

CPAT Report No. 1265

Tomen Madoc Motte, Kerry (Mg 080)

ARCHAEOLOGICAL SURVEY



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Summary

As a result of increasing erosion of Tomen Madoc Motte (SAM Mg 080; PRN 1040) to the north of the Kerry Vale in Powys, Cadw commissioned the Clwyd-Powys Archaeological Trust (CPAT) to conduct a survey of the monument, recording the surviving earthworks, and the extent of the current erosion.

The results of the survey have demonstrated that the monument is under active erosion as a result of burrowing animals (badgers), stock (sheep), vegetation and natural weathering.

The work has allowed a detailed topographical survey of the surviving earthworks, as well as positioning the monument in its immediate surroundings.

1 Introduction

- 1.1 In March 2014 the Clwyd-Powys Archaeological Trust was commissioned by Cadw to undertake topographic and photographic surveys of a scheduled motte, known as Tomen Madoc Motte (SAM Mg 080; PRN 1040).
- 1.2 The motte is located at SO 1458 9085, to the north of the Kerry Vale (Fig. 1). It is situated on a natural ridge running north-east to south-west, and lies in a field of improved pasture. The underlying geology is composed of Silurian shales. The combination of mature trees, grazing and burrowing activity on the motte have resulted in significant erosion, which has increased the vulnerability of the monument. The purpose of the project was to assess the extent of the erosion to the motte.



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Fig. 1 Location of Tomen Madoc Motte (SAM Mg 080)

- 1.3 The project comprised a detailed photographic and topographical survey of the monument, recording both the surviving earthworks and the extent of the erosion.
- 1.4 The monument was originally considered to be a tumulus (Morris 1889) and was recorded as such by the Ordnance Survey, although this was later questioned by the Royal Commission on the Ancient and Historical Monuments in Wales (RCAHMW 1911, 57). Archaeological excavations were undertaken at the motte in 1912 (see Appendix 2). Three trenches were placed across the ditch; these revealed that it was rock-cut to a depth of 1.68m (5ft 6ins as recorded in the original report) below the crest of the counterscarp bank. The trenches extended sufficiently into the base of the motte to determine that the lower part of the mound was of rubble, while the upper and larger part was of rich soil (Wright 1913; Spurgeon 1966, 34).
- 1.5 The second edition Ordnance Survey map of 1903 (Fig. 2) depicts a summerhouse at the summit of the motte of which there are now no structural remains. It was also the position for a trig station, though this was omitted from later editions of the Ordnance Survey mapping.

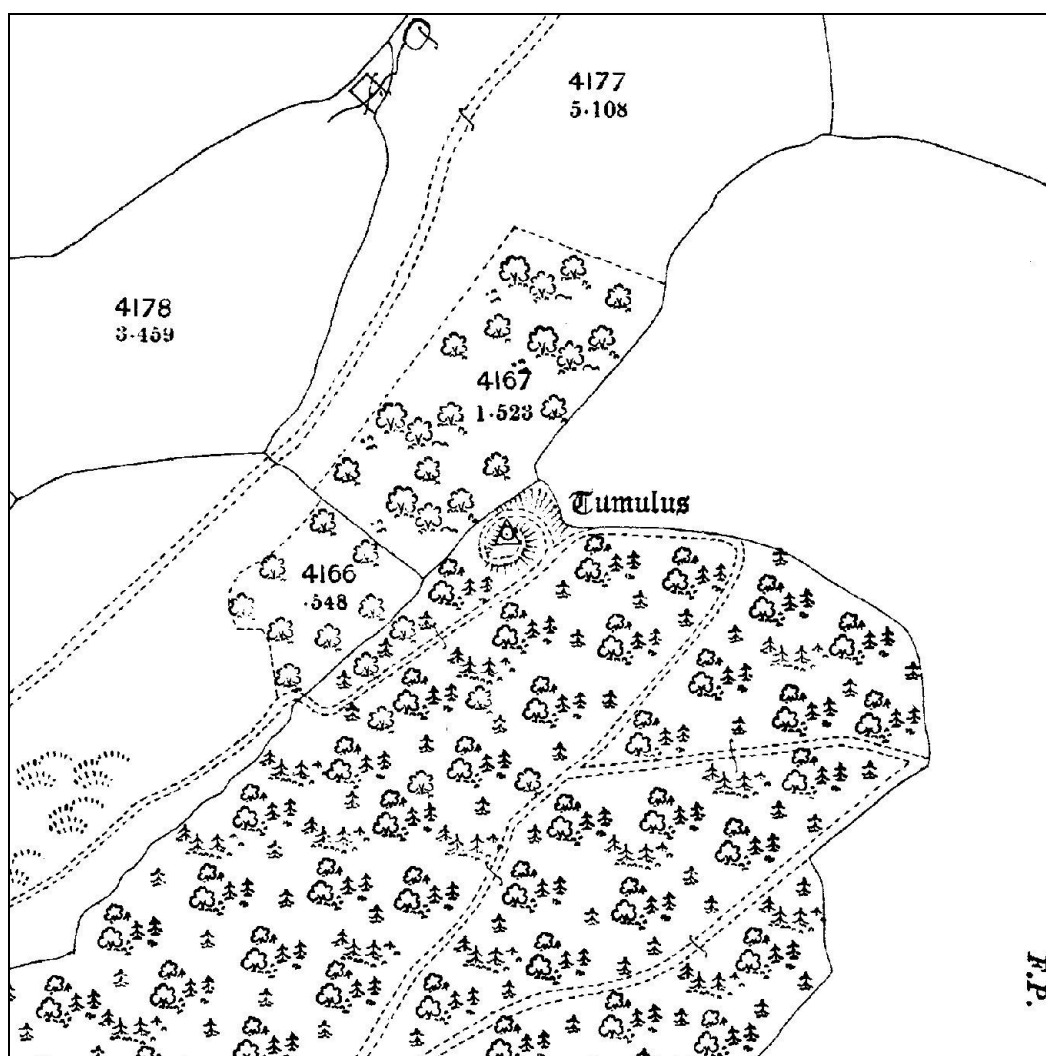


Fig. 2 Extract from the Ordnance Survey 1:2,500 map of 1903 showing the summerhouse on the summit of the motte.

2 Survey

- 2.1 A photographic survey was conducted on 27 March 2014, recording the earthworks of the motte, the extent of the eroded areas and the natural topography in the immediate area.
- 2.2 This was followed by measured earthwork survey between 1-4 April 2014, using a Leica TC500 in conjunction with Penmap survey software and the data processed using proprietary software, with the resulting illustrations being produced by Sophie Watson using Mapinfo and Adobe Illustrator. The survey recorded the earthworks of the motte and associated features, the extent of the eroded areas, and the natural topography in the immediate area (Figs 3, 4 and 5).
- 2.3 The motte is sited at the highest point of a narrow but prominent natural ridge to the north of the Kerry Vale. The ridge is aligned north-east to south-west with the motte positioned towards the south-western end. The ridge is steep, providing natural defences to the north-west and south-east. The motte measures approximately 32m in diameter at its base and stands 8m high. There is a visible, but shallow ditch on the south-west and a distinct ditch and counterscarp bank to the north-east, which measures 1.5m high by 7m wide. The summit of the motte measures approximately 12m in diameter and the ground falls away to the south-east. The surface at the summit is very pitted and uneven, particularly on the south-eastern side, which may reflect the location of a summer house, constructed in the late 19th century, of which no other trace now survives, and a result of past animal activity. There is no obvious bailey, but there is a noticeable level area to the south-west where the natural ridge continues, which may have supported associated structures.
- 2.4 The main aim of the survey was to record the causes and extent of damage to the monument. At the time of the survey large areas of the monument were under active erosion, with little or no turf cover. Substantial cavities in the surface of the motte were also present owing to badger setts and burrows, and visible cracking had occurred on the surface of the monument where burrows beneath the surface had undermined overlying material. There were well-eroded trackways present on the lower slopes of the motte which may be remnants of pathways associated with the 19th-century summer house; however, these were still well used and there were other tracks, likely to be associated with the active badger setts and also those used frequently by stock. There were no stock present at the time of the survey; however, it was evident that erosion had occurred as a result of stock movement (tracks and scrapes). There were also approximately 25 trees on the motte, three of which had fallen recently, resulting in tree throws with significant areas of disturbed ground surrounding each. Many of the in-situ trees were unstable, several with fallen branches, of which there were many, strewn across the surface of the motte.

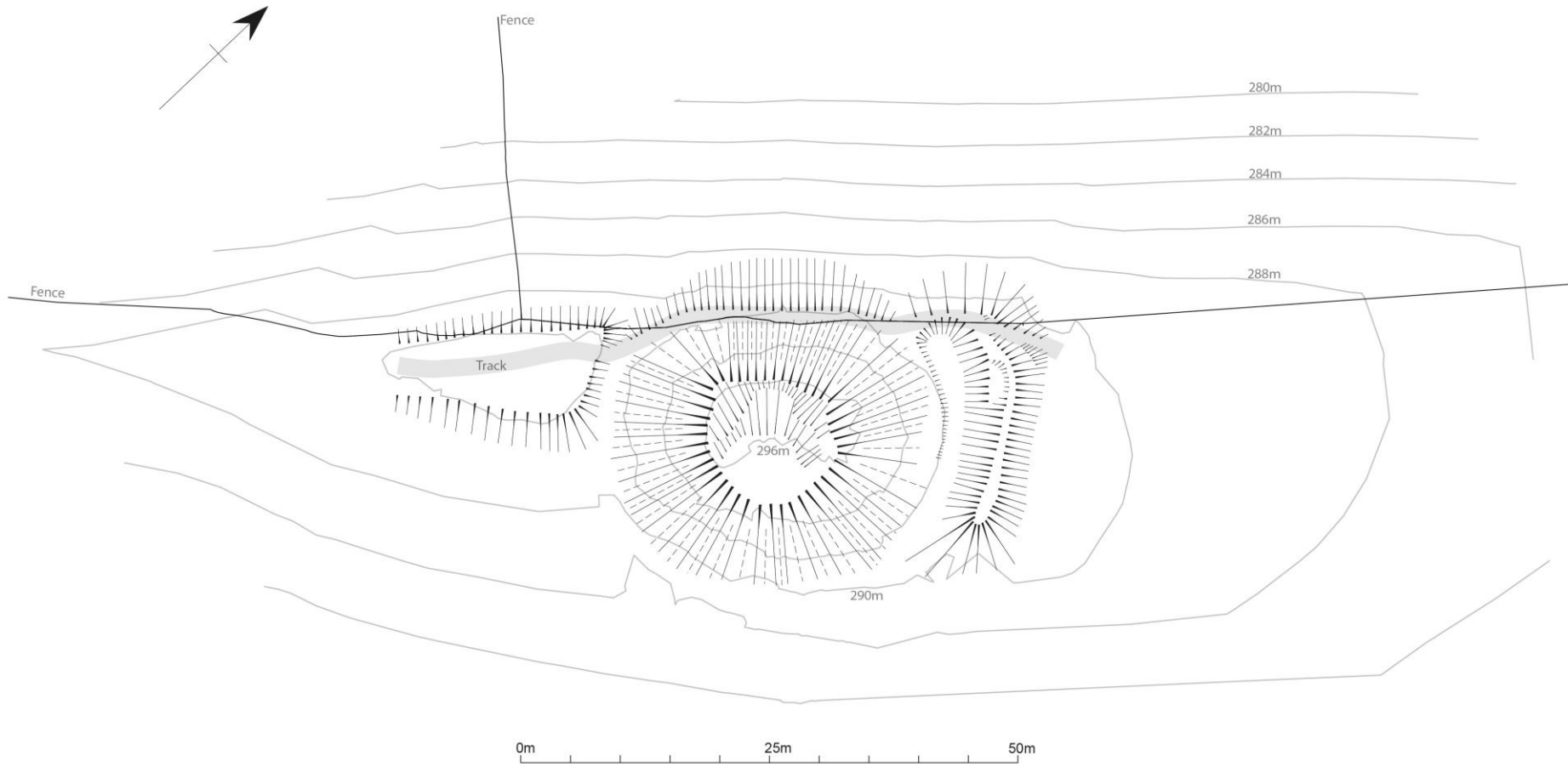


Fig. 3 Contour survey of Tomen Madoc Motte (SAM Mg o8o)

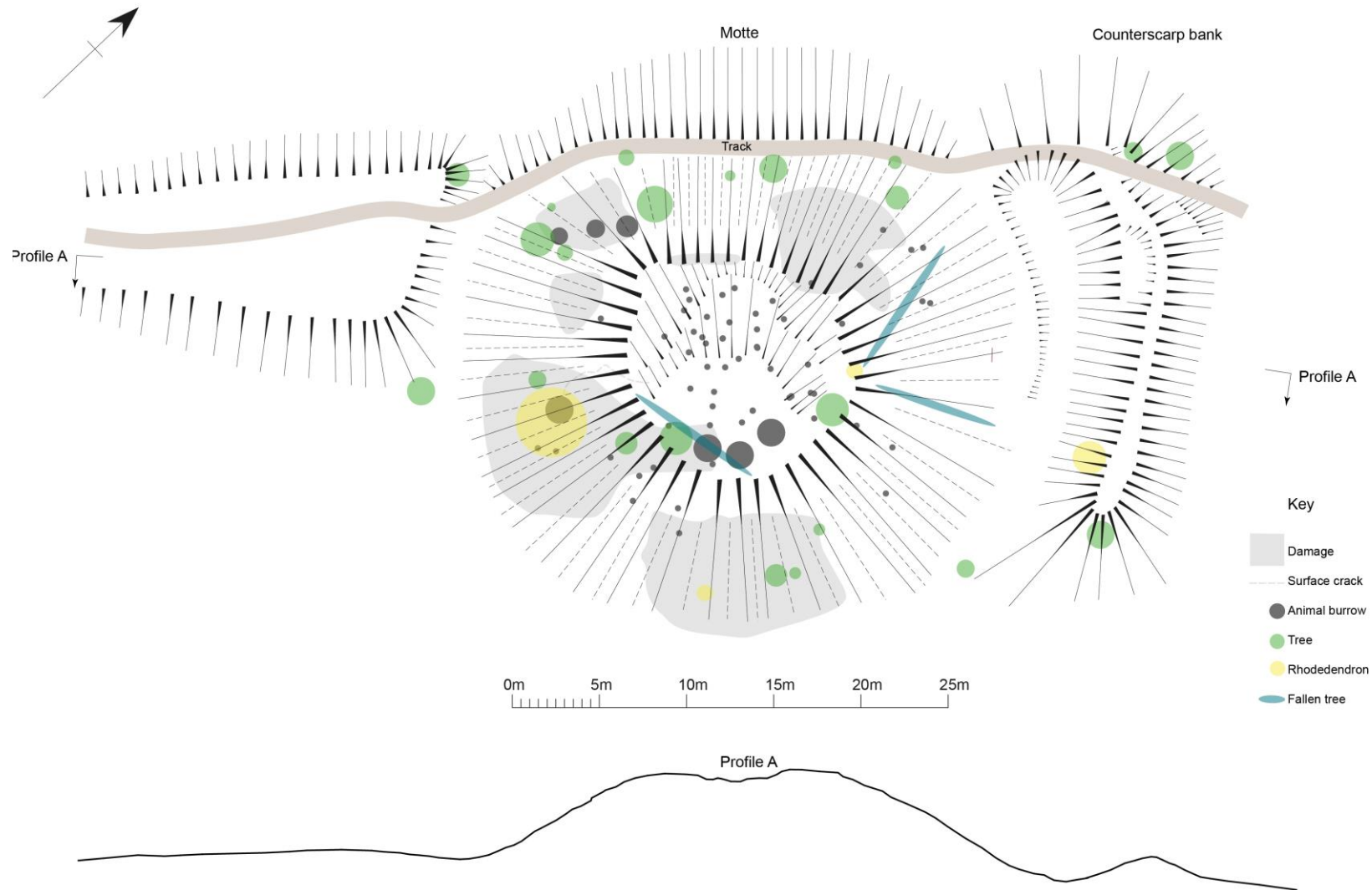


Fig. 4 Erosion survey of Tomen Madoc Motte

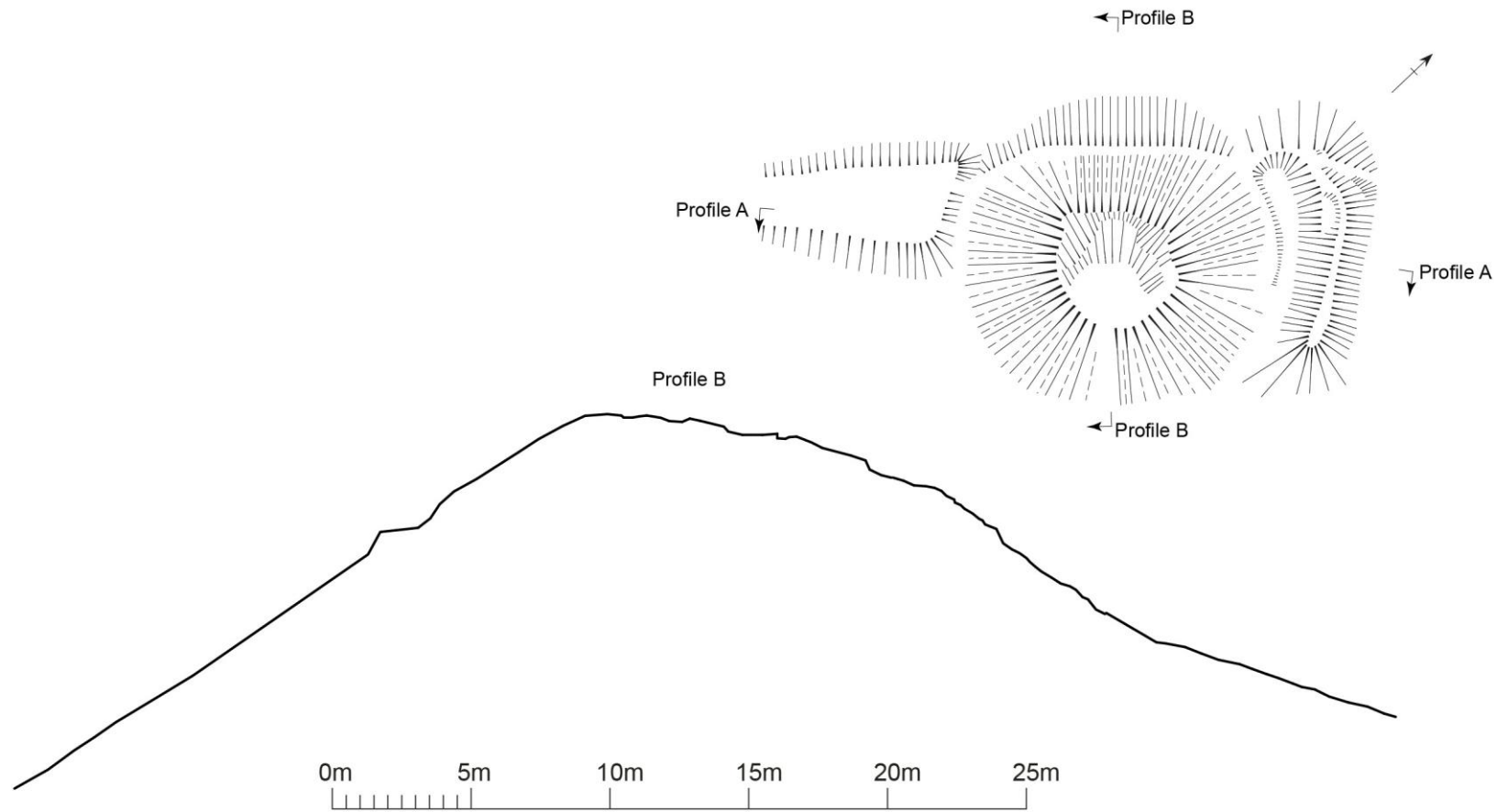


Fig. 5 Profile B

3 Damage

3.1 Badgers and Rabbits

- 3.1.1 The badger damage on Tomen Madoc is extensive, with remnants of old burrows, active burrows, and four large setts. One sett, on the south-western side had collapsed, and two of the setts, located on the western side of the motte, halfway up the motte, appeared to be inactive. Of the two on the western side, the entrance of the larger sett formed a 1m-diameter and 1.5m-deep hole in the side of the motte in which the deposits used to construct the motte were visible. This showed around 0.5m of reddish brown silt overlying 1m of large shale stones. This sett had visibly undermined the upper surface of the motte, but appeared relatively stable, owing to the roots of an adjacent tree. The smaller adjacent sett measured 0.60m across by 0.75m high, exposing around 0.10m of turf overlying large shale stones. The shale that had been 'excavated' from both setts formed a large spread across the motte surface downslope.
- 3.1.2 A large active sett was present on the southern side of the motte, situated above a thicket of rhododendrons. The sett entrance measured 1.40m across by 0.85m high and the ground immediately in front of the sett entrance was visibly cracked. A large surface crack (thought to have formed after recent heavy rain according to local knowledge), extended for a distance of 5m, running from the badger sett up onto the summit of the motte.
- 3.1.3 In addition to the badger setts, there were a number of associated tracks, particularly on the south-eastern side of the motte, which had eroded the ground surface and exposed vertical sections along the slope of the motte measuring up to 0.40m in depth and 3m long.



Fig. 6 Inactive badger sett, western side of Tomen Madoc – Photo CPAT 3808-005



Fig.7 Damage caused by badger setts on the western side of Tomen Madoc – Photo CPAT 3808-0057

- 3.1.4 Rabbit burrows were concentrated in the north-eastern quarter of the motte and the summit. As well as the obvious burrow entrances, there was also evident ‘cracking’ of

the motte surface in places, where overlying material is beginning to collapse into the underlying burrows.



Fig.8 Summit of Tomen Madoc, showing damage by badger and rabbit burrows -
Photo CPAT 3808-0027



Fig.9 Burrows and tracks on the south-eastern side of Tomen Madoc - Photo CPAT 3808-0042

3.2 Stock

- 3.2.1 Although there were no stock present in the field at the time of the survey, it was apparent that some of the tracks and scrapes may have resulted from recent stock activity. Exposed vertical sections were visible along the edges of the motte summit, which measured up to 0.40m high and 3m long, with surrounding bare earth.



Fig.10 Sheep scrape in the side of Tomen Madoc summit - Photo CPAT 3808-0031

3.3 Vegetation

- 3.3.1 There are an estimated 25 trees on the monument of varying size (trunks between 0.25m and 1.5m diameter). While there has been undoubted root damage to the monument as a result, the roots are also stabilising some areas of the monument that have been undermined by badger setts.
- 3.3.2 Three of the trees had fallen with resulting tree throws and disturbed ground immediately surrounding them. The largest of these was situated on the south-western side of the motte. Several of the trees were unstable, with partially collapsed branches. There was also a considerable quantity of brash on the surface of the motte.
- 3.3.3 Wild rhododendron was also well established on the counterscarp bank and on the south-western and south-eastern sides of the motte.



Fig. 11 Trees on Tomen Madoc (view from south-west) - Photo CPAT 3808-0068



Fig. 12 Fallen tree on the north-eastern side of Tomen Madoc - Photo CPAT 3808-0038



Fig. 13 Rhododendron on the southern side of Tomen Madoc - Photo CPAT 3808-0046

4 Conclusions

- 4.1 The survey at Tomen Madoc provides a detailed record of the surviving earthworks and the erosion affecting the site at a specific point in time. The resulting data present a baseline for future monitoring and information which will assist in the general management of the monument.
- 4.2 The motte is sited at the highest point of a narrow but prominent natural ridge aligned north-east to south-west, to the north of the Kerry Vale. The monument is located towards the north-eastern end of the ridge, which is steep-sided and provides natural defences to the north-west and south-east. The motte measures approximately 32m in diameter at its base and stands 8m high. There is a visible, but shallow ditch on the south-west and a distinct ditch with counterscarp bank to the north-east that measures 1.5m high by 7m wide. There are no obvious defensive ditches on the south-eastern or north-western sides of the motte, where it appears the natural steep slopes of the hillside were utilised as a defence. The summit of the motte measures approximately 12m in diameter and the surface falls away to the south-east where the surface is very pitted and uneven, partly owing to the siting of a summer house there in the late 19th century and also the result of past animal activity. There is no obvious bailey, but a noticeable flattish area to the south-west where the natural ridge continues, may have housed associated structures.

- 4.3 The earthwork motte is likely to have been constructed partly by the excavation of the defensive ditches, though the size and extent of the ditch suggests that additional material would have been required from elsewhere in order to construct a motte of this size. Small quarries were visible at the south-western end of the ridge and towards the base of ridge to the north-east, but these seem too distant to have provided material for the motte's construction. It is possible that the flat area to the south-west of the motte was levelled to provide additional material.
- 4.4 Burrowing animals, primarily badgers, have created a network of setts, burrows and associated tracks across the monument which have significantly undermined the surface of the motte, resulting in large surface cracks and subsidence, exposed vertical sections and trackways, and bare earth. According to local residents, badgers have been in residence at Tomen Madoc for at least the past 50 years.
- 4.5 The summit, the ditch, the counterscarp banks, and the north-eastern and south-western sides have relatively good turf cover, though existing surface cracks could expand and subside and may require future monitoring.
- 4.6 The trees growing on site have caused obvious disturbance to the monument through root damage. In-situ, but unstable trees could cause considerable damage should they fall, as was evident in the cases of the three trees that had already fallen.
- 4.7 Where damage has occurred, be it from tracks, scrapes, wind fallen trees, or burrowing, the surface areas that have been exposed down to bare earth are also open to natural weathering.
- 4.8 The survey has demonstrated a combination of factors that was inevitably resulted in the extensive erosion at Tomen Madoc. Archaeological deposits on the surface of the motte as well as within the body of the monument have undoubtedly been damaged as a result of the advancing erosion.

5 Acknowledgements

- 5.1 Fieldwork was undertaken by Sophie Watson. Post-excavation assessment and reporting has been undertaken by Sophie Watson and Paul Belford.
- 5.2 CPAT would like to thank Will Davies (Cadw) for support during the project and to the landowners Mr M Lewis and Mr John Jones for permission to undertake the site work.

6 Sources

6.1 Published Sources

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RCAHMW, 1911. *An Inventory of the Ancient Monuments of Wales and Monmouth – 1. County of Montgomery*. London: HMSO.

Spurgeon, C. J., 1966. 'The castles of Montgomeryshire', *Montgomeryshire Collections* 59, 1-59.

Wright, F. S., 1913. 'Excavations at Kerry', *Archaeologia Cambrensis* 68, 439-41

6.1 Cartographic Sources

1903 Ordnance Survey, 2nd Edition 1:2,500 map, Montgomeryshire 43.04

Appendix 1: Additional Photographs



Fig. 14 Tomen Madoc, viewed from the north-east - Photo CPAT 3808-0004



Fig. 15 Tomen Madoc, viewed from the north-east - Photo CPAT 3808-0006



Fig. 16 Tomen Madoc, viewed from the south-east - Photo CPAT 3808-0010



Fig. 17 Tomen Madoc, viewed from the south-west - Photo CPAT 3808-0101



Fig. 18 Tomen Madoc, viewed from the north - Photo CPAT 3808-0020



Fig. 19 Tomen Madoc, viewed from the north - Photo CPAT 3808-0044



Fig. 20 Tomen Madoc, viewed from the north-east - Photo CPAT 3808-0045



Fig. 21 Tomen Madoc counterscarp bank, viewed from the north-west - Photo CPAT 3808-0060



Fig. 22 Tomen Madoc, viewed from the south-west, showing surface cracking
Photo CPAT 3808-0119



Fig. 23 Tomen Madoc, viewed from the north - Photo CPAT 3808-0088

Appendix 1: Additional Photographs

EXCAVATIONS AT KERRY

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"TOMEN MADOC," A NORMAN CASTLE MOUNT.

Just to the north of the house at Dolforgan there is a hill that rises steeply to a height of 900 ft. At the north-eastern extremity of the summit of this hill is placed the earthwork known as "Tomen Madoc" (C. A. M. R., Mont., 288).

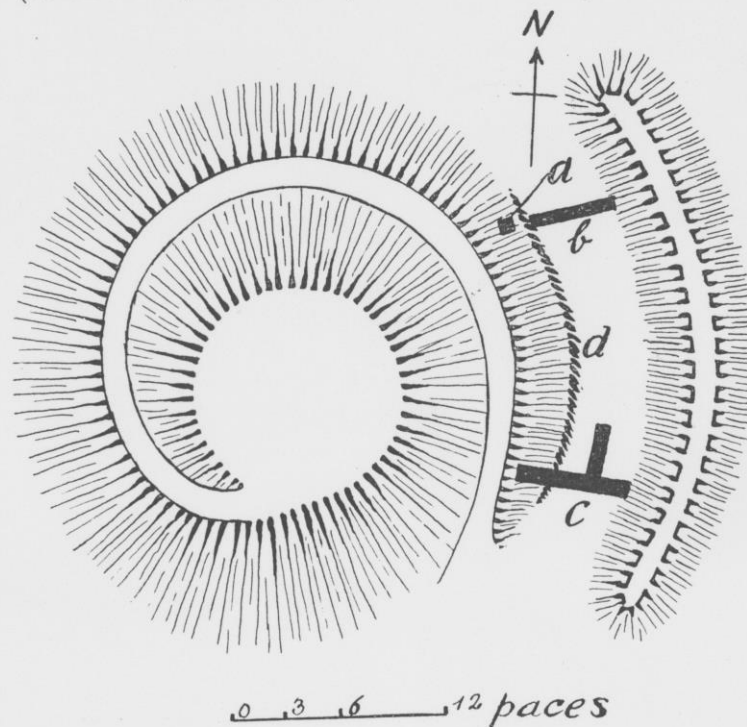


Fig. 3.—Plan of "Tomen Madoc."
a, b, c. Trenches. d. Sill of rock

This earthwork proves to be a much mutilated castle mount (Fig. 3), which is now, like the whole of the southern portion of the hill it surmounts, much overgrown by trees and scrub. From this site an extensive view is obtained over the countryside. The mount alone is fairly well preserved; a spiral pathway now winds around this to the summit, where, until re-

cently, stood a summer-house. The only surviving portion of the vallum that once surrounded fosse and mount is that to the east of the motte, where it now forms a fence. All trace of the bailey that probably adjoined the motte has now disappeared, but, from the configuration of the ground there, this probably existed to the west of the motte. This mount agrees with many similar structures in Wales in being constructed upon an outcrop of rock, and, near the base of the mount, and opposite to the vallum, the rocky "sill" is visible (where the rock has been cut into to form the ditch) for a considerable length.

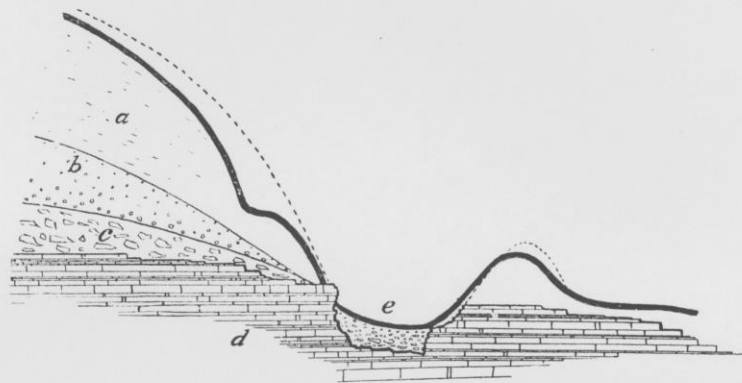


Fig. 4.—Diagram showing structure of "Tomen Madoc."

a. Soil. *b.* Mixed earth and stones. *c.* Rubbly material. *d.* Fosse excavated in solid rock.

In order to determine the structure of the mount, three trenches were dug, two of these (Fig. 3, *b* and *c*) being cut across the floors of the fosse, one on the north-east and the other on the south-east of the mount. The third and smallest of these trenches (*a*) was made just above the sill of rock described above, in order to determine the dip.

It is not necessary to describe the excavation of the several trenches in detail, the results obtained being practically the same in each case.

At a depth varying between 1 ft. to 2 ft. 6 in., rock

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was met; this was covered by a layer of rich soil. The rock appeared to be the weathered surface material, and it must be regarded as the original floor of the fosse. Bed-rock was reached at about 4 ft. below the present floor of the fosse.

The breadth of the fosse, measured from the abrupt edges where the rock has been cut into in making this ditch, is about 12 ft. (?) The present height of the vallum above the floor of the fosse is about 5 ft. 6 in.

The structure of the mount appears (Fig. 4) to be as follows:—

The upper layer of material (*a*) forming the mount consists of rich soil; then follows earth mixed with stone more or less (*b*), below which is found rubbly material (*c*). These layers rest upon the solid rock (*d*), the surface of which is more or less weathered.

The diagram (Fig. 4) also shows the probable original contour of hillock and vallum (dotted line), and the present form of the earthwork (thick line).