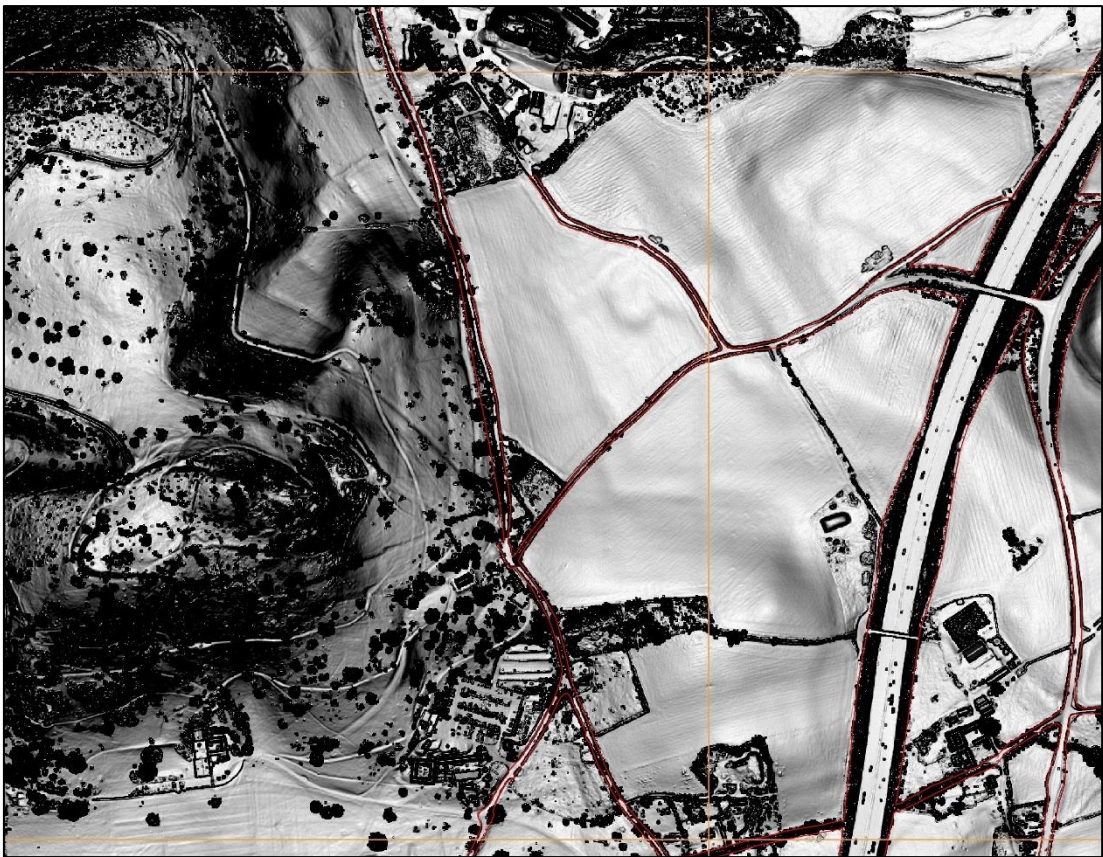


The KILLERTON ESTATE MID DEVON DEVON

Archaeological and Historic Landscape Survey – Volume II.2 LiDAR-Derived Imagery



South West Archaeology Ltd. Report no.210722



Archaeological and Historic Landscape Survey Volume II

By Faye Balmond MCifA, Peter Webb and Sean Stevens

Report Version Final

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Work undertaken by SWARCH for the National Trust

Summary

The archaeological and historic landscape survey of the Killerton Estate was commissioned by Fiona Hailstone, Killerton Ranger Team, and Martin Papworth, National Trust Archaeologist (South West Region), to bring together the results of previous fieldwork at this National Trust property, combined with an investigation of documentary material. A range of sources including historic documents, maps, aerial photographs and LiDAR data were consulted.

This volume contains imagery derived from Environment Agency DTM and DSM LiDAR data.



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1. HOW TO USE THIS VOLUME

To obtain an historical overview of the area of the property and its sites:

Refer to Volume I, Section 7: Land Use History.

To review historic maps and derived information:

Refer to this Volume II.1: Historic Maps.

To review LiDAR maps and derived information:

Refer to this report, Volume II.2: LiDAR.

To check an area for archaeological sensitivity, or to find a specific site:

Refer to Volume II.3, look at Archaeological Data (Historic Buildings, Sites and Monuments Record) maps. Note the reference numbers of any sites then refer to Volume III Section 9: Site Inventory.

Or Refer to Volume I, Section 3: Summary Table.

then:

Note the National Trust grading, given against each entry in this volume (Site Inventory), as follows:

Grade	Examples
International Importance	World Heritage Sites
National Importance	Scheduled and major monuments
Regional Importance	Other important monuments
Local Importance	Sites important to a locality
Minimal Importance	A few transient features
Archaeological Potential	Site indicated by documentary sources
Unknown	Information unavailable at the time of writing

To obtain a quick assessment of the importance of a site:

Check Volume I, Section 3: Summary Table, to see if it is a Scheduled Monument (note that statutory responsibilities are outlined in Section 5).

To obtain a quick summary of management recommendations:

Refer to Volume I, Section 2.

For full details of management recommendations and site descriptions:

Refer to Volume III, Section 9: Site Inventory.

Disclaimer: Given the scope of this study, this report cannot be considered exhaustive and is intended as an outline of relevant archaeological features and standing structures known to management at the time of writing.

2. LIDAR

1.1 INTRODUCTION – WHAT IS LIDAR?

LiDAR (Light Detection And Ranging) is a type of remote sensing which utilises detailed laser scanning of the earth's surface carried out by an aircraft to create a detailed image of the ground below by measuring the time taken for a signal to be received back to equipment on board the aircraft. This technique allows vegetation to be 'removed' from the data and can reveal or indicate archaeological features which may not be readily observable through other forms of remote data (e.g. mapping, aerial photography). LiDAR data can be manipulated using a variety of techniques to enhance or accentuate the surface topography which aids identification of potential archaeological features.

1.2 METHODOLOGY

The images in this volume are derived from LiDAR data freely available from the Environment Agency. Both surface (DSM) and terrain (i.e. bare earth, DTM) data was used. The majority of the data available was 1m interval LiDAR data although 50cm interval data was used where available for a small area in the north west of the estate. The data was processed using QGIS 3.8.3 Zanzibar and RVT 2.2.1.

1.3 PRESENTATION

Given the scale of the estate, it has been broken down into 72 1km tiles, based on the OS National Grid. The tiles are presented west to east, from north to south (like reading a book). Tiles are omitted where the NT does not own any land. They are presented as 6 1km tiles to a page. There are three images for each set of 1km tiles:

- 50cm DTM Hillshade A315_H35_z2 (where available) or RVT 2.2.1: Multihillshade D_32_H35_Ve.2
- 1m DTM slope analysis, greyscale
- 1m DSM slope analysis, greyscale

Unless otherwise noted, all LiDAR imagery contains public sector information licensed under the Open Government Licence v3.0.

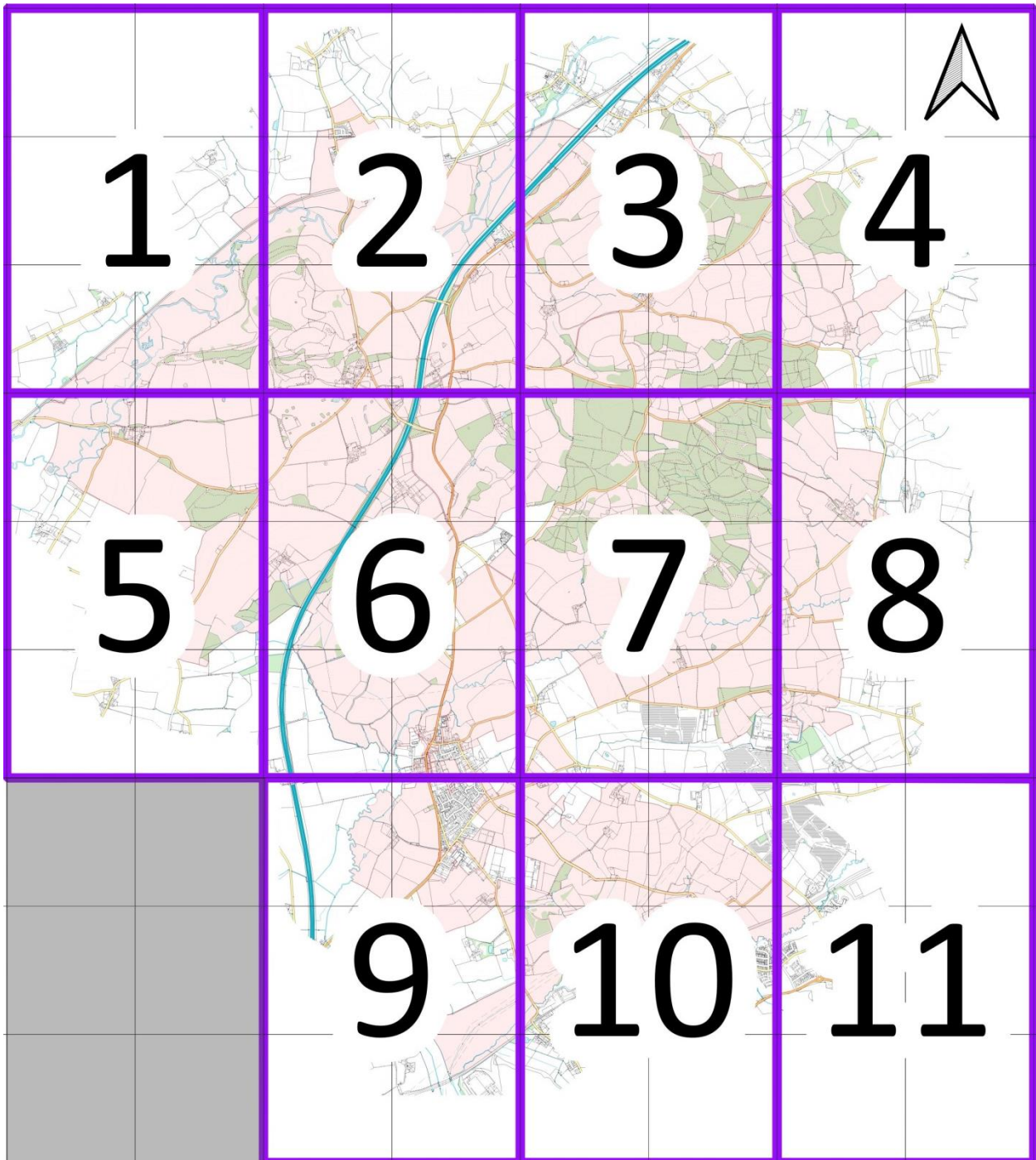


FIGURE 1: THE SURVEY AREA, DIVIDED INTO 1KM SQUARES AND ARRANGED IN GROUPS OF 6 SQUARES. NATIONAL TRUST OWNED LAND IS SHADED RED. THE AREA SHADED GREY DOES NOT CONTAIN ANY LAND OWNED BY THE NATIONAL TRUST SO IS NOT INCLUDED IN THE FOLLOWING MAPS © CROWN COPYRIGHT AND DATABASE RIGHTS 2019 ORDNANCE SURVEY 0100031673.

3. LIDAR IMAGERY

MAP 1

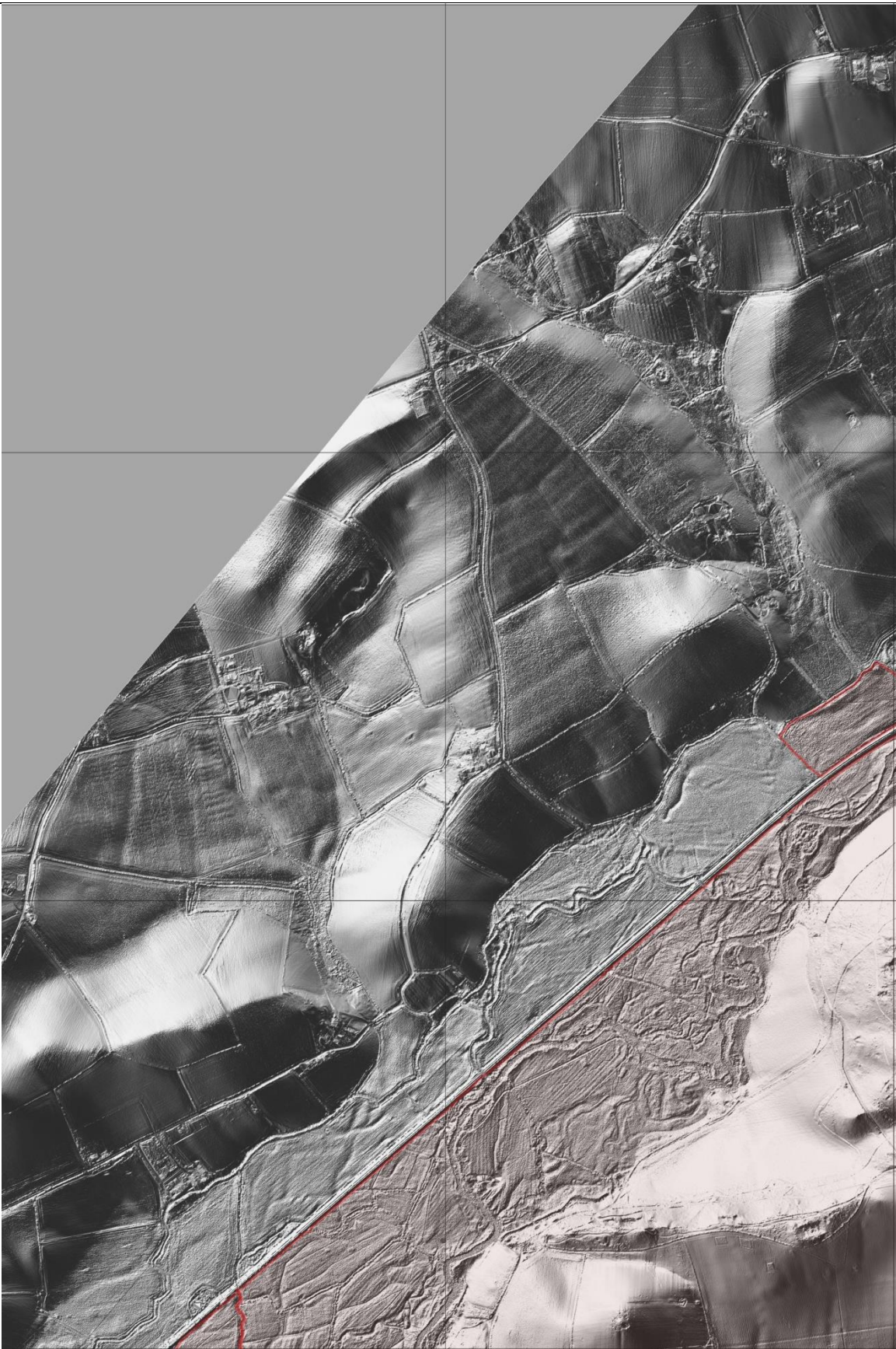


FIGURE 2: 50CM DTM HILLSHADE (MAP 1). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 1

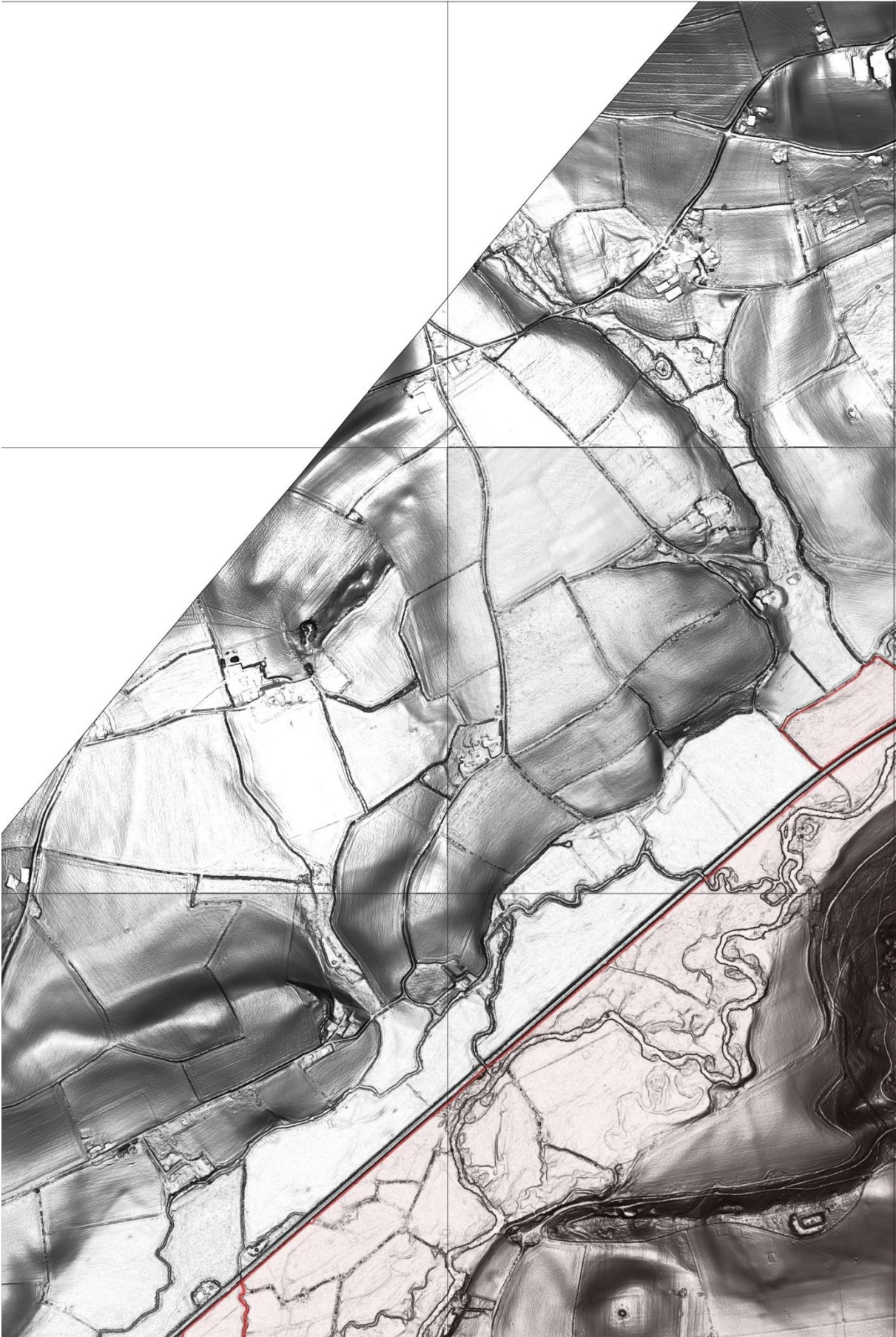


FIGURE 3: 50cm DTM SLOPE (MAP 1). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 1

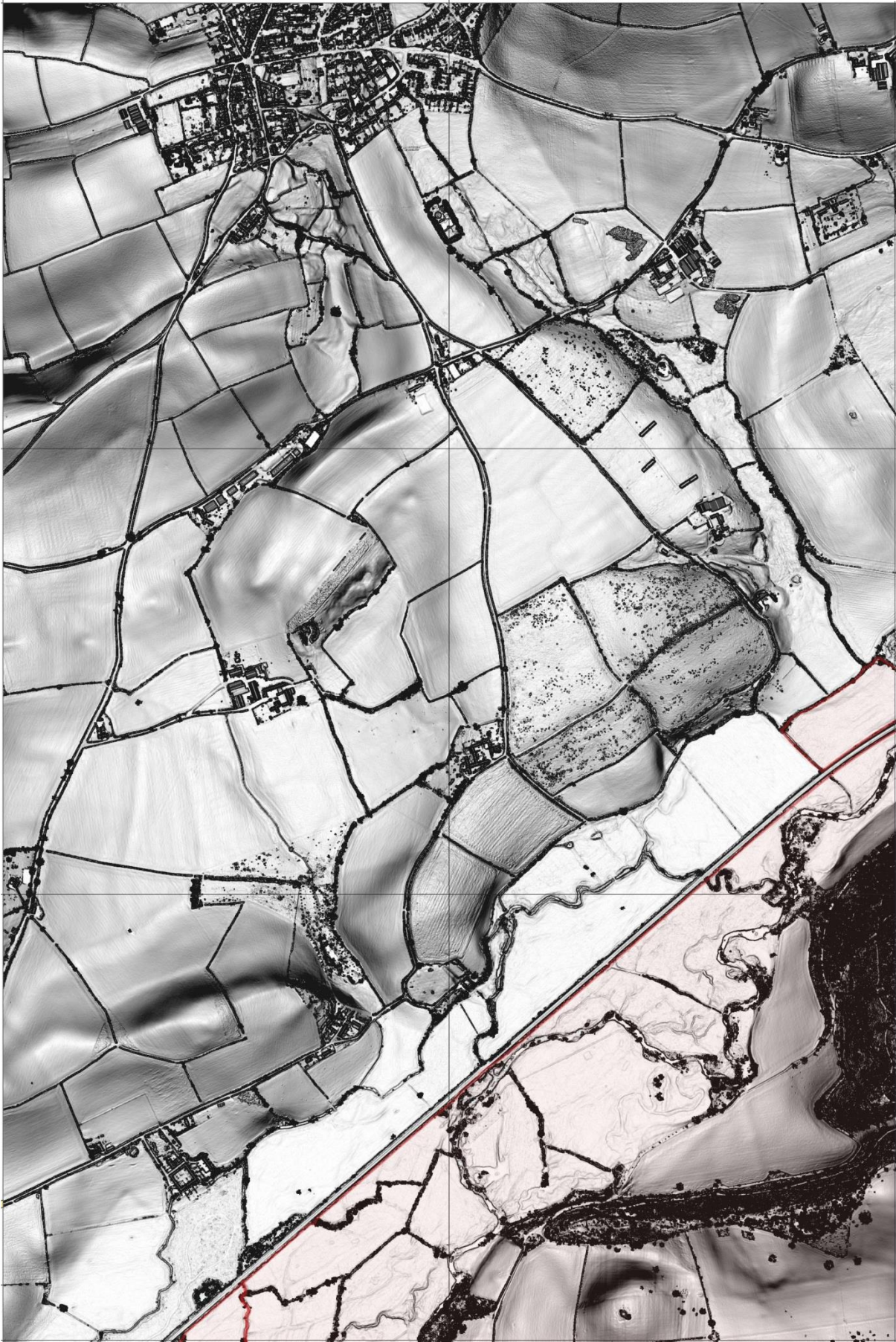


FIGURE 4: 1M DSM SLOPE (MAP 1). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 2

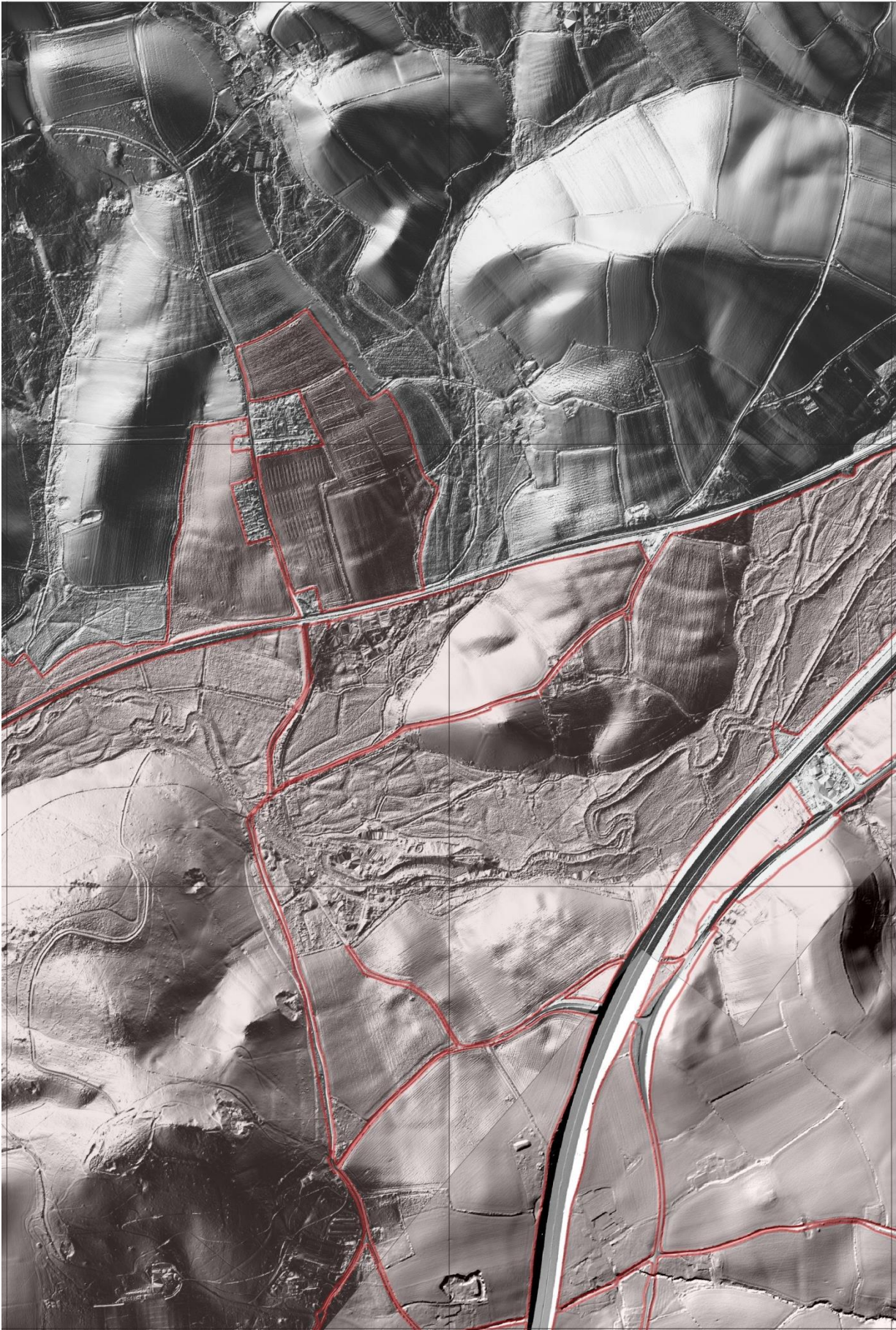


FIGURE 5: 1M AND 50CM DTM HILLSHADE (MAP 2). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 2



FIGURE 6: 1M AND 50CM DTM SLOPE (MAP 2). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 7: 1M DSM SLOPE (MAP 2). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 3



FIGURE 8: 1M AND 50CM DTM HILLSHADE (MAP 3). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 3

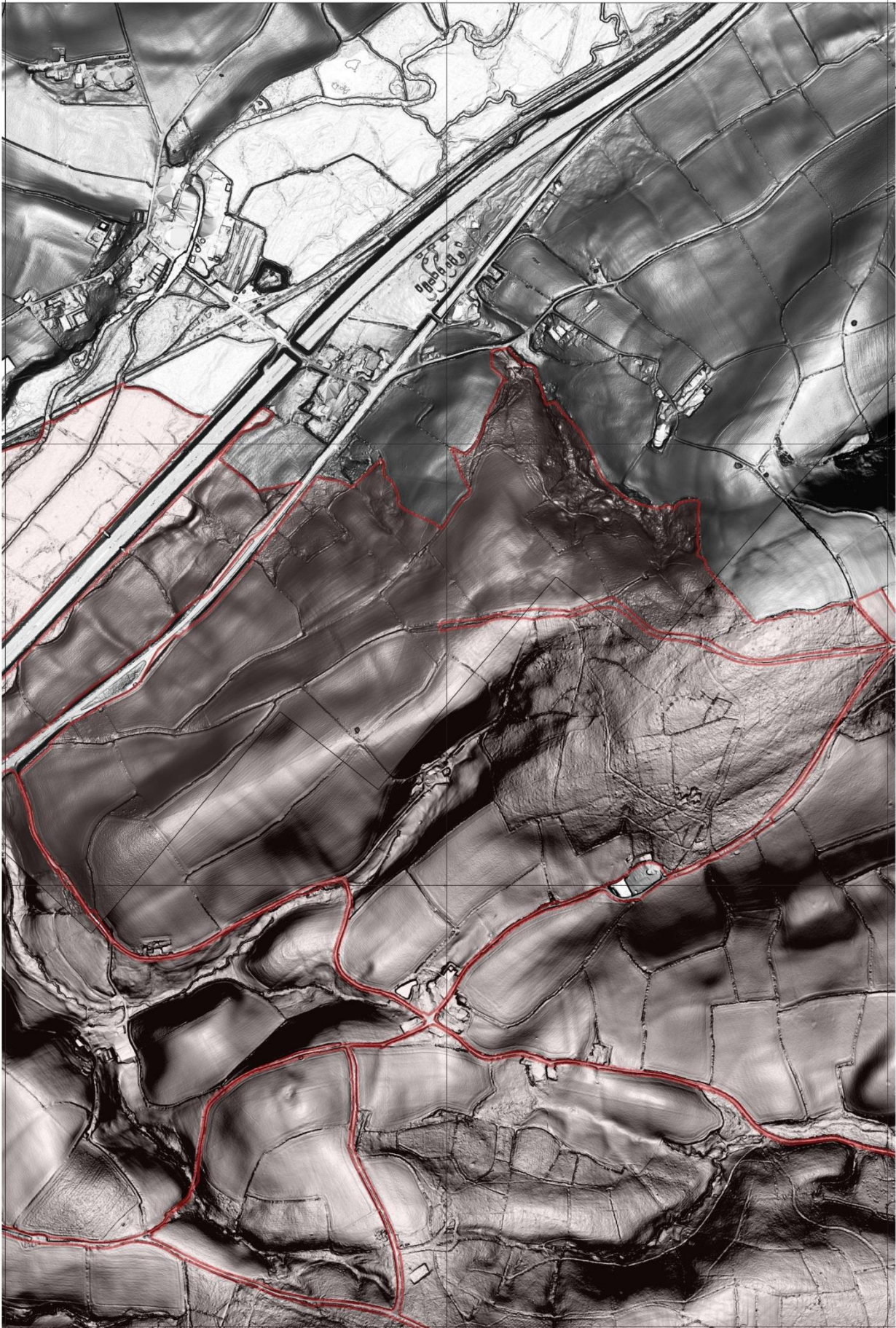


FIGURE 9: 1M AND 50CM DTM SLOPE (MAP 3). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 10: 1M DSM SLOPE (MAP 3). NATIONAL TRUST OWNED LAND IS SHADED.

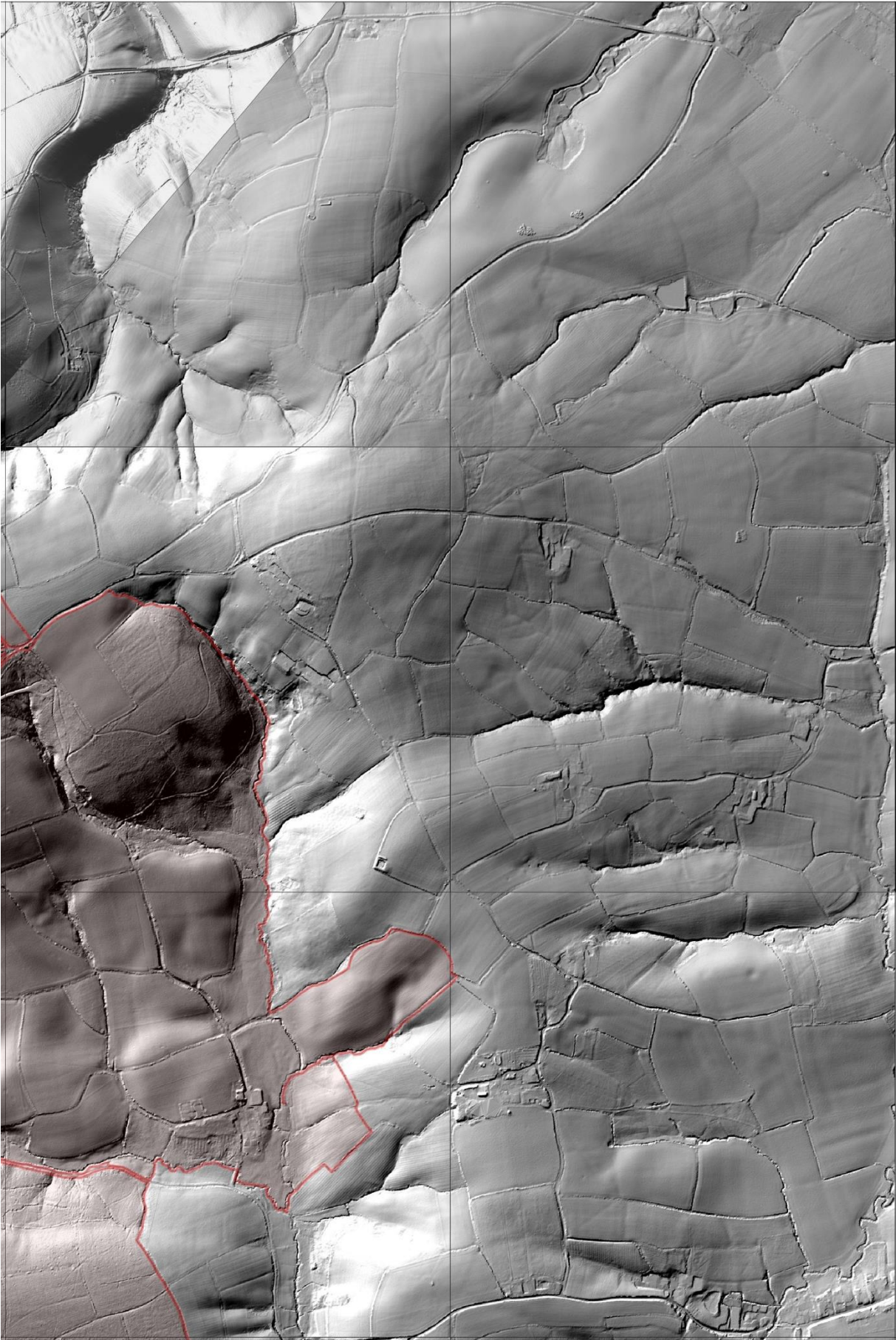


FIGURE 11: 1M AND 50CM DTM HILLSHADE (MAP 4). NATIONAL TRUST OWNED LAND IS SHADED.

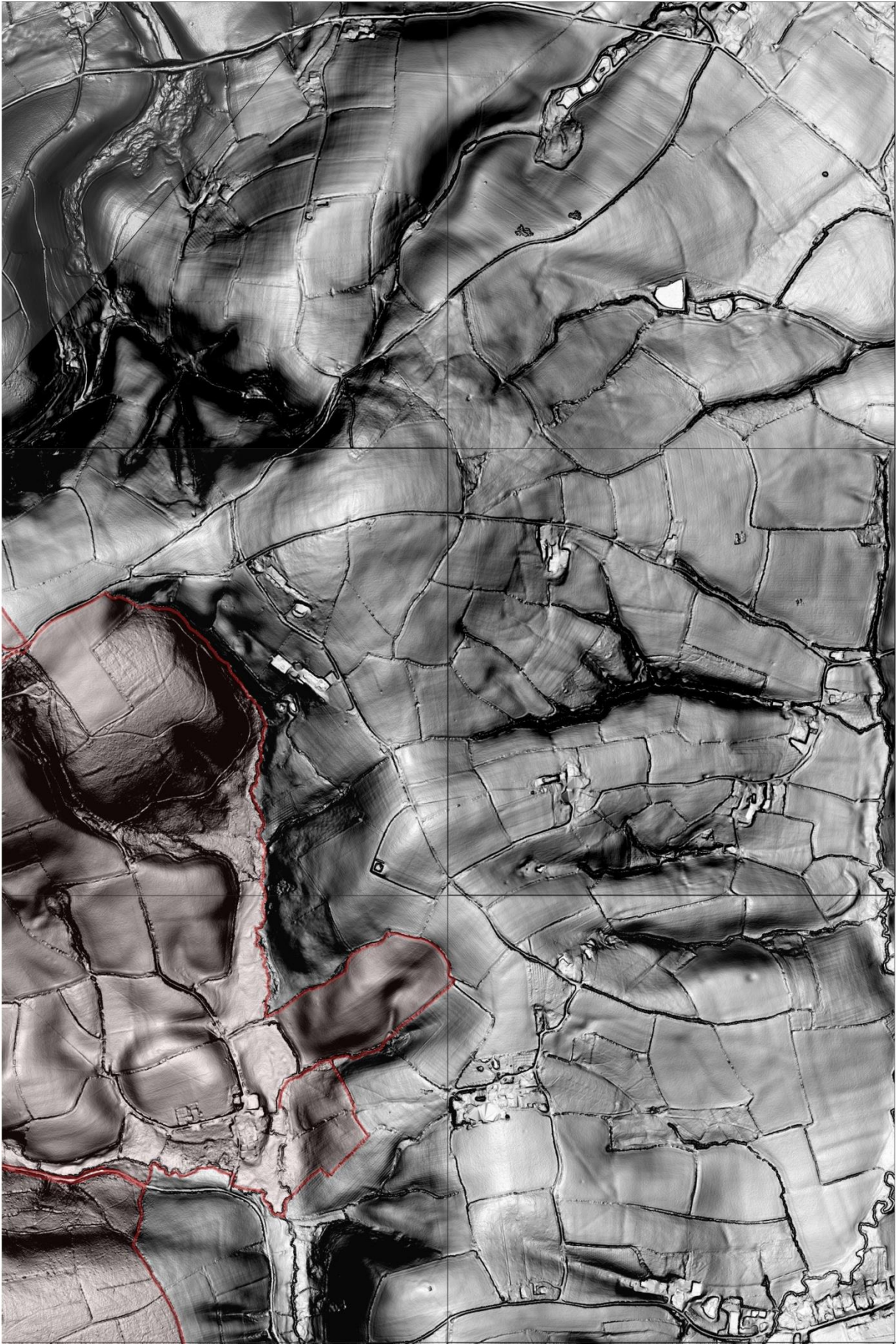


FIGURE 12: 1M AND 50CM DTM SLOPE (MAP 4). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 13: 1M DSM SLOPE (MAP 4). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 14: 1M AND 50CM DTM HILLSHADE (MAP 5). NATIONAL TRUST OWNED LAND IS SHADED.

MAP 5

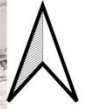


FIGURE 15: 1M AND 50CM DTM SLOPE (MAP 5). NATIONAL TRUST OWNED LAND IS SHADED.

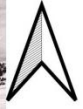


FIGURE 16: 1M DSM SLOPE (MAP 5). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 17: 1M AND 50CM DTM HILLSHADE (MAP 6). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 18: 1M AND 50CM DTM SLOPE (MAP 6). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 19: 1M DSM SLOPE (MAP 6). NATIONAL TRUST OWNED LAND IS SHADED.

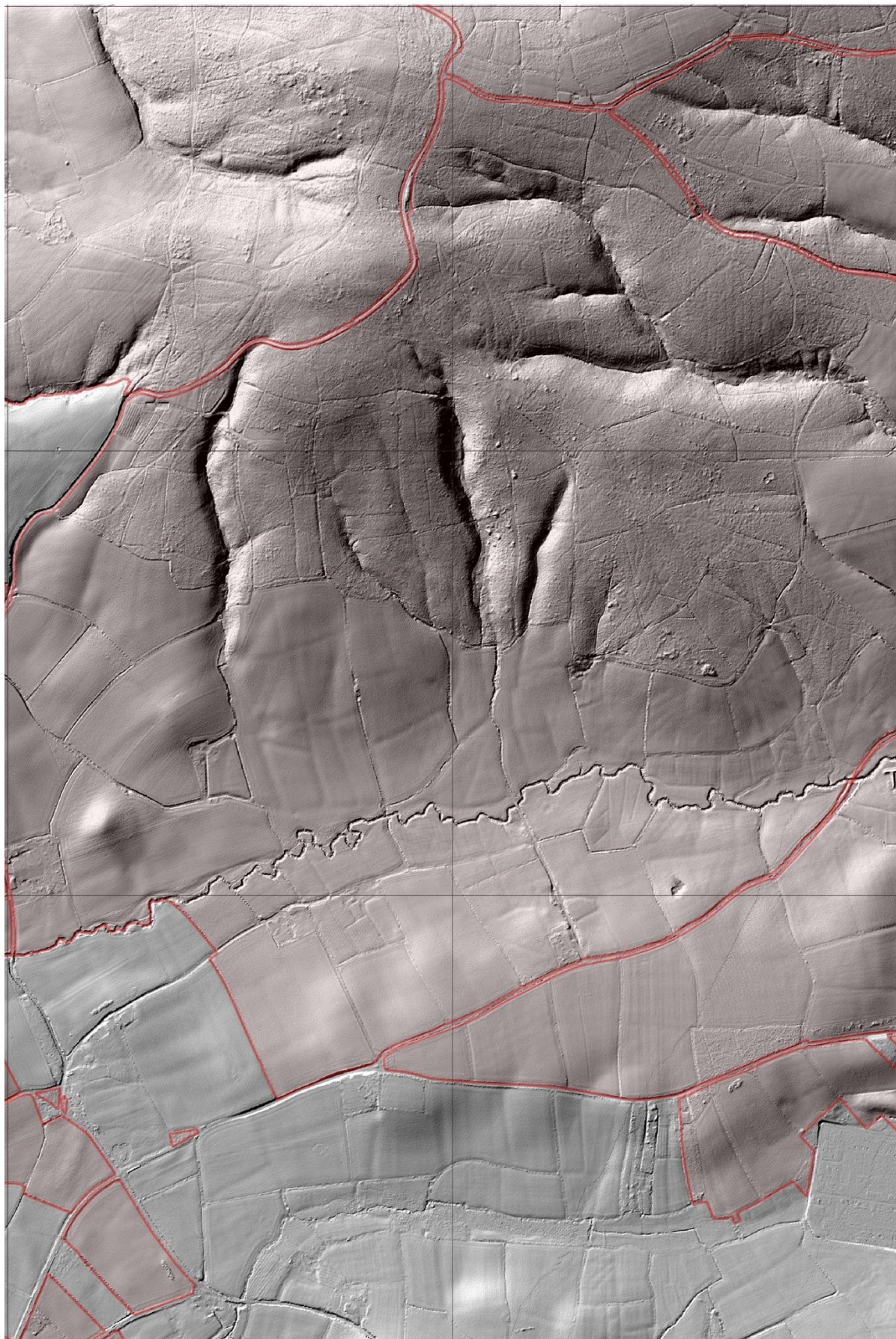


FIGURE 20: 1M DTM HILLSHADE (MAP 7). NATIONAL TRUST OWNED LAND IS SHADED.

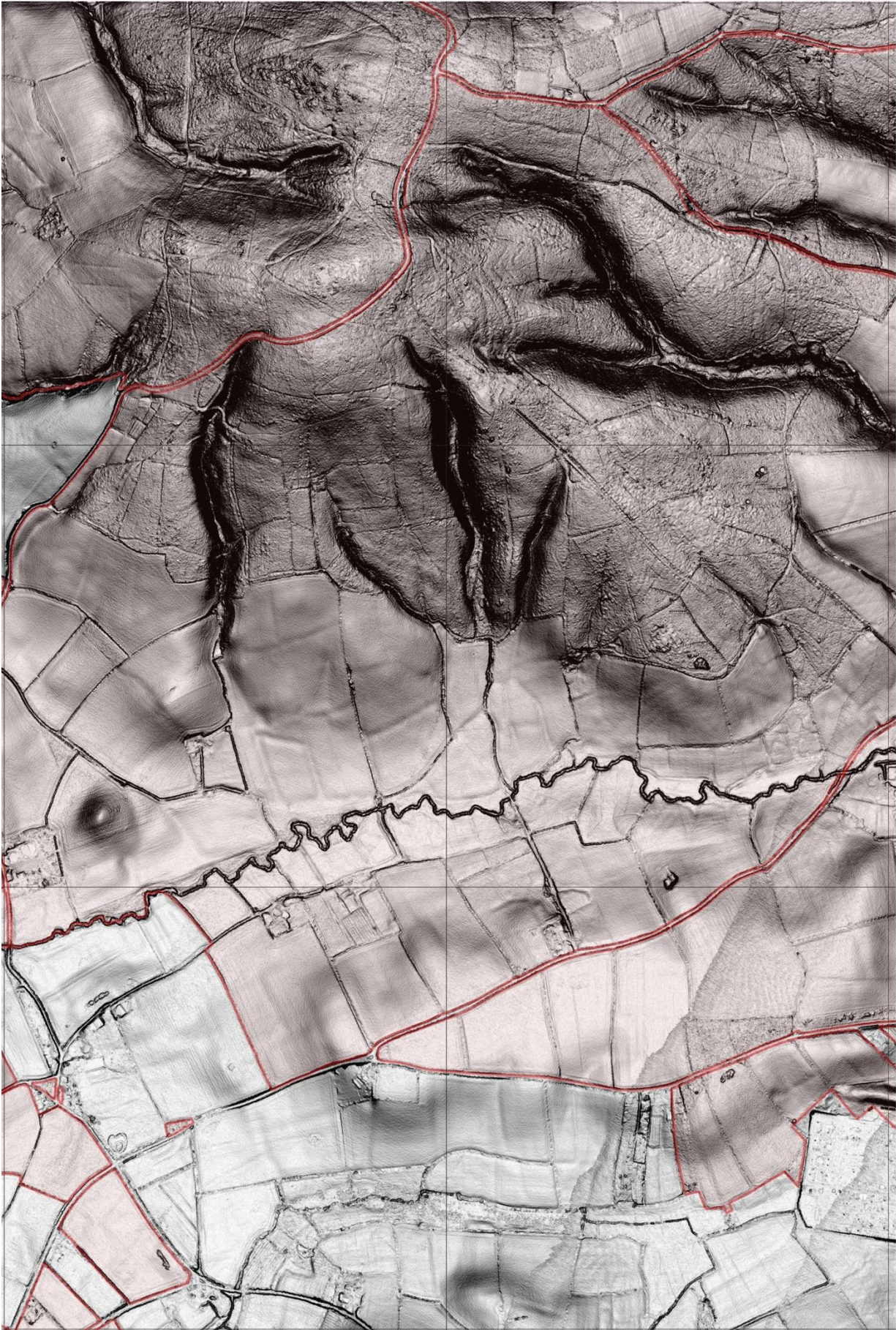


FIGURE 21: 1M DTM SLOPE (MAP 7). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 22: 1M DSM SLOPE (MAP 7). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 23: 1M DTM HILLSHADE (MAP 8). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 24: 1M DTM SLOPE (MAP 8). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 25: 1M DSM SLOPE (MAP 8). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 26: 1M DTM HILLSHADE (MAP 9). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 27: 1M DTM SLOPE (MAP 9). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 28: 1M DSM SLOPE (MAP 9). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 29: 1M DTM HILLSHADE (MAP 10). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 30: 1M DTM SLOPE (MAP 10). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 31: 1M DSM SLOPE (MAP 10). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 32: 1M DTM HILLSHADE (SQUARES 55, 56, 63, 64, 71 AND 72). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 33: 1M DTM SLOPE (MAP 11). NATIONAL TRUST OWNED LAND IS SHADED.



FIGURE 34: 1M DSM SLOPE (MAP 11). NATIONAL TRUST OWNED LAND IS SHADED.