



INDEX DATA	RPS INFORMATION
Scheme Title A303 Amesbury - Benwick Down	Details Archaeological survey + fieldwork vol. 1
Road Number A303	Date
Contractor John Samuel's Archaeological Consultants	
County Wiltshire	
OS Reference SU04	
Single sided <input checked="" type="checkbox"/> Double sided A3 22 Colour 0	

Principal
John Samuels, BA, PhD, MIFA
Associates:
Christopher Brooke BSc, PhD, MIFA, MAAIS
Bill Cavanagh MA, PhD, FSA
Philip Dearn MA, DPhil, FSA
Naomi Field BA
Hamish Forbes BA, PhD
Roger Jacobi MA, PhD
James Kenworthy BA, FSA, ScD
Lloyd Long MA, PhD, FSA, FRNS, FMAI
Robin Livens BA, FSA
Pamela Marshall BA, MA
Jeffrey May MA, FSA
Andrew Poulter BA, MA, PhD, FSA

John Samuels
ARCHAEOLOGICAL CONSULTANTS
6 Old North Road · Cromwell
Newark · Nottinghamshire · NG23 6JE
Telephone 0636 821727
Mobile Phone 0831 163822
Fax 0636 822080

OFFICE COPY

**Department of Transport
South West Construction
Programme Division**

A303 AMESBURY - BERWICK DOWN

**Recent Archaeological Survey and Fieldwork
in the vicinity of Stonehenge in connection
with the proposed upgrading of the
A303 from Amesbury to Berwick Down**

**TWO VOLUMES
(Volume 1 of 2)**

John Samuels Archaeological Consultants

for Sir William Halcrow and Partners

**A303 AMESBURY - BERWICK DOWN
RECENT ARCHAEOLOGICAL SURVEY AND FIELDWORK**

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1. INTRODUCTION

1.0. The Department of Transport appointed Sir William Halcrow and Partners as Consultants to consider upgrading a 9 km. section of the A303 between Amesbury and Berwick Down. As is usual, archaeology has been included among the various environmental factors but, in recognition of this area's outstanding archaeological importance, a greater amount of survey and fieldwork has been undertaken than would normally be expected at this stage. This report presents the results of that archaeological survey and fieldwork undertaken to date. Additional fieldwork is already planned and further fieldwork will be undertaken should any of the routes currently under discussion proceed.

1.1. The initial approach was to obtain a general overview of the archaeological nature of the area up to 3km. either side of the A303. This was based upon the Sites and Monuments Record (SMR) held and maintained by Wiltshire County Council. Use was also made of recent research including the Royal Commission on Historical Monuments' monograph *"Stonehenge and Its Environs"* 1979, the English Heritage monograph *"The Stonehenge Environs Project"* (1990) and the Environmental Statement to accompany the planning application for the Stonehenge Visitors' Centre *"Stonehenge Conservation and Management Project : Environmental Statement"* (1991).

1.2. After analysis of the available information it was decided that this could be enhanced by a more detailed study of all aerial photographs of the area and

this was undertaken by the Royal Commission on Historical Monuments Air Photography Unit. This complemented the survey already undertaken for the Stonehenge Visitors' Centre.

Likewise fieldwalking and environmental sampling were undertaken by Wessex Archaeology and geophysical surveys carried out by Geophysical Surveys of Bradford. Each aspect was designed to either fill in gaps in the existing record or to refine information already available, and to assist in the selection of potential road routes.

- 1.3. Advice and assistance at all stages has been provided by English Heritage, Wiltshire County Council's Archaeology Section and the Royal Commission on Historical Monuments. Further comments and advice have been provided by various organisation and individuals who have an interest in the archaeology of the area including :

Dr. H. Cleere (International Council on Monuments and Sites); Dr. P. Ashbee; Professor B. Cunliffe; Professor R. Bradley; Dr. A Whittle; Dr. H. Chapman; Ms. C. Coneybear (Salisbury Museum); Mr. P. Robinson (Devizes Museum); Mr. M. Corney and Dr. R. Whimster (RCHM); Mr. J. Richards; Mr. A. Lawson (Wessex Archaeological Trust); Mr. A. Selkirk and the Archaeological Committee of the Wiltshire Archaeological Society.

Their assistance is gratefully acknowledged although they are not to be held responsible for any of the opinions expressed in this report.

2.0. The nature of the archaeological features in the area varies widely in type and form from Mesolithic and Neolithic flint tools to upstanding earthworks such as Bronze Age Barrows or medieval house platforms. Interpretation of aerial photographs has identified crop and soil marks, sometimes connected to upstanding monuments but often of archaeological features either buried or levelled by ploughing. Because of the quality and extent of recorded information, it is possible to describe broadly the main elements of the archaeological landscape in terms of chronology and function :

- i) Neolithic and Bronze Age ritual funeral landscape stretching westwards from the New King Barrows to Longbarrow Cross Roads, covering the entire Study Area north or south and contained within the World Heritage Site. It consists of The Cursus, Stonehenge, The Avenue, several long barrows and numerous round barrows. Apart from fragmentary field boundaries and late encroachments to the north-west and south-west, this area would seem to have been set aside for its specialised function which has been respected in later times.
- ii) Bronze Age settlement and agricultural landscape around Longbarrow Cross Roads and stretching outwards. Traces of three Bronze Age huts were found when the present

roundabout was built and cropmarks, field walking and geophysical surveys all indicate the strong possibility of more settlements in the vicinity. Radiating outwards is a pattern of field systems with later Roman and medieval field systems, intermixed and overlying them.

- iii) Bronze Age or Iron Age agricultural landscape radiating outwards from the hillfort at Yarnbury Castle across Berwick Down and probably to the valley of the River Till or even further eastwards.
- iv) Late Iron Age or Romano-British village at Oatlands Hill with field systems radiating outwards. Its relationship with a possible Roman villa south of Winterbourne Stoke or the Romano-British settlement on Winterbourne Stoke Down is not clear.
- v) Saxon or medieval settlement in and south of Winterbourne Stoke.
- vi) Medieval and post medieval agricultural landscape over all the Study Area.

None of these landscape and land use boundaries will be clearly defined spatially or chronologically; changes and alterations will always have been made. However, it is useful to put into perspective the relationship between the individually identified archaeological features and to emphasise that even areas without identified archaeological remains were part of an overall concept of the landscape.

- 2.1. The results of the recent survey and fieldwork require further discussion and are presented here in their primary form to enable this to take place.

AIR PHOTOGRAPHIC TRANSCRIPTION AND ANALYSIS (1)



A303: AMESBURY to BERWICK DOWN

Archaeological Survey

Air Photographic Transcription and Analysis

January 1992

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2.4 Archaeological interpretation

Notes on the photo-interpretation and survey of individual plough-levelled features or groups of features are provided within a corpus of 19 Interpretation and Mapping Unit (IMU) records presented as Appendix 3 of this report (for a more detailed explanation and definition of IMUs see Section 2.9 below).

The present survey has introduced new elements of cohesion to the archaeological features in the area which were not apparent on the maps of the Wiltshire County Council Sites and Monuments Record. Accuracy of interpretation and mapping will also allow the size, extent and relationships of features to be documented. Initial considerations suggest the following to be of significance:

- i the presently unploughed lynchets of part of the Parsonage Down field system in fields centred SU053412 and SU061410. Both areas show evidence of medieval ploughing (and an earthwork enclosure within field SU053412) but the lynchets retain much of their earlier design and thus preserve an important extent of upstanding field system.
- ii the ovoid enclosure (SU065409), partially double ditched, with adjacent areas of dark soil - probably pits or hollows - which suggest it is likely to have been a settlement site.
- iii the extensive complex of features on Oatlands Hill (SU092405) comprising ring ditches, linear features, ditched enclosures and structures (there are at least two hut circles visible on the air photographs), field divisions (of prehistoric-Romano British and medieval date) and tracks. The extent and complexity of the features mapped enable relationships to be studied and a sequence of events to be suggested which are relevant not only to the site itself but which, via the network of tracks and linear ditches, may be cautiously extended to adjacent areas.
- iv a plough levelled long barrow (Winterbourne Stoke 71), showing only as pairs of side ditches at SU10094089. The side ditches suggest the possibility that the monument had two phases of construction: one as a short mound with curved ditches, the other as an elongated mound with straight ditches. A lynchet of later prehistoric or Romano British date overlies the long barrow implying, perhaps, that it was never of much height. Photo-interpretation for this present assessment has led to the suggestion of two phases, something not commented on in the recent study of the Stonehenge environs (RCHME 1979, 1).

Throughout the present survey deliberate effort was made to link features interpreted and mapped from air photographs with monuments listed in the NAR. Although the majority of these monuments could be satisfactorily recognised either as crop or soil marks, or as upstanding earthworks, there remained a significant number of previously recorded features for which no air photographic evidence of any kind could be found. The sites concerned are listed in Appendix 1C (see also Section 2.4 below).

2.5 Concordances of surveyed sites and previous records

The following concordances to surveyed features are provided in Appendix 1:

Appendix 1A

All individual archaeological features and/or groups of features that have been the subject of 1:10,000 transcription, listed in IMU sequence with cross-references to existing NAR site numbers and Wiltshire County Council SMR numbers where appropriate.

Appendix 1B

All transcribed sites covered by existing NAR records, listed in NAR OS quarter sheet sequence.

Appendix 1C

NAR and Wiltshire County Council SMR sites for which air photographic evidence has previously been cited or might be expected, but which have been omitted from the present survey on one or more of the following grounds:

- i no trace of the supposed site could be identified on any available photographs, including those explicitly cited in earlier references;
- ii marks visible on available photographs, including those previously cited, could not safely be regarded as of archaeological origin;
- iii the site is a barrow group which survives in earthwork form and is depicted satisfactorily on published 1:10,000 maps.

2.6 Photographic Sources consulted

All oblique and vertical air photographs contained within RCHME's National Library of Air Photographs and the Cambridge University Collection of Air Photographs were consulted, as were vertical aerial photographs held by Wiltshire County Council. The latter included a vertical survey, in colour at 1:10,000, made for Wiltshire County Council in 1991.

It was not possible to carry out an exhaustive search for further photographs

that may held by commercial air survey companies or private individuals. Although it is probable that some such coverage exists, it is unlikely to contain significant amounts of archaeological information not already recorded on the substantial body of air photographs that was available for consultation.

Specific groups and collections of aerial photographs consulted in the course of the survey are identified in Appendix 2 of this report on the following basis:

Appendix 2A

A listing of the source, original sortie number, date, scale and current holder of stereoscopic vertical photographs taken of the area during the period 1934-1991.

Appendix 2B

A summary listing of the original source, date and current holder of all oblique and single frame vertical photographs of the area that were consulted in the course of the survey.

Both appendices exclude individual run and frame numbers but, where appropriate, these are cited in individual IMU records (Appendix 3). Detailed listings and sortie diagrams for all this material may be obtained from the National Library of Air Photographs, Wiltshire County Council, or the Cambridge University Committee for Aerial Photography as appropriate.

2.7 Quality and reliability of the air photographic coverage

The eastern part of the area is covered by an early (1934) block of stereoscopic vertical photographs which, although not of the highest quality, do record major features with sufficient clarity to offer a supplementary source of information. From 1943 to the present day repeated vertical survey has provided coverage of all, or parts, of the survey area at scales between 1:5000 and 1:25,000. Thus a total of 32 sorties, taken in 19 separate years (although not necessarily 19 separate agricultural cycles) can be said to cover the area. However, lighting conditions were not always at their best for highlighting earthwork features, nor was the agricultural cycle necessarily at its most revealing. In addition some of the RAF training sorties have been made virtually useless through film fogging or flat printing while others are at too small a scale to be of much archaeological value. Cloud cover can also mar parts of a vertical survey of any date and so, while 32 sorties represents the absolute total, the actual useful number is considerably smaller.

The western part of the area (SU0540 to SU0842) is covered by a 1:5000 survey undertaken by CUCAP in 1988 which has provided the basis for the mapping of the Parsonage Down field system. Field systems lying in the eastern part were best shown on verticals taken by the Ordnance Survey

(1970) although in both areas all other photographs were examined and frequently enabled additional detail to be added.

Post-war specialist oblique photography comprises a very small number taken by CUCAP (1951, 1967 and 1972) and those taken in the course of RCHME programmes of aerial reconnaissance between 1967-1990. In the present assessment area, obliques provided the primary evidence at one location, Oatlands Hill, which produced drought-condition crop marks in 1976 only. Confirmatory, and some supplementary, evidence was interpreted from obliques in the Wilsford Down field system but elsewhere oblique photography had been minimal and was less informative than the best vertical sorties.

2.8 Photogrammetric survey

Air photo-interpretation, photogrammetric transcription and final drawing has been carried out by one person. Computer-aided photogrammetric rectification from oblique and vertical air photographs was achieved through the use of the AERIAL software published by the University of Bradford (Haigh 1983; 1989) which uses plane- transformation techniques offering metrical precision in the region of $\pm 0.3\text{m}$. The undulating nature of the ground, especially in the western part of the area, suggested that digital terrain modelling (DTM) might be necessary to locate accurately those features transformed. A comparative test was made using features lying on the steep slope at Parsonage Down (SU061410) where control points showed height differences of up to 35m but, at an output scale of 1:10,000, no significant displacement of position was noted. In the course of the survey 39 separate photogrammetric transcriptions were prepared. The digital data files for these are held by Air Photo Services.

A small amount of additional detail has been sketched on to the digitally transformed record from secondary sources. Accuracy of such positioning ought to lie within the $\pm 0.5\text{m}$ range as size and location was 'fixed' by the adjacent digitally transformed features. The IMU records (Appendix 3) indicate where these secondary sources have been used.

2.9 Cartographic presentation

The 1:10,000 map uses two cartographic conventions:

Solid lines: ditches

Irregular stipple: chalk banks

The scale of 1:10,000 is too small to show the presence of pits or hollows without obscuring the possibly more relevant ditched details. Such features appear at one site only, within and adjacent to the enclosure at SU065409.

Strip fields have been omitted for reasons of clarity. These and their associated headlands were noted during the survey and could be seen to

make considerable reuse of earlier lynchets and field patterns. They overlie features at Parsonage Down, Wilsford Down, Winterbourne Stoke Hill and Oatlands Hill.

2.10 Interpretation and Mapping Units

For the purposes of survey documentation, plough-levelled features were interpreted and transcribed within the context of explicitly defined Interpretation and Mapping Units (IMUs: cf Whimster 1989, 7-8 and 94-5). Each IMU provides the following information (Appendix 3):

Location

Central 6-figure NGR and parish(es)

Form

Summary indication of the manner in which archaeological features have been displayed during the history of their aerial recording as earthworks, crop marks or soil marks

Archaeological notes

Summary description of each interpreted archaeological feature or group of features lying within the IMU.

Reconnaissance history

Listing of the calendar years in which the IMU has been the subject of oblique and vertical photography.

Transcription source photography

Primary: Archive reference numbers and dates photographs used for photo interpretation and the establishment of photogrammetric control.

Secondary: Archive reference numbers and dates of photographs providing additional information and/or of those used as the source for non-photogrammetric sketch transcription.

Comments on transcription

Transcription of features within each IMU is believed to fall consistently within the limits of metrical accuracy ($\pm 0.5\text{m}$ of true ground position relative to topographical control points identified on current edition of the OS 1:10,000 map) defined for the survey.

3 Land-use

3.1 Objective

The purpose of this subsidiary component of the survey was to record land-use, as apparent on the aerial photographs, firstly as a contributing factor to the identification of those areas where there may be better survival of archaeological features and secondly as an indication of those areas for which further aerial reconnaissance might provide more information.

3.2 Land use between 1934 -1988

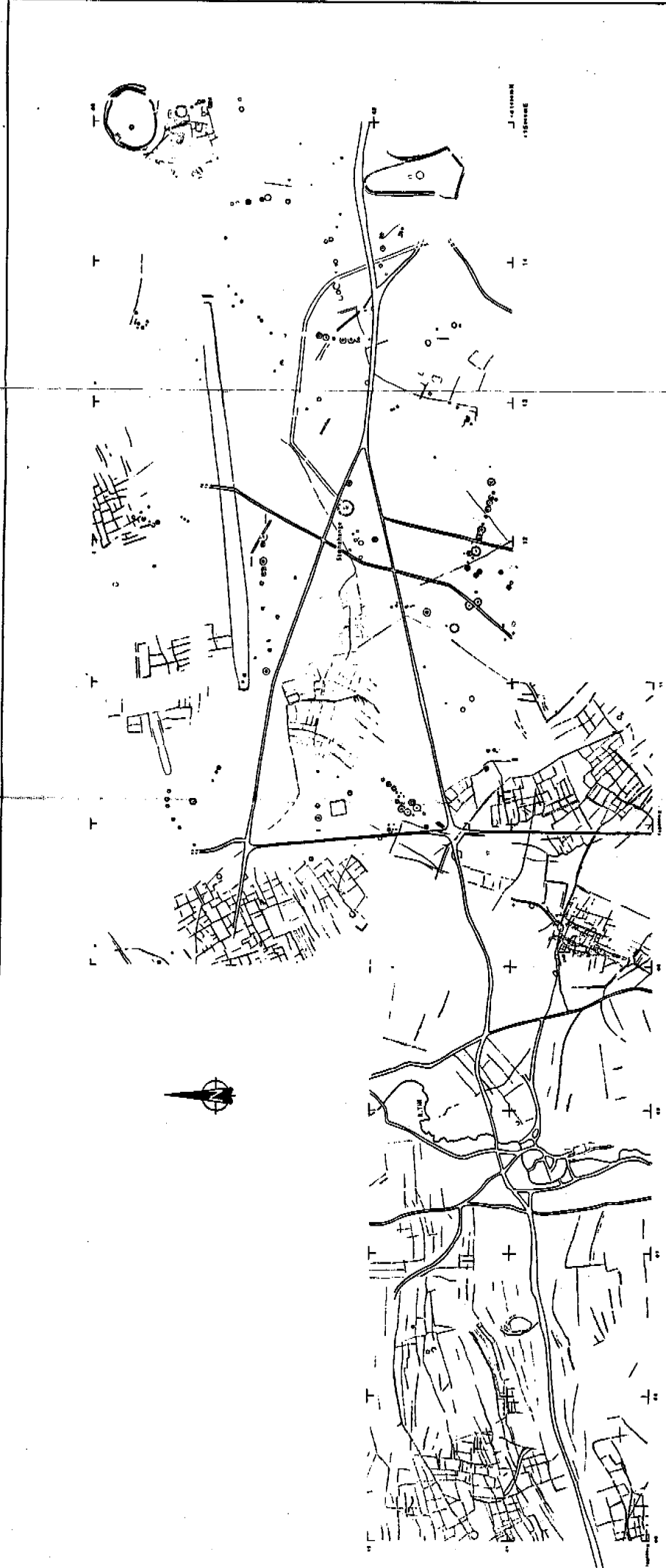
For this survey, a record was made of the occasions on which each land parcel in the project area had been photographed from the air (Appendix 4, using all available aerial photographs except those taken in August 1991, which were not available for consultation during this stage of the study). In addition, a record was made of the dominant type of land-use within each parcel for each year with photographic coverage. Bearing in mind the variable quality of the photographic coverage and the need to ensure a consistent record, it was necessary to restrict classification to the basic categories of pasture (P), arable (A) or ploughed soil (S). Any exceptions are noted specifically on the record form. Wooded areas (W) are only referred to where there has been a change of land-use during the period covered by the available photography.

An exhaustive analysis of this data is not appropriate within the context of the present survey. It is instead sufficient to note the general summary contained in the table and comments below:

Land-use	No of fields	Percentage
Always arable	19	23%
Mostly arable	12	15%
Always pasture	16	20%
Mostly pasture	4	5%
Mixed	30	37%

There are principally three areas that have always appeared as pasture. A large part of Parsonage Down at the western end of the survey area, two fields adjacent to Scotland Farm, and lastly the water meadows alongside the River Till.

Comparative data on the amounts of reconnaissance necessary to ensure confident recovery of all potentially available cropmark and soilmark evidence is very limited. No such study has yet been carried out for a chalkland environment, but analysis of the results of long-term programmes of aerial reconnaissance in the Welsh Marches and Trent Valley has suggested that on brown earth and gravel soils an arable field needs to be examined in a minimum of four separate seasons, and often more, before its potential to reveal buried archaeological structures has been reliably tested (R Whimster 1989).



Scale in meters of OS (Ordnance Survey) maps, unless otherwise stated.
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THE DEPARTMENT OF TRANSPORT
SOUTH WEST CONSTRUCTION PROGRAMME DIVISION

NO.	DATE	BY	FOR

A303 AMESBURY - BERWICK DOWN

MR WELSH MALCROW AND COMPANY LIMITED
 CONSULTING ENGINEERS
 10, BRISTOL ROAD
 BRISTOL, AVON
 BR1 1LH

ARCHAEOLOGICAL FEATURES

Scale: 1:10,000
 Project No: 1000
 Date: 1971
 Drawn by: AMB/AFY

ORIGINAL AT A3

On the basis of this very limited data, it may be suggested that the 50 field units in the survey area that have been photographed in five or more arable seasons should by now have yielded the majority of the archaeological information that they have the potential to provide. However, it should be borne in mind that some photography has not been taken at the times of year considered most favourable for recording cropmarks. By contrast, the potential of about 30 further land parcels that have remained either under permanent pasture or have only limited histories of arable observation may not have been adequately tested. Although it is unlikely that significant numbers of major features will be discovered within these parcels, further reconnaissance may lead to the identification of other minor structures and the recovery of significant additional information about sites photographed as cropmarks or soilmarks in only a limited number of seasons.

References

- Haigh, J G B, 1983. 'Practical methods for the rectification of oblique aerial photographs', in A Aspinall and S E Warren (eds) *Proceedings of the 22nd Symposium on Archaeometry*, 1-10, Bradford.
- Haigh, J G B, 1989. 'Rectification of aerial photographs by means of desk-top systems', in S Rahtz and J Richards (eds) *Computer Applications and Quantitative Methods in Archaeology 1989. Brit Archaeol Repts Int Ser 548*, 111-119.
- RCHME, 1979. *Stonehenge and its Environs*. Edinburgh
- Whimster, R, 1989. *The Emerging Past: air photography and the buried landscape*. London

APPENDIX 1A

Summary listing and concordance of transcribed archaeological sites

IMU No	NGR	NAR No	Wilts SMR No	Description
SU055407	SU055407	SU04SE/2	684	Field system
SU057403	SU053402	SU04SE/20	684	Field system
"	SU052401	-	-	Linear ditch
SU053412	SU053412	SU04SE/2	684	Field system, unploughed
"	SU053412	-	-	Strip fields
"	SU055409	-	-	Hollow way
"	SU05044123	-	-	Possible ditched enclosure
"	SU05604155	SU04SE/34	667	Round barrow (mound)
"	SU056412	-	-	Banked enclosure (?Medieval)
SU054418	SU054418	-	-	Field system
"	SU053417	-	-	Banked ?enclosure
SU067404	SU067404	-	701, 743	Field system
"	SU067404	-	-	Strip fields
SU065409	SU063409	-	-755	Field system traces
"	SU065409	-	-	Ditched enclosure
SU061410	SU061410	SU04SE/2	684	Field system, unploughed
SU063416	SU063416	SU04SE/2	-	Field system
"	SU06324152	SU04SE/56	-	Ring ditch (arc only)
"	SU06304151	SU04SE/56	-	Ring ditch
"	SU06484167	-	-	Ring ditch
SU074416	SU074416	SU04SE/2	-	Field system
SU077404	SU077404	-	-	Village earthworks
SU082412	SU082412	-	-	Field system
"	SU082412	-	-	Strip fields
"	SU082410	-	-	Linear ditch
"	SU07914094	-	-	Ring ditch (arc only)
SU086416	SU086416	-	-	Lynchets or headlands
"	SU086416	-	-	Strip fields
SU084404	SU083403	-	700	Lynchets or headlands
"	SU083403	-	-	Strip fields
"	SU087403	-	-	Linear ditch
SU090401	SU090401	-	-	Junction of tracks
"	SU090401	-	-	Lynchets
SU092405	SU092405	-	-	Ditched settlement complex
"	SU092405	-	746	Parallel banks/lynchets
"	SU094406	-	691	Linear ditch
"	SU09454085	-	-	Linear ditch
"	SU088406	-	-	Headland
"	SU08954067	SU04SE/54	719	Oval ditch (?barrow)
"	SU09084067	SU04SE/54	736	Ring ditch
"	SU09084062	-	-	Possible barrow/ring ditch
"	SU09224064	SU04SE/54	-	Ring ditch
"	SU09284064	SU04SE/54	739	Possible oval barrow
"	SU09434085	-	-	Ring ditch
"	SU09454098	-	-	Ring ditch
SU100407	SU101407	SU14SW/53	965	Field system
"	SU100407	-	-	Strip fields
"	SU10094089	-	-	Long barrow
SU103403	SU103403	SU14SW/53	965	Field system
"	SU101402	-	988	Linear ditch

.	SU10164019	-	-	Angled ditch (?enclosure)
SU108405	SU108405	SU14SW/53	-	Field system
.	SU108406	-	-	Linear ditch
.	SU10804064	-	-	Round barrow/ring ditch
.	SU10804025	SU14SW/51B	-	Ring ditch
.	SU10834024	SU14SW/51C	-	Ring ditch/mound
.	SU10844023	SU14SW/51D	-	Ring ditch/mound
SU108408	SU109408	-	-	Linear ditches
.	SU108409	-	-	Possible lynchets

APPENDIX 1B

Transcribed NAR sites

NAR No	IMU No	Description
SU04SE/2	SU055407	Field system
•	SU053412	•
•	SU061410	•
•	SU063416	•
•	SU074416	•
SU04SE/34	SU053414	Round barrow
SU04SE/54	SU092405	Ring ditches (4)
SU04SE/56	SU063416	Ring ditches (2)
SU14SW/53	SU100407	Field system
•	SU103403	•
•	SU108405	•
SU14SW/51	SU108405	Ring ditches/barrows (3)

APPENDIX 1C

NAR and Wiltshire SMR sites unidentifiable on consulted aerial photographs and not transcribed

The features listed below are those previously described as having been identified on the basis of air photographic evidence but which could not be identified satisfactorily on any photographs consulted in the course of the current assessment, including those explicitly cited as sources.

NAR No	NGR	Reason for rejection
SU04SE/22	SU095409	Not seen, refers to features in SU0941?
SU04SE/42	SU058409	Not seen
SU04SE/45	SU05564198	Not seen
SU04SE/55	SU08174139	Not seen (nor were source Aps)

Comments for the Wiltshire SMR are given below only when these do not duplicate NAR records, as above

Wilts SMR No	NGR	Reason for rejection
716	SU06794107	Not seen
717	SU07504132	Not seen
744	SU08504071	Not seen, APs cited cover SU0940
745	SU08984035	Not seen as described, possibly part of settlement complex
752	SU08984035	Not seen as described, possibly part of settlement complex

APPENDIX 2A

Stereoscopic vertical photographs consulted

Source	Sortie No	Date	Scale	Prints held by
RAF	DURNFORD	09-02-34	1:10,000	NLAP
USAAF	US/7PH/GP/LOC...	24-12-43	1:10,000	NLAP
RAF	106G/UK/839	25-09-45	1:10,000	NLAP
RAF	106G/UK/915	11-10-45	1:10,000	NLAP
RAF	106G/UK/942	19-10-45	1:10,000	NLAP
RAF	3G/TUD/T/94	27-11-45	1:25,000	NLAP
RAF	106G/UK/1311	27-03-46	1:10,000	NLAP
RAF	106G/UK/1353	02-04-46	1:10,000	NLAP
RAF	106G/UK/1418	15-04-46	1:10,000	NLAP
RAF	CPE/UK/1769	07-10-46	1:10,000	NLAP
RAF	CPE/UK/1787	11-10-46	1:10,000	NLAP
RAF	CPE/UK/1821	04-11-46	1:10,000	NLAP
RAF	CPE/UK/2332	30-09-47	1:27,900	NLAP
RAF	540/355	10-06-50	1:14,000	NLAP
RAF	540/854	29-08-52	1:10,000	NLAP
RAF	540/1357	18-07-54	1:10,000	NLAP
RAF	58/1877	29-09-55	1:10,000	NLAP
RAF	58/1882	01-10-55	1:10,000	NLAP
RAF	82/1297	02-10-55	1:10,000	NLAP
RAF	58/2333	16-12-57	1:10,000	NLAP
RAF	58/2513	18-07-58	1:20,000	NLAP
OS	70 067	03-05-70	1:7,500	NLAP
OS	70 129	24-05-70	1:7,000	NLAP
OS	73 300	15-06-73	1:7,700	NLAP
OS	73 338	23-06-73	1:7,700	NLAP
OS	73 339	23-06-73	1:7,700	NLAP
CUCAP	RC8-BM	08-06-76	1:10,000	CUCAP
CUCAP	RC8-BV	19-05-77	1:10,000	CUCAP
CUCAP	RC8-CM	25-01-78	1:10,000	CUCAP
JAS?	2029	25-08-71	1:10,000	Wilts CC
JAS	4081	02-08-81	1:10,000	Wilts CC
Clyde	8408	21-04-84	1:10,000	Wilts CC
CUCAP	RC8-LD	02-10-88	1:5,000	CUCAP
GEONEX	104/91	21-08-91	1:10,000	Wilts CC
GEONEX	114/91	21-08-91	1:10,000	Wilts CC
GEONEX	95/91	29-08-91	1:10,000	Wilts CC
GEONEX	101/91	29-08-91	1:10,000	Wilts CC
GEONEX	97/91	31-08-91	1:10,000	Wilts CC

APPENDIX 2B

Oblique and single vertical photographs consulted

Source	Date	Prints held by
Crawford	28-05-24	NLAP
Crawford	30-04-33	NLAP
CUCAP	30-06-51	CUCAP
Baker	01-01-65	NLAP
CUCAP	08-05-67	CUCAP
RCHME	26-07-67	NLAP
RCHME	20-04-68	NLAP
RAF	22-08-68	NLAP
RCHME	03-03-70	NLAP
CUCAP	03-04-72	CUCAP
RCHME	13-03-73	NLAP
RCHME	17-03-75	NLAP
RCHME	08-05-75	NLAP
RCHME	27-06-75	NLAP
RCHME	12-05-76	NLAP
RCHME	18-07-76	NLAP
RCHME	18-05-77	NLAP
RCHME	11-10-78	NLAP
RCHME	25-07-80	NLAP
RCHME	12-11-80	NLAP
RCHME	03-05-90	NLAP

Plus a small number of undated (but probably 1930s) vertical prints from the Crawford collection held in the NLAP.

APPENDIX 3

INTERPRETATION AND MAPPING UNIT REPORTS

Interpretation and mapping unit: SU055407

Parish: Berwick St James

Form: Soil marks, slight earthworks

Archaeological notes: Lynchets of field system.

Photographic history:

Oblique: 1965

Vertical: 1945, 1946, 1947, 1950, 1952, 1955, 1958,
1968, 1973, 1976, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 236	02-10-88
	RC8-LD 247	02-10-88
	RC8-CM 130	25-01-78
	RC8-LD 238	02-10-88

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU057403

Parish: Berwick St James

Form: Crop marks, soil marks, slight earthworks

Archaeological notes: Lynchets of field system including probable double lynchet way and linear ditch.

Photographic history:

Oblique: 1965

Vertical: 1945, 1946, 1947, 1950, 1952, 1955, 1958,
1968, 1973, 1976, 1977, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 236	02-10-88
	RC8-LD 238	02-10-88

Supplementary:

CPE/UK/1821:4279-428	04-11-46
73.338:270-271	23-06-73
540/854:4336-4338	29-08-52
Clyde 8408/1:383-384	21-04-84

Comments on transcription:

Interpretation and mapping unit: SU053412

Parish: Winterbourne Stoke

Form: Earthworks

Archaeological notes: Lynchets of field system, probable hollow way, length of linear ditch(?), possible ditched enclosure, ?late enclosure with rounded profile banks, apparent near-circular ditched (earthwork) enclosure. Later ploughing (?strip fields) adheres to earlier field design.

Photographic history:

Oblique: 1965, 1970

Vertical: 1945, 1946, 1950, 1952, 1955, 1958, 1968,
1973, 1976, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 247	02-10-88
	RC8-CM 130	25-01-78
Supplementary:	106G/UK/942:4011-4013	19-10-45
	CPE/UK/1821:4277-4280	04-11-46
	SU0541/1/449-455	04-03-70
	Clyde 8408/1:3820383	21-04-84

Comments on transcription:

Interpretation and mapping unit: SU054418

Parish: Shrewton

Form: Crop marks, slight earthworks

Archaeological notes: Lynchets of field system, non-field bank possibly indicating a settlement.

Photographic history:

Oblique: 1970

Vertical: 1945, 1946, 1950, 1952, 1955, 1958, 1968,
1973, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 258	02-10-88
	RC8-CM 130	25-01-78

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU067404

Parish: Berwick St James/Winterbourne Stoke

Form: Crop marks, soil marks, slight earthworks

Archaeological notes: Lynchets of field system, some followed by parish boundary, strip fields superimposed.

Photographic history:

Oblique: 1980

**Vertical: 1945, 1946, 1947, 1950, 1952, 1955, 1958,
1968, 1973, 1976, 1977, 1978, 1984, 1988**

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 240	02-10-88
Supplementary:	RC8-BV 14-15	19-05-77

Comments on transcription:

Interpretation and mapping unit: SU065409

Parish: Winterbourne Stoke

Form: Crop marks, soil marks

Archaeological notes: Slight traces of lynchets continuing local alignments.
These over/underlie ditched enclosure which has internal and external pits/hollows.

Photographic history:

Oblique:

Vertical: 1945, 1946, 1947, 1950, 1952, 1955, 1958,
1968, 1973, 1976, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 245	02-10-88
	Clyde 8408/1:383-385	21-04-84

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU061410

Parish: Winterbourne Stoke

Form: Earthworks

Archaeological notes: Lynchets - possibly a mixture of prehistoric-RB plus later strips.

Photographic history:

Oblique:

Vertical: 1945, 1946, 1950, 1952, 1955, 1958, 1968,
1973, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 245	02-10-88
Supplementary:		
	106G/UK/915:3212-3213	11-10-45
	106G/UK/942:4010-4012	19-10-45
	CPE/UK/1821:4280-4281	04-11-46

Comments on transcription: Area used for DTM check

Interpretation and mapping unit: SU063416

Parish: Shrewton/Winterbourne Stoke

Form: Soil marks, slight earthworks

Archaeological notes: Lynchets of field system within which lie three ring ditches.

Photographic history:

Oblique:

Vertical: 1945, 1946, 1950, 1952, 1955, 1958, 1968,
1973, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-LD 245	02-10-88
	RC8-LD 260	02-10-88
	RC8-LD 243	02-10-88
Supplementary:	US/7PH/GP/....	24-12-43

Comments on transcription:

Interpretation and mapping unit: SU074416

Parish: Winterbourne Stoke

Form: Soil marks, earthworks

Archaeological notes: Lynchets of field system. Those (2) at SU073419 may show later land divisions or relate to unmapped features to the north.

Photographic history:

Oblique: 1933, 1951, 1967, 1968, 1975, 1980

Vertical: undated, 1924, 1945, 1946, 1950, 1952, 1955, 1958, 1968, 1973, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-CM 127	25-01-78
	RC8-LD 243	02-10-88
	RC8-LD 262	02-10-88

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU077404

Parish: Winterbourne Stoke

Form: Earthworks

Archaeological notes: 'Village earthworks' including hollow way running N-S.

Photographic history:

Oblique: 1980

**Vertical: 1945, 1946, 1947, 1950, 1952, 1955, 1958,
1973, 1977, 1978, 1984, 1988**

Transcription source photographs:

	Negative number	Date
Primary:	SU0740/6/149	12-11-80

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU082412

Parish: Winterbourne Stoke

Form: Crop marks, soil marks

Archaeological notes: Lynchets of field system and/or strip fields. Slight traces of linear ditch continuing that running from the complex system centred SU092405. Arc of ring ditch.

Photographic history:

Oblique: 1990

Vertical: undated, 1934, 1945, 1946, 1947, 1950, 1952, 1955, 1958, 1973, 1977, 1978, 1984, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-CM 127	25-01-78
	RC8-LD 242	02-10-88
Supplementary:	JAS Wilts	02-08-81

Comments on transcription:

Interpretation and mapping unit: SU086416

Parish: Winterbourne Stoke

Form: Soil marks

Archaeological notes: Lynchets and/or headlands associated with local strip fields.

Photographic history:

Oblique: 1990

Vertical: undated, 1934, 1945, 1946, 1950, 1952, 1955, 1958, 1970, 1973, 1977, 1978, 1988

Transcription source photographs:

	Negative number	Date
Primary:	RC8-CM 127	25-01-78

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU084404

Parish: Winterbourne Stoke/Berwick St James

Form: Crop marks, soil marks

Archaeological notes: Lynchets (or headlands). Linear ditch continuing 'junction' of tracks centred SU090401.

Photographic history:

Oblique: 1975, 1976, 1978, 1980, 1990

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955,
1958, 1970, 1973, 1977, 1978, 1984

Transcription source photographs:

	Negative number	Date
Primary:	70.067: 75	03-05-70
	RC8-CM 127	25-01-78
Supplementary:	SU0840/4	09-02-34
	SU0940/3/183-187	27-07-75

Comments on transcription:

Interpretation and mapping unit: SU090401

Parish: Berwick St James

Form: Soil marks

Archaeological notes: Junction of tracks lying immediately south of settlement complex centred SU092405. Some lynchets.

Photographic history:

Oblique: 1975, 1978, 1980

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955,
1958, 1970, 1973, 1977

Transcription source photographs:

	Negative number	Date
Primary:	SU0940/5	12-05-76
	70.067:75	03-05-70

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU092405

Parish: Winterbourne Stoke

Form: Crop marks, soil marks

Archaeological notes: Settlement complex lying on or below a series of axially aligned parallel banks (thought not to be lynchets or strip fields) and being later in date than the linear ditch running east-west which avoids earlier ring ditches. Headland follows (more or less) the course of linear ditch. Strip fields overlay western part of field.

Photographic history:

Oblique: 1972, 1973, 1975, 1976, 1980, 1990

Vertical: undated, 1934, 1945, 1946, 1947, 1950, 1952, 1955, 1958, 1970, 1973, 1977

Transcription source photographs:

	Negative number	Date
Primary:	70.067:146	03-05-70
	SU0940/14/206	18-07-76
	SU0940/6/81	12-05-76
	70.067:145	03-05-70
	RC8-CM 127	25-01-78

Supplementary:

Comments on transcription: 1:10,000 too small to show site effectively.

Interpretation and mapping unit: SU100407

Parish: Winterbourne Stoke

Form: Crop marks, soil marks

Archaeological notes: Lynchets of field system overlain (on its west side) by strip fields which is possibly bounded (on its west) by a wiggly ditch. Lynchet overlays long barrow (probably of two phase construction). Linear ditch.

Photographic history:

Oblique: 1973, 1975, 1978, 1980

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955, 1958, 1970, 1973, 1977, 1978

Transcription source photographs:

	Negative number	Date
Primary:	70.067:145	03-05-70
	RC8-CM 125,	25-01-78
Supplementary:	JAS 4081:214	02-08-81

Comments on transcription: Checks made with transcriptions done for 1991 Stonehenge assessment (RC8-CM 125, 70.067:145).

Interpretation and mapping unit: SU103403

Parish: Winterbourne Stoke/Berwick St James

Form: Crop marks, soil marks

Archaeological notes: Lynchets of field system, linear ditch, angled ditch
(possibly part of enclosure?).

Photographic history:

Oblique: 1973, 1975, 1976, 1978, 1980

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955,
1958, 1970, 1977, 1978

Transcription source photographs:

	Negative number	Date
Primary:	70.067:77	03-05-70
	RC8-BV 11	19-05-77
	70.067:145	03-05-70

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU108405

Parish: Wilsford cum Lake

Form: Soil marks, earthworks

Archaeological notes: Lynchets of field system, linear ditch which kinks slightly as it passes round barrow. Three barrows of the Lake group, now flattened.

Photographic history:

Oblique: 1973, 1976, 1980

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955,
1958, 1970, 1977, 1978

Transcription source photographs:

	Negative number	Date
Primary:	SU09393/4/63	13-03-73
	RC8-CM 125	25-01-78
	70.067:77	03-05-70
Supplementary:	SU1040/8/302-312	11-10-78
	SU1040/13-14	09-02-34
	SU0939/4/63-65	13-03-73
	SU1040/3/53-54	12-05-76

Comments on transcription:

Interpretation and mapping unit: SU108408

Parish: Wilsford cum Lake

Form: Soil marks, earthworks

Archaeological notes: Linear ditches, possible lynchets.

Photographic history:

Oblique: 1973

Vertical: 1934, 1945, 1946, 1947, 1950, 1952, 1955,
1958, 1970, 1977, 1978

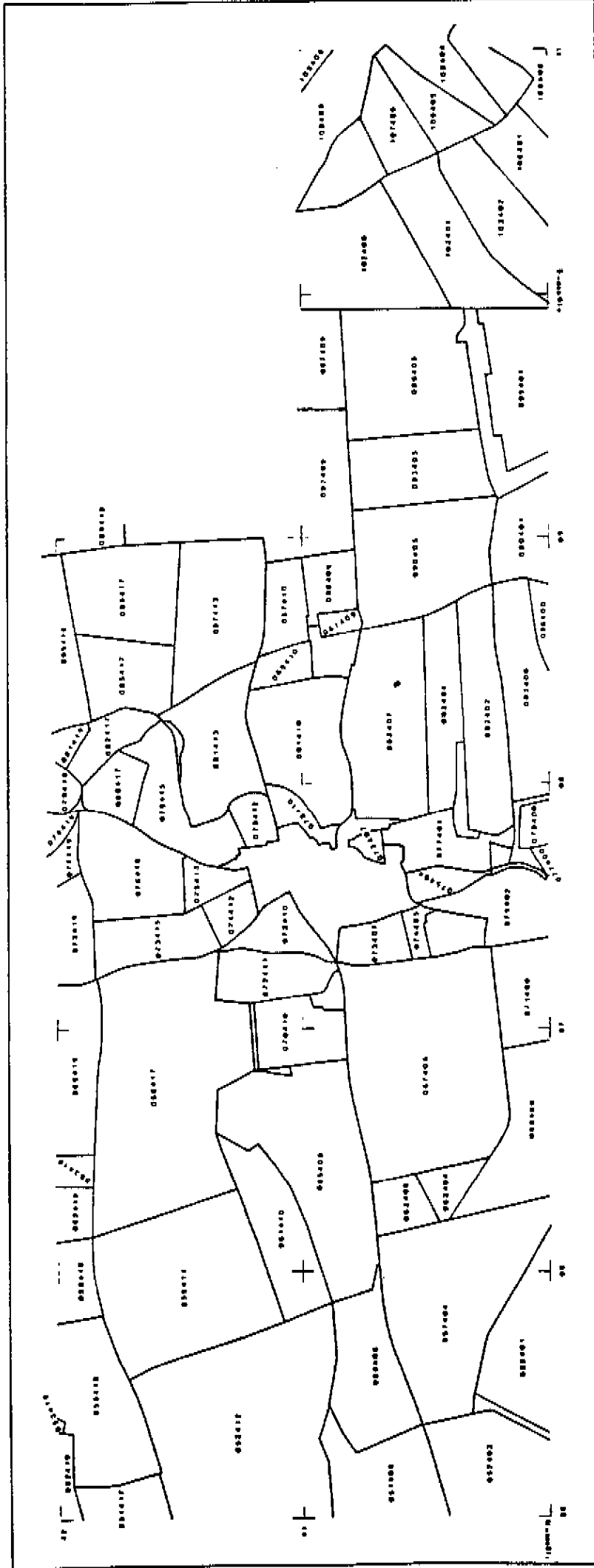
Transcription source photographs:

	Negative number	Date
Primary:	RC8-CM 125	25-01-78
	106G/UK/839:3065	25-09-45
Supplementary:	540/854:3461-3462	29-08-52
	106G/UK/839:1064-1065	
		25-09-45

Comments on transcription: Minor additions from earlier assessment,
SU1041/27/91, 106G/UK/839:3065.

A303: AMESBURY TO BERWICK DOWN

Index to Land-use Field Units



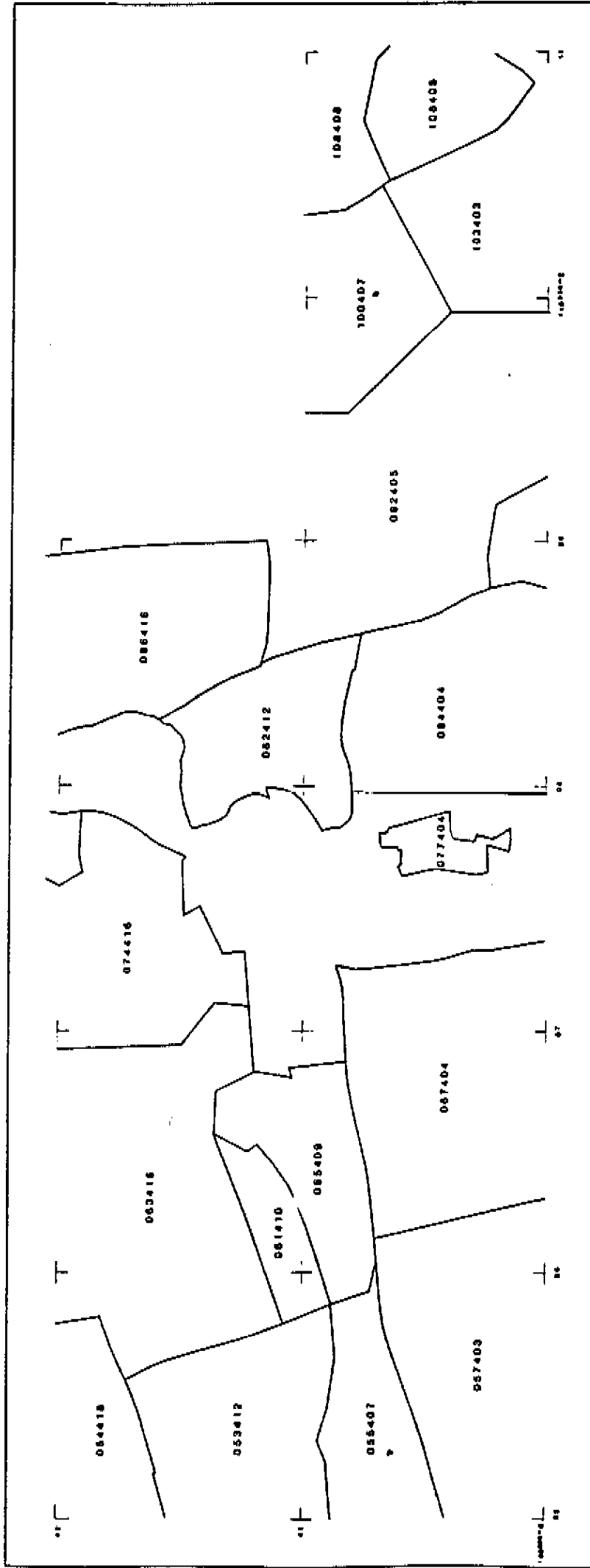
Overlay to parts of O.S. sheets SU 04SE & 14SW

Scale 1:10,000

Crown Copyright 1992 Royal Commission on the Historical Monuments of England

A303: AMESBURY TO BERWICK DOWN

Index to Interpretation and Mapping Units



Overlay to parts of O.S. sheets SU 04SE & 14SW

Scale 1:10,000

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AIR PHOTOGRAPHIC TRANSCRIPTION AND ANALYSIS (2)

A303: WILSFORD DOWN to AMESBURY

Archaeological Survey

Air Photographic Transcription and Analysis

August 1992

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- 2 Index to Interpretation and Mapping Units (1:10,000)
- 3 Index to Land-use field reference numbers (1:10,000)

Summary

All available oblique and vertical air photographs of the survey area were examined in detail and computer-aided transcriptions prepared at a scale of 1:10,000 of every archaeological feature visible on those photographs in the form of plough-levelled cropmarks or soilmarks. Features surviving throughout the period of air photographic coverage as earthworks were transcribed only where accompanying cropmarks or soilmarks provided new and previously unrecorded information.

All existing aerial photographs were further used to provide a record of the changing land-use for the period of time that they cover.

1 Introduction

The survey and study described in this report was commissioned by Sir William Halcrow and Partners Ltd. It was carried out under the direction of the Air Photography Unit of the Royal Commission on the Historical Monuments of England between 17 August 1992 - 28 August 1992. Work on the project was the responsibility of the following:

Catherine Stoertz (RCHME, air-photo surveyor)

Katharine Stocks (General support, short-term contract)

Roger Featherstone (RCHME, project manager)

2 1:10,000 Air photographic transcription

2.1 Objective

The purpose of this survey was to provide accurate 1:10,000 scale photogrammetric plans and supporting documentation of all plough-levelled archaeological features visible on air photographs within a 4km² assessment area between Wilsford Down and Amesbury, Wiltshire.

This area is an easterly extension of the 10km² area recently completed for Sir William Halcrow and Partners Ltd, referred to as "A303: Amesbury to Berwick Down". It should also be noted that the study area lies to the immediate south of a 20km² block of land surveyed to a similar specification (but at 1:2,500 scale) by the Air Photography Unit of RCHME on behalf of English Heritage in April 1991 (Stonehenge Conservation and Management Project: Environmental Statement). For purposes of subsequent archaeological documentation and assessment, these three surveys may be regarded as mutually consistent and complimentary as regards the identification and interpretation of plough-levelled archaeological features.

2.2 Definitions

For the purposes of the present survey, plough-levelled features are defined as those that have been recorded by aerial photography as differentially coloured or textured marks in bare plough-soil, arable crops, grass or any other form of vegetation. Features surviving as earthworks, in however degraded a form, were surveyed only if inadequately represented on existing plans or if accompanied by crop or soil marks that provided significant supplementary information about their location, size or structure.

2.3 Features investigated and recorded

For the purpose of the present survey, all available air photographs were systematically examined for crop mark or soil mark evidence relating to the following:

- i all archaeological features recorded within the National Archaeological Record (NAR) for which evidence of location, structure and form was based wholly or partly on air photographic sources, together with any other sites whose levelling by ploughing could have provided the potential for crop mark or soil mark formation;
- ii any additional features listed in the Wiltshire County Council Sites and Monuments Record (SMR) as having been identified exclusively from air photographic evidence;
- iii any plough-levelled structures identified in the course of the present survey but for which no previous record could be identified within the NAR or Wiltshire SMR;

Plough-levelled archaeological features thus identified and photogrammetrically surveyed fall into the following broad categories:

- Neolithic long mortuary enclosure: Normanton Down (1)
- Ring ditches (round or oval) probably the remains of Bronze Age barrows (26, 4 of which encircle extant mounds)
- Traces of chalk mounds, probably destroyed round barrows (5)
- Other ditched enclosures (2)
- Earthwork enclosure (1) and linear earthwork (now destroyed)
- Pit alignments (2)
- Lynchetted field systems of prehistoric or Romano-British date (2 principal areas of fragmentary traces)

2.4 Archaeological interpretation

Notes on the photo-interpretation and survey of individual plough-levelled features or groups of features are provided within a corpus of 17 Interpretation and Mapping Unit (IMU) records presented as Appendix 3A of this report (for a more detailed explanation and definition of IMUs see Section 2.9 below).

Initial considerations suggest the following to be of particular interest:

- SU113404 the North Kite; known earthwork feature, now destroyed, additional detail surveyed
- SU11424099 a mortuary enclosure on Normanton Down (known)
- SU11474046 a segmented ring ditch, probably on the site of a known round barrow
- SU12134096 a pit alignment (carried over from 1991 survey)
- SU12474090 a pit alignment (carried over from 1991 survey)
- SU12204047 a small group of contiguous ring ditches, the largest of which is oval in shape, on the site of a known barrow group; soilmark photography in 1980 suggests that some mound material may survive
- SU13134070 a group of three ring ditches
- SU13174090 a sub-oval enclosure with a very narrow ditch, crossed by an Iron Age or Romano-British field lynchet; possibly Neolithic or Bronze Age in date
- SU13634050 a rectangular ditched enclosure and adjacent ring ditch, possibly related to the lynchets to the west and south
- SU14334015 a penannular ditch with broad terminals, visible as a cropmark around an extant round barrow; possibly an earlier hengiform feature
- SU14654017 a group of five ring ditches, two with central grave pits, and one oval ditch adjacent to one of the rings

Throughout the present survey deliberate effort was made to link features interpreted and mapped from air photographs with monuments listed in the NAR. Although the majority of these monuments could be satisfactorily recognised either as crop or soil marks, or as upstanding earthworks, there remained a significant number of previously recorded features for which no air photographic evidence of any kind could be found. The sites concerned are listed in Appendix 1C.

2.5 Concordances of surveyed sites and earlier records

The following concordances to surveyed features are provided in the Appendices:

Appendix 1A

All individual archaeological features and/or groups of features that have been the subject of 1:10,000 transcription, listed in IMU sequence with cross-references to existing NAR site numbers and Wiltshire County Council SMR numbers where appropriate.

Appendix 1B

All transcribed sites covered by existing NAR records, listed in NAR OS quarter sheet sequence.

Appendix 1C

NAR and Wiltshire County Council SMR sites for which air photographic evidence has previously been cited or might be expected, but which have been omitted from the present survey on one or more of the following grounds:

- i no trace of the supposed site could be identified on any available photographs, including those explicitly cited in earlier references;
- ii marks visible on available photographs, including those previously cited, could not safely be regarded as of archaeological origin;
- iii the site is a barrow group which survives in earthwork form and is depicted satisfactorily on published 1:10,000 maps.

2.6 Photographic Sources consulted

All oblique and vertical air photographs contained within RCHME's National Library of Air Photographs and the Cambridge University Collection of Air Photographs were consulted, as were vertical aerial photographs held by Wiltshire County Council. The latter included a vertical survey, in colour at 1:10,000, made for Wiltshire County Council in 1991.

It was not possible to carry out an exhaustive search for further photographs that may held by commercial air survey companies or private individuals. Although it is probable that some such coverage exists, it is unlikely to contain significant amounts of archaeological information not already recorded on the substantial body of air photographs that was available for consultation.

Specific groups and collections of aerial photographs consulted in the course of the survey are identified in Appendix 2 of this report on the following basis:

Appendix 2A

A listing of the source, original sortie number, date, scale and current holder of stereoscopic vertical photographs taken of the area during the period 1923-1991.

Appendix 2B

A summary listing of the original source, date and current holder of all oblique and single frame vertical photographs of the area that were consulted in the course of the survey.

Both appendices exclude individual run and frame numbers but, where appropriate, these are cited in individual IMU records (Appendix 3A). Detailed listings and sortie diagrams for all this material may be obtained from the National Library of Air Photographs, Wiltshire County Council, or the Cambridge University Committee for Aerial Photography as appropriate.

2.7 Quality and reliability of the air photographic coverage

From 1943 to the present day repeated vertical survey has provided coverage of all, or parts, of the survey area at scales between 1:5000 and 1:25,000. Scales smaller than 1:25,000 were not consulted, as they are not considered to be suitable for this type of survey. Thus a total of 23 sorties, taken in 16 separate years (although not necessarily 16 separate agricultural cycles) can be said to cover the area. However, lighting conditions were not always at their best for highlighting earthwork features, nor was the agricultural cycle necessarily at its most revealing. In addition some of the RAF training sorties have been made virtually useless through film fogging or flat printing while others are at too small a scale to be of much archaeological value. Cloud cover can also mar parts of a vertical survey of any date and so, while 23 sorties represents the absolute total, the actual useful number is considerably smaller.

Post-war specialist oblique photography comprises a small number taken by CUCAP (1952-56) and 18 sorties taken in the course of RCHME programmes of aerial reconnaissance between 1967-1990.

2.8 Photogrammetric survey

Air photo-interpretation, photogrammetric transcription and final drawing has been carried out by one person. Computer-aided photogrammetric rectification from oblique and vertical air photographs was achieved through the use of the AERIAL software published by the University of Bradford (Haigh 1983; 1989) which uses plane- transformation techniques offering metrical precision in the region of $\pm 0.5\text{m}$. The digital data files for these are held by RCHME.

2.9 Cartographic presentation

The 1:10,000 map uses two cartographic conventions:

Solid lines: ditches

Irregular stipple: chalk banks

2.10 Interpretation and Mapping Units

For the purposes of survey documentation, plough-levelled features were interpreted and transcribed within the context of explicitly defined Interpretation and Mapping Units (IMUs: cf Whimster 1989, 7-8 and 94-5). Each IMU provides the following information (Appendix 3A):

Location

Central 6-figure NGR and parish(es)

Form

Summary indication of the manner in which archaeological features have been displayed during the history of their aerial recording as earthworks, crop marks or soil marks

Archaeological notes

Summary description of each interpreted archaeological feature or group of features lying within the IMU.

Reconnaissance history

Listing of the calendar years in which the IMU has been the subject of oblique and vertical photography.

Transcription source photography

Primary: Archive reference numbers and dates photographs used for photo interpretation and the establishment of photogrammetric control.

Secondary: Archive reference numbers and dates of photographs providing additional information and/or of those used as the source for non-photogrammetric sketch transcription.

Comments on transcription

Transcription of features within each IMU is believed to fall consistently within the limits of metrical accuracy ($\pm 0.5\text{m}$ of true ground position relative to topographical control points identified on current edition of the OS 1:10,000 map) defined for the survey, with the exception of the fragmentary lynchets which lie to the west of Normanton (IMUs SU128403 and SU133403). These features show significant plough-damage as early as 1934; their condition is such that the current transcription cannot show their exact size and extent in any great detail.

3 Land-use

3.1 Objective

The purpose of this subsidiary component of the survey was to record land-use, as apparent on the aerial photographs, firstly as a contributing factor to the identification of those areas where there may be better survival of archaeological features and secondly as an indication of those areas for which further aerial reconnaissance might provide more information.

3.2 Land use between 1923 - 1991

For this survey, a record was made of the occasions on which each land parcel in the project area had been photographed from the air. In addition, a record was made of the dominant type of land-use within each parcel for each year with photographic coverage. Bearing in mind the variable quality of the photographic coverage and the need to ensure a consistent record, it was necessary to restrict classification to the basic categories of pasture (P), arable (A) or ploughed soil (S). Any exceptions are noted specifically on the record form. Wooded areas (W) are only referred to where there has been a change of land-use during the period covered by the available photography.

An exhaustive analysis of this data is not appropriate within the context of the present survey. It is instead sufficient to note the general summary contained in the table of comments below:

Land-use	No of fields	Percentage
Always arable	9	18%
Mostly arable	26	52%
Always pasture	2	4%
Mostly pasture	2	4%
Mixed	11	22%

Only the water meadows along the River Avon and the steep valley slope

west of Springbottom Farm have never come under arable cultivation; the rest of the survey area has been ploughed for much of its post-war history. Apart from a number of round barrow mounds, no earthwork features or field lynchets survive as standing features.

Comparative data on the amounts of reconnaissance necessary to ensure confident recovery of all potentially available cropmark and soilmark evidence is very limited. No such study has yet been carried out for a chalkland environment, but analysis of the results of long-term programmes of aerial reconnaissance in the Welsh Marches and Trent Valley has suggested that on brown earth and gravel soils an arable field needs to be examined in a minimum of four separate seasons, and often more, before its potential to reveal buried archaeological structures has been reliably tested (R Whimster 1989).

On the basis of this very limited data, it may be suggested that the 50 field units in the survey area that have been photographed in five or more arable seasons should by now have yielded the majority of the archaeological information that they have the potential to provide. However, it should be borne in mind that some photography has not been taken at the times of year considered most favourable for recording cropmarks.

References

- Haigh, J G B, 1983. 'Practical methods for the rectification of oblique aerial photographs', in A Aspinall and S E Warren (eds) *Proceedings of the 22nd Symposium on Archaeometry*, 1-10, Bradford.
- Haigh, J G B, 1989. 'Rectification of aerial photographs by means of desk-top systems', in S Rahtz and J Richards (eds) *Computer Applications and Quantitative Methods in Archaeology 1989. Brit Archaeol Repts Int Ser 548*, 111-119.
- RCHME, 1979. *Stonehenge and its Environs*. Edinburgh
- Whimster, R, 1989. *The Emerging Past: air photography and the buried landscape*. London

APPENDIX 1A

Summary listing and concordance of transcribed archaeological sites

IMU No	NGR	NAR No	Wilts SMR No	Description
SU110401	SU11054010	SU14SW/51	911	Round barrows/ring ditches
SU114404	SU11534050	SU14SW/106	922-5	Round barrows/ring ditch
"	SU11254050	SU14SW/52	964	Earthwork enclosure (now destroyed) see also IMUs SU114406, and SU115402
SU114410	SU11424099	SU14SW/144		Long mortuary enclosure
SU122404	SU12174061	SU14SW/166	961	Possible round barrow (not enclosures as per NAR)
"	SU12204047	SU14SW/50	928-9, 940-3	Group of 6 ring ditches
SU122411	SU12224093	SU14SW/49A	930	Round barrow
"	SU12134096	-	-	Pit alignment
"	SU12474090	-	-	Pit alignment
SU128403	SU129404	SU14SW/55	966	Lynchets
SU131407	SU131407	"	"	Lynchets
"	SU13174090	-	-	Enclosure
"	SU13134070	SU14SW/164	936-7	Ring ditches (3)
SU133407	SU132403	"	"	Lynchets
SU135405	SU13604056	SU14SW/162	938	Ring ditch
"	SU13634050	SU14SW/161	962	Enclosure
SU143401	SU14294010	-	62N	Ring ditch
"	SU14324019	-	62P	Ring ditch
"	SU14334015	SU14SW/60A		Round barrow (with ring ditch)
SU146402	SU14654017	-	949-53	Group of 6 ring ditches
"	SU147402	-	62L	Lynchets
SU148401	SU14904010	-	"	Lynchets
"	SU14914013	-	-	Ring ditch
SU148405	SU14764052	-	62L	Lynchets
SU148407	SU14854073	SU14SW/54	967	Lynchets

APPENDIX 1B

Transcribed NAR sites

NAR No	IMU No	Description
SU14SW/51	SU110401	Round barrows (3), ring ditches (1)
SU14SW/49A	SU112411	Round barrows
SU14SW/52	SU114404	Earthwork
"	SU114406	"
"	SU115402	"
SU14SW/144	SU114410	Mortuary enclosure
SU14SW/50	SU122404	Ring ditches
SU14SW/166	"	Round barrow (not enclosure)
SU14SW/55	SU128403	Field system
"	SU131407	"
"	SU133407	"
SU14SW/164	SU131407	Ring ditches (3)
SU14SW/162	SU135405	Ring ditch
SU14SW/161	"	Enclosure
SU14SW/60A	SU143401	Round barrow (with ring ditch)
SU14SW/54	SU148407	Mediaeval lynchets

APPENDIX 1C

NAR and Wiltshire SMR sites unidentifiable on consulted aerial photographs and not transcribed

The features listed below are those previously described as having been identified on the basis of air photographic evidence but which could not be identified satisfactorily on any photographs consulted in the course of the current assessment, including those explicitly cited as sources.

NAR No	SMR No	NGR	Reason for rejection
SU14SW/204	919	SU11024003	Not seen
SU14SW/195	-	SU11144021	Marks not of archaeological origin
-	920	SU11414021	Not seen
SU14SW/124	921	SU11504019	Not seen
-	989	SU115407	Marks not of archaeological origin
SU14SW/166	961	SU12274058	Change interpretation: one possible round barrow, rather than enclosures Photo reference cited is incorrect
SU14SW/190	-	SU12164007	Not seen (under buildings)
SU14SW/165	935	SU12704053	Not seen; photo reference cited is incorrect
-	60Y	SU13214032	Marks not of archaeological origin
SU14SW/114	939	SU13524092	Not seen
SU14SW/163	948	SU14294071	Marks not of archaeological origin
-	990	SU14534004	Not seen
-	62M	SU14704036	Marks not of archaeological origin
-	954	SU14774014	Marks not of archaeological origin
SU14SW/115	947	SU14844099	Not seen
SU14SW/185	946	SU14894094	Not seen (under buildings)

APPENDIX 2A

Stereoscopic vertical photographs consulted

Source	Sortie No	Date	Scale	Prints held by
RAF	DURNFORD	09-02-34	1:10,000	NLAP
USAAF	US/7PH/GP/LOC...	24-12-43	1:10,000	NLAP
RAF	106G/UK/839	25-09-45	1:10,000	NLAP
RAF	106G/UK/942	19-10-45	1:10,000	NLAP
RAF	CPE/UK/1769	07-10-46	1:10,000	NLAP
RAF	CPE/UK/1811	29-10-46	1:9,840	NLAP
RAF	540/355	10-06-50	1:20,000	NLAP
RAF	540/416	05-09-50	1:19,700	NLAP
RAF	540/438	13-11-50	1:20,400	NLAP
RAF	540/854	29-08-52	1:10,000	NLAP
RAF	540/1357	18-07-54	1:10,000	NLAP
RAF	58/1877	29-09-55	1:10,000	NLAP
RAF	58/2079	11-01-57	1:20,000	NLAP
RAF	58/2333	16-12-57	1:10,000	NLAP
RAF	58/2513	18-07-58	1:20,000	NLAP
OS	70 067	03-05-70	1:7,500	NLAP
OS	70 130	24-05-70	1:7,500	NLAP
CUCAP	RC8-BV	19-05-77	1:10,000	CUCAP
CUCAP	RC8-CM	25-01-78	1:10,000	CUCAP
JAS?	2029	25-08-71	1:10,000	Wilts CC
JAS	4081	02-08-81	1:10,000	Wilts CC
GEONEX	104/91	21-08-91	1:10,000	Wilts CC
GEONEX	114/91	21-08-91	1:10,000	Wilts CC

APPENDIX 2B

Oblique and single vertical photographs consulted

Source	Date	Prints held by
Crawford	24-04-23	NLAP
Crawford	03-05-23	NLAP
Crawford	07-11-23	NLAP
Crawford	28-05-33	NLAP
Crawford	08-06-33	NLAP
Crawford	09-02-34	NLAP
Crawford	01-01-36	NLAP
CUCAP	25-06-52	CUCAP
CUCAP	22-04-53	CUCAP
CUCAP	27-03-54	CUCAP
CUCAP	22-04-54	CUCAP
CUCAP	18-03-55	CUCAP
CUCAP	26-06-55	CUCAP
CUCAP	08-04-56	CUCAP
RCHME	01-01-65	NLAP
RCHME	26-07-67	NLAP
RCHME	05-04-69	NLAP
RCHME	13-03-73	NLAP
RCHME	15-03-73	NLAP
RCHME	13-05-73	NLAP
RCHME	05-09-73	NLAP
RCHME	18-05-74	NLAP
RCHME	17-03-75	NLAP
RCHME	03-05-75	NLAP
RCHME	08-05-75	NLAP
RCHME	27-07-75	NLAP
RCHME	12-05-76	NLAP
RCHME	18-07-76	NLAP
RCHME	18-05-77	NLAP
RCHME	12-11-80	NLAP
RCHME	30-03-90	NLAP
RCHME	03-05-90	NLAP

Plus a small number of undated (but probably 1930s) vertical prints from the Crawford collection held in the NLAP.

APPENDIX 3A

INTERPRETATION AND ~~M~~APPING UNIT REPORTS

Interpretation and mapping unit: SU108408

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: Linear ditches and slight bank, part of larger earthwork system (described in earlier A303 survey), linked with the "North Kite" enclosure; small ring ditch.

Photographic history:

Oblique: 1973, 1975, 1976

Vertical: 1923, 1934, 1943, 1945, 1946, 1952, 1955,
1970, 1971, 1977, 1978, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	106G/UK/839 3065	25-09-45
Supplementary:	US 7PH GP 1039	24-12-43
	SU 1140/8/52	12-05-76

Comments on transcription: Minor additions to earlier A303 survey.

Interpretation and mapping unit: SU110401

Parish: Wilsford cum Lake

Form: Crop marks, soil marks, earthworks

Archaeological notes: Three extant round barrows, surrounding ditches visible as crop and soil marks. A fourth ring ditch, SU11064012, also appears, although no mound is shown. Short segment of a long linear ditch appears at SU11174000.

Photographic history:

Oblique: 1973, 1975, 1976

Vertical: 1934, 1943, 1945, 1946, 1952, 1970, 1977

Transcription source photographs:

	Negative number	Date
Primary:	106G/UK/839 3065	25-09-45
	70/067/079	03-05-70

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU114404

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: "The North Kite" early Bronze Age earthwork enclosure (see SU114406); faint chalk mark within enclosure may be small round barrow. To the east, a group of four small barrows were excavated in 19th century; one clear segmented ring ditch see at SU11474046 is probably one of these; traces of two other mounds visible on 1943 photos; very slight linear ditch to east of Kite earthwork.

Photographic history:

Oblique: 1973, 1975, 1976

Vertical: 1934, 1943, 1945, 1946, 1952, 1955,
1970, 1971, 1977, 1978, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU1140/6/78	03-05-75
Supplementary:	US 7PH GP 1039	24-12-43
	SU 1140/8/52	12-05-76

Comments on transcription: Barrows do not tally very well with O.S. crosses indicating "sites of tumuli" probably because O>S> grid references were derived from early excavation.

Interpretation and mapping unit: SU114406

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: "The North Kite" early Bronze Age earthwork enclosure; extensions of north bank to the east and west (see also SU108408). Now destroyed - chalk banks and ditch visible as soil marks.

Photographic history:

Oblique: 1973, 1975, 1976

Vertical: 1923, 1934, 1943, 1945, 1946, 1952, 1955, 1970,
1971, 1977, 1978, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	106G/UK/839 3065	25-09-45
Supplementary:	US 7PH GP 1039	24-12-43
	SU1140/8/52	12-05-76

Comments on transcription: Barrows do not tally very well with the O.S. crosses at "site of tumuli" probably because O.S. grid references were derived from early excavation?

Interpretation and mapping unit: SU114410

Parish: Wilsford cum Lake

Form: Soil marks

Archaeological notes: Long mortuary enclosure (SU14SW/144; W30): rounded rectangle; segmented ditch; orientation WNW-ESE; length 36m, width 20m.

Photographic history:

Oblique: Allen undated 1930s; 1954

Vertical: 1943, 1945

Transcription source photographs:

	Negative number	Date
Primary:	106G/UK/839 3065	25-09-45

Supplementary:

Comments on transcription: Copied from Stonehenge environs survey, 1991.

Interpretation and mapping unit: SU115402

Parish: Wilsford cum Lake

Form: Soil marks, earthworks

Archaeological notes: Very slight bank visible on verticle photos as late as 1977
- possibly a fourth (southern) side of North Kite earthwork enclosure (also slight ditches suggesting extension of eastern side of enclosure).

Photographic history:

Oblique: 1973, 1975, 1976

Vertical: 1934, 1943, 1945, 1946, 1952, 1970, 1971,
1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	106G/UK/839 3065	25-09-45

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU122404

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: Six very small barrows, SU12204047: a row of five contiguous ring ditches, plus a sixth slightly apart to the east; smallest is < 10m in diameter, largest is oval 12x20m; soil mark photos 1980 indicate possible remains of bank material. A slight chalk mark indicates a possible round barrow at SU12174061.

Photographic history:

Oblique: 1956, 1973, 1976, 1980

Vertical: 1923, 1934, 1943, 1945, 1950, 1952, 1970,
1971, 1977, 1978, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	70/130/361	
Supplementary:	SU 1240/9/221-2	12-11-80
	SU 1240/6/164	18-07-76

Comments on transcription:

Interpretation and mapping unit: SU122411

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: SU12134096 pit alignment: orientation NE-SW; length 170m. SU12474090 pit alignment: orientation NE-SW; length 340m (extends south to SU 12414081). Linear ditch.

Photographic history:

Principal photographs used for transcription:

SU 1141/54-56	30-03-90
SU 1241/52-54	03-05-90
SU 1141/20/37	12-05-76
106G/UK/839 3066	25-09-45

Transcription source photographs:

Negative number	Date
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Primary:

Supplementary:

Comments on transcription: Detail carried over from Stonehenge environs survey, 1991.

Interpretation and mapping unit: SU128403

Parish: Wilsford cum Lake

Form: Soil marks

Archaeological notes: Traces of very badly abraided field lynchets

Photographic history:

Oblique:

Vertical: 1934, 1943, 1946, 1950, 1952, 1970, 1971,
1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU 1340/7	09-02-34

Supplementary:

Comments on transcription: The condition of these features is too poor to allow anything more than an indication of their presence. Photography shows severe damage as early as 1934.

Interpretation and mapping unit: SU133403

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: Fragmentary lynchets, very badly abraided

Photographic history:

Oblique: 1976

**Vertical: 1934, 1943, 1950, 1952, 1955, 1970, 1971,
1977, 1981, 1991**

Transcription source photographs:

	Negative number	Date
Primary:	SU 1340/4/31	12-05-76

Supplementary:

**Comments on transcription: Transcription can only indicate presence of
lynchet remains**

Interpretation and mapping unit: SU135405

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: Rectangular enclosure 90xc.85m, delineated by a single ditch; ring ditch to west; linear ditch to south-west.

Photographic history:

Oblique: undated Crawford, 1976

**Vertical: 1934, 1943, 1950, 1952, 1955, 1971, 1977,
1981, 1991**

Transcription source photographs:

	Negative number	Date
Primary:	SU 1340/1	undated Crawford

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU143401

Parish: Wilsford cum Lake

Form: Crop marks

Archaeological notes: Three ring ditches; the largest (SU14334015), around an extant round barrow, is penannular with broad terminals - perhaps an earlier hengiform feature; also a short segment of linear ditch; one additional extant barrow.

Photographic history:

Oblique: 1974, 1975

Vertical: 1923, 1933, 1943, 1946, 1952, 1954, 1955,
1970, 1971, 1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU 1440/8/398	27-07-75

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU146402

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: SU14654017 Five ring ditches and one oval (adjacent to a ring); two rings have central pits (probable graves); traces of field lynchets overlying rings

Photographic history:

Oblique: 1974, 1975

Vertical: undated Crawford, 1923, 1933, 1943, 1950, 1952, 1954, 1970, 1971, 1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU 1440/9/400	27-07-75

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU148401

Parish: Wilsford cum Lake

Form: Crop marks

Archaeological notes: SU14914013 Ring ditch with gap on south side; diffuse traces of lynchets

Photographic history:

Oblique: 1975

Vertical: 1934, 1943, 1945, 1946, 1950, 1952, 1954, 1955, 1970, 1971, 1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU 1440/9/400	27-07-75

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU148405

Parish: Wilsford cum Lake

Form: Crop marks, soil marks

Archaeological notes: Angled linear ditch; traces of lynchets

Photographic history:

Oblique: 1974, 1975

Vertical: 1923, 1933, 1943, 1950, 1952, 1954, 1955,
1970, 1971, 1977, 1981, 1991

Transcription source photographs:

	Negative number	Date
Primary:	SU 1440/7/396	27-07-75

Supplementary:

Comments on transcription:

Interpretation and mapping unit: SU148407

Parish: Wilsford cum Lake

Form: Soil marks

Archaeological notes: Lynchets on slope, badly abraided; probably mediaeval, according to NAR

Photographic history:

Oblique: 1973, 1974, 1975

Vertical: 1923, 1933, 1943, 1946, 1950, 1952, 1954, 1955, 1970, 1977

Transcription source photographs:

	Negative number	Date
Primary:	70/067/137	03-05-70

Supplementary:

Comments on transcription:

GEOPHYSICAL SURVEY (1)

REPORT ON GEOPHYSICAL SURVEY

A303

Amesbury to Berwick Down

Report Number 92/03

Work Commissioned by :

 **Wessex
Archaeology**



The Old Sunday School, Kipping Lane.

Thornton, Bradford BD13 3EL

Telephone (0274) 835016

Fax (0274) 830212

SITE SUMMARY SHEET

92 / 03 A303 Amesbury to Berwick Down

Location and topography

Three sites of archaeological interest (Areas 1 to 3) were investigated alongside the existing A303 trunk road in an stretch of land lying to the west of Stonehenge, Wiltshire (Figure 1, 4 and 7). The underlying bedrock at all three locations is chalk. The fields are gently undulating, though Area 3 occupies a more prominent topographic position. Each site was under a new crop which was a few centimetres tall.

Archaeology

Area 1 SU 1154 4126 A long barrow at the northern end of the Normanton complex, and immediately south of the A303, still stands to a height of c.1.8 metres and is some 30.5 metres in length.

Area 2 SU 0995 4143 (Roundabout) A complex of cropmarks in the area to the south and west of the Winterbourne Stoke Group of barrows, which lie at the junction of the A303 and the A360 roads.

Area 3 SU 065 408 (Approximate) A poorly defined enclosure lying to the west of the village of Winterbourne Stoke and north of the A303.

Aims of Survey

Area 1 To clarify the nature and extent of any features associated with the long barrow.

Area 2 To further investigate and map the complex of features around the Longbarrow Crossroads.

Area 3 To add definition to the aerial photographic evidence for a prehistoric enclosure.

Summary of Results *

Area 1 Much of the area around the long barrow was found to be magnetically disturbed due to the former presence of stock farm and military buildings associated with an old airfield immediately north of the A303. A linear earthwork extending north of Normanton Gorse was traced as a magnetic anomaly south-west of the barrow.

Area 2 Extremely clear magnetic responses indicate a complex of archaeological features associated with a major sub-oval enclosure (cut in two by the present line of the A303). Additional features include a ring ditch, linear ditches and several pits.

Area 3 The results suggest a multi-phased complex of enclosures and associated features. Some are sub-rectangular while others are sub-circular. A greater concentration of pit-type anomalies in the north-western half of the survey sample clearly suggests occupation activity.

* It is essential that this summary is read in conjunction with the detailed results of the survey.

SURVEY RESULTS

92 / 03 A303 Amesbury to Berwick Down

1. Survey Areas (Figures 1, 4 and 7))

1.1 Three areas were selected for survey and the results are discussed separately in paragraphs 4 to 6 below.

1.2 The survey grids were set out by Geophysical Surveys of Bradford (GSB), and detailed tie-ins have been lodged with Wessex Archaeology. Wooden pegs were also left *in situ* at the field edges in order to facilitate relocation of the grids.

2. Display (Figures 2, 3, 5, 6, 8 and 9 / Archive Plots A1 to A3.3)

2.1 The results are displayed in three formats:- dot density plot, X-Y trace and grey-scale image. These display formats are discussed in the *Technical Information* section, at the end of the report.

2.2 Due to the large scale of the project, all of the data plots are produced at 1:500 in an archive section at the end of this report. Dot density plots at 1:1000 are included in the main report for ease of reference to the overall results.

2.3 Simplified interpretation diagrams, showing the main archaeological features only at 1:2500, are included in the main section of the report.

3. General Considerations - Complicating factors

3.1 In general, ground surface conditions were ideal for survey: the fields are gently undulating and the crops had only grown a few centimetres.

3.2 Major problems, however, were encountered in Area 1. Large quantities of relatively modern debris - corrugated iron, brick and tile rubble, land drains, pipelines, and stray ferrous objects - resulted in a very noisy magnetic background. The effects are most clearly seen in the X-Y traces. As a consequence it is impossible to assess the presence, or not, of any archaeological features in the magnetically disturbed areas.

3.3 Wire fences forming field boundaries effectively preclude an area up to 3 or 4 metres from being investigated magnetically.

3.4 Passing vehicles (the level of traffic on the A303 is particularly high) result in spurious magnetic anomalies anything up to 30 or 40 metres from the road. Large lorries and army tanks have enormous magnetic fields associated with them.

4. Results Area 1

4.1 An area of c. 2.4 hectares was investigated around the long barrow. A fenceline surrounding the Scheduled Area was temporarily removed in order to facilitate detailed examination of the monument and its immediate environs.

4.2 The main area to the south-east of the barrow, and a smaller area to the north-west, was found to be magnetically disturbed (see 3.2 above). The results match very closely to buildings associated with a former pedigree stock farm, as marked on a 1924 edition of the OS 1:2500 map. Pipelines and land drains further complicate the magnetic responses. The results mean it is impossible to make a valid assessment of the state of any archaeological features.

4.3 To the west and south-west of the barrow there is less magnetic disturbance and it is easier to identify anomalies of potential archaeological interest.

4.4 A linear bank visible on OS maps to the south of the barrow shows as a very strong magnetic anomaly, though the feature barely survives as a low earthwork within the confines of the scheduled area. The strength of the anomaly is much greater than would normally be expected from just a former bank and ditch. The magnetic responses clearly indicate the presence of a pipeline and close visual examination of the ground actually revealed a brick man-hole which had become overgrown. The geophysical results suggest that the earthwork feature may be modern in origin.

4.5 A second linear magnetic anomaly is associated with an earthwork which extends from Normanton Gorse, some 300 metres to the south-west. The strength of the anomaly increases further away from the barrow, which is unfortunate, because there are hints of the ditch turning through a right-angle (see interpretation). Its apparent association with other assumed field systems (see 4.6) is difficult to ascertain.

4.6 There are two very faint linear anomalies, parallel to each other, which are difficult to interpret precisely, but are likely to be associated with old field systems. Unfortunately the course they follow is lost in the magnetically disturbed areas.

4.7 One rather peculiar magnetic anomaly north-east of the barrow may benefit from further archaeological investigation. It is difficult to place an interpretation on the responses due to a lack of any coherent shape or form, and although a modern origin is likely, given the archaeological context of the area, the nature of uncertain magnetic responses should perhaps be accurately established.

5. Results Area 2

5.1 The area around the Winterbourne Stoke roundabout was divided into three (A to C) and surveyed on differing grid alignments to accommodate the different field boundaries (Figure 4).

5.2 *Area 2A* This sample consisted of a block measuring 180 metres east-west and 40 metres north-south.

5.2.1 The survey produced a series of remarkably clear magnetic responses associated with a complex of archaeological features. The results broadly conform with the evidence of aerial photographs, but in addition provide evidence for other previously unrecorded features.

5.2.2 A major curving arc of magnetic readings is associated with the northern segment of a sub-oval enclosure which has been cut by the A303 road. The feature is some 80 metres across on the line of the present fence and extends some 25 metres north of this line at its maximum distance. There are possibly internal pits and also a short length of ditch.

5.2.3 To the north-east of the enclosure is a strong magnetic anomaly which corresponds with the presumed continuation of a major linear earthwork visible to the south-east of the roundabout.

5.2.4 A linear anomaly in the south-east of the survey area marks the line of a ditch which appears to lead from the earthwork to the oval enclosure, though the picture is obscured by the road.

5.2.5 North-west of the enclosure is a fragmented circular anomaly some 18 metres in diameter and clearly associated with a former ring ditch. There is faint evidence for pit-like anomalies both within and outside of the circle.

5.2.6 There is a rather poorly defined linear anomaly aligned north-west / south-east which runs from the enclosure to the south of the ring ditch and beyond the edge of the survey grid.

5.3 *Area 2B* This sample covered an area approximately 240 metres east-west and 200 metres north-south.

5.3.1 Once again the survey results are very clear and they confirm the general evidence of aerial photographs. In addition further features of archaeological interest have been identified.

5.3.2 The southern half of the sub-oval enclosure (5.2.2) has been accurately mapped. The ditch follows a rather peculiar wavy line and there appears to be a overlapping entrance arrangement. Unfortunately the evidence for internal features is partially obscured by the fenceline and the A303.

5.3.3 The most striking magnetic anomaly runs diagonally across the survey area. It consists of a series of high and low anomalies which are characteristic of a small ferrous pipeline.

5.3.4 There are several much weaker linear anomalies which are associated with an earlier field system. The main ditches are highlighted on the interpretation Figure (6).

5.3.5 Several pit-like anomalies are also marked on the interpretation. It is likely that some could be quite substantial in size, say 3 to 4 metres in diameter.

5.3.6 Anomalous readings along the eastern and north-eastern survey edges are due to wire fences, road drains, signposts and passing vehicles.

5.4 *Area 2C* The shape of this field made it particularly difficult to survey. The final area investigated was some 220 metres north-south and 100 metres east-west (maximum dimensions).

5.4.1 In general, the results are very clear though there is increased magnetic noise in the north-eastern half of the survey area.

5.4.2 A strong linear magnetic anomaly is associated with a former ditch / earthwork visible on the ground. The anomaly shows the feature following a line towards the roundabout and it emerges on the north-western side in Sub-Area A (5.2.3). It should be noted that the postulated line is not straight.

5.4.3 The interpretation (Figure 6) shows the line of another probable ditch aligned almost north-south. The magnetic anomaly is different in character to other linear responses (5.4.4) and appears archaeological in origin.

5.4.4 A series of rather unusual magnetic responses, parallel to the eastern fence are presumed to be modern. A combination of ploughing effects and tractor ruts are the likely cause.

5.4.5 There are a few pit-like responses throughout the survey area but it is difficult to place them in an archaeological context. A modern origin cannot be ruled out.

5.4.5 A linear magnetic anomaly close to the fenceline in the south-western corner of the survey area would appear to be associated with a length of ditch, but again it is difficult to see any other associated features.

6. Results Area 3

6.1 A sample block, measuring 120 metres by 120 metres, was investigated to the west of Scotland Farm, Winterbourne Stoke.

6.2 The results show a complex of archaeological features which clearly extend well beyond the survey area. This was confirmed by magnetic scanning, but it is beyond the current brief to establish the extent of any activity. The aim is to merely clarify the nature of features suggested by aerial photographs.

6.3 The magnetic anomalies fall broadly into two categories, those associated with linear / curvilinear ditches, and those of a pit-like nature.

6.4 The linear responses perhaps suggest at least two phases of activity: a series of sub-rectangular enclosures and a series of curving ditches. The latter are clearly associated with a large sub-oval enclosure visible on aerial photographs.

6.5 There is a pronounced increase in the concentration of apparent pits in the north-west, and *within* the sub-oval enclosure. The responses are typical of those likely to be associated with rubbish or storage pits, and the overall evidence is clearly suggestive of past settlement rather than just field systems.

6.6 There is a rather peculiar line of pit-like anomalies immediately west of the ditch in the centre of the survey area. Lying approximately on the 122 metre contour (see Figure 9), the ditch lies just below the plateau and arguably, therefore, in a defensive position. If such an interpretation is correct, then the pit-like anomalies may be associated with post-pits of a timber palisade or revetment. An alternative interpretation is that the anomalies represent a line of burials, but this has to be conjectural.

6.7 The interpretation of a broad, faint and diffuse band of anomalies, some 5 to 8 metres wide, and following a roughly north-south line through the centre of the survey block, is slightly perplexing. The responses may mark the line of a former trackway or possibly a much later, former field boundary. It is difficult to say whether the sub-rectangular enclosures respect the line of the anomalies (and are thus of the same period) or whether the responses overlie and hence mask any relationships.

7 Conclusions

7.1 The magnetometer survey has responded extremely well in all three areas investigated. The results have helped answer many of the questions originally posed and the new evidence has added significantly to the existing plan of the archaeological landscape.

7.2 Area 1. Unfortunately much of the survey area was shown to be magnetically disturbed. Some new information has been obtained with regard to linear features and other anomalies of possible archaeological significance have also been identified.

7.3 Area 2. Remarkably clear magnetic results have identified a complex of archaeological features. Part of a major enclosure, visible on aerial photographs, has been accurately plotted. In addition, the survey has also helped trace a number of linear features in the landscape, including a hitherto unknown ring-ditch.

7.4 Area 3. Once again, the magnetometer survey has identified a profusion of archaeological features consisting of sub-rectangular and sub-circular enclosures and a dense concentration of pits. The evidence points towards multi-phased occupation of the site, however, defining the limits of the archaeological features was beyond the scope of the present brief.

Project Co-ordinators: J Gater and C Stephens

Project Assistants: Dr C Gaffney, V Gaffney, Y Minvielle-Debat and D Shiel

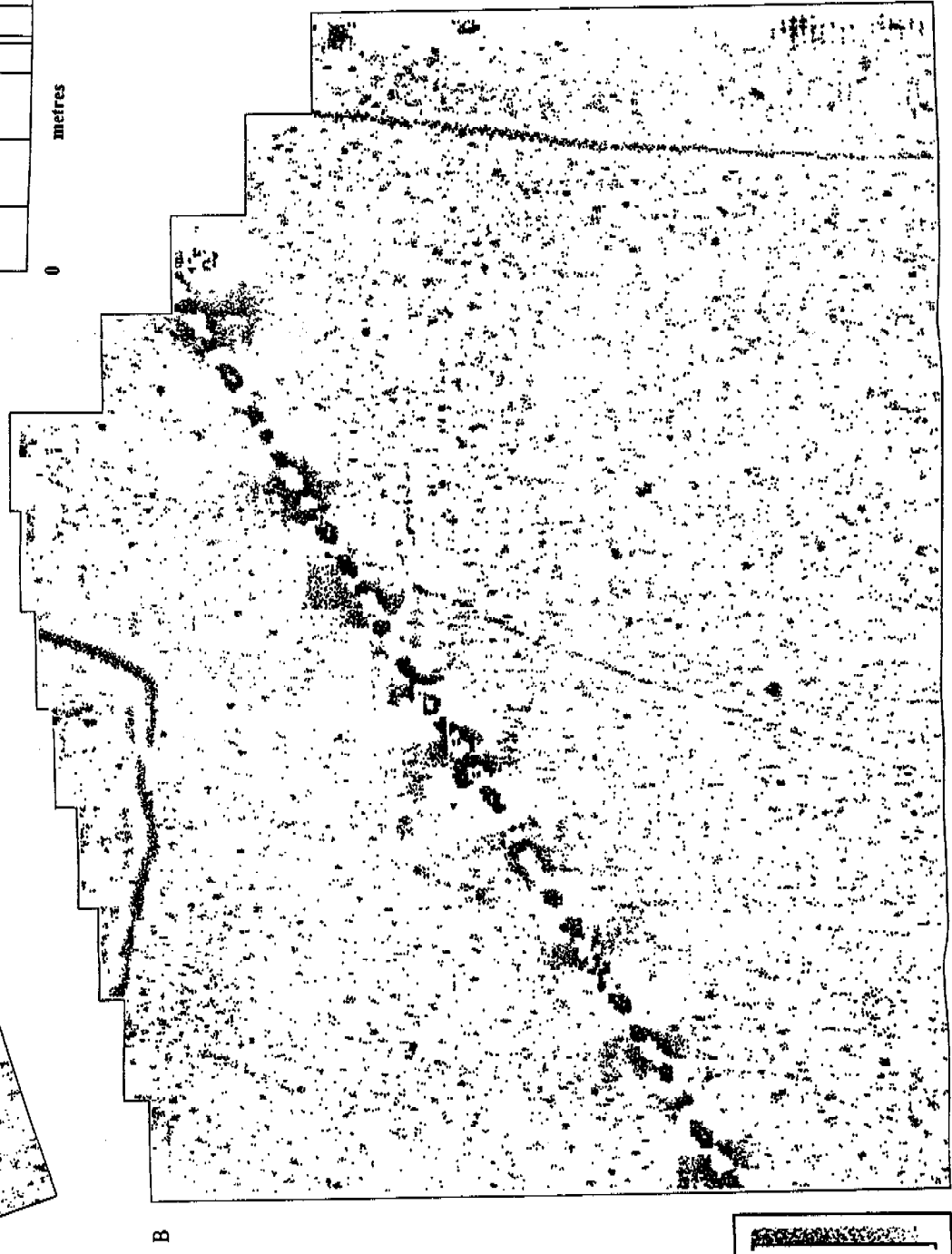
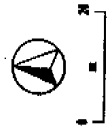
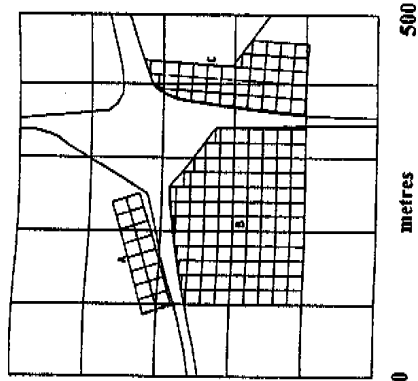
February 1992
Geophysical Surveys of Bradford

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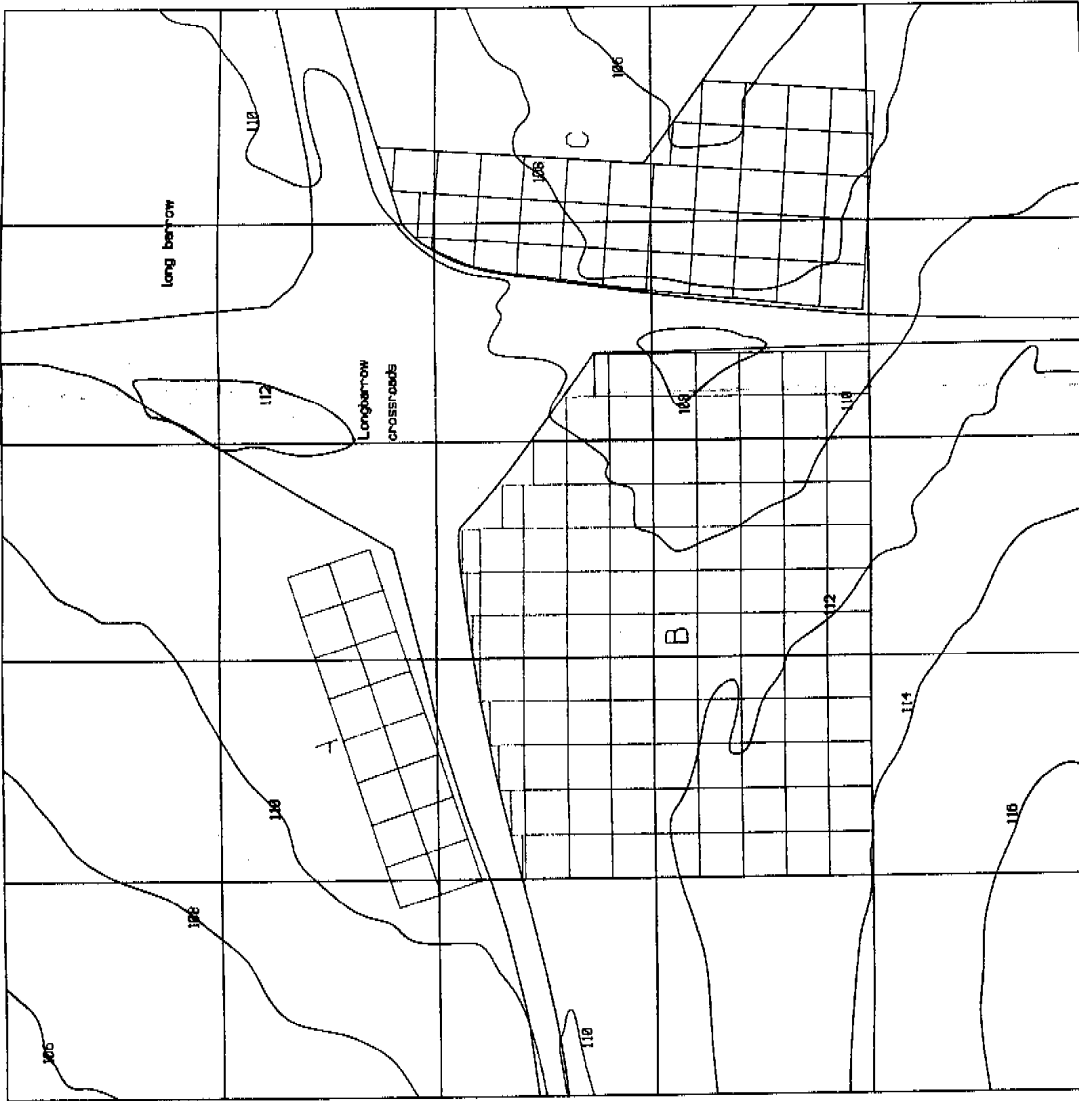
Figure 1	Area 1 Location @ 1:2500
Figure 2	Area 1 Dotty @ 1:1000
Figure 3	Area 1 Interpretation @ 1:2500
Figure 4	Area 2 Location @ 1:2500
Figure 5	Area 2 Dotty @ 1:1000
Figure 6	Area 2 Interpretation @ 1:2500
Figure 7	Area 3 Location @ 1:2500
Figure 8	Area 3 Dotty @ 1:1000
Figure 9	Area 3 Dotty @ 1:2500

A303 Amesbury - Berwick Down

Area 2



SU 10100 41500



SU 02500 41100

A 303 Amesbury - Berwick Down

Area 2 Grid Location Diagram

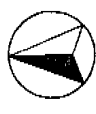


Scale 1 : 2500

Figure 4

A 303 Amesbury -
Berwick Down

Area 1
Interpretation

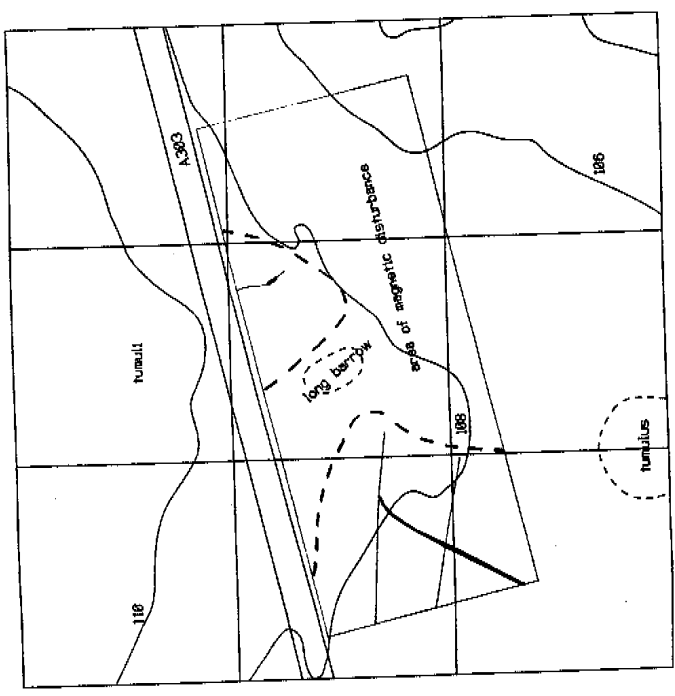


Scale 1 : 2500

potential archaeology

Figure 3

SU 11700 41600



SU 11400 41600

A 303 Amesbury -
Berwick Down

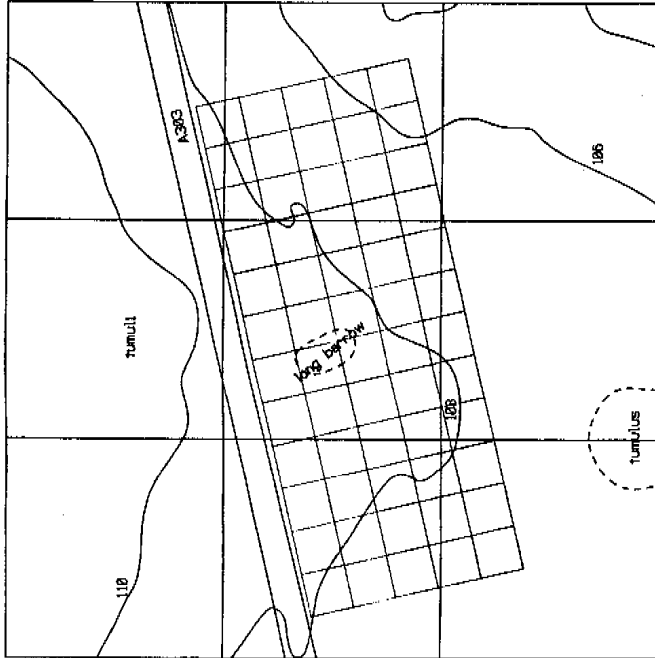
Area 1
Grid Location Diagram



Scale 1 : 2500

Figure 1

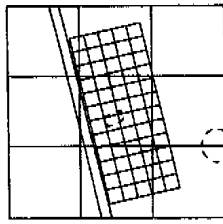
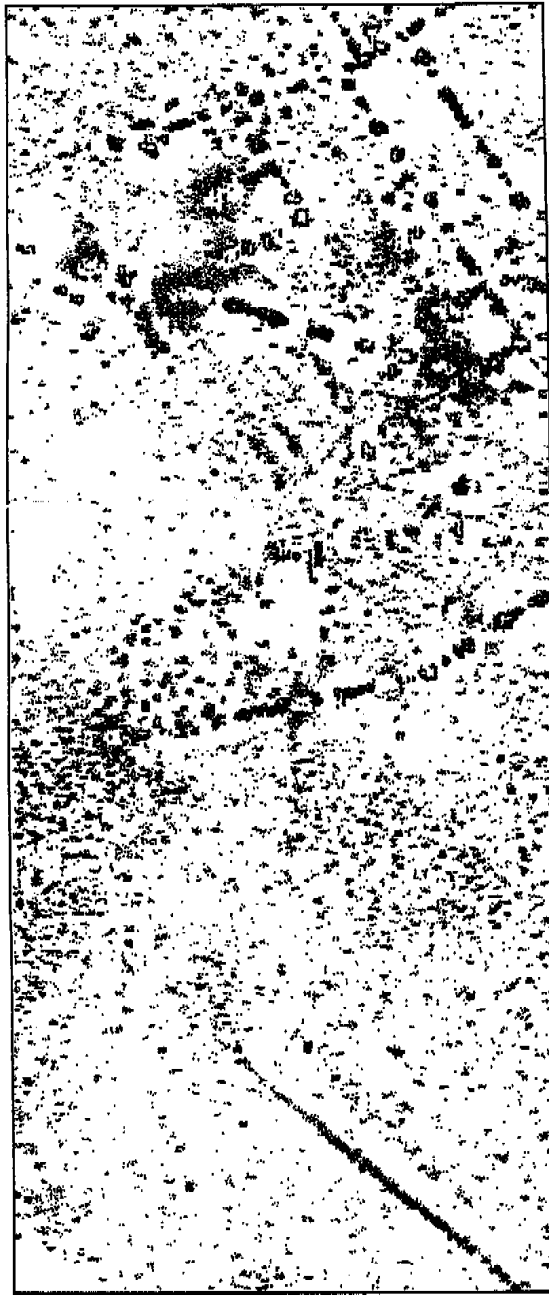
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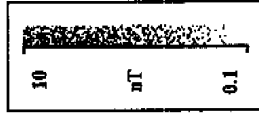
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A303 Amesbury - Berwick Down

Area 1

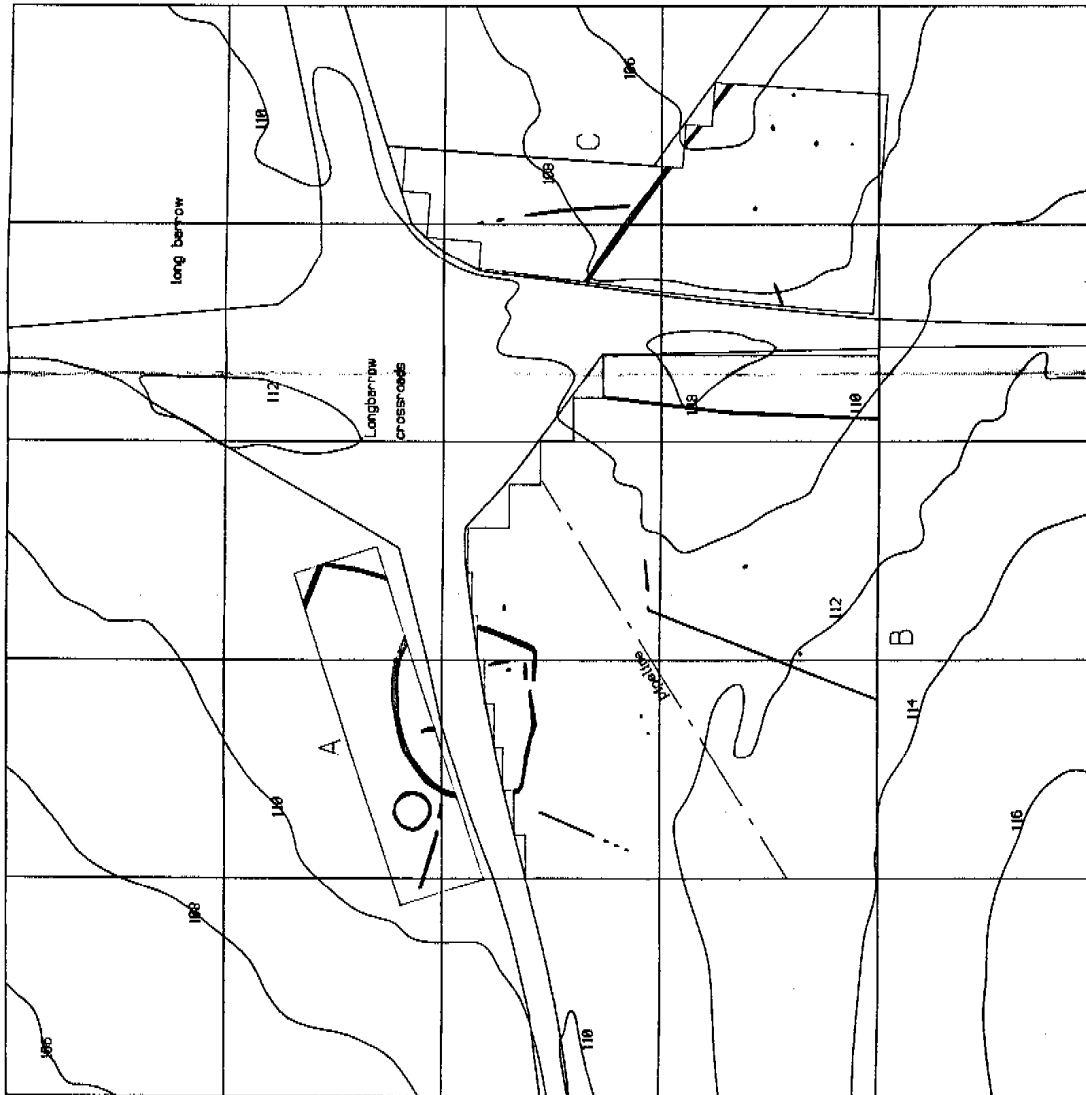


0 metres 300



ORIGINAL AT A3

SU 10100 41500



SU 09000 41100

A 303 Amesbury - Berwick Down

Area 2 Interpretation



Scale 1 : 2500

potential archaeology

Figure 6

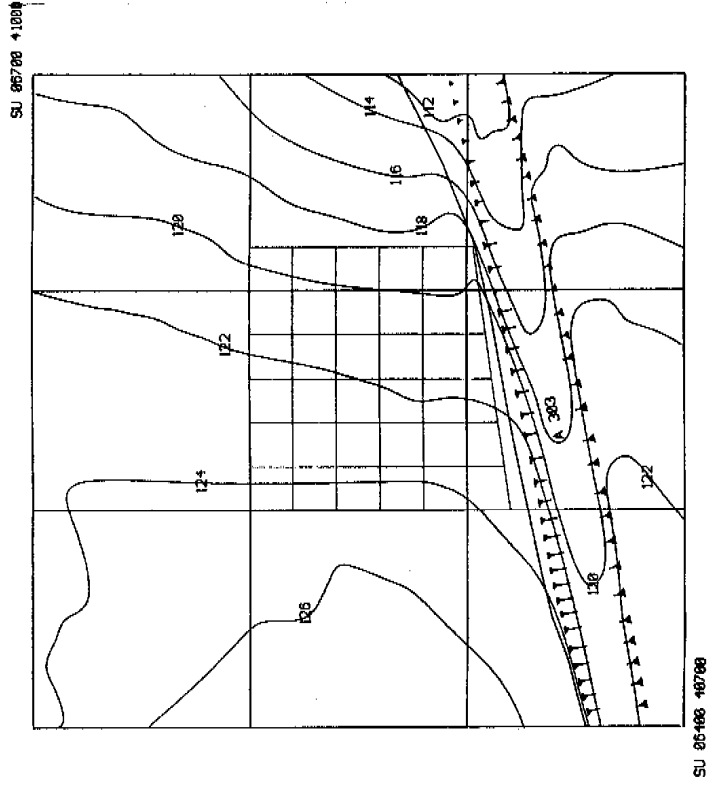
A 303 Amesbury -
Berwick Down

Area 3
Grid Location Diagram



Scale 1 : 2500

Figure 7



A303 Amesbury- Berwick Down Area 3

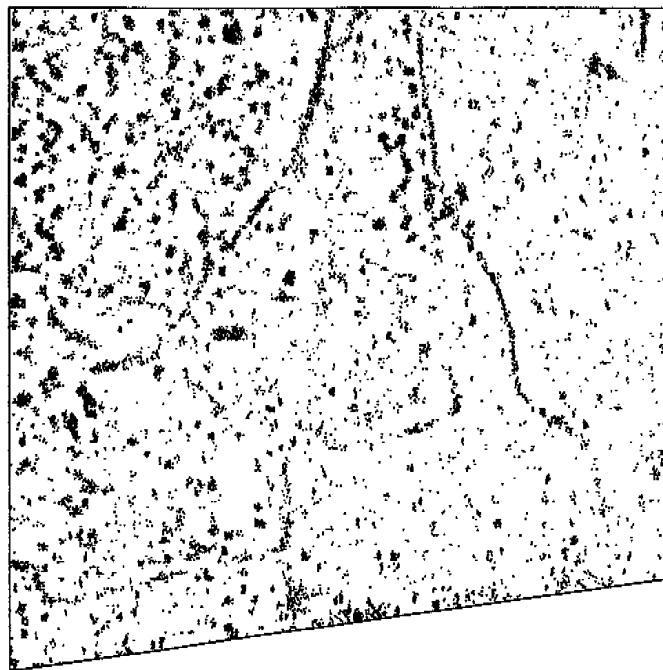
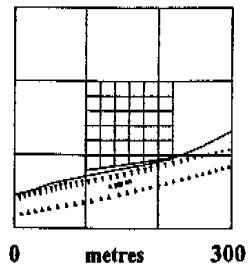


Figure 8

A 303 Amesbury -
Berwick Down

Area 3
Interpretation



Scale 1 : 2500

potential archaeology

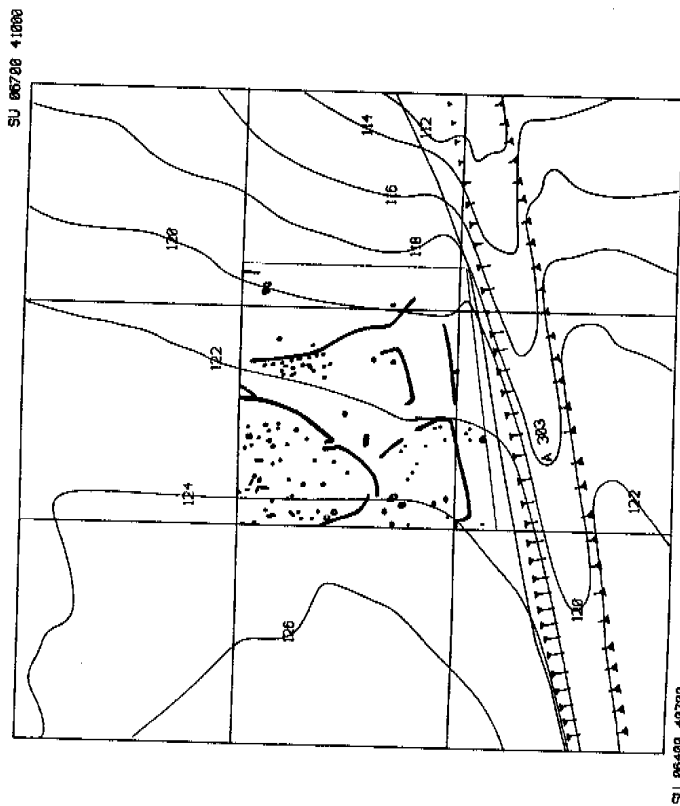
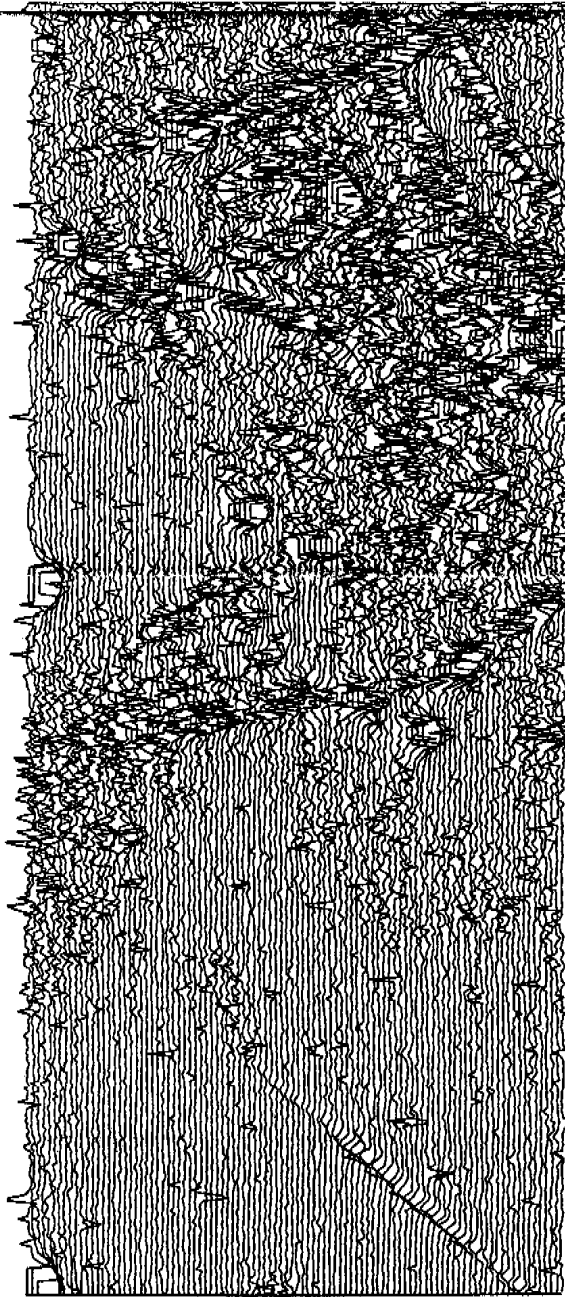


Figure 9

ARCHIVE

A303 Amesbury-Berwick Down

Area 1



50 nT

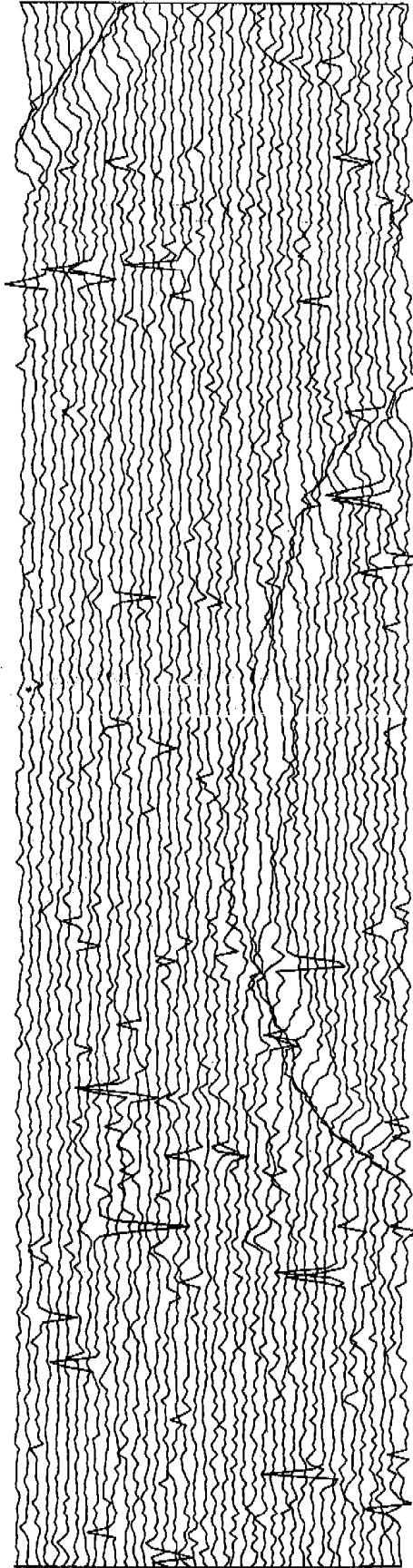


0 40 m

ORIGINAL AT A3

Figure 1.1

A303 Amesbury - Berwick Down
Area 2 (A)



12 nT

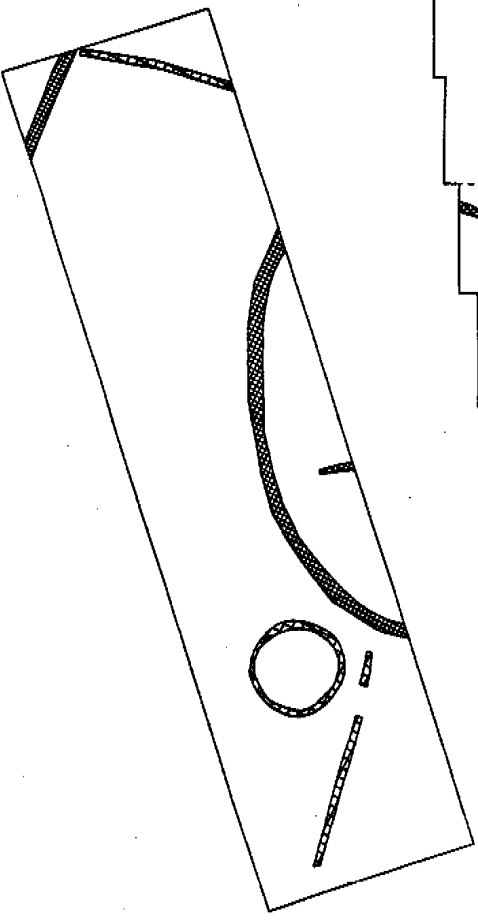
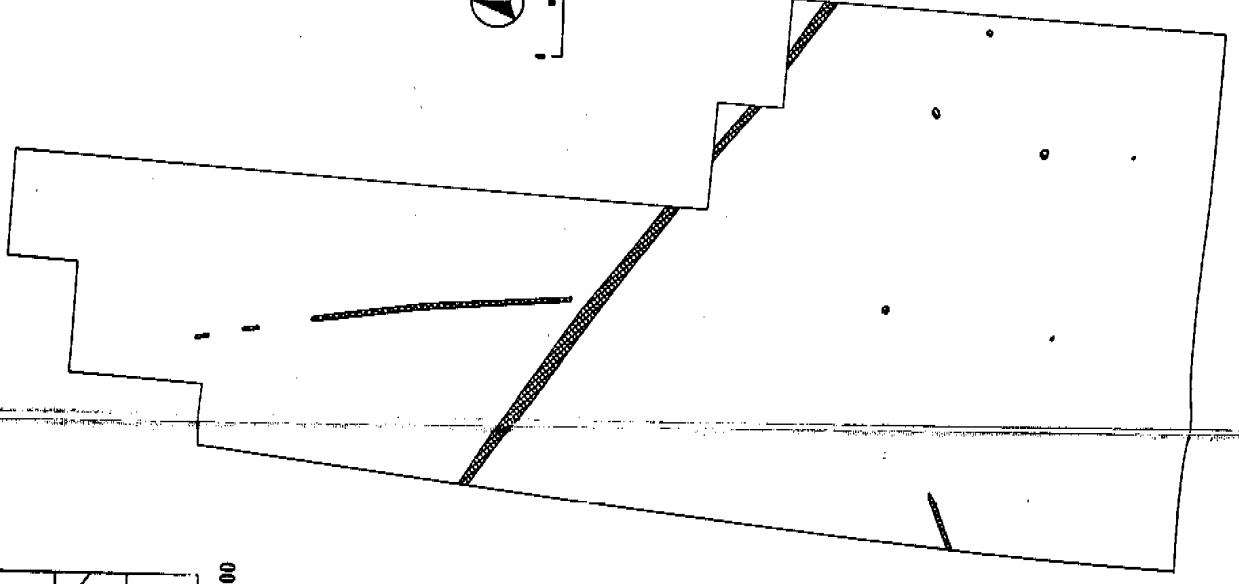
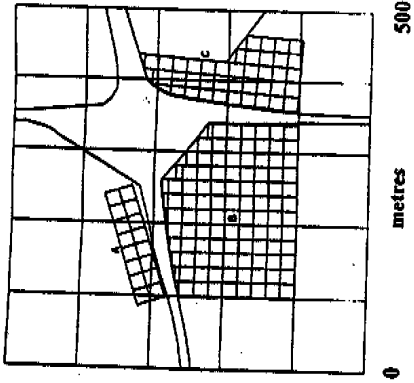
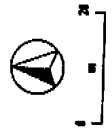


ORIGINAL AT A3

Figure 2A.1

A303 Amesbury -
Berwick Down

Area 2

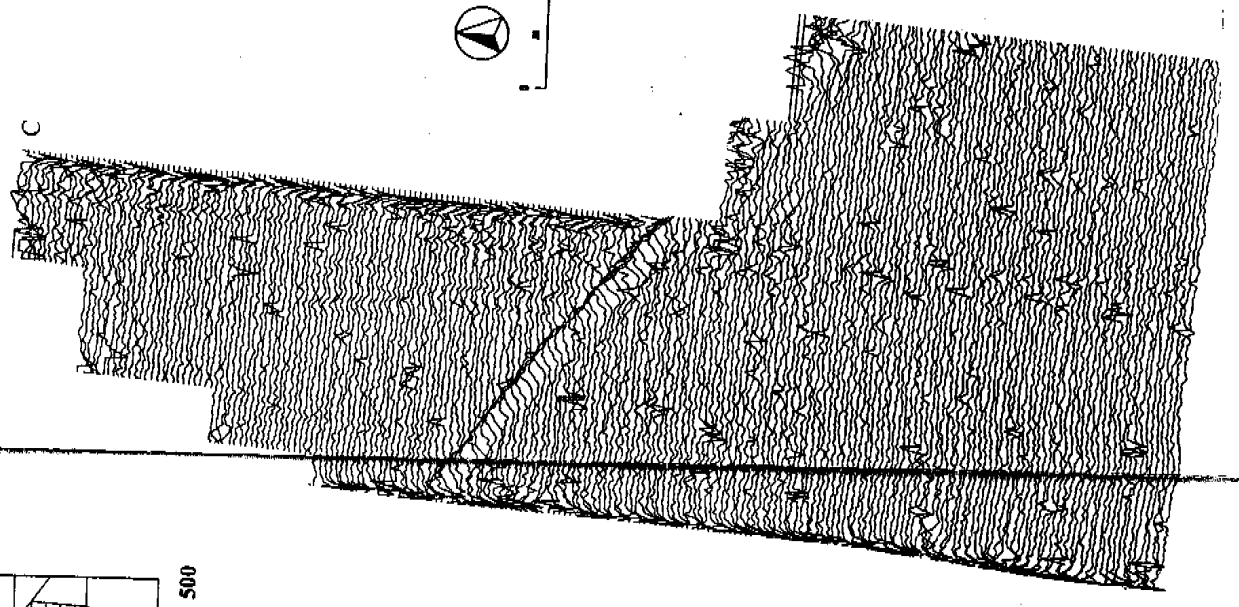
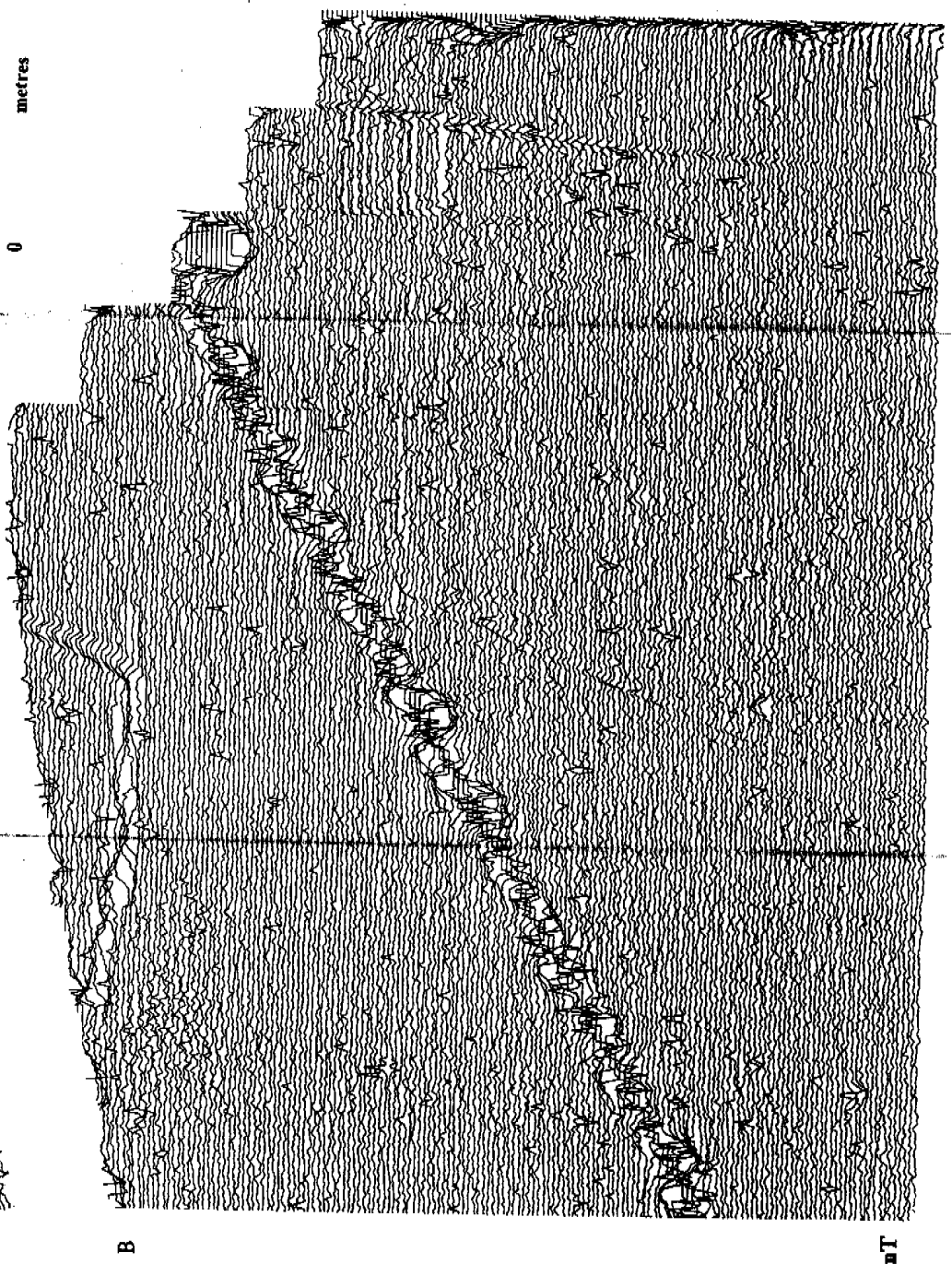
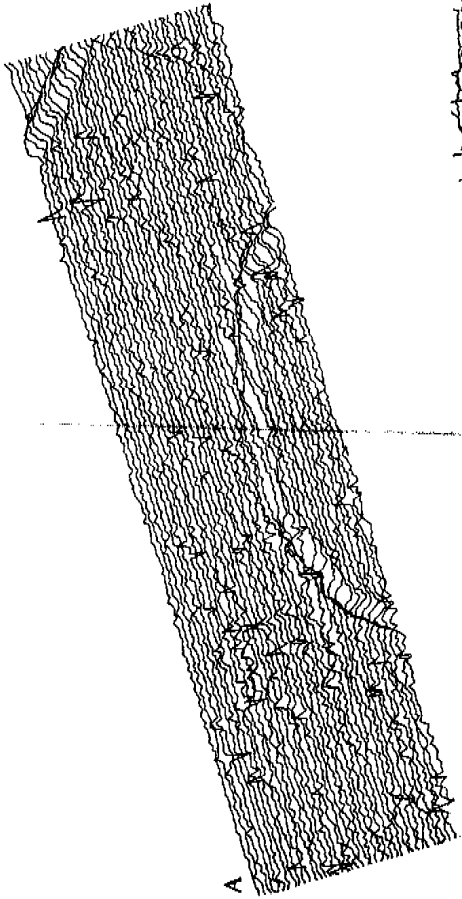
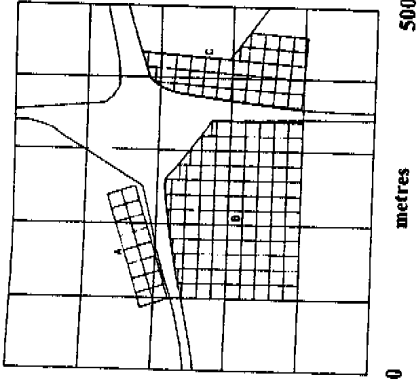


ORIGINAL AT A3

A303 Amesbury - Berwick Down

ORIGINAL AT A3

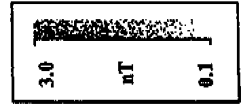
Area 2



20 nT

A303 Amesbury - Berwick Down

Area 2 (A)



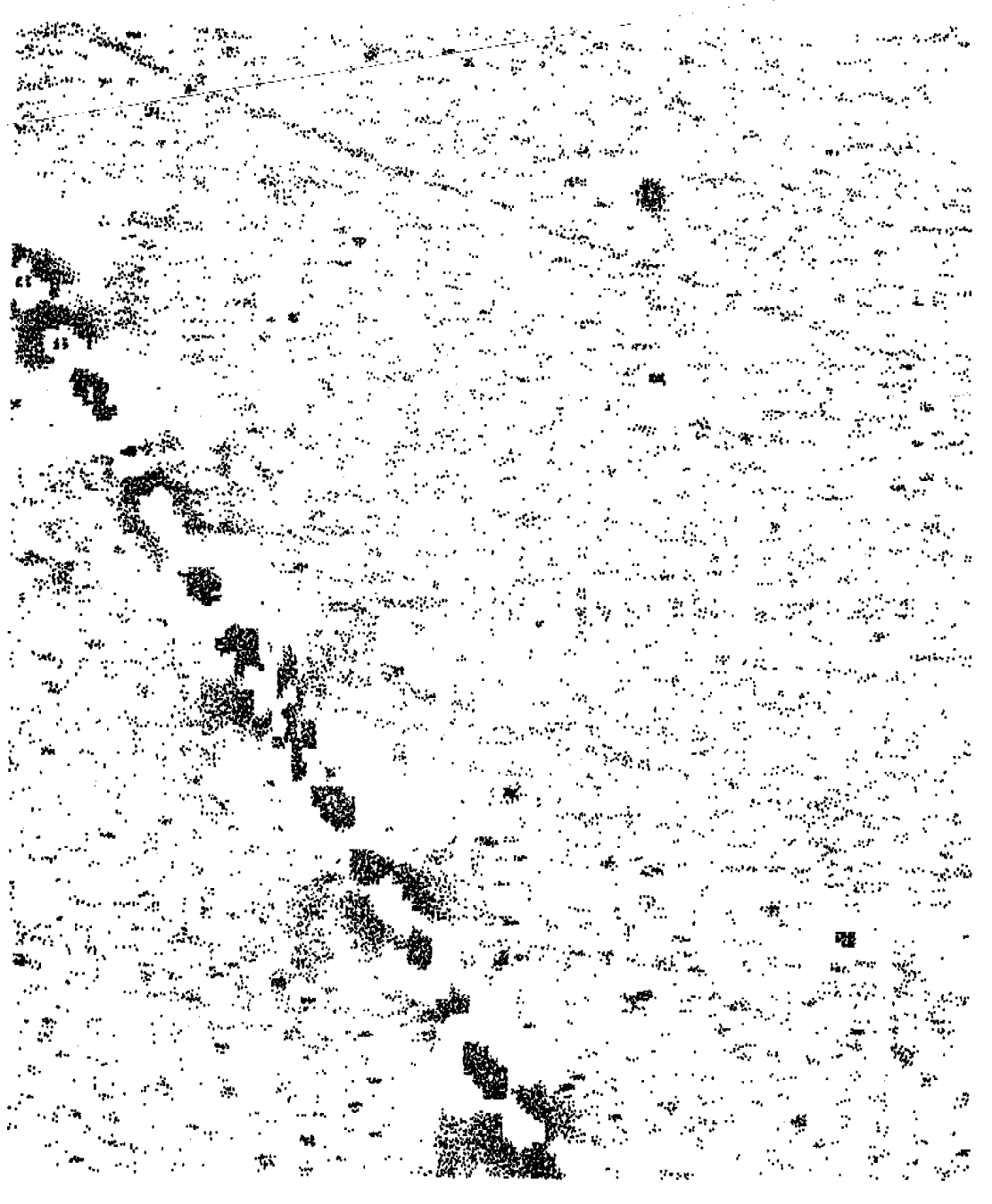
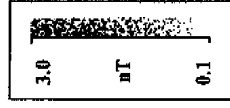
ORIGINAL AT A3

Figure 2A.2

A303 Amesbury - Berwick Down

Area 2 (B3)

B1	B2
B3	B4



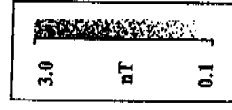
ORIGINAL AT A3

Figure 2B.3

A303 Amesbury - Berwick Down

Area 2 (B2)

B1	B2
B3	B4



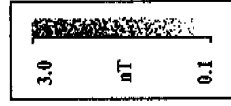
ORIGINAL AT A3

Figure 2B.2

A303 Amesbury -
Berwick Down

Area 2 (B1)

B1	B2
B3	B4



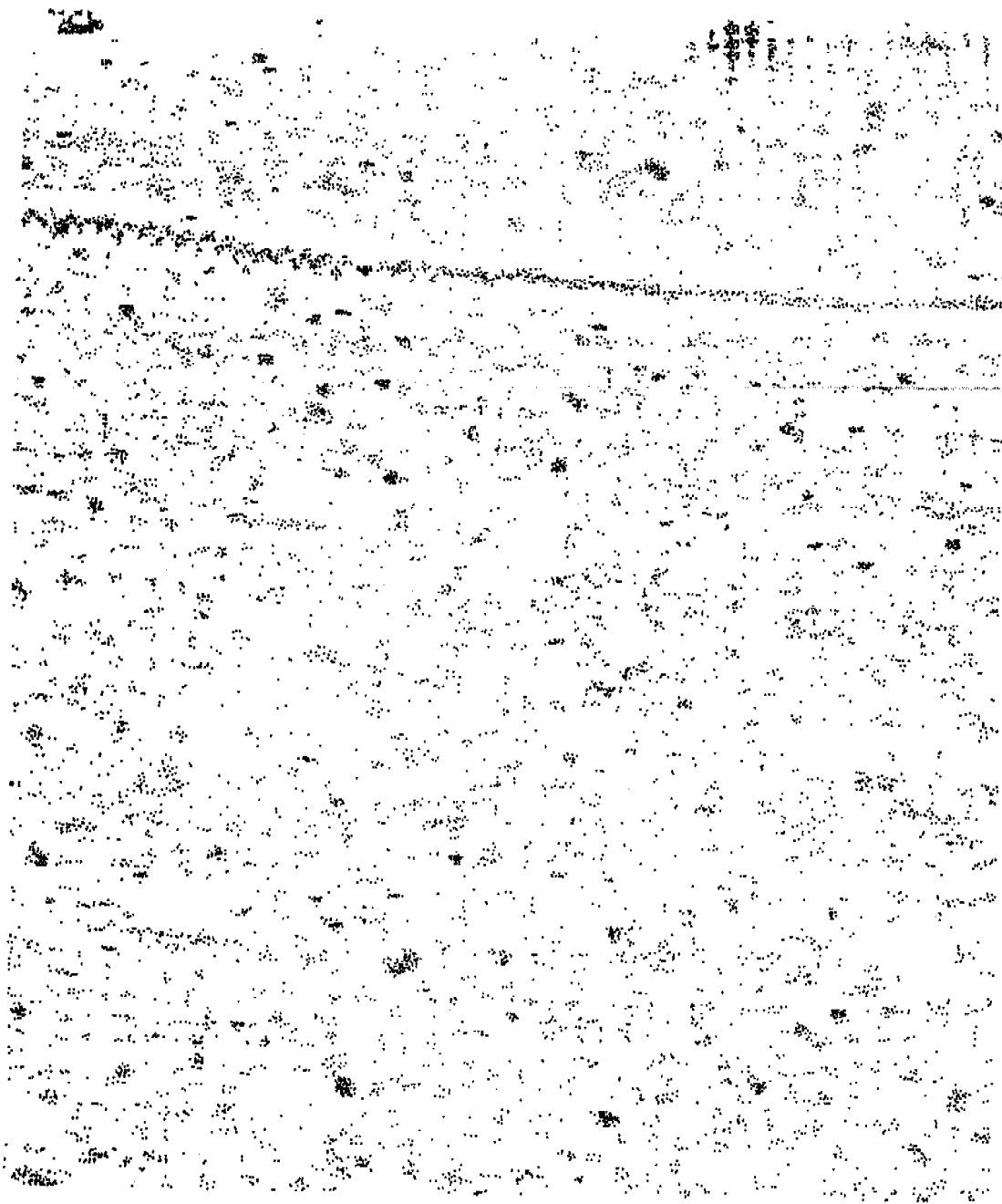
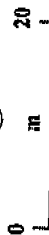
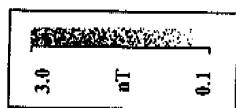
ORIGINAL AT A3

Figure 2B.1

A303 Amesbury - Berwick Down

Area 2 (B4)

B1	B2
B3	B4

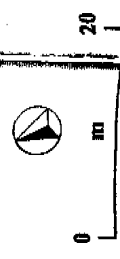
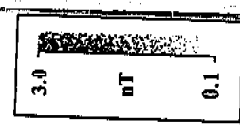
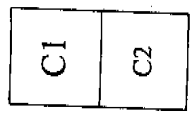


ORIGINAL AT A3

Figure 2B.4

A303 Amesbury -
Berwick Down

Area 2 (C1)



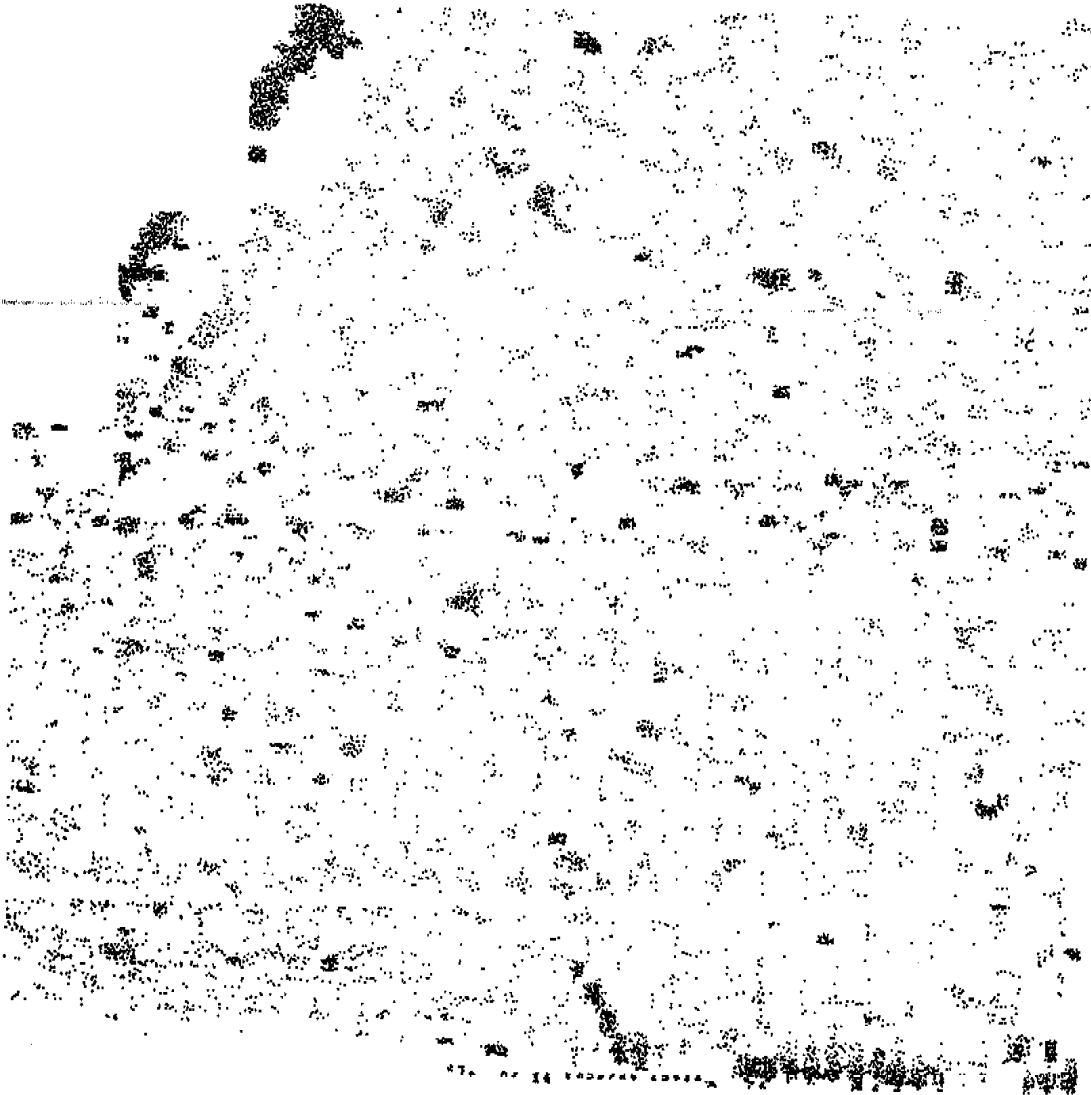
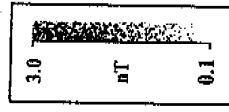
ORIGINAL AT A3

Figure 2C.1

A303 Amesbury - Berwick Down

Area 2 (C2)

C1	C2
----	----



ORIGINAL AT A3

Figure 2C.2

A303 Amesbury -
Berwick Down
Area 3

25 nT



0 m 20

ORIGINAL AT A3

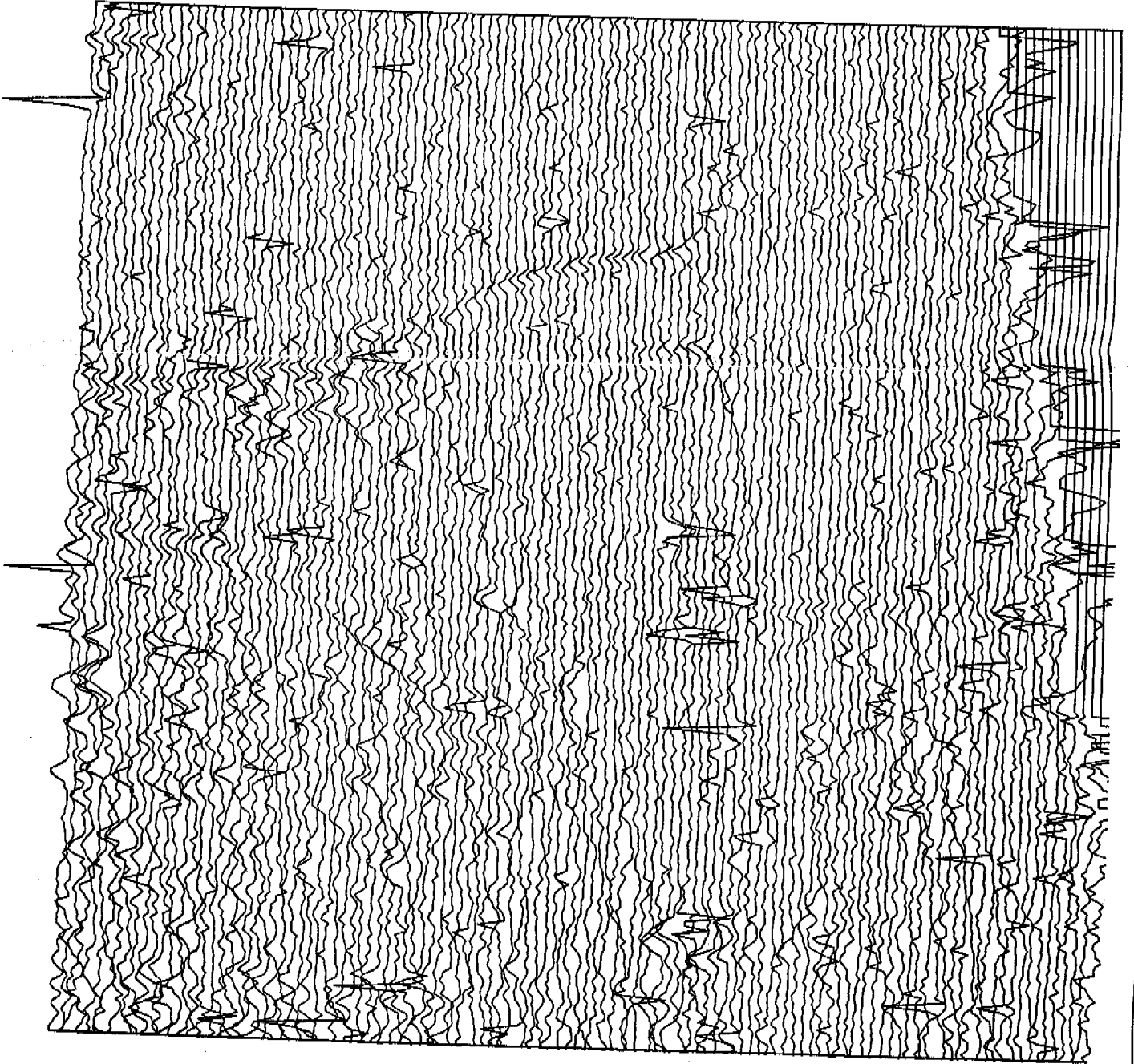
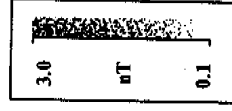


Figure 3.1

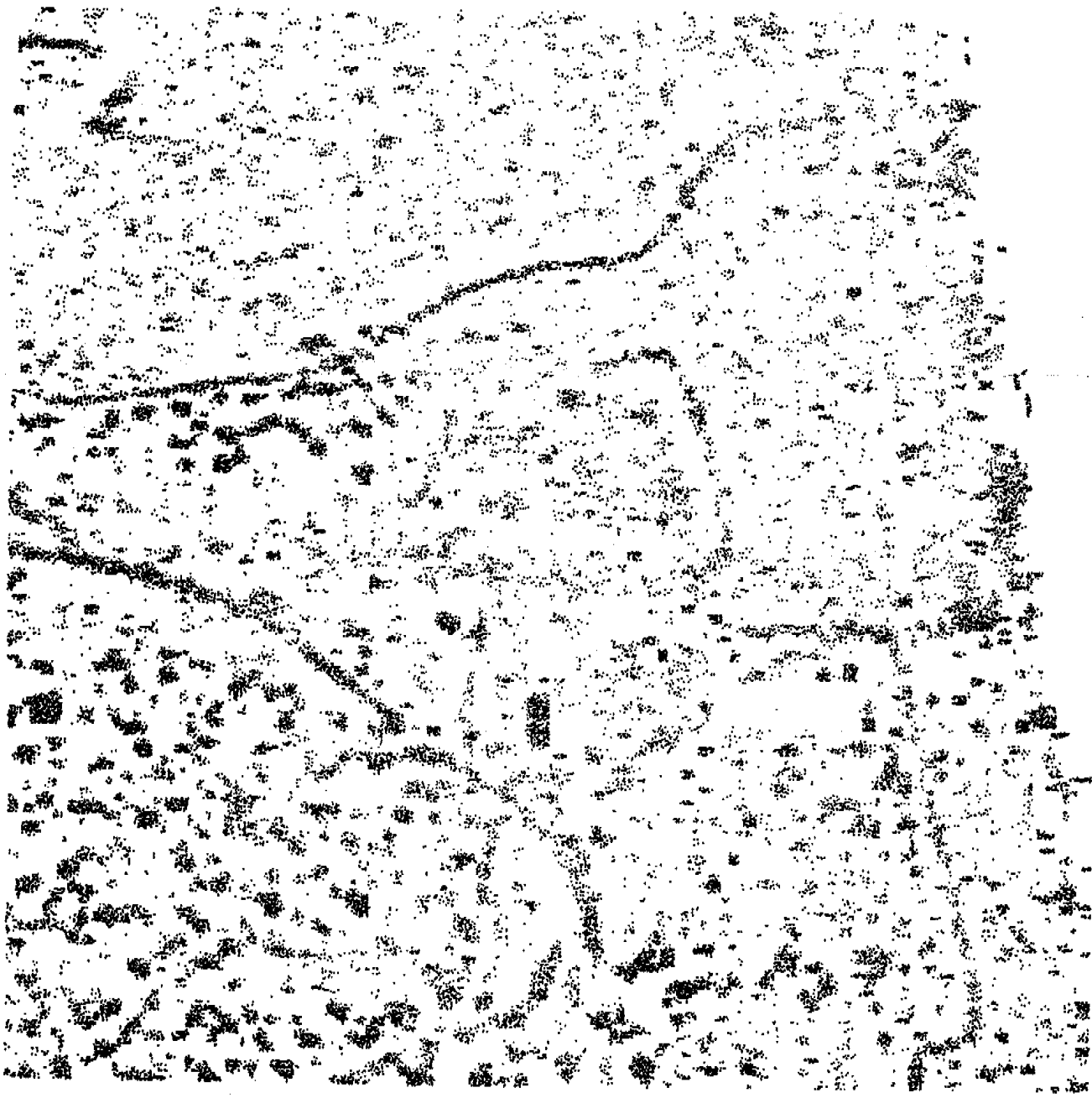
A303 Amesbury -
Berwick Down

Area 3



ORIGINAL AT A3

Figure 3.2



A303 Amesbury- Berwick Down

Area 3

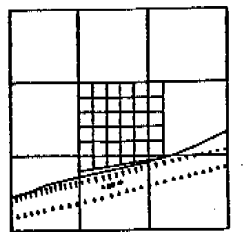


Figure 3.3