

## FURTHER POSSIBLE DISCOVERIES OF ENGRAVINGS WITHIN CATHOLE CAVE, GOWER, SWANSEA

by

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### ABSTRACT

In September 2010 the author discovered a possible Late Upper Palaeolithic engraving of a cervid in Cathole Cave on the Gower Peninsula in South Wales (Figure 1). Members of the NERC-Open University Uranium Series Facility extracted samples from the surface on which the engraving was made in April 2012, together with a sample from a section of flowstone covering part of the reindeer's muzzle. A single date of  $12,572 \pm 600$  years BP was obtained from the overlying flowstone, suggesting a minimum age for the engraving (Nash *et al.* 2010, 2012). This discovery prompted the author to explore the cave with a greater degree of scrutiny.

As part of the remit to record this and other features within the cave, the Welsh heritage agency CADW commissioned a 3D digital survey of the main galley and side chambers of the cave. This survey allowed the team to produce an accurate and definitive plan of the cave (Nash and Beardsley, 2012). In addition, a survey was undertaken in July 2012 where the majority of the accessible surfaces of the cave were explored. This paper describes the results of that phase of work.

### INTRODUCTION

A survey of the rear section of Cathole Cave was undertaken during early July 2012 whilst a series of exploratory excavations were being undertaken by the National Museum of Wales; one of these was a trench that extended across the rear section of the main gallery, referred to as Trench A (Walker *et al.* 2014). The survey concentrated on the rear section of the main gallery including a small antechamber located immediately west of the main gallery and the north-eastern section of the main gallery that leads to a sediment-filled chamber that extends a further 12.5 m to the north; a section of which has now been surveyed (Figure 2). Over the past 130 years the cave has been sketched and rough plans made (e.g. Ede and Bull 1989; Oldham, 1978; Roberts, 1887; Vivian, 1887) but as far as the author is aware, no systematic survey or excavation<sup>1</sup> of this section of the cave has been undertaken except for a small excavation within the western section of the cave by the team from the Museum of Wales in 2012, referred to as Area B. This excavation established the full stratigraphic sequence of deposits that appeared to date from the Early Upper Palaeolithic, c.  $35,550 \pm 650$  BP as well as identifying the depth of deposits removed by the Colonel Wood excavation (Walker *et al.*, 2014, 136-38).

The engravings (mainly incisions and scratches) recorded during this survey are, in my view the result of anthropogenic activity and consist of geometric forms. According to Simms (see Nash, *et al.*, 2012.), the character of the engravings is completely different to the natural character of the [limestone] geology of the cave. The engravings (incisions and scratches) fall into two distinct groups: straight/sub-parallel and curvilinear lines. All incisions were arguably made using flint implements.

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<sup>1</sup> In July 2012 the author noted a previously unrecorded cut channel that extended into the north-eastern rear section of the cave, probably made by cavers.



**Figure 1.** *The entrance of Cathole Cave, from the south west.*

The 2012 survey identified three panels (labelled B to D); however unlike the engraved cervid found in September 2010 (panel A) no direct chronometric dating for these newly-discovered panels can be obtained, nor can the style and form from each engraving be clearly distinguishable. Furthermore, Panels C and D are current of questionable origin and will require further detailed study. In addition, engravings were also found within the upper and lower sections of the Panel A (above and below the dated cervid); their form and morphology as yet unclear.

A fifth panel, Panel E, contains both engraved and possible painted forms. The engravings are all considered to be modern, reflecting personal names and insignia. However, also present is a possible painted section probably made from locally-sourced haematite.

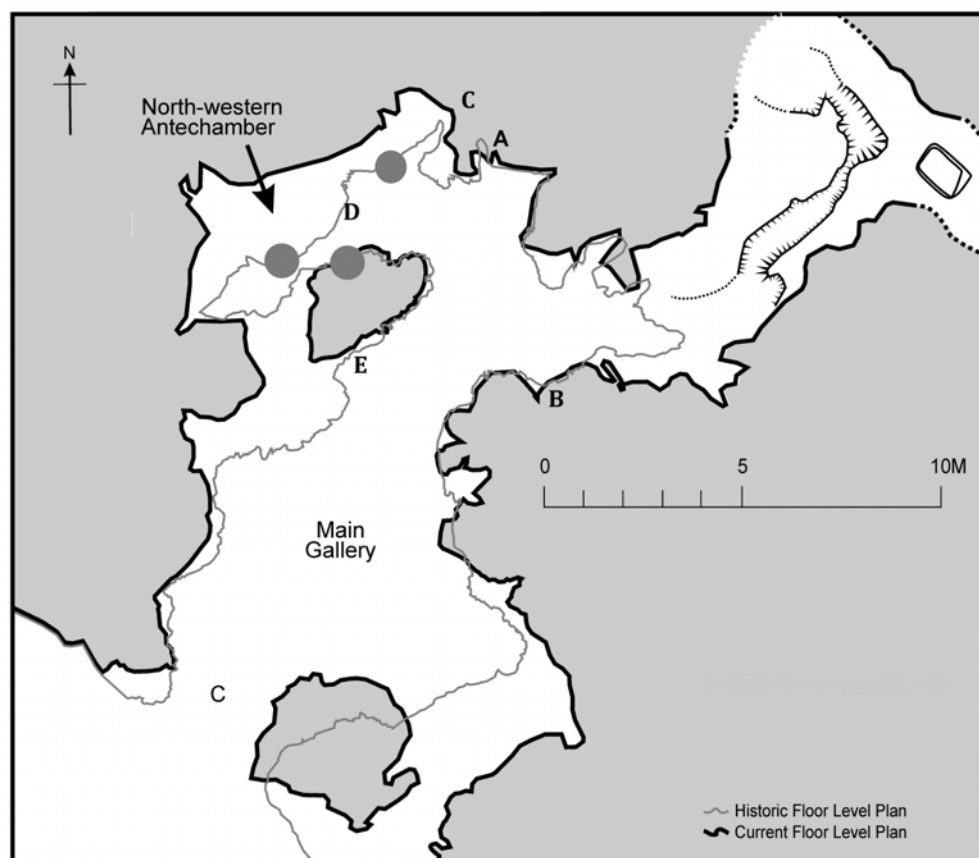
## DESCRIPTION OF THE PANELS

### *Panel A.*

This panel includes an engraved cervid that was discovered in September 2010 and verified in 2011. Above and below this figure were a series of straight, sub-parallel and curvilinear lines, their form obscured by botryoidal calcite (e.g. Figure 3). Limited investigation of this panel indicates that no additional engravings extend underneath the speleothem deposit. However, it appears that most of the surface of this panel (i.e. the rock surface) has been engraved. Further detailed analysis is required here, as it has not yet been possible to identify any specific forms. Located below the cervid are a series of curvilinear and linear incisions; whose form is also unclear (Figure 4). This panel has been recorded using a variety of digital equipment, but the results are frequently unsatisfactory owing to the space in front of it limiting the distance between camera and subject to less than 10 cm.

### *Panel B.*

Panel B is located, c. 6.8 m south east of Panel A and comprises a geometric pattern that utilises part of the natural topography of the cave (Figures 5 and 6). The panel is positioned to the west of a small shallow niche (or alcove) and measures c. 0.35 m (vertical) by c. 0.07 m, forming a linear horizontal geometric pattern. The incisions, all made by human agency,



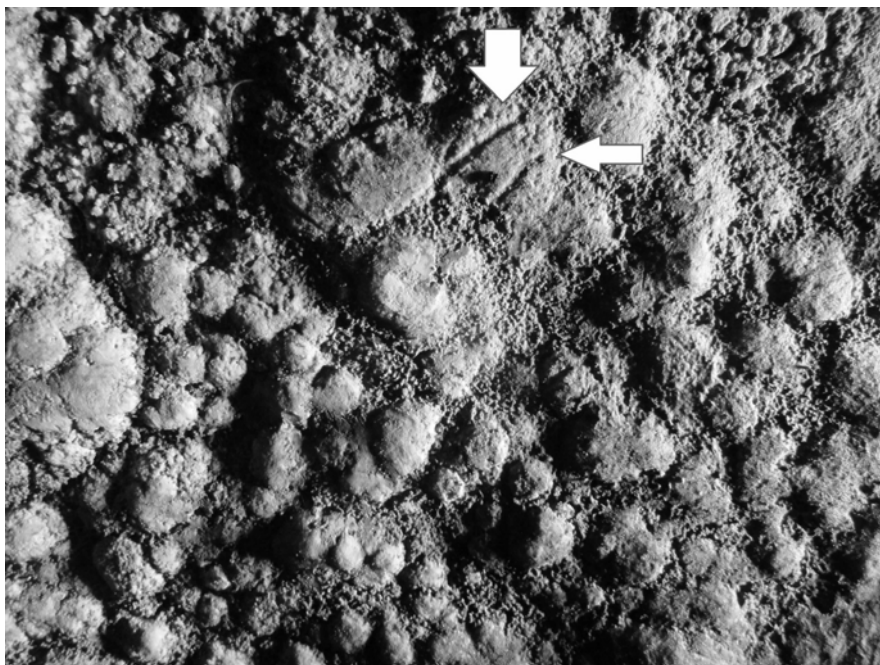
**Figure 2.** Distribution of possible rock art panels (labelled A-E) and Eurasian brown bear (*Ursus arctos arctos*) claw marks (grey circles).

include three vertical lines that each extends c. 0.25 m in length. Each line is interrupted by a series of short vertical lines, forming a ladder or grid-type design. Within the upper section of the panel all three vertical lines are intersected by a single horizontal line (Figure 6). Two of the three vertical lines continue above this. Around the two vertical lines are a series of irregular lines which are fainter and less deeply incised. At the base of the panel, the vertical lines discontinue or fade out; suggesting that the visual focus of the panel is within the central and upper sections of the design. Inspection elsewhere within this section of the cave revealed no further engravings; however, the depth of the cave sediments within the rear section of the cave is unknown and more engravings may exist below the current floor surface.

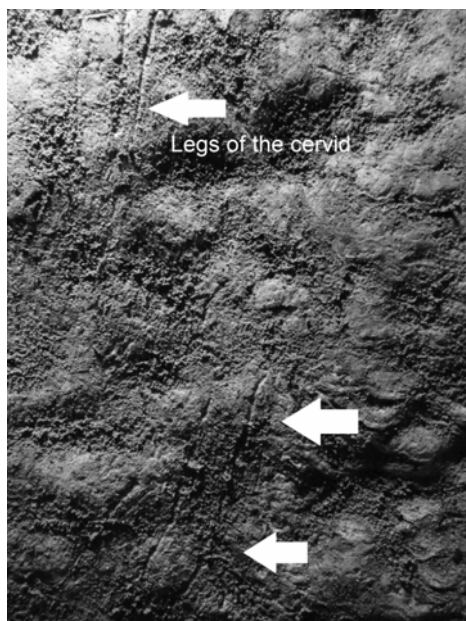
#### *Panel C.*

This panel measures c. 0.20 m by 0.15 m and is located in a tight niche within the northern section of the western antechamber. Access to the panel is via a narrow opening c. 0.15m wide.<sup>2</sup> The incisions include straight and curvilinear lines that directly overlie a

<sup>2</sup> Further access can be gained via a tight, c. 0.75 m, high opening above the surface of the floor.



**Figure 3.** *Panel A, incisions that are located above the recorded cervid.*



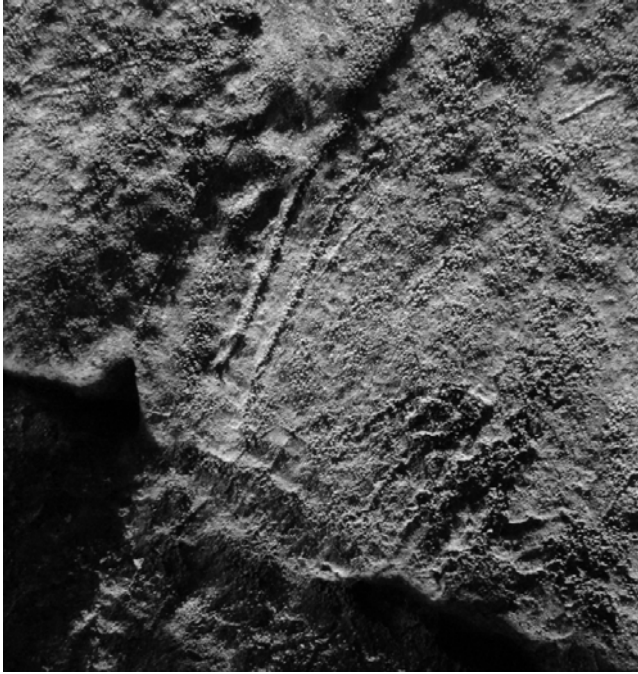
**Figure 4.** *Panel A, incisions that are located below the recorded cervid.*



**Figure 5.** Lower section of Panel B showing delicate incisions made by a flint implement.



**Figure 6.** Central and upper sections of Panel B showing the continuation of the ladder/grid design.



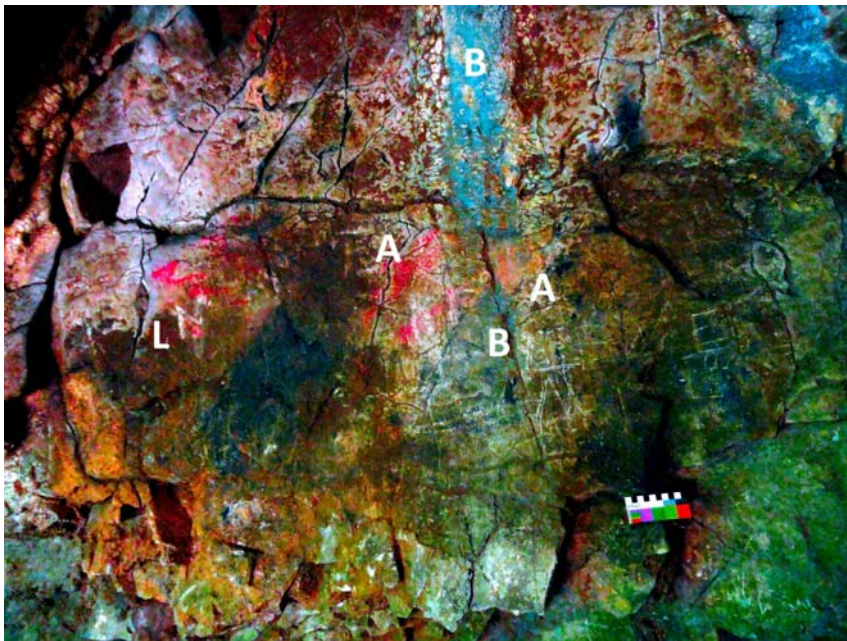
**Figure 7.** *Two parallel incisions covered with a light calcite veneer on Panel C.*



**Figure 8.** *Possible diagonal incisions on Panel D.*



**Figure 9.** *Panel E, natural colour with IFRAO scalebar.*



**Figure 10.** *Panel E, digitally enhanced image using D-Stretch software.*

botryoidal calcite flowstone of similar general character to that found within the niche containing Panel A (Figure 7). Each of the two linear parallel lines measured approximately c. 0.12 m in length and were spaced 15 mm apart. Given the difficult access to this possible panel, an artist could have only inscribed the surface with his or her left hand. The form and morphology of the incisions is unclear and further inspection of the area of the antechamber is required. Note that owing to the difficulty in accessing this panel no scale is present in the photograph.

#### *Panel D.*

This panel is located 1.3 m above the floor of the western antechamber, on a smooth limestone surface, one of only a few of any significant size within the cave. Although this panel was initially ignored owing to an array of natural striations within the immediate vicinity, further inspection has revealed possible applied incisions arranged into a geometric mesh pattern (Figure 8); similar to those found in Aveline's Hole in Burrington Combe, Somerset (Mullan and Wilson 2005). Scratches made by the Eurasian brown bear (*Ursus arctos arctos*) are found either side of the panel, suggesting that the antechamber was utilised periodically as a bear hibernation den (Nash and Beardsley 2013). The marks are attributed to this species as its remains were identified in the cave by Campbell (1977). Access to this section of the cave would have been difficult owing to the raised floor level that was present prior to Colonel Wood's excavation of 1864. The floor level was, according to a plan and cross-section of the cave in Vivian (1887), between 0.80 m and 1 m above the current floor level.

#### *Panel E.*

This panel is within the far western section of the main galley, now safely secured behind a metal grille. Prior to the installation of the grille, this panel and much of the main galley was subjected to periodic graffiti events, some of which were dated<sup>3</sup>. The panel, standing approximately 1.2 m above the current cave floor level and 0.70 m above the pre-1864 excavation cave floor measures c.1.25 m x 1.10 m and comprises a plethora of modern graffiti (Figure 9). The graffiti, mainly textual and abstract motifs/patterns has been applied using a variety of techniques including spray can, alcohol-based permanent marker pens, incisions and scratches, and lipstick (Figure 10, L).

As part of the analytical process, the author employed a desk-based colour spectrum program, D-Stretch. This program allowed the author to enhance the base image (Figure 9) to reveal underlying haematite and flowstone. Underlying the graffiti within the central section of the panel is a possible haematite spread that has in places been cut into by the modern graffiti incisions, mainly text (Figure 10, A). It is not clear if this spread is natural or of human agency. Covering part of this spread is a fragmented flowstone sheet which extends from the ceiling to within 0.90 m of the cave floor (Figure 10, B). In December 2014, the author obtained Scheduled Monument Consent (SMC) from the Welsh Heritage Agency Cadw to sample both the haematite spread and the flowstone. However, owing to the presence of roosting bats, this field-work cannot commence until April 2015.

## SUMMARY

Based on the initial discovery of an engraved cervid in September 2010, the author considered that other forms of artistic endeavour may exist elsewhere in the cave. It was known that further incisions existed on Panel A, above and below the cervid; these were noted in

<sup>3</sup> Dates recorded include 1976, 1979 and 1989. No early modern dates have yet been identified.



correspondence with Elizabeth Walker from the National Museum of Wales but not published. Surveys undertaken in 2011 and in July 2012 revealed further potential evidence of artistic endeavour on three other panels within the rear section of the cave (Panels B – D). Of these, Panels C and D require further detailed investigation in order to ascertain whether or not the incisions/markings are of clear human agency. Panel B is clearly of human agency and the incisions created by a flint implement are similar to other incision marks found in Aveline's Hole and Long Hole in Somerset (Mullan and Wilson 2005; 2006). Unfortunately, no direct chronometric dating method can be applied; one can assume though, based on the style and the way the design was applied that the incisions made on this panel and others are ancient. It should also be noted that these panels have been made in areas of the cave that are hidden and discreet; a common trait in many caves that contain Upper Palaeolithic and Mesolithic rock art.

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