

The Bradford on Avon Monastic Barn: A Study & Interpretation of Apotropaic & Historic Graffiti

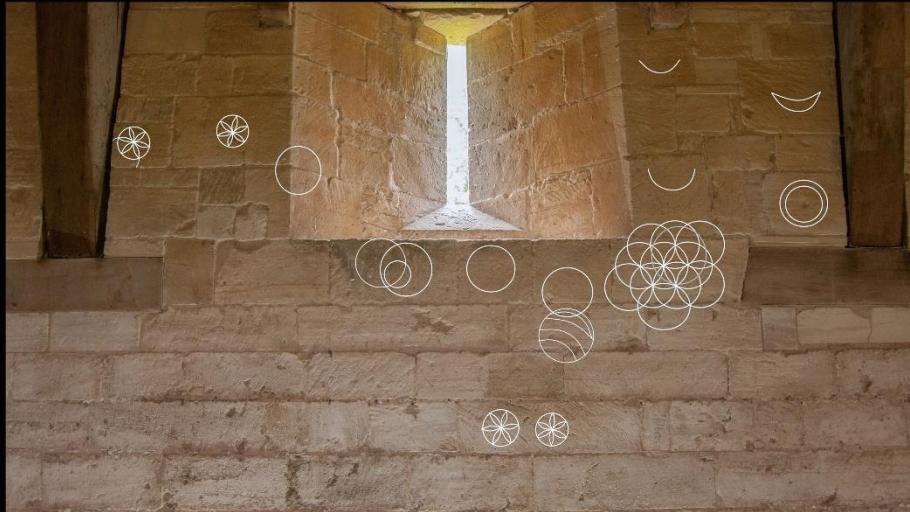


Figure 1: BoA barn Bay 7, South wall annot' showing various compass-drawn motifs

Abstract

The presence of circular symbols, mason's marks and other forms of historical graffiti within the Bradford on Avon barn has attracted attention in various forms over the years but in general this has been confined to the naturally well-lit porch areas. The full-scale recording of all of the building's remaining symbols is at the heart of this essay, together with an examination of the current research status of such symbolism. The author wishes to examine the definitions of superstition and how this may apply to the barn's symbolism considering domestic and ecclesiastical examples. Furthermore, the use of geophysics to determine sub-surface anomalies will be undertaken and analysed.

Contents

Page 1: Frontispiece

Page 2: Contents

Page 3: Introduction: (i) Research Aims & Objectives page 4.

Page 5: Chapter One: The Bradford on Avon Monastic Barn

(i) Manor timeline page 8.

Page 11: Chapter Two: Motif Typology Within the Barn

(i) Compass drawn rosettes & derivatives page 11.

(ii) Mason's marks page 12.

(iii) Tally marks page 13.

(iv) Tourist graffiti page 14.

(v) Other marks page 14.

(vi) Concluding remarks page 14.

Page 14: Chapter Three:

(i) Literary Review, Examining the Research page 14.

(ii) Drawing upon folk culture page 21.

(iii) A New Dawn & New Perspectives page 22.

Page 25: Chapter Four:

(i) Influences on Agricultural Practice page 25.

(ii) Workplace Association & Common Folklore page 25.

Page 27: Chapter Five: Analysis of the Bradford on Avon Barn's Motifs

(i) Typology page 27.

(ii) Location & Positioning page 28.

(iii) Dating page 31.

(iv) Methods of Execution page 33.

Page 36: Conclusion

Page 38: Acknowledgements

Page 38: Appendix

Page 45: Bibliography

Page 47: Images

Introduction

The monastic barn at Bradford on Avon stands as a stoic survivor of the late-medieval period and today lies juxtaposed between the later industrial heritage of the Kennet & Avon canal and Brunel's Great Western Railway. Its close proximity to the River Avon allows us a glimpse of the barn in its period setting, a hint of the way life used to be in a pre-industrial age.

In use as an agricultural building in various forms for over six centuries the building has survived religious turmoil and political strife and bears scars testament to this from the Dissolution of the Monasteries (1536-41) to the English Civil War of 1642-51. The building also hosts an extensive and varied collection of apotropaic motifs and historical graffiti throughout.

Today, the barn today stands as a testament to conservation, its form statuesque and full of grandeur although its primary function has long been lost. Unlike its "sister" barn at Tisbury where recent restoration has transformed the inner space into a working art gallery, no such fate has as yet befallen Bradford on Avon. This however does not diminish the barn as a tourist attraction as its location in the popular town of Bradford on Avon lends itself well to visitors all year round and in fact works to our advantage, as it enables unfettered access to survey and record the variety and number of symbols carved into the stonework, plus it allows engagement with the visiting public, raising awareness and increasing footfall and dwell times within the complex.

In addition, a geophysical survey was carried out on the interior floor of the barn to assess sub surface anomalies with regard to intentional deposition and potential, previous building foundations (see Appendix).

Research Aims & Objectives.

The principle aim of this paper is to survey and document the inscribed marks and symbols that can be found throughout the unrestored areas of the barn and to a lesser extent its exterior. This will provide a research framework that will offer a comparison to other barns both locally and regionally. Symbols present in the barn include but are not restricted to; Apotropaic symbols, Mason's marks, carpenter's marks, tally marks and the inevitable "tourist" graffiti.

Consideration will also be given to the location of the historical graffiti. The geo-spatial relationship between apotropaic symbols and entrances/doorways/chimney breasts has been well documented (Easton 2016, Champion 2015). The general opinion that the majority of the circular marks within the barn are of a ritually protective nature (Easton, Champion, Meeson et al) and are intended to ward off malevolence. This I feel deserves more exploration particularly with regard to influences of malevolence, what elements are present in everyday life for the average medieval community that require such protection? To answer this, examining attitudes towards religion, superstition, disease and health and welfare challenges during the life of the barn will be needed.

Furthermore, consideration will also be given to how these marks are executed and when. Using a variety of known period tools and implements and dressed oolitic stone common to the barn, an experimental archaeological approach will determine how suitable certain tools are to the task.

Dating the work is problematic, not only because of the protracted period that many of these symbols were in use but also as a working barn for over 500 years will have had various structural modifications that are not necessarily documented. A process of eliminating stone type, identifying primary mason's work and how cut and truncation of marks and symbols may aid with constructing a chronology.

As an adjunct to the main theme of this paper and to take advantage of the unusual circumstances that the Covid pandemic brought to 2020 resulting in the closure of the barn, it was proposed that a geophysical survey be undertaken on the floor of the barn. The purpose of this was to identify or discount the possibility of voids beneath the threshing floors and in particular any non-invasive way of ascertaining the presence of horse skulls either as a deposition or acoustic enhancement (see the work of Sandklef, 1949 & Hukantaival, 2009). Secondly it would be advantageous to establish any presence of any previous structure prior to the barns 14th century construction.

In Chapter 3 I will examine the scholarship of ritual marks found within barns and other contemporary buildings, and the wider interest of historical graffiti which has witnessed an upsurge of interest in recent years. Conclusions upon dating and meaning will be considered and reflected within this project and the methodologies of these studies will encompass my own proposals. This chapter will also briefly explore the study of monastic and agricultural barns within an architectural context, and I will suggest that whilst these studies have brought important information on form and function to the fore it is necessary to pay closer attention to the markings in order to understand how folk interacted with and within a building and that further recording, analysis and interpretation will provide further knowledge.

Chapter One: The Barn

Location: N.G.R. ST 82324 60465, G.P.S.: 51°20'34"N 2°15'19"W. See Plate 2, figure 1 for O.S. Map from 1920.

Bradford on Avon monastic barn lies to the south-west of the town centre of Bradford on Avon juxtaposed between Brunel's Great Western Railway and the Kennet & Avon canal. To temper this industrial landscape the River Avon naturally meanders through the base of the valley in close proximity to the barn and while gentrification is the order in this once industrious town, evidence of its past survives in many forms.

Constructed in the 14th century, the barn is aligned approximately east to west, measures 51 m long x 9.2 m across 14 raised cruck bays with four porches accommodating internal threshing floors. Although a more exact date remains elusive, a dendrochronology report commissioned in 1993 proposed a probable felling date that ranges between A.D. 1333 & A.D. 1380. Data analysis provides a likely construction date using unseasoned "green" timber of circa 1350 (Groves and Hillam, 1993). A larger "sister" barn, also of 14th century construction survives at Tisbury, Wiltshire.

The barn remains part of the complex of Barton Farm Manor, an administrative grange that was bequeathed to Shaftesbury Abbey in A.D.1001. (Chandler, 2003). Although often referred to as "The Tithe Barn", and indeed tithes were legally appropriated by the Abbey from the 13thC albeit contested by Edward 1 who recognised the potential economic benefits to the Crown until finally being confirmed by Edward 111 in 1332 prior to the barn's construction and finally sanctioned by Papal consent in 1343 (Slocombe, Treasure & Dobson, 2012). So, although we may consider the construction of the barn as timely, it was primarily for storage of cereals and crops from the demesne farm (Harvey & Harvey, 1993).

The influence and control of Shaftesbury Abbey under the auspices of the Abbess cannot be understated and its success as the wealthiest monastic order in England ultimately contributed to its downfall (Chandler, 2003). The barn complexes at both Tisbury and Bradford on Avon survived the dissolution of the monasteries unlike the Abbey at Shaftesbury, and although both barns are grandly constructed using proportion and symmetry adopted from church construction (N. Hurst, personal communication April 2017), their functionality necessarily overrides any pretence of religious representation.

Post-Dissolution in 1546 the barn and Barton Farm as part of the Manor of Bradford was bequeathed to Sir Edward Bellingham by Henry VIII. Upon Bellingham's death in 1550, and after some fallow years and a change in monarch, possession transferred to the Earl of Pembroke in 1571 (Harvey & Harvey, 1993). The manor remained a high status and desirable asset to the Crown with Elizabeth I bequeathing the manor to her Principal Secretary: Sir Francis Walsingham who broke up the manor, leasing in part to local man, John Yerbury, whose daughter Elizabeth married Thomas Eyre, M.P. for Salisbury at Bromham see Thomas Eyre graffiti (Plate7, figure 2).

The breaking up of the manor for the first time since its presentation to the Abbey of Shaftesbury in 1001 caused some issue and a tribunal was held to determine the extent of the King's holdings in the manor.

It would be prudent to note here that regardless of ownership the manor and thus the barn would have remained productive providing employment and remaining a valued asset, its longevity assured by slow changes in agricultural practice that still required the basic infrastructure that the barn provided. Even as the first forays into mechanisation came into being, the barn was adapted to accommodate a horse engine to drive mechanical threshing equipment thus the building evolved in line with more modern agricultural attitudes (Plate 2, figure 2). By the late 19th,

early 20th century the building was redundant aside from machine storage and its infrastructure was failing, with substantial works required to prevent its demise.

Manor Timeline

1001	Manor of Bradford bequeathed to the Abbey of Shaftesbury by King Ethelred
14 th C	Barn constructed for the demesne farm under Shaftesbury Abbey
1546	Dissolution of the Monasteries spelt the end of Shaftesbury Abbey
1550	Bequeathed to Sir Edward Bellingham by Henry VIII
1571	Bequeathed to the Earl of Pembroke by Elizabeth I
1576	Reverted to Sir Francis Walsingham, Principal Secretary to Elizabeth I Walsingham subsequently leased part of the manor to John Yerbury
1614-1828	John Yerbury's son, also John inherited the leasehold until his death when it passed to his daughters then through marriage to the family of clothier Michael Tidcombe and through various private tenants thereon.
1850-	Dispersal and division of the manor resulted in Barton Yard including the Barn and surrounding land coming into the ownership of the Hobhouse family of Monkton Farleigh.
1914	Negotiations begin with Wiltshire Archaeology Society with a view to taking over the barn from Sir Charles Hobhouse for future preservation. Eminent architect Harold Brakspear oversaw that commenced the post WWI conservation works.
1952	Barn attributed Grade 1 listed status: Entry no' 1184239 https://historicengland.org.uk/listing/the-list/list-entry/1184239

Chapter 2

Motif Typology Within the Barn

In respect of the BoA barn and the centre of this study the vast majority of the incised “graffiti” is compass drawn circles and variations upon the rosette or hexfoil and consecration cross (Figure 1, Plate 3, figure 1, Plate 16 figure 1). In fact, the compass drawn designs are ubiquitous throughout the barn, but most may only be visible when oblique sunlight is cast upon the walls or the use of a raking torch light is employed. The exception to this are those found within the north porch areas where a cluster of compass-drawn motifs is highlighted by residual oils transferred by touch (Plate 24, figure 1). I feel this is more appreciation rather than veneration as its location is within the sight line of the general entrance to the barn and that the footfall in this area attracts further interaction due in part to its visibility. This image often appears in media coverage and EH publicity material and is probably the most well-known.

Compasses drawn Symbols: Rosette & Derivatives

The compass drawn rosette (often known as a hexfoil, daisy wheel) appears throughout history as a symbol of the sun and is found within formal Christian contexts attributed to the Virgin Mary (Easton, 2016, Champion, 2015). Is it reasonable to accept the appropriation of Christian symbolism associated with the Virgin Mary in a building such as the BoA barn? The barn was constructed for the purposes of servicing the vast estates of Shaftesbury Abbey, being administered by the nunnery. The Abbey was not under complete control of the abbess and nuns, however, as services had to be officiated by men although the Virgin Mary featured prominently in their faith (Chandler, 2003). An early link between

a solar symbol and moon crescent both associated with the Virgin Mary can be seen on the Saxon tomb slab at All Saints church, Maiden Bradley, Wiltshire (Plate 4, figure 3).

It is often accepted that symbolism may change over time, the appropriation of the swastika for far-right extremism for example, one period representation may not have the same inherent meaning or intention as another. Easton offers the example that a formal use of the hexfoil was popular prior to the 14th & 15th C but became less so in a formal context after this period, being adopted in an informal, secular context (Easton, 2017).

With the high number of markings within the barn should we accept that they are all an apotropaic nature? Arnold Pacey (2007) acknowledges Meeson's work that many will be of an apotropaic nature but chronologically removes them from a medieval context and attributes them to a post-dissolution era, citing changing working practices for masons and craftsmen and the necessity of using geometric designs for architectural design. This cannot be discounted entirely for the barn until the material is fully evaluated, however the prominence of the rosette in the 12th century Herefordshire School of Romanesque and its positioning above the threshold supports earlier application and a protective element (Plate 6, figures 1 & 2).

An analysis of the wider corpus of how compass-drawn motifs are represented within other contexts reveals that there are a number of artefacts in the archaeological record that allow for cross reference. Brian Hoggard (2019) builds upon the standard set by Ralph Merrifield (1987) and has brought together a compendium of practices associated with the ritual protection of a building. Of particular interest regarding the barn interpretation is the chapter on protection marks, in which Hoggard emphasises the huge geographic dispersal of the hexfoil as an informal mark throughout Europe, US and Australia following a trail of emigration and influence that probably extended from the

more formal use of the symbol in the historic east. What is important here is that Hoggard acknowledges that there are several interpretations for the symbol that, depending upon both chronology and context, include references to solar symbolism, building construction, grave decoration and is not restricted to structure as evidenced by the many portable items such as lead tokens, drinking vessels and furniture decoration (Hoggard 2019).

Mason's Marks

Mason's marks are evident at the BoA barn and initially appear to be in at least two different phases. Early marks are small in dimension, simply incised and consistent, in keeping with banker or setting marks (Plate 5, figures 1-7). For ease of interpretation a second category of marks appear which lack the finesse of the first, seem out of proportion to the face of the stone and are highly visible suggesting they may be from a later date than the construction date (Plate 11, north bay 6 and Plate 32 & 42).

Interestingly while researching a 1944 booklet on mason's marks at Edington Priory in Wiltshire Museum, a flick through the empty pages revealed a 1946 post card sent to a chemist in Bradford on Avon containing mason's marks at the barn and offering an erroneous comparison to marks incised at Stonehenge (Plate 5, figure 5). These coincidences are common within mason's marks, and I feel there is no correlation between the two.

Tally Marks

The placing of rough vertical strokes near doorways is worthy of discussion as they are often recorded as “tally” marks, intended to signify a form of accounting for goods in and out of the barn, perhaps cartloads or sacks (Plate 43). Their proximity to such thoroughfares supports this idea, however, if one considers the level of “goods in or out” in just one season, the number of “tally” marks does not equate to the number of actions (Champion, 2015). Ewart Evans (1956) records that marks were incised near doorways by barn workers to catch the oblique sunlight in order to determine time. This piece of oral history offers a viable way to interpret this style of graffiti and one that requires further testing. Although fraught with potential errors, one would have to consider seasonal variations in sun height and prevailing weather conditions and the presence of at least two scratch dials, a more reliable indicator, pours doubt on the theory for this particular building (Plate 42, figures 5 & 6). A future comparative study with other known marks in similar contexts may aid study, together with similar markings in an ecclesiastical context such as Edington (Plate 7. Figure 3)

Tourist Graffiti

The barn is under normal circumstances open seven days a week all year round and has been accessible for much of the last century therefore and, due in part to the visibility of some of the motifs, has attracted modern, incised graffiti. All interactions with the stonework are recorded regardless. An oral reference provided by Crystal Hollis concerns a barn dance where drunken incisions using a bottle and a knife replicating the historical motifs was done by one participant provides a horrifying, yet amusing potential (C. Hollis 2020 personal communication, November 13th). Further incised initials, names & dates can be seen throughout the barn (Plate 17, figure 3, Plate 22, figure 2).

Other Markings

There are several inconsistencies in the barn stone, including peck marks to take a render at intervals which although not representative of the dressed barn stone and the rather more macabre shot marks on the exterior of the west wall possibly associated with the English Civil War with the maximum height being under 2.5 metres (Plate 40).

Concluding remarks

Plate images and schematics are employed to show the geographic dispersal of the above categorisations of marks and are available at the end of this paper, and links will be provided throughout the narrative. Further discussion on the barn motifs can be found in Chapter 5. Chapter 3 will examine in detail, published works on the research of historic graffiti both within the context of agriculture and a wider area of study which will enable context in both physical and psychological forms to be established, and to further understanding of those within the Bradford on Avon barn.

Chapter 3

Literature Review: Examining the Research

“We are able to see from the marks on the stones that the cutting of initials in forbidden places was as much a passion in earlier days as it is now” (Marsh, 1903).

Taken from “A History of the Borough and Town of Calne” and concerning the porch at St Mary’s, Calstone Wellington and probably one of the most important historical graffiti sites within the county (surveyed by Wiltshire Medieval Graffiti Survey 2019).

The study of historic graffiti receives sporadic and limited attention in antiquity ranging from casual observations such as the above quotation to a more informed acknowledgement by T.D. Atkinson in his 1905 on consecration crosses paper that observes that the less formal motifs “must be carefully examined, for they sometimes turn out to be rude sundials made by a sexton or by workmen engaged upon building some part of the church” (Atkinson, 1905). This astute observation offers some possible interpretation however interestingly does not include the protection ascribed to the consecration crosses.

The work of G.G. Coulton published in 1915 set the standard for an in-depth survey of eastern England churches principally to record and seek to preserve the historic graffiti. Coulton is amongst the first to recognise the potential for study and committed himself and his students to an assessment of 100 churches within the eastern counties. Coulton was a pioneer in the study of graffiti, methodically detailing the type of stone, interpreting where he could, in particular the recognition of “M” as an initial of “Maria”, and producing a basic typology of motifs and scripture. Coulton’s work focussed primarily on the eastern counties and is noted for introducing the “Demon of Beachamwell” from St Mary’s Church,

Beachamwell, Norfolk to a wider public (see <http://www.medieval-graffiti.co.uk/page98.html> Champion, 2015).

Reginald L. Hine included a chapter on historical graffiti in “Relics of an Uncommon Attorney” from 1951. Hine focusses primarily on the written word, particular Latin script and offers translation & isolates grammatical errors as well as attempts at dating. It is worth reading for his genuine interest in the subject matter & his regret that study had not begun earlier before the widespread 19th century church renovations. It also worth noting that the preferred methodology for recording was by “taking a rubbing” this practice is rightly frowned up today primarily for conservation reasons and is in itself reflective of the times, a post war pre digital era that lacked the technological foresight and ability to record in a non-invasive way. This practice carried on with Violet Pritchard’s work and even today we must discourage misplaced intentions from enthusiastic folk.

In 1967 Violet Pritchard published her landmark study of “English Medieval Graffiti”. This provided a selective introduction to a variety of marks found within the confines of the British Isles. Although by no means intended as a definitive volume of works the book stands up as an introduction and remains widely referenced today.

Pritchard only touches on Wiltshire via Lacock Abbey unfortunately missing out on the Abbey barns (surveyed by Wiltshire Medieval Graffiti Survey in 2019), and also the Bradford on Avon barn. In saying that the corpus of work covered by Pritchard is substantial but limited. Although Pritchard visited over 2000 churches across the U.K. by her own admission her research primarily focusses on a perimeter 60 miles around Cambridge. In addition, a distinct lack of geometric designs such as the rosette designs found within the BoA barn not to mention the lack of reference to the potential properties of historical

graffiti as a protective symbol means the book is of interest but limited in its value to the study of the BoA barn.

Perhaps I should view Pritchard's book as precipitating an interest in the study of as the 60's passed into the 1970's saw an upsurge in interest and importantly witnessed a more theoretical approach as to why the marks were inscribed in such number and their location was key to this new understanding. Key to this work is Timothy Easton, an expert in vernacular buildings, who is widely published in his chosen scholarly field. Easton's articles predominantly focus upon his research into apotropaic (*Gk. To Avert, for example, malevolence*) markings offer us an in depth look at what may represent a large percentage of those found within the BoA barn. This outlook, together with that of Ralph Merrifield heralded not only a new wave of interest in vernacular buildings but encouraged different ways of looking, with particular emphasis on interactions with superstitious elements and how important this was to how a dwelling was used. Merrifield's "Archaeology of Ritual and Magic" takes the reader literally into another realm with the introduction of folk lore in a physical form citing "witch bottles", shoe and animal depositions and charms in a written form said to invoke building protection in varied forms including regional consistency of bellarmine bottle contents. These themes has been ably researched by Brian Hoggard over the last two decades expanding upon Merrifield's work and adding additional dimensions to a building that offer a unique insight into past lives, belief systems, religious ideals and aid our present understanding of the past.

Easton initially faced some scepticism to his interpretation of such symbols as ritual protection marks but doggedly ploughed his own furrow with the result that he built a large corpus of work refining his theories as he published many papers on the subject. For the purposes of the work at Bradford on Avon I will confine my interest on Easton's later

work such as the Society of the Protection of Ancient Buildings' and Weald & Downland Museum publications as they build upon and present a concise overview of his earlier works such as on his own dwelling at Bedfield Hall, Sussex and benefit from a recent upsurge in interest in historical graffiti stimulated by Matthew Champion with the development of regional surveys.

Having had personal contact with Timothy Easton on several occasions he was generous to a fault with his knowledge and methodology, so it is no surprise to witness similar traits within his writing: (<https://independent.academia.edu/TimothyEaston>) for his collected works. Easton positively encourages the reader to engage fully with the study of informal symbolism, gently coaching in recognition, recording methodology and interpretation. For example, "Ritual Marks on Historic Timber" (1999) from the Weald and Downland Museum journal Easton isolates three main entrance points within a domestic building that require protection, all being open to the elements via doorways, windows and hearths. Within an agricultural context such as the BoA barn Easton is of the opinion that many of the symbols are congregated around the threshing floor & livestock areas and he offers a date circa the 17th C onwards. This is of particular relevance to the BoA barn and spatial analysis will feature later in this paper. Changes in use of domestic dwellings that may in addition include livestock is also considered which is important in terms of understanding and interpretation, perhaps not relevant to the BoA barn but certainly of interest in terms of understanding the spatial distribution and meaning behind the barn's symbolism.

It is interesting to note that Easton's approach to what he interprets as Marian marks, votive venerations to the Virgin Mary, and notes examples from vernacular, ecclesiastical and agricultural contexts to substantiate his argument and notes probable

changes in their function due to changing religious practice and a possible desire for craftsmen to carry on the practice in a traditional sense as a protective symbol (2016, 41). This will be of relevance to this study of the BoA barn which in addition to the large number of rosette/hexfoils does contain the Arabic letter forms possibly associated with the Virgin Mary and also allows us to discount the more inconclusive marks (Plate 10, north bay 2 window, Plate 37, figure 2). The BoA barn was a Catholic building, its architecture and its commission emphasises this. The markings within the barn are many and varied as well as distributed widely, it is unlikely they were all executed within the time frame of the buildings' construction therefore it would be appropriate to determine other factors that influenced the markings. There are however instances at the Bradford on Avon barn where there is a physical relationship between a compass drawn motif & a mason's mark and although these are in the minority, they are evident (Plate 5, figures 4 & 7).

Religious conviction and understanding in society are complex, divisive and open to hostility and intolerance, a situation that is reflected throughout history. Let us not forget that the reforms in English attitude to religion that precipitated the fall of the Abbey of Shaftesbury through the Dissolution of the Monasteries left a loyal following of Roman Catholicism who, held in their faith, were led to exercise more covert practices. A finely executed example of a veneration to Mary can be seen if one looks in the tower at the church of St Mary the Virgin, Bishops Cannings, Wiltshire (Plate 7, figure 1).

In a pre-industrial age England, with the economy firmly rooted in agriculture and its derivatives such as the textile industry subsequent trade was greatly affected by the volatility of the markets that accompanied changes in religious culture (Trevelyan, 1942). The drop-down effect of this volatility would be apparent throughout society and perhaps simple re-assurance may be key to understanding the continuation of use of a "Marian"

mark, confidence and faith in a known and familiar entity during difficult times. Compound this with the natural challenges through disease, notably the effects the Plague had upon population, and weather.

In “Parallel Worlds” (2016) Easton references “The Bewitched Groom” an engraving by the German artist Hans Baldung as being a manifestation of a torch-bearing witch in a stable apparently rendering a groom unconscious (Plate 3, figure 3). Easton cites the work as being representative of fear with folklore & witchcraft perceived irrationally, with Easton referencing other works of Baldung to substantiate this and it is interesting to note that the Chambers 20th Century dictionary cites a nightmare (Old English; “Maere” as being “a dreadful dream...with a feeling of powerlessness to move or speak-personified as an incubus or evil spirit” (1952, 723). It is important to consider contemporary imagery from both a Christian and secular perspective, although caution should be advised. There are no protective markings visible within the image and the title is not one given by Baldung however, and an opinion by G.F. Hartlaub (1960) suggests that the woodcut is autobiographical, and personal to Baldung (as the family’s coat of arms is visible) and possibly sensual in nature due to the witch being an embodiment of lust with the woodcut itself a reaction to religious and cultural change throughout Europe (Hults, 1984). European folklore is well represented during this period and a comparative style of woodcut can be found in the work of Olaus Magnus’ “Witch invoking Destructive Spirits” (Hults 1984, 261). Further exploration into contemporary texts from this period will include “Malleus Maleficarum” from 1486, “The Discoverie of Witchcraft” by Scot, 1584 and King James I’s “Demonology” from 1597 which, even regarding for perspective, evoke the underlying perpetuation of fear and belief that was rife throughout society. In attempting to

understand the ritualistic behaviour that underpinned this fear in society there are other residual elements within the archaeological record in the form of other physical remnants.

This perpetuation of protective counter measures against malicious elements personified as “witchcraft” conjures up almost surreal fantasy imagery today but was a major superstitious element in a time of societal control and upheaval. The barn is empty today, devoid of produce, tools, machinery and the ephemera of any folk protection that may have taken temporary roost within its walls, but this absence of evidence does not preclude their period occurrence.

Easton’s discussion in “Parallel Worlds” touches upon the BoA barn with reference to the entrance only, although he does include worldwide examples and offers the suggestion that they were in the main incised during one period to combat disease and fire. If this is so why the necessity for so many symbols within one place? Admittedly within the BoA barn there are many variations on compass drawn motifs, from overlapping basic circles to more complex rosettes that often share similar characteristics but differ in the number of petals (Plate 10, Plate 32, figure 2, Plate 34). Others display unique details such as the square and dot panels found within a compass-drawn circle, a unique element that has no correlation to date within Wiltshire, although a similarly perplexing detail can be found within a barn at Lacock (Plate 12, figures 1 & 2)).

Easton uses secure dating methods to expose 18th & 19th C examples as “good luck” charms to combat poor harvests and subsequent poor yields, and this is pertinent within the context of the BoA barn as a working entity, the infrastructure that supported the barn revolved around the harvest, which in turn required a huge labour input, a working knowledge of crop growth and hand in hand with these elements come the social fears and superstitions that reveal themselves in ritualistic behaviour as a proactive measure to offset

elements such as weather, disease and poor yields which are perceived to be beyond human control.

Drawing upon Folk Culture

Easton's work leads us into the study of regional and localised folklore in order to assist our understanding of how people were; how they behaved, what influenced them, and what fears they may have had. The 20th century heralded a folk revival that found its origins in and was stimulated by academic interest in rural cultural practices that was in danger of dying out for many reasons but due in part to changes in farming practice, mechanisation and the effect of two world wars upon labour. This upsurge of interest in British cultural roots stemmed from a post WWII folk revival that was popularised and embraced by a 1960's counter cultural influence that originated in the U.S. but took inspiration closer to home (Boyes, 1993). Of course, there were earlier revivals of interest, and the folk movement is naturally fluid and ebbs and flows throughout time, however, alongside interests in tradition, song and customs, physical elements such as the Weald and Downland Living Museum (founded in 1967 and previously known as the Weald & Downland Open Air Museum) provided an inspired look at vernacular buildings construction and social use including protective marks preserved in their construction. Easton has done much work to promote their importance at the museum and how their presence may be viewed as a part of the composite of superstition and influence within a building's fabric.

A New Dawn & New Perspectives

The new century heralded new research as Easton's work reached a zenith of acceptance in academic circles. In 2010 Matthew Champion opened the historic graffiti

debate to a wider audience with the formation of the first community led Norfolk Medieval Graffiti Survey which facilitated systematic recording of historic graffiti within the county leading to the formation of more widespread community engagements nationwide including Wiltshire. This far-reaching vision of Champion has the potential to create large datasets of material that may come to fruition in the future.

Champion's 2015 book "Medieval Graffiti; The Lost Voices of England's Churches" brought together many of the findings into a compendium of historic examples building upon the work of Easton and others in identifying parallels with the graffiti within formal architecture, medieval scripture and church practices. It is this ecclesiastical parallel that offers sources for the motifs found within the BoA barn, particularly with the consecration crosses and rosette styles (Plate 3, fig. 1. Plate 10, Bay 2 window. Plate 15, figure 4.)

With the pioneering study of Easton and Champion we can see a relationship between formal Christian symbolism and the more informal motifs contained within the barn. This informality does not make the pieces less valuable however but allows us to examine them in a different context. Much of the associated research focusses primarily upon historic church graffiti although there are indeed parallels and crossovers, and this has been well covered by Timothy Easton. In relating this research to the BoA barn, it would help to understand how barns featured within the local community and indeed consciousness, how social interaction and changes in agriculture can be gauged within an agricultural building.

In 2010 Katherine & Melanie Giles published their work "Sign of the Times: Nineteenth -Twentieth Century Graffiti in the Farms of the Yorkshire Wolds" which, although outside of the chronology of the BoA barn motifs, has at its heart localised social and agricultural change that is reflected within recorded graffiti. Interestingly Giles & Giles

identified clusters around doorways and windows which in addition to many of the motifs at the BoA barn and others is reflected in Wiltshire Medieval Graffiti Survey's work at Neston Park, Wiltshire (Plate 4, figure 2).

Although of a different period to the BoA there are many salient points to take from this study that are lacking in sources elsewhere but are important to our understanding and relevant to the study of the BoA barn. Giles & Giles emphasise the importance of social study, examining the structure of social hierarchies, affirmation of status and how spatial distribution offers perspectives on how the graffiti originated. This approach offers a more dynamic element to the research of the BoA barn and warrants further exploration particular with regard to potentially recent mason's marks in comparison to earlier, in addition to areas of dense apotropaic graffiti.

The study of the development of agricultural buildings is a subject in itself and in order to explore the potential of similar buildings particular within Wiltshire such as the "sister" barn at Tisbury and Abbey supply barns such as Church Farm, Atworth we have to look further afield. Edward Impney's book on Harmondsworth's Great Barn provides a perfect template for study of contemporary barns. What is outstanding about this book is the re-construction of the building phases, a huge task that provides detail that sadly is lost to time at BoA, as only the early 20th century remedial is well documented. Impney's book does reference sources such as manorial records which will assist in the study of the BoA barn alongside the "Charters and Custumals of Shaftesbury Abbey 1089-1216" which although pre-dating the barn's construction provides detailed information on economic matters.

Impney uses informed argument to isolate differences between ecclesiastical and secular architecture within agricultural buildings attributing the grandeur of a building such

as the BoA barn to a sustained, productive ownership which can be interpreted as an investment in economic terms but also implies longevity and future stability (Impney, 2017). There was no reason to forecast any religious or cultural change such was the faith; therefore, it would be unnecessary to refrain from embracing status through a building, which in retrospect may be perceived as arrogance however it also shows the power and control the church had over lands and people that would ultimately prove its downfall.

“Agri-Culture” is strongly referenced with the physical dynamics of planting, harvesting and the barn’s central role to the cash crop whose value is at its apex when it reached the barn and has gone through processing. It emphasises the role of ordinary folk working within a hierarchy. Tempering this with Ewart Evans’ “Ask the Fellows Who Cut the Hay” which is culturally centred on the rural village of Blaxhall in Suffolk in the first half of the 20th century and gives a unique insight into rural life prior to the rapidly advancing mechanisation. With oral tradition passed down over centuries key to understanding both the social structure of the village and the dynamics of communal, rural life in agriculture. The act of threshing is covered well with references to bell ringers “counting their places” while using flails and the cutting of notches to allow the passage of the day to be seen via oblique sunlight, which may offer another explanation for some “tally marks” found within the BoA barn which also benefits from at least two scratch dial on a south facing wall as well as “tally marks” within the south east porch (Plate 42, figures 5 & 6, Plate 43).

Chapter 4

Influences on Agricultural Practice

To understand the symbolism at the barn it is important to understand the role of agriculture and the barn within the medieval/postmodern period. What changes and developments occur? What part does the barn play in terms of security and wellbeing? Warfare, disease, famine and religious change are all indicators of trauma in society, couple this with superstitious belief systems and a hyperbole of blame culture and we can begin to understand how the perception of witchcraft gained momentum.

We only have to look at today's society where political sound bites, media bias and the general disparity between the classes are easily manipulated by those who profit by it. To gain a greater understanding of the period what better than to examine several key texts from the late medieval/early modern period to gauge how religious change and the persecution of certain elements of society created reaction and fear.

Workplace Association & Common Folklore

It is testament to mankind's ingenuity or representative of its failings that see food production from a scant covering of the Earth's surface removed from a labour-intensive movement that provided continual, albeit bordering upon subsistence, employment to the one man, one tractor, one field ethos of today. However, this romantic simplification tells only a part of the story, as the natural state of the world with regard to our ability to feed ourselves is held in a delicate state of balance reliant upon weather, disease, infestation and warfare depleting yield and supplies. "Making hay while the sun shines" is an often-used expression today for positivity and action. Rooted firmly in the medieval age its origins display the realities of agriculture, its frailty and susceptibility to prevailing weather

conditions and what better way to assist against bad weather than to use a charm that represents the sun.

These periodic challenges faced within agriculture are central to the rural community and manifest themselves as a form of stress, testing the resolve of the people who sought relief through belief and superstitious practice. The barn itself stands not only as an architectural and technological achievement with its wide span and church-like proportion (N. Hurst, personal communication April 2017), but also as ecclesiastical assurance whereby the workings and product essential to life are allegorically afforded the same protection as that within the sacred space of the church.

There are multiple agricultural applications associated with the barn and it is important to consider these and how they may have altered or evolved over time as agricultural practice and techniques change and adapt to economic environments.

At the time of the barn's construction the last famine that affected Europe would have been within living memory and indeed may have contributed to the idea of constructing what is to all intents and purposes a large warehouse and processing facility. Climatic volatility ensued in the 12th to 15th centuries and disease challenges such as the Black Death all played their part in labour issues, starvation, economic hardship and a greater need for an economic buffer to allay future fears (Gilchrist, 2012).

A wood carving incorporating agricultural implements within a rosette was recently sent to me by Andy Bentham in whose possession it remains (Plate 1). Although of unknown provenance the clear association between agriculture and the rosette in a formal design makes to desirable for inclusion.

Chapter 5

Analysis of the Bradford on Avon Barn Motifs

Typology

The collection of circular motifs throughout the barn displays a wide variety of geometric shapes that vary from a regular 6 petalled hexfoil to incomplete examples, multi-foils and elaborate conjoined circles (Figure 1).

Presenting a typology and offering comparative data is straightforward, one of the main research concerns the need for such variety and deviations from a regular hexfoil? Easton (2016) refers to the similarity of the consecration cross style captured at Letheringham Lodge and this is echoed by Champion (2015) who references the work of T.D. Atkinson on consecration crosses who blamed the similar motifs as the “forgeries of some young agriculturalist” (Atkinson, 1905). The Bradford on Avon barn has a small number of consecration “style” compass designs which are in a minority compared to hexfoil variants and do not reach the required number of twelve for the consecration of a building for religious purposes but do share similar execution techniques. Note Inglesham where the incised marking can be clearly seen (Plate 2, figure 1).

Table A Location	Compass- Drawn	Mason's Marks	Other (Tally, Tourist, etc)
North Wall	278	91	103
South Wall	94	107	70
West Wall	1	47	9
East Wall	3	0	1
Exterior	10	22	7
Total	386	267	190

Location & Positioning

The majority of the apotropaic marks within the barn appear around the ventilation slits and the entranceways, this is a common feature in ecclesiastical buildings with the internal, sacred space being afforded protection from the malevolent, sinful exterior (Champion 2015). The transition to an agricultural building may be interpreted in a similar way, with the sustaining, energy laden harvest requiring protection from moulds, fungus and air-borne disease whilst in storage. What is apparent from Table A is the higher percentage (74%) of compass drawn or apotropaic motifs biased to the north and predominantly centred around the thresholds both at a level easily inscribed and higher levels unobtainable without assistance.

To assist in analysis and to visualize the location of motifs a series of schematic drawings offer location and type (Beginning Plate 8). This is supported by annotated images and where a particularly interesting or represent a complex geometric design then images are also included (beginning Plate 10).

The bias to the north produces some interesting developments. The north side has received substantial restoration work which can be seen in the images of bay 4 where little or no evidence of apotropaic or otherwise. In addition, the re-use of stone is evident, one example being within Bay 3 on the north wall where the use of a scratch chisel to dress the stone is evident, erasing part of the motif (Plate 10a). The stones are clean from the 10th course and well dressed (Plate 10). Conversely Bay 6 also appears to have replacement stone with a form of triangular mason's mark that features minimally elsewhere (Plate 11). These are large and although proportionally sensitive lack the subtlety and discretion of what may be perceived as earlier marks (Plate 5). In order to substantiate the rebuilding, there are a few clues to aid interpretation. Where a compass drawn circle overlaps

surrounding stones it may be determined that this area is relatively undisturbed (Plate 10, 15). Areas that have seen restoration or repair truncate a motif leaving a partial design on one stone with bare dressed stone immediately adjacent, or a non-continuation of design. (Plate 12, Bay 14).

The northern bias is also evident within the porches with Table B showing distinct variables between the north and south as well as comparative numbers between opposite walls.

Table B: Porch Compass-Drawn Motifs	No.
North West Porch	90
North East Porch	78
South West Porch	14
South East Porch	16

Table C shows the type of mason's mark found within the barn and a general location. The author suspects the larger less precise marks found in the upper walls are part of the early 20th Century restorations. The postcard includes these marks and offers a secure terminus anti quem of 1946 so pre-dates the 1950's repairs (Plate 5).

Mason's Marks

Type	Number	General Location/notes
	41	Lower walls, West
	61	Lower walls, W, SW, NW
	23	Lower walls, W, SW, NW
	25	Across the barn, consider setting out marks also
	7	West
	14	North, upper wall
	41	South, upper walls
	14	General, consider setting out mark
	4	Upper walls N & S
	19	Upper walls N & S
	3	

Dating

The lack of documented evidence of the barn puts us at a disadvantage with regard to the motifs, which is curious considering the more recent and adjacent Kennet & Avon canal had a comprehensive survey completed in 1918 by Bro. Major Gorham of the Somerset Master's Lodge, and the first literary reference we have is the post card sent to a Bradford on Avon chemist (fig. 19 & 20), (Gorham, 1920). Early 20th century restoration has certainly eradicated a percentage of them as this can be seen in the upper reaches of the north-eastern wall, where new stone replaces old. It may be that some re-orientation or dressing has occurred but to all intents and purposes it would appear the stone was replaced have been the case. Comparative data in a secure setting would be an ideal and perhaps there is mileage in evaluating the symbols to establish a chronology. It would make sense to isolate the initial mason's marks and plumb lines made either prior to or during the initial construction and apply stratigraphic conventions to determine later additions. Disadvantages with this method include the lack of furniture within the barn, for example at Edington Priory an architectural drawing of an initial phase of the church is partially obscured by the

Easton's (2017) assertion that the circular motifs in an informal setting became more prevalent in the 15th century is challenged by Arnold Pacey who uses the monastic barn at Englishcombe, North Somerset to demonstrate how the construction date determined by the original mason's marks gives a terminus post quem of circa 1350 and that overlaying compass-drawn circles may fall within the 16th & 17th centuries (Pacey 2007 164). However, both may be accounting for the printing and distribution of Vitruvius' "De Architecture" which made the geometry and principles of architecture available to a wider if not widespread audience.

In terms of notable contemporary work is the publishing of Demonology by King James VI of Scotland which precipitated a wave of witchcraft and witch exposure in the 16th & 17th centuries. This “top down” system of management launched a movement rooted in superstition and hysteria but amongst many travesties caused it does refer to protecting a building from evil and malevolence (Stuart 1597). Published a little earlier in 1584 “The Discoverie of Witchcraft” by Reginald Scot debunks the myth of witchcraft, exposing it as stagecraft and offering moral caution in taking retribution against it as being anti-Christian (Scot 1584).

Both above publications were influential for opposing reasons but what it does tell us is that in the years prior to 1584 the ideology of “witchcraft was evident”. People were already using symbolism whether descended from Christian practice in order to protect their buildings. This practice may then give a wide chronology of possible execution from the barn’s inception to the 19th century where such symbols can still be seen widely in agricultural contexts. Obtaining a more secure dating agent is desirable and although close examination of executed names and dates including the dubious “1632/1633” witnessed on the south-west porch by myself and other independent viewers does not cut, or is cut by either a compass drawn design, a mason’s mark nor a tally (Plate 28, figure 1). This is a telling but unfortunate consequence, the stone is highly eroded, and the “date” incised in a letter form not identifiable for the period. Other examinations of mason’s marks in relative harmony with compass-drawn motifs again show no cutting that is identifiable that could lead to the determination of one preceding the other by any margin (Plate 5, figures 4 & 7).

Another area of contention or at the very least, consideration is whether marks were subject to re-use over an indeterminate period. Was it acceptable, for instance, for an apotropaic mark to retain value or protective elements in perpetuity? If so, how may this

be represented? Over inscribing a previous motif may be determined by depth and/or geometric irregularity (Plate 32, figure 1). Access may be a determining factor and it does appear that incisions on a lower level have received more attention (Plate 24, figure 1).

Methods of Execution

Pacey (2007) is of the firm opinion that either masons or those close to masons formed the circles and geometric shapes using mason's tools such as dividers. This removes the possibility of other tooling being utilised and as a general statement may be erroneous. The type of stone at Bradford is the easily worked oolitic limestone common to the area and a fine, consistent stone to cut and dress, particularly when freshly quarried when, unweathered, it is still full of the "milk sap" (A. Ziminski, 2019, personal communication, 9th April). Even when weathered it is still relatively easy to incise with only the irregularity of the oolitic fossils ready to cause an error when incising under pressure.

It could be argued that the number of tools available within both the agricultural and textile industries during the late medieval period and prior to the industrial revolution may offer an alternative. Plate 3, figure 2 shows a medieval wall painting of the "Trades of Christ" at St Michael's Church, Michaelchurch Escley that provides detailed insight into the variety of tools available. This type of resource gives us an insight into medieval life and is not restricted to the material, it is the spiritual that is the focus of this painting and this instilling of fear that if a working man or woman labours on the sabbath then a demonic fate awaits them.

Champion (2015) suggests other alternatives to the rarely found dividers that include scissors, shears and knives citing that these are more commonly found within the archaeological record. It is important to consider this and perhaps include further examples

commonly found within agriculture. Experimental archaeology attempted by the author using sprung shears, pairs of compasses, nail and string and scissors has provided variable results on oolitic stone. Undoubtedly the compasses and the scissors were the easiest to handle, replicating the circular motifs and hexfoils successfully. The sprung shears were awkward and susceptible to changes in size and imperfections within the stone. The use of a nail and string gave some success on a curved surface but would need practice in order to achieve the level of accuracy of the interlocked circles at Holy Cross, Sherston, Wiltshire (fig.4) Hamzaoglu & Ozkar (2016). It should also be considered that a level of familiarity through daily usage of the tools would ensure a certain skill level.

The motifs do offer some consistency in size suggestive of a fixed tool in some applications. There is some variance and while there is some potential for using the whole of the stone face edge, often there is a determined spill across several stones indicative that the area is to be protected and not confined to individual dressed stone. It is evident therefore that in the case of “compass-drawn” designs that do overlap, and motif positioning implies they were executed post build. Likewise, restoration work is evident through a motif being truncated (Plate 12, North Bay 14 window).

Society's Belief & Perceptions, the Fear Factor?

The acceptance of many of the marks as “protective” brings with it another set of caveats; Protection from what? Spiritual protection is a “catch all” term if one considers the domination of the Catholic Church in the first half of the millennium, the Dissolution of the 16th century and the new Church of England and the effect this would have on the populace. Challenged in their thinking, religious affiliations and from an agricultural

perspective threats to the harvest risking famine, the mid-14th century construction of the barn coincided with the arrival of Bubonic Plague which ebbed and flowed over the following centuries decimating populations culminating in the Great Plague of 1665.

Risk, therefore, whether natural or politically driven was a constant. The Medieval and the Early Modern period saw fluctuations in health and life expectancy that would have impacted greatly on a society's collective psyche. Gilchrist (2012) provides in depth discussion on many of the challenges faced from climatic changes to disease to combative ritual practices all of which provide a detailed insight into everyday life.

Cause and effect of disease and strategies to combat them are concisely covered within Rawcliffe (2013) which sheds detail on how challenges are determined and managed within the period under discussion. It offers no direct link to this survey, but it does provide an idea of the mindset at each eventuality and systems employed to reduce impact.

The Barn as a Vestigial Building

In addition to recording the more visible symbols and mason's marks it would be prudent to include objects that may have been associated with barn in the past. After all the residual motifs are but a small part of the barn's past and the belief systems and superstitions that surround them are lost to time, and perhaps our disconnection from this way of life removes the importance of superstition in everyday lives. If we consider that the barn, for all its grandeur as a building, is missing its most vital components, that is the infrastructure and dynamics of the culture that revolved around it.

Research by Sonja Hukantavail (2007) draws attention to the deposition of horse skulls in particular contexts as ritual behaviour. Hukantavail references Sandklef's 1949

work on Scandinavian threshing floors noting the deposition of horse skulls was thought to enhance the acoustics of threshing. This inspired a geophysical survey of the BoA barn floor in order to determine any such deposits or sub surface anomalies. Examples can be found in the UK & Ireland generally within a historic dance floor context such as referenced within Merrifield (1987) and Hoggard (2019).

Threshing is an essential component of the BoA barns dynamics and is the final stage of processing of the crop prior to grinding. In the summer of 2020 during a period when the Covid 19 pandemic had caused the barn to close its doors to the general public we were granted a licence by Historic England to commence a geophysical survey of the barn's interior floor area (See Appendix).

Conclusion

In assessing the survey of the Bradford on Avon monastic barn a number of issues became apparent in providing a complete and definitive survey. Not least was a lack of accessibility to roof timbers and although the crucks were inspected with a powerful beam, known carpenter's marks remained elusive due to Health & Safety requirements. As regards the stonework, accessibility using a pole camera with a computer tether enabled the recording of all the stonework internally and externally.

Together with the collected research material, collation of the data and determining the need for so many variable geometric designs often with nuances that made them unique and although comparisons can be drawn with many other regional vernacular and ecclesiastical sites it is the subtle intended and unintended differences that provide an agency and individuality.

Outcomes from this paper include adding to corpus of knowledge of the barn, the social implications and interactions that folk have had over several hundred years with the barn and the surrounding environment, particularly with regard to superstition and belief systems. The data retrieved from the barn will help in the wider study of period buildings both from a vernacular and ecclesiastical perspective and will be made available for further research in the wider field.

The results as they are, particularly with regard to the northern bias, are a product of the present. Under close examination the recording and subsequent interpretation is based upon what can be determined today, using technology of today examining the motif remnants of today. Time, erosion and essential restoration works have all played their part in the removal of detail and whole motifs.

What was a surprise is the comparative lack of motifs on the exterior of the building, perhaps affirming that the interior is the space that requires the protection and borne out by the flow of motifs in line with autumnal northern winds signifying a change in seasons, the onset of winter and with it the disease, viral & fungus challenges that threaten to decimate, spoil and remove from the food chain the hard-won harvest. A harvest that can be measured in a culmination of energy, is cyclical in nature, that provides the labour and toil to prepare, sow and reap the fields. Energy from the sun encapsulated within the resulting grain perpetually sustains the population and any threat to this momentum is a threat to survival. The barn is a grand status symbol, representative of a belief system that was dominant in the Middle Ages, it is also an investment in the future of the Roman Catholic Church through its investment in its people. It provides storage for the harvests, space for a surplus to see through fallow years, a processing facility, employment and

becomes in itself an object separate from life in the fields, a space removed from outside influence and challenges protected by its walls and the symbols inscribed upon them.

The barn is empty today, devoid of produce, tools, machinery and agricultural artefacts, missing the ephemera of any folk protection that may have taken temporary roost within its walls and long gone are any physical vestiges of its people making hay while the sun shines. What does remain however is a majestic building, beautifully constructed with the finest materials and skill plus a unique insight into everyday superstition that played an important role in the hopes and securities of the medieval mind.

Acknowledgements

There are a number of people I am indebted to for help and assistance, either directly or indirectly, with this paper who I wish to offer my gratitude:

Paige Balas, Andy Bentham, Matthew Champion, David Dawson, Timothy Easton, Dr K. Giles, Crystal Hollis, Nick Hurst, Kate Larard, Lucy and David Parry, Jacob Scott, Claire Radnedge, John Samways, Pam Slocombe, Judith Thomson, English Heritage, Historic England.

Appendix

The unusual and unique circumstances surrounding the Covid-19 pandemic of 2020/21 allowed us the opportunity to explore the barn's sub surface via a geophysical survey. This positive step was achieved with the full co-operation and understanding by the owners: English Heritage, and its custodians: Bradford on Avon Preservation Trust. A licence was duly applied for and issued, and work commenced in the summer of 2020 for a period of three days.

The inspiration for this survey came about following a lecture by Sonja Hukantaival whose paper “Horse Skulls & Alder Horse: The Horse as a Depositional Sacrifice in Buildings” (2009) provided evidence of this practice in Scandinavia. Further exploration reveals a similar practice in the U.K. and Ireland in different contexts but for similar purposes. These are intentional deposits, and it is this structured deposition that demonstrates a purpose with the explicit intention of creating an effect whether this be for a form of protection or some other purpose. Ralph Merrifield’s book on The Archaeology of Ritual and Magic (1987) details the practice of placing horse skulls under floors to enhance acoustic resonance in both barn and domestic contexts throughout the U.K. and Ireland such as the underfloor horse skulls at Portway, Herefordshire (Plate 44, figure App:1). Both texts reference the work of Sandklef (1949) who recorded many such examples within Scandinavia and perhaps this practice developed from Northern Europe origins.

There are major construction differences between the BoA barn and those recorded by Sandklef. The barns within Sandklef’s research are predominantly of wooden construction, with thick timber threshing floors often underlain with compacted clay (1949, 20). Sandklef is of the opinion following consultation with local farmers that horse skulls have no role in superstition or folk lore and are exclusively for the enhancement of sound while threshing (1949, 24)

Parallels with improved resonance within historic buildings can be found in the use of acoustic urns or vases, these have been referenced throughout history from Vitruvius to more modern examples in ecclesiastical settings in the UK and Ireland (McKenny-Hughes, 1915) (Plate 44, figure App: 2 © Nuban 1915). McKenny-Hughes also emphasises the

singular use within churches and domestic fireplaces as a form of protection against evil, fire or otherwise (1915, 65).

Using a non-invasive geophysical technique known as “Tomography” to record any subsurface anomalies within the barn floor with particular focus on the threshing floors.

The reasons for this are to substantiate any previous structural foundations from a previous build and to determine any anomalies that may indicate an intentional, structured deposition.

Geophysical Survey

The current survey was undertaken in accordance with the Ancient Monuments and Archaeological Areas Act (1979) Section 42 licence from Historic England for work in the scheduled area.

Monastic Grange at Barton Farm, Bradford on Avon: Case No. SL00234003

Monument No. 1014813

Prior consent was also obtained to carry out the work by: English Heritage, the owners of the barn, and Bradford on Avon Preservation Trust who manage the property on behalf of English Heritage.

Nominated representatives: John Samways, Claire Radnedge.

(Plate 45, figure App: 3a & b: Copy of Licence)

(Plate 45, figure App: 4: Copy of Insurance)

Methodology

The floor consists in the main of compacted soil which is dissected by two stone threshing floors aligned to the porches. It was essential to maintain conductivity without impacting upon the barn floor and a suitable method which held the probes via plastic supporting cups which had been pioneered by John Samways at the Roman Baths at Bath, B.A.N.E.S. where similar criteria required a non-invasive approach.

To ensure satisfactory conductivity a water spray mist was applied to the probes and where the threshing floor was concerned a soaked modelling clay bonded to a contact probe was utilised (Plate 46, figure App: 6). As can be seen measuring tapes were laid and corresponded with the probes at consistent intervals. Both methods proved successful in terms of measurement and conductivity.

Equipment

Equipment & Software: TAR-3 resistance meter, (manufactured by RM Frobisher) programmed to take readings using a Wenner Array configuration (Fig. App:7).

- Custom built probe connection and switching box (J. Samways)
- 2D software: Geotomo Software Res2Dinv64 (version 4.10.1)
- 3D software: Geotomo Software Res3Dinv64 (version 3.18.1)

Resistivity Methodology

The geophysical survey was carried out, as far as possible, in accordance with EAC Guidelines 2. Electrode separations of 0.5m or 1m were used as suggested for imaging archaeological features, together with the most suitable configuration. Practical constraints

restricted this survey to the available instrumentation (a TAR-3 meter configured for a Wenner α array, with manual switching along one survey line at a time). Survey lines were placed at several places within the barn to determine the sub-surface in both North-South and East-West directions (Plate 47, figure App: 8 & 9).

To collect the data necessary to produce a 3D result in the area of the West porch, 6 survey lines were run in an East-West orientation across the earth/stone floor between the doors. Loke (2014) advises that 3D data can be collected using a number of parallel 2D survey lines, but that the spacing between the lines should not be more than twice the in-line probe spacings. There is an option in Res2Dinv to combine data into a single data file in the format used by the Res3Dinv program.

No allowance has been made for the slight variations in the ground surface. The ground slopes from North to South and East to East, with steps at the porches.

Resistivity data reduction

The resistance values obtained from the TAR-3 meter were converted to resistivity using the following equation, applicable where the probe insertion length is 20 times less than the shortest probe separation distance:

$$\rho_E = 2 \cdot \pi \cdot a \cdot R_w$$

where:

ρ_E = apparent soil resistivity (Ωm)

a = electrode separation (m)

R_w = measured resistance (Ω)

Resistivity data from each line were inverted to infer a subsurface resistivity model using Res2Dinv64 software. For error estimation during the inversion the robust inversion method was selected (absolute errors or the L1 norm) as this method is more tolerant of

discontinuities between adjacent cells and thus tends to resolve boundaries between layers more sharply than the standard least mean squares inversion.

The model space was divided into $\frac{1}{2}$ cells (half the base electrode separation) to provide finer resolution of any near-surface anomalies.

The raw datafiles in Res2Dinv format were combined to create a single file in Res3Dinv format. These data were inverted to infer a subsurface resistivity model using Res3Dinv64 software. Again, a robust inversion model was used with a higher damping parameter for the first layer.

Results

From the outset a primary goal was to identify and isolate the possibility of deposits in the form of animal skulls, particularly concerning the threshing floors. We are not convinced this was achievable due to the vagaries of time and the presence of sub-surface water leading to decay and erosion and the results substantiate this.

Identifying the presence of a prior building was also of paramount interest and it is here that the geophysics provides the better result. It is not conclusive by any stretch however the large areas of resistance within a determined area show proportion and a symmetry that warrants further investigation.

It is suggested that a Ground Penetrating Radar (G.P.R.) survey be conducted to explore the possibilities and perhaps substantiate the findings from 2020.

The high resistance levels shown in the centre of the barn across a linear east to west measures 12 metres and sits squarely between the two porches 1 metre below the current surface (Plate 47, figure App: 10). There are consistent levels of resistance to a depth of 3

metres. We have no determined explanation for this anomaly, and it is this feature that begs further exploration. It may signify a previous structure; its uniformity is indicative of human interaction. The suggestion that it may be sub surface evidence of quarrying should not be discounted, the local oolitic limestone has many rich seams in the area although it would be expected that the resistivity levels would continue downward.

Conclusion

As an experimental exercise we were pleased with the results. The presence of sub surface voids whether animal skull depositions or other could not be determined. In terms of sub surface structure or foundations there is more to consider. The higher resistance areas between the porches requires further investigation perhaps with the aid of Ground Penetrating Radar in order to draw out further detail and to substantiate this survey's results. Further thought may also be given to the high resistance areas in areas of the threshing floors. These may well be floor reinforcing to allow the passage of heavy carts or later remedial works during 20th C restoration works.

Bibliography

Atkinson, T.D. (1905) On Some Consecration Crosses in East Sussex in Proceedings of the Cambridge Antiquarian Society no. XLVI

Boyes, G. (1993). *The Imagined Village: Culture, Ideology and the English Folk Revival*. Manchester: Manchester University Press.

Burder, A.W.N. (1917) The Mediaeval Tithe Barn, Bradford on Avon: Report on the Work of Repair. *Wiltshire Archaeological and Natural History Magazine*, 39, 485–90 (accessed 20th March 2021).

Champion, M. (2015). *Medieval Graffiti, The Lost Voice of England's Churches*. London: Ebury Press.

Chandler, J. (2003). *A Higher Reality, The History of Shaftesbury's Royal Nunnery*. Salisbury: Hobnob Press.

Coulton, G.G. (1915). "Medieval Graffiti, Especially in the Eastern Counties" in *Proceedings of the Cambridge Antiquarian Society*, Cambridge, Deighton, Bell & Co, p53-60.

Dobson, M. (2006). *Barton Grange, Its History & Restoration*. Bradford on Avon: Bradford on Avon Trust.

Easton, T. (2016) "Apotropaic Symbols and Other Measures for Protecting Buildings against Misfortune" in Hutton, R. (ed.) *Physical Evidence for Ritual Acts, Sorcery and Witchcraft in Christian Britain*, Basingstoke, Palgrave Macmillan, p39-67.

Evans, G.E. (1956). *Ask the Fellows Who Cut the Hay*. London: Faber & Faber.

Fassnidge, H. (1993). *Bradford on Avon Past & Present*. Bradford on Avon: Ex Libris Press.

Fleming, J. (2001). *Graffiti and the Writing Arts of Early Modern England*. London: Reaktion.

Gorham, A. (1920). The Kennet & Avon Canal and its Marks. *Transactions of the Somerset Masters Lodge*, 2, 172-183.

Gilchrist, R. (2012). *Medieval Life, Archaeology & the Life Course*. Woodbridge: Boydell.

Groves, C. and Hillam, J. (1993). *Tree Ring Analysis of Bradford on Avon Tithe Barn*. Sheffield: Sheffield University.

Harvey, B. and Harvey, R. (1993). Bradford on Avon in the 14th Century. *Wiltshire Archaeological and Natural History Magazine*, 86, 118-29.

Harvey, N. (1970). *A History of Farm Buildings in England & Wales*. Newton Abbot: David & Charles.

Haslam, J. (1983). Excavations at Barton Farm, Bradford on Avon, 1983: interim report. *Wiltshire Archaeological and Natural History Magazine*, 78, 120-21.

Heaton, M. and Moffatt, W. (2004). Recent Work at Barton Grange Farm, Bradford on Avon. *Wiltshire Archaeological and Natural History Society Magazine*, 97, 211-17.

Hoggard, B. (2019). *Magical House Protection. The Archaeology of Counter-Witchcraft*. Oxford: Berghahn.

Hine, R.L. (1951). *Relics of an Uncommon Attorney*. London: Dent.

Hukantaival, S. (2009). Horse Skulls and "Alder Horse". The Horse as a Depositional Sacrifice in Buildings. Bluijene, A. (ed.) *The Horse and Man in European Antiquity, Worldview, Burial Rites, and Military and Everyday Life*. Archaeologia Baltica, Vol. 11. Klaipėda: Klaipėda University Press. P350-355.

Hults, L. (1984). Baldung's Bewitched Groom Revisited: Artistic Temperament, Fantasy and the "Dream of Reason". *The Sixteenth Century Journal*, 15(3), 259-279.

Impney, E. (2017). *The Great Barn of 1425-27 at Harmondsworth, Middlesex*. Swindon: Historic England.

Loke, M.H. (2003). *Res2dinv-Rapid 2D Resistivity and IP Inversion Using the Least-Squares Method*. Malaya: Geotomo.

Marsh, A.E.W. (1903). *A History of the Borough and Town of Calne*. London: Castle, Lamb & Storr.

Mckenny Hughes, T (1915). "Acoustic Vases in Churches Traced Back to the Theatres and Oracles of Greece" in *Proceedings of the Cambridge Antiquarian Society*, Cambridge, Deighton, Bell & Co, p63-90.

Meeson, B. (2005). Ritual Marks and Graffiti: Curiosities or Meaningful Symbols? *Vernacular Architecture*, 36(05), 41-48.

Merrifield, R. (1987). *The Archaeology of Ritual & Magic*. London: Batsford

Pacey, A. (2007). *Medieval Architectural Drawing*. Stroud: Tempus

Pritchard, V. (1967). *English Medieval Graffiti*. London: Cambridge University Press.

Rawcliffe, C. (2013). *Urban Bodies, Communal Health in Late Medieval English Towns and Cities*. Woodbridge: The Boydell Press.

Sandklef, A., 1949. Singing Flails. A Study in Threshing Floor Constructions, Flail-Threshing Traditions and the Magic Guarding of the House. FF Communications, no. 136.

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, V., Sarris, A. and Fassbinder, J. (2015). *EAC Guidelines for the use of Geophysics in Archaeology*. Namur: Europae Archaeologia Consilium.

Scot, R. (1584). *The Discoverie of Witchcraft*. New York: Dover

Stacy, N.E. (2006). *Charters and Custumals of Shaftesbury Abbey 1089-1216*. Oxford: Oxford University Press.

Stuart, J. (1597). *Demonology by King James I*. London: Forgotten Books.

Thurlby, M. (2013). *The Herefordshire School of Romanesque Sculpture*. Almeley: Logaston Press.

Trevelyan, G.M. (1942). *English Social History*. London: Longmans, Green & Co.

Images

All images are by the author unless where specified. All images processed by author including annotation, stitching and enhancement.



Plate 1: Carved rosette with integrated agricultural implements incl' flail for threshing. Unknown provenance © Andy Bentham

Figure 1

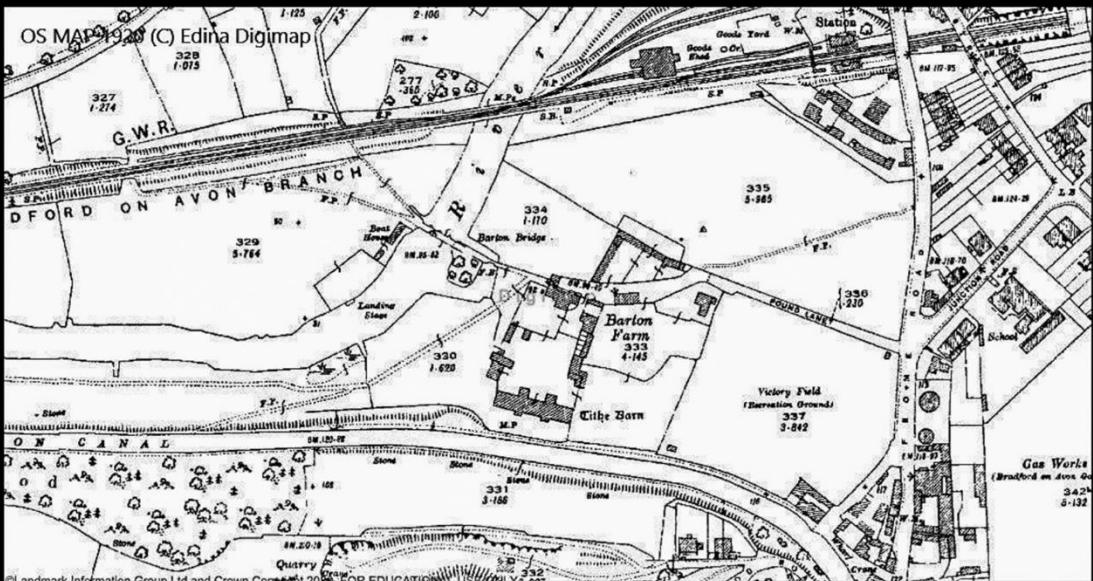


Figure 2



Plate 2: Fig. 1 showing location of barn in relation to railway & canal © Edina Historic Roam.

Fig. 2: NW side of barn showing modifications to the buttresses to accommodate a horse engine mill (horse gin)

Fig. 1



Fig. 2



Fig. 3

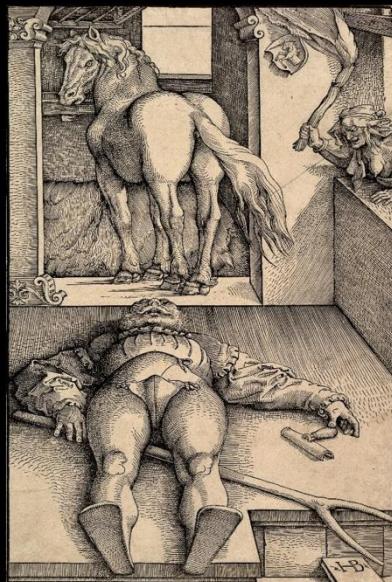


Fig. 4

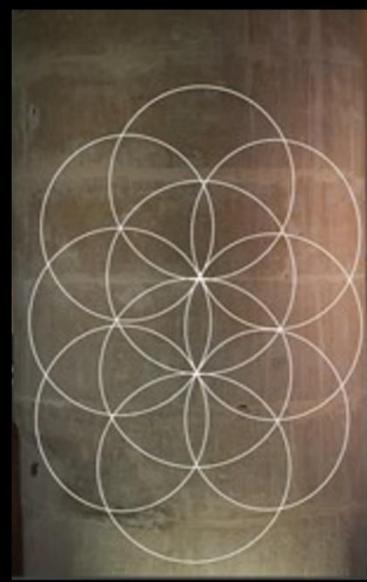


Plate 3. Fig.1: Consecration cross from St John the Baptist, Inglesham offering protection.

Fig. 2: Christ of the Trades, St Michaels, Michaelchurch Escley.

Fig. 3: Mid 16th Century Woodcut "The Bewitched Groom" Hand Baldung © National Gallery of Art, Washington.

Fig. 4: Double rosette wrapped around a north facing pillar. 0.75m in diameter. Church of the Holy Cross, Sherston, Wiltshire.

Fig. 1



Fig. 2



Fig. 3



Fig. 4



Plate 4: Fig. 1: Catherine wheel at BoA.

Fig. 2: Neston Park, Wiltshire.

Fig. 3: Grave slab, Maiden Bradley, Wiltshire.

Fig. 4: ©Wiltshire Museum Devizes , image by author.
Bas relief carving of threshing from a local barn beam.

Fig. 1



Fig. 3



Fig. 4

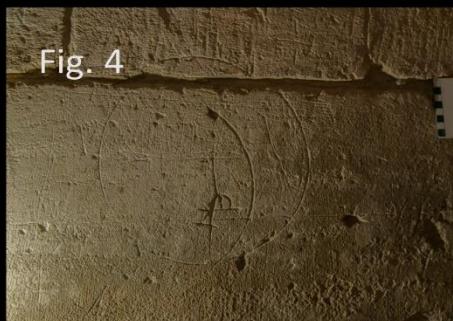


Fig. 2

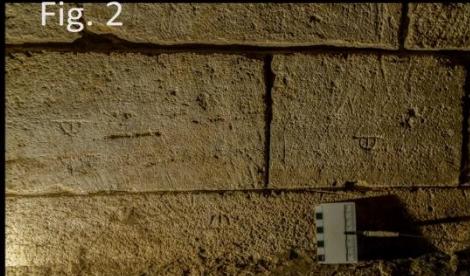


Fig. 5

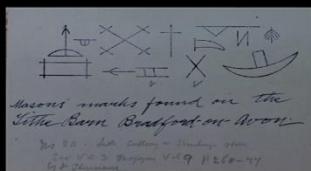


Fig. 6



Fig. 7



Plate 5: Some of the mason's marks from within the barn including fig. 4 & 7 which contain a mark within a compass drawn circle. Fig. 5 shows a post card discovered in Wiltshire Museum's library relating to the mason's marks and addressed to a local chemist.

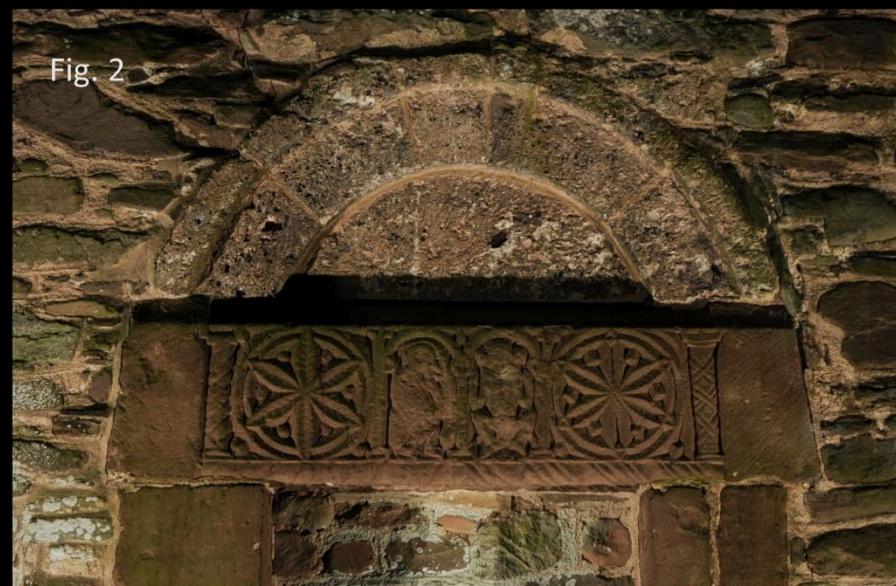


Plate 6: Herefordshire Romanesque sculpture provides formal representations of the rosette. Note use on thresholds.

Fig. 1: St John the Baptist, Letton, Herefordshire.

Fig. 2: St Andrew's Church, Bredwardine, Herefordshire.

Fig. 1

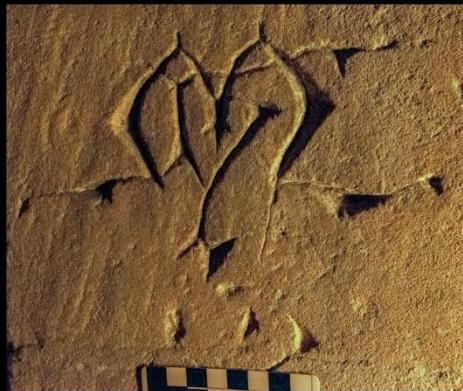


Fig. 2

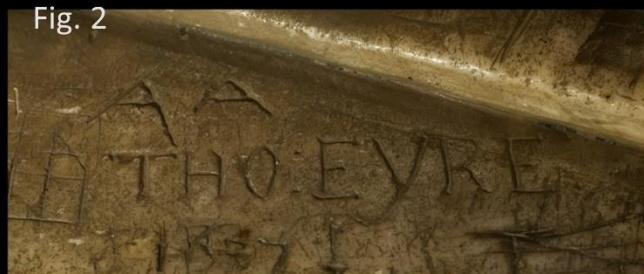


Fig. 3



Plate 7. Fig. 1: A skillfully executed Marion symbol from St Mary the Virgin, Bishops Cannings, Wiltshire.

Fig. 2: Thomas Eyre graffito, Sir Roger Tocotes' effigy, Bromham, Wiltshire.

Fig. 3: Incised vertical and horizontal lines. Edington Priory Church.

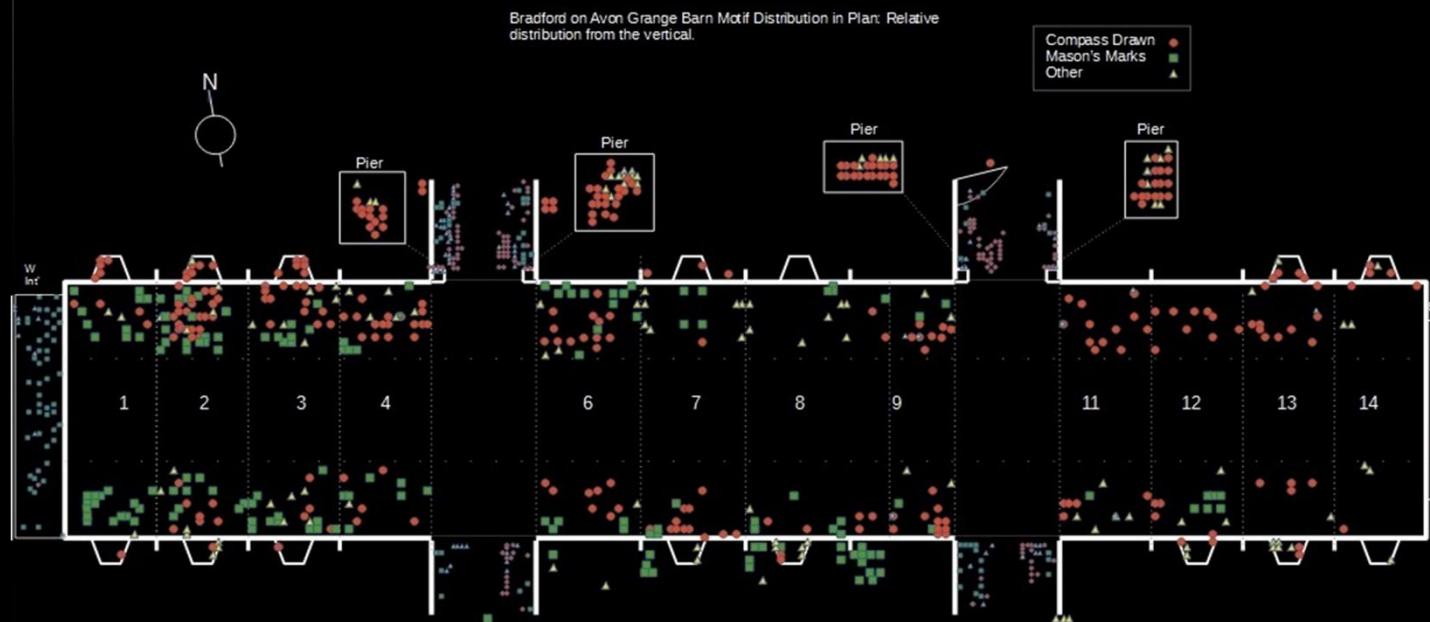


Plate 8: Schematic plan of barn showing annotated distribution map.



Plate 10: North Wall Bay 1-4. Images show close-up detail on selected motifs



Plate 10a: Bay 3 showing
stone scutch comb marks to
dress surface partially
removing geometric motif.



Plate 11: North Wall Bay 6-9 with detail in additional images.



Plate 12: North Wall Bay 11-14. Fig.1 unique dot and square contained within circle. Fig. 2: Lacock comparison



Fig. 1



Fig. 2



Fig. 3



Fig. 4

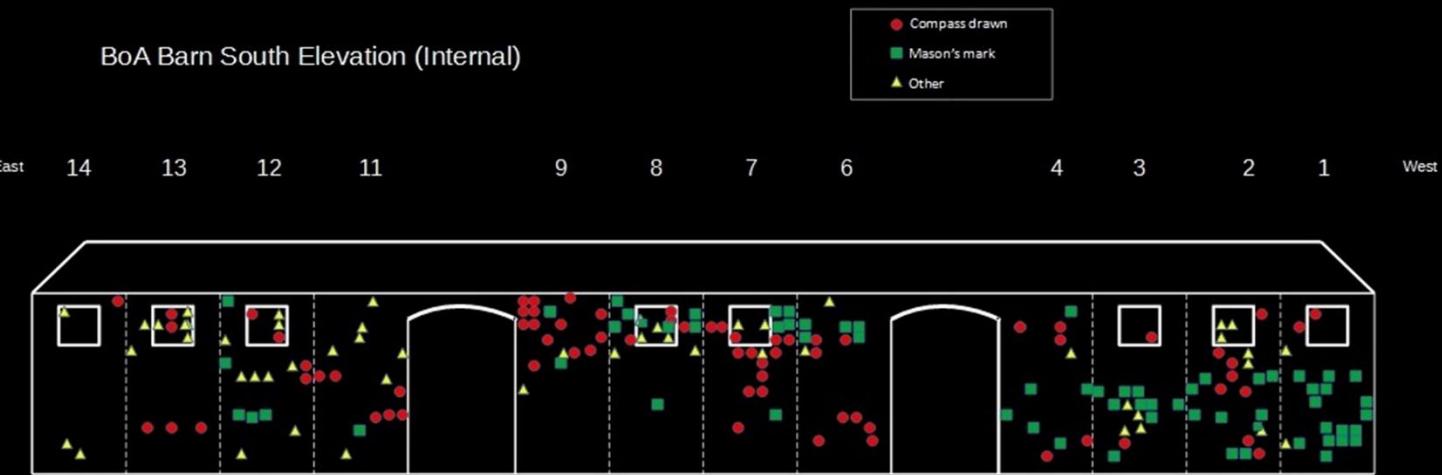


Plate 13: South elevation with distribution map.

Plate 14: South Wall (internal) Bay 1-4 from right to left.



Plate 15: South Wall bay 6-9. Densely populated area with multifoils.



Fig. 2



Fig. 1



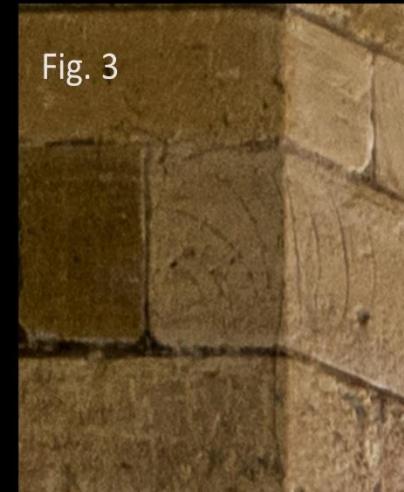
Fig. 3



Fig. 4



Plate 16: South Wall Bay 11-14 from right to left. Fig. 1: Consecration cross, Fig. 3: Segmented circle



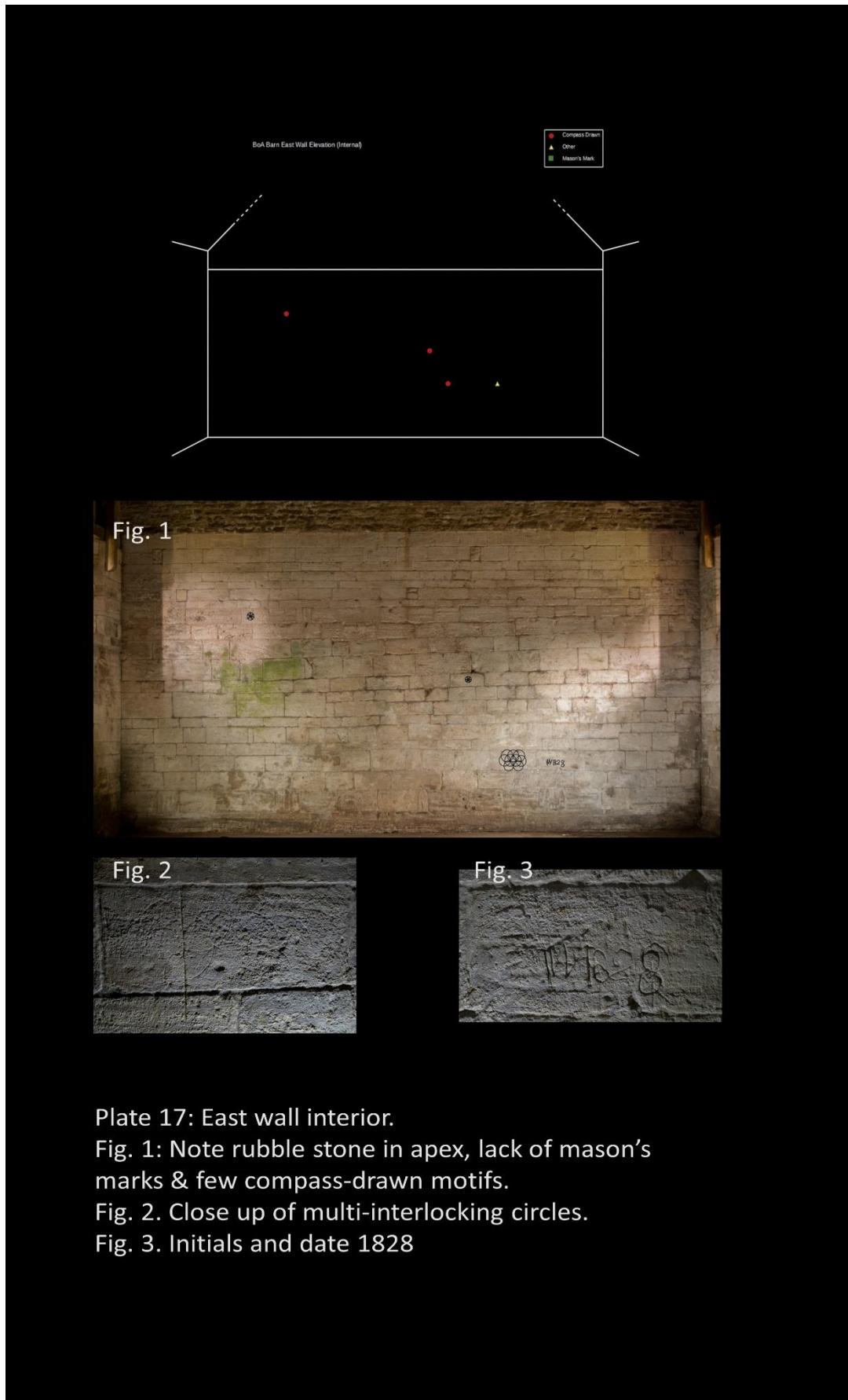


Plate 17: East wall interior.

Fig. 1: Note rubble stone in apex, lack of mason's marks & few compass-drawn motifs.

Fig. 2. Close up of multi-interlocking circles.

Fig. 3. Initials and date 1828

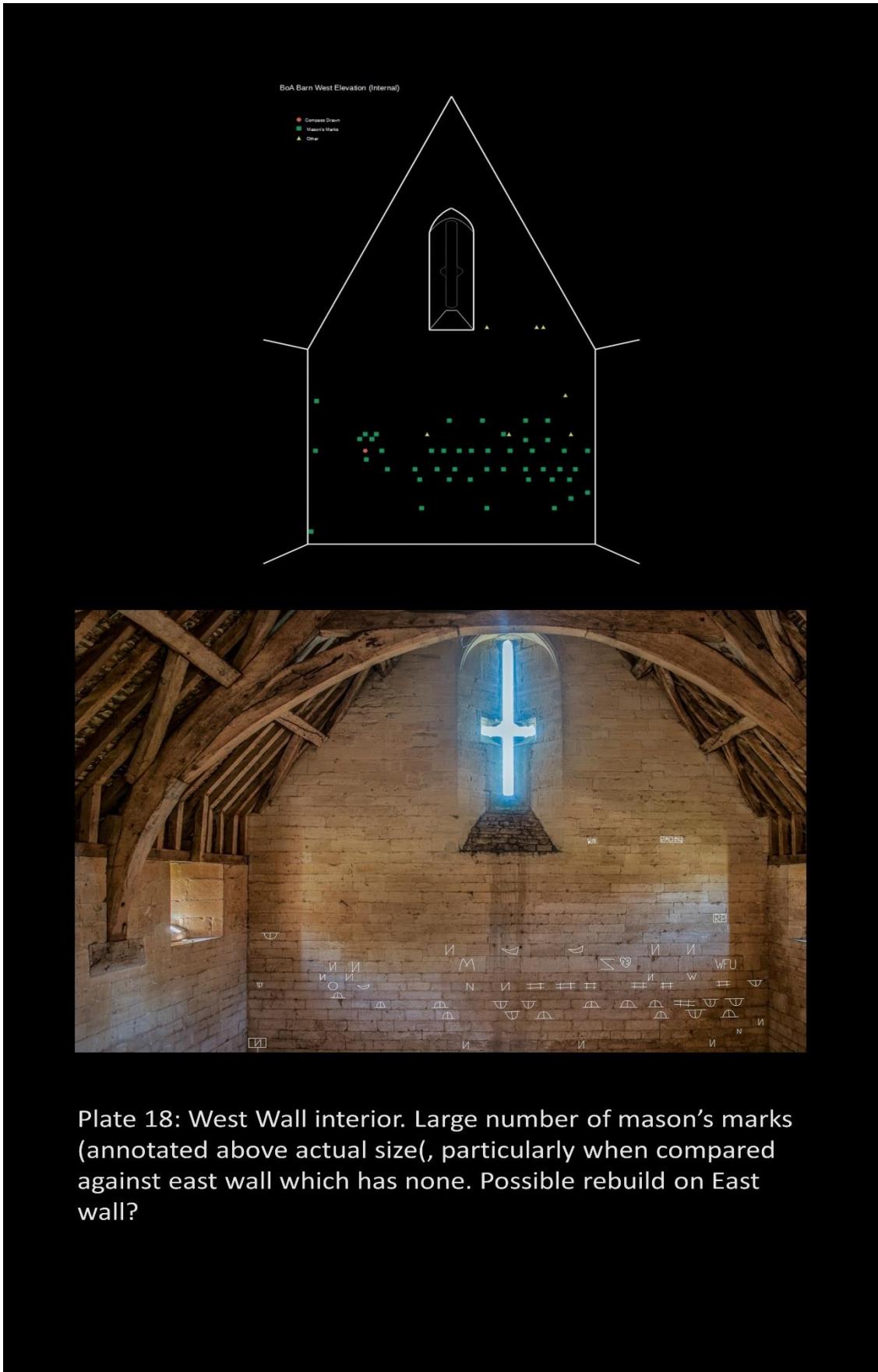


Plate 18: West Wall interior. Large number of mason's marks (annotated above actual size), particularly when compared against east wall which has none. Possible rebuild on East wall?

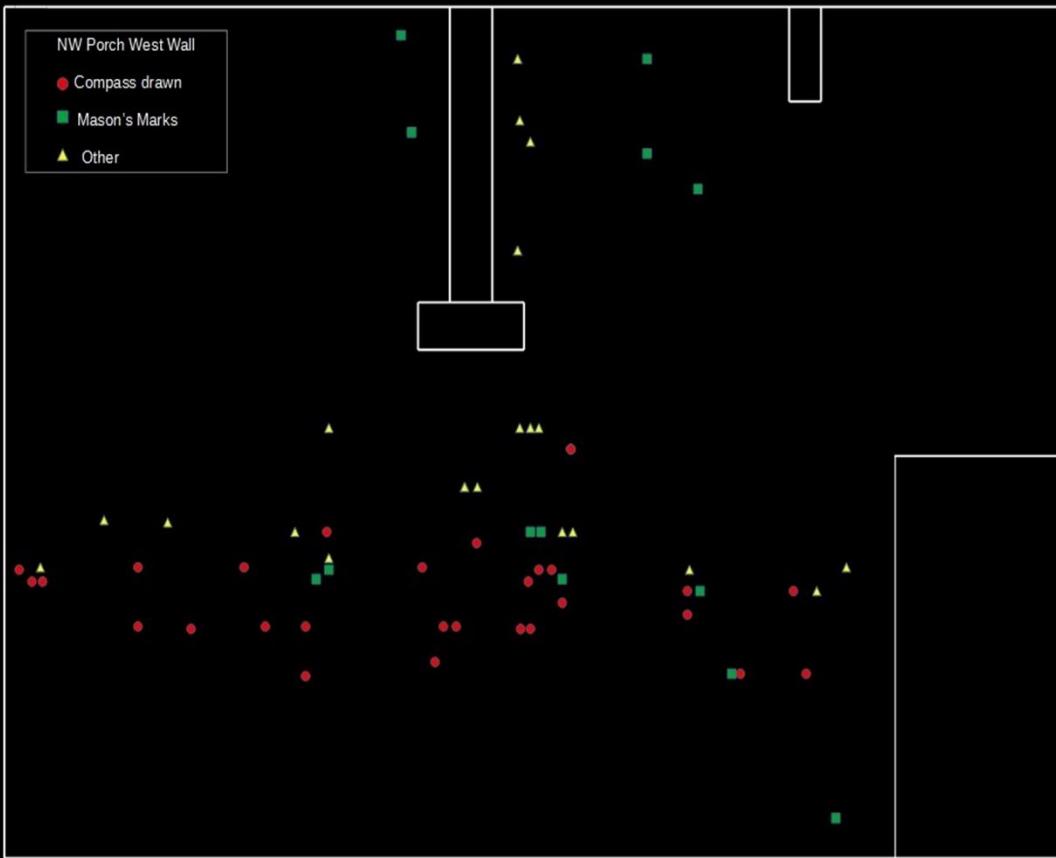


Plate 19: North-west porch, west wall distribution map



Plate 20: North-west porch, west wall. Both supplementary images highlight interlocking circles each with a diameter of 6.5 cms approx.'

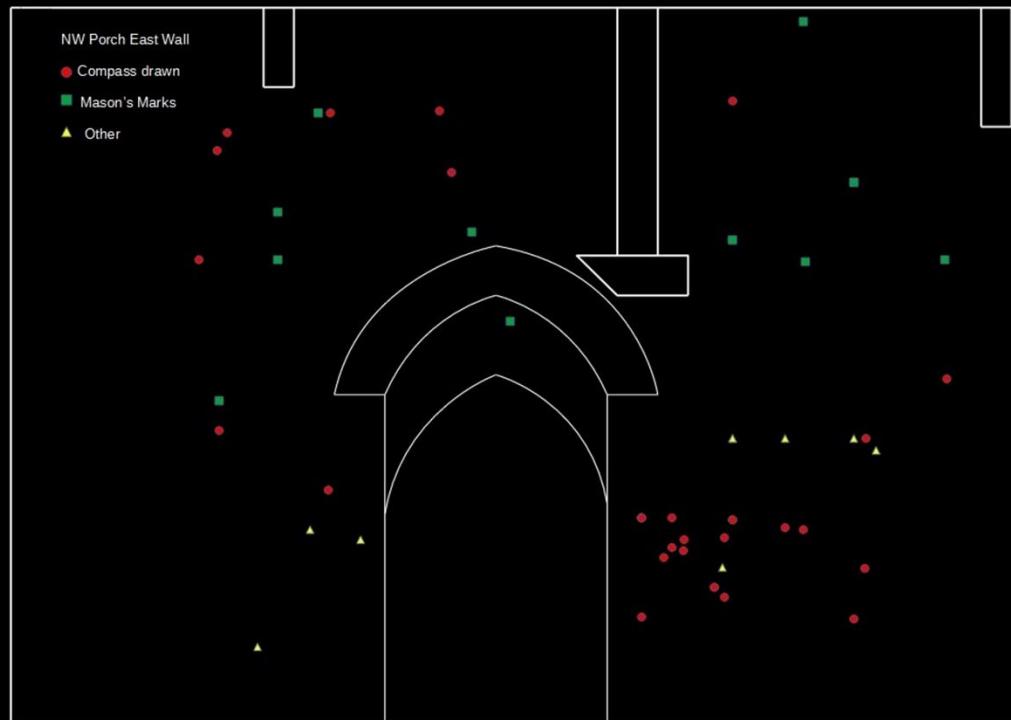


Plate 21: North-west porch, east wall distribution map

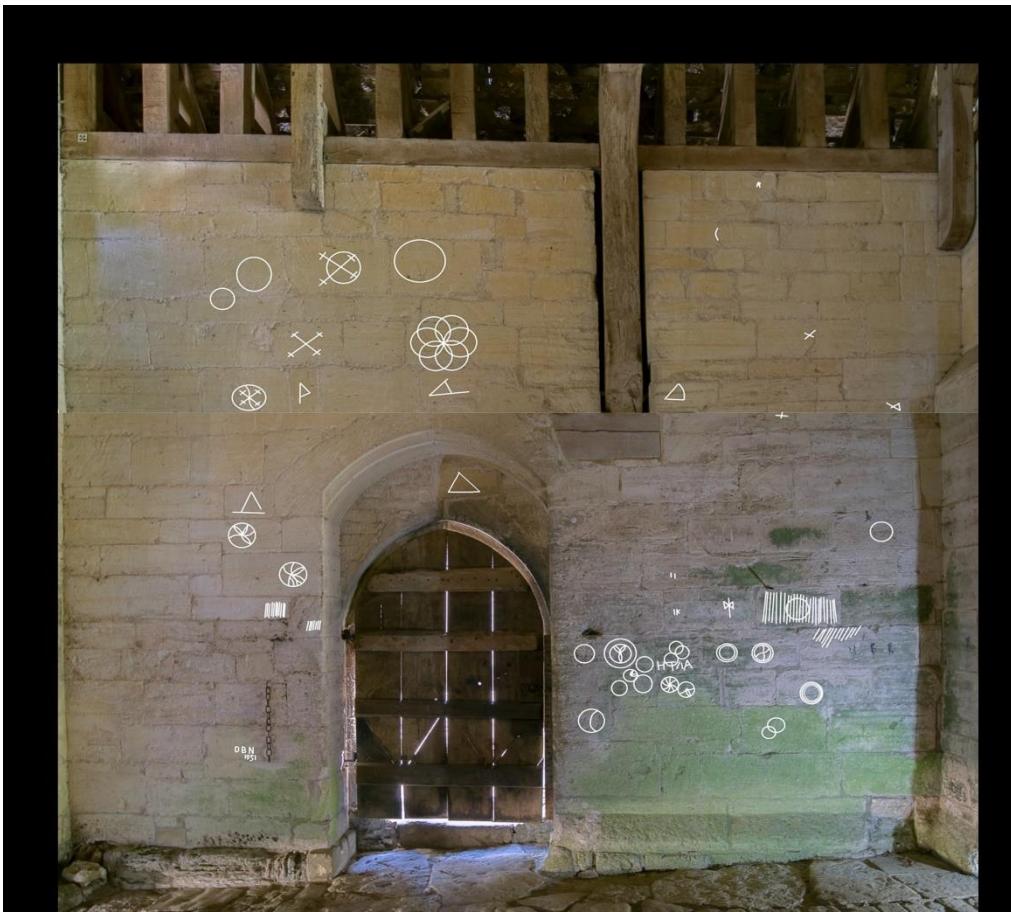


Fig. 1

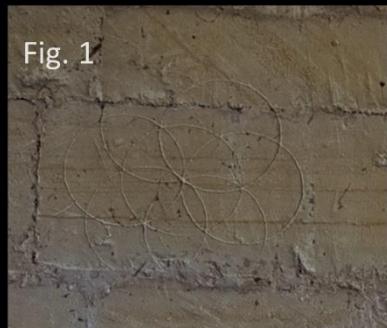


Fig. 2



Plate 22: North-west porch, east wall annotation. Fig. 1: Well executed interlocking circles to form rosette. Diameter-18cms. Fig. 2: Multiple circles under modern incisions Diameter 7.5cms approx.

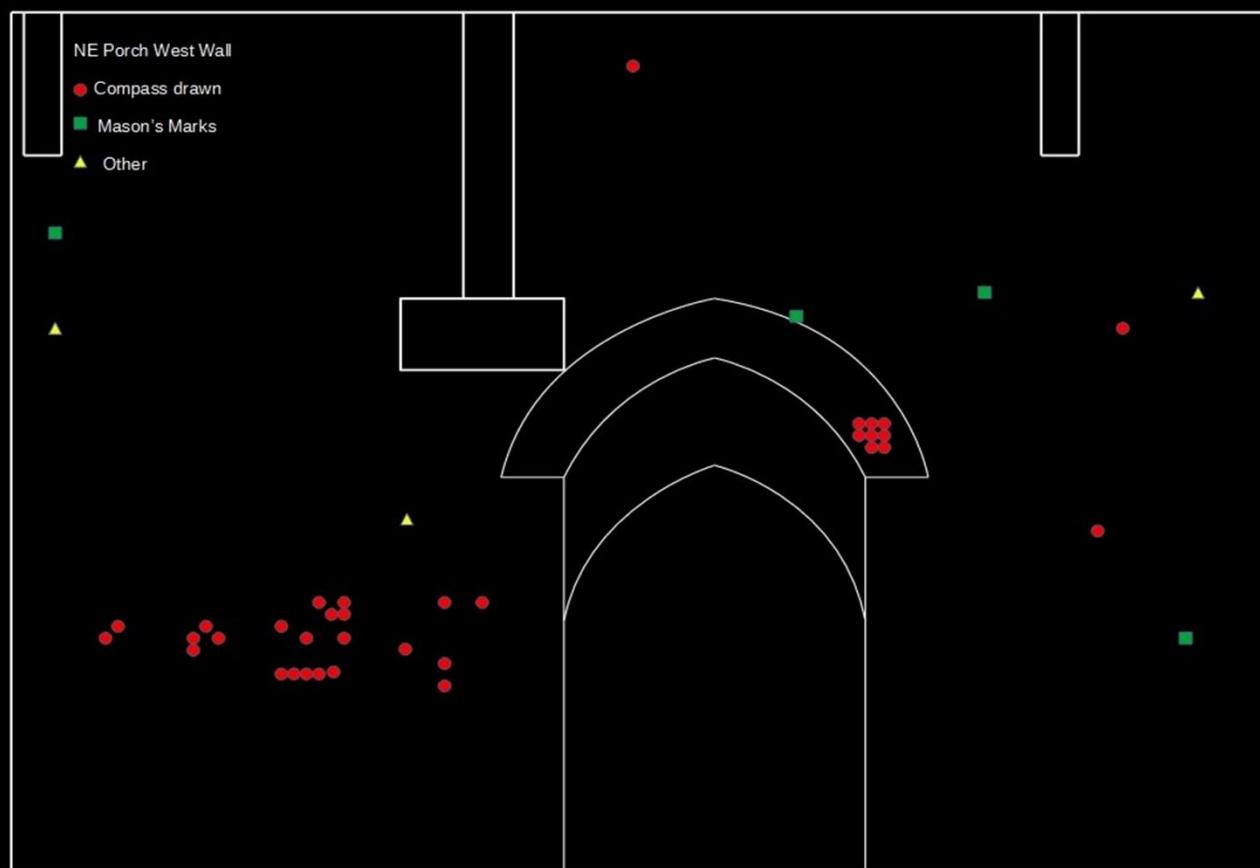


Plate 23: North-east porch, west wall, distribution map



Plate 24: North-east porch, west wall. Fig. 1 shows the ubiquitous image often used in publicity when discussing the barns motifs. There are 24 individual circles across these stones the majority of which are approx' 8.5cms in diameter.

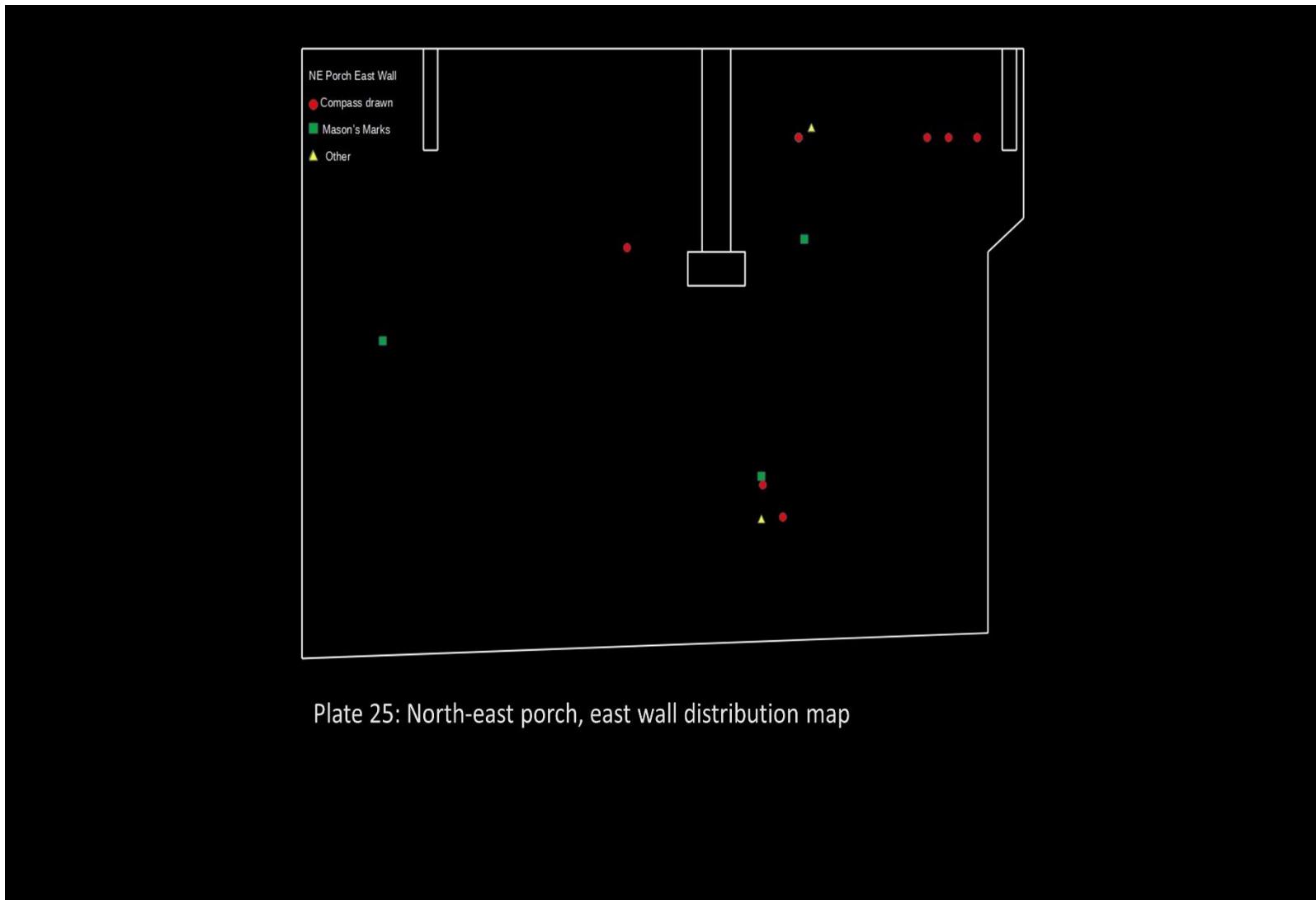


Plate 25: North-east porch, east wall distribution map

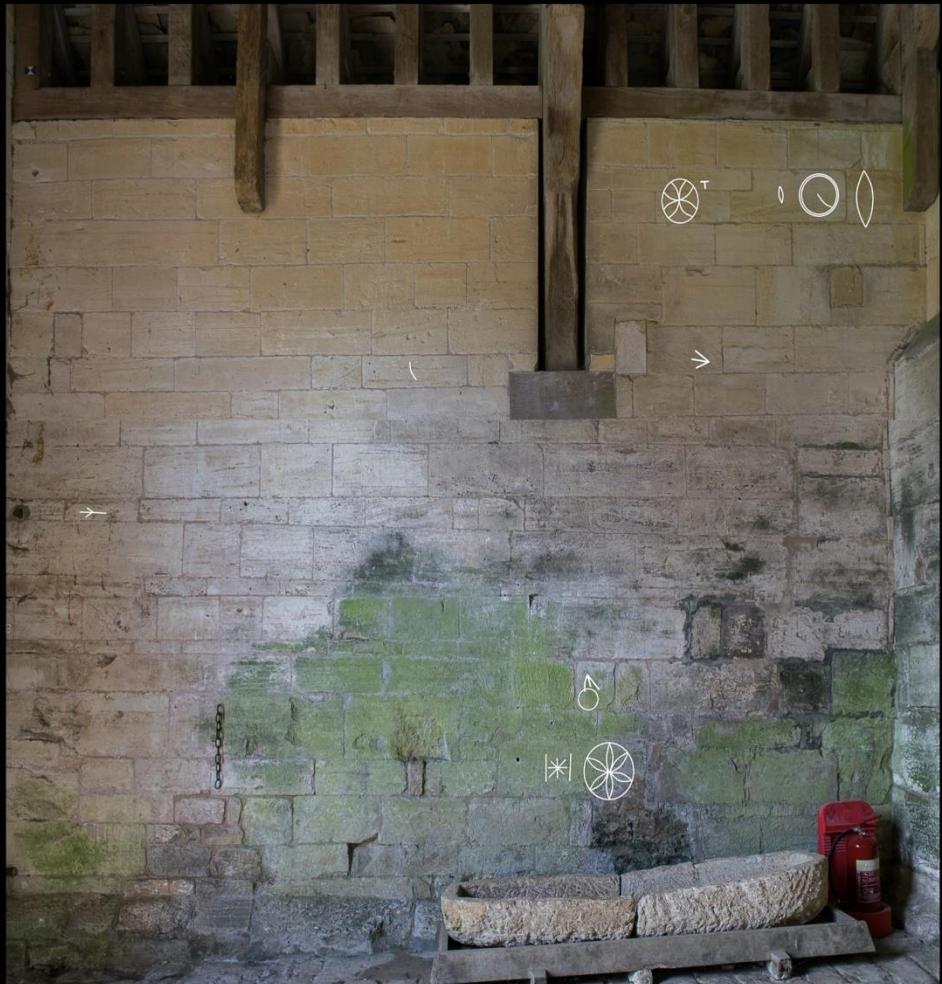


Plate 26: North-east porch, east wall.

South West Porch West Wall Elevation

- Compass Drawn
- Mason's Mark
- ▲ Other

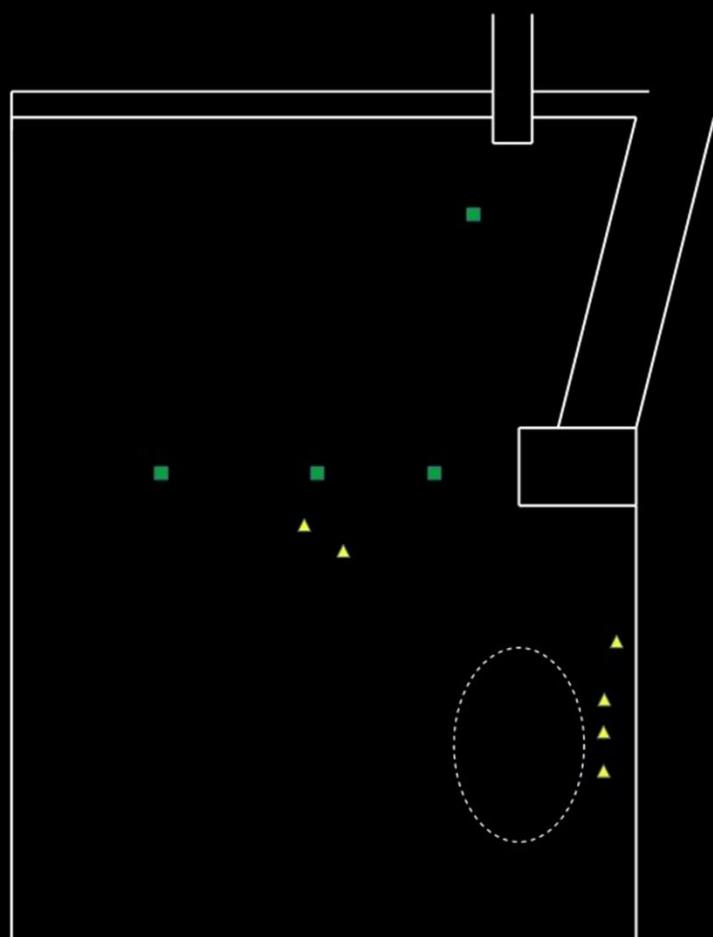


Plate 27: South-west porch, west wall distribution map

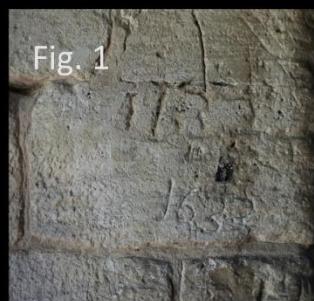
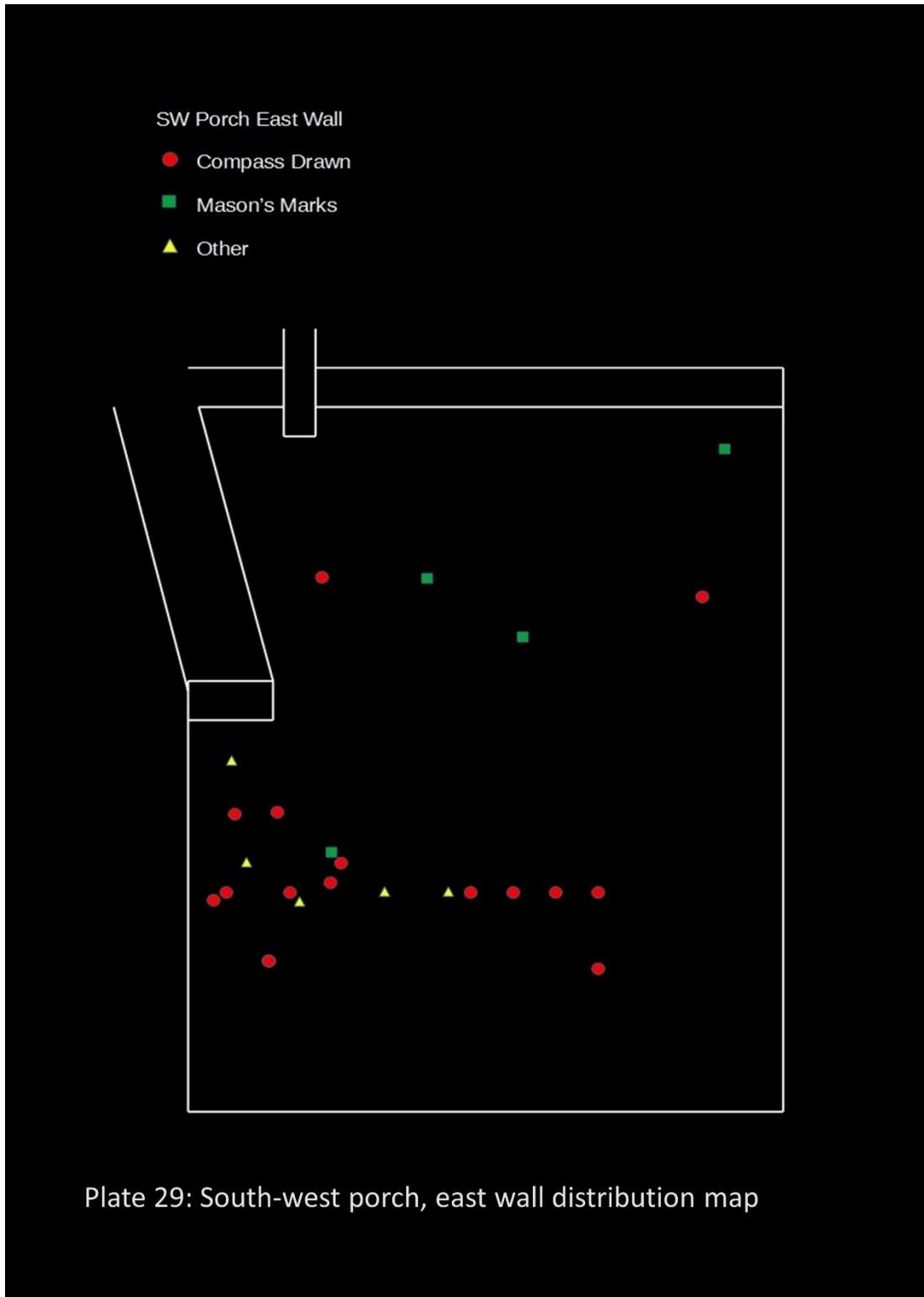


Plate 28: South-west porch, west wall. Fig. 1 is assumed to contain dates 1632/1633 however the script is rough and not consistent with other 17th Century work.



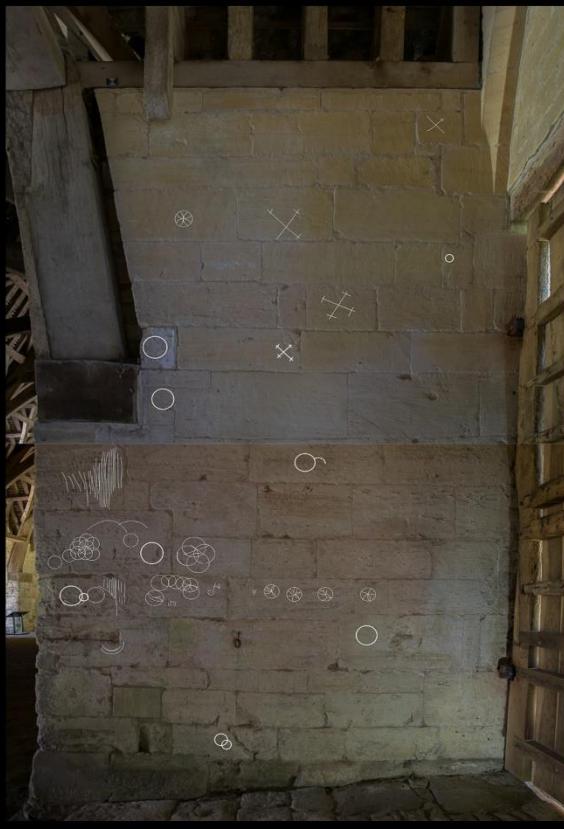


Plate 30: South-west porch, east wall annotation.
Fig. 1 shows tally marks & rosettes.

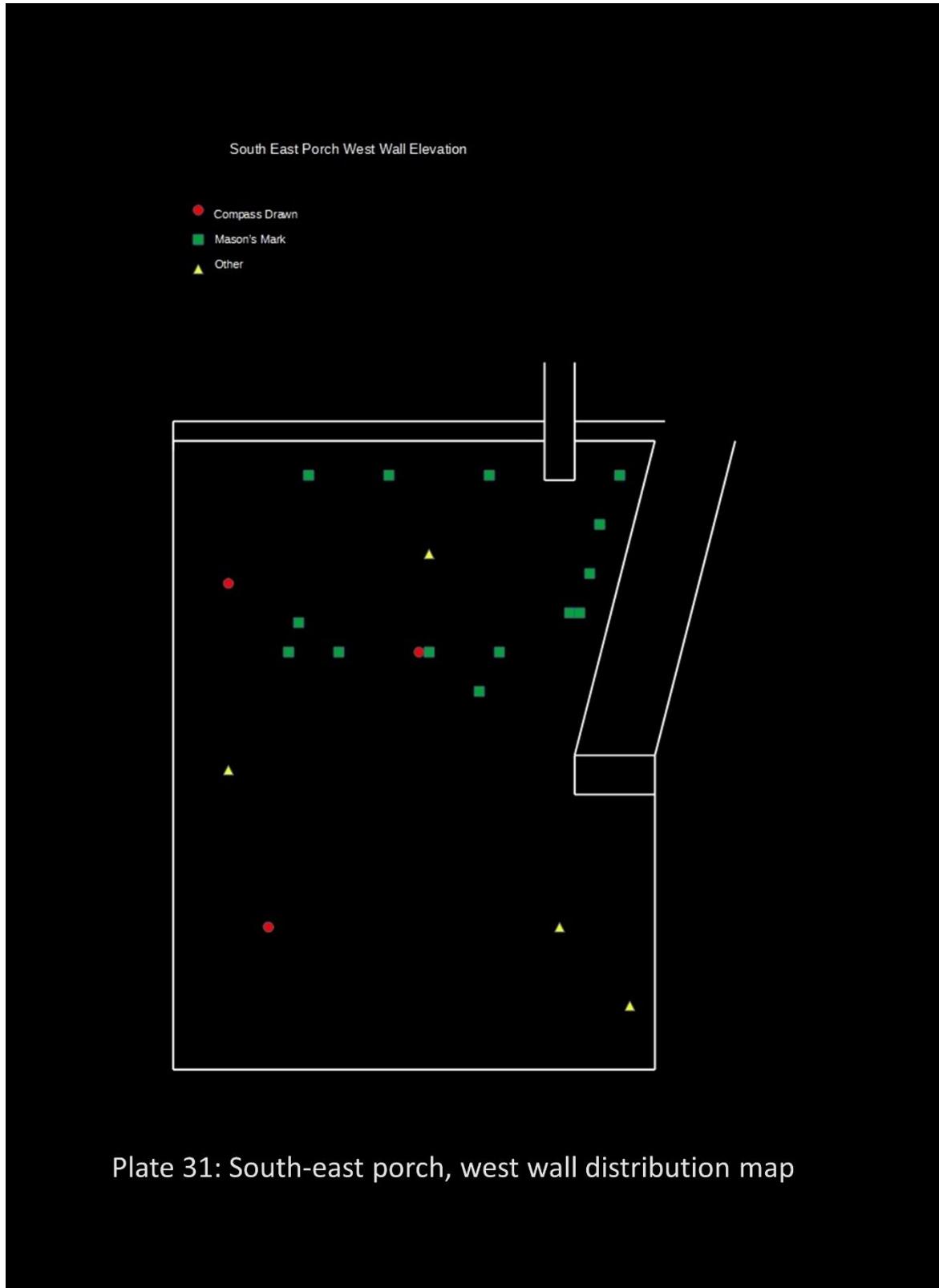


Plate 31: South-east porch, west wall distribution map



Plate 32: South-east porch, west wall annotation.

Fig. 1 shows incised cross with punch marks on each extremity. Possibly incised whilst kneeling.

Fig. 2 12 petaled rosette, deeply incised and accurately executed, 14 cms in diameter.

SE Porch East Wall

● Compass Drawn

■ Mason's Marks

▲ Other

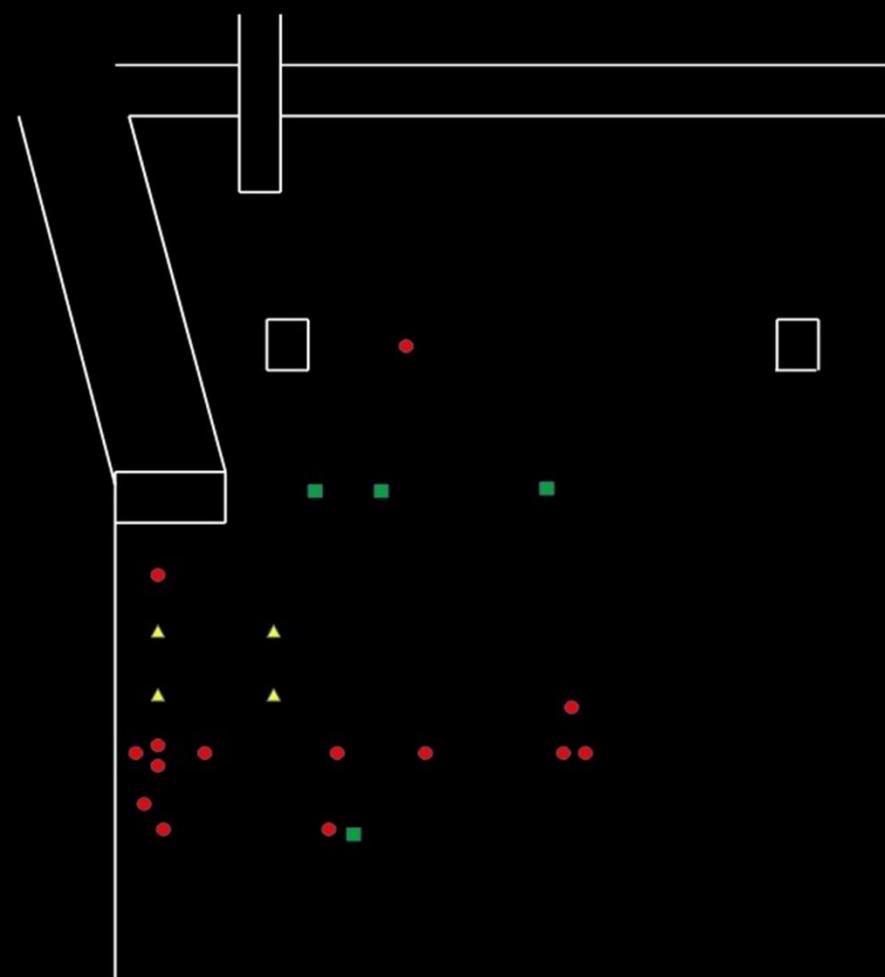


Plate 33: South-east porch, east wall distribution map

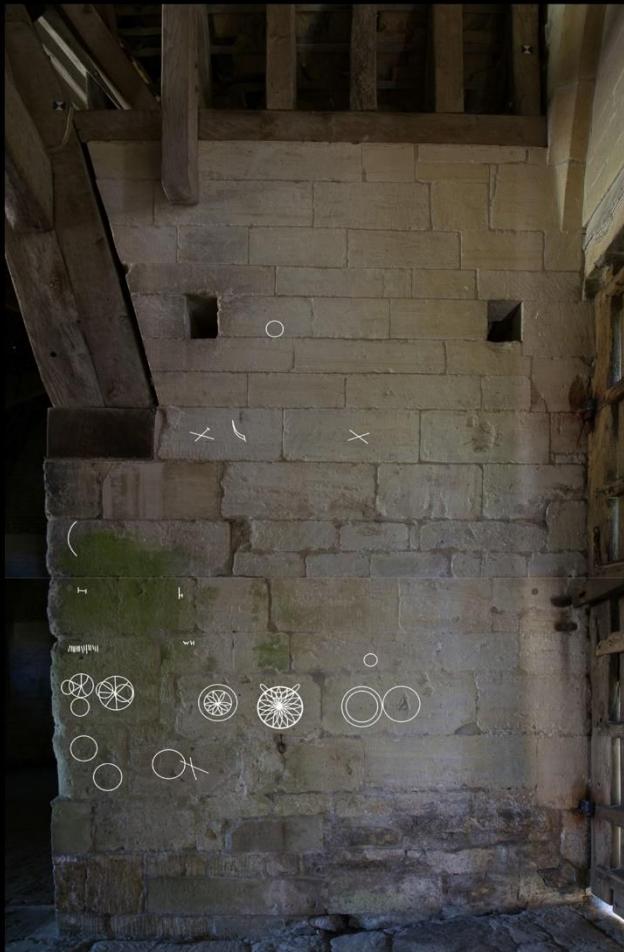


Fig. 1



Fig. 2



Plate 34: South-east porch, east wall annotation.
Fig. 1 & Fig. 2 show compass-drawn circles and
gives an indication of how shallow these incisions
are, plus years of weathering have taken their toll
on visibility.



Fig 1



Fig. 2



Fig. 3



Fig. 4

Plate 35: North-west porch, west side pier.
A threshold between the main barn & the porch.

Fig. 1 West face.

Fig. 2 West face annotated.

Fig. 3. North face annotated.

Fig. 4 West face close up.



Fig. 1



Fig. 3



Fig. 2



Fig. 4

Plate 36: North-west porch pier, east side.

Fig. 1: East face.

Fig. 2: East face annotated.

Fig. 3: North face

Fig. 4: East face, 4th course stone



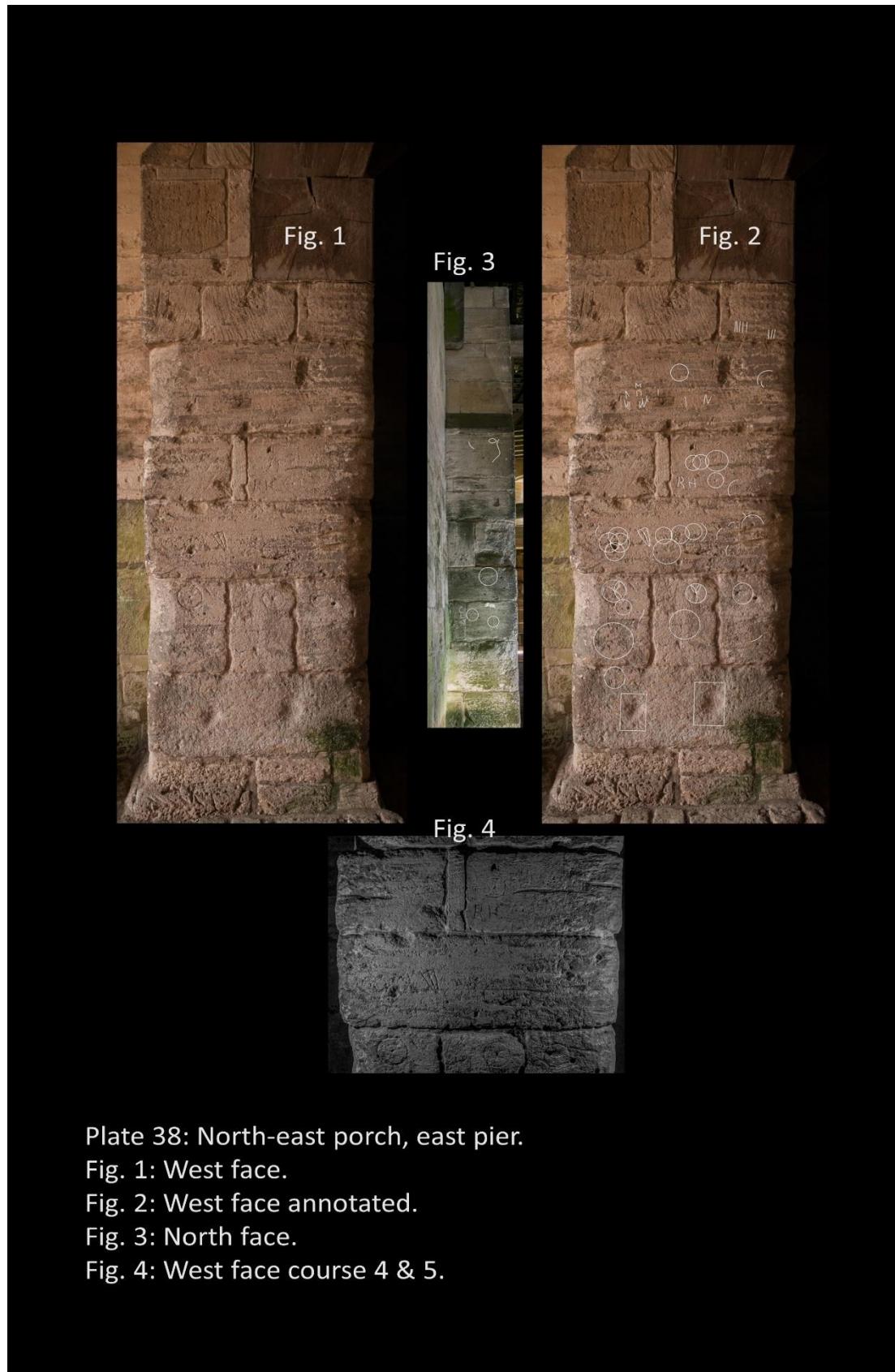




Plate 40

BoA West Elevation (Exterior) showing
musket ball scars & tourist graffiti. Images l-r
(c) Tony Hack, David Parry & Claire Radnedge

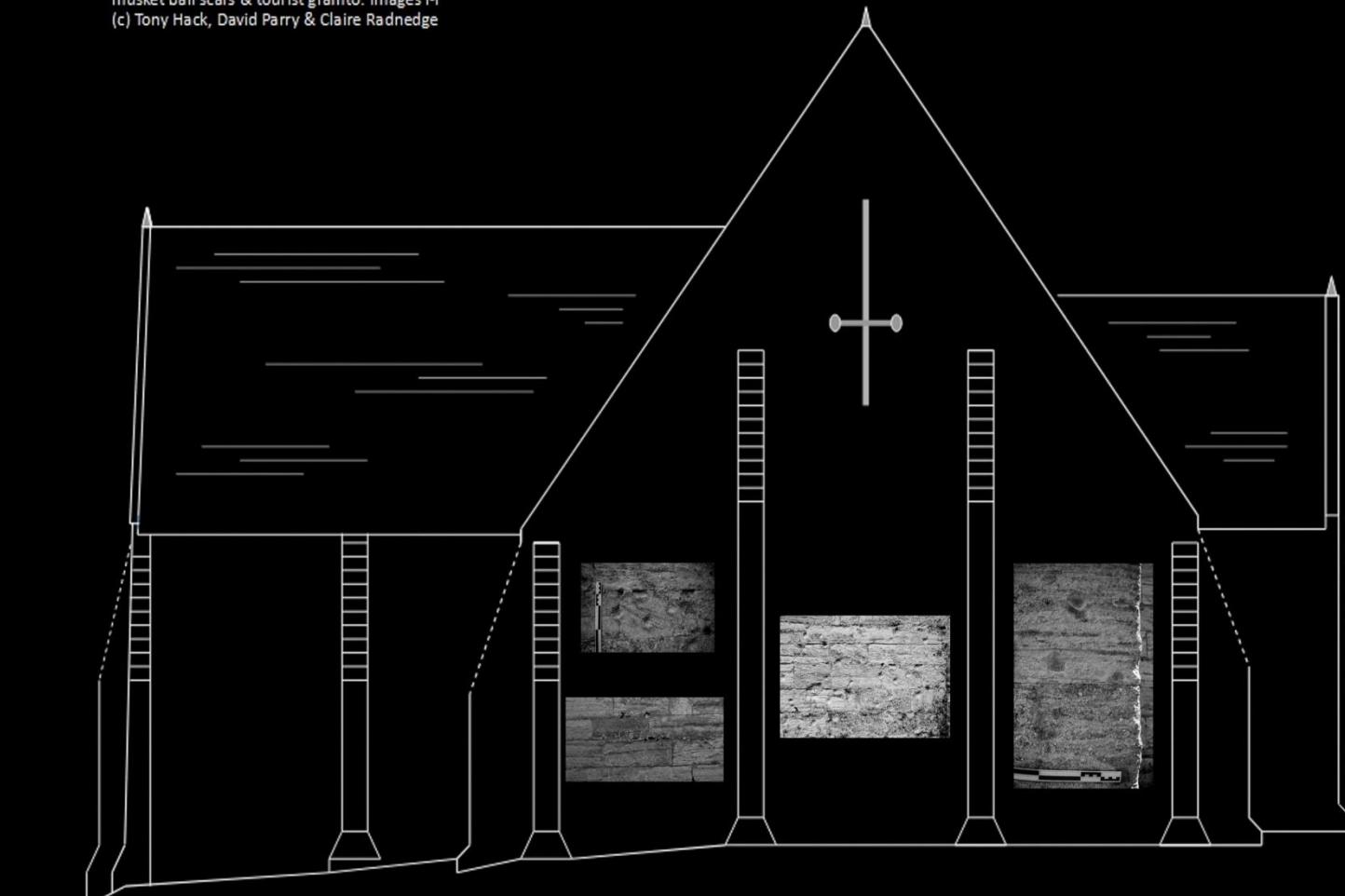
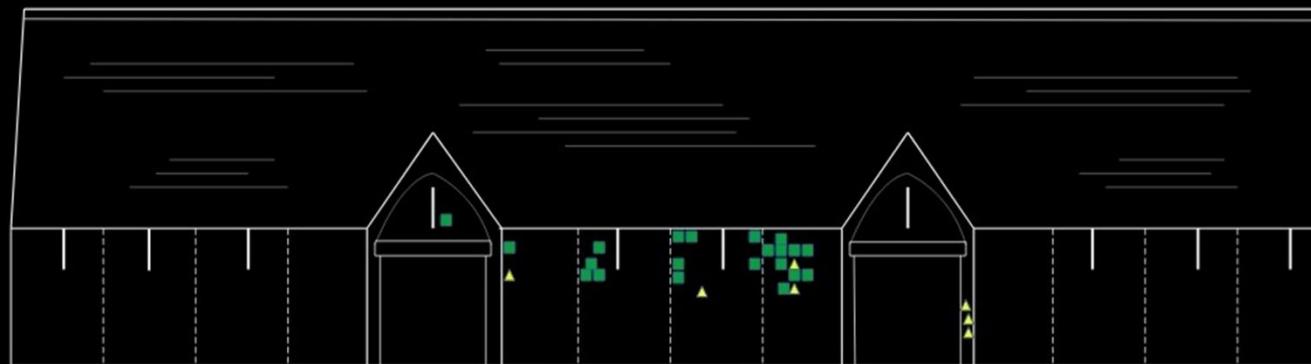


Plate 41

BoA Barn South Elevation (External)

- Compass Drawn
- Mason's Marks
- ▲ Other



West 1 2 3 4 6 7 8 9 11 12 13 14 East



Plate 42: South elevation with correlation numbers for location.

Fig. 5 & 6: Scratch sun dials. Images © Claire Radnedge
N above west porch is a mason's mark.





Plate 43: Tally marks, normally poorly executed vertical strokes. The lower image is unusual as this is the only example we have found that includes pecked dots on the down strokes. Perhaps a mathematical multiplication tally.

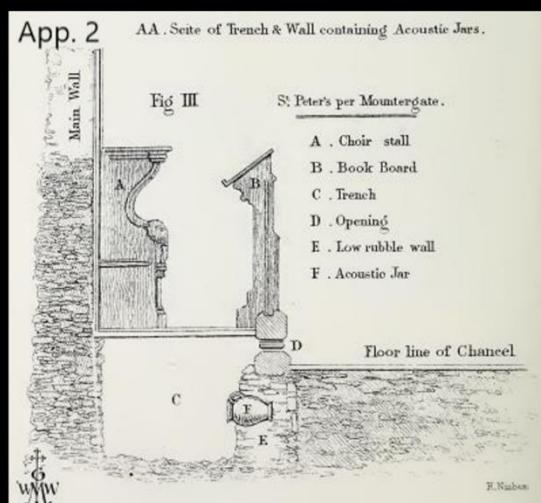


Plate 44: Appendix Images

App 1: Deposited horse skull at Portway Inn, Herefordshire

App 2: Acoustic vase buried under church floor.

Plate 45

<p>Mr Tony Hack Withliss Medieval Graffiti Survey</p> <p>App: 3a</p> <p>Dear Mr Hack</p> <p>Ancient Monuments and Archaeological Areas Act 1979 (as amended) section 4 2. Licence to carry out a geophysical survey</p> <p>MONASTIC GRANGE AT BARTON FARM, BRADFORD ON AVON</p> <p>Monument no: SL02034023 Monument ID: 1014813</p> <p>I refer to your application dated 17 June 2020, to carry out a geophysical survey at the above location.</p> <p>Historic England is empowered to grant licences for such activity and I can confirm that we are prepared to do so as set out below:</p> <p>By virtue of powers contained in section 42 of the 1979 Ancient Monuments and Archaeological Areas Act (as amended by the National Heritage Act 1983) Historic England is pleased to grant a licence to Mr Tony Hack, of Withliss Medieval Graffiti Survey, to carry out a geophysical survey at the above location, at BARTON FARM, for the areas shown on the map that accompanied your application (copy attached). This permission is subject to the following conditions:</p> <ol style="list-style-type: none"> 1. The permission shall only be exercised by Mr Tony Hack and his nominated representative or by other person. It is not transferable to another individual. 2. The permission shall commence on 29 June 2020 and shall cease to have effect on 3 July 2020. 3. A full report summarising the results of the geophysical survey and their interpretation shall be sent by hand copy to Stephen Main at the address below and electronic (pdf) format to Hugh Beaumont@HistoricEngland.org.uk, copied to Paul Jackson@HistoricEngland.org.uk no later than 6 months after the completion of the survey. 4. The enclosed questionnaire shall be completed and appended to the survey report. For convenience an electronic version of this questionnaire can be downloaded from the following website: www.historicengland.org.uk/advice/technical-advice/archaeological-science/geophysics 5. A copy of the report shall also be sent (in their preferred format) to the local <p style="text-align: center;">28 QUEEN SQUARE, BATH, BS1 4ND TELEPHONE 0117 971 1236</p> <p>Historic England is subject to both the Privacy of Information Act 2000 and Environmental Information Regulations 2004. Any information held on the computer can be requested for release under these laws.</p>	<p>Direct Dial: 0117 975 0726</p> <p>Our ref: AA00108375 25 June 2020</p>
--	---

 <p>App: 3b</p>	 <p>Historic England</p>
<p>Historic Environment Record (HER) within 1 year of completion of the survey.</p> <p>The local HER contact details can be found at http://www.heregis.org.uk/ContactUs/ContactUs.aspx</p> <p>8. A record designation form should be made with the Archaeology Data Service using the online OASIS Data Collection form no later than 1 year after the survey. The record designation form can be found online or contact ceas@HistoricEngland.org.uk for information and training.</p>	
<p>This letter does not carry any consent or approval required under any enactment, by-law, order, or regulation or under section 42 of the 1979 Act (as amended).</p> <p>You are advised that the person nominated under this licence to carry out the activity should keep a copy of this licence in their possession in case they should be challenged whilst on site.</p> <p>Yours sincerely</p> <p></p> <p>Hugh Beaman Head of Archaeology of Ancient Monuments E-mail: Hugh.beaman@HistoricEngland.org.uk</p> <p>cc: Mel Barge, HE; Louise Barter, EH; M Pomeroy-Falgrave, Wiltshire Council.</p>	

App 3a & 3b: License for geophysics as required for work on English Heritage properties.

App 4: Insurance document for survey & geophysics.



Plate 46: App 6 shows contact plate attached to stone with wet clay to improve conductivity.

App 7: Equipment

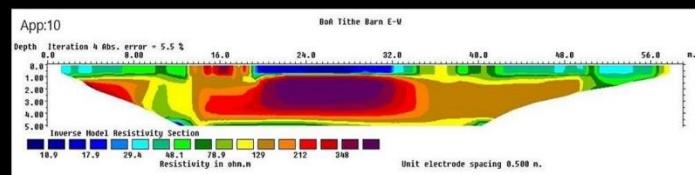
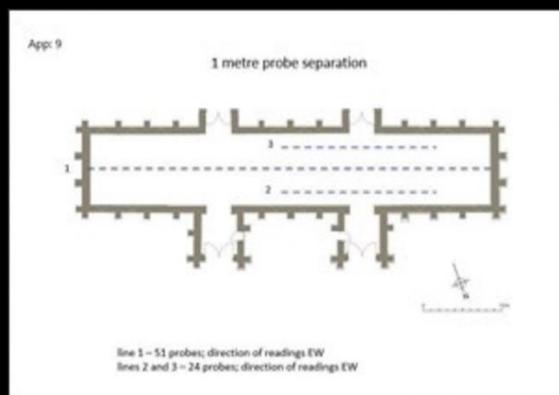
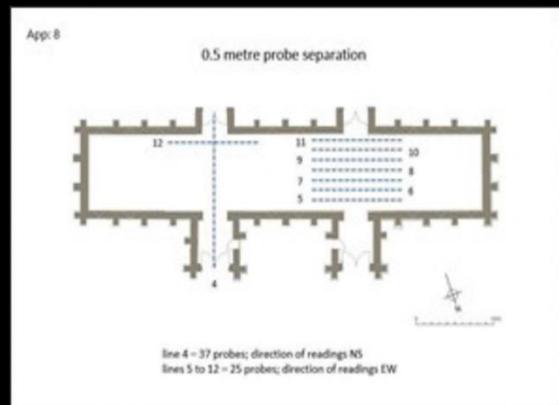


Plate 47: App 8 & 9 shows probe distribution.

App 10: Results show a high resistance in the centre of the building approx. 1m down that warrants further investigation with Ground Penetrating Radar.

Plate 48: Risk Assessment

Wiltshire Digital Recording Project: Health & Safety & Risk Assessment

To include sub-projects incl' Wiltshire Medieval Graffiti Survey

Health & Safety Requirements

(1) All participants to read through H&S requirements and to sign attendance sheet.

(2) Footwear & Clothing:

Conformable clothing able to deal with forecast weather conditions (there will be interior & exterior works). Footwear will be well fitted, of good grip and secured appropriately. In the case of dusty environments then paper overalls, latex gloves and hard hats will be provided.

(3) Lone working: There will be no lone working within the Wiltshire Digital Recording Project or any sub-projects. We operate a "doubling-up" or "buddy" system where partners will be allocated. In the case of new starters, you will be partnered with an experienced participant.

(4) Allergies: It is essential you declare any known allergies within the context of the works. The nature of the works includes access to remote and often unvisited areas where bees/wasp's nests may lay undiscovered. Anaphylaxis & asthma sufferers need to ensure they have appropriate medication with them at all times.

(5) The nature of the works includes working from height however this will only be on a "feet on the ground" basis. All surveying will be carried out from floor level or stairs. All stairs will be assessed for safety before use.

No participants will be asked or allowed to work above head height without having feet firmly on the ground. Handheld devices will be utilised to survey items at height. Often, we are working in a relatively confined area. Spiral staircases as an example can disorientate and induce dizziness. Please ensure you rest when you feel the onset of such symptoms and let your partner know if they haven't already noticed.

(6) Equipment: Cameras and turbines are the main stock in trade. These are to be serviceable, battery operated & charged before attendance on site. There will be no mains operated lighting or chargers involved unless specifically arranged with the Project Director.

On occasion a handheld laser measure will be used. This will only be in operation when ways are clear.

(7) Many of the buildings/areas we visit are multi-functional, many are places of worship. Please respect all other users & their faith and needs. People may be curious about what we are doing, be polite and engage with them or point them in the direction of one of the supervisors.

(8) Awareness of your environment and concentration are required. No headphones or other distractions will be allowed. You can carry a mobile 'phone but please switch to silent. The natural action to answer a call may temporarily remove your spatial awareness, endangering yourself & others.

(9) Parking: Many sites have limited parking or may involve walking to a site. Please use caution when parking and leave access for other users.

(10) Toilet facilities are available on site. Please ensure appropriate cleaning of hands prior to eating or drinking.

(11) In the event of pandemic restrictions such as the recent Covid-19 infection all work will be suspended until such time as U.K. governmental advice allows free movement. Precautionary P.P.E. and social distancing measures will be adhered to even after lockdown has been removed until such time as the risk has been removed entirely.

(12) Since the 2020 Covid-19 pandemic further preventative strategies have been incorporated into this R.A.

- (i) Guidelines in line with UK Government policy will be adhered to.
- (ii) Building agency requirements adhered to, incl' Track & Trace measures.
- (iii) Lockdown measures will be observed at all times.
- (iv) Face coverings will be worn.
- (v) Appropriate social distance measures will be observed, working in pairs where permissible.
- (vi) Hand sanitisers before and after entering a building.
- (vii) Seasonal community involvement where feasible.

All queries relating to any of the above can be direct to the Project Director or a member of the supervisory team.

Wiltshire Digital Recording Project: Risk Assessment

Risk	Probability	Mitigation	Acceptability
Head Height Hazards	Likely/med	Any protruding surfaces such as door locks, hinges, locking bars will be assessed and kept locked or opened depending upon head proximity. Hand held devices/participants marked with hi-visibility material (non-invasive) and opening and closing of doors to be controlled at Supervisor level.	Acceptable
Trips & Falls	Possible/med	Access stairs/areas, floor levels. Ensure "Buddy" scheme is operation. Briefing on route, awareness of self and partner to wear appropriate footwear. Rest when required. Some buildings have worn or uneven floors particularly where foot or other equipment has been used over time. There will be no running within the confines of the survey and a policy of cautious observation encouraged.	Acceptable
Falling Stone/windows	Remote	Supervisor to assess area beforehand. If fabric of building suspect report to buildings management. Withdraw person from area until appropriate strengthened windows ensure contact is not made with glass or frame.	Acceptable
Dust Inhalation	Possible/med	Access equipment in advance. Dust mask to be worn by supervisor and other PPE. Ensure personal needs i.e. asthma and dust access.	Acceptable
Disease	Remote	In personal contaminated areas wear protective gloves, minimise hand to mouth contact. Always wash thoroughly after work finishes and prior to eating. In the event of a major or pandemic event all work will be suspended immediately.	Acceptable
Disorientation Vertigo	Remote/High	At height and/or confined areas ensure lighting is in place. Take rests when needed and allow for a period of acclimatisation. If conditions persist, withdraw. This may be when working at height or working above head height within EH buildings, however lightweight extending camera poles can be used as long as they are not being held.	Acceptable
Pandemic Strategy	Likely/High	2020 Covid-19 Legislation will be observed. Social distancing, face coverings to be worn at all times. Anyone displaying symptoms will not be allowed to take part. Seasonal community involvement where feasible.	Acceptable

