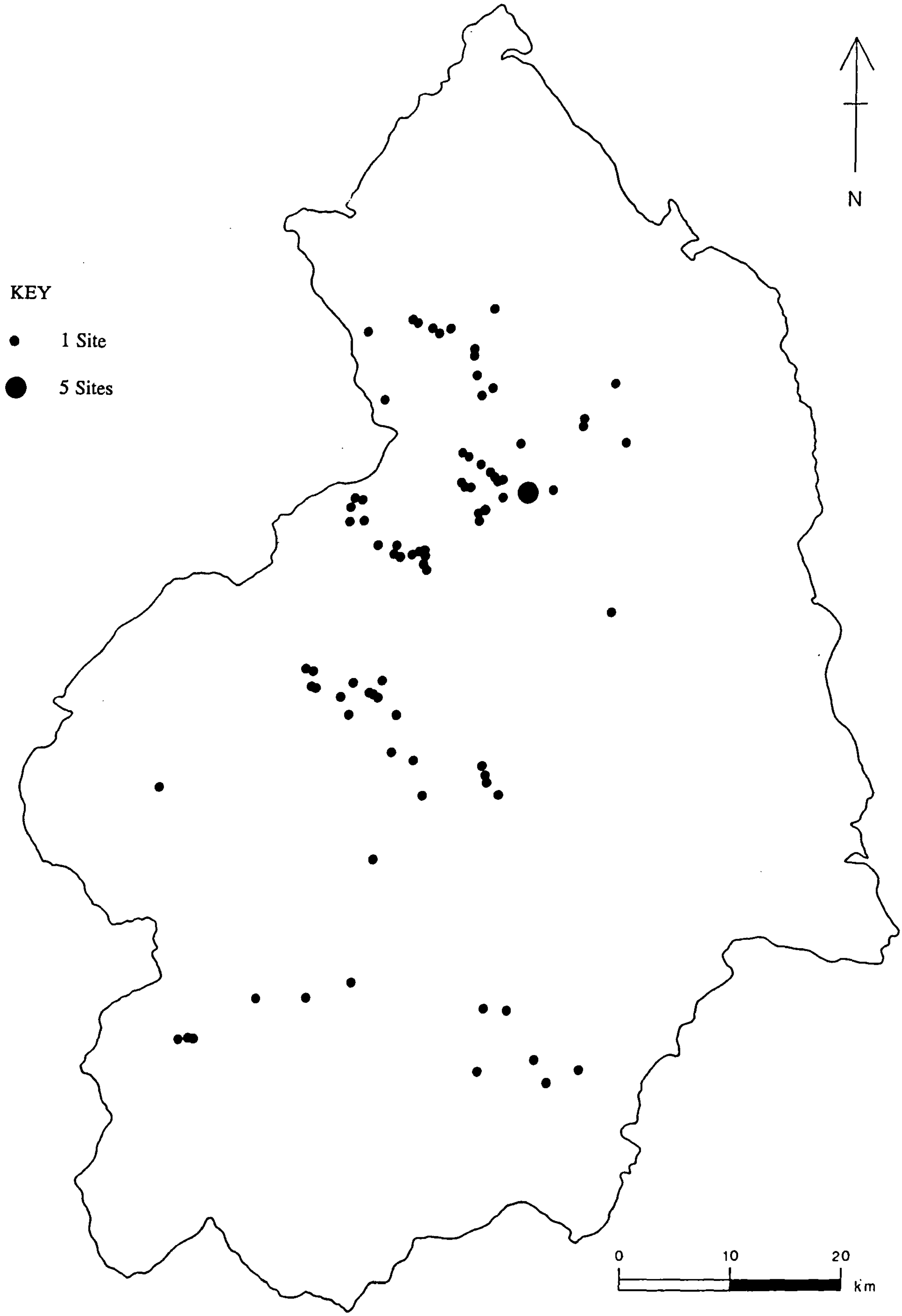


Fig 10.1 Map of field systems: Northumberland

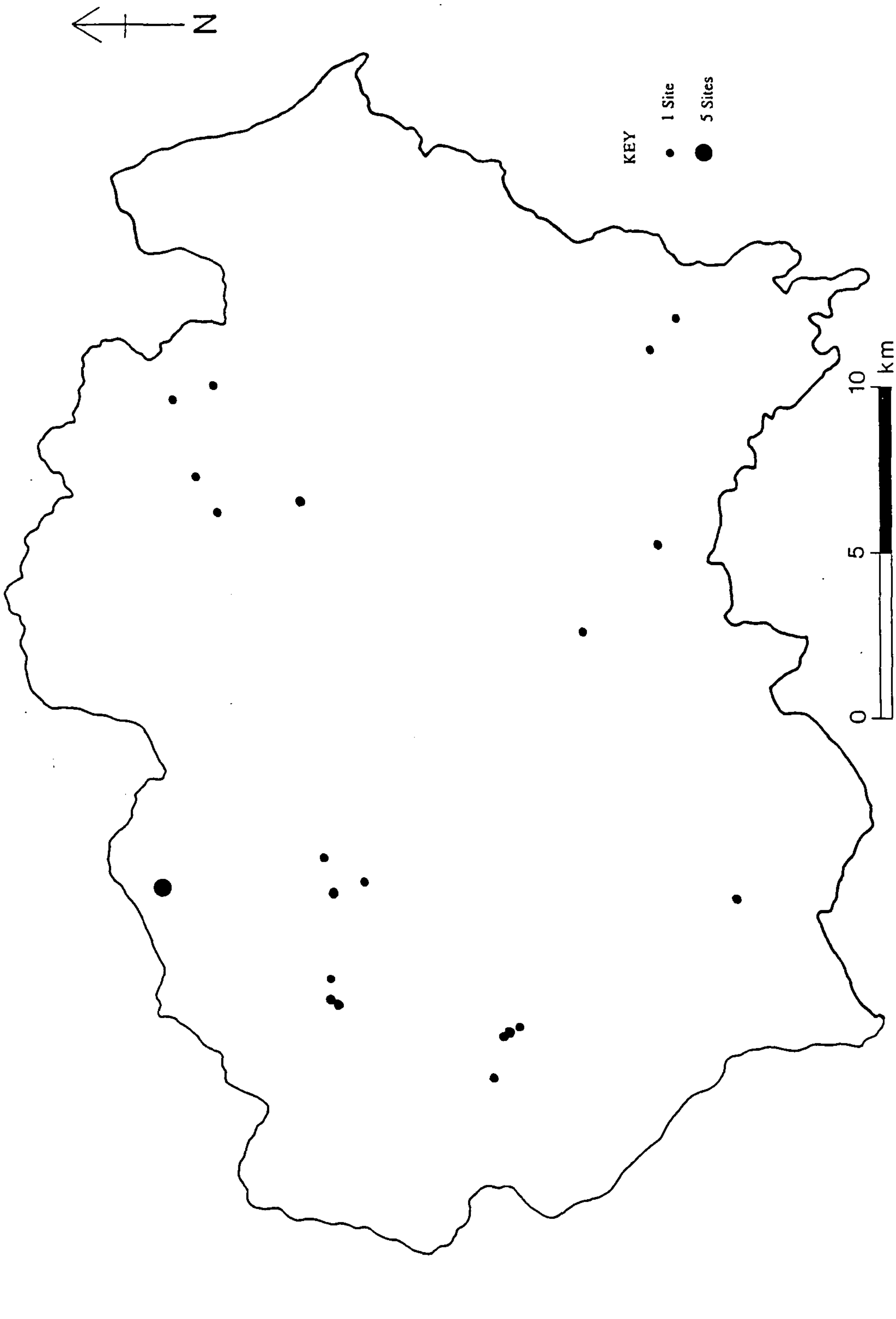


Fig 10.2 Map of field systems: Durham

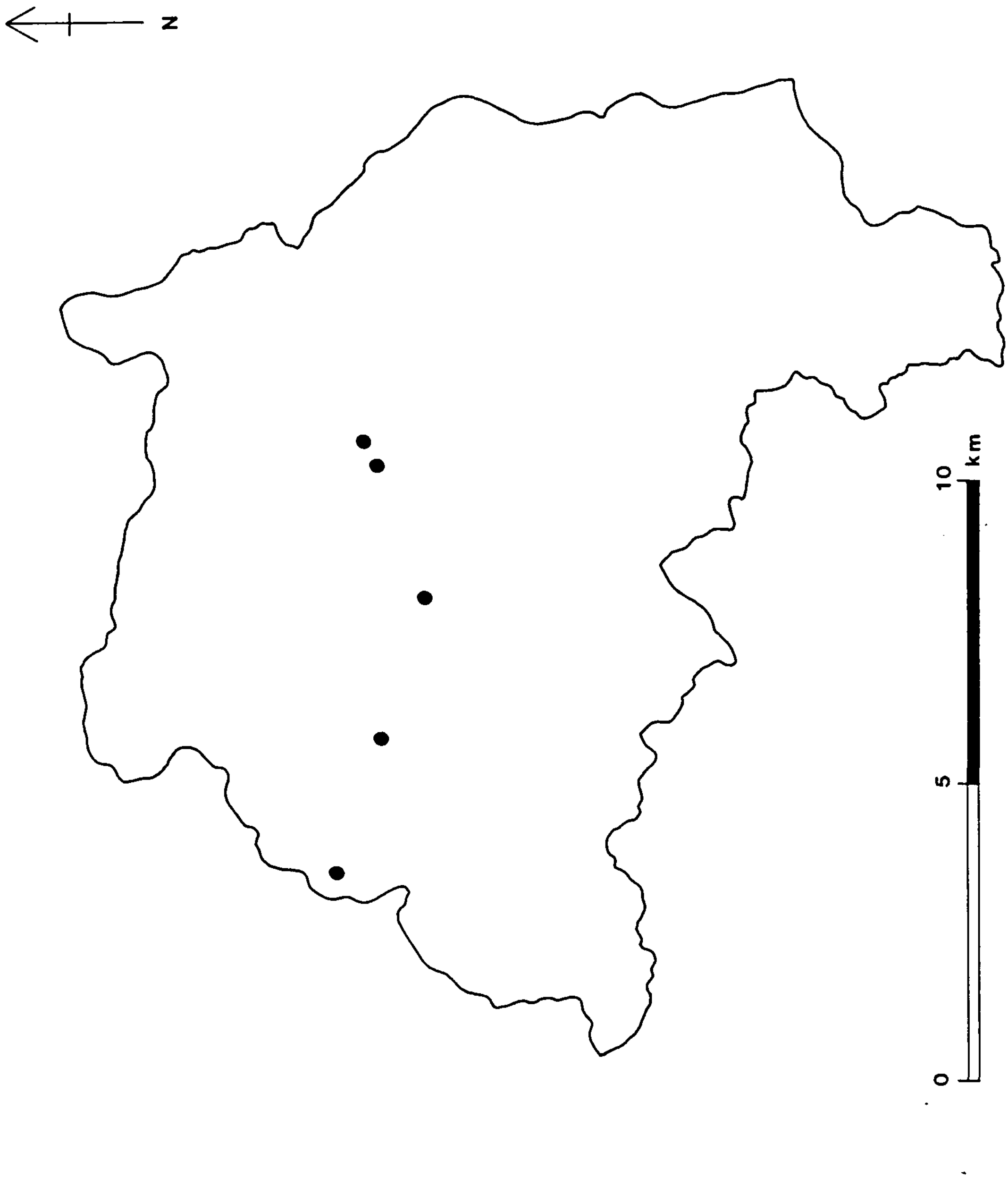


Fig 10.3 Map of field systems: Tyne & Wear

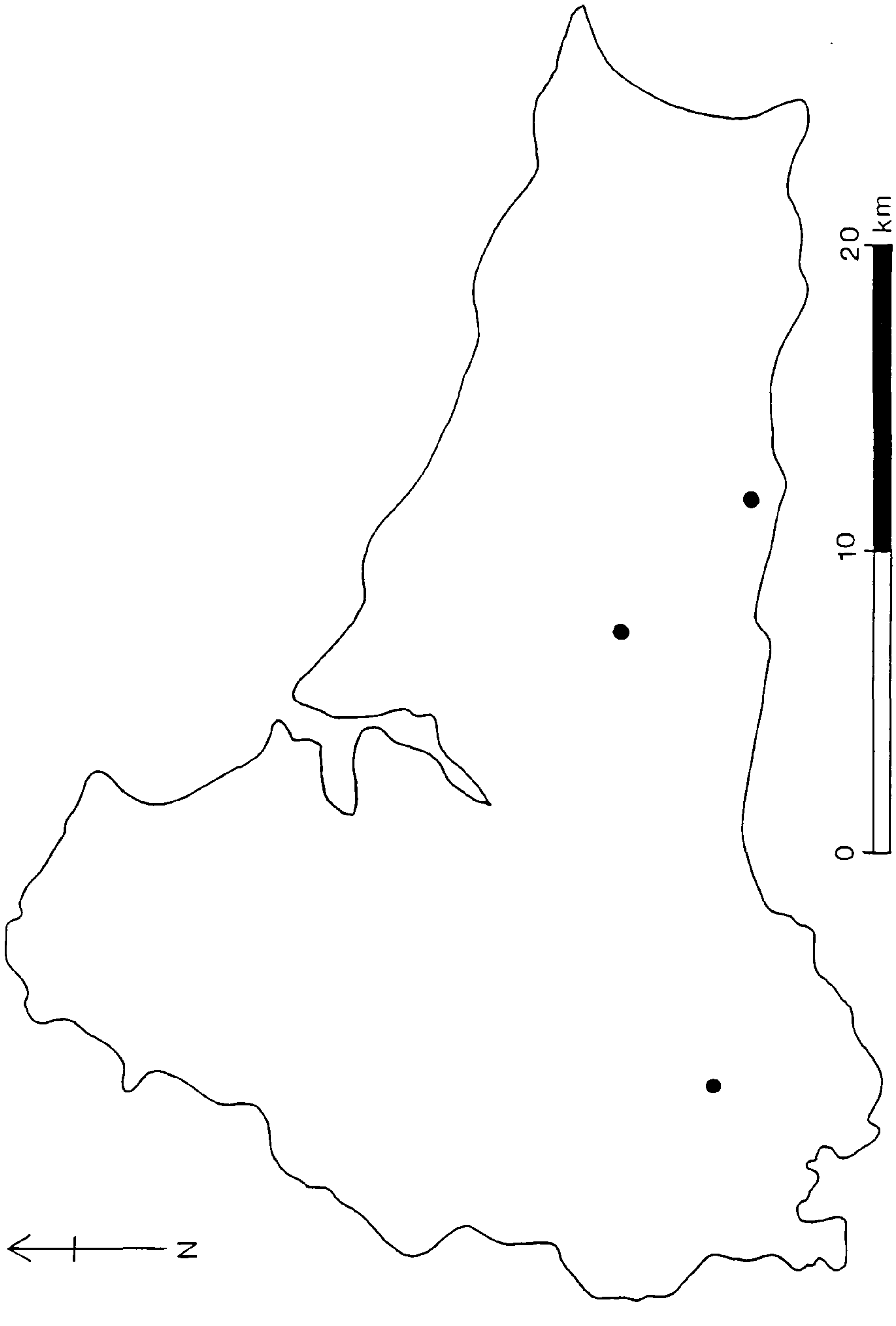


Fig 10.4 Map of field systems: Cleveland

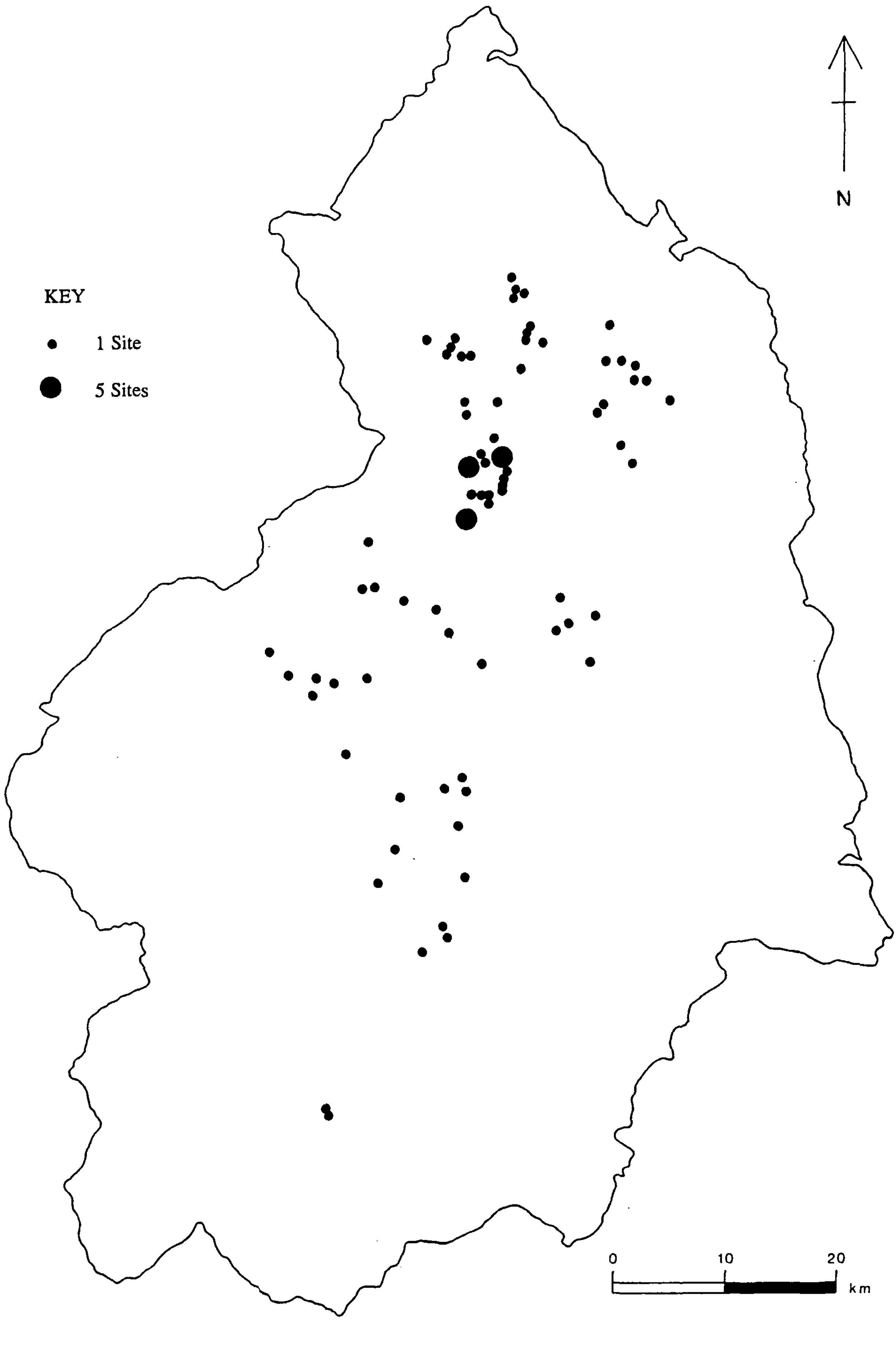


Fig 10.5 Map of cairnfields: Northumberland

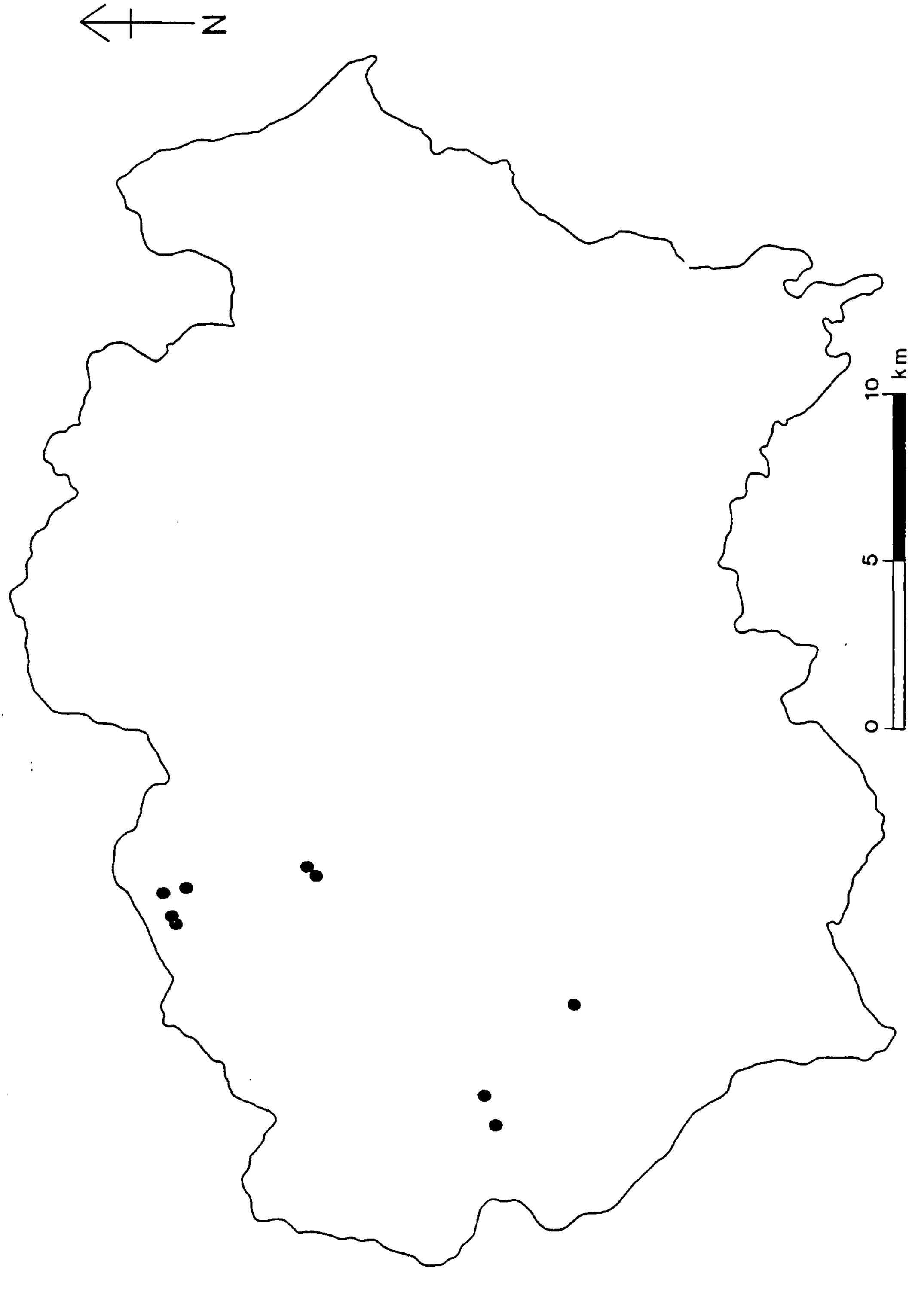


Fig 10.6 Map of cairnfields: Durham

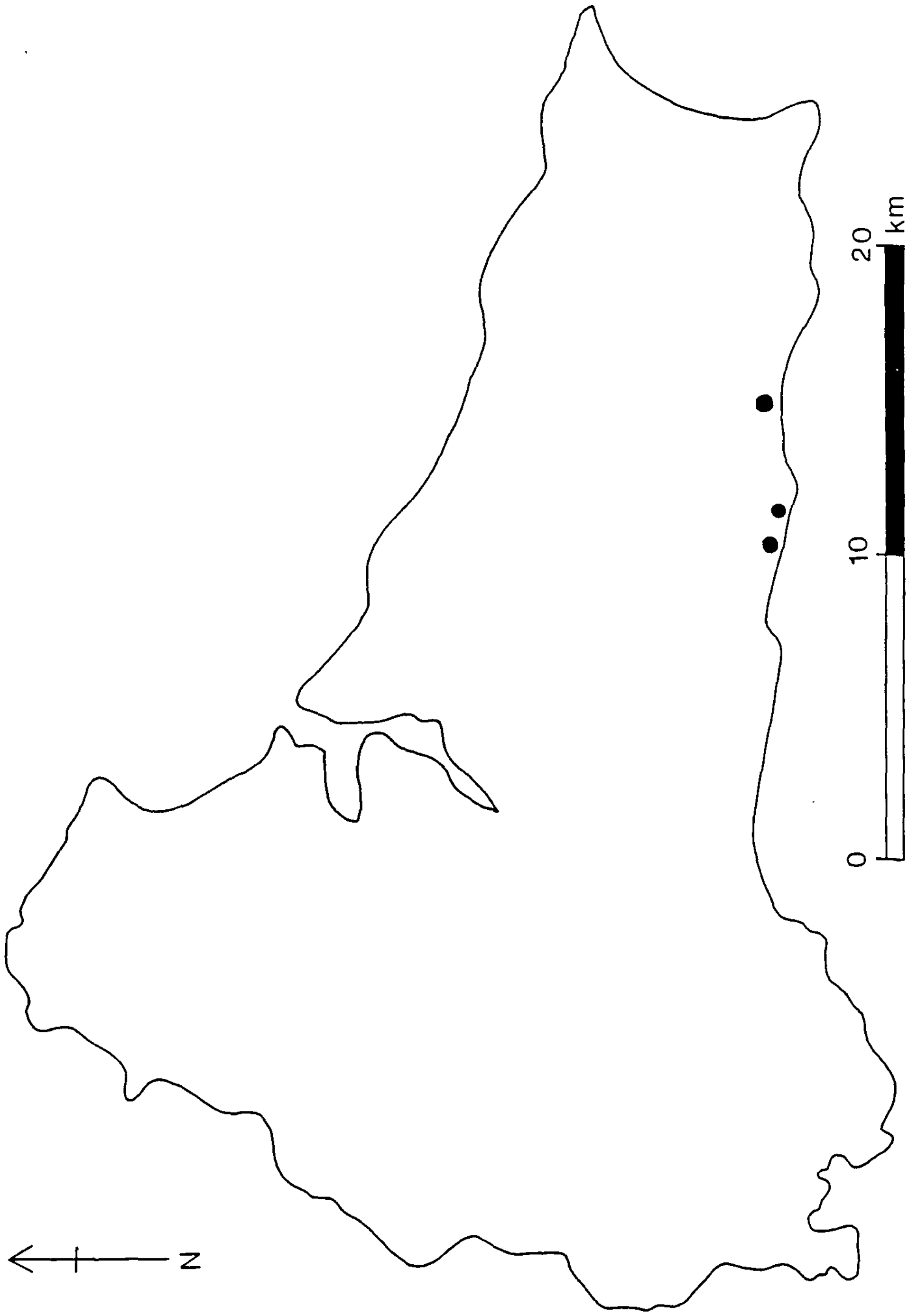


Fig 10.7 Map of cairnfields: Cleveland

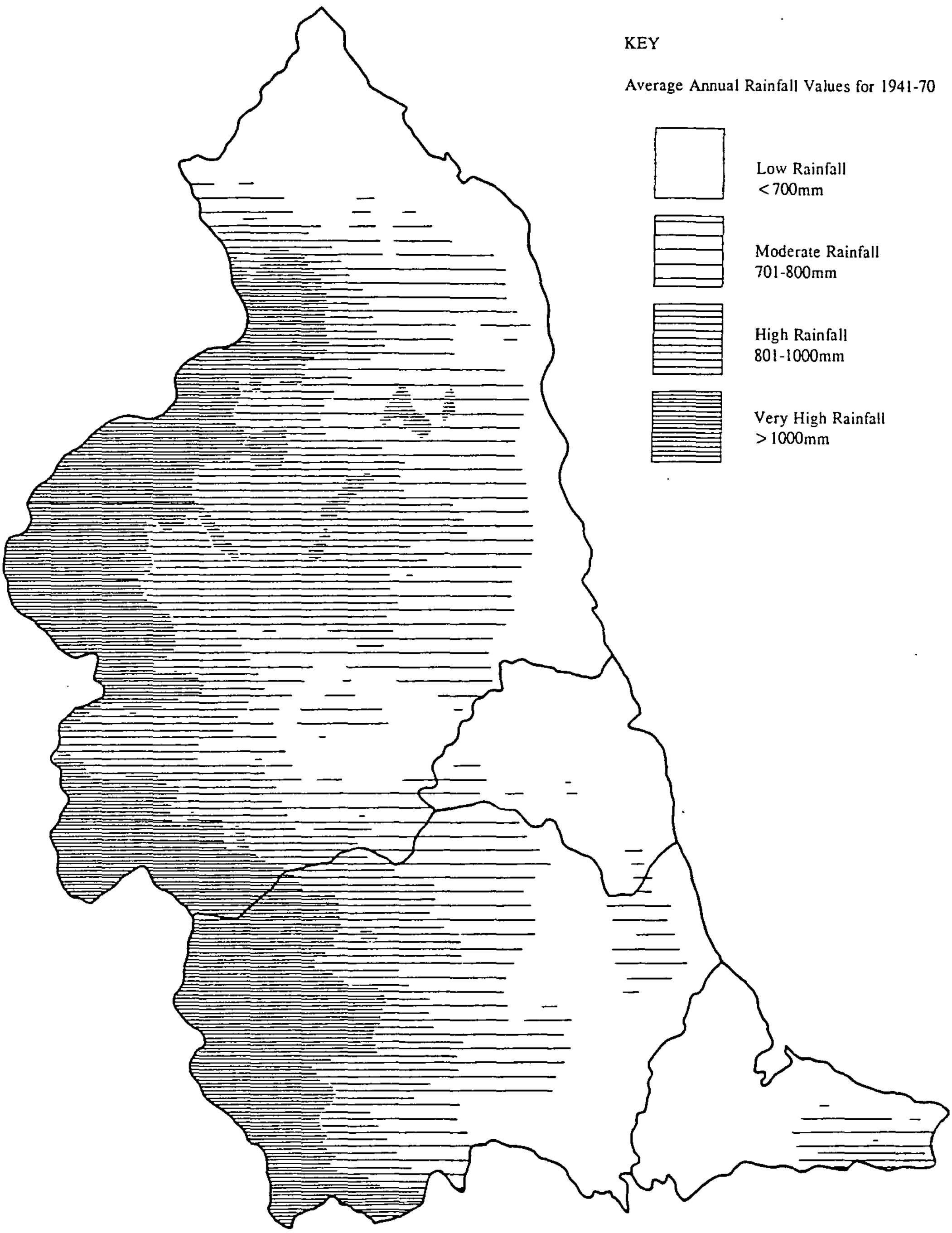


Fig a2.1 Map showing relative levels of precipitation in north east England

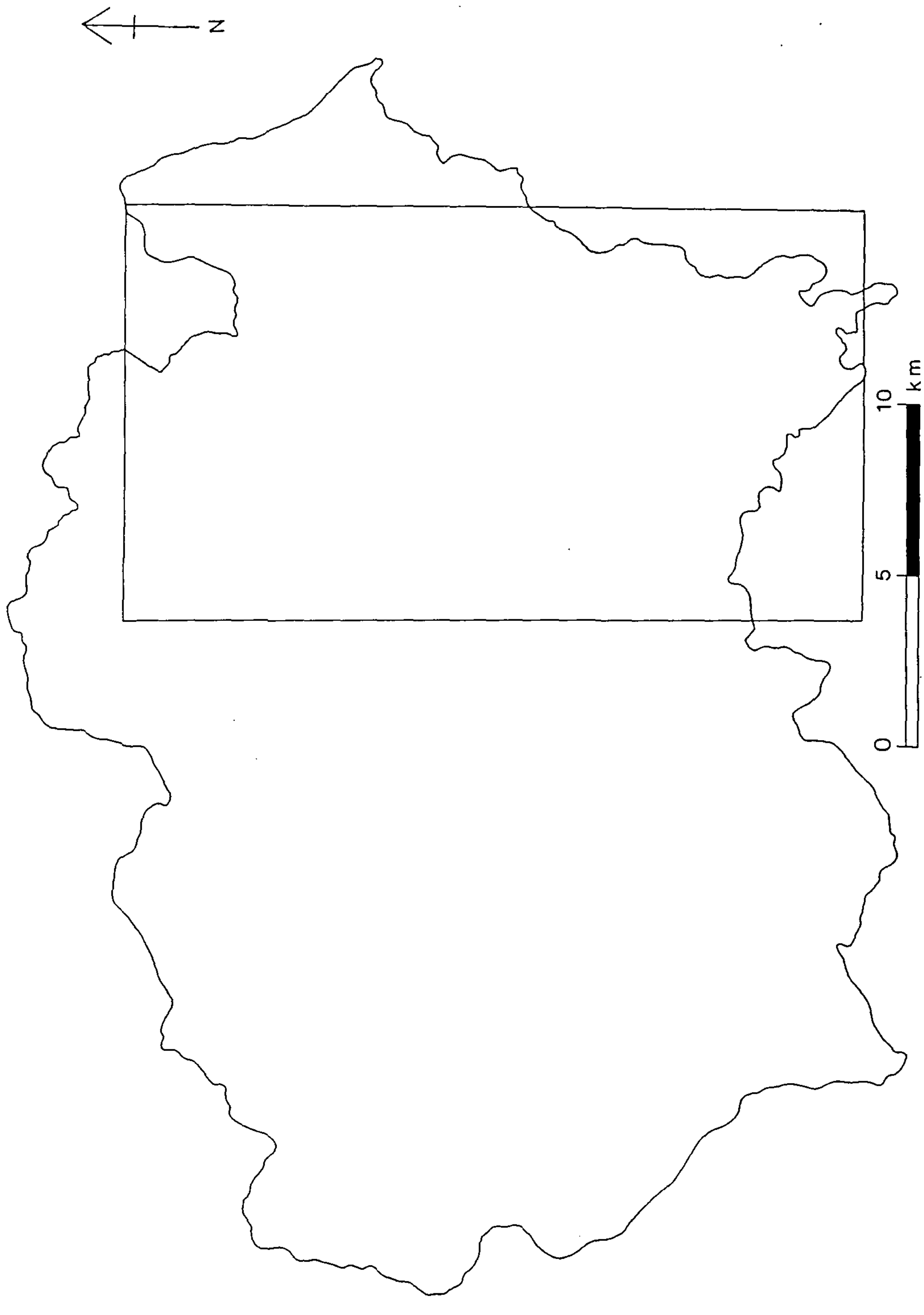


Fig a5.1 Map showing East Durham study area

SITE	GRID REF	BIBLIOGRAPHIC REFERENCE
Akeld Steads	NT 965 305	Miket 1976
Arngill Head Brocks	NY 834 250	Turner & Hodgson 1979; 1983
Bishop Middleham	NZ 324 304	Bartley *et al* 1976
Bollihope Bog	NY 990 370	Roberts *et al* 1973
Bradford Kaims	NU 160 310	Bartley 1966
Broad Moss	NT 963 215	Davies & Turner 1979
Broadgate Fell	NY 900 850	Blackburn 1953
Burnhope Burn	NY 964 457	Turner & Hodgson 1979; 1981; 1983
Burtree Lane	NZ 268 189	Turner & Hodgson 1979
Camp Hill Moss	NU 100 263	Davies & Turner 1979
Catton Carr	NY 828 577	Raistrick & Blackburn 1932
Colt Crag	NY 930 780	Raistrick & Blackburn 1932
Coom Rigg Moss	NY 690 790	Chapman 1964
Cranberry Bog	NZ 232 545	Turner & Kershaw 1973
Cronkley Fell	NY 857 288	Turner & Hodgson 1983
Crookburn	NY 782 350	Turner & Hodgson 1979; 1983
Dead Crook	NY 804 300	Turner *et al* 1973
Dubby Moss	NY 790 300	Turner *et al* 1973
Dufton Moss	NY 872 293	Turner & Hodgson 1979; 1983
Embletons Bog	NU 165 297	Bartley 1966
Fellend Moss	NY 679 658	Davies & Turner 1979; Turner 1979
Foolmire Sike	NY 810 296	Turner *et al* 1973
Fortherly Moss	NZ 015 575	Raistrick & Blackburn 1932
Foulsike Burn	NY 867 438	Godfree 1975
Fox Earth Gill	NY 842 282	Turner & Hodgson 1979; 1983
Furness Moss	NY 800 300	Turner *et al* 1973
Great Eggleshope Beck	NY 948 331	Turner & Hodgson 1979
Green Combs	NY 799 348	Godfree 1975
Green Swang	NY 813 432	Turner & Hodgson 1979
Hallowell Moss	NY 251 439	Donaldson & Turner 1977
Harthope Quarry	NY 862 347	Turner & Hodgson 1983
Heathery Burn Moor	NY 900 480	Raistrick & Blackburn 1932
Herdship Fell	NY 803 340	Godfree 1975
Hisehope Burn	NZ 017 459	Godfree 1975
Howden Moss	NY 860 260	Turner & Hodgson 1979
Hutton Henry	NZ 410 350	Bartley *et al* 1976
James Hill	NY 925 321	Godfree 1975
Kilhope Law	NY 819 444	Raistrick & Blackburn 1932; Godfree 1975
Knout Berry	NY 799 418	Turner & Hodgson 1983
Lamb Shield	NZ 024 489	Turner & Hodgson 1979; 1981; 1983

Table 4.1 Pollen diagrams in north east England

SITE	GRID REF	BIBLIOGRAPHIC REFERENCE
Long Crag	NY 835 255	Turner & Hodgson 1983
Longlee Moor	NU 156 195	Bartley 1966
Mickle Fell	NY 810 249	Turner & Hodgson 1983
Mickleton Moor	NY 935 203	Turner & Hodgson 1979
Mire Holes	NY 849 267	Turner & Hodgson 1983
Mordon Carr	NZ 321 253	Bartley et al 1976
Mown Meadows	NZ 053 466	Turner & Hodgson 1979
Muckle Moss	NY 805 666	Raistrick & Blackburn 1932; Pearson 1960
Neasham Brickpit	NZ 310 110	Turner & Hodgson 1979
Neasham Fen	NZ 332 116	Bartley *et al* 1976
Newbiggin Carr	NZ 310 880	Raistrick & Blackburn 1932
Nunstainton Carrs	NZ 320 295	Bartley *et al* 1976
Pawlaw Pike	NZ 010 323	Turner & Hodgson 1983
Pity Me Carr	NZ 266 454	Turner & Hodgson 1979
Pow Hill	NZ 012 516	Turner & Hodgson 1981
Prestwick Carr	NZ 180 720	Raistrick & Blackburn 1932
Quick Cleugh	NY 883 468	Godfree 1975
Quick Cleugh Moss	NY 852 422	Roberts *et al* 1973
Red Sike (RS)	NY 818 289	Turner *et al* 1973
Red Sike (TS 1)	NY 819 288	Turner *et al* 1973
Romaldskirk	NY 991 230	Turner & Hodgson 1979
Sally Grain	NY 792 392	Turner & Hodgson
Scraith Head	NY 794 376	Turner & Hodgson 1979; 1983
Shot Moss	NY 831 195	Turner & Hodgson 1979
Slapestone Sike Moss	NY 800 300	Turner *et al* 1973
Smiddy Shaw	NZ 047 462	Godfree 1975
South Foul Sike	NY 867 432	Turner & Hodgson 1979
Staple Moss	NY 853 240	Turner & Hodgson 1979; 1983
Steng Moss	NY 965 913	Davies & Turner 1979; Turner 1979
Steward Shield Meadow	NY 980 440	Roberts *et al* 1973
Thorpe Bulmer	NZ 458 354	Bartley *et al* 1976
Tinklers Sike	NY 820 280	Turner *et al* 1973
Vindolanda	NY 763 331	Turner 1979
Waskerly	NZ 042 460	Turner *et al* 1973
Weelfoot Moss	NY 810 300	Turner *et al* 1973
Weelhead Moss 1	NY 812 300	Turner *et al* 1973
Weelhead Moss 2	NY 818 289	Turner *et al* 1973
Widdybank Moss	NY 820 290	Turner *et al* 1973
Wooler Water	NT 990 280	Clapperton *et al* 1971

Table 4.1 contd