FINAL REPORT ON GEOPHYSICAL SURVEY AT ABBEY MILL FARM, HADDINGTON, EAST LOTHIAN

MARCH 2024

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EAFS GEOPHYSICS
OCCASIONAL PAPER No 71

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EDINBURGH ARCHAEOLOGICAL FIELD SOCIETY
Geophysical Survey at Abbeymill Farm, Haddington, East Lothian

1 Summary

An area ground resistance survey totalling 2,400 square metres was carried out in April 2013 at Abbeymill Farm, Haddington over an arable field to the SE of the farmhouse and to the E of the Mill building. The survey was an attempt to locate any traces of St Mary's Abbey or Nunnery which is recorded at this site. The initial survey produced an L-shaped anomaly some 30m in length by 7.5m in width increasing to 12m at its widest extent. The survey was curtailed by issues over site access which resulted in an early cessation of activity.

A further six 20x20 grids (2400m) were surveyed on 11th February 2022 to the N and E of the previous survey of 2013 on an arable field S of the Burial Ground of St Mary's Nunnery. A rectangular high resistance anomaly to the N of the 2013 survey area may represent part of another possible structure associated with an early Christian Abbey or Convent. A rectangular anomaly to the SE may be the location of a Doocot.

A final six 20x20 grids (2400m) were surveyed in the Burial Ground and part of the paddock at Abbeymill Farm S of the 2022 survey on 15th April 2023. Linear higher resistance anomalies running from SE to NW indicate a possible rectangular enclosure with a more substantial higher resistance area at the E end. Dimensions of the anomaly are 37.8m E/W and 16.4m N/S. This may well represent part of the Convent Church.

2 Introduction

At the request of Eric Glendinning of Haddington's History Society, Edinburgh Archaeological Field Society surveyed an area of Abbeymill Farm near Haddington on three occasions between April 2013 and April 2023.

The area is recorded as the site of St Mary's Nunnery or Abbey which was founded for Cistercian Nuns before 1159 and was one of the largest Scottish nunneries. The Nunnery was destroyed by fire in 1335/6 and again in 1544 and was secularised in 1621. It ceased to function as a Nunnery after the Reformation. There are no traces visible.

3. Methods

The TR/CIA area ground resistance measuring equipment was used. The equipment operates in the "twin" configuration in which two probes are mounted on a portable frame 0.5m apart. They comprise one current input and one potential measurement probe. Two remote probes, one for current input and one for potential measurement complete the two circuits. They are inserted about 1.0m apart and are positioned so that no reading is taken with the portable frame nearer than 15m to them. All readings are taken at 1.0m intervals in lanes 1.0m wide totalling 400 measurements in each 20x20 grid.

The processor unit mounted on the frame generates the 137Hz signal current that flows through the ground and the potential drop is detected by the measurement probes; the computer in the unit converts this voltage reading to a ground resistance value in ohms. The resistance value is

indicated on a display and retained in a data store for later processing. The data are downloaded via a RS232 interface to a computer running the program "resistivity" The data is saved as text files and uploaded to the Sussex University developed freeware program "Snuffler" The print out is in extended greyscale with black and white limits based on highest and lowest ohms readings recorded.

It is normal practice to print high resistance values as black and low resistance as white within a gradient based on processed resistance values. Data can be further processed by clipping to improve overall contrast and by despiking to reduce abnormally high values. Data is also interpolated between adjacent 1.0m squares to give a smoother gradation based on 0.25m squares.

4. Results

Results showed a high resistance positive anomaly of a possible EW aligned structure of 20 x 7.5 metres and an adjoining NS structure of 14 x 7 metres to form an L-shaped structure. There were indications of possible associated wall lines or other features including a possible doocot. A curving anomaly along the S edge of the 2022 survey matches the expected location of the outlet channel from the water mill. . Linear higher resistance anomalies running from SE to NW indicate a possible rectangular enclosure with a more substantial higher resistance area at the E end. Dimensions of the anomaly are 37.8m E/W and 16.4m N/S. This may well represent part of the Convent Church.

5. Conclusions

Results are reasonably conclusive for a foundation structure of a large L-shaped building and other positive higher resistance features within the presumed area of the Nunnery and burial ground at Abbeymill Farm. Field walking finds of glazed floor tile and white gritty ware are recorded.

6. Acknowledgements

Thanks are due to Eric Glendinning of Haddington's History Society for arranging the survey, to Vivian Hastie for assisting with access permissions, to the Hunter Archaeological and Historical Trust for providing a grant for expenses and to Stephanie Leith of ELCAS and Don Matthews for preparing location plans and to Peter Blood for his reconstruction drawing. We also had input from Andrew Jepson of Archaeology Scotland. Thanks to Historic Environment Scotland for Scheduled Monument permission. Also the respective landowners, the late Mrs Steadman, William Logan and Adam Macnair. EAFS members who assisted were Don Matthews, Anthony Buxton, Jill Strobridge, John Urquhart, Jim Oliphant, Graeme Bettison, Neil Simpson and Jon Cooper.

Figure 7.1 Location Map of Abbey Mill Farm

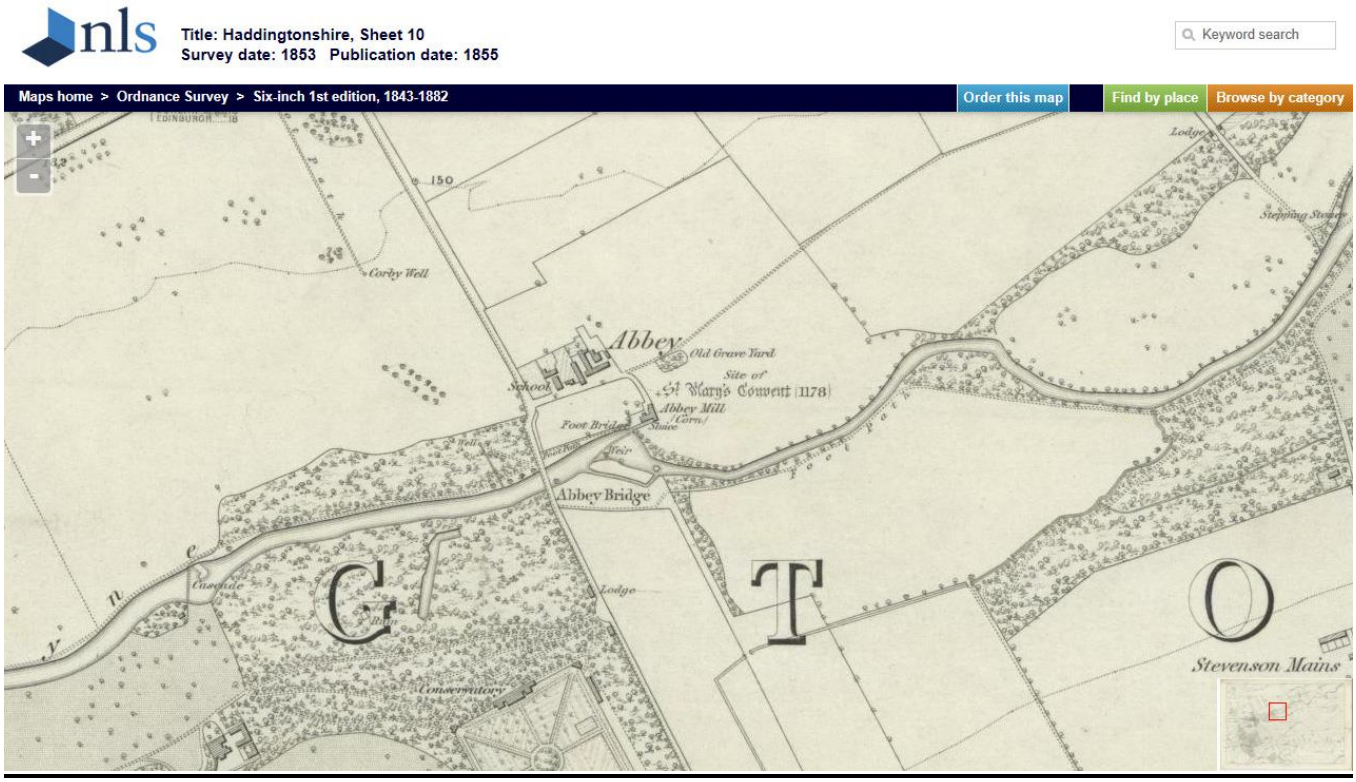

Figure 7.2 Location Map of Abbey (courtesy NLS)

East Lothian Council

Abbeymill Farm, Haddington:
Location of Geophysical Survey

1:1,000

N

Figure 7.3 Location of 2013 Geophysical Survey at Abbey Mill Farm

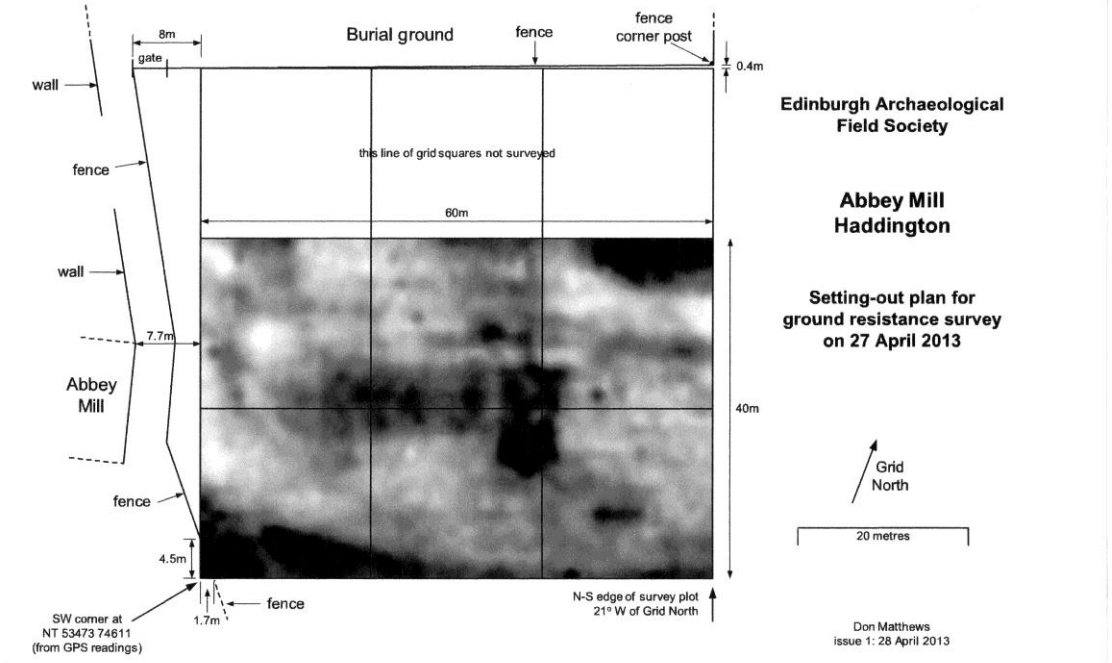

Figure 7.4 Grid Setting-out Plan for Abbey Mill 2013

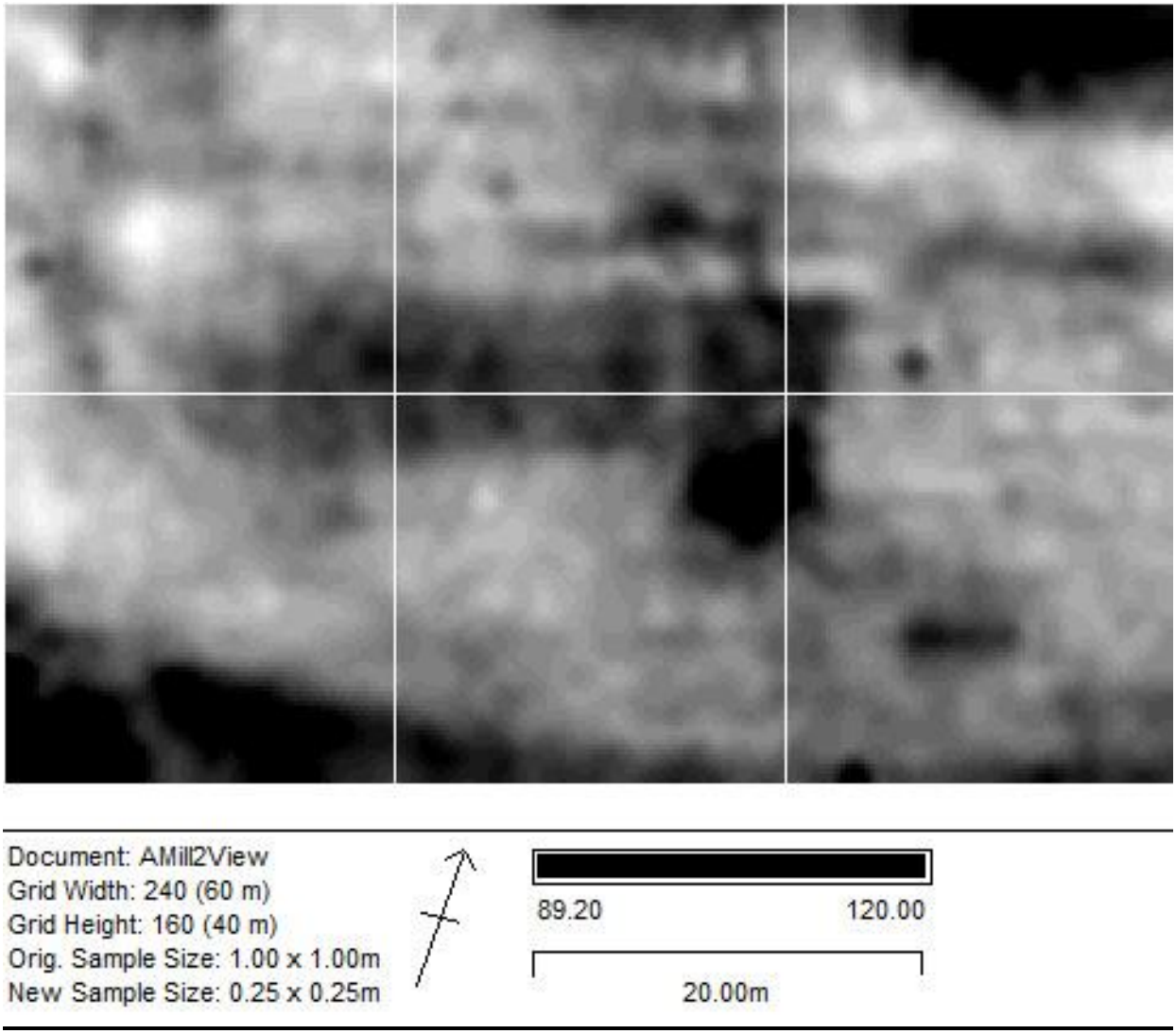

Figure 7.5 – Geophysical Survey Plan of Abbey Mill 2013

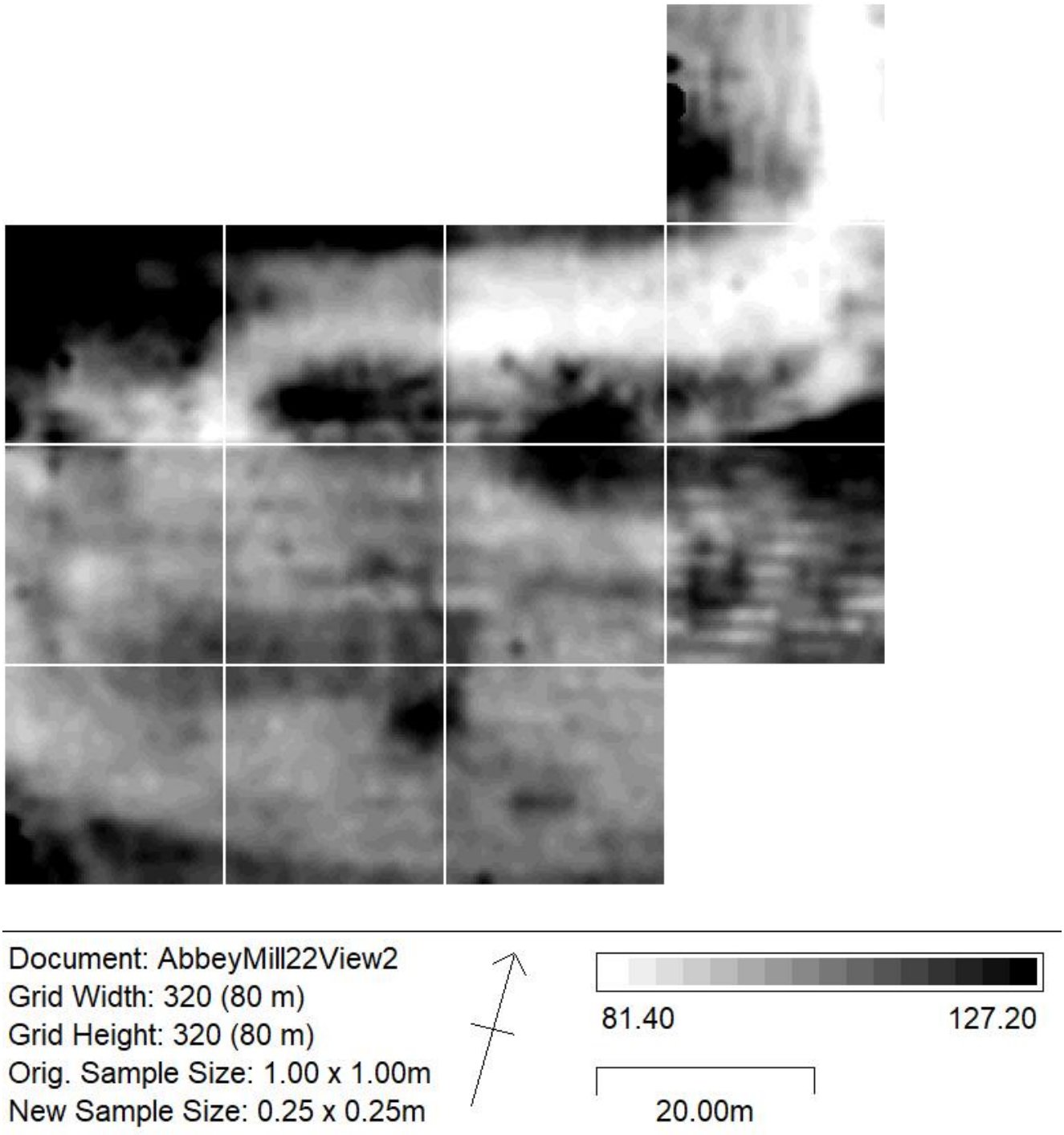

Figure 7.6 - Geophysical Survey Plan of Abbeymill 2022

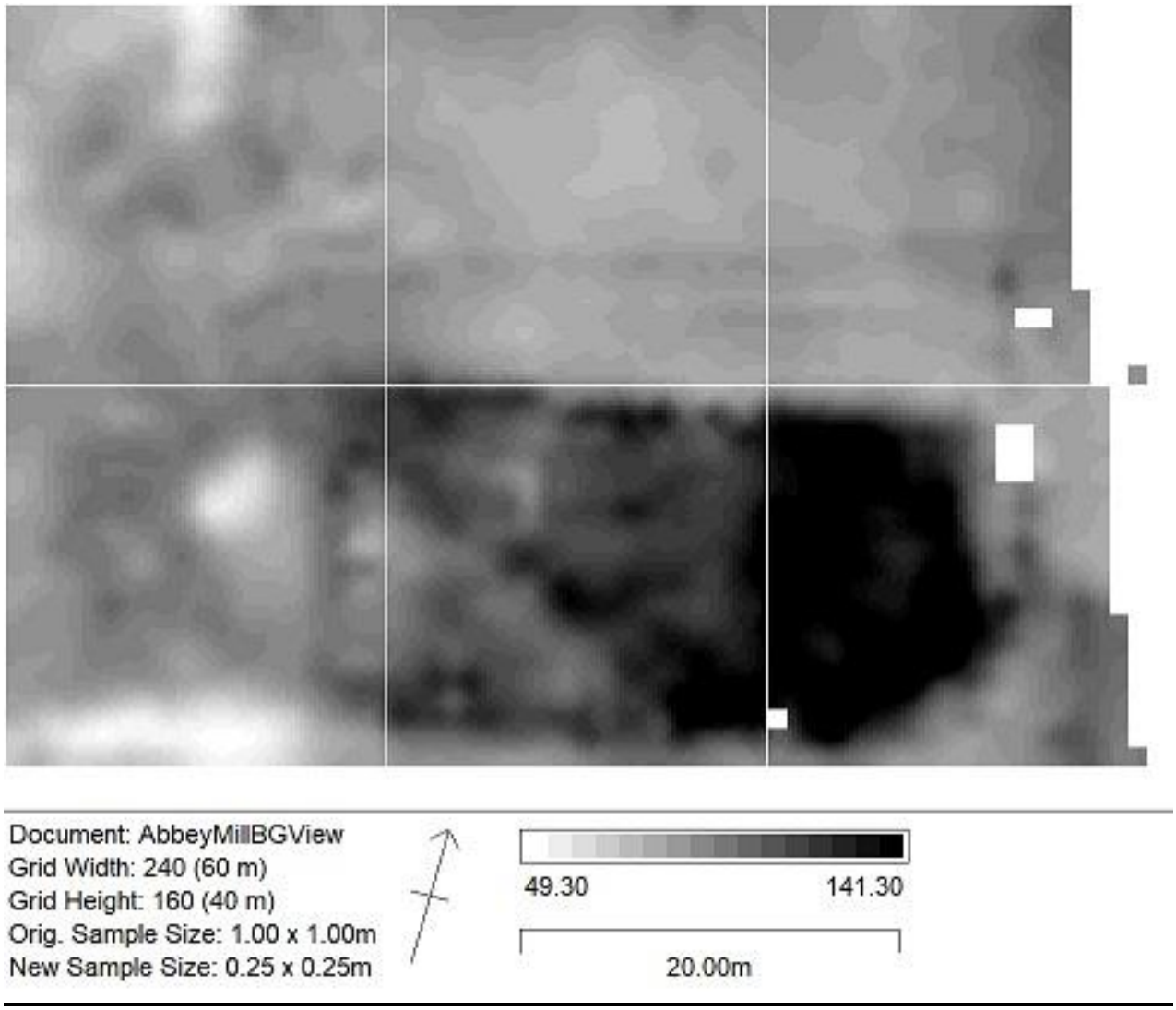

Figure 7.7 – Geophysical Survey Plan of Abbeymill Burial Ground 2023

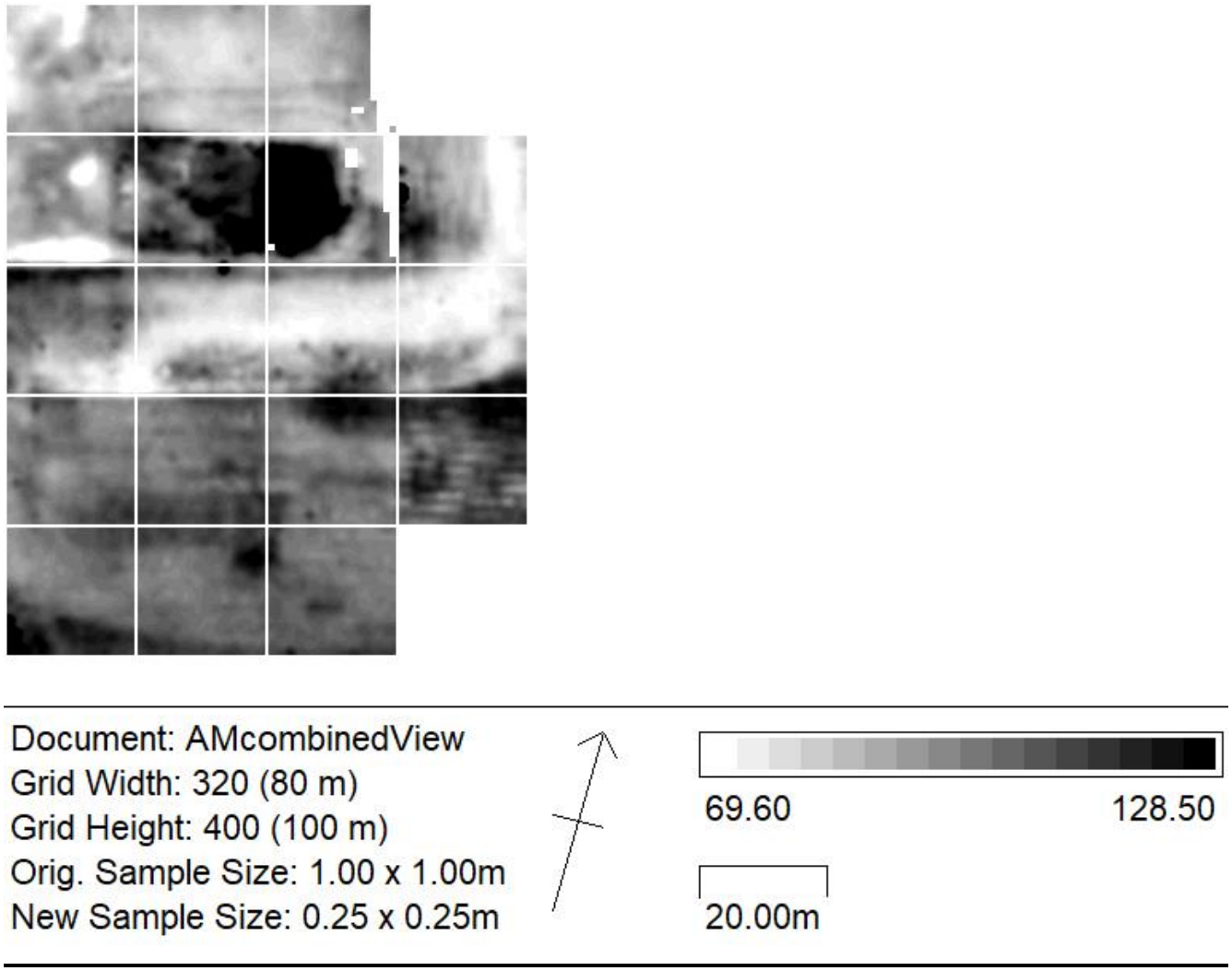

Figure 7.8 – Combined Geophysical Plan of Abbeymill 2013 - 2023

Figure 7.10 – Reconstruction Drawing of St. Mary's Abbey