HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

Property in Care (PIC) ID:	PIC242
Designations:	Scheduled Monument (SM90126)
Taken into State care:	1963 (Guardianship)
Last Reviewed:	2021

STATEMENT OF SIGNIFICANCE

EAST AQUHORTHIES STONE CIRCLE

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Historic Environment Scotland – Scottish Charity No. SC045925
Principal Office: Longmore House, Salisbury Place, Edinburgh EH9 1SH

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Any enquiries regarding this document should be sent to us at:

Historic Environment Scotland
Longmore House
Salisbury Place
Edinburgh
EH9 1SH

+44 (0) 131 668 8600
www.historicenvironment.scot

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Cover image: The recumbent stone circle of East Aquhorthies from the south-west. © Crown Copyright: HES.

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APPENDICES

Please note, the research for this document was undertaken during 2020-2021 with limited access to archives and resources, as a result of Covid-19. While every attempt was made for accuracy throughout the statement, errors or omissions may remain. Please direct comments or suggestions to CRTenquiries@hes.scot

1. SUMMARY

1.1 Introduction

East Aquhorthies Stone Circle[1] is an Early Bronze Age (c.2300 BC) monument. It is situated one mile west of Inverurie on a gentle east-facing slope about 330m north-west of the farmhouse from which its name has been drawn. Various different names[2] have been recorded for the site over time; the current version East Aquhorthies is used in this document as it is the name under which the site came into State Guardianship in 1963 and which is used in HES signage and interpretation.

It is one of a distinctive class of circular monuments found in North-East Scotland and known as recumbent stone circles. As well as the upright stones (orthostats) forming the circle, there is a large horizontal 'recumbent' stone between two flankers located in the southern quadrant of the monument.

The monument measures 20m from east-south-east to west-north-west by 18.5m transversely and retains its full complement of twelve stones. It is situated in farmland and has an extensive outlook from the north-east through to the south, but this is more restricted on the west where the horizon is foreshortened by the gently rising ground. The ring is closely confined within a 19th century stone-revetted roundel, which is bounded by a fenced enclosure denoting the area protected as a scheduled monument.[3]

[1] See Canmore ID 18981. Accessible at: https://canmore.org.uk/site/18981/east-aquhorthies
[2] Variations on the site name include: Easter Aquhorthies; Aquhorthies, Manar; Auchforthies, Fetternear; Auchquhorthies; Augorthies; Auquhorties; Auquorthies; East Aquhorties; and Manar of Aquhorthies. Milne notes that the name Aquhorthies means 'field of the small circle' (1912b, p18).
[3] SM90126. Full details accessible at: https://portal.historicenvironment.scot/designation/SM90126

Figure 1: The ring from the south-west © Crown Copyright: HES.

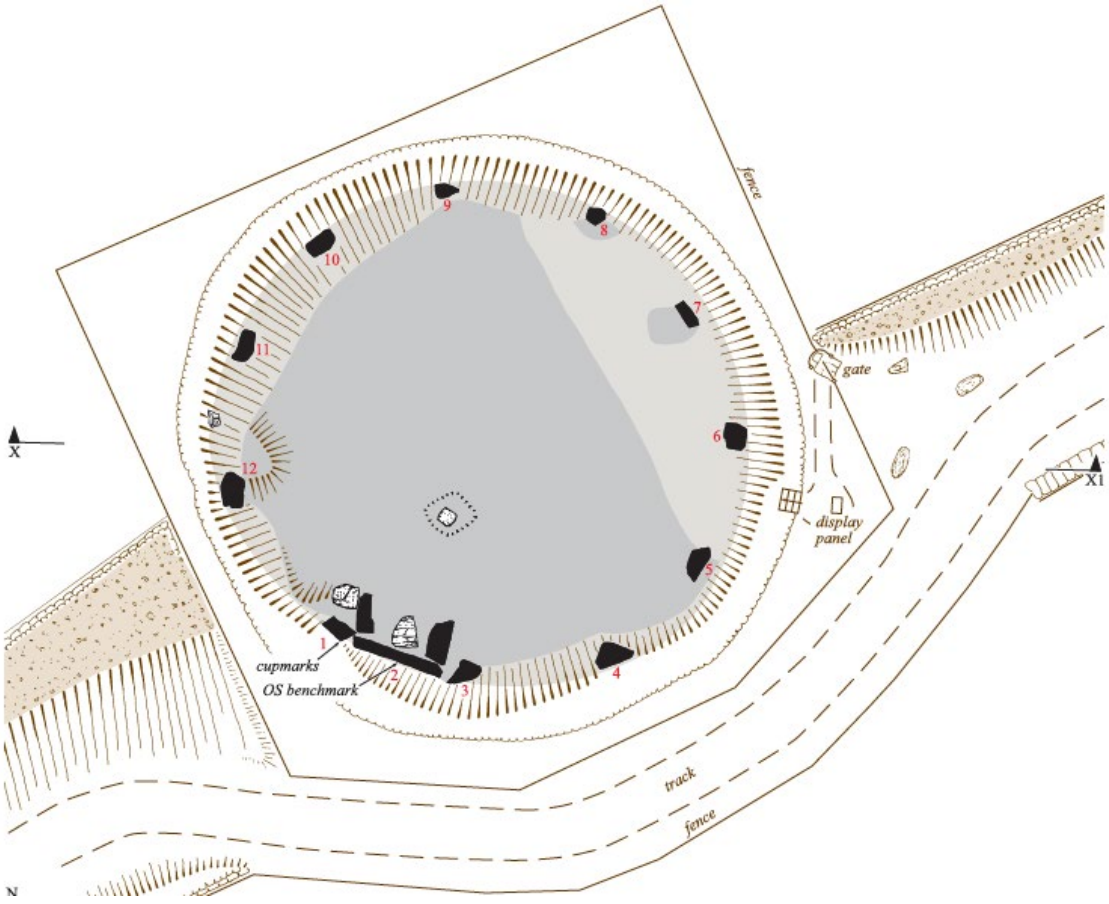

Figure 2: RCAHMS Plan 1998 (Welfare 2011) © Crown Copyright: HES.

East Aquhorthies was first scheduled in 1925 and taken into State Guardianship in 1963. It is open to the public at all times of the year as an unstaffed property in the care of Historic Environment Scotland. A visitor car park is situated 275m to the north and signposts direct the visitor to the monument via two farm tracks.[4] There is an information board at the car park and another at the site itself, both providing limited historical information.

1.2 Statement of Significance

Until recently, stone circles like East Aquhorthies were generally interpreted as open arenas, perhaps for enacting ceremonies. However, recent research has demonstrated that this was not the case and that these monuments were constructed in episodic stages beginning with an area used for cremation; this area was subsequently covered by a cairn, and later the cairn enclosed within a stone circle. While East Aquhorthies has not been subject to modern archaeological excavation, its development is understood to have followed this pattern. It is believed that the cairn at East Aquhorthies has been largely cleared away at some time, and all that now remains within the ring is a low grass-covered swelling.

East Aquhorthies is therefore understood to be a commemorative monument primarily built to honour the dead cremated at the site. There is a strongly symbolic component to its architecture, which while not quite as rich as can be found elsewhere, remains consistent with our understanding of the metaphorical meaning of this monument. Additionally, the design seems to draw elements from the funerary architecture of the Neolithic (around 1000 years before East Aquhorthies was constructed) and it is clear that the people who built recumbent stone circles were consciously and quite deliberately referencing this ancient past.

The following bullet points set out some of the key features of the site's significance, and subsequent sections of this document give further detail and analysis.

- East Aquhorthies is a well-preserved and representative example of a recumbent stone circle – a regionally distinctive class of megalithic monument.

- Unusually, it retains its full complement of stones, which moreover still stand erect. Their summits are neatly graded in height from the flankers on the south-south-west of the ring to the lowest orthostat

[4] Prior to visiting, please check access information: https://www.historicenvironment.scot/visit-a-place/places/east-aquhorthies-stone-circle/getting-here/

on the north-east; and the ring encloses the remains of a robbed cairn.

- The monument presents some uncommon features:
    - A recumbent stone chosen for its spectacular size and shape, but also for its distinctive geological characteristics – especially the flamboyant sheets of white quartz and the slickenslides (shear and tension gashes) that ornament its external face;
    - flankers turned to trace the arc of the circle;
    - cup-marks situated near the foot of the west flanker;
    - a subtly flattened 'façade' made up of the recumbent setting and the immediately adjacent orthostats;
    - a distinctive colour palette (including an orthostat rich in rose quartz);
    - two large slabs set on end at right angles to the rear of the recumbent – a feature only otherwise found in this form at Ardlair;
    - the remnants of a cairn that appears to lack an external kerb;
    - a location on a north-facing slope; and
    - an unexpected view of the summit of Bennachie, situated 5.5km (3.4 miles) to the west.

- Its architecture, including its orientation to the south-south-west, reflects the complex symbolism that was built into such structures. This references the past by repurposing certain key tropes that are to be found in ancient chambered tombs, connected with earlier rituals associated with death. However, there is also a regenerative solar component that is very much of its time, contrasting cold and darkness with warmth and sunlight, which references the cycle of life. All who encountered the monument during the Early Bronze Age would have easily read this, but there can be little doubt that the monument still has much to tell about contemporary ritual and funerary practices.

- Like other recumbent stone circles, East Aquhorthies is a commemorative monument that was constructed with the visitor in mind. It still performs that same role today by marking, enclosing and reserving a place where a person or persons have been translated into another dimension through fire and the rite of cremation.

- Although East Aquhorthies appears an isolated monument, recumbent stone circles are known to have attracted later cremations and inhumations, as well as buildings on occasion. Burials

were either introduced to the monument itself or inserted into small pits or cists nearby, while buildings either occupied the centre of the rings or stood in their immediate vicinity. In addition, deposits and structures belonging to later ages associated with cremation and inhumation were also attracted to their curtilage. Both during and after the Late Bronze Age, when their original function may have become confused or largely forgotten, recumbent stone circles became on occasion the arenas for quite different and sometimes more destructive activities. While these may not be well understood at present, they included behaviours that embraced other rituals and even magical practices.

- Despite not having been excavated, East Aquhorthies has made a substantial contribution to our knowledge of this class of stone circle, as scholars have either used it as an exemplar, or have referred to its particular characteristics to contrast and compare with others.

- It retains substantial potential to contribute to our further understanding of these monuments, as our knowledge of the class remains narrowly based and the stages of construction poorly dated.

- Notwithstanding its unusual qualities, East Aquhorthies, like all recumbent stone circles, shares many features with other types of ring distributed throughout the British Isles and may thereby make a solid contribution to our overall understanding of stone circles in general.

2. ASSESSMENT OF VALUES

Note: There is an extensive literature about recumbent stone circles, but there are two recent syntheses that are currently essential to their understanding – *The Moon and The Bonfire: An Investigation of Three Stone Circles in North-East Scotland* (2006) by Richard Bradley and *Great Crowns of Stone: The Recumbent Stone Circles of Scotland* (2011) by Adam Welfare.

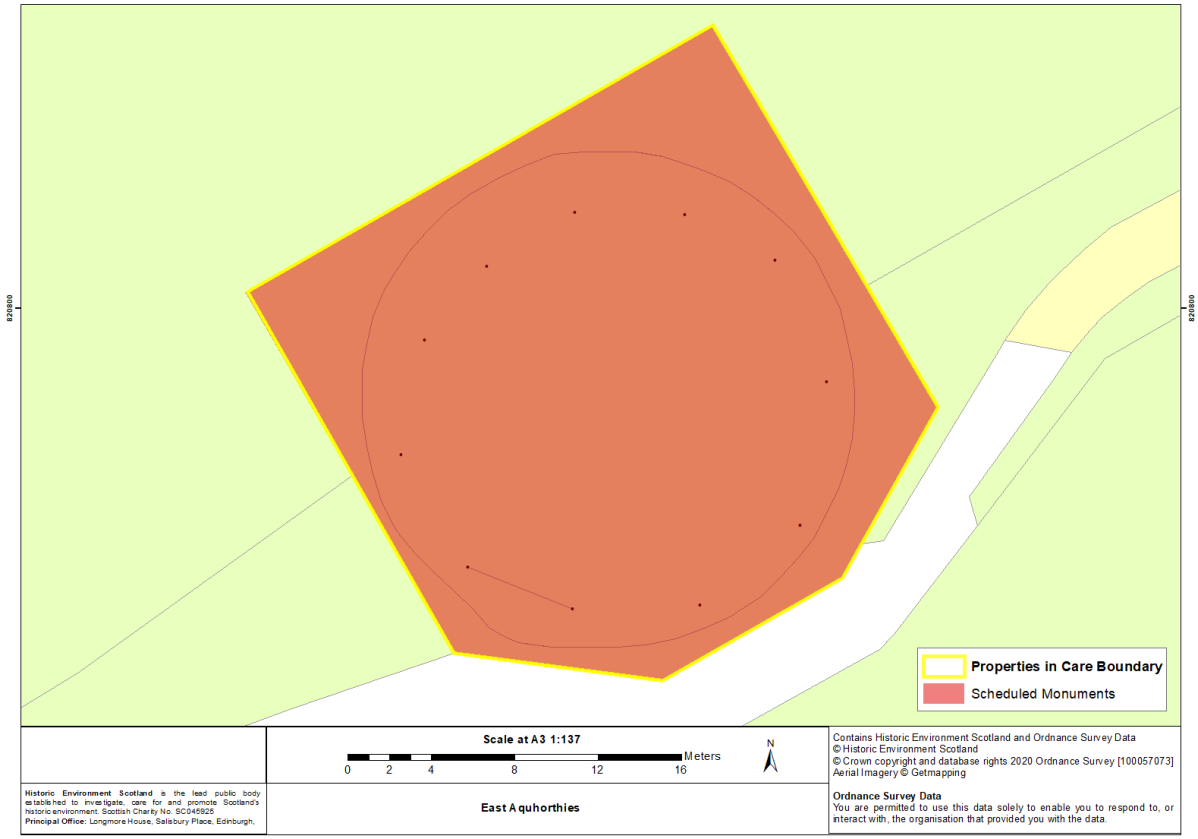

Figure 3: East Aquhorthies Scheduled area and Property in Care boundary. For illustrative purposes only.

2.1 Background

The recumbent stone circle of East Aquhorthies belongs to a class of Early Bronze Age monument restricted to North-East Scotland, of which seventy-four are presently known. There is a great deal of variation amongst them, but they all share one characteristic – the presence of a recumbent stone located in the southern quadrant of the monument. They have been studied since at least the early 16th century, when Hector Boece chose to introduce them as ancient temples to his narrative history of Scotland.[5] Since then they have continued to play an important role on the local, regional and national stage in the development of ideas about the origin and function of stone circles.

Although excavation has suggested that recumbent stone circles may have been built piecemeal at intervals over a period of time, it seems likely that their final form was conceived from the beginning. Our current understanding of their constructional sequence results largely from the excavations undertaken by Richard Bradley at the recumbent stone circle

[5] Boece 1527

of **Tomnaverie,**[6] [7] but if Howard Kilbride-Jones's observations on the introduction of the recumbent at **Loanhead of Daviot** are valid,[8] this sequence may not always have been strictly followed.[9]

Their architecture incorporates attributes of a cairn, a stone circle and a chambered tomb in a uniquely innovative way and they have often been compared with the Clava-type Cairns, their near neighbours to the north-west around Inverness-shire.[10] Like the latter, they contain two distinctive elements: a central cairn and a surrounding circle of stones that are graded in height with the largest and most remarkable situated in the southern quadrant. However, while the Clava passage graves attempted to capture the reality of their Neolithic archetype, recumbent stone circles achieved this by conveying their message in what might be described as a more imaginative and ingenious way.[11]

The internal, grass-covered cairn at East Aquhorthies measures 17m from west-north-west to east-south-east by 16.5m transversely and 0.25m high, but it has been heavily robbed especially on the north-east where only patches of the stony matrix are visible in the sward immediately adjacent to the orthostats. The large, prone, roughly triangular block behind the recumbent setting and the smaller block disclosed near its centre, provide an insight into the character of its foundations, but otherwise what is left of the cairn discloses no distinguishing features. This is unusual and while it is possible that the presence of an outer kerb has been obscured, the two large slabs set on edge immediately behind the recumbent stone tell a different story. This rare feature is otherwise known only from the recumbent stone circle at Ardlair, but it is plainly intended to mimic the way in which an internal cairn's kerb within the stone circle was usually linked to the surrounding ring at the recumbent setting. The frequency of this physical connection confirms its importance in conveying the monument's overall symbolism. However, where there was no kerb to reconfigure, this arrangement employing the two slabs offered a practical solution.

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[6] Bradley 2005

[7] Throughout the text, site names in **bold** are managed by Historic Environment Scotland and are publicly accessible. Access information can be found at: www.historicenvironment.scot/visit-a-place/

[8] Kilbide-Jones 1935

[9] Welfare 2011

[10] Bradley 2000

[11] i.e. while the form of Clava-type cairns appear to deliberately meld elements of earlier tomb types with more contemporary elements, the recumbent stone circles did something similar but in a more subtle way. The form of the latter do not immediately resemble the collective components of a Neolithic tomb, until the various elements are carefully read and properly understood. With both types of monument, the builders forged a link between themselves and those earlier inhabitants of Northern Scotland.

Figure 4: The recumbent setting with the large slabs to the rear of the recumbent. © Crown Copyright: HES.

The surrounding ring is not quite circular on plan and measures 20m from west-north-west to east-south-east by 18.5m transversely. It comprises nine orthostats, two flankers and a recumbent stone. The orthostats are not only paired on neatly spaced chords to either side of the circle's axis of symmetry, but are also graded in height from the tall flankers situated to each side of the recumbent stone on the south-south-west side of the ring to the smallest stone on the north-east. The flankers measure 1.57m and 1.67m in height respectively, while the smallest stone measures 1.1m in height. Typically, the flankers also of contrasting shape; in this case the westerly being more slender than its stouter eastern counterpart. Their footings have been set at an angle to emphasise the arc of the circle. Although the cluster of cup-marks close to the base of the west flanker harks back to the Neolithic, these are almost certainly contemporary with the era in which the monument was constructed. Nevertheless, the occurrence of these motifs at this and some other recumbent stone circles indicates that their presence was considered to be often desirable and appropriate. Between the two flankers is the recumbent stone; a roughly rectangular slab measuring 3.99m in length, 1.55m in height and 0.75m in thickness. It has been carefully chosen with an eye to making a spectacular impression. This is partly achieved through its great bulk, but it is also reflected in the care with which its summit has been levelled. In addition, the manner in which it appears to lean backwards is a common trait that was perhaps intended to make it seem taller, while the incidence of white quartz and the numerous slickenslides expressed on the fault plane of its

external face are also classic features of some recumbent stones. This, together with the flankers, comprises the 'recumbent setting', which in this example is situated in the centre of the ring's subtly flattened arc that encompasses the adjacent orthostat to each side – so evoking a shallow convex façade (see Figure 5).

Figure 5: The flattened façade (Welfare 2011). © Crown Copyright: HES.

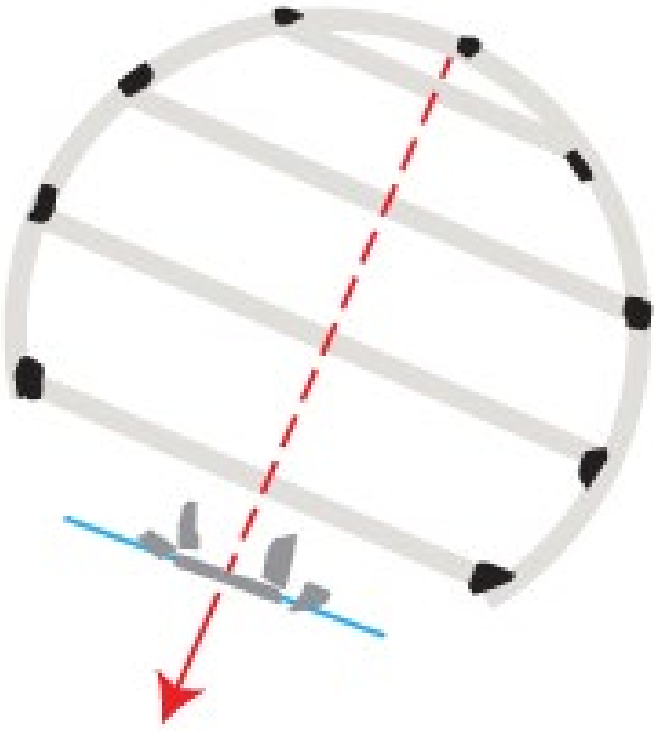

Figure 6: The chords and axis of symmetry (Welfare 2011). © Crown Copyright: HES.

Typically, the recumbent setting may be slightly askew in relation to the rest of the ring, but this is not strongly apparent at East Aquhorthies. However, the setting's location on the circumference of the ring provides the monument with its orientation – in this case broadly south-south-west.

The geology of the stones is more complex than is generally acknowledged, but those forming the recumbent setting have a high proportion of aplite, while the orthostats that can be readily characterised include one that is largely comprised of rose quartz, three of tonalite and at least two of granite. Colour can be subjective, but since the accidental removal of centuries of botanical growth following the taking of casts from each stone for the 'Symbols of Power' exhibition at Edinburgh in 1985, some observers agree that the recumbent is dark grey, the flankers light grey, with pink characterising the orthostats situated on the east, and pink or grey the darker stones on the west. These differing rock types also possess contrasting haptic[12] qualities, but whether this was a factor in their selection remains uncertain.[13]

Controlled excavation at intervals over the last one hundred and seventy-five years, in addition to more haphazard delvings in earlier centuries, has slowly disclosed that recumbent stone circles are commemorative monuments primarily built to honour the dead cremated at these locations. There is no reason to suppose that East Aquhorthies differs in this respect.

There is, in addition, a strongly symbolic component to its architecture, which while not quite as rich as can be found elsewhere, remains consistent with their general metaphorical content. These tropes would have the recumbent and the flankers as a closed doorway at the centre of a slightly flattened façade, with the upright slabs to its rear representing a blocked passageway leading to the centre of a tomb. They are all elements drawn from the funerary architecture of the Neolithic and it is clear that the people who built recumbent stone circles were consciously and quite deliberately referencing this ancient past.

When all such expressions inherent in the design of East Aquhorthies are considered, it is easy to understand how, like other members of its class, this monument embodies a simulacrum of a generic chambered tomb sealed against the outside world.

[12] i.e. how the stones felt to the touch

[13] To date, the sources of the different stone types have not been determined. The bedrock geology of the site belongs to the Aberdeen Formation of Psammite and Semipelite. Further information available via British Geological Survey onshore GeoIndex, accessible at: https://www.bgs.ac.uk/map-viewers/geoindex-onshore/

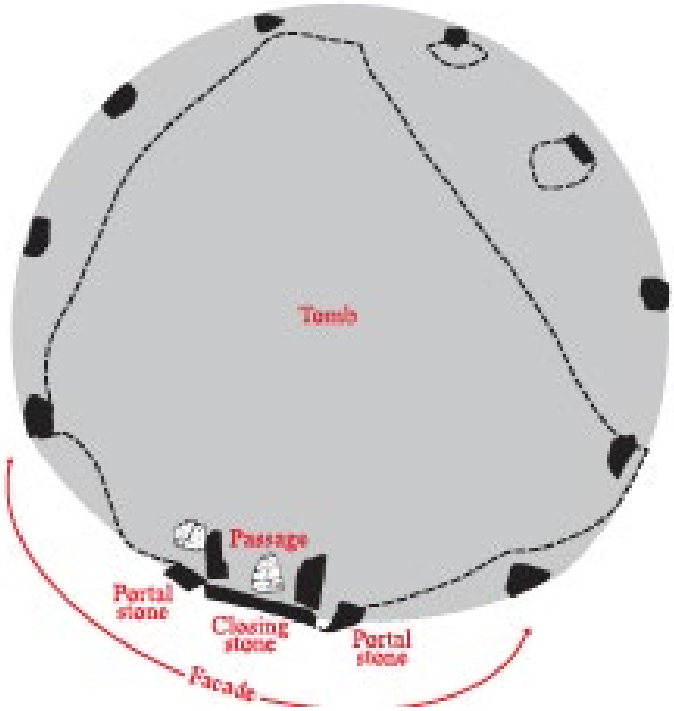

Figure 7: The simulacrum on plan (Welfare 2011). © Crown Copyright: HES.

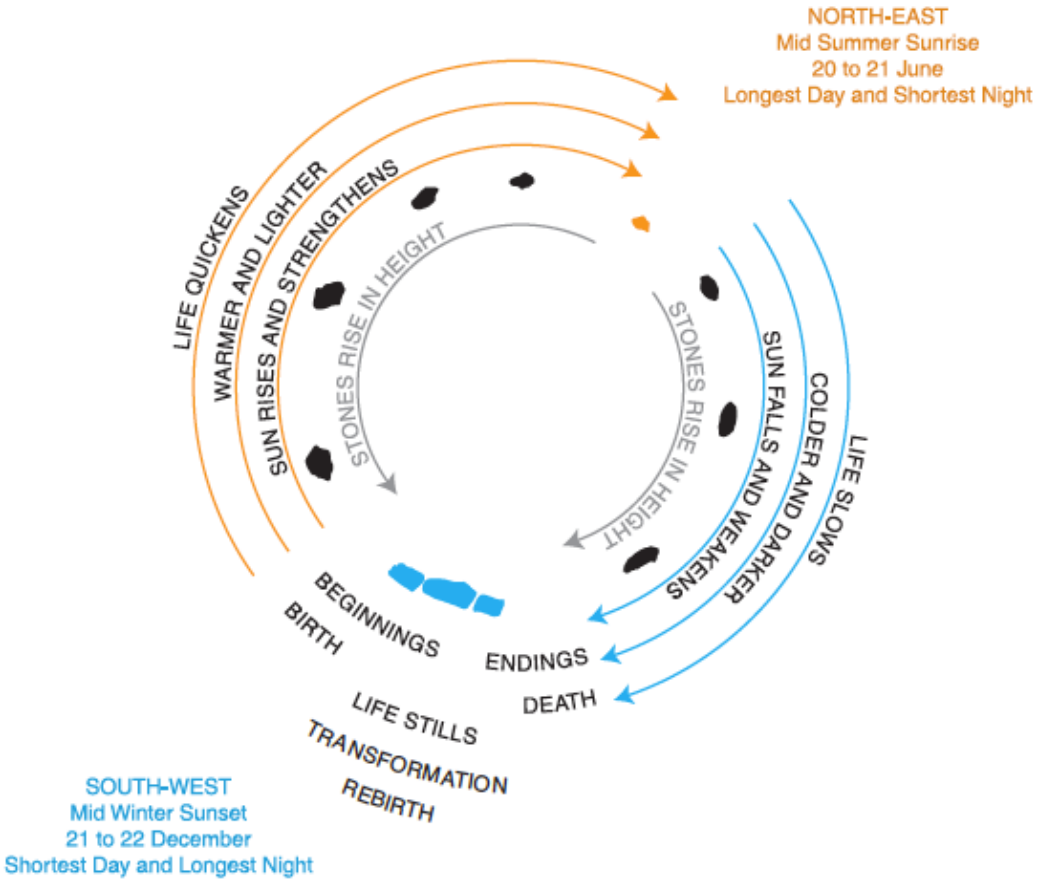

Figure 8: The cosmological round: the cycle of life (Welfare 2011). © Crown Copyright: HES.

The quartz sheets on the face of the recumbent and the various colours of the stones add detail to the story by referencing the fact that the cremated body (or bodies) has been translated into another dimension by the power of the sun expressed in fire. However, there is another component to the symbolism of recumbent stone circles, and this is partly expressed in the orientation of the recumbent setting and the position of the smallest stone in the north-east quadrant of the ring. Although East Aquhorthies is orientated south-south-west, if the wide spectrum of other known recumbent stone circle azimuths is evaluated in the light of the other aspects of their symbolism, this accents a general solstitial emphasis, which in conjunction with the circularity of the monument, likely encapsulates a regenerative component referencing the cycle of life.

2.1.1 Outline chronology

Early Bronze Age

As no chance finds have been recorded from East Aquhorthies and the monument has not been subject to known excavation, its origin and development can only be understood by reference to evidence gathered from other comparable monuments. Radiocarbon dates from a variety of contexts at Berrybrae, Hillhead,[14] Old Rayne, Strichen House and Tomnaverie in general suggest that recumbent stone circles were built in the Early Bronze Age, perhaps from about 2300 BC.[15] However, it is not known for how long they continued to be constructed, or what brought the rituals they encapsulated to an end. Although a roughly square stone situated near the centre of the ring is probably that identified by Alexander Keiller as a cist cover, this is likely to be part of the cairn's foundations.[16]

Late Bronze Age

Although there is nothing to indicate that East Aquhorthies was reused for burials or cremations after the Early Bronze Age, several comparable sites have yielded finds and radiocarbon dates, which indicate that recumbent stone circles were the focus of renewed activities of some intensity during the Late Bronze Age.

[14] Bradley 2016
[15] Welfare 2011
[16] Keiller 1934

Later-1st millennium BC to the mid-2nd millennium AD

How East Aquhorthies and recumbent stone circles were viewed across subsequent centuries is not well understood, but they seem to have remained respected and largely undisturbed until early mediaeval times, when some may have been robbed of an orthostat for re-use as a Pictish symbol stone. Documentary sources indicate that certain rings were so well known that they became important meeting places, while others were regarded with indifference or even superstition. Generally, many continued to be treated with consideration perhaps because, as Hector Boece would have it, the country people came to view the recumbent as an 'altar stone' forming part of a circular arena that could be read as a place of worship.

18th – 20th century

In time, recumbent stone circles came to be admired by the classically educated gentry as ornaments to their estates, and they promoted their preservation as a reflection of their culture and learning. Indeed, it was essentially a combination of a wide range of factors that allowed a large number to survive. Nevertheless, curiosity also led to speculative delving, possibly with the intent of finding treasure. They were also extensively and systematically robbed of their raw materials by the tenantry, especially during the century of agricultural improvement (c.1780-1880). Several were even blown-up with gunpowder, as they were sometimes perceived as an inconvenience to day-to-day efficiency in the newly laid out and enclosed landscapes. It is possible that it was during this period that the internal cairn at the centre of East Aquhorthies was robbed, perhaps for re-use as metalling on the newly introduced trackways.

The earliest known historical source relating to East Aquhorthies is provided by its depiction on an estate map of 1769, which shows it situated within a landscape of irregular plots near the south-west corner of a field named 'Standing Stone Folds'.[17] It was probably already an item of curiosity locally, but it is unclear whether the Rev. William Davidson, the minister of Inverurie, was referring to this stone circle when he noted the presence of an 'ancient Druidical temple in the parish [with] nothing very remarkable about it'.[18] He may equally have had in mind the ring at Brandsbutt or Ardtannes Cottages.

It is depicted again on estate maps in 1838 and 1847, after the surrounding landscape had been almost entirely transformed into a series of rectilinear enclosures and drove ways defined by stone dykes.[19] The monument would have been unlikely to survive these improvements had it been of no

[17] Home 1769
[18] Davidson 1793
[19] Walker & Beattie 1838; Beattie 1847

interest to the landowner, James Michael Leslie (1784-1849), twenty-fifth Baron of Balquhain. He must have been responsible for ensuring that it was suitably protected by insisting upon its inclusion in one of the newly built drove ways.

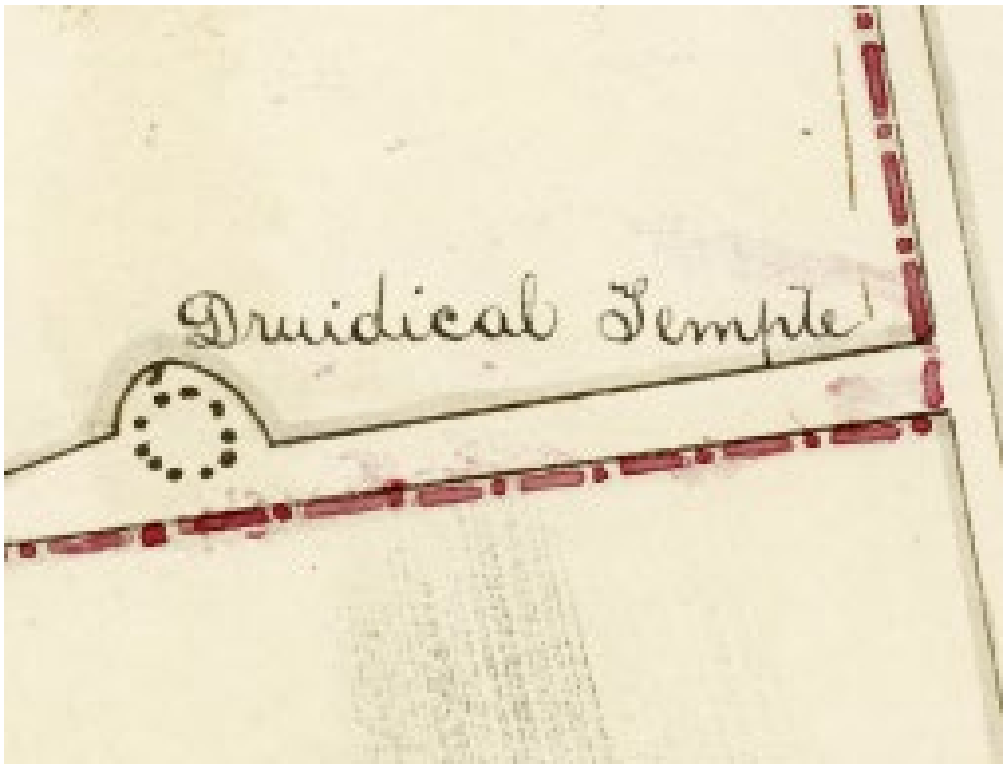

Figure 9: The stone circle in the drove way (Beattie 1847). © Courtesy of HES.

This evidently proved insufficiently secure, as the adjacent lengths of dyke to its north and south were subsequently taken down before the mid-1860s, in order to introduce the protective roundel that presently encloses the monument. This was probably accomplished by the authority of Colonel Charles Leslie (1785-1870), who succeeded to the title upon his brother's death. The roundel is depicted on the 1st edition of the Ordnance Survey 25-inch map,[20] along with the accompanying legend 'Stone Circle', instead of 'Druidical Temple' – a change in nomenclature that followed an order of 1864 that had been issued by Colonel Henry James, the Survey's Director General. This reflected the official repudiation of the priesthood's connection with stone circles generally, (although not necessarily the 'Temple' hypothesis), which had held sway nationally amongst the well-read since the late 17th century.[21] Hence, the concomitant entry in the Ordnance Survey Name Book still referred to the recumbent as 'a kind of altar' – the central tenet of that popular theory.[22]

[20] Aberdeenshire 1869, sheet liv.6
[21] Gibson 1695
[22] Name Book, Aberdeenshire, No. 42

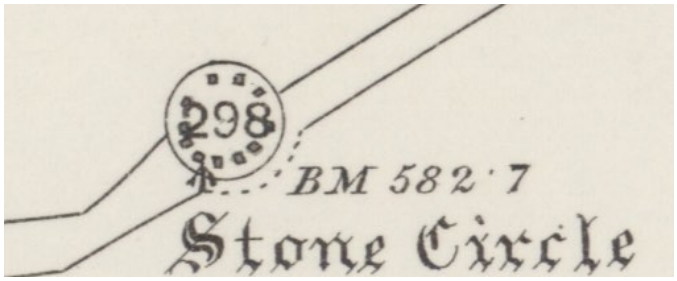

Figure 10: The 1st edition of the OS 25-inch map (surveyed 1866-7). Aberdeenshire LIV.6 (Combined). Reproduced under a Creative Commons Attribution 4.0 International (CC-BY) licence with the permission of the National Library of Scotland

2.1.2 Study and interpretations

As antiquarian and archaeological interest in these and other prehistoric sites grew in the 18th and 19th centuries, so various theories emerged about their purpose, development and inter-relationships. The ways in which understanding advanced through theoretical and empirical study is a fascinating story in itself. All who looked upon the recumbent stone from the early 16th century to the mid-19th century will have believed that they were seeing an altar or a rostrum within a circular temple where Druid-like figures had held forth. Indeed, a fine illustration reprising this theory, with hooded figures gathered together under the moonlight in a recumbent stone circle plainly inspired by East Aquhorthies, was set before the children of Scotland as recently as the late 1990s.[23] This image in question was excised from the next edition of the book following the excavations at Tomnaverie which revised the view of the circle as open arena and provided a new interpretation of these monuments.[24]

Appendix 1 details the evolution of ideas seeking to explain and interpret East Aquhorthies, which developed over the 19th, 20th and 21st centuries. A summary of the current understanding of the site and its meaning is also detailed in sections 2.2 and 2.3 below.

2.1.3 Guardianship

The monument was taken into State Guardianship on 9 September 1963, after which it was enclosed by a post and wire fence, with a kissing gate on the east. It seems likely that the roundel was repaired soon afterwards, and the site generally put into good order to enhance the experience for the visitor. Since then, a number of information panels have been introduced from time to time.

[23] Barclay 1998
[24] Barclay 2005

2.1.4 Designation

The site was scheduled on 31 August 1925 as 'Auchquhorthies, Manar' – the parish within which the ring then lay; and it was re-scheduled on 14 August 1963 when the monument was placed under Guardianship. Its designated status was last amended on 26 September 2002 (SM90126). The present scheduled area is delimited by the Guardianship post and wire fence, which encloses an area of 630sq m. This includes the recumbent stone circle, the nineteenth century roundel and a small area outwith the latter.

2.2 Evidential values

The investigation and evaluation of the physical remains of past communities is one of the principal avenues by which such groups can be understood and placed in their historical context. When carefully interpreted, the evidence that can be provided by a monument like East Aquhorthies can be considered reliable and invested with a degree of certainty that allows confidence in an analysis.

The primary evidential values of East Aquhorthies are:

- Its physical fabric and setting – the monument is well preserved and retains significant features pertaining to recumbent stone circles as a class.
- It is highly likely that further study of the monument and its immediate curtilage would provide valuable historical information.
- The quality of the information available already is very good, but this could be improved especially as non-invasive techniques develop
- Research to date has indicated that recumbent stone circles are a uniquely distinctive kind of Early Bronze Age monument and that East Aquhorthies possesses some unusual features. However, the class has a wide range of characteristics that it also shares with other types of ring; and any insights drawn from this monument in the years to come are likely to enhance our understanding of stone circles in general.

2.2.1 Physical fabric

East Aquhorthies is one of the best-preserved examples of a recumbent stone circle. Indeed, it is the only one where the full complement of ring-stones has remained apparently upstanding since the monument was constructed in the Early Bronze Age. Its great archaeological value has been demonstrated by the non-invasive methods of analytical fieldwork that have been applied to the remains since the latter part of the 19th century; and is likely to continue to play a major role in conveying an

understanding of these Early Bronze Age monuments and their role through time.

Its excellent preservation allows key aspects of its construction and symbolism to be appreciated, but it also has great value as a comparator with other recumbent stone circles on account of the differences it exhibits. These variations in the physical fabric of recumbent stone circles illustrates that there was a certain freedom and latitude in their final physical appearance as long as they correctly expressed the essential beliefs of the society in an appropriate manner.

2.2.2 Evidence revealed by archaeological investigation

There is no record of any archaeological excavation at East Aquhorthies and there is nothing observable at the site to indicate that such may have taken place in the past. However, it would be surprising if future research did not reveal that the curiosity of the country people or perhaps the more sagacious antiquary had not got the better of them and resulted in minor delvings in and around the monument – perhaps when the cairn was robbed.

The nearest stray finds are a stone axe found about 180m from the site in 1913, which may possibly be that now in Inverurie Museum (NJ72SW 35); a hammer stone found the same year (NJ72SW 36), which was originally in the same private collection; and another axe that is now in the collection of the Marischal Museum, Aberdeen (NJ72SW 192). While the labels indicate that all were collected on the farm, it is possible that none were found anywhere near the recumbent stone circle.

2.2.3 Further research potential

Five recumbent stone circles have been fully excavated since the beginning of the 20th century: The Nine Stanes[25] Old Keig,[26] Loanhead of Daviot;[27] Berrybrae[28] and Strichen House,[29] while four more have been the subject of smaller scale investigations in the last twenty years: Tomnaverie,[30] Aikey Brae,[31] Cothemuir Wood[32] and Hillhead.[33] These, plus the information that has been gleaned from 19th-century excavations and even earlier delvings, together with the field observations that have

[25] Coles 1905
[26] Childe 1933, 1934
[27] Kilbride-Jones 1935
[28] Burl 1975, 1976c, 1977, 1978, 1995
[29] Phillips et al, 2006
[30] Bradley 2005
[31] Bradley 2005
[32] Bradley 2005
[33] Bradley & Nimura 2016

accumulated over the past five centuries, are the sources of our current knowledge.

Although this material has provided a rich store of information, basic questions about recumbent stone circles have yet to be satisfactorily answered, including those regarding the rituals that led to their inception, their floruit, their relationship to other kinds of rings, and their abandonment as a type of monument commemorating the dead.

As the ring-stones at East Aquhorthies are undisturbed and some proportion of the foundational layers of the internal cairn may well be intact, it is quite clear that the monument retains the potential to illuminate these and many other outstanding questions. Particularly welcome would be: confirmative or negative evidence relating to our current understanding of their function, the factors influencing their creation, the choice of location, the activity requiring commemoration, the preparation of the site prior to construction, the origin and collection of the raw materials, how they were set-out, technical details relating to their engineering, whether their constructional sequence varied, the architectural motifs it exhibits and their contribution to the symbolism expressed in its overall form. In addition, a new suite of radiocarbon dates from a detailed range of contexts relating to the deposits beneath the monument highlighting the chronology of its sequence of construction would prove invaluable, while the application of a full complement of scientific techniques in circumstances where such analyses might be appropriate could also be of inestimable utility.

The site lies at the heart of the known geographical distribution of the monument class and so it may be anticipated that it will continue to contribute to the theorising that seeks to illuminate these difficult topics.

Geophysical investigation has only been undertaken at Rothiemay,[34] where the results proved confusing. However, the investigation of their curtilage is likely to prove more rewarding, as the excavation of the area around Loanhead of Daviot and other stone circles have indicated.[35] East Aquhorthies is unlikely to disappoint and may reveal valuable information pertaining to the location's earlier land-use, in addition to its secondary usage in the millennia following the monument's floruit. This, in its turn, is likely to cast much needed light upon how it was perceived through time, how it influenced cultural developments and perhaps also what contributed to its remarkable survival.

There also remains a pressing need to understand how East Aquhorthies and other recumbent stone circles were integrated with the ideas, beliefs and values of the communities who built them and how they might relate

[34] Aspinall 2006
[35] Kilbride Jones 1935; Cameron 1999

to similar, but less elaborate, monuments found throughout North East Scotland and beyond.

2.3 Historical values

The great value of the recumbent stone circle of East Aquhorthies is that it can tell us much about Early Bronze Age society – especially its willingness and capability to undertake complex engineering projects reflecting contemporary ideas, beliefs and values as testified by its fabric and the funerary practices this reflects. While one site alone can never provide a completely comprehensive understanding of what was invested in their creation, there is no doubt that the monument has the capacity to broaden our overall understanding of Early Bronze Age society's remarkable abilities.

Present understanding is based upon almost five centuries of antiquarian speculation and research. This effort can also tell us much about the attitudes and interests of those individuals and institutions who studied these monuments in more recent times. At East Aquhorthies they have included people from a host of backgrounds.

2.3.1 Bronze Age

East Aquhorthies and other recumbent stone circles are not the only ritual monuments attributed to the Early Bronze Age that are scattered throughout the countryside of North East Scotland, but they are perhaps the most dramatic and the best known. However, there are other types of stone circle that lack their elaborate detailing and there are also free-standing cairns in a variety of forms. Additionally, other stone settings and isolated standing stones occur, belonging to the same megalithic tradition, while henges and further forms of enclosure are also assigned to the period. Although their chronological and societal relationships remain unclear, the people who built these monuments were evidently well-organised and possessed considerable engineering skills. Moreover, the ubiquity of the recumbent stone circle over such a large terrain indicates that the rituals and beliefs expressed within them were widely shared.

East Aquhorthies is situated in the centre of the recumbent stone circle distribution amidst the rich lowland farmland of Aberdeenshire, which then as now will have supported a comparatively large population who lived in isolated round houses or small dispersed settlements. How far this society was hierarchical is uncertain, but in the absence of sufficient skeletal material, it would be all too easy to assume that a recumbent stone circle commemorated only its most important members. On present evidence,

they could just as easily mark the place where many people were cremated before the monument was constructed.

2.3.2 Associative

A wide range of individuals from all sorts of backgrounds have contributed to our knowledge of East Aquhorthies and our appreciation of the society that constructed it. Unlike some other monuments, there is no one name which stands out; and while this almost certainly reflects the fact that it remains unexcavated, it also stresses how much of our information has been incremental and derived from diverse sources.

2.3.3 Funerary rites and practice

The rites at recumbent stone circles like East Aquhorthies are reflected in the primary deposits secreted beneath the monument, and the stages in the monument's sequence of construction. The lack of information resulting from the disturbance of the internal cairn and the fact that no formal excavation has been undertaken here means that the specific rituals that may have been enacted at this location can only be inferred from findings elsewhere.

Scorched subsoil, fire-cracked stones, incinerated bones, comminuted osseous matter, charcoal, charred debris and 'black mould' have all been commonly recorded whenever the interiors of recumbent stone circles have been investigated through opportunistic delvings, stone robbing or carefully controlled archaeological excavations. By the mid-19th century, it was plain to John Stuart that the function of recumbent stone circles was funerary and that this burnt material could be linked with the rite of cremation.[36]

Controlled excavation has unquestionably provided the most coherent evidence for the funerary rituals; but even now few indicators of the primary rites have been retrieved, while others that may have been connected with stages in the raising of the monument are hardly known at all.

All the excavations since the turn of the 19th century have offered evidence that has tended to confirm Stuart's conclusion, although it is by no means always clear that the evidence for burning is primary. Nevertheless, Frederick Coles located small deposits of burnt bone in scoops and small pits in the central court of the ring cairn at the Nine Stanes, while he also noted black mould beneath the cairn material.[37] Almost thirty years later,

[36] Stuart 1856; 1867
[37] Coles 1905

Gordon Childe observed patches of burnt subsoil, as well as charcoal and burnt bones, below the shattered remains of the cairn at Old Keig.[38] Soon afterwards, Kilbride-Jones identified a layer of fine charcoal dust intermingled with crushed fragments of calcined bone, sandwiched between a crescent of cobbling and a hard-baked burnt subsoil, under the cairn at Loanhead of Daviot.[39] Burl's excavation of Berrybrae has yet to be adequately published, but it yielded burnt bones and a clay-filled pit containing a Beaker with charcoal, although these were interpreted as secondary deposits;[40] while the excavation conducted by Philip Abramson and Iain Hampshire-Monk at Strichen House revealed burnt stones and a burnt subsoil underneath the little that remained of the cairn.[41] Some cremated bone was also recovered, but at least some of this was secondary. By way of contrast, Bradley's limited excavations at Tomnaverie, disclosed a small, low mound above the old land surface preserved beneath the cairn, which comprised burnt soil, charcoal and fragments of cremated bone.[42] The context of the burnt stones he located at Cothiemuir Wood are more equivocal, as they had been re-used to fill an old excavation in the centre of the cairn. Bradley's later excavation of Hillhead provided evidence of a pyre and cremation, but this was secondary.[43]

It is not known whether the sites were used once, or repeatedly over a long period of time, but after the pyres had been extinguished their residue was swept up and they were cleared of their vegetation. In addition, the turf and the underlying topsoil was also frequently stripped away before the cairn and the stone circle were built.

In summary, the primary rite appears to have been pyre cremation, but there is no reason to suppose that this was necessarily performed after dark. A crowd would have likely gathered around the bonfire and after the spirit of the individual had been translated by fire and smoke into another dimension, some of the ashes might have been collected as keepsakes, or for distribution elsewhere.

The construction of the monument closed the site, and the surrounding ring of stones marks a reserved area into which access was quite possibly forbidden. The only entrance to the monument is closed and Lukis likened the orthostats to railings.[44] However, recumbent stone circles were elaborate monuments that were designed to be visited. This may have been to mourn the loss of the individual or individuals in whose memory they had been raised, to contemplate the ceremonies that had been

[38] Childe 1933, 1934
[39] Kilbride-Jones 1935
[40] Burl 1995
[41] Phillips et al 2006
[42] Bradley 2005
[43] Bradley & Nimura 2016
[44] Lukis 1885

enacted, or to reflect on the nature and meaning of life. It seems likely that it was the recumbent stone that was the focus of the monument, partly because several traits of the architecture (such as the grading of stones in height) drew the eye inexorably towards it, and partly because of its symbolism. However, it was also invariably the most massive stone in the ring and the one displaying the most remarkable geological characteristics.

Recumbent stone circles also attracted the deposition of later cremations (often of a token kind), which were either inserted at the foot of the orthostats, slipped into their fabric, or deposited into pits within their immediate curtilage. Moreover, small formal monuments, although admittedly of a less elaborate kind, could be attracted into their orbit. Some of these were connected with cremation, but others with inhumation.

There is no reason to doubt that evidence for such funerary practices would be located at East Aquhorthies and in its immediate surroundings were it to be investigated.

2.4 Architectural and artistic values

East Aquhorthies is one of the best, if not *the* best-preserved recumbent stone circle in North East Scotland. Its architecture has been carefully studied over many decades and it has made, and continues to make, an important contribution to our general understanding of these remarkable monuments. Important aspects of its design include:

- The specific combination of architectural characteristics it displays.
- The rarity of some of these features.
- The survival of its principal components, comprising an internal cairn and the surrounding stone circle, although the former is plainly depleted.
- The intelligence exemplified in both its design and engineering.
- The clever use it makes of the natural properties of the stones employed in its construction, in order to enhance its impressiveness and visual appeal.
- The sophistication of the symbolism it captures, which is reflected in its individual traits and how these on the one hand forge a link with the past and on the other illustrate the cycle of life

Note: In modern times, East Aquhorthies has also provided inspiration for painting, photography and other artistic expression. These are detailed in Appendix 2.

Description

The recumbent stone circle is built on a gentle east-facing slope in prime agricultural land. It is tightly enfolded within a mid-19th century walled enclosure and measures 20m from east to west by 18.5m transversely. It retains its full complement of stones, comprising the recumbent setting on the south-south-west and nine orthostats. The broader, flatter and less scarred faces of the stones face outwards, excepting two of the orthostats. The recumbent measures about 4m in length, 0.75m in thickness and 1.55m in height and leans backwards at a sharp angle. It is unusual in being a colossal rectangular slab, exhibiting little of the asymmetry that recumbents so often exhibit. Its leading face is shot with white sheets of quartz and numerous slickenslides, while an Ordnance Survey benchmark has been engraved just below its even, roughly horizontal summit. Behind the recumbent are located two firmly embedded upright slabs, flush with its ends. Two flankers, standing 2.5m and 2.15m high, are aligned with the front of the recumbent and turned slightly, in order to trace the arc of the circle. They are the tallest stones in the ring, but the westernmost is a little more slender than its counterpart to the east, which by contrast is a little stouter. Three cup marks are situated near the foot of the west flanker on its outer face, with a possible fourth to their west.

The nine orthostats are laid out in pairs on chords, with an additional stone on the north-east. The spacing between the pairs decreases from south-south-west to north-north-east. They are graded in height, their tops descending consistently from the flankers on the south-south-west to the smallest stone on the north-east. There is a suggestion of yet more deliberate asymmetry in the shape of the stones, with those on the east-south-east tending to be pointed, while those on the west-north-west are flat-topped, but this is by no means consistent. The footings of at least five are concealed by the bank revetting the walled enclosure. This feature creates an illusion that the interior is dished, but in practice the ring contains a low, grass-grown mound about 0.25m high, which is all that remains of an internal cairn. A roughly triangular stone lying between the two rectangular upright slabs behind the recumbent and another smaller square stone situated in a hollow closer to the centre of the ring are probably foundational stones underpinning the structure.

Recumbent stone circles amalgamate a cairn and a stone circle in an ingenious and creative way, with these elements being constructed in phases. The evidence for East Aquhorthies composite character and sequence of construction can be inferred from studies and excavation elsewhere, e.g. at Tomnaverie.[45] However, there is a caveat, for just as the architecture of every recumbent stone circle is unique to itself, so the

[45] Bradley 2005

sequence and methods of construction may have varied slightly from site to site.

Evidence from Tomnaverie and Cothiemuir Wood hints that certain rituals might accompany the monument's phases of construction. A pit containing charcoal at Tomnaverie was cut into a terrace that was sealed beneath the encircling platform revetting the cairn. This was located on the future axis of the ring below the eventual position of the recumbent and if this was not fortuitous, it may possibly have been dedicatory. In addition, a collection of worked quartz and a rock crystal, located just outside the kerb of the cairn at Cothiemuir Wood, was deposited before the revetment was added.[46] It was noted that some Beaker sherds had been found at Tomnaverie in exactly the same position.

2.4.1 Embodiment of belief system

Structure and form

Something of the ideas, beliefs and values of the Early Bronze Age communities who built recumbent stone circles can be inferred from the symbolism encapsulated in their architecture. In the late 19th century it began to be realised that the peculiar tropes built into them must be symbolic.[47] John Stuart's 'Sepulchral Hypothesis' led local antiquarians like Henry Mitchell and the Rev. John Milne to interpret the recumbent stone as a closed entrance, while the slabs behind the 'door' at East Aquhorthies were guarantees against intrusion. The rings were tenements for ghosts.

These ideas, comprehending recumbent stone circles through metaphor, with an entrance fronting some sort of tomb, were largely forgotten in the 20th century. Instead, professional archaeologists sought to explore the properties of these monuments in detail, measure them in all conceivable ways, explore their distribution and derive analogies. In other words, they collected data. But, like the face of the Cheshire cat, these metaphors continued to haunt their consciousness as they sought to unravel the relationship with the neighbouring Clava-type Cairns. Recumbent stone circles were an architectural chimera of doorways, passages and chambers, but when these strange traits were assessed against the full range of their features, none of it seemed to make much sense. However, once the sequence of the architectural succession was understood at Tomnaverie, some insight into the symbolism they embodied could fall into place.[48]

[46] Bradley 2005
[47] Welfare 2011
[48] Bradley 2005

The fabric of recumbent stone circles appears to interweave two distinct strands,[49] both of which can be read in the architecture at East Aquhorthies:

- The first harks back to the deep past and emphasises death and interment
- The second can best be understood as a philosophical meditation upon life

The first aspect is demonstrated by the several ways in which the design harks back to the ancient Neolithic chambered tombs scattered throughout the British Isles. The recumbent stone and the flankers can be read as a closing stone in a doorway centrally situated in a façade. The latter stretches across the slightly flattened south-south-west arc and assimilates the two adjacent orthostats. The difference in height between these orthostats and the flankers places the stress on the recumbent setting, as does the sheer size of these three stones. The two large slabs behind the recumbent are evidently the equivalent of the kerbstones that are frequently seen at other recumbent stone circles, where the shape they make results from the reconfiguration of the cairn's outer kerb in order to link the two sections of the monument. A kerb does not delimit the cairn at East Aquhorthies and so in order to promote the metaphor, the builders have apparently introduced the two slabs to mimic these kerbstones and so suggest a passage behind the closed door in the façade. The two slabs simply abut against the make-up of the cairn. It is likely that the space between them was originally filled with stones to mimic the rubble fill found in the blocked-up passages of the archetype. There is no evidence for a central court at East Aquhorthies and it seems that the chamber to which the denotative passage might have led was also to be read as blocked. In sum, the arrangements of these traits suggest that the architects of East Aquhorthies wished to create a simulacrum of a generic chambered tomb. This despite the fact that the rituals connected with those early monuments was likely to be quite different from those that occurred in their day and age.

The second strand of the symbolism inherent in East Aquhorthies describes a regenerative cycle of life, death and rebirth, a phenomenon also understood at Newgrange and Balnuaran of Clava. This is partly communicated by East Aquhorthies' circularity on plan and partly by its orientation, which is situated roughly midway in the span of those found at recumbent stone circles; and partly by the relationship of the recumbent setting on the south-south-west side of the ring and the smallest orthostat on the north-east arc. This odd position may provide a clue to its meaning, because its location in this quarter may symbolically mark the direction of sunrise at the summer solstice. The disparity in size between this stone and the recumbent places the focus symbolically firmly upon the southern arc

[49] Welfare 2011

of the monument and thus upon the winter solstice – the point where the old year dies, and a new year is born. Thus the metaphor encapsulated in this strand of the architecture can be understood to refer to the cycle of life and to rebirth following transformation after death.

Materials, colour and cup marks

As well as the structural and design elements discussed above, details of materials, colour and the use of cup marks can also be interpreted as supporting the symbolic intent of the monument. Colour seems to have had an important place in the design of recumbent stone circles, and is likely to have been symbolic. The red and grey in the palette of local rocks - porphyry, granites and jasper - were possibly selected to symbolise the rite of cremation: the flames, the bone or the ash. The use of quartz is a striking visual feature that is well established in prehistoric contexts. At East Aquhorthies, several stones are quartz-bearing, and this is especially prominent on the recumbent's outer face.

The most striking analogy for the use of quartz is at Neolithic Newgrange in Ireland.[50] Newgrange demonstrates an incontestable relationship between the architecture and orientation of the monument, the use of quartz and the sky – specifically the midwinter solstice.[51] A similar association of quartz, a south-westerly orientation and the sun is also demonstrated at Balnuaran of Clava, which is closer in date to East Aquhorthies: here the most quartz-rich orthostat in the surrounding ring of the more north-easterly cairn is situated on this axis opposite the passage, to mark sunrise at the summer solstice. The relationship with quartz seems apposite, as the Sun radiates warmth and light and is synonymous with fire – the means by which the bodies of the dead were transmuted into another dimension through their cremation on the funeral pyres.

Cup marks

Cup marks are a relatively common feature on the recumbent stone setting and the immediately adjacent orthostats, sometimes deliberately hidden from view. Cup marks are found near the foot of the west flanker at East Aquhorthies, though in that location they seem intended to catch the attention.

Like the quartz, they seem a conscious borrowing from ancient times, and like quartz they are commonly found restricted to the five stones forming the façade at recumbent stone circles. When surrounded by multiple rings,

[50] O'Kelly 1982

[51] At Newgrange, above the entrance is the 'roof-box', which like the façade was orientated towards the south-east, to the place where the Sun rises on the morning of the winter solstice. This space was originally stopped-up with two quartz blocks, but these could be removed to allow the light to shine in and illuminate the back of the chamber at that moment.

cup marks are often taken as a sun symbol in many far-flung cultures. The cups at East Aquhorthies do not appear to have been derived and instead were almost certainly newly made in the Early Bronze Age. It is possible that they represent 'dying suns', as they are located low down on the western flanker in the direction of where the Sun sets. This is the dark and cold side of the sky and it is metaphorically synonymous with death, while the east is where the Sun rises and is synonymous with life.

Figure 11: Cup marks on the right near the foot of the west flanker. © Crown copyright: HES.

2.5 Landscape and aesthetic values

East Aquhorthies is situated in the rich rolling lowlands of central Aberdeenshire in open country. This is characterised by the geometric enclosures of the 18th-19th century, comprising plots of arable and improved pasture interspersed with mixed plantations and shelterbelts. Although the rising ground restricts the view to the west, there is an extensive outlook stretching away from the south to the east-north-east where the Knockinglews ridge closes in. Nevertheless, the peak of Mither Tap, the crowning point of the Bennachie range, can still be readily glimpsed to the west-north-west.

Many, but by no means all, recumbent stone circles share such a spectacular view, and this has led to speculation that their outlook must have played an intricate part in their purpose. An astronomical target has been sought for more than a century, with researchers intent on discovering this through the increasingly accurate measurement of

alignments. And if the sky has not provided a satisfactory solution, then some have looked to the landscape instead, searching the distant horizons for significant features that can be spied from the recumbent stone setting. But again, consistency has proved elusive. After so much effort, it is understandable that these avid seekers should find it difficult to accept that the location of a recumbent stone circle may have been chosen for other reasons.

It was probably the agricultural potential of the country that influenced land-use and their location. Although their proximity to settlement remains poorly understood, there is some evidence to indicate that these monuments were situated some distance away from them.[52] However, it seems very unlikely they were situated too far out in the waste – although their location may owe something to route ways – if only because they were commemorative and designed to attract the visitor. With the rich symbolism embodied in their architecture, they were largely self-contained – although it is perfectly possible that the people who built East Aquhorthies sometimes looked out at the extensive view and felt both at home and at one with the world.

2.6 Natural heritage values

The property in State care is not currently (2021) covered by any natural heritage designations, and provides modest natural heritage interest. The site is grassland: the inner area is closely mown to reveal the monument's characteristics and is species poor; the perimeter areas are identified as un-improved acidic grassland. The latter supports a greater number of species including heath dog-violet (*viola canina*) which is relatively rare and has potential to support fritillary butterflies as it is nectar-rich.

Lichen or other forms of botanical growth adhering to the orthostats may contain some interest, as these were left undisturbed in 1985 when the mould made for the 'Symbols of Power' exhibition largely stripped this from the recumbent setting.[53]

2.7 Contemporary use values

To date (2021), there has not been a formal assessment of how contemporary communities relate to East Aquhorthies, so the following paragraphs are based on readily available information and references.

[52] Bradley 2005
[53] Bryce et al 1991

2.7.1 Visitors and visitor amenities

The principal amenity associated with the monument is the nearby car park with its information board explaining how to reach the recumbent stone circle on foot. The ring itself is enclosed within a mid-19th-century roundel surrounded by a fence with a kissing gate on the east-south-east. A second information panel set on a low plinth is situated about 5m to the gate's south, immediately in front of some steps, which provide access to the ring's interior. As the site is unstaffed, it is not possible to determine exact visitor numbers; however, it is estimated that over 1,200 people visit the ring, each year.

The tourist value of East Aquhorthies is high. It is nice to look-at, it seems complete and appears to the visitor as the archetypical recumbent stone circle. The recumbent is imposing, the flankers impressive and the orthostats are colourful, grading neatly from the tallest stones in the south-south-west to the smallest on the north-east. Its setting is pretty and there is a very pleasant outlook across the lowland to the south and east, with the unforeseen bonus of Mither Tap popping up over the horizon. In addition, the mysterious cup marks and the baffling 'compartment' behind the recumbent require pause for thought.

Access is relatively easy from Inverurie, which is well-served by rail and road; and although the lane forming the final approach to East Aquhorthies is narrow, it offers a perfect translation into the quieter rural world. It is no wonder that the author of *The Modern Antiquarian*, Julian Cope, and his family found it a lovely place for a picnic.[54]

East Aquhorthies is understood by many as a special, and for some a magical place - whether or not they hold particular beliefs. Evidence from social media indicates that visitors value the site highly, and often mention the beauty and tranquillity of the location, the impressive size and completeness of the circle and the nearby opportunities for walking trails as positives. Some also mention feelings of awe and respect for the age of the place and the people who built it, and the enigma that it presents.[55]

2.7.2 Folklore

Although folklore is associated with some recumbent stone circles, nothing is known that specifically pertains to East Aquhorthies.

Modern 'New Age' ideas and interpretations continue to evolve: these may, over time, add to folklore associated with the site, such as for instance Michael Dames' interpretation of the recumbent stone setting at East

[54] Cope 1998
[55] E.g. see entries on www.tripadvisor.co.uk

Aquhorthies as a 'stylised stone ox'.[56] The site is important to these communities and to those who believe the site to be a focus for special energy, for instance dowsers have noted various unseen complexities.[57] The Internet and social media now nourish this fresh vein of 'tradition' and circulate new stories all around the world. This store will likely continue grow and make its own special contribution to Scottish culture and to link present generations with the generations of the past, while bringing a great deal of enjoyment.

2.7.3 Spiritual values and atmosphere

The old spiritual values embodied in East Aquhorthies had probably already faded and become corrupted by the Late Bronze Age, although some memory connecting them with the dead may have persisted. However, once people no longer knew how to read these monuments and all memory of their meaning was lost, they were free to develop their own conceptions. There is no reason to suppose recumbent stone circles were invested with spiritual values before the early modern period interpreted the recumbent stone as an altar, with the rest of the ring as an enclosure housing a congregation. However once this idea became common from the 16th century they were generally viewed through that prism. There is little evidence that they were treated poorly on account of their pagan origins. Indeed, sometimes quite the reverse. However, once clothed in a religious ethos, this notion has carried through to the present.

It is also a place where the search for altered states of consciousness has been explored,[58] where strange radiation surges have been recorded at moonset,[59] where it has been understood that the monument is but one of a series of 'stars' recalling the constellation of Cepheus writ large over the Aberdeenshire landscape[60] and it is the place where John Drewry, the well-known choreographer of Scottish country dance, once met a man who assured him that 'someone standing in the circle was much more likely to see UFOs than someone standing nearby'.[61]

East Aquhorthies now provides an arena for those who wish to tap into percieved spiritual values. It is by no means uncommon to find an individual cross-legged, eyes closed and meditating quietly either upon the summit of the recumbent stone or in the centre of the ring. In addition,

[56] Dames 1977
[57] Gardner 2000; Haddow 2007
[58] Faidych 1997
[59] Devereux 1990
[60] Kaulins 2003
[61] Drewry 2000

visitor offerings (usually flowers) are common,[62] although the people or events they commemorate are unknown.

3. MAJOR GAPS IN UNDERSTANDING

Please note, the research for this document was largely undertaken during 2020-2021 with limited access to archives and resources, as a result of Covid-19. While every attempt was made for accuracy throughout the statement, errors or omissions may remain. Please direct comments or suggestions to CRTenquiries@hes.scot

Our knowledge of East Aquhorthies in particular, and recumbent stone circles in general, rests upon a foundation less secure than is desirable. There have been no excavations at this monument and what little we think we know has either had to be pieced together or inferred from the analysis of many different sites. Some of the outstanding questions can be simply listed:

- What is the origin of East Aquhorthies?
- What rites or activities played out at this location and if the ring 'reserves' (i.e. delimits) the area where bonfires once stood upon which the dead were cremated, what led to the end of this activity?
- What was the environment and land-use at the time of the monument's construction and how has this changed with time?
- Where are the nearest contemporary settlements and how was the monument integrated into their landscape?
- How was the ring planned and set out?
- What was the sequence of construction? When did this commence and how long did the monument take to build?
- Was the monument built in one operation? if episodic, what were these events and at what intervals did they follow?
- How far does this sequence deviate from the models offered by **Tomnaverie** and **Loanhead of Daviot**?

[62] Such actions can inadvertently harm archaeological sites, and visitors are reminded that the use of candles or naked flames are not permitted at any HES properties.

- Are there further aspects of the monument's architecture that differentiate it from some of its contemporaries?
- When was the monument's floruit and when did it finally fade from the consciousness of people who properly understood it?
- Where was the stone for the monument sourced?
- Is there any evidence relating to how the stones were brought to the site and erected?
- Have the footings of the stones been shaped in any way?
- What was the original form of the cairn, how far has it been depleted and how were the flankers and orthostats supported at its edges?
- Was the cairn material gathered or quarried?
- Does the monument commemorate one individual or many?
- Have there been later interventions in prehistory, whether cremations, inhumations, or some other kind of deposit?
- Were other monuments attracted into its orbit and if so when did this happen and what is their form?
- Is there any evidence for deliberate destruction in prehistory?
- Did the ring really come through to the late 18th century intact without intervention, or has it been the subject of an unrecorded restoration?
- When was the roundel constructed?

Answers to any of these questions would make a valuable contribution to our knowledge. Added to the specific questions above, there are major knowledge gaps relating to the period to which the monument belongs. Key research questions relating to the Bronze Age as a whole are contained within the ScARF National Framework Bronze Age report.[63]

[63] Accessible at: https://scarf.scot/national/scarf-bronze-age-panel-report/

4. ASSOCIATED PROPERTIES

The recumbent stone circles of **Loanhead of Daviot** and **Tomnaverie** are also properties in State care. Both have been subjected to excavations of a high standard and have contributed much to our knowledge. Moreover, while they share similarities with East Aquhorthies, all three offer differences and thereby tell a slightly different story.

Recumbent stone circles also have strong affinities with Clava passage graves, like those at Balnuaran of **Clava** and **Corrimony**, but they also share characteristics with other stone circles, ring cairns and other kinds of cairn.

5. KEYWORDS

Aberdeenshire; Aikey Brae; Aplite; Archaeoastonomy; Ardlair; Ardtannes Cottages; Auchmaliddie; Azimuth; Balnuaran of Clava; Berrybrae; Brandsbutt; Corriemony; Cairn; Central Court; Centre Line Azimuth; Chambered Tomb; Cist; Clava Passage Grave; Clava Ring-Cairn; Circle; Colourways; Cothiemuir Wood; Cup Mark; Cycle of Life; East Aquhorthies; Flanker; Hillhead; Kerb; Kerbstone; Knockinglews Ridge; Loanhead of Daviot; Midmar Kirk; Orthostat; New Grange; The Nine Stanes; Old Rayne; Passage Grave; Perpendicular Line Azimuth; Platform; Porphyry; Recumbent; Recumbent Setting; Recumbent Stone Circle; Ring; Ring-Cairn; Ring-Stone; Slickenslide; Stone Circle; Strichen House; Sunhoney; Tomnaverie; Tyrebagger;

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www.flickr.com/groups/greatcrownsofstone/

Further Resources

Canmore ID: 18981
Site Number: NJ72SW 12
NGR: NJ 7323 2079

Canmore entry: https://canmore.org.uk/site/18981/east-aquhorthies

Further information on Bronze Age Scotland is to be found at:
https://scarf.scot/national/bronze-age-panel-report/

APPENDICES

APPENDIX 1: HISTORY OF STUDY AND INTERPRETATION FROM THE LATTER PART OF THE 19TH CENTURY

1870s - 1900

The Ordnance Survey directive of 1864, which stated that stone circles were no longer to be attributed to the Druids, was a watershed. It ended the official sanction of the purported link between this Iron Age priesthood and these monuments; but it seems that many of the surveyors had yet to become acquainted with the 'Sepulchral' hypothesis, the locally ascendant perspective that had been introduced in the mid-1850s following a campaign of excavation that had been overseen by John Stuart and Charles Elphinstone Dalrymple.[24] However, the surveyors did recognise the geological variety in the ring-stones, while adding the observation that the rock from which the recumbent was composed was not to be found on the Fetternear Estate; then the centre of the Balquhain Barony.

The inclusion of East Aquhorthies on the Ordnance Survey map inevitably led to it becoming better known. Within a year or two it was the subject of a charming watercolour (see Figure 25) by Sophia, Lady Dunbar, a Lady Associate of the Society of Antiquaries of Scotland[64] and also of some drawings by Colonel Jonathan Forbes-Leslie which are now lost. These accompanied a lecture he delivered to the British Association Meeting at Edinburgh in 1871[65] in which he challenged Stuart and Dalrymple's hypothesis by outlining a series of arguments supporting the earlier theory that they had been 'erected or occupied for religious ceremonies'. However, Christian Maclagan, another Lady Associate of the Society,[66] advocated a very different view. Using her own plans and reconstruction drawings of the monument, she argued that this and other recumbent stone circles were the last remnants of huge, circular buildings akin to the Scottish Broch.[67] Her idea that the two upright slabs behind the recumbent at East Aquhorthies had originally supported the latter in acting as a lintel above a low doorway, with the remaining ring-stones functioning as 'binders' to strengthen the foundations of the overall structure, found little favour with her contemporaries.

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[64] RCAHMS MS1992/527; image accessible at: https://canmore.org.uk/collection/337167
[65] National Library of Scotland APS 1.79.129; Leslie 1871
[66] The term 'Lady Associate' was used as the Society did not admit female Fellows until 1901. For further information, see: https://www.socantscot.org/resources/famous-fellows/ [accessed 16/09/20]
[67] Maclagan 1875; 1881; 1894

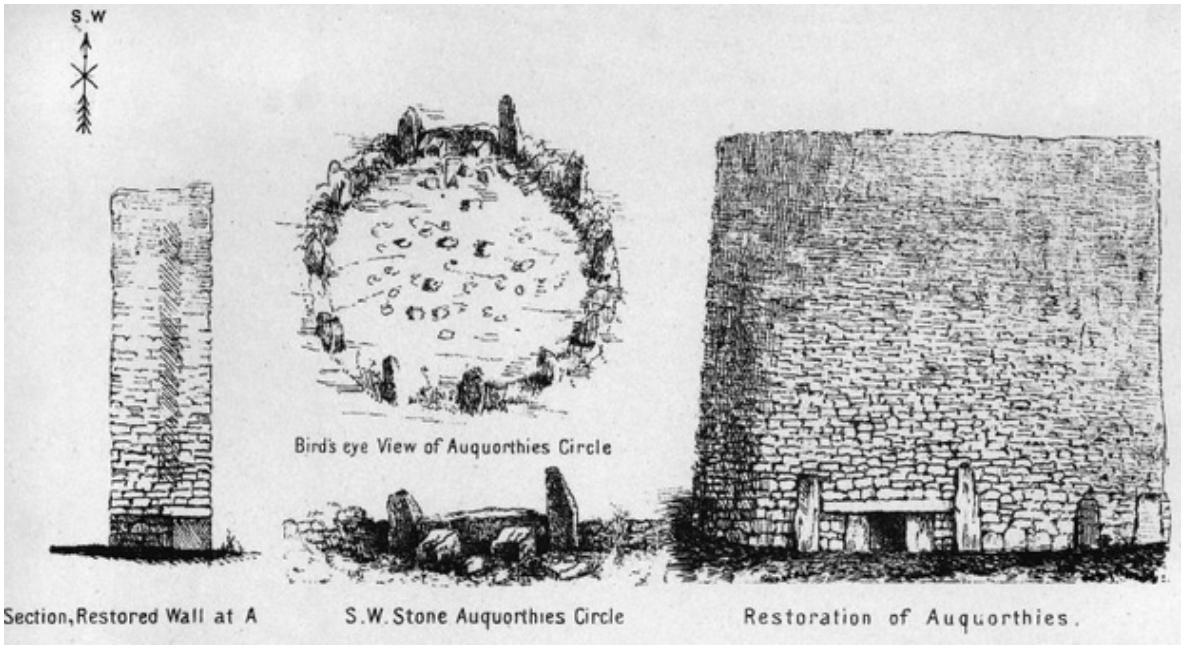

Figure 12: Christian Maclagan's reconstruction (Maclagan 1875). © Courtesy of HES.

Nevertheless, it was this conception that directly led to her advancing the first explanation for the orientation of recumbent stone circles – namely that as dwellings they were deliberately directed towards the Sun.[68] During this period, the Rev. John Davidson called special attention to the monument on account of its completeness and by 1884 it had become so well known that General Augustus Pitt-Rivers, the newly appointed 'Inspector of Monuments', was persuaded to visit the site.[69] He was impressed with what he found and five years later he sent his assistants, William Tomkin and Claude Gray, to take more detailed measurements and sketches, in addition to complementary photographs. This was to allow an exhibit to be made for his private museum where a model of East Aquhorthies would become a valuable educational item.[70] This is now in Salisbury Museum, but although the drawings survive,[71] the photographs appear to be lost.

Despite the fact that it had long been recognised locally that stone circles with recumbent stones represented a distinct class of monument with a limited distribution, this only became generally known after Alfred Lewis, a chartered accountant from London with a keen interest in such monuments, began to seek out specific references to them following visits to Tyrebagger and Aquhorthies in 1885. Using whatever illustrations he could find, he compiled a composite sketch of twelve examples for a plate

[68] Maclagan 1881, 30
[69] Thompson 1960; 1977; NA (Kew) Work 39/12/44-6; 39/15/51, 56-7
[70] Thompson 1960
[71] TNA (Kew); Work 39/3/44-50; 39/8/73-6; 39/11/7, 10-11; 39/13/16, 114-51

to accompany a lecture, which he delivered to the Royal Anthropological Institute in 1887.[72]

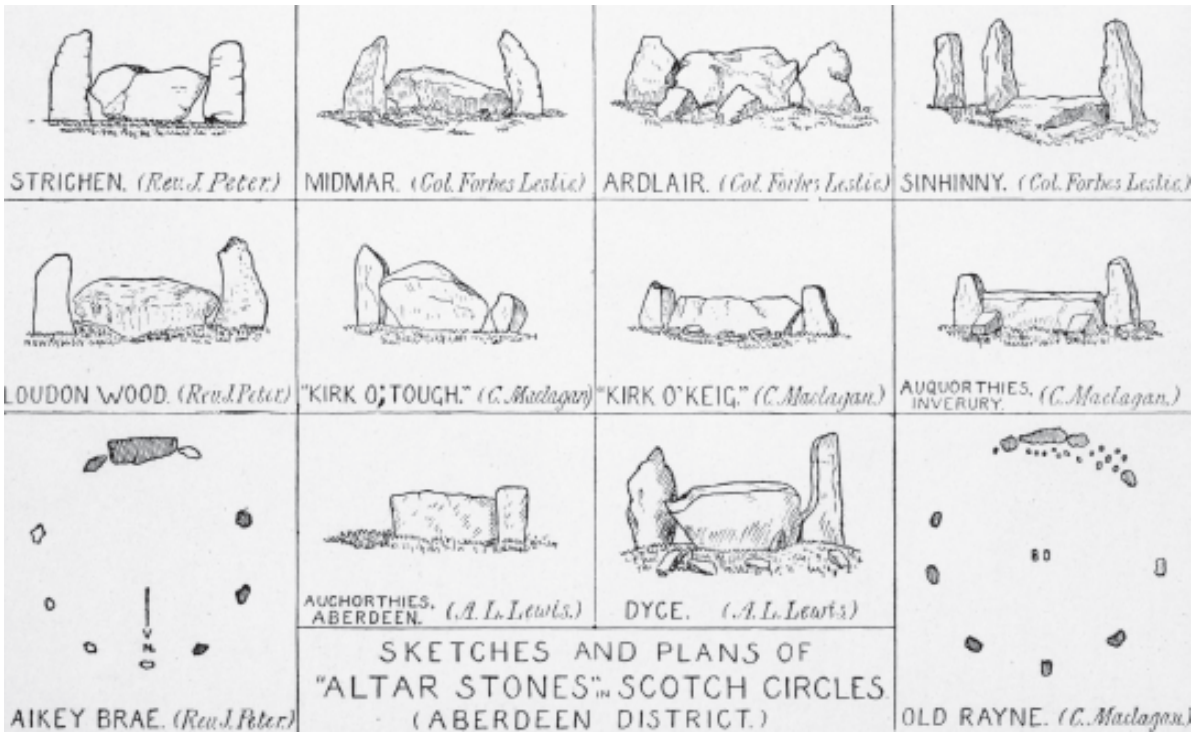

Figure 13: A comparison of recumbent settings (Lewis 1888). © Courtesy of HES.

Inevitably, this plate focussed largely upon the recumbent setting and it included a redrawing of Maclagan's illustration of the example at East Aquhorthies. At that time the inner face of the recumbent setting was still believed to represent the frontal aspect of the stones, because the empty enclosure circumscribed by the ring continued to be understood as an arena. Lewis' diagram was both enlightening and influential, and James Spence almost immediately reproduced it in a more attractive form in a paper that was otherwise illustrated by examples from the more northerly part of their distribution.[73]

The first photograph of the monument to be published, appeared in 1899. It is unattributed, but its main value is that it shows the ring to have been at least partly knee-deep in gorse and broom at that time.[74]

[72] Lewis 1888
[73] Spence 1890
[74] Munro 1899

Figure 14: The recumbent stone circle from the east (Munro 1900). © Courtesy of HES.

1900 – 1930s

At this stage, photography could not compete with the important analytical and illustrative role played by measured drawings and sketches. This is exemplified by the work of Frederick Coles, who from 1899-1910 investigated the stone circles of the North-East on behalf of the National Museum of Antiquities of Scotland. He was already an old and trusted hand at the kind of high-quality field surveys required, which depended upon a compass and a measuring tape. Others took the only photographs that ever illustrated any of his articles, namely those captured during and immediately after his excavation of the recumbent stone circle at Garrol Wood in 1904.[75] From the beginning, the itinerary he planned was largely guided by the appearance of standing stones and stone circles on the 1st and 2nd editions of the Ordnance Survey 6-inch map. He reached East Aquhorthies during the second season of his fieldwork and was immediately impressed by both its excellent state of preservation and its extensive outlook.[76] According to his report, there were 'no shrubs to intervene' and hinder his observations, but this does seem rather doubtful, as it is otherwise hard to understand how he came to believe that all the uprights stood 'upon a low ridge of boulders'. He was quite aware of the roundel, but it is clear from a photograph taken a few years later by Mary, Lady Lockyer, that its stonework was in very poor condition and the bank behind remained thickly grown. Under these circumstances, it is possible that he misconstrued what he observed and it is conceivable that the

[75] Coles 1905
[76] Coles 1901

diminutive bank running between the stones that he had seen only the season before on the visit he had paid to Sunhoney, influenced his overall perception.[77] The large slabs projecting behind the recumbent especially intrigued him. He recognised them as unusual, but he also knew from a now lost letter from Dalrymple to Joseph Anderson that a similar feature existed at Ardlair. Having sketched the recumbent setting twice, in order to illustrate this feature adequately and having captured a general view of the monument from the north-east, he took enough measurements with which to construct his plan. In addition, he conscientiously tabulated both the spacing and heights of the stones clockwise from the orthostat adjacent to the west flanker, while carefully noting the character of their summits and the estimated weight of the recumbent (8.18m tons).

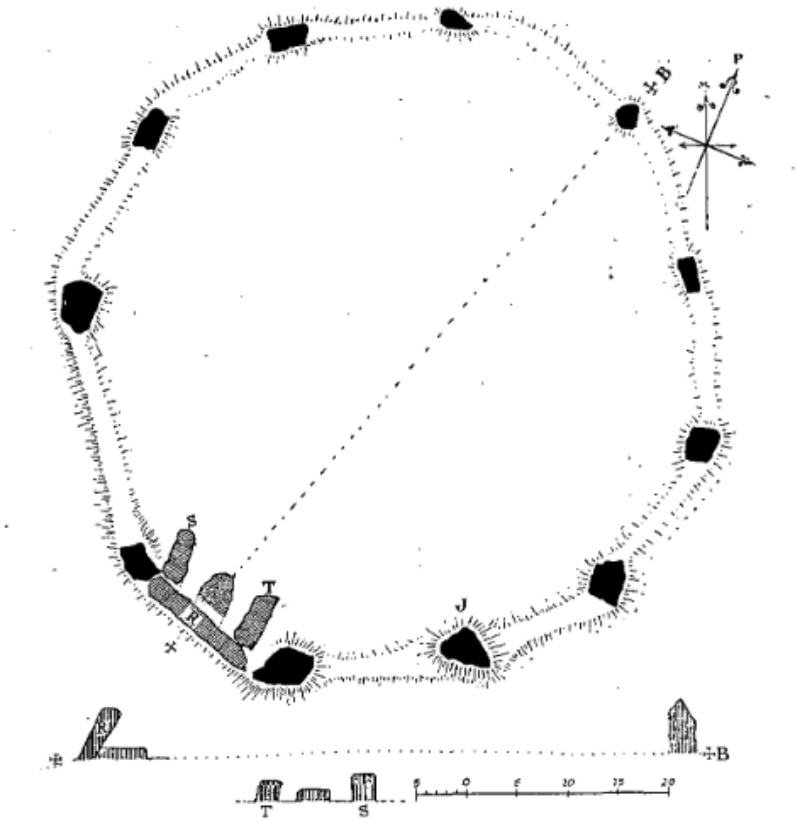

Figure 15: Frederick Coles's plan and profiles (Coles 1901). © Courtesy of HES.

His figures did not allow him to discern the grading of their height distinctly, but he recognised that the smallest orthostats lay on the north side of the ring. He was also careful to describe the geology and colour of the stones that make up the recumbent setting – visualising the recumbent as a reddish granite, the flankers as made of the same rock but light grey; and while one of the small upright slabs to the rear matched the geology of the recumbent, the other he distinguished as a dark whinstone. By contrast, he believed all the orthostats were pinkish porphyries, apart from one

[77] Coles 1900

situated on the east-south-east of the ring which he recognised as a variegated red jasper. He also noted the low cairn within the interior, although he thought this remained undisturbed.

Figure 16: Coles's sketch of the ring from the east-north-east (Coles 1901). © Courtesy of HES.

James Ritchie, a schoolteacher from Port Elphinstone and a highly proficient amateur photographer, habitually followed in Coles's footsteps with his camera, capturing some of the finest images of recumbent stone circles on record. His earliest images of East Aquhorthies were taken in 1902, and amongst those was a fine study of the rear of the recumbent setting taken on a frosty day in December (Figure 17). He returned in 1908 and his photographs continue to show the roundel in a dilapidated state, with the scrub dominating the interior (Figure 27).

Figure 17: Ritchie's photograph of the recumbent setting in 1902. © Courtesy of HES (Society of Antiquaries of Scotland Collection).

In the meantime, Alfred Lewis had continued scouring the literature for references to recumbent stones and was now able to list twenty-six rings, which included this distinctive feature.[78] He had become increasingly preoccupied with the orientation of stone circles, believing that the explanation must relate to a target located in either the landscape or the sky. In order to explore the latter, he eventually enlisted the help of Sir Norman Lockyer, who in 1906, with Coles's plans in hand, took a series of readings at a number of recumbent stone circles including East Aquhorthies.[79] These were taken across the circle at right angles to the length of the recumbent, and so following the common perception of the direction of interest, the sightings were trained to the north. A single astronomical target was not disclosed, but finding a declination of 33º, Lockyer considered the most likely stellar candidates to be Capella – if the ring was constructed in 1640 BC, or Arcturus – if about 600 BC.

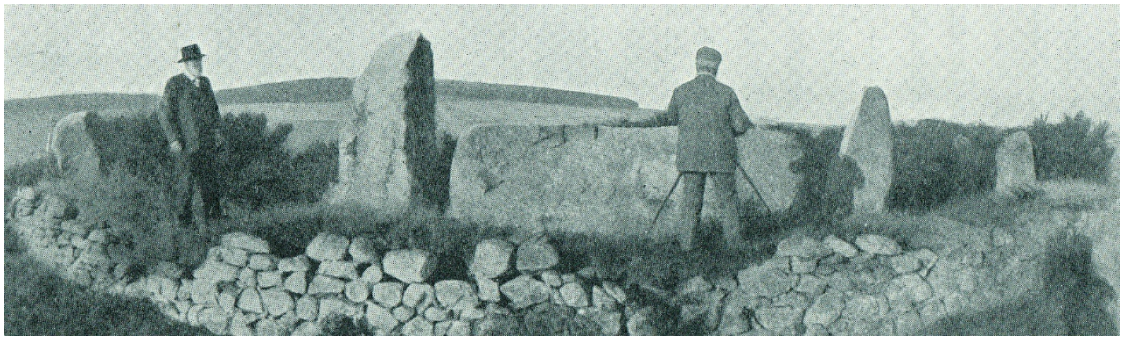

Figure 18: Sir Norman Lockyer overseeing his archaeoastronomical survey. Note the dilapidated roundel in the foreground, and thick scrub within the interior. (Lockyer 1906)

Apart from the photograph of the monument taken by his wife Mary, Lockyer's article announcing these results also reproduced Ritchie's 1902 image of the recumbent setting from the north-east. Lady Lockyer's photograph discloses the general neglect – the decaying state of the roundel and the scrub prevalent within the interior. Indeed, the Right Reverend George Browne could still describe this in 1920, as 'filled with a forest of whin bushes as high as our heads'.[80] This partly explains why Browne misunderstood the bank backing the outer stone revetment of the roundel, for he interpreted the site as a saucer-shaped mound on which the ring-stones had been erected. Coles's plan, which he reproduced in his handbook for distinguished visitors to the neighbourhood, unquestionably influenced this conception; but Browne also collected a series of new measurements, as well as reproducing a photograph of the recumbent setting by another local photographer, Robert Benzie of Dunecht.

[78] Lewis 1900
[79] Lockyer 1906; 1909
[80] Browne 1921

In the same year as Browne published his account, Hadrian Allcroft released a detailed review of recumbent stone circles that was based upon the most extensive documentary research to date.[81] Although he had nothing new to say about East Aquhorthies, it was probably the fact that it was uniquely intact that led him to reproduce an annotated redrawing of Coles's plan to act as a key to some of their more interesting features.

East Aquhorthies and a number of other recumbent stone circles were scheduled for protection under an Act of Parliament on 31 August 1925; and it was visited soon afterwards by Alexander Keiller, who was making a personal assessment of the Act's working 'at the request of the Ancient Monuments Department'. Keiller photographed and planned the ring with a theodolite for a projected monograph that was to be titled 'Megalithic Monuments of North-East Scotland'.[82] Unlike Browne, he did not consider the gorse and broom a hindrance; and apart from the plan (which remained unpublished), he also prepared a scaled profile of the stones ranged along a line representing a level ground surface. However, as he recognised, this does not show the consistency of the grading that he had anticipated and thereby, unwittingly revealed the builders' subtlety in handling this element of their design.

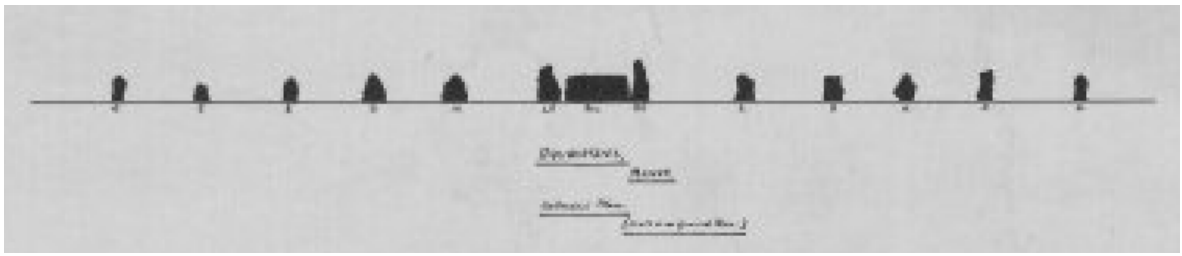

Figure 19: Keiller's profile of the stones (1927). © Courtesy of HES (Alexander Keiller Collection).

In contrast to Coles, Keiller believed that the interior *had* been disturbed, conjecturing that the cairn might have been robbed to provide raw material for the wall of the roundel. However, his displeasure was reserved for the Ordnance Survey, who he discovered had cut a benchmark on the face of the recumbent – an act of vandalism, he contended, which had only served to encourage others to disfigure several orthostats with graffiti after the monument had been scheduled. However, the offending blemish had probably been cut in the mid-1860s, as the benchmark is denoted on the 1st edition of the OS 25-inch map [Aberdeenshire 1869, sheet liv.6] (see Figure 10).

[81] Allcroft 1927
[82] Keiller 1927; AB4825

1930s – 1950s

The pamphlets Keiller had written in the late 1920s complaining about the condition and care of the Aberdeenshire stone circles plainly stimulated interest, which culminated in Childe's excavations at Old Keig and Kilbride-Jones's excavations at Loanhead of Daviot in the early 1930s. Under pressure from these developments, Keiller hastily prepared a synthesis of his fieldwork which was published in 1934, soon after he had delivered this as a lecture to a British Association meeting at Aberdeen. This synthesis was a notable and insightful analysis, even if in parts somewhat idiosyncratic and relayed in his distinctively bombastic style. He identified a number of features at East Aquhorthies, which he believed to be significant, which included a cist cover in the ring, presumably the flat stone he had planned in the hollow 5m north-east of the recumbent.[83] He also stressed the importance of the link forged by the slabs behind the recumbent with the internal cairn, which he interpreted literally as the remains of a genuine passage that had led to a central grave; while the flat, triangular slab lying between the upright slabs behind the recumbent was either a paving stone or a capstone from this passage. Others writing in more generalised contexts had already suggested that the recumbent could be understood as a closing stone[84] and this was an idea he now adopted as it fitted so well with his thesis that recumbent stone circles were a form of chambered cairn surrounded by a stone circle. In the course of his surveys he had also taken readings of the orientation, obtaining a measurement of 0° at East Aquhorthies, because (in following Lockyer) he had also taken his bearings from a point behind the recumbent facing north. Even so, he stressed that as a group their orientations extended over a wide arc from 9º to 359°.[85]

Gordon Childe's excavation of Old Keig in 1932-3,[86] followed in quick succession by Kilbride-Jones's investigation of Loanhead of Daviot in 1934,[87] came to overshadow Keiller's contribution, as no doubt he had feared. Old Keig proved to be severely damaged and Childe struggled to make much sense of it, but he located sherds of Beaker pottery on the north side of the monument, while his reading of the stratigraphy convinced him that the ring of stones was earlier than the remains of the shattered cairn it enclosed. More Beaker sherds were found by Kilbride-Jones at Loanhead of Daviot, but most were poorly contextualised, although one was found just inside the hollow in which lay the recumbent stone. The rubble pavement revetting the kerbstones of the internal cairn had subsequently sealed this. The relationship of the hollow beneath this paving convinced him that the position of the recumbent had been

[83] Keiller 1934
[84] Mitchell 1898; Milne 1898
[85] Keiller 1934
[86] Childe 1933, 1934
[87] Kilbride-Jones 1935

established early in the monument's sequence of construction before the introduction of the cairn. This appeared to substantiate the notion that the ring was initially a freestanding enclosure, while other observations and finds confirmed an Early Bronze Age date.

These excavations also bought forth further overviews from Graham Callander[88] and Douglas Simpson.[89] Although both provided alternative perspectives, they drew nothing new from East Aquhorthies. However, photographs of the ring by J. Ruxton and Angus Graham attributed to this period suggest that little notice had been taken of Keiller's earlier recommendation that the Ministry of Works should endeavour to maintain the interior of the monument free of gorse and broom.[90] As that may be, the Ministry engaged Childe and Simpson to write the text for the Scottish volume in their series of 'Illustrated Guide to Ancient Monuments' in State ownership, which was published in 1952. This was intended for a popular audience and although much of Childe's discussion on recumbent stone circles centred on Loanhead of Daviot, a short paragraph on East Aquhorthies will have piqued a reader's interest, as (like Keiller before him) he described it as one of the best preserved of the class.[91]

1950s - 1985

A new phase of fieldwork was introduced in 1957, when Alexander Thom resurveyed East Aquhorthies.[92] This confirmed Coles's observation that the ring was not truly quite circular, as the recumbent setting was shown to lie just within the ring's circumference. Moreover, like others before him, Thom also interpreted the roughly even spacing between the orthostats as an intentional element of the design.[93] However, his real interest lay in the orientation of the monument and what this might contribute to his wider archaeoastronomical studies. Unlike Lockyer and Keiller, Thom took his measurements from the centre of the ring across the midpoint of the recumbent stone. This yielded a reading of 196º [94] – an azimuth for which he could find no significant astronomical alignment.

[88] Callander 1934
[89] Simpson 1943
[90] Keiller 1927
[91] Childe & Simpson 1952
[92] Thom 1967, B 1/6
[93] Thom 1978
[94] Burl 1980

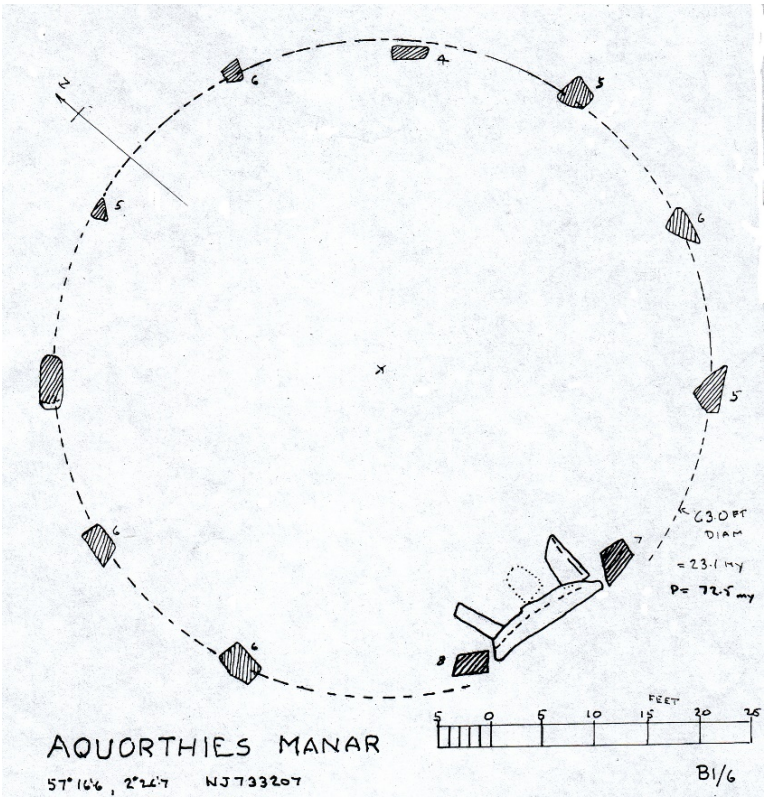

Figure 20: Thom's plan taken in April 1957 was the most accurate to date. © Courtesy of HES (Professor Alexander Thom Collection).

East Aquhorthies was taken into Guardianship in 1963 following agreement with the owners, after which it would seem that the broom and gorse were finally repressed, the roundel repaired, and the site generally made more presentable. Almost ten years later, the Royal Archaeological Institute held its summer meeting at Aberdeen and a visit to East Aquhorthies was included in their itinerary.[95] Stewart Cruden, the Chief Inspector of Ancient Monuments, related how the monument comprised an enclosure surrounding a small burial cairn – observing that the 'three recumbent stones' (i.e. the recumbent and the two upright slabs to its rear) made for an unusual variant. What is curious is that no one before Ian Sainsbury, who visited the monument on behalf of the Ordnance Survey the following year, had noted that there was no real evidence to support Coles's observation of the small bank running between the orthostats.[96] While it has been argued above that this was a figment of his imagination, it cannot be undisputedly denied that the Ministry might have tidied this away at some point in the previous decade, following their remedial work on the roundel. Be that as it may, a new synthesis of the characteristics of recumbent stone circles appeared the following year, which explored their archaeology in unprecedented detail.[97]

[95] Cruden 1973
[96] Ordnance Survey Record Card NE72SW 12
[97] Burl 1970

Aubrey Burl's review was more than simply a restatement. It was by far the most thorough analysis of these monuments that had yet been undertaken. Although East Aquhorthies was only called upon to play a small part, its importance as a well-preserved example was acknowledged in a faithful redrawing of Coles's plan to compare with five others illustrating the three phases in their supposed evolution. He also included a photograph of its recumbent setting alongside those at Tyrebagger and Midmar Kirk. Like others before him, Burl was intrigued by the two slabs behind the recumbent, but was prepared to accept that they denoted a symbolic passage akin to those in the Clava Cairns from which he was confident the recumbent stone circles had derived. On the basis of a detailed examination of 17 architectural traits found in 74 examples – the same total as recognised today, but not comprising quite the same complement of sites – he placed the monument early in his evolutionary sequence, on account of the rare Neolithic and Beaker pottery sherds that had been found at other sites. This suggested to him that the monuments might have originated c.1800 BC, while later pottery types implied that they ceased to be used c.1500 BC. The early traits he perceived allowed him to identify central Aberdeenshire as the locus of their origin. In conclusion, he was minded to reject the sepulchral hypothesis as their primary function, preferring instead to interpret the monuments as enclosures in which religious ceremonies had taken place. As for their orientations, he simply stated that these lines were 'astronomically meaningless', although he accepted that they were of ceremonial importance.

Two years later he revisited the subject in a chapter on the stone circles of Scotland, which appeared in a substantial volume comprising a general survey of all those known throughout the British Isles.[98] The section in this chapter on recumbent stone circles is remarkably astute given the limitations of the available data. It contains many new observations, analyses, ideas and analogies; but apart from reproducing his redrawing of Coles's plan and a brief description in the gazetteer, East Aquhorthies is only cited in four contexts: the damage that had been occasioned to its cairn, the 'foreign' petrology of the recumbent stone, how its diameter fell 0.39m short of its megalithic yard multiple and the fact that the monument could be read as an early blueprint for the class. The book was both a popular and an academic success, as it was exceptionally well written and provided an up-to-date overview of a subject that was otherwise difficult for the general public to access. In the same year he also published an important paper exploring numeracy in the Neolithic and Bronze Age.[99] He had noted that several recumbent stone circles were defined by ten stones laid out in opposing pairs around the ring's circumference. However, where there were eleven, as at East Aquhorthies, he contended that this might be explained by a desire to establish a position for astronomical observations

[98] Burl 1976a
[99] Burl 1976b

taken across the axis of the ring as defined by its orientation. Burl's growing interest in the archaeoastronomical aspect of recumbent stone circles during the 1970s is reflected in how much space he had given to the topic in his book. It was a highly controversial subject following the publication of Thom's studies and it was one to which he would shortly return.

While pursuing these analytical studies, Burl also undertook original fieldwork amongst the Buchan rings, which included the excavation of Berrybrae.[100] Unlike East Aquhorthies, these recumbent stone circles are distinguished by the fact that the ring is set in an enclosure wall, which does not surround an internal cairn, although they sometimes contain a scatter of stone. The monument was badly damaged, but again cremations and Beaker pottery were located, although the latter was apparently in a secondary context. Burl and two of his students followed this with the excavation of Strichen House, a Buchan ring that had been all but destroyed.[101] This again produced poorly contextualised sherds of Beaker.

In the meantime, although tourists had been encouraged to visit East Aquhorthies over many years, the ring had been overlooked in all of the more recent archaeological guidebooks, with the exception of that produced by Euan Mackie, the Keeper of Archaeology and Anthropology at the Hunterian Museum, Glasgow.[102] However, this offered no more than a brief note and a photograph of the monument taken from the east-north-east. The dearth of information suitable for the disinterested sightseer remained a problem until Ian Shepherd and Ian Ralston, two professional archaeologists working in the North-East, prepared a guide to the prehistory of the Grampian region, which highlighted the area's most important monuments.[103] As if to make up for the historic deficit, they devoted four pages of this slim guide to brief notes on nine of the more accessible recumbent stone circles, including East Aquhorthies.

Burl, who had also recognised the same need, produced a short introduction to stone circles in general, which also briefly mentioned the ring.[104] However, he was now deeply engaged in an attempt to resolve the archaeoastronomical puzzle of the orientations in the recumbent stone circles.[105] By plotting the azimuths across the rings to the midpoint of the recumbent using the plans that had been produced by Coles, Lockyer, Keiller and Thom, supplemented by his own confirmatory measurements taken with a theodolite and an autoranger, Burl was able to show that the readings all fell between 155°-235° – thus ruling out altogether the risings and settings of the Sun, the Moon, the planets and also the stars. The

[100] Burl 1979
[101] Phillips et al 2006
[102] Mackie 1975
[103] Shepherd & Ralston 1979
[104] Burl 1979
[105] Burl 1980

majority lay between 155°-205°, which he maintained synchronised in this latitude of North-East Scotland most closely with the extremes of the Maximum Moon in the lunar cycle (rising, 154°-206°, setting) – although a small handful appeared to relate to the extremes of the Minimum Moon (rising, 127°-233°, setting), yielding values much closer to its setting (229°-235°).[106] East Aquhorthies, on account of its completeness, could provide an exceptionally reliable reading, which he found to fall close to the Maximum Moon (196°) – a fact that could be readily appreciated from a diagram he supplied, which showed the orientation 10° short of the Moon's setting point. If the Moon was the target, the general pattern of the readings indicated that it was not when it was rising or setting, 'but more often when it was up in the sky'. He argued that this analysis, which linked the orientation of recumbent stone circles with the Moon, was strengthened by other factors: their hillside positions, their wide outlook, the graded heights of the stones (which, he contended, mimicked the Moon's movements), the position of the rare cup-marks and the abundance of white quartz found in close proximity to the recumbent. In addition, these findings were reinforced by an appendix that detailed the extreme values of the Maximum Moon, the midwinter Sun and the Minimum Moon at East Aquhorthies for comparison with its near namesake, Aquhorthies and at Berrybrae on three selected dates: 2500 BC, 2000 BC, 1500 BC.

Thom's plan of East Aquhorthies, which Burl had employed in this archaeoastronomical investigation, was republished that same year with some notes, along with a great many of his other surveys.[107] Burl produced a short, popular book soon afterwards, which brought to wider public notice his thesis that the Moon was the target of the orientation of recumbent stone circles. This was illustrated with a photograph of East Aquhorthies showing the rear of the recumbent setting taken from the east-south-east.[108] However, a new fieldwork project undertaken by Clive Ruggles had begun in 1981, which interrogated the archaeoastronomy of the recumbent stone circles far more thoroughly than Burl's pioneering effort.[109] Following an initial report, the final results were communicated in a paper jointly written with Burl.[110] Ruggles's research was initiated as part of a much wider study, but the spur was the recognition that while a single orientation of apparent astronomical significance in a megalithic monument might be the product of chance, this possibility could be discounted with a sufficiently large dataset from a particular monument type – so allowing the identification of statistically significant trends. Recumbent stone circles were an ideal subject on account of their numbers and limited distribution. The new survey was broad based, but also called

[106] Burl 1980
[107] Thom, Thom & Burl 1980
[108] Burl 1983
[109] Ruggles 1984
[110] Ruggles & Burl 1985

attention to several often-overlooked facets of East Aquhorthies, including the facts that unusually the ring is located on the 'north' side of a ridge (sic. for east) and that the summit of the recumbent stone is not truly horizontal. The paper also included a photograph of the site from the south-west by Burl and a reduced version of Thom's plan for comparison with those of Midmar Kirk, Loanhead of Daviot, Sunhoney and Cothiemuir Wood. However, the most relevant factors related to the monument's orientation. In the first paper, Ruggles tabled the various (revised) readings that Burl had originally deduced from earlier surveys, which for East Aquhorthies had included those taken from plans by Coles (195°), Keiller (180°), Thom (196°) and a reading Burl had captured with a compass (195°). However, Ruggles pointed out that there were two principal orientations at any one site and that these had not been properly differentiated: a centre line azimuth running from the middle of the ring through the midpoint of the recumbent stone and a perpendicular line azimuth situated at right angles to the axis of the recumbent. Readings from a new plan of East Aquhorthies yielded values of 195.5° for both orientations, which comfortably fitted with those obtained from other rings. All fell within a band only 90° broad (ranging from 147°-237°) centred on the south-south-west – a clustering that was only explicable if the orientations had been drawn from at least a limited kind of astronomical observation.

Burl's previous readings had suggested the floating Moon as the target, but Ruggles found flaws in his methodology. New readings showed the orientations of the principal axes were less concentrated, although the value at East Aquhorthies still fell close to the setting of the Maximum Moon in the lunar cycle. However, a small number lay between the two lunar maximums and some entirely beyond the Moon's movements – thus refuting his model. When horizon altitudes were taken into account by plotting declinations, the pattern made by the principal axes was no clearer, but there was little to suggest the Maximum Moon was especially significant.

In the course of the fieldwork it had also became apparent that the outlook from the recumbent settings seemed to avoid nearby local horizons and so any celestial focus was likely to occur close to those situated at a greater distance. In practice, Ruggles had difficulties in evaluating the horizon at East Aquhorthies due to the presence of trees south-south-west of the ring. When these were discounted it seemed that the near and far horizons appeared to meld about 12° west of both axes (207°). Nevertheless, it was noted that, generally, the flankers usually cut the horizon, while the recumbent typically lay below it. This suggested the possibility that other azimuths might have been important, especially the two ends of the recumbent stone and the inner edges of the flankers. The length of the skyline thus captured was termed the 'indicated horizon'. Readings were taken along the centre line axis from the centre of the ring and its far side to the edges of the recumbent (185° and 206.5°), as well as to the inner

edges of the flankers (181° and 208°); and the same series of measurements were also taken on the perpendicular line axis from standardised positions 10m and 20m behind the recumbent (185.5°, 205.5° and 182.5° and 207°). In addition, further measurements were taken of the altitude of these points and the centre of the recumbent to allow their respective declinations to be calculated. Those relating to the inner edges of the flankers revealed that the east flankers generally tended to be symmetrical about south, and while it was possible this could be associated with the Moon, the rest of the recumbent setting would be rendered superfluous. That didn't seem plausible. Moreover, there seemed no reason why the east flanker should have any special significance, although at many sites the east flanker could be construed as lying inside the projected circumference of the ring and might thereby mark some important point in the process of construction. However, this is not so at East Aquhorthies, where it is also the west flanker that is the taller of two by a margin of more than 0.3m. The analysis of the azimuths and declinations of the principal axes in relation to the 'Indicated horizon' again found no clear cut explanations, although the declinations for the perpendicular line axis at the monument (-31°) suggested that it was possible that the recumbent setting could have been arranged so that the Maximum Moon could be seen to set over the recumbent. While this was possibly the case at East Aquhorthies, it was not so at every site.

Figure 21: The 'Indicated Horizon' stretching between the inner edges of the flankers © Crown Copyright: HES.

If the investigation of these axes could not consistently explain the orientation of recumbent stone circles, there remained the possibility that a landscape feature might have influenced their orientation and that this might have had some astronomical significance. Direct observation at East Aquhorthies was not practicable due to the trees on the horizon, but Ruggles calculated that the Hill of Fare, located some 20km distant, was not only situated within the indicated horizon, but less than 1° west (196.5°) of both principal azimuths. The calculated declination of its summit (-30.8°) again indicated a possible interest in the Maximum Moon, but with no more certainty than the previous analysis and it was concluded that this, like other prominent peaks, was unlikely to signify a special astronomical event. Nonetheless, the closeness of the putative lunar orientation to that of the hill suggested that such a link could still have been deliberately sought. Even so, Ruggles noted that if conspicuous hills had been deliberately sought, it was very odd that not a single 'indicated horizon' in a recumbent stone circle focussed upon the Mither Tap of Bennachie, the most conspicuous summit at the end of the most dominant ridge in central Aberdeenshire. This is visible from many of the rings and also from East Aquhorthies, where it is situated well to the west of both axes (287°).

Ruggles also explored whether there were any regional patterns in orientation, as Burl had identified East Aquhorthies amongst several in Central Aberdeenshire as having traits that he defined as early, thereby hinting that recumbent stone circles may have had their origin in this area. Ruggles could not confirm this, but was struck by how East Aquhorthies, Balquhain, Cothiemuir Wood, Castle Fraser and Tomnagorn were all oriented south-south-west (190°-205°). Burl had also linked cup marks with his lunar hypothesis. Those low down on the west flanker at East Aquhorthies had yet to be recognised and so could make no contribution to the argument, but he was impressed with the number that clustered in the region marking the rising or setting of the Maximum Moon.

In summarising the results of the survey, Ruggles concluded that the siting and orientation of recumbent stone circles *had* been influenced by celestial considerations, but that monuments like East Aquhorthies were 'not sites of great astronomical precision'. The archaeological evidence indicated that they were sites of ritual significance, while the survey had revealed that simple lunar and solar explanations of their archaeoastronomical elements were not sustainable. Nevertheless, he accepted that there were indications that the Maximum Moon may have been of interest. By contrast, Burl believed the evidence supported his view that the southerly Moon was the focus.

1985 - 2000

Burl and Ruggles's researches have been enormously influential, and few will now arrive at East Aquhorthies without some conception that the ring

has an astronomical dimension; but their surveys were predicated on the notion that the orientations could be understood through accurate measurement, as Thom had sought to demonstrate. He had not succeeded at East Aquhorthies, but his surveys also led him to propose that some stone circles had been set out using sophisticated geometric methods underpinned by a common unit of measurement. This proved to be highly contentious, and inspired a flurry of debate, leading a number of different researchers to investigate this aspect of his studies. John Barnatt and Gordon Moir undertook a thorough statistical investigation to test his findings using the data he had collected.[111] They examined the properties of seventy-six well-preserved rings distributed throughout Great Britain – twenty of which were recumbent stone circles, with East Aquhorthies among them. Thom had argued that the recumbent setting should be excluded from the analysis as it was placed consistently inside the circumference of the ring; but once allowance had been made for this, he had identified all but two as circular – the exceptions being Loanhead of Daviot (an ellipse) and Garroll Wood (flattened on one side). Barnatt and Moir accepted Thom's handling of the recumbent setting and allowing for a deviation of 3.5%, showed that only East Aquhorthies, Midmar Kirk, Sunhoney and Tyrebagger were truly circular. While they accepted that these had probably been set out 'using peg and rope construction', as Thom had maintained, they argued that the remainder (save for a handful in the south and south-west of England) were set out by eye to approximations of circularity. Although their analysis also showed that the measurements at East Aquhorthies, Eslie the Greater, Garroll Wood, Midmar Kirk and Sunhoney could be interpreted in terms of a common unit – Thom's 'megalithic yard' – they were unconvinced of its existence – not least because it belied the methodology they advocated. Subsequently, Barnatt, with the aid of John Herring, tested and confirmed the methodology, with their experiments corroborating the difficulty of producing a ring with a circular plan by eye.[112] They were confident that East Aquhorthies and its analogues had been constructed using a peg and rope.

This study was eventually followed by Barnatt's detailed taxonomical and distributional analysis of all the stone circles in Great Britain, which included a section on recumbent stone circles.[113] Although he had not visited any of these Scottish monuments, the salient characteristics of the eighty-six recumbent stone circles that he recognised were drawn from the best-published sources and carefully analysed before synthesis. However, like others before him, he was misled by Coles's plan and description into believing that a rubble bank had originally linked all of the orthostats at East Aquhorthies. Nevertheless, he understood that the two slabs at right

[111] Barnatt & Moir 1984
[112] Barnatt & Herring 1986
[113] Barnatt 1989

angles behind the recumbent signified the presence of a cairn, although he assumed this to be a ring-cairn. He was able to recognise this in Coles's account of the stony interior rising very slightly towards the centre. Thom's plan had already shown him that the ring was not quite circular on account of the recumbent setting lying slightly inside the ring, but he drew attention to the fact that it was at least symmetrical, which was by no means always the case elsewhere. Although his analysis did not allow him to recognise the ring as a 'Classic Recumbent Stone Circle', he decided it was the next best thing: a 'Recumbent Stone Circle With Insignificant Variables'.

The influence of these rigorous investigations of the first half of the 1980s can perhaps best be appreciated from the section on recumbent stone circles that appeared in the new RCAHMS guide to the archaeology of Aberdeen and North East Scotland, in which East Aquhorthies and ten others were described and illustrated under the rubric 'Circles of the Moon'.[114] The short introduction that accompanied this, summarised current knowledge of the class and although there was nothing new in the description of East Aquhorthies, this provided an intelligent precis of its more notable characteristics. Its completeness, its ready accessibility from the town of Inverurie and its status as a property in State care, were unquestionably important elements in its increasing popularity as a tourist objective. These factors also influenced the decision to create casts of the recumbent setting for use as a set in an exhibition entitled 'Symbols of Power in the Age of Stonehenge', which was held at the National Museums of Scotland in 1985.[115] The task included the making of moulds from which casts would be made. Although the surfaces of the stones were carefully prepared, this did not remove all traces of botanical growth; yet little remained of the lichens or the ingrained dirt once the three layers of latex employed in the process were stripped from the stones. This outcome was to bring back into focus a topic that had been little considered since Coles's fieldwork at the turn of the century – namely, the use of colour, and whether this had any aesthetic or symbolic significance. Frances Lynch, who visited the ring soon afterwards, was impressed by how the stones had been 'restored to their original glowing colours'. This enabled her to appreciate how carefully the ring's builders had used this property to arrange them to striking effect.[116] She identified the recumbent as grey, the flankers as whitish grey and the slabs to its rear as black and pink, while the orthostats on the west were alternately grey and black, contrasting with those on the east which alternated between shades of pink. These observations were illustrated with a redrawing of Thom's plan; and although she made no attempt to interpret the builder's intentions, she stressed the potential importance of this facet in the monument's design.

[114] Shepherd 1986, 1996
[115] Bryce 1991
[116] Lynch 1998

Lynch was also aware that people in the past had utilised textural distinctions in the fabric of their monuments, but she did not explore this aspect at East Aquhorthies. However, Gavin MacGregor considered this along with the haptic quality of the stones a few years later, in a detailed critique of the place of colour in the architecture of recumbent stone circles.[117] Where Lynch had generalised a colour, MacGregor now perceived variability and complexity. Some stones which she had considered grey, he now read as pink and some she had considered black, he read as grey; and he maintained that the orthostat comprised largely of jasper could be characterised as both pink and white. He argued that these differences in perception were not necessarily simply subjective or dependent on the cleanliness of the rock, but were also probably influenced by their 'hue and brightness'. This constantly changes with the observer, so rendering colour an unstable trait. In another vein, MacGregor also observed how the east side of the west flanker is highly polished, and remarked upon the uniqueness of the distinctive slickenslides ornamenting the outer face of the recumbent. He also discerned that the majority of the stones on the north were fine-grained and how this contrasted with the medium-grained stones on the south. In contrast, the flankers were the coarsest stones in the ring. Such textural variation, he suggested, could have been one of the factors that influenced the position of a stone. As to the actual meaning of these qualities, he considered they might be fluid. Such choices as were made in any given monument might be dependent upon different social variables.

Figure 22: The Orthostat of Jasper on the east-south-east side of the ring. © Crown copyright: HES.

[117] MacGregor 2002

Figure 23: Quartz-filled slickenslides on the outer face of the recumbent stone © Crown copyright: HES.

Another novel piece of research was inspired by a visit to East Aquhorthies by Aaron Watson, who noting a peculiar echo, explored its acoustic properties with David Keating, the cybernetics engineer.[118] It seemed that the recumbent setting projected sound to specific parts of the ring, which otherwise mainly contained it. Having set up an amplifier emitting 'pink' noise at a constant rate between the two slabs to the rear of the recumbent, they used audio equipment and a spectrum analyser to record and evaluate the sound as pressure waves streaming across the site. When the results were compared with a control set in open ground, it was not only found that the distribution of the energy was influenced by the disposition of the stones, but that a 'spur' of higher pressure projected from the recumbent setting across the centre of the ring. It was surmised that some individual stones might have been responsible for the more subtle audio effects that could be heard within the confines of the ring, but which the equipment was incapable of capturing. Their findings were illustrated with elucidatory figures and a fine photograph of the recumbent setting.

At the heart of these acoustic experiments lay the enduring notion of the recumbent stone circle as an enclosure within which people might gather – a belief that became all but untenable following Richard Bradley's excavation of the recumbent stone circle at **Tomnaverie**[119] (see below). This confirmed that these were composite monuments constructed over a period of time; and rather than the ring being the earliest component, it

[118] Watson & Keating 1999; Devereux 2001
[119] Bradley 2005

was the cairn at their heart. Watson later addressed this problem (perhaps rather unconvincingly) by noting that as recumbent stone circles were built in phases, they had long afterlives.[120] Their acoustic properties did not have to be part of their initial design.

East Aquhorthies had become a very popular tourist destination by the 1990s and it was included in 'The Stone Circle' trail promoted by Aberdeenshire Council. Although it was briefly described in the pamphlets, broadsheets and maps that publicised this venture, it still remained difficult for the visitor to return home with much understanding of what they had seen. Nevertheless, it continued to feature in popular books and a fine aerial photograph taken at a low elevation from a helicopter by Jason Hawkes, was the first to show it clearly from above.[121] Such images are now commonplace, but this was ground breaking at the time. The dearth of suitable information for the general public was partly made good by a new edition of Shepherd's guidebook[122] and another by Aubrey Burl in which twenty-seven recumbent stone circles were noted.[123] This was twice as many as had been described in any previous work of the kind. The short, but engaging account about East Aquhorthies, usefully drew the visitor's attention to the modern revetment surrounding the ring (often a matter of some confusion), while emphasising the local origin and colourful nature of the stones. In addition, it noted that the monument was not precisely circular, that the orthostats had been arranged in opposing pairs with the single lowest stone on the north-north-east, while also drawing attention to the remains of the internal cairn. Another kind of visitor was catered for by Julian Cope's engaging, well-written and beautifully produced odyssey through the megalithic sites of Britain, which naturally fetched up at East Aquhorthies, where his daughter duly headbutted the recumbent stone.[124]

Two major restatements about recumbent stone circles were published at the end of the decade, but neither was able to take into account the new sequence of development that Richard Bradley was soon to outline. The first, by Clive Ruggles, which brought together the results of more than twenty years research into the archaeoastronomy of British and Irish prehistoric monuments, synthesised his earlier study of recumbent stone circles.[125] The supporting data was provided in various appendices and the superficially similar rings found in South-West Ireland were compared. The review was again illustrated with the composite figure containing the plan of the monument that had been provided in one of the earlier papers, but it also included a superb black and white photograph by the Interactive Media artist, Chris Jennings. This more reflective and discursive account

[120] Watson 2006
[121] Bord 1997
[122] Shepherd 1996
[123] Burl 1995
[124] Cope 1998
[125] Ruggles 1999

still placed the Moon as the focus of these monuments, perceiving it as possibly shining over the recumbent and into the ring at midsummer, to provide a backdrop to sacred ceremonies.

Ruggles's overview of the archaeoastronomy was followed just over one year later by an expanded edition of Burl's comprehensive treatise on stone circles, which summarised the new evidence that had been gathered over the previous twenty-five years.[126] Diffusionism was still the mechanism that underpinned the form and distribution of the recumbent stone circle, but the dating had been tightened, with the result that the earliest monuments were believed to have fallen out of use before 2000BC, while the latest continued to be utilized to at least 1550 BC. Naturally, he still maintained that it was the steady progression of the midsummer Moon over the recumbent that was the focus of their orientation and that this was when the ceremonies connected with cremation took place inside the ring. Only later would the cairn be built and token deposits interred. The evidence from East Aquhorthies was cited again in the same context as before,[127] but the horizontal character of the recumbent's top was now emphasised, along with the colourways of the stones. However, he also stressed the connection between the monument and death, by highlighting the presence of what he took to be a ring-cairn at its centre and the stone Keiller interpreted as a cist slab.

After 2000

However, the framework in which recumbent stone circles had long been perceived had already begun to shift following Bradley's excavations in the cemetery of **Balnuaran of Clava**, Invernessshire.[128] Long held to be Neolithic in origin, the passage graves and the ring cairn were re-dated to the Early Bronze Age (c.2300 BC-1750 BC). This implied that they were unlikely to be much earlier or later than recumbent stone circles and might possibly even be contemporary. Just as important as this finding, was the determination of the sequence of construction, which was also clearly established. In the earliest phase, the passage grave comprised a cairn with a central corbelled chamber, delimited by an inner and an outer kerb. These kerbs were graded in the same direction as the passage, which was accurately orientated south-west to where the Sun dies on the evening of midwinter's day. However, the cairn was an unstable structure, as the outer kerbstones were not bedded in the subsoil and so subsequently a revetment platform was added, which crossed and thereby blocked the lower section of the passage entrance. Thereafter, an outer ring of orthostats was added, which were paired with individual kerbstones in

[126] Burl 2000
[127] Burl 1976a
[128] Bradley 2000

terms of their colour, shape, or raw material. Such connections were also apparent with the ring-cairn, but here rubble banks also linked the cairn with some of the surrounding orthostats.

If the results of the excavation at Balnuaran of Clava completely altered the perception of the Clava Cairns, this was repeated when Bradley turned his attention to the recumbent stone circle of **Tomnaverie**, which like all recumbent stone circles shared many of the same traits.[129] In practice, a new sequence had been anticipated by Conor MacCarthy, one of Bradley's students, who had already suggested that the cairns they enclosed might also prove to be the earlier structural element on the basis of finds and fieldwork.[130] In the event, the excavation did disclose a similarly phased sequence. The earliest activity on the site was represented by traces of a pyre attested by burnt soil, charcoal and fragments of burnt bone that had been swept up into a low mound. A polygonal cairn with an open centre, more or less flush with the hilltop, had been constructed around this, while the kerb by which the cairn was delimited had been pinned into place not only by its own rubble make-up, but also by that of a massive rubble platform surrounding it, which was oriented west-south-west. Sherds of Beaker had been placed against the kerb on the north-east, directly opposite the future position of the recumbent stone, before the platform had sealed them. Only after this had the ring been added. The sockets of the flankers and the orthostats had been excavated through the platform and none penetrated into to the bedrock. They were entirely supported by the packing stones and the rubble forming the platform. The recumbent simply lay in a hollow on top of this rubble and the whole ring was oriented west-south-west in keeping with the platform. It was evident from a stone-filled gully, located immediately behind the recumbent, that the original kerb of the cairn had been taken up and reconfigured to link with the flankers – so combining the two parts of the monument. Radiocarbon assays on charcoal from a pit excavated into the platform below the recumbent stone suggested a date for the construction of the monument possibly as early as 2500 BC.

In its final form, Tomnaverie has strong affinities with East Aquhorthies, where there is also evidence for a rubble cairn, upright slabs that seem to mimic the reconfigured kerbstones in connecting the two parts of the monument, a massive recumbent stone situated in the south-west quadrant and a ring comprising a of pair flankers with a series orthostats graded in height. Other links are found in the cup marks and the quartz on or close-by the recumbent settings and the similar range of colours embodied in both monuments. There are differences, but there is no reason why East Aquhorthies should not perhaps replicate the general sequence found at Tomnaverie. This is in some respects is borne out by a series of

[129] Bradley 2005
[130] MacCarthy 1996

small comparative plans Bradley reproduced as a single figure, in which the recumbent stone circles of East Aquhorthies, Sunhoney and Castle Fraser can be compared with the south-west passage grave and the ring cairn at Balnuaran of Clava, and the Clava-type ring-cairn at Newton of Petty. This plan of East Aquhorthies is of particular interest. It was surveyed by Sharon Arrowsmith and Chris Ball, who had observed a parch mark within the ring, denoting the internal cairn.

This flurry of academic activity also stimulated the first viewshed analysis of recumbent stone circles.[131] Mark Lake and Patricia Woodman sought to determine what might be required for GIS to contribute to archaeological interpretation; and as an exercise, they devised an algorithm that could quantify the impression of a horizon's 'circularity' as seen from a particular location. Their idea was to employ GIS to remove subjectivity from the issue; and having developed the algorithm, they tested it by using it to calculate the position and character of the far horizon from East Aquhorthies and eighteen other Aberdeenshire rings. The horizon map of East Aquhorthies revealed that the elements making up its 'circular' horizon were highly dispersed and sometimes located at a substantial distance. Although much of the horizon was reasonably level, the impression of circularity was less marked from this ring than some situated elsewhere. In this instance, the evidence suggested that the location of East Aquhorthies was unlikely to have been influenced by a desire to reflect the circularity of the horizon in microcosm – an idea that had been advanced for the location of other stone circles.

During this general period the Royal Commission on the Ancient and Historical Monuments of Scotland was undertaking fieldwork in the catchment of the River Don. A new plan of East Aquhorthies was taken by Adam Welfare and Kevin Macleod in the in the course of this survey, which for the first time recorded the cup marks near the foot of the west flanker.[132] This plan was initially reproduced at a small scale, alongside twelve others for comparative purposes, to accompany a descriptive overview of the recumbent stone circles in the area. A second figure illustrated the recumbent setting next to twenty-one others, while a fine photograph of the monument taken from the east-north-east with Bennachie on the horizon, was also included in the report.

[131] Lake & Woodman 2003
[132] RCAHMS 2007

Figure 24: This fine photograph of East Aquhorthies, with Mither Tap of Bennachie to the west-south-west, illustrated the Royal Commission report on the field archaeology of Donside. © Crown Copyright: HES.

This report was merely a precursor to a much more comprehensive Royal Commission study that described and analysed in exhaustive detail all the known and suspected recumbent stone circles.[133] A full-page plate depicting East Aquhorthies from the air was placed immediately ahead of the first chapter – a signifier of its remarkable preservation and importance. The monument not only played a crucial role in the many analyses that followed, but it was also the subject of a detailed entry in a comprehensive gazetteer. This entry described and illustrated the physical character of the monument, as well describing how it had been studied in the past. It was informed by a thorough examination of the geology of the stones, which was undertaken by a team from the National Museums of Scotland.[134] Welfare argued strongly that the wide splay of the orientations recorded at these monuments should be understood in strictly metaphorical terms as essentially a conceptualised solar association, and that it was a mistake to seek out their meaning through precision readings. Like so many elements of their architecture the orientations contributed to the symbolism embedded in these highly idiosyncratic monuments, which unlike Clava

[133] Welfare 2011
[134] Miller et al 2009

Cairns did not seek to slavishly represent their archetype, but instead sought only to emphasise what was necessary to convey their message.

Although Welfare's study is exhaustive, it was always intended as a springboard for future research. So far, little new work at East Aquhorthies has been forthcoming, although those interested in the archaeoastronomy and geometry of the ring have continued to publish their findings.[135] It might be added that although Clive Ruggles is more than willing to accept the sequence of construction established at Tomnaverie and elsewhere, the new perspectives do not sway his argument that the restricted pattern of the orientations can only have been established by reference to diurnal rhythms in the sky and that observations of the midsummer Moon remain strictly the best reading of the alignments.[136] Nevertheless, in a broader context, he accepts the symbolic importance of the Sun.

As a final coda, it is noteworthy that when Strutt & Parker advertised the sale of the fields around the monument in 2015, a fine photograph of the recumbent setting from the west illustrated the prospectus.[137]

APPENDIX 2: VISUAL REPRESENTATIONS AND CREATIVE INSPIRATION

Art and Photography

East Aquhorthies is an exceptionally well-preserved stone circle of an unusually distinctive type. It is not only situated in an attractive rural setting with the Mither Tap of Bennachie on its western horizon, but is also made up of stones comprised of pleasing local granites. In addition, it possesses a particularly impressive recumbent stone. Blessed with these advantages, it was always likely that it would eventually captivate artists enticed by the allure of the ancient and mysterious, once communications improved and tourism developed from the mid-19th century. Some of these individuals have made remarkable efforts to find explanations for what they saw by studying the ring closely, while others have taken inspiration from the monument to create something quite new, enriching, charming or delightful.

Lady Sophia Dunbar's watercolour painted in 1870 deletes the 19th century roundel, tames the vegetation and replaces the improved fields to the west with rugged moorland scenery, which draws the onlooker's eye to the ancient fort capping the mountainous summit of Bennachie. The individual stones are pleasingly rough and archaic, while the woodland dominates the

[135] Macaulay 2006; Heath 2007; Hill 2012; Harris 2015; Bath 2016
[136] Ruggles 2014
[137] OnTheMarket 2015

south-western horizon. The overall effect is in keeping with what was then understood to be a Druidical ethos, tempered by an element of romanticism. This gentle lyricism is countered by a label on the back of the frame which provides the salient mensural characteristics of the ring – just as might be expected from a well-educated antiquarian – one of the few Lady Associates of the Society of Antiquaries of Scotland.

Figure 25: Lady Sophia Dunbar's watercolour of 1870. © Courtesy of HES (Society of Antiquaries of Scotland Collection).

Her contemporary, Colonel Jonathan Forbes-Leslie, was perhaps a more serious antiquary; but he, too, was a fine artist prepared to occasionally be selective in the delineation of a monument for the sake of effect. His lithographs of the recumbent stone circles of Ardlair and Midmar Kirk exemplify his equally engaging skill, but unfortunately the illustrative material he produced of East Aquhorthies is lost. Christian Maclagan's pen and ink drawings of the monument confirm an exceptional imagination, but in this instance the drawings themselves are restrained, as she wished them to properly communicate her unique theory (see Figure 12). This is represented in three dimensions via the magnificent papier-mâché model that she made, which is now in the Smith Art Gallery, Stirling. While it was evidently partly inspired by her vision of East Aquhorthies, it also owes much to the **Broch of Mousa**. This might be characterised as model making as advocacy, but such techniques had long been an accepted means by which architects could convey the likeness of a building prior to its creation. Museum curators equally valued models as a means of instructing the public as to a monument's original form. General Augustus Pitt-Rivers, who well-understood their educational value, had his assistants, William Tomkin and Claude Gray, take numerous carefully measured pen and ink drawings for this purpose at East Aquhorthies and Tyrebagger in 1889. These preparatory studies are unquestionably the finest and most accurate technical representations of the individual stones that have been made, to date.

By contrast, Frederick Coles had spent almost twenty years as a landscape artist before being employed as an assistant keeper by the National Museum of Antiquities of Scotland in the mid-1890s. In 1899, he made the first of many visits to North East Scotland on the museum's behalf to investigate the stone circles that had been mapped by the Ordnance Survey in the latter part of the 19th century. The methodology he employed had been standard practice for more than a decade and Coles was already well versed in the techniques prior to the programme's commencement. Alongside the taking of plans and profiles, the remaining illustrations were sketches intended to portray particular elements of the rings and their place in the local countryside. He reached East Aquhorthies during the second of these expeditions and while two of the simple line drawings he made showed the rear of the recumbent setting (or as he had it, 'the Recumbent Stone Group'), another was a general view of the ring taken from the north-east. However, like Lady Dunbar, he excised the roundel from the sketch presumably on the grounds that it was a modern feature.

Figure 26: Frederick Coles's sketch of 1900. © Courtesy of HES.

James Ritchie, a schoolmaster at Port Elphinstone, Inverurie, carried his large plate camera and tripod following in Coles's footsteps. He visited East Aquhorthies in both 1902 and 1908. Ritchie was a careful photographer and several of his elegant images of recumbent stone circles still remain amongst the best that have been captured. However, although those he took of East Aquhorthies are valuable, they are perhaps not to be numbered amongst his finest studies.

Figure 27: James Ritchie's photograph of 1908. © Courtesy of HES (Society of Antiquaries of Scotland Collection).

Lady Mary Lockyer also took her photography seriously, but the image she captured of her husband instructing the taking of the astronomical readings at the site in 1906 is of historical, rather than artistic, interest. Bishop George Browne used some of Ritchie's photographs to illustrate his guide, but he also employed Robert Benzie, a local professional photographer at Dunecht. However, the latter's image of the rear of the recumbent setting is muddy and not as clear as Ritchie's taken from much the same angle. While Angus Graham and J. Ruxton's photographs taken in the 1930-50s fill a valuable gap in the record, neither had pretensions to artistry. However, this is not true of the work of Chris Jennings, whose exceptionally fine photograph of East Aquhorthies has a pleasingly grainy quality, partly on account of its being taken on a grey frosty winter's day.[138]

There have been few imaginary reconstructions of the rituals that might have occurred at East Aquhorthies; but David Hogg's atmospheric painting showing a congregation of hooded figures being addressed by a principal standing between two upright slabs that project from the rear of the recumbent, was plainly inspired by the monument. This eerie scene lit by the midsummer moon, would have been instantly recognisable to any 18th or 19th century antiquary, yet it also acknowledges what was then the latest archaeoastronomical interpretation of the monument's orientation. Although it illustrates a children's book, it now has real historical interest,

[138] Ruggles 1999

as it is likely to be the last of its kind.[139] When the next edition was published, this was excised in favour of a photograph taken from a tower overlooking Tomnaverie after it had been stripped of its turf.[140]

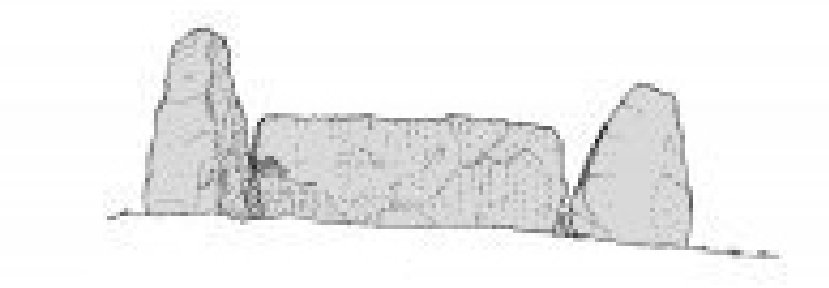

Figure 28: Kevin Macleod's vignette of 1998. © Crown Copyright: HES.

After some discussion as to how to plan and record the many recumbent stone circles within the Royal Commission's field survey of the Don Valley catchment, Ian Parker and Kevin Macleod devised and produced attractive vignettes of the recumbent settings to accompany their plans (see Figure 28).[141] This element of their architecture is invariably a ring's most striking element, but despite their overall similarity it is also quite individual. All were largely drawn freehand, although they were carefully scaled. East Aquhorthies is never an easy subject, but some of the images captured by the Royal Commission's photographers, both from the air and also on the ground, manage the difficult task of combining attractive compositions with authoritative information.

Other Cultural Manifestations

East Aquhorthies has also directly or indirectly influenced other kinds of creative endeavour. Although 'The Land of the Standing Stones', a slow air composed by the Scottish fiddle player, Paul Anderson, may have been largely inspired by Tomnaverie, a performance of the piece took place at East Aquhorthies in 2009.[142] Music often leads to dance, but in this instance, John Drewry devised the Scottish Country dance known as 'The Recumbent Stone' almost a decade earlier.[143] Although, like Anderson's music, the inspiration is likely to have derived from more than just a single site, the published version of the instructions is headed by a small photograph of the recumbent setting at East Aquhorthies, and accompanied by a footnote about it.

The monument has also made a small contribution to literature. There is an unusually matter-of-fact description in Stewart Home's anarchic,

[139] Barclay 1998
[140] Barclay 2005
[141] RCAHMS 2007; Welfare 2011
[142] Fingal 2013; Turriff Advertiser 2009
[143] Drewry 1999-2000

experimental novel, *69 Things to do with a Dead Princess*; and East Aquhorthies plays a major role in Andrew Smith's *Dr. Who* audiobook story, *Destiny of the Doctor: Vengeance of the Stones*.[144] There is no verse, but a photograph ornaments an anthology of poetry celebrating such ancient megaliths.[145]

However, recourse must be had to the Internet to understand the real impact that East Aquhorthies continues to make upon the imagination of both the general public and creative artists alike. Here are to be found websites like 'Canmore'[146] and 'PastMap'[147] featuring pieces about East Aquhorthies curated by the staff of Historic Environment Scotland, or Aberdeen Council's 'Sites and Monuments Record'.[148] Enthusiasts administer others Internet sites including Julian Cope's 'Modern Antiquarian',[149] Andy Burnham's 'Megalithic Portal'[150] and Les Hamilton's 'Stone Circles of North-East Scotland';[151] while still more promote tourism, including 'Ancient Monuments UK',[152] 'Britain Express'[153] and 'Undiscovered Scotland'.[154] These all contain useful information and many fine photographs, but a notable collection entitled 'The Great Crowns of Stone Gallery' (inspired by Adam Welfare's book of that name) by the collective 'We Travel The Spaceways' is hosted on Flikr.[155] In addition, the MegalithomaniaUK YouTube Channel[156] has fine examples of Drone video photography[157] by Hugh Newman flying a DJI Phantom. His essay on recumbent stone circles features spectacular, crystal clear shots of the monument on a quiet sunny day, accompanied by the music of Jesse Gallagher;[158] while another video on the same channel records an earlier visit to the site.[159]

There is simply no way of predicting how East Aquhorthies will inspire people in the future. All one can be sure of is that it will.

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[144] Smith 2013
[145] Huntly Writes 2018
[146] https://canmore.org.uk/site/18981/east-aquhorthies
[147] https://pastmap.org.uk/
[148] https://online.aberdeenshire.gov.uk/smrpub/
[149] https://www.themodernantiquarian.com/home/
[150] https://www.megalithic.co.uk/
[151] https://leshamilton.co.uk/megaliths/mindex.htm
[152] https://ancientmonuments.uk/
[153] https://www.britainexpress.com/index.htm
[154] https://www.undiscoveredscotland.co.uk/
[155] https://www.flickr.com/
[156] https://www.youtube.com/user/MegalithomaniaUK/
[157] Visitors are reminded that prior consent must be obtained before drones (or 'Unmanned Aircraft Systems') may be flown on any property in the care of HES. Further details can be found at: https://www.historicenvironment.scot/visit-a-place/filming/uas/
[158] Newman 2020
[159] Newman 2017

APPENDIX 3: INTERPRETATIONS, 19TH AND 20TH CENTURIES

It is perhaps not surprising that most of those who engaged with East Aquhorthies in an attempt to understand the ring after 1870 had considerable artistic abilities (see Appendix 2). They were essentially trained observers. Lady Sophia Dunbar, Jonathan Forbes-Leslie, Christian Maclagan, together with General Pitt-Rivers and his assistants, all took measurements and made drawings of what caught their eye, in order to both create a record and a means to comparative analysis. This tradition was also continued by the landscape painter, Frederick Coles, who visited East Aquhorthies in 1900, working to a well-tested formula devised by Joseph Anderson, David Christison and John Romily Allan on behalf of the National Museum of Antiquities of Scotland. Inevitably, aesthetics gave way to utility - to scaled line drawings comprising plans, profiles, sections, as well as illustrative, but unadorned sketches, which were capable of conveying information clearly. Photography began to make a contribution from 1900 and James Ritchie's images of the ring in the first decade of the new century set a high standard for Robert Benzie, J. Ruxton, Angus Graham, Chris Jennings and others to follow, being as notable for their creativity as for their quality as a record. The techniques of interrogation that were developed around these skills were to continue to make an outstanding contribution to our conception of East Aquhorthies well into the 21st century, as its elements came under ever closer scrutiny.

Inevitably, new perspectives resulting from examination gave rise to new questions and one centred upon the position of the recumbent stone, which Alfred Lewis and others had begun to understand was consistently located on their southern arc. Christian Maclagan, following a visit to the ring in the 1870s, had put forward an explanation that connected this with the Sun, but the idea had been rejected by her contemporaries along with her other theories. Nevertheless, the idea that a recumbent setting possessed an orientation resonated, and Lewis's supposition that this might relate either to some feature in the landscape or to a celestial body, became the foundation of the archaeoastronomical fieldwork that was subsequently conducted by Sir Norman Lockyer at East Aquhorthies and elsewhere. This approach to providing an explanation for the location of the recumbent increasingly became the focus of fieldwork undertaken by Alexander Thom, Aubrey Burl, Clive Ruggles and others in the second half of the 20th century.

The local people who lived amongst recumbent stone circles had never been strangers to them, regardless of whether they treated them with ambivalence, suspicion, respect or disdain; but by 1920 East Aquhorthies and its counterparts were gradually becoming better known to a wider public. The first guide book – an expensive volume compiled by Bishop George Browne for the friends and guests of Lord Cowdrey at Dunecht House - appeared two years after the close of World War I. East

Aquhorthies was scheduled as an Ancient Monument under an Act of Parliament in 1925, although Alexander Keiller discovered soon afterwards that this did not always protect them from neglect. Nevertheless, East Aquhorthies was accounted fortunate in having a tenant at the farm who was 'intensely proud of the monument'. Even so, the gorse within the interior remained a problem, while the increasing numbers of visitors exacerbated the scourge of graffiti.

Browne's guidebook set a precedent, but it did not immediately encourage imitators and so much of the information being gleaned from excavation and fieldwork in the 1920s-30s was not readily available to the general public. This was partly ameliorated by Gordon Childe's government authorised guidebook in the early 1950s in which East Aquhorthies received a passing notice.

While East Aquhorthies continued to attract a steady stream of visitors year-on-year, renewed interest in the monument class as a whole awaited Aubrey Burl's detailed fieldwork from the late 1960s. This led to important syntheses in the years that followed, in addition to the excavation of Berrybrae and Strichen House from the mid-1970s. Thom's archaeoastronomical studies were now proving controversial, as they appeared to argue for prehistoric societies with a greater level of intellectual sophistication than had been previously recognised. Burl, followed by Ruggles, brought an increasing level of rigorousness to archaeoastronomical research, in order to elucidate the target of the orientations marked out by the recumbent settings, which they calculated must have been the Moon. Thereafter, Burl developed the idea further by showing how the Moon appeared to be referenced in other aspects of the architecture of the rings. Others debated both the geometry and the mensuration that underpinned their ground plans, to discover whether Thom's conceptions were plausible and how the rings might have been planned.

These were erudite and exacting arguments conducted within a small network of scholars. Nevertheless, they spilled over to an eager public, who had since the early 1950s become willing attendants to the unfolding wonders of the Space Age and novel developments in technology. Academic ideas, based upon legitimated methods of fieldwork, now began to run parallel and intersect with counter cultural notions sparked by the Age of Aquarius, which emphasised the mysteriousness of stone circles. Increasingly, it came to be recognised that these were discourses to which anyone could contribute, which not only refreshed an interest in the monuments, but also giving birth to a powerful new folklore founded upon often esoteric principles (Section 2.7).

Attractive guidebooks and tourist trails published and developed in the later 20th century added to the popularity of East Aquhorthies, while an academic interest in the fabric of Neolithic and Early Bronze Age

monuments – especially in the colour of the stones - led to important and influential studies at the ring by Frances Lynch and Gavin Macgregor. Burl and Ruggles produced new syntheses of their earlier studies on the cusp of the millennium, but these were published too early to take account of a plethora of new information that derived from the fieldwork undertaken by members of the University of Reading, stimulated by the excavation of the recumbent stone circle of Tomnaverie. These ancillary analyses into acoustics, viewsheds and design influences, by Aaron Watson, David Keating, Mark Lake, Patricia Woodman and Conor MacCarthy all drew upon evidence supplied by East Aquhorthies, while Sharon Arrowsmith and Chris Ball made a new plan which stressed the survival of the internal cairn. However, it was Richard Bradley's excavations at Tomnaverie, followed by additional work at Cothiemuir Wood and Aikey Brae that proved most significant. The results not only confirmed that recumbent stone circles like East Aquhorthies were composite monuments marking the location of funeral pyres, but completely confounded earlier perspectives by revising their structural evolution. Instead of the stone being an enclosure in which a cairn was later constructed, the cairn was in fact the earlier feature, with the ring being the last element in the sequence.

East Aquhorthies had been surveyed by Adam Welfare and Kevin Macleod for RCAHMS in 1998, as part of a study of the Don valley; and later that year Welfare, with Ian Parker, prepared a new plan of Tomnaverie in advance of the projected excavations. This led RCAHMS to broaden their study in relation to recumbent stone circles and reconsider the monument class as a whole. As the best-preserved example, as well as one of the most picturesque, an image of East Aquhorthies from the air was used as the frontispiece to the published volume. Moreover, the ring played a very important part in the analyses, which not only re-examined the whole range of previous studies, but also concluded that the Sun might be the focus of these monuments' orientation, rather than the Moon.