HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

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STATEMENT OF SIGNIFICANCE

TOMNAVERIE STONE CIRCLE

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HISTORIC ENVIRONMENT SCOTLAND
STATEMENT OF SIGNIFICANCE

TOMNAVERIE STONE CIRCLE

Contents

1. SUMMARY **3**

1.1 Introduction 3

1.2 Statement of Significance 5

2. ASSESSMENT OF VALUES **9**

2.1 Background 9

2.1.1 Chronology 12

2.1.2 Designation 15

2.1.3 Guardianship 15

2.2 Evidential values 16

2.2.1 Physical Fabric 17

2.2.2 Evidence Revealed by Archaeological Excavation 18

2.2.3 Restoration and re-erection of fallen stones 18

2.2.4 Further Research Potential 20

2.3 Historical values 20

2.3.1 Funerary Rites and Practices 21

2.3.2 Bronze Age Society in General 21

2.3.3 Folklore 22

2.4 Architectural and artistic values 23

2.4.1 Design and sequence of construction 23

2.4.2 Reference to earlier architectural idioms/tropes 25

2.4.3 Symbolic meanings embodied in the architecture 25

2.4.4 Effect of restoration 27

2.5 Landscape and aesthetic values 27

2.6 Natural heritage values 28

2.7 Contemporary/use values 28

2.7.1 References in guidebooks and other publications 28

2.7.2 Creative responses to the site 29

2.7.3 Spiritual Values 30

2.7.4 Other experiential responses 31

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3. Major Gaps in understanding **32**
4. ASSOCIATED PROPERTIES **33**
5. KEYWORDS **34**
BIBLIOGRAPHY **34**
APPENDIX 1: Tomnaverie: An Overview of its investigation and impact since the 18th century **42**
APPENDIX 2: Timeline **62**

Please note, the research for this document was undertaken during 2020-2022 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

Tomnaverie Stone Circle[1] is an Early Bronze Age monument (c.2300 BC), which is situated in the Howe of Cromar, about three quarters of a mile (1.2km) south-south-east of the village of Tarland, Aberdeenshire.

It belongs to a distinctive class of circular monument found in North-East Scotland termed 'recumbent stone circles', of which seventy-four are presently known.[2] The upright stones forming the ring include a large horizontal 'recumbent' (flat-lying) stone in the southern quadrant and are arranged so that they reduce in height from the two flankers on the south-west round to the shortest stone in the north-north-east and the gaps between the stones also close up towards the north-east – the whole enclosing a low polygonal cairn, the perimeter of which is delimited by a now discontinuous series of kerbstones. This, in turn, is revetted by a surrounding platform of rubble, into which the standing stones are set. The recumbent, the flankers, the orthostats (upright standing stones) and the kerbstones of the internal cairn are all Granite-Granodites and the admixture in the recumbent includes a high quotient of quartz grains.[3] Most of the orthostats are pink in colour, the recumbent is paler in colour due to its quartz content. The kerb and interior of the platform are predominantly pink or red. The recumbent bears two cup-marks, one on its summit and one on its inner side, one further stone on the south-east in the circle bears a cup-mark and two kerbstones have also cup-marks.

The monument is situated in rough pasture to the east of an infilled quarry on the summit of a distinctive ridge, which rises to a height of 180m OD. It enjoys an extensive outlook in all directions and measures 24m from north to south, although the stone circle is only 17m in diameter. This retains 11 of its original 13 stones, several that have fallen in the past have been set upright following a programme of restoration.

[1] Alternative names: Mill of Wester Coull, The Tomnaverie; Tarland Burn (see Canmore entry: Tomnaverie - Canmore ID: 17006 (canmore.org.uk) (accessed: 18 May 2022). There have been several attempts in translating the name over the years. Several link it to religious notions as 'Hill of Worship' (Robertson 1792, 201), 'the hill of worship, or justice' (Campbell 1845, 958) or 'the hill of truth, or worship, or judiciary trial' (Watson and Watson 1845, 842). Others include 'The Mound of the Yew Wood' (Coles 1905, 213), 'Grave of the Giant' (Macdonald 1900, 313), 'Hill of Ver' (believed to be the name of the Great Goddess) or alternatively 'Hill of the Faerie' (Cope 1998, 49, 53-55, 394). See more information in section 2.3.3 Folklore and Appendix 1.

[2] This type of monument is characterised by a large horizontal flat-lying ('recumbent') stone (hence the name adopted for this class of structure), set between two upright flankers, with orthostats (upright standing stones) forming the rest of the circle. In several cases there is evidence of an internal cairn (or mound of stones) within the ring, sometimes defined by a kerb.

[3] Miller *et al* 2009.

Figure 1: Oblique aerial view of the recumbent stone circle from the west-south-west. The irregular fenceline marks the edge of the now in-filled quarry. DP313604 © Historic Environment Scotland.

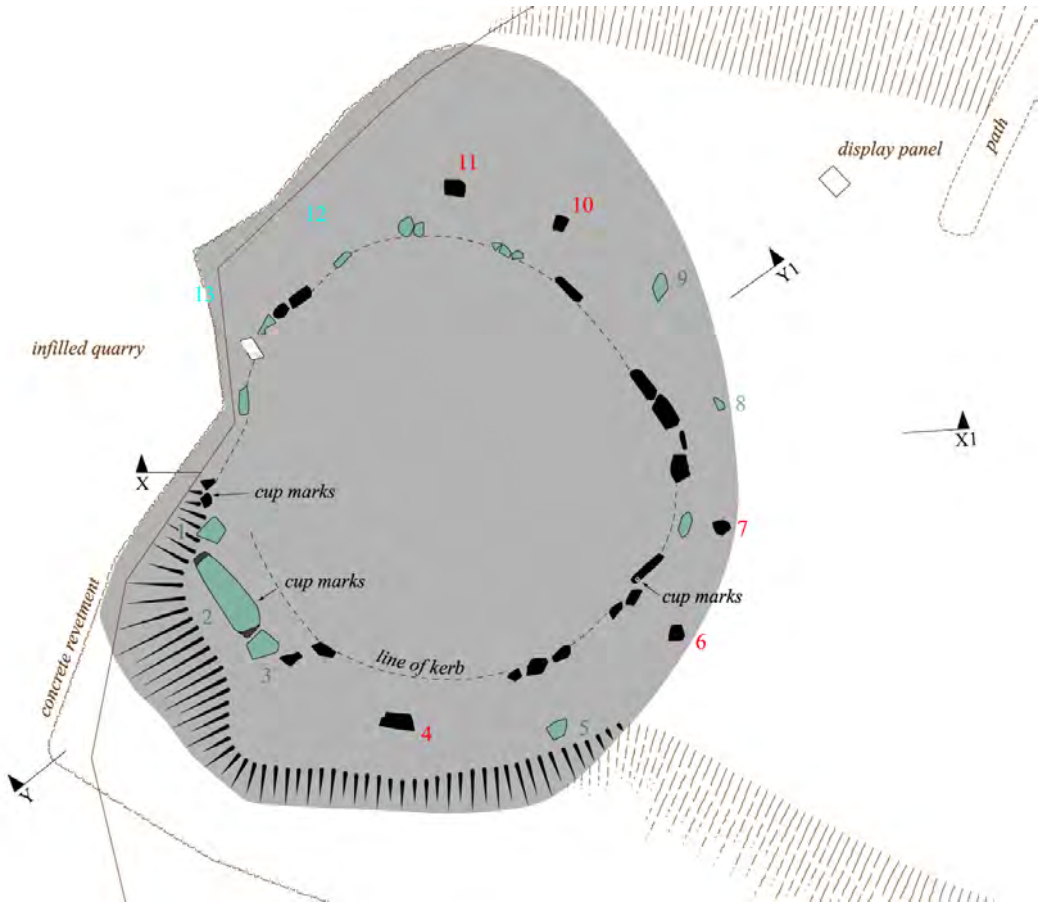

Figure 2: HES plan: orientated North – South, with the restored stones in green SC2206623 © Historic Environment Scotland

'Tomnaverie, Stone Circle' was Scheduled as an Ancient Monument on 31 May 1927[4] and taken into Guardianship on 23 September 1930. Two seasons of important excavation work were carried out at the site between 1999 and 2000. The excavation significantly contributed to our understanding not just of Tomnaverie, but of all recumbent stone circles and wider study of Bronze Age structures. Following the excavation, the monument was restored for public display which involved the re-erection of several stones which had fallen or been moved over the years.

After the excavation, the entire area of the monument was turfed, so only the stone circle with the recumbent stone and its flankers as well as some of the kerbstones are visible to visitors.

To the south-west of the stone circle is an underground Royal Observer Corps (ROC) post[5] introduced into the site in 1960 and in use until 1991. It is one of a network of observation bunkers that were set up as part of the UK defence strategy during the Cold War to allow the ROC to monitor and report on the effects of nuclear weapons. A renewed Guardianship Agreement was completed in 2005, expanding the area in State care beyond the stone circle, to include both the ROC bunker and a newly created car park. A separate document examines the significance of this structure.[6]

Tomnaverie Stone Circle as well as the above ground exterior features of the ROC bunker[7] are free to access, and open to the public at all times of the year as an unstaffed property in the care of Historic Environment Scotland (HES). The entry to the ROC bunker is locked and the interior is not accessible. A car park which can accommodate about a dozen vehicles is situated 250m to the east, while a layby a little further down the road to the west can accommodate two coaches. Signposts direct the visitor to the monument via a well-engineered path.[8] There is currently (2022) an interpretation panel for the stone circle a few metres north-east of the circle providing limited historical information and the installation of a further panel for the ROC post is planned.

1.2 Statement of Significance

Tomnaverie has been the subject of an important excavation which was carried out over two seasons between 1999 and 2000 under the direction of Professor Richard Bradley of the Department of Archaeology at the University of Reading. The discoveries made then, together with those obtained in small scale investigations at the Scheduled Monuments of Cothiemuir Wood and Aikey Brae, have significantly refined the interpretation of recumbent stone circles by establishing a structural

[4] SM90303; scheduling documents are accessible at: www.portal.historicenvironment.scot/designation/SM90303 (Accessed: 18 May 2022).
[5] Note: the post was known as Tarland rather than Tomnaverie: an above ground post was initially located near Tarland village and was replaced by the construction of the underground post at Tomnaverie in 1960.
[6] Available to download from our HES website: Tomnaverie Stone Circle - Statement of Significance (historicenvironment.scot) (accessed: 26 January 2023).
[7] Visible above ground features of the ROC bunker include the entrance hatch, ventilation shafts and the remains of the ground zero indicator which is immediately west of the entrance hatch and the fixed survey meter which is positioned between the ventilation shaft and the entrance hatch.
[8] Prior to visiting, please check access information, available at: Visit a Place - Tomnaverie Stone Circle (historicenvironment.scot) (Accessed: 18 May 2022).

sequence of development, and a chronology based on radiocarbon dating. This has not only significantly contributed to our knowledge of Tomnaverie itself, but also to our understanding of all recumbent stone circles and the wider study of Bronze Age structures. Tomnaverie also shares many characteristics with other types of stone circle distributed throughout the British Isles and so it has made, and will continue to make, a valuable contribution to our overall knowledge of these structures.

Figure 3: The collapsed recumbent setting from the south in 1987, before restoration. SC2080065 © Crown Copyright: HES

The following bullet points set out some of the key features highlighting the monument's significance. Subsequent sections of this document (including the appendices) expand upon these.

- Bradley's excavation clearly demonstrated that the cairn and its surrounding platform was the first element of the monument to be built and that the recumbent stone circle was introduced later. This was completely at odds with the generally held theory which envisaged recumbent stone circles as enclosures, within which certain rites and ceremonies took place, with the cairns inserted at a later date. Furthermore, evidence indicated that the final form of the monument was anticipated from the outset, and so its construction can be understood as a *process* over an unknown period of time.
- Tomnaverie retains substantial potential for future study. Although it was subject to excavation and the surface of the monument was wholly stripped of its vegetation, the excavators were careful to leave a significant proportion of its stratigraphy undisturbed, to permit future generations with new techniques to elicit further information. The project included restoration of the circle and re-erection of fallen stones. This was done on the basis of best available evidence, but the caveat remains that several of the stones have been re-erected so the monument cannot be regarded as entirely 'pristine' or 'untouched'. Nevertheless, it gives a much better idea in its restored state of the aesthetic and design intent of the original formation than the vegetation-obscured and degraded monument prior to restoration.

- Evidence from the Tomnaverie excavation sheds significant light on the study of the Early Bronze Age in Scotland. An important series of radiocarbon dates allows Tomnaverie to be linked more securely than ever before with other important developments that were occurring in North-East Scotland, and throughout the British Isles, at the beginning of the Early Bronze Age. For instance, recumbent stone circles share many features with Clava-type cairns.[9] These have also been re-dated to the Early Bronze Age on the basis of radiocarbon dates: the excavation of Tomnaverie has further clarified the nature of the relationship. If further radiocarbon date series can be extracted from similar monuments, they may allow the floruit of recumbent stone circles to be properly understood. Also, Beaker pottery was located beneath the platform surrounding the Tomnaverie cairn, in what appears to be a very early context. This substantiates similar finds that have been made at recumbent stone circles in the past, where the context of Beaker sherds has previously been questioned.

- The excavation also provided evidence of structural and ornamental elements that can only very rarely be observed in the field, and that have seldom (if ever) been noted in previous excavations at recumbent stone circles. These included a patterned surface made up of arcs of small boulders on the summit of the cairn; potential links in shape and colour between the surrounding orthostats and adjacent kerbstones; rays[10] within the rubble make-up of the cairn, some of which appeared to align with the orthostats of the ring; and a possible foundation deposit sealed by the recumbent stone.

- Our current understanding is that Tomnaverie was conceived as a commemorative monument built to honour the dead and to impress. There is a strongly symbolic component to its architecture: the design referencing certain features from the funerary architecture of the Neolithic (4300 BC–2500 BC); orientation to the west-south-west indicating association with the winter solstice; the likely equation of the winter solstice as a metaphor for death. The colour of the stones which is mostly red recalls perhaps the setting sun or even the flames of cremations. The presence of quartz, which is understood to be a solar signifier, may be synonymous with the sun, and the circularity of the monument traces out the solar year and adds a regenerative component that may signify the cycle of life. This strand of its symbolism is believed to have been widely shared amongst Early Bronze Age monuments throughout the British Isles, and presumably was understood by its prehistoric audience. Tomnaverie certainly continues to impress visitors today, and its association with the cycle of life and death allows some emotional connection to this distant past.

- The monument presents some distinctive features that are not always typical of the class: a location on the summit of a hill; a recumbent stone remarkable for its spectacular size, shape and colour; cup-marks on the recumbent stone

[9] Clava-type cairns are a type of Bronze Age circular chambered cairn and are found in a relatively confined area around the Moray Firth and Inverness. The monument group includes the type-site known as **Clava Cairns**; an HES-managed property near Inverness, which is free to visit. Access information is available at Visit a Place - Clava Cairns (historicenvironment.scot) (accessed: 18 May 2022).
[10] Stones arranged in linear, radial divisions running from the centre of the cairn towards its outer kerb.

and some kerbstones of the cairn; a rubble platform surrounding the cairn, which not only appears to share both the latter's orientation and that of the recumbent stone circle, but is especially robustly engineered below the recumbent setting; the most westward orientation of any well-preserved recumbent stone circle; and a fine view to the summit of Lochnagar sited on the horizon over the recumbent stone.

- Tomnaverie is an important local and national amenity. It is widely used in educational and recreational publications and several artists have taken inspiration from the monument to create their artwork in different media reaching from poetry to photography. The monument creates a feeling of spirituality through its ability to conjure a connection to the past, but also through its natural setting which visitors often describe as tranquil and serene; often inspiring contemplation and reflection.
- The ROC bunker, though far from unique, is likely to become an increasingly important example of its type and is a tangible reminder of the anxieties of the Cold War. Since abandonment in 1991, perhaps around half of Scottish underground ROC posts have been demolished (of 40 built in Aberdeenshire an estimated 18 survive) and few are consciously 'curated' or officially protected. Being a part of the HES estate should ensure its long-term conservation and the illustrative value of the bunker is enhanced both by the survival of artefacts from time of abandonment and by oral histories collected from those who were involved in its operation.

In summary, Tomnaverie offers a unique and compelling visitor experience. The stone circle, along with the ROC post, together offer a pairing of thought-provoking monuments experienced in a spectacular open setting.

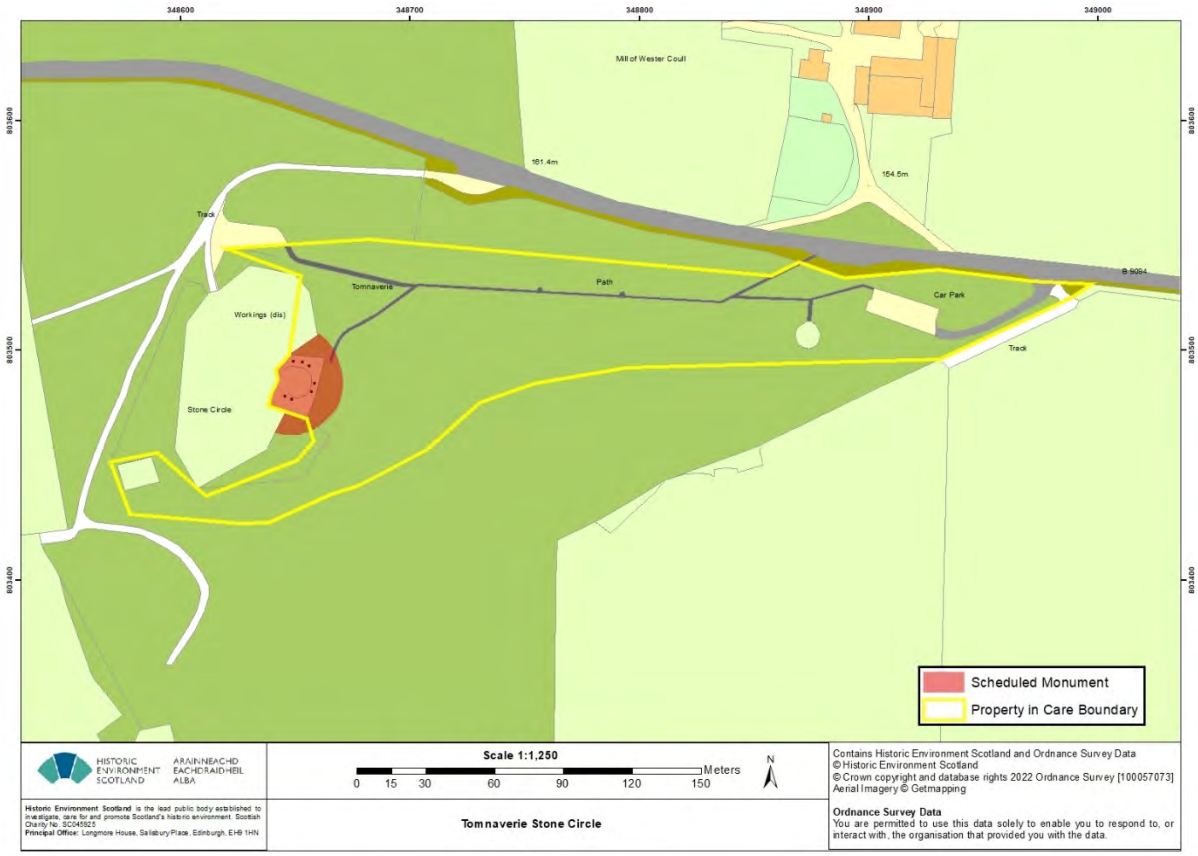

Figure 4: Tomnaverie Scheduled Area and Property in Care (PIC) Boundary. The ROC post is situated in the south west corner of the PIC boundary. For illustrative purposes only.

2. ASSESSMENT OF VALUES

Note: There is an extensive literature about recumbent stone circles, but there are currently two recent syntheses that are essential to their understanding – The Moon and The Bonfire: An Investigation of Three Stone Circles in North-East Scotland (2005) by Richard Bradley and Great Crowns of Stone: The Recumbent Stone Circles of Scotland (2011) by Adam Welfare. Appendix 1 to this document also explores what is known of Tomnaverie and how that understanding has developed.

2.1 Background

Tomnaverie Stone Circle belongs to a class of Early Bronze Age monuments 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 large recumbent stone located in the southern quadrant of the monument, hence the name adopted for this class of monument. Our current understanding of their constructional sequence results largely from the excavations undertaken by Richard Bradley at this site in 1999–2000.[11]

The monument was in very poor condition before the excavation, which stripped all vegetation from the circle and cairn and also re-erected several stones which had

[11] Bradley 2005.

fallen or been moved. A quarry had been opened to the north-west of the site in the 19th century, very close to the recumbent setting. Only five of the orthostats remained upright, a sixth lay where it had fallen, a seventh rested on the floor of the quarry about 7m below the monument, while three seemed to be missing. In addition, the east flanker appeared to have fallen forward on to its face, the west flanker had been dragged off the platform towards the quarry, while the recumbent stone had either fallen backwards or been pushed over into the ring.

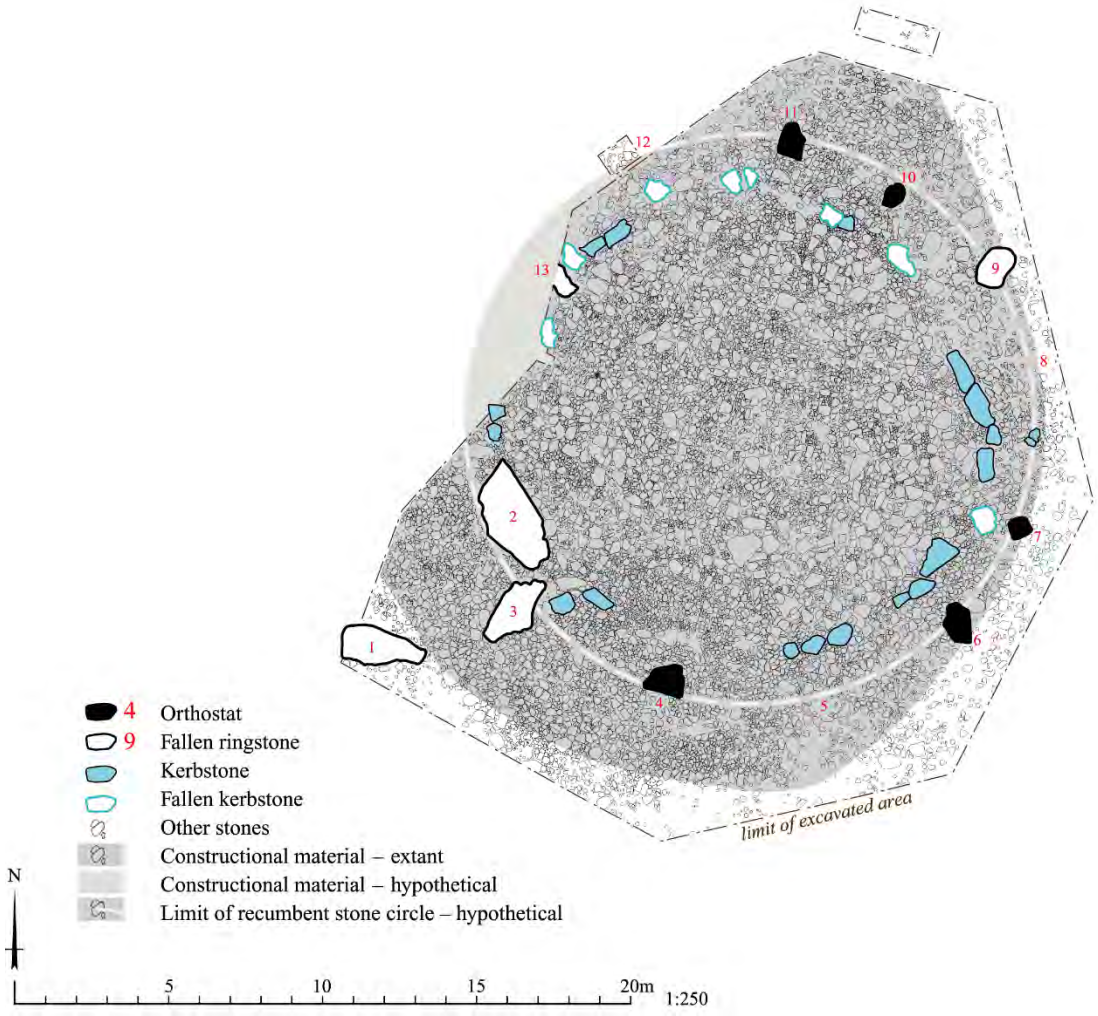

Figure 5: The main features of the recumbent stone circle, stripped of its vegetation before excavation (Welfare 2011) SC1492726 © Crown Copyright: HES

Figure 6: Lifting displaced flanker, 2000. SC2206395 © Professor Richard Bradley. Courtesy of HES.

The appearance of the site before and after excavation is therefore very different; the project allowed many details of the monument's construction and design to be understood. Following exposure and excavation, the site was re-turfed, and this is how it is currently presented. Additionally, the quarry has now been mostly filled in to help stabilise the monument. During the 1950s a Royal Observer Corps post was formed to the south-west of the circle and dug into the ground, it lies within the area

in care managed by HES. Because of its very different nature and purpose, it is largely described and assessed in a separate document.[12]

2.1.1 Chronology

Neolithic (4300 BC–2500 BC)
The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) Survey of 1998 recorded a cup-mark on an outcrop 21m north-east of the east orthostat (7);[13] and several more cup-marked stones were located outside the recumbent stone circle by Bradley's team in 1999–2000.[14] These may be as early as the Neolithic, although those carved on the monument may well be contemporary with its construction.[15]

Early Bronze Age (2500 BC–1500 BC)
Key elements of the monument's structural sequence have been dated: charcoal in a pit dug into one of the terraces below the recumbent stone produced five radiocarbon dates yielding a likely date around 2500 BC–2450 BC.[16] This has since been statistically refined to c.2300 BC–2200BC.[17] Sherds of Beaker pottery (the only datable finds) were located on the old ground surface, sealed beneath the rubble of the platform at the foot of the north-east kerb of the cairn. This is a secure context that might be expected to date the introduction of the platform and the cairn.[18] The sherds from Tomnaverie were considered to be later in date than the radiocarbon dates from the pit beneath the recumbent.[19]

Middle Bronze Age (1500 BC–1200 BC)
A bronze wing-flanged axe of Type Ulrome (c.1400 BC–1250 BC), said to be from the stone circle at Tomnaverie, is now in the collections of Marischal Museum, Aberdeen.[20] It is part of the John Graham Callander Collection, which contains finds from the early 19th century to the mid-20th century. Nothing seems to be known of the circumstances that led to its discovery.

Late Bronze Age (1200 BC–700 BC)
Further activity at the site occurred about one thousand years after the monument was constructed. This is represented by burnt material associated with cremated bone at the centre of the monument dated to c.1000 BC. Sherds of Late Bronze Age

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[12] Available to download from our HES website: Tomnaverie Stone Circle - Statement of Significance (historicenvironment.scot) (accessed: 26 January 2023).
[13] Numbering based on drawing by Parker and Welfare 1998. Accessible on Canmore: Scan of site plan DC44478 (SC1313271) (canmore.org.uk) (accessed: 18 May 2022). Numbering also visible on figure 2 of this report.
[14] Bradley 2005, 9, fig 6; 10 and fig 7.
[15] For further detail on the neighbouring decorated stones (SCRAP IDs 1123 and 1624) and information on prehistoric rock art in Scotland, see Scotland's Rock Art Project (SCRAP) at: www.rockart.scot/ (accessed: 18 May 2022).
[16] Bradley 2005, 18, 47-8.
[17] Curtis and Wilkin 2012, 242-3.
[18] However, Bradley found similar sherds in an almost identical position at Cothiemuir Wood, where the platform and the cairn had not been built in one operation. Bradley 2005, 23.
[19] Bradley 2005, 49.
[20] Coles 1964, 132; Schmidt and Burgess 1981, 132. Object number ABDUA:19651. Collection record is accessible at Collection Record - Flat Axe (ABDUA:19651) (calm.abdn.ac.uk) and also on SCRAN with image: Axe head, flanged (scran.ac.uk) (both accessed: 18 May 2022).

pottery were also located in a shallow pit at the centre, while another pit at the southern edge of the monument contained similar fragments.

Later 1st millennium BC to the mid-2nd millennium AD
How recumbent stone circles were viewed across subsequent centuries is not well understood, but Tomnaverie seems to have been undisturbed. Later documentary sources indicate that certain rings were so well known that they became important meeting places, while others seem to have been regarded with indifference or even with suspicion.

Post-Medieval Period
A shallow pit was found to have been cut through the deposits at the centre of Tomnaverie, and into the natural soil below. This contained charcoal, cremated bone and Late Bronze Age pottery sherds. However, the charcoal was radiocarbon dated to the 16th or 17th century AD, and as this reflected the real age of the pit, the bone and the pottery were evidently derived from the earlier deposits that the pit's creation had disturbed. This marks the final episode of activity detected at the site by the recent excavations. Although the pit's context is unclear, Bradley noted that the charcoal might possibly derive from the use of the hill as a beacon.[21]

Figure 7: Charles Cordiner's vignette portrays the recumbent as an altar stone in a circular temple. © Illustration from Antiquities and scenery of the North of Scotland, 1780 (cropped from title page).

It is clear that during this period recumbent stone circles like Tomnaverie were quite familiar to those who lived in their neighbourhood. Indeed, Hector Boece, the 16th century Scottish historian, not only claimed that the country people interpreted the recumbent stone as an altar, but that they were commonly believed to be ancient temples (see figure 7).[22] We have little or no evidence of how such sites were viewed prior to the early 16th century when such references to them appear in the documentary record. 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.

18th–21st Century
The first, brief, notice of Tomnaverie occurs in the late 18th century, when it is described as a 'Druidical temple';[23] but it was not until the mid-19th century that it began to be visited by antiquaries who started to make a record of its salient characteristics. Excavations elsewhere had led to the conclusion that they were places where burial occurred, and by the late 1860s a link with cremation and funeral

[21] Bradley 2005, 27, 49-50; Watson and Watson 1845, 842; Ogston 1931, 95.
[22] Boece 1527, II, xvi.
[23] Robertson 1792, 201.

pyres was being perceived.[24] The monument was first mapped by the Ordnance Survey in the mid-1860s, who showed it to be situated in rough pasture with a small quarry to its north-west.[25] James Ritchie and Frederick Coles visited the site at the beginning of the 20th century, the former making a valiant attempt to photograph the remains (see figure 14),[26] while the latter undertook one of his characteristic surveys for the predecessor body of the National Museum of Scotland.[27] He also noted that quarrying had approached perilously close to the west edge of the ring and was threatening to undermine it. Sir Alexander Ogston took another survey in 1911 (see figure 17) and his account is especially notable as it includes the first archaeoastronomical observations taken on site.[28] In 1923 Alexander Keiller took sketches and measurements of the individual stones for a projected monograph.[29] He may also have been instrumental in having the monument designated as an Ancient Monument in 1927, on account of the complaints that he made regarding the newly developing threat from the quarry.[30] After an agreement was reached between the local council, the landowner Lord Aberdeen and other interested parties, the monument was taken into Guardianship in 1930. Contemporary excavations at Old Keig and **Loanhead of Daviot**[31] cast new light on the architecture and engineering of recumbent stone circles, and it gradually began to be accepted that their origin lay in the Early Bronze Age.[32] Alexander Thom took yet another plan of the monument in 1955 (see figure 19), as part of his archaeoastronomical and geometrical studies of megalithic sites;[33] and by the latter part of the 1960s, Aubrey Burl was collecting and synthesising the data on all the known recumbent stone circles.[34] Thom's studies were a challenge to archaeological orthodoxy and, inevitably, Burl started to focus on orientations as defined by the position of the recumbent stone. At first he was sceptical, but having taken a series of readings in the 1970s, he developed a theory that linked them with the moon sailing high in the sky to the south of the recumbent.[35] Clive Ruggles evaluated Burl's results soon after they were published and although the latter's 'working' was found to be deficient, a likely link with the moon was sustained on the basis of more rigorous observations.[36]

Tomnaverie had been valued as an amenity by the local inhabitants of the Howe of Cromar from at least the mid-19th century. They would climb the ridge to inspect the remains of the recumbent stone circle and enjoy the views that were to be had from it. Although the monument had appeared in guidebooks from the beginning of the

[24] Stuart 1856, xiii, xxi-xxiii; Stuart 1867, xcv; Stuart 1868, 24-5.
[25] First edition OS 6-in Aberdeenshire 1870, Sheet LXXXI. Accessible online via National Library of Scotland, at: OS 6-inch map Aberdeenshire Sheet LXXXI (maps.nls.uk) (accessed: 18 May 2022).
[26] HES Archives (Society of Antiquaries of Scotland Collection) SC680008, SC679135. Digitised copies of images available to view online on Canmore: SC679135 - General view of stone circle from the east (canmore.org.uk); and: SC680008 - View of circle from the south-east (canmore.org.uk) (both accessed: 18 May 2022).
[27] Coles 1905, 208-13.
[28] Ogston 1931, 92-5.
[29] HES Archives MS106/29.
[30] Keiller 1927, 16.
[31] Throughout the text, sites named in **bold** are managed by Historic Environment Scotland and are generally publicly accessible. Access information can be found at: www.historicenvironment.scot/visit-a-place/ (accessed: 18 May 2022).
[32] Childe 1933; Childe 1934; Kilbride-Jones 1935.
[33] Thom 1967, 136; Thom, Thom and Burl 1980, 210-11.
[34] Burl 1970.
[35] Burl 1980.
[36] Ruggles 1984; Ruggles and Burl 1985.

1950s, it was only from the 1970s that popular accounts began to become more readily available.[37] It had long been accepted that the relationship between Clava-type cairns and recumbent stone circles was likely to be close, as they shared many characteristics. Both contain two distinctive elements: a central cairn and a surrounding circle of stones that are graded in height. The results of three seasons of excavations at **Balnuaran of Clava** by a team from Reading University under the direction of Richard Bradley in the mid-1990s confounded expectations by demonstrating that the Clava passage graves and the Clava ring cairns belonged to the Early Bronze Age and not to the Neolithic.[38] Richard Bradley was subsequently invited to undertake a small-scale, but carefully planned excavation at Tomnaverie. This was completed in two seasons, with the results being checked in a third season at Cothiemuir Wood and Aikey Brae.[39] The campaign clearly demonstrated that recumbent stone circles were also attributable to the Early Bronze Age. Moreover, Bradley was able to establish that their construction resulted from an episodic process in which the final outcome was anticipated from the start. The project plan included the restoration of Tomnaverie and its immediate curtilage (boundary). The quarry was slowly infilled and landscaped over succeeding years (see figure 1 for infilled quarry, and figure 18 showing earlier extent of quarry). In 2011, RCAHMS published a new overview of recumbent stone circles.[40] While recognising the importance of the excavation results from Tomnaverie, this stressed caution, as it remained possible from observations made by Kilbride-Jones at **Loanhead of Daviot** in the 1930s, that the sequence of construction identified at Tomnaverie might not always have been followed slavishly. Welfare favoured the hypothesis that recumbent stone circles marked the sites of funeral pyres, but firmly rejected the archaeoastronomical link with the moon in favour of one that was solar. In addition, it emphasised the symbolism that could be read in their architecture. Since then, Curtis and Wilkins have employed the available evidence to explore how Tomnaverie and the other recumbent stone circles might be integrated into the wider social dynamics of the Early Bronze Age.[41]

2.1.2 Designation

'Tomnaverie, Stone Circle' (SM90303) was Scheduled as an Ancient Monument on 31 May 1927 and is designated a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979. Its entry was last amended on 25 April 2017. The amendment describes the monument and the scheduled area that surrounds it, which is also delineated on an accompanying plan (1:2500).[42]

2.1.3 Guardianship

The recumbent stone circle was taken into Guardianship on 23 September 1930, when the broom was finally removed and the ground re-sown with grass. Thereafter, a sub-rectangular area surrounding it was enclosed within a tall wire fence, with a

[37] Childe and Simpson 1954, 33; Shepherd and Ralston 1979, 15.
[38] Bradley 2000.
[39] Bradley 2005.
[40] Welfare 2011.
[41] Curtis and Wilkin 2012; Curtis and Wilkin 2019.
[42] Scheduling documents are accessible at: www.portal.historicenvironment.scot/designation/SM90303 (accessed: 18 May 2022).

gate on the north, adjacent to its north-east corner. Three sides of the fence were removed soon after the excavations of 1999–2000, in order to allow the monument to return to a more aesthetically pleasing open environment in which the infilling of the quarry was to have an important role.[43] In 2005 a new Guardianship Agreement was completed, expanding the area in State care beyond the stone circle to include a car park and the ROC bunker which is currently (2022) not designated. See separate document for more detail on the ROC post.

Figure 8: The recumbent stone circle from the south in 2003 after restoration SC851590 © Crown Copyright: HES

2.2 Evidential values

The investigation and evaluation of the physical remains of past communities is one of the principal avenues by which such societies can be understood and situated within their historical context.

The primary evidential values of Tomnaverie recumbent stone circle are:

- Its physical fabric and setting – the monument is well preserved and retains significant architectural features pertaining to recumbent stone circles as a class. A high percentage of its stratigraphy remains intact, which will allow current understanding to be re-assessed in the future and further questions to be asked and answered. It has a fine setting on top of the ridge, especially now the neighbouring quarry has been largely infilled. It has an exceptional

[43] The old fence between the monument and the edge of the quarry remains to this day.

outlook to the south-west where it confronts the sometimes-snow-clad summit of Lochnagar – a view which inevitably invites questions as to how the monument might have related to the natural world.

- It is highly likely that further research into the monument and its immediate curtilage would yield additional information of great value. Other recumbent stone circles, such as **Loanhead of Daviot**, are known to have attracted later activities in prehistory, which have left their mark. Although these activities are often connected with death, a small fragment of daub found at Tomnaverie (whatever its source) is a reminder that circular buildings were sometimes erected close-by.[44]
- The quality of the information resulting from field observation and excavation is already extremely high, but this may be added to over the years, for instance through the application of new, non-invasive techniques that may become available.
- Research to date has indicated that recumbent stone circles are a specific and distinctive kind of Early Bronze Age monument, and that, amongst those, Tomnaverie possesses some unusual features. However, it also shares several characteristics with other types of circular monuments and any insights drawn from it in the future are likely to enhance our understanding of stone circles in general.

2.2.1 Physical Fabric

Tomnaverie comprises a cairn and a surrounding platform that revets and stabilises it. The latter supports a stone circle that originally comprised 13 stones, including a recumbent setting on the south-west, which is fused with the cairn. Although the monument was thought to be badly damaged, the excavation revealed that this was largely superficial and limited to the stone circle, itself.

Since its excavation and restoration, Tomnaverie has become a showpiece, illustrating not only the final form of a recumbent stone circle, but also how they sometimes occupy dramatic locations.

Key aspects of the monument's construction and engineering can be readily appreciated, while its curious physical characteristics are drawn from a lexicon that has its origin in the much earlier funerary architecture originating in Neolithic chambered tombs. Facets of its design can be compared and contrasted with the HES Guardianship sites of **East Aquhorthies** and **Loanhead of Daviot**, but also with those exhibited by other, more tumbled, recumbent stone circles throughout the North-East of Scotland. It seems that architectural variation was acceptable, providing they correctly expressed certain essentials. Their fabric can also be compared with other kinds of monuments found more widely, especially at the Guardianship site at **Balnuaran of Clava**, where analogous traits manifested with differing architectural emphases appear to be underpinned by some shared principles. Any insights drawn from it in the future are likely to enhance our understanding of stone circles in general.

[44] Bradley 2005, 35-6.

2.2.2 Evidence Revealed by Archaeological Excavation

Tomnaverie has only been formally excavated once, although the centre of the monument was disturbed in the Late Bronze Age and again in the 16th-17th century AD. The excavation, undertaken by a team led by Richard Bradley in two seasons from 1999–2000, stripped the monument of its surface vegetation, before siting carefully placed cuttings to elucidate the character of the monument and the sequence of its construction. This revealed the following phases of activity:

1. A low mound at the open centre of the monument representing the remains of funerary pyres, which returned Late Bronze Age dates.
2. A polygonal cairn, measuring 15m in diameter, with an open centre where the natural rock outcropped at the hilltop, but with an outer kerb made of carefully selected slabs and boulders. This was surrounded by a rubble platform pinning the kerbstones into position. A pit containing charcoal below the future position of the recumbent stone returned Early Bronze Age dates. Beaker sherds attributable to the same period were located at the edge of the cairn's kerb, sealed beneath the platform on the north-east side of the monument.
3. A recumbent stone circle, measuring 24m in diameter, comprising 13 stones that were graded in height from the two flankers on the south-west round to the shortest stone on the north-north-east with a recumbent setting orientated to the south-west. The orthostats and the flankers – the two tallest stones of the stone circle that abut immediately against the recumbent stone – had been sunk through the platform and the kerb of the cairn had been reconfigured to forge a link between it and the flankers.
4. A pit dug into the centre of the monument containing Late Bronze Age sherds and charcoal with dates centring on 1000 BC.
5. Another shallow pit cut into the earlier deposits at the centre of the monument, containing charcoal dating to the 16th–17th century AD.

Despite having been built episodically at unknown intervals of time, it seems from particular details of the construction that the finished monument was envisaged from the outset. The Beaker sherds were stratified below the platform at the foot of the cairn's kerb but could not be more precisely dated than c.2300–1700 BC. However, radiocarbon dates obtained from charcoal in a pit below the recumbent, suggested a date of construction c.2500 BC–2450 BC. A later Bayesian analysis refined this and pushed the date forward to c.2300–2200 BC, a period that would better conform with the general use of Beakers in the region.

2.2.3 Restoration and re-erection of fallen stones

Great care was taken in the restoration project that followed on from Bradley's excavation, to ensure that the fallen stones were re-erected in their original sockets.[45] However, comparative surveys of other recumbent stone circles published almost a decade after the Tomnaverie reconstruction has cast some doubt on some

[45] Bradley 2005, 27-8.

aspects. The RCAHMS undertook fieldwork that interrogated all the surviving examples, which was published a decade after the restoration was completed. One of the features of the RCAHMS reports is a series of composite illustrations. These depict measured drawings of some of the recumbent settings and also ground plans at a reduced scale for comparison.[46] Typically, they show that flankers were set with their long axes in roughly the same alignment as the recumbent. However, in the Tomnaverie restoration they are turned at right angles to this plane, while the west flanker has been erected well to the rear of its expected position.[47] Coles' and Ogden's plans illustrate the recumbent setting as if its constituents have fallen naturally, which is a common occurrence elsewhere. At a later date, the quarriers seem to have heaved the west flanker off the sloping ramp at the edge of the platform sometime after 1911. Its original socket may have been destroyed by another encroachment of the quarry and it would seem that it has been re-erected in the socket of a lost kerbstone. Orthostats at recumbent stone circles are also commonly found arranged with their long axes in the same plane as the ring's circumference and this suggests that the north-east stone (9)[48] may also have been erected incorrectly.

Figure 9: Displaced flanker being moved towards its socket, 2000 SC2206396 © Professor Richard Bradley. Courtesy of HES.

[46] RCAHMS 2007, 64-65 (recumbent settings) and 61 (plans); Welfare 2011, 110-13 (recumbent settings) and 74-6 (plans).
[47] Welfare 2011, 477.
[48] See figure 2 of this report for location of numbered stone.

2.2.4 Further Research Potential

The future potential for research at Tomnaverie is very high, as Bradley found that the cairn and its surrounding platform were relatively undisturbed. Much of the stratigraphy was intact and in making his cuttings and excavating the pits, he was careful to leave as much as possible untouched.

Figure 10: Stone circle after excavation and restoration, 2000 SC2206397 © Professor Richard Bradley. Courtesy of HES.

No recorded excavation has been undertaken beyond the immediate curtilage of the monument, where analogy with comparable sites indicates that other remains of great archaeological interest may be situated.[49] At least one cup-mark has been located on an outcrop to the north-east; and although the precise find spot of the wing-flanged axe is a little uncertain, it may herald further activities on the ridge of which nothing is presently known.

2.3 Historical values

Tomnaverie allows a period of prehistory to be addressed that remains problematic and contentious. The relationship between the indigenous culture and Beaker-using people, some of whom were immigrants bringing new funerary customs, is poorly understood. It is quite uncertain how recumbent stone circles fit into the fabric of society during this innovative period. Indeed, their architecture has no obvious evolution, and all that is clear is that it was a regional development that has no continental precursor. It is also undetermined *who* might have been cremated at these locations and for *how long* these sites remained central to the communities

[49] Kilbride-Jones 1935; Cameron 1999.

that built them. No single monument can provide an answer to all these questions, but there is every reason to suppose that, little by little, greater clarity will be achieved. What is not debateable is that the evidence from Tomnaverie will continue to play an important part in the resolution of these uncertainties.

2.3.1 Funerary Rites and Practices

It seems possible that the funerary rites at Tomnaverie centred upon pyre cremation, of which little is known. The charcoal recovered from the centre of the monument was expected to derive from the Early Bronze Age, but the radiocarbon assays returned dates in the Late Bronze Age. The fuel used in the bonfires included hazel, alder, pine, oak, and rosewood.[50] Although the deposits had been disturbed and the cremated bone was weathered and abraded, it seems likely from the skeletal material that pyres were lit here on several occasions.[51] The bone fragments included the remains of children and adults, as well as some animal bones that possibly included a hare. All fragments were white in colour, and it was estimated that the temperature of the pyres reached at least c.645°C and even in excess of 940°C.

It is unclear what proportion of the pyre residues may actually have been incorporated within the monument. Some may have been scattered or taken for burial elsewhere, while some may even have been curated and kept for some future purpose. The status of those who received this rite in the Early or the Late Bronze Age is unknown. There is some evidence to suggest that the sites of recumbent stone circles were de-turfed in the Early Bronze Age and cleaned before construction began, and it is possible that this has occurred at Tomnaverie. At **Loanhead of Daviot** the Early Bronze Age cremation deposits and evidence of burning were sealed beneath large stones arranged in a rough crescent in a restricted area at the base of the cairn. The importance of the location and the rites that had been practiced at Tomnaverie were evidently sufficient to justify the construction of this carefully planned monument. It initially comprised a small cairn that was open at the centre, which was supported by a surrounding platform; but this was subsequently reconfigured and aggrandised into a recumbent stone circle. Although there is scanty evidence for votive deposits, there is no reason to doubt that Tomnaverie is a commemorative monument built with the visitor in mind.

2.3.2 Bronze Age Society in General

The chronology of recumbent stone circles is tenuous, being reliant upon a handful of radiocarbon dates and a few scarce finds. Nevertheless, their origin in the Early Bronze Age seems relatively secure. They seem to have belonged to a period when Beakers were already in use amongst the local population, and metalwork was becoming increasingly available. However, the length of their floruit remains as uncertain as the date when the last was built.

One question that Bradley sought to answer concerned their location in the landscape and how this might relate to contemporary land use and settlement. This

[50] Bradley 2005, 46.
[51] Bradley 2005, 38-42.

was investigated by analysing the properties of the soil stratified beneath Tomnaverie, and by a programme of field walking extending into the wider countryside.

The soil profile beneath the monument appeared to be consistent with an acid brown soil that been truncated, with the upper section of the soil's stratigraphy having possibly been removed as the result of de-turfing before construction began.[52] The majority of the pollen was from wild grasses suggestive of an open landscape, while that from hazel and fern probably derived from the margins of a loch that once lay to the north of the ridge.[53] Most of the lithic concentrations occurred over a mile to the north of the monument (1.8km); a likely indication that the recumbent stone circle lay at some distance from settlement – a finding that is only reinforced by the fact that the lowest densities of artefacts occurred within its vicinity. The cup-marks on the outcropping rock that are concentrated at the foot of the ridge to the north cannot be closely dated, but should perhaps be attributed to the Neolithic rather than the Early Bronze Age.[54] By contrast, the soil to its south is of poor fertility, so the monument may well have been sited close to the border of the settled landscape, but distanced from cultivated ground.[55] The cairns that were noted by Ogston hereabouts are undated and their origin is unknown.[56]

Despite our poor knowledge of the settlement pattern in the Howe of Cromar during the Early Bronze Age, new ideas synonymous with the use of Beakers, as well as innovative products in the form of bronze implements, found their way into the Howe from the world outside. Although knowledge of these routes of communication is currently sketchy, there is little doubt that the floruit of recumbent stone circles, like Tomnaverie, embraced a remarkable period of change.

2.3.3 Folklore

There is little folklore attached to the stone circle, but it is possible that it once existed but has been lost. An alternative name, 'Tuam an fhamhaire', is translated as 'Grave of the Giant', but whether there was a particular story to accompany this is unknown.[57] Cope suggests the name of the ridge means the 'Hill of Ver', which he claims to be the name of the Great Goddess; or alternatively, 'Hill of the Faerie', about whom our ignorance is as great as the giant.[58]

Alexander Robertson, writing at the end of the 18th century, describes the monument as a 'Druid Temple'. This was an explanation of stone circles that had been rapidly accepted throughout the British Isles having been popularised by William Stukeley in the mid years of the century.[59] Robertson reinforced this interpretation by translating the name of the ridge as the 'Hill of Worship', but neither he, nor Campbell or the Watsons, refer to the recumbent as an 'altar stone', which

[52] Bradley 2005, 42-6.
[53] Bradley 2005, 46-7.
[54] Bradley 2005, 9-10.
[55] Bradley 2005, 87-92.
[56] Ogston 1931, 93.
[57] Macdonald 1900, 313.
[58] Cope 1998, 49, 53-55, 394.
[59] Robertson 1792, 201.

Boece implied was the old country metaphor from which the Druidical myth eventually sprung.[60]

2.4 Architectural and artistic values

The architectural values of Tomnaverie are expressed through its design, its materials and in the evolution of its component parts as a conscious development. Some of these values have been revealed by survey and excavation, while others - identified as the symbolic meanings of the monument - are the result of informed interpretation in the context of what we understand of comparable sites, the wider landscape and contemporary interest in astronomy. Finally, some elements of the monument were restored in the 21st century, following close study. Key aspects are:

- The sequential construction of the monument in distinct phases and the understanding that the monument's final form was planned from the earliest phase of activity.
- The physical references back to the architectural features of Neolithic chambered cairns; structures already many centuries old at the time of Tomnaverie's inception. Enacting the various phases of Tomnaverie's development is also interpreted as a dialogue with these earlier structures.
- The particular characteristics of Tomnaverie's architecture expressed by its location and the selection and placing of stones for their size, shape and colour, which is interpreted as having symbolic meaning – a meaning that may be shared across other prehistoric sites.

2.4.1 Design and sequence of construction

The architecture of Tomnaverie was clearly designed to impress. It is a striking form which baffled antiquaries and archaeologists for generations, but whose traits and symbolic meanings would have been easily read by those who grew up in its shadow during the late third to early second millennium BC. Although the final form of the monument was almost certainly conceived from the beginning, the evidence suggests that it was constructed in two phases with an interval of unknown duration between each. The architectural elements comprised in these phases are the key components of its design.

The **first phase,** constructed in the Early Bronze Age, c. 2300–2200 BC, comprises an open centred cairn, the outer edges of which are trimmed with boulders and slabs, pinned in position by rubble to either side. The cairn is polygonal on plan and measures 15m in diameter. It is currently no more than 0.3m high and is now largely grass-grown, although many small boulders in its matrix peep through the turf. Excavation allowed close study and recording of the detail of the construction, the type, size, colour and placing of the stones which can only be appreciated when freed from vegetation. The granitic stone of which it is constructed are red and pink. Its surface, which may have been scattered with fragments of quartz, is patterned with distinctive arcs formed from boulders. In addition, crude radial features built up from the foundations stretch from the inner edge of the kerb towards the natural rock

[60] Campbell 1845, 958; Watson and Watson 1845, 842; Boece 1527, II, xvi.

outcrop at the cairn's centre. The boulders and slabs forming the outer kerb are subtly graded, with the lowest section on the north-east and the tallest on the south-west. The cairn extends over the hill's summit on the south and south-west where it is supported by terraces cut into the ground surface upon which crude boulder walls have been built to revet the cairn and its surrounding platform. The latter is roughly lens-shaped on plan and measures 24m from north to south. The platform is a fairly massive structure that is most fully developed on the south-west where the gradient steepens. It is constructed with the same red granite boulders as the cairn and was evidently intended to withstand and support a great weight such as the hefty recumbent stone and its accompanying flankers. It may have also been intended as a ramp to help alleviate the problem of manoeuvring the flankers and the recumbent into place. A few quartz boulders were deliberately situated at its outer edge on the south.

The **second phase** of construction is represented by the addition of the recumbent stone circle and its integration with the cairn and the surrounding platform. The ring, which measures 17m in diameter, originally comprised of ten orthostats, two flankers and a heavy recumbent stone – these three constituting the 'recumbent setting'. The orthostats are arranged on a neat circular plan, graded in height from the tallest at the south-west to the shortest stone at the north-east, this taking account of the falling ground to the north and south of the summit. The flankers continued the pattern of grading, being the tallest stones, but they were probably erected as a subsequent exercise in conjunction with the recumbent. Both the orthostats and the flankers were probably quarried from outcrops, before being inserted into sockets that were cut into the rubble platform and supported by packing stones.

The recumbent is a great block of granite containing grains of quartz and is a slightly paler red than the rest of the stones in the ring. It seems to have been set in a hollow on the platform and then chocked in position. In order to complete the process, the kerbstones on the south-west side of the cairn were taken up and reconfigured to link with the outer edges of the flankers. The recumbent setting may have been positioned slightly askew in relation to the ring of orthostats (this was noted at other sites as part of the RCAHMS survey). If so, it is unlikely to have been apparent to the casual observer.

The placing and grading of the orthostats respond to the topography of the site. Despite the slopes north and south of the summit, the original builders were fairly successful in their attempt to create the impression of height-grading from the tall flankers on the south-west to the smallest stones on the north-east. Frequently, the flankers contrast in shape, but this aspect of the design has been partly obscured by problems associated with their restoration. The recumbent stone situated between them may have been originally set slightly askew in relation to the ring behind. There is a cup-mark on its upper surface and another on its inner face, where there is also a conspicuous natural hollow that has been likened to a stone axe.[61] The restored orthostat on the south-east also bears a cup-mark, while others are to be found on two of the kerbstones.

[61] Also see Needham 2004, 240. Bradley suggests that the natural hollow shaped like an axehead could be one of the reasons why this particular stone was used in the monument. There are similar carvings on other monuments, as for example the cist slab at **Nether Largie North.** Bradley 2005, 29.

2.4.2 Reference to earlier architectural idioms/tropes

Tomnaverie, and other recumbent stone circles blend some traits of Neolithic chambered tomb architecture with more contemporary architectural idioms of the Early Bronze Age. The earlier tropes include the recumbent setting, in which there is usually a strong visual contrast between the shapes of the two flankers. Whether this was so at Tomnaverie is uncertain, because Coles' and Ogston's plans are at too small a scale to allow this to be evaluated, and the restoration is unhelpful.[62] They are thought to represent the jambs of the doorway in the earlier tomb setting and between them is the recumbent, acting as a large closing stone and symbolising the blocked tomb entrance. The passage which would have led into the tomb is metaphorically further blocked by the rubble of the reconfigured kerb now linking the rear of the recumbent to the polygonal cairn. The grading of the flankers and orthostats recalls the fact that the mounds of many Neolithic chambered tombs rise as the entrance is approached, where they reach their greatest height.

There seem to be clear references in these (and Clava-type passage graves) to earlier Neolithic architectural forms and this implies that they formed part of the mindset for Bronze Age communities. If the recumbent setting is understood as a closed doorway and the reconfigured kerb as a blocked passageway, then Tomnaverie can be understood as a simulacrum of a generic chambered tomb that is sealed against the outside world.

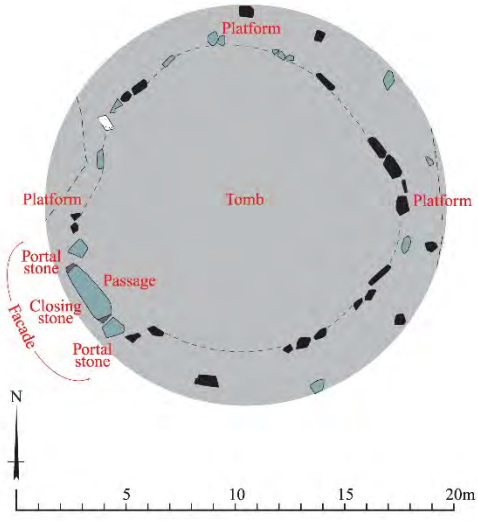

Figure 11: Tomnaverie as a simulacrum of an ancient chambered tomb GV004595 © Crown Copyright: HES

2.4.3 Symbolic meanings embodied in the architecture

While the architecture of Tomnaverie seems to reference tomb building of perhaps 1000 years earlier, the apparently more contemporary features of the site are expressed in the south-westerly orientation of the monument, the fact that the shortest stone is positioned on the ring's north-east, and the circularity of its plan.

[62] Coles' measurements indicate that the west flanker was 6-inches broader than its companion, but it is the visual impression that counts. Coles 1905, 212.

There is also no doubt that the colour of the stones and the incidence of quartz (a solar signifier) played an important symbolic role, too. If the references to a chambered tomb can be easily understood as a visual metaphor of death, these additional traits reinforce and develop that symbolism. The south-west orientation marks the point where the sun sets at the winter solstice, when the shortest day gives way to the darkness of the longest night. This is where the old year metaphorically dies. The diminutive orthostat on the north-east arc of the ring marks the direction of the summer solstice and contrasts with the massiveness of the recumbent, so reinforcing the emphasis; while the red stones used in the monument perhaps recall the setting sun or the flames by which bodies on the pyres were cremated. Likewise, the quartz may be synonymous with the sun, while the circularity of the monument traces out the solar year and adds a regenerative component signifying the cycle of life.

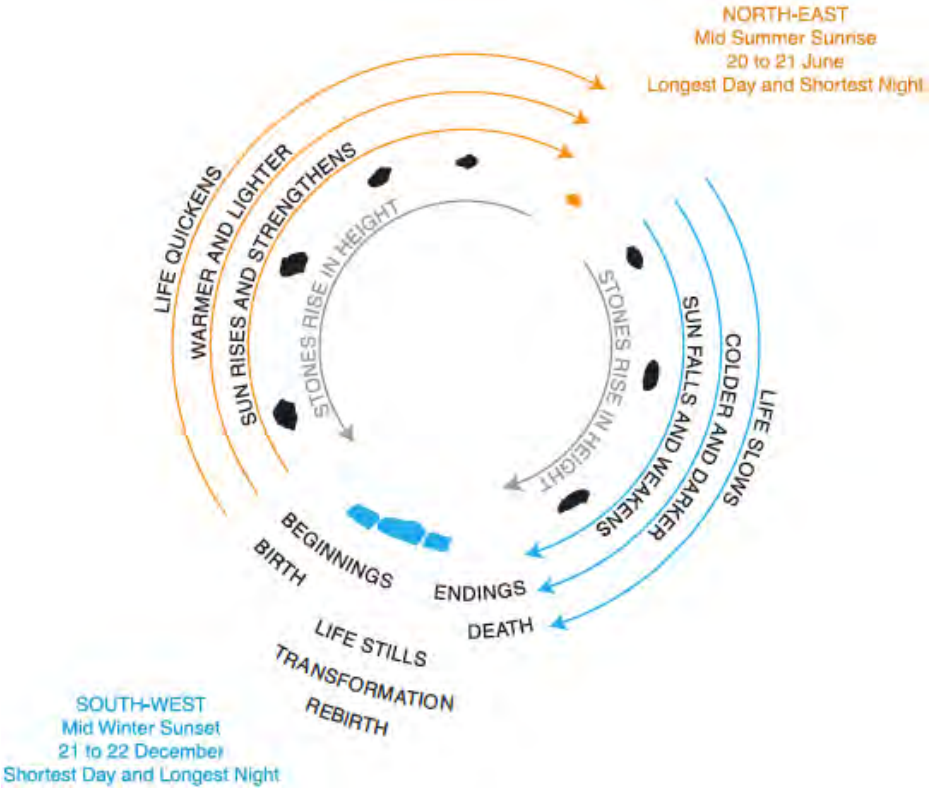

Figure 12: The cosmological round: the cycle of life (Welfare 2011) GV004594 © Crown Copyright: HES

Thus, the architecture of Tomnaverie and the other recumbent stone circles embody sophisticated ideas centred upon life and death. Whereas the Early Bronze Age communities to the north of the Moray Firth could re-use the old Neolithic tombs in their neighbourhood, those to their south and east built their own simulacra incorporating their own beliefs. While the architecture of the Clava-type passage graves can be characterised as a conventional response, the recumbent stone circles seem to express similar ideas in perhaps a more imaginative and ingenious way.

2.4.4 Effect of restoration

The monument was restored for public display soon after the excavation was completed in 2000. The fallen kerbstones of the cairn were reset where there was confidence in their original position, and the gully resulting from the removal of the kerbstones on the south-west of the cairn when the kerb was reconfigured, was denoted in the turf. All the stones comprising the ring were re-erected, save for two that had once stood on the north-west arc.

Figure 13: The chords and axis of symmetry before restoration (Welfare 2011) GV004594 © Crown Copyright: HES

Whereas it had previously been rather difficult to perceive the overall character of the monument, following restoration it can now be more readily appreciated. The orthostats are paired on neatly spaced chords to either side of the ring's axis of symmetry, while the space between them enlarges as the front of the monument is approached.

Subsequent comparative surveys of recumbent stone circles have cast some doubt on the exact orientation of some of the restored stones, namely the flankers and north-east stone (9), leading to caution when interpreting the design of the site in its reconstructed form.[63] However, the restoration gives a much better idea of the aesthetic and design intent of the original formation than the vegetation-obscured and degraded monument prior to restoration.

2.5 Landscape and aesthetic values

Tomnaverie is situated on a summit at the western end of a distinctive granite ridge in the centre of the Howe of Cromar, at a height of 180m OD. It possesses a fine outlook in all directions and is a popular viewpoint. To the south can be seen the foothills of Lochnagar some 20 miles (30km) on the horizon, while to the west rises Morven and its neighbour the Hill of Allarmuc. The northern watershed is marked by a range of summits of which Pressendye is the highest, while the eastern side of the Howe is foreclosed by Craiglich, to the south of which is a pass that leads into Deeside. The highest ground is given over to moorland, but there are plantations and

[63] Welfare has questioned the accuracy of some aspects of the restoration. Welfare 2011, 477.

plentiful rough pasture on the flanks of the hills at lower elevations. By contrast, the low-lying land within the basin is fertile and comprises a patchwork of improved pasture fields intermingling with arable. Modern settlement is largely dispersed, but the village of Tarland is situated at its heart.

The contrast between the wild and domesticated landscapes provides an attractive backdrop to Tomnaverie, which can be seen as a small silhouette from the southern outskirts of Tarland. Rough pasture and small reefs of outcropping rock are situated immediately to the east and south of the monument, while the site of the old quarry to the west has now (2022) been largely infilled and requires final profiling. The hummocky ground here is presently covered with broom, willow herb and weeds, but in time it can be properly blended into its surroundings. The grassy sward within the recumbent stone circle is carefully maintained and kept short to reveal its principal features, while a simple network of pathways draws the visitor from the car park towards it.

Tomnaverie, as restored, makes a striking impact upon the visitor. This is due partly to its curious architecture and partly to its natural setting. It cannot be seen from the car park from which most visitors make their approach and many of those who wind their way up the path to the top of the ridge, will have only the vaguest of ideas as to what they will see on their arrival. As the edge of the summit is reached, the smallest stones on the north-east will be the first that come into view, before the visitor steps inside the arena and gazes around at the other stones making up the ring. The recumbent setting on the far side of the approach will almost immediately capture their eye; and then the magnificent view stretching beyond it over the lower lying round-topped hills that sweep up to the soaring mass of Lochnagar dominating the southern horizon. There can be no doubt that this dramatic location on the ridge must have been carefully chosen to make an impression, whatever other reasons there may have been.

2.6 Natural heritage values

The landscape within which the monument is located does not currently (2022) possess any especially noted natural heritage value, beyond that which might be expected of rough pasture at elevations below 200m. The reconstituted ground to the west of the recumbent stone circle is presently of limited ecological value, but this could change in time. Careful management may improve its potential through the encouragement of particular plant species which could enrich it as a habitat for insects, reptiles, mammals and birds.

2.7 Contemporary/use values

There has not been a formal study of the contemporary values of this site to local communities or communities of interest. Therefore, the following observations are intuited from HES staff experience of the site and from online sources.

2.7.1 References in guidebooks and other publications

Tomnaverie has featured in various publications including local guides and educational material. For instance, the Forestry Commission Scotland (now Forest

and Land Scotland) has published a manual devoted entirely to recumbent stone circles.[64] This is designed as a learning resource for teachers of children aged 9-12 years old. The text is particularly good at explaining the complexities of the lunar cycle, which is such an important element in the explanations that have been offered for the orientations of these monuments since the mid-20th century. Two excellent photographs of Tomnaverie head the booklet's introduction. It suggests that the manual is used in conjunction with 'The Stone Circle Trail', a leaflet published by Aberdeen Council which is designed to encourage everyone to explore the ten best surviving rings including, of course, Tomnaverie.

The Cromar History Group uses the recumbent setting as its logo and takes a special interest in Tomnaverie. They publicise a circular walk created by the MacRobert Trust, the Tarland Development Group and the Cairngorm Outdoor Access Trust. This not only includes Tomnaverie in its circuit, but also Janet McSwan's small boulder-like sculptures engraved with Pictish symbols on the southern edge of the village, the Royal Observer Corps post, the deserted settlement of Scrapehead and the archaeological remains in Drummy Wood.[65] Variations on this walk are promoted by other websites.[66]

2.7.2 Creative responses to the site

Several artists working in different media were also inspired by the site. Julian Cope declaimed his poem 'On Tomnaverie' to the wrathful elements whipping around the site some years before it was restored;[67] while the Huntly Writers included four photographs of the monument in more placid circumstances in an anthology inspired by the North-East's stone circles.[68] The musician, Paul Anderson, who likes to visit Tomnaverie from time to time wrote the slow air, 'Land of the Standing Stones', in response to his native country.[69] This was specially commissioned by the Aberdeenshire Council Arts Development Team for the 'Homecoming Scotland' celebrations at Inverurie in 2009 and has been the subject of a number of variations. Several paintings by the Californian artist, Charlotte 'D'Aigle, can now be purchased as reproductions, or as images printed on various goods including t-shirts, jigsaw puzzles and tote bags, and perhaps not unexpectedly, that essential icon of current times – a facemask.[70] Nicki Macrae, Fiona McIntyre and the printmaker, Kitty Watt, have also captured the monument in their distinctive ways.[71]

A number of photographic studies have emphasised the aesthetics of Tomnaverie, rather than simply its historical or architectural qualities. James Ritchie seldom failed in this respect in the early years of the 20th century, but it is fair to say that the

[64] Forestry Commission Scotland 2015. Available online at: Recumbent stone circles (forestryandland.gov.scot) (accessed: 18 May 2022).
[65] Cromar History Group, Tarland History Walk I (Leaflet). Available online at: History Walks (cromarhistorygroup.org.uk) (accessed: 18 May 2022).
[66] For example, on The Mack Walks: www.themackwalks.wordpress.com; and All Trails: www.alltrails.com (both accessed: 18 May 2022).
[67] Cope 1998, 394.
[68] Huntly Writers 2018: the photographs are by Norma Cameron.
[69] Anderson 2013.
[70] See www.fineartamerica.com (accessed: 18 May 2022).
[71] See respective artists' website: http://nickimacrae.com/; www.fionamcintyre.com; www.tolquhon-gallery.co.uk (all accessed: 18 May 2022).

broken ruin infested with broom was too great a challenge in 1902 (see figure 14).[72] However, Kevin Geraghty-Shewan tackled this subject in 1989 with considerably more success despite the difficulties, because the broom at least had been eradicated.[73] Nigel Corby of Banchory received an honourable mention for a black and white image of the monument taken after its restoration, which was submitted to a competition, 'Picturing the Past', organised in 2009 by the School of Geosciences, the University of Aberdeen.[74]

Many others have sought to capture informative, yet still pleasing images. These include the photographers of Historic Environment Scotland, Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland, who have also been responsible for some fine aerial images.[75] Numerous individuals have submitted photographs to 'My Canmore', the open-source feature of Canmore, the online catalogue of Scotland's terrestrial and maritime heritage,[76] while others have created their own websites or submitted them elsewhere. The websites of Les Hamilton and Maggie and Keith Davison are among the most notable – the latter including a range of innovative techniques that reproduce the images of the monument in virtual reality, infrared and various 3D formats.[77] Work of high quality has also been posted on sites such as the Modern Antiquarian and the Megalithic Portal.[78] In addition, the photographs taken by Jim Henderson as Richard Bradley's excavations progressed at Tomnaverie provide a fascinating record of great historical interest.

At least one website explores the archaeoastronomy of Tomnaverie,[79] while Canmore, Pastmap and the Historic Environment Record of the Archaeological Service of Aberdeenshire Council provide detailed information for those with a developing interest.

All these sources contribute to Tomnaverie's popularity today. Indeed, it is unusual to visit the monument in daylight and find oneself alone for long.

2.7.3 Spiritual Values

Visitor responses to the recumbent stone circle are varied: some comments left on TripAdvisor, and other reviewing platforms, appreciate the ease of access and the panoramic views across the countryside. However, many describe Tomnaverie as a place to connect with the historic past, and for many it is also a place of reflection, mysticism and inspiration – of a sort of spirituality and otherness.

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[72] HES (Society of Antiquaries of Scotland Collection) SC680008, SC679135. Digitised copies of images available to view online on Canmore: SC679135 - General view of stone circle from the east (canmore.org.uk); and: SC680008 - View of circle from the south-east (canmore.org.uk) (both accessed: 18 May 2022).
[73] See www.shewan.co.uk (accessed: 18 May 2022).
[74] See www.abdn.ac.uk/news/3213 (accessed: 18 May 2022).
[75] All available at HES Archives on Canmore. See via Canmore site entry 17006 under 'Images' and 'Collections': Tomnaverie (17006) (canmore.org.uk) (accessed: 18 May 2022).
[76] Available via Canmore site entry 17006: Tomnaverie (17006) (canmore.org.uk) (accessed: 18 May 2022).
[77] See www.leshamilton.co.uk; and www.megalithics.com (both accessed: 18 May 2022).
[78] See www.themodernantiquarian.com; and www.megalithic.co.uk (both accessed: 18 May 2022).
[79] See www.stonesofwonder.com (accessed: 18 May 2022).

Current interpretation of the site is that it was designed to encapsulate spiritual values: the massive blocked entrance of the 'tomb' – a meditation upon death in stone, and the directed view to the south west, the place of the setting sun, but the circle also emphasising new life and renewal. Juxtaposed with this, the coincidental location of the Cold War ROC bunker at Tomnaverie and its association with nuclear annihilation can, for some, emphasise the fragility and uncertainty of modern life.

These powerful and longstanding notions still impinge upon the consciousness of many who visit monuments like Tomnaverie to this day. They also inform the behaviour of many. Thus, visits are often timed to coincide with the winter and the summer solstices, the equinoxes and the old quarter days. Such beliefs and practices can also include ideas of fertility and at least one Pagan wedding has been enacted and celebrated here. Others find a sense of solace and leave small trinkets or flowers - sometimes in the name of someone who was close to them and sometimes because they sense it to be an appropriate response. [80]

When Parker and Welfare arrived to take their survey in the autumn of 1998, they found a large cross had been carved into the turf at the ring's centre.[81][82] This was almost certainly an attempt to Christianise the monument, as the crosshead lay to the north. Whatever the intention, it is yet another manifestation that people are dimly aware that Tomnaverie has its origin in the strongly held spiritual values of those who lived out their lives in its shadow a long time ago.

2.7.4 Other experiential responses

Like many prehistoric sites, Tomnaverie is important to those contemporary groups who search for mystical meanings, energies and connections at these places.

Andis Kaulins found that Tomnaverie represented a star in the constellation of Ursa Minor forming part of a great map of the heavens writ out large over the landscape.[83] Paul Screeton experienced a curious bounce to the turf when exploring the site with his wife. He felt that 'the positioning of the stones was meant to reveal a definite spiral'.[84] Like Alice's bottle labelled 'Drink Me', a draught of Tomnaverie's magic potion made his wife 'feel very big'; but he, himself, considered the stones to be generally uncommunicative, although the atmosphere they conjured was apparently less sinister than that which they had encountered at Sunhoney.

Grahame Gardner and his friends went in search of Tomnaverie after a geomancy session. They had visualised the earth spinning beneath their feet with an overlying grid in order to seek out 'a powerful spot where you could draw energy'.[85] One amongst their number located such a place in Aberdeenshire, somewhere that they had never been. After dowsing a map, they 'identified a particular stone circle near

[80] 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.
[81] This is plotted on their plan: Parker and Welfare 1998. Accessible on Canmore: Scan of site plan DC44478 (SC1313271) (canmore.org.uk) (accessed: 18 May 2022).
[82] Visitors are reminded that as a scheduled monument, the site is protected by law under the Ancient Monuments and Archaeological Areas Act 1979 and it is an offence to damage it in any way. Ground disturbance of any form, fires and the use of metal detectors are prohibited.
[83] Kaulins 2003.
[84] Screeton 1974, 75.
[85] Gardner 2000.

Aboyne', which they guessed had to be Tomnaverie. Nine months after a special energy raising meditation, they reached the site. On their arrival, they spotted Bradley's abandoned photographic tower and were astonished to find that the monument had been restored. 'The energy felt jumpy . . ., as though the circle was in shock at finding itself whole again' and the lines that they dowsed were negative. However, having checked the astronomical alignments with a compass, they found all appeared to be in good order. After watching the sun setting into Morven, they began to investigate the ring with an aurameter and little spirals were noted at several locations.

3. MAJOR GAPS IN UNDERSTANDING

- Our current understanding of the chronology of Tomnaverie and the other recumbent stone circles in general is based on very limited evidence. At some point in the future a case will need to be made to sample another elsewhere, in order to improve the information already to hand. Each recumbent stone circle may have a singular history, but it seems likely that most will share the same floruit and possibly the same phased construction. These phases need to be better dated and the intervals between them require to be more clearly established. However, unless more accurate dating methods become available, it seems unlikely that there will be a pressing need to resample the stratigraphy at Tomnaverie on this account for quite some years.
- The evidence for recumbent stone circles marking the location of Early Bronze Age pyres requires further verification. The radiocarbon dates from the centre of Tomnaverie turned out to be Late Bronze Age and Post Medieval. It was only charcoal from the pit below the recumbent that returned what might be termed 'appropriate dates' relating to an origin in the late 3rd to early 2nd millennium BC. Such data can prove elusive and there is some evidence that the burnt detritus may have been largely removed from a site before construction of a monument began.
- The presence of Beaker sherds in what appears to be a primary stratigraphic context at Tomnaverie resonates with similar discoveries that have been made elsewhere, but under less secure circumstances. The application of Bayesian statistics to the radiocarbon assays at Tomnaverie have helped contextualise the monument within a period where such finds are less of an anomaly, but our understanding of the social dynamics that led to Early Bronze Age communities building these extraordinary structures remains very poor.
- The fragment of daub found outside the central pit is unexplained. It may be from a wattle and daub structure that stood nearby, or a fragment of an artefact.
- Far too little is known of the pattern of associated settlement or the people who lived in the monument's neighbourhood during the Early Bronze Age. Equally, too little is known as to how this pattern may have evolved over the years.

- Tomnaverie occupies a fine site with outstanding views in all directions. It would be surprising if traces of earlier and later funerary activities were not to be found nearby. Indeed, the excavations at **Loanhead of Daviot**, Waulkmill and a number of other stone circles in the North-East show that such rings are unlikely to have remained isolated monuments, however far removed they may have initially been from settlements. It is possible that remote sensing or some other non-invasive methods of prospection will have a contribution to make towards resolving this question at Tomnaverie in the future.
- There is little idea of people's attitude to the monument over long expanses of time. Traces of Late Bronze Age activity are present, but beyond the fact that they seem to have rekindled pyres, contemporary communities' attitudes to recumbent stone circles are not well understood. There is no trace of further activity until the 16th–17th century AD.
- The historical context of the pit excavated at the centre of the monument in the 16th/17th century AD is not understood.
- It is unclear whether a search has been made for any documents or estate maps predating the early 1790s. These might throw light upon the decay of the monument and early patterns of land use in the vicinity of the ring.
- It should not be impossible to put together a detailed history of the quarry, which at one time threatened the very existence of the monument. The paperwork may already have been lost, but if not, it should be examined and edited for publication.
- A formal assessment of contemporary values of the site to local communities and communities of interest is needed to fully understand the significance of the site to today's visitors and communities.

4. ASSOCIATED PROPERTIES

Associated properties managed by HES:

- **Loanhead of Daviot** (recumbent stone circle, Aberdeenshire): subject of an excavation that was conducted to the highest standards of its time (the 1930s) and the findings made on that occasion still remain of great importance.
- **East Aquhorthies** (recumbent stone circle, Aberdeenshire): unexcavated.

While both sites share similarities with Tomnaverie, all three are quite distinctive and perhaps tell a slightly different story.

Other associated properties include:

- **Cullerlie** (stone circle, Aberdeenshire)
- **Cairns of Memsie** (cairns, cinerary urn, sword, unidentified flint, Aberdeenshire)
- **Machrie Moor stone circles** (stone circles, North Ayrshire)
- **Calanais Standing Stones** (chambered cairn, stone circle, stone row, avenue, Western Isles)
- **Ring of Brodgar** (henge, rune inscribed stone, stone circle, Orkney Islands)

Recumbent stone circles also have strong affinities with the Clava passage graves and Clava ring-cairns:

- **Balnuaran of Clava** (chambered cairn, cup-and-ring-marked stones, stone circle, Highland)
- **Corrimony** (chambered cairn, stone circle, Highland)

In addition, all of these monuments share characteristics with others throughout the British Isles.

Associated people
Frederick Coles; James Ritchie; Alexander Ogston; Alexander Keiller; Aubrey Burl; Clive Ruggles; and Richard Bradley

Each of these individuals made a major contribution to our understanding of Tomnaverie and also to recumbent stone circles in general.

5. KEYWORDS

Tomnaverie, Aikey Brae; Balnuaran of Clava; Bronze Age; Cairn; Corrimony; Cothiemuir Wood; Diffusionist; Druid; East Aquhorthies; Early Bronze Age; Flankers, Guardianship; Late Bronze Age; Loanhead of Daviot; Neolithic; Orthostat; Radiocarbon; Recumbent Setting, Recumbent Stone, Recumbent Stone Circle; Ring-Cairn; Solstice; Royal Observer Corps; ROC; observer post; bunker; Cold War; Tarland.

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Further Resources

Canmore ID: 17006
Site Number: NJ40SE 1
NGR: NJ 4865 0349

Canmore entry: https://canmore.org.uk/site/17006/tomnaverie

Scheduling Description: SM90303, details accessible at:
https://portal.historicenvironment.scot/designation/SM90303

Artefacts from Richard Bradley's excavations were deposited with the University of Aberdeen Museum Collections. Details of which can be searched at:
https://calm.abdn.ac.uk/museums/default.aspx

Images of the site may be viewed on SCRAN:
https://www.scran.ac.uk/database/results.php?PHPSESSID=ejcj2t42s2vndp0id9macolll2&QUICKSEARCH=1&search_term=tomnaverie+stone+circle

APPENDICES

APPENDIX 1: TOMNAVERIE: AN OVERVIEW OF ITS INVESTIGATION AND IMPACT SINCE THE 18TH CENTURY

The notion that recumbent stone circles were religious buildings was already current by the early 16th century, but it was only towards the end of the 17th century that they began to become associated with the Druids.[86] It is therefore no surprise then that the earliest account of Tomnaverie identified it as a ruined Druidical temple 'where there is nothing to be seen but a few large stones, some of them standing upright, others fallen down, without any appearance of figure or inscription'. Alexander Robertson, the minister of Coull who penned this description in 1792, confidently interpreted the possibly corrupt Gaelic name of the ridge, 'Tamnovric', as 'the Hill of Worship', but offered no supporting evidence.[87] Not everyone wholly accepted this translation and almost fifty years later the Reverend William Campbell, a successor, volunteered a corrective – 'Tom-na-hivrigh' – explaining the name as meaning 'the hill of worship or justice'.[88] In contrast, the Reverends Andrew and James Watson, Campbell's contemporaries in the parish of Tarland and Migvie, introduced its Anglicisation, 'Tomnaverie', with the suggestion that the name meant 'the hill of truth, or worship, or judiciary trial'.[89] Local pride can perhaps be detected in their account, as they describe the monument as a 'distinguished Druidical Temple, containing two circles formed of large erect stones, at short intervals, from 4 to 5 feet in height, 3 broad, and 2 feet thick'.

As was so often the case, reference to an antiquity in the Statistical Accounts caught the attention of those further afield. John Stuart, the Secretary of the Spalding Club, was one apparent visitor who made a tour of Cromar in the early 1850s. Although he refers to the monument 'at the eastern termination of the ridge . . . called Tomnaverie', his paltry note adds nothing to the Watsons' account and indeed introduced some confusion.[90] However, there can be no doubt that he was interested in such remains, for he not only listed other stone circles in the Howe, but within two years was to initiate the first planned and rigorously conducted campaign of excavations at several recumbent stone circles elsewhere. The results would lead directly to the development of the sepulchral hypothesis, which was to combat the Druidical interpretation of these monuments for the remainder of the century.[91]

If Stuart's encounter with this recumbent stone circle was minimal, Colonel Jonathan Forbes Leslie, a keen student of prehistoric monuments, was a more engaged visitor.[92] He was particularly interested in the place name, because he recognised

[86] Boece 1527; Camden 1695; Hunter 2001.
[87] Robertson 1792, 201.
[88] Campbell 1845, 958; Leslie 1866, I, 193. He must have known that courts had been held at some stone circles, as occurred at Huntly and Old Rayne. Welfare 2011, 521, 434.
[89] Watson and Watson 1845, 842.
[90] Stuart 1854, 260; as Coles later complained (Coles 1905, 209, ftn. 5), Stuart's description that 'the remains of two circles of large erect stones' were to be seen at the 'eastern' termination of the ridge, is ambiguous at best. It must be an open question as to whether he had actually visited the site.
[91] Stuart 1856 xiii, xxi-xxiii; Welfare 2011, 6, 137, 138.
[92] Leslie 1866, I, 192-4.

that those that were generally attached to stone circles were patently late, their original names having been lost. He believed 'Tomnaverie' might be a rare exception, but although he considered Robertson's translation – 'the Hill of Worship' – might be feasible, he was unclear as to how he had derived the second element.[93] As for the monument itself, he is the first known observer to indicate that it included a 'recumbent altar-stone', which he described as 'placed between two of the upright stones'. At first sight this might suggest that the flankers had yet to fall, but he knew recumbent stone circles well and is likely restoring this detail.[94] Leslie was the first to take some key measurements, finding the recumbent to be about 10ft 6ins (3.2m) in length, while the overall diameter of the ring was about 50ft (15m) in diameter. He had less to say of the interior of the ring, but noted 'several low concentric walls' (i.e. lengths of kerb). He also commented that it lay to the west of a small circular enclosure, which was at risk from destruction by the quarry already active nearby.

William, the Second Earl of Aberdeen, had purchased the Cromar Estate between 1729–1733,[95] but no map showing the ring in either the 18th century or early 19th century has as yet been located. The earliest presently known is that prepared by the Ordnance Survey in 1865–6, which shows that the quarry in rough ground to the north-west of the ring then measured about 70ft (21m) from north to south by about 45 foot (14m) transversely, while still distanced by perhaps as much as 30ft (9m) from the monument.[96] Five stones were standing, but the recumbent setting had almost certainly already collapsed.[97] Indeed, the monument appears to have attained almost its final form before the recent programme of restoration, except the possibly broken stump on the north-north-east (10)[98] had yet to be recognised as an orthostat, while that on the west-north-west (13) still remained upright. The site was initially misnamed 'Tomnayerie' on the 1st edition of the 6-inch map.[99] but this was corrected to 'Tomnaverie' on later editions. Unlike some other recumbent stone circles, it was not denoted a 'Druidical Temple', as an order issued on 10 December 1864 by Colonel Henry James, the Survey's Director General, had instructed that any reference to Druids should be struck from annotations on the maps.[100] Instead, it was described as a 'Stone Circle'. By the time the 2nd edition of the OS map was published,[101] the eastern edge of the quarry had approached dangerously close to the west-north-west orthostat (13).

James Ritchie of Port Elphinstone captured the earliest known photographs of the bracken and broom-grown monument in July 1904;[102] and soon afterwards Frederick

[93] Leslie offered three alternatives: 'vaire' meaning 'fate', 'vrradh' meaning 'power' and 'vrram' meaning 'reverence'; Macdonald 1951, 330 defines 'Tom' as a knoll; there is a possibility that the third element is a corruption of 'aodhaire', meaning 'shepherd', which means the 'Shepherd's Knoll'.
[94] The date of Leslie's visit is unknown, but the OS completed their survey of the area in the year his book was published. The OS generally omitted fallen stones from their representations of stone circles and frequently this included the recumbent, as at Tomnaverie (see below).
[95] Gordon 1985, 193.
[96] OS 25-in Aberdeenshire 1899, Sheet LXXXIV.4.
[97] OSNB, Aberdeenshire 16, 34; it was a convention not to show fallen stones and this often included the recumbent.
[98] To see location and numbers of orthostats, see figure 2 of this report.
[99] OS 6-in Aberdeenshire 1870, Sheet LXXXI.
[100] OSNB, Aberdeenshire 27, 31.
[101] OS 25-in Aberdeenshire 1902, Sheet LXXXI.NE.
[102] HES (Society of Antiquaries of Scotland Collection) SC680008, SC679135. Digitised copies of images available to view online on Canmore: SC679135 - General view of stone circle from the east

Coles took the first detailed archaeological plan, as part of a project overseen by the predecessor body of the National Museum of Scotland that was focussed upon the stone circles of north-eastern Scotland.[103]

Figure 14: Ritchie's photograph of 1904 shows the reconfigured kerbstones of the cairn to the right of the fallen east flanker, the collapsed recumbent and the west north west stone (13) upstanding beyond the post and rail fence delimiting the quarry. SC680008 © Courtesy of HES (Society of Antiquaries of Scotland Collection) Reproduced with kind permission of the Society of Antiquaries of Scotland.

Despite severe difficulties caused by the vegetation, he was able to depict the upstanding stones of the ring, the probable positions of those that had fallen and those he believed to be missing. He was clearly concerned that the quarry to the west approached to within 3 feet (1m) of the monument, but like any competent civil servant of the time, he simply described this as a fact.[104] He also plotted the stones peeping through the turf within the ring's interior, but his plan contains serious errors. One consequence of this was his identification of a broad central court. He was undoubtedly influenced by similar settings he had seen elsewhere, but this interpretation swayed that of all those who subsequently evaluated the evidence; and this error of perception was only discovered when the monument was excavated at the turn of the millennium.[105] His description, which was accompanied by a sketch taken from much the same angle as Ritchie's photograph, was the most detailed that

(canmore.org.uk); and: SC680008 - View of circle from the south-east (canmore.org.uk) (both accessed: 18 May 2022).

[103] Coles 1905, 208-213.

[104] Ogston 1931, 93, writing before 1916, notes that further damage was averted by the intervention of the proprietor, Lord Aberdeen.

[105] Bradley 2005, 12.

had yet been published. It noted the geology and colour of the ring-stones, their size and physical characteristics, while observing that the recumbent setting and all the orthostats lay on the circumference of a circle some 56ft (17m) in diameter.

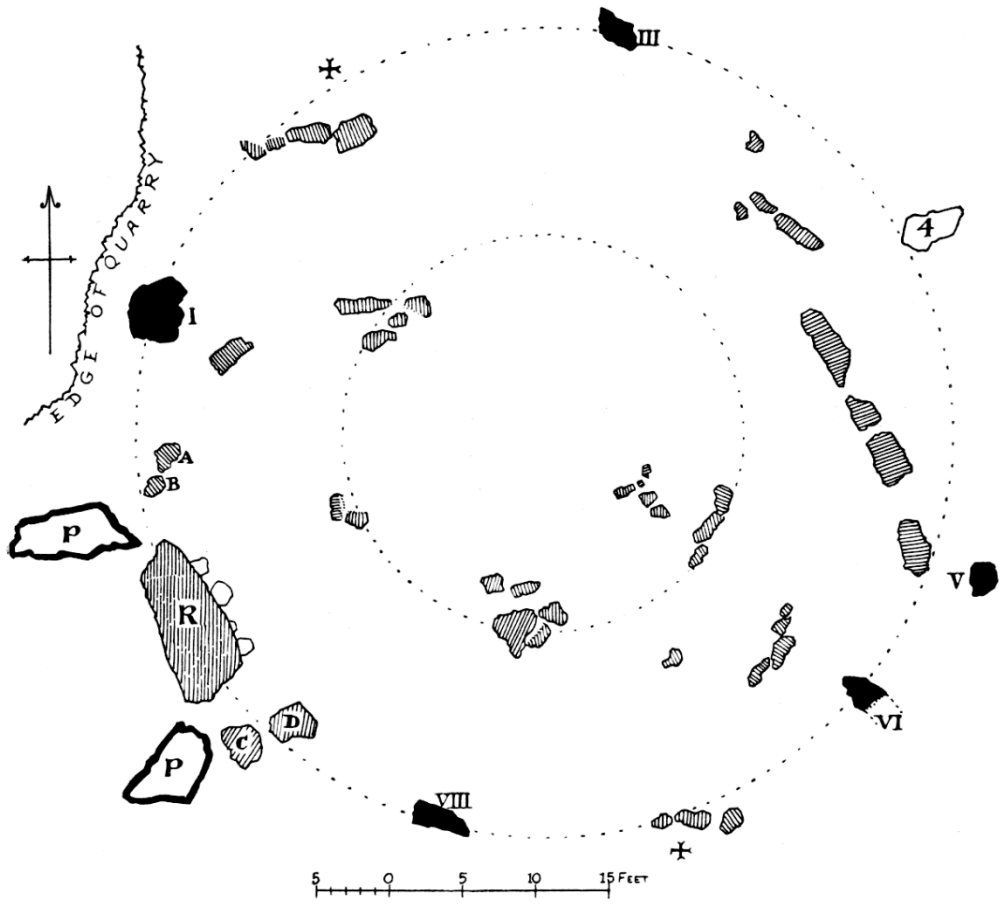

Figure 15: Coles' Plan taken in 1904. SC2146293 © Courtesy of HES (Society of Antiquaries of Scotland Collection) Reproduced with kind permission of the Society of Antiquaries of Scotland.

The recumbent stone especially intrigued him. He recognised not only that it had fallen backwards into the ring, but also that its orientation was the most westerly he had so far encountered. In addition, he identified the west flanker as the larger of the two and was greatly impressed by the size of the kerbstones behind both it and its companion. However, he did not identify the stone (10) on the north-north-east as an orthostat, although he plotted it nonetheless; and he did not perceive that an orthostat was missing on the east-north-east arc of the ring (8). In addition, he was mistaken in supposing that the run of three kerbstones to the north of a missing orthostat on the south-east (5) might be its broken remnants.

Little had changed by c.1910, when an unattributed photograph (figure 16) captured the whole of the ring with a wide-angle lens from the east-south-east.[106] Even so, the recumbent setting is difficult to discern on account of the slope and the vegetation, although the top of the recumbent itself can just be made out. However, the real importance of the image is that this is the final picture of the west-south-west orthostat (13), for it had disappeared by the end of July 1911, when Sir Alexander

[106] HES, AB 2795. Digitised copy of image available to view online on Canmore: SC1200537 - General view (canmore.org.uk) (accessed 26 January 2023).

Ogston set about making a new plan.[107] Rumour had it that it had been 'built into the wall of a tradesman's house' in Tarland.[108]

Figure 16: The unattributed photo taken from the east-south-east (c.1910) SC1200537 © Courtesy of HES

Ogston's take on the monument differed from Coles', who while always slightly reticent as to the function of recumbent stone circles, accepted the sepulchral hypothesis. The latter's suggestion that the place name might be translated as 'The Mound of the Yew Wood' was regarded as implausible by Ogston,[109] who instead preferred to believe the earlier notion that the name preserved the traditional link with religion. Although the plan he made of the monument is the more accurate, Ogston's understanding of its architecture was equally compromised. He was convinced that the stone circle had originally comprised thirteen stones, recognising amongst this

[107] Ogston 1931, 92-5.
[108] James Ritchie reported to the Society of Antiquaries of Scotland in 1917 that 'it was undermined and fell, and has now disappeared'. There is nothing to indicate that it had necessarily fallen into the quarry (Welfare 2011, 476). The stone identified by Bradley is not fully exposed (Bradley 2005, 24), but measures 0.8m in length and 0.5m transversely. It is perhaps more likely to be a kerbstone. Current thinking locally is that the stolen orthostat was taken to a house in Melgum Road, Tarland.
[109] Coles 1905, 213, ftn.1: 'Tom-na-h'iubhraicht'; Ogston misquotes this as 'Mount of Yew-Wood', while Grinsell, uncertainly offers 'the hill of the yew tree' (Grinsell, 1978, 211).

total the three making up the recumbent setting[110] and a further eight orthostats.[111] The orthostat (10) on the north-north-east was correctly identified, but two of the kerbstones on the west side of the cairn were supposedly others. He also failed to understand that the orthostat apparently removed by the tradesman (13) had formed part of the ring; and on account of this he was forced to conclude that the monument had not been circular. In addition to these misapprehensions, neither his plan nor his text make plain where he thought his two missing stones were situated. However, his depiction of the runs of kerbstone at the edge of the cairn far exceeded Coles' effort and although he could not have distinguished the platform on account of the vegetation, his hachures are a creditable attempt to represent the shape and limits of the stonework concealed beneath the turf.

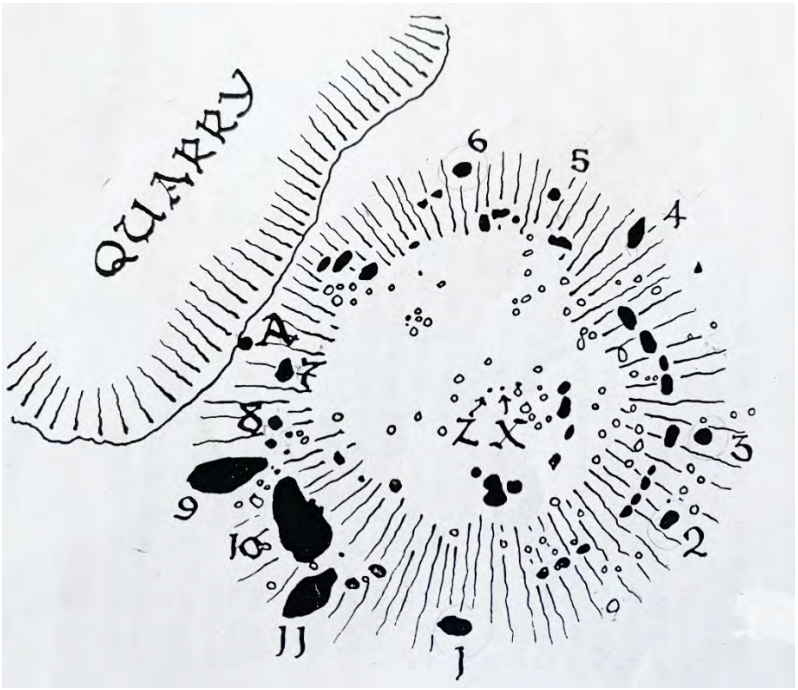

Figure 17: Ogston's Plan taken in 1911

Ogston was aware of Sir Normal Lockyer's studies into the orientation of recumbent stones and the possibility that they might be directed towards a celestial target. Tomnaverie had been excluded from this research almost certainly because it lay too far from Aberdeen where Lockyer was staying, but Ogston was prepared to make good this deficiency. He calculated that the recumbent stone faced towards the rising sun at midwinter and that a line drawn at right angles from the centre of the recumbent northwards pointed to the midsummer sunrise. He also found possible alignments to Arcturus and Capella but seems to have been unimpressed by these. Further bearings taken from the centre over the surviving ring stones to the peaks on the horizon were found to have no astronomical significance. Nevertheless, he was

[110] He thought the recumbent setting had probably never stood upright on account of the symmetry of the three stones as spread on the ground. It is uncertain whether he was correct in supposing that the recumbent had been readied for splitting by prising it up on to blocks, but the possible decapitation of the north-north-east orthostat (10), the discovery of wedge marks in Bradley's excavation (Bradley 2005, 17) and the loss of the west-south-west orthostat indicates that some may have seen the monument as an easy source of stone.

[111] Mistakenly, he seems to have counted the north-east stone as upright (9), although it had fallen before Coles had undertaken his survey.

satisfied with what he had discovered, especially as observations made on the morning of the midsummer solstice the following year confirmed that the sun rose above the fallen stone (9) in the north-east arc just as he had anticipated. This was of great general interest and was repeated in an article in the Aberdeen Press and Journal more than a decade later advertising a Deeside Field Club excursion.[112] Those who joined the group would first inspect Alexander Marshal Mackenzie's excavations at Coull Castle, before moving on to Tomnaverie where Ogston was 'to explain the features of the fine stone circle' and its 'careful orientation'. After that they were to pay a visit to the House of Cromar for tea where they were to be guests of the Marquis and Marchioness of Aberdeen. Two hundred and thirty people took part in the excursion travelling by train, omnibus charabanc and private car.[113] In the event, Ogston was unable to attend, but Alexander Macdonald (schoolmaster at Durris and the friend of both Coles and Ritchie) stepped in to read his notes. Amongst other things the assembled throng learned was that it was Lord Aberdeen, the president of their club, who had stepped in to save the recumbent stone circle from certain destruction by the quarry.

However, it was not necessary to be a member of a field club to enjoy the delights of Tomnaverie. It had been a well-known viewpoint for years[114] and there is a happy portrait of three members of a family from Tarland, dressed in their Sunday Best, standing atop and beside the east orthostat (7).[115]

Although Ogston had been born in Aberdeen, he could style himself a local, as he had bought the small estate of Glendavon in 1889, some 4 miles south-west of Tarland. Similarly, Alexander Keiller was equally fond of the district. He had found recumbent stone circles fascinating as a boy when holidaying at Craigendarroch, the family's country retreat near Ballater.[116] However, it was not until the early 1920s, when he was over thirty, that he embarked upon a serious survey of the district's megalithic monuments. In its early stages he did not have access to surveying instruments and so in the autumn of 1923, he took only general notes and sketches of the stones at Tomnaverie to accompany a series of measurements.[117] He identified only four of the ring-stones as standing – the same as those recognised by Coles – with the exception of the stolen stone (13). He was confident that the recumbent had fallen inwards and the flankers had fallen outwards and he noted the presence of the internal cairn. He also jotted down that the monument was in a 'bad state of repair', which he attributed to the proximity of the quarry. He became immediately aware of a renewed threat from this quarter when he returned to plan the remains in 1926 and discovered that the western flanker had been dragged away

[112] Aberdeen Press and Journal, Friday 8 September 1922, 4, col. h.
[113] The Aberdeen Daily Journal, Monday 11 September 1922, 3, col. a.
[114] There is an undated photograph from the second half of the 19th century by George Washington Wilson, which is taken from the edge of the quarry looking over the fields to Tarland (University of Aberdeen Photographic Collections: Tarland. 14,412 G.W.W.).
[115] Archive of the Cromar History Group 10331 (Metal Shelf 2, Box 13); they are believed to be members of one of the Calder families in Tarland. On a more sombre note, the Reverend William Low, minister of Tarland, had suggested in 1918, after a service to commemorate the start of the First World War, that 'a simple stone monument . . . might be placed on the little hill beside the quarry on . . . the eminence known as Tomnaverie'. In the event, the war memorial was built in the village square: Aberdeen Press and Journal, Monday 5 August 1918, 5, col. c; Welfare 2014, 105. Ogston was one, amongst many, who had lost a son.
[116] Murray 1999, 13.
[117] HES Archives MS 106/29.

from where it had lain.[118] It seems that the danger was averted, 'but', he wrote, 'whether this was due to the hectic riot which I created in the quarry last summer or to the subsequent scheduling neither matters nor can be decided.' He also complained at the thickness of the broom, which rendered the resurvey of the ring for his projected monograph, *The Megalithic Monuments of North-East Scotland*, quite impossible.

It seems that the intention had been to schedule the monument in 1925 along with a number of others, but owing to some confusion, this did not occur until 31 May 1927.[119] However, as Keiller argued, scheduling alone would not necessarily protect the monument unless the information as to the workings of the Act of Parliament was circulated to owners and tenants alike. In addition, he also advocated a system of regular inspection to make sure all remained in order. The quarry was operated under the authority of the Deeside District Committee and in due course they received an order from the Secretary of the Office of Works alerting them to the fact that Tomnaverie had been scheduled and that they required 'one month's notice should there be any intention of removing or demolishing the monument'.[120] The Clerk informed the Committee that he had communicated this information to the factor of the Haddo Estate, who had replied that Lord Aberdeen was concerned about the monument, 'which had been considerably endangered by the operations of the District Committee'. At Lord Aberdeen's suggestion a surveyor was appointed, who confirmed that the monument had been endangered by the Committee's operations over many years, but that there was neither a notice board to indicate its presence, nor a fence to delimit it and that it was also covered by broom. He suggested that if it was to be preserved, it would be necessary to build a retaining wall, as weathering would eventually undermine the monument. The final outcome of these discussions was that the Committee agreed to build up the face of the quarry, while Lord Aberdeen consented to erect a new fence, while also granting Guardianship of the stone circle to the Office of Works – an offer that was formally accepted on 23 September 1930.[121]

There seems little doubt that Keiller's strident, but effective advocacy was an important element in alleviating the threat to Tomnaverie; but curiously, when he came hurriedly to write his monograph, he entirely forgot to mention the monument.[122] There seems no doubt that he felt under pressure to deliver his analysis of recumbent stone circles in the light of the excavations conducted by Gordon Childe at Old Keig and by Howard Kilbride-Jones at **Loanhead of Daviot**.[123] Indeed, the findings elicited from both were to influence the interpretation of recumbent stone circles for the remainder of the 20th century.

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[118] Keiller 1927, 16.
[119] SM90303; scheduling documents are accessible at: www.portal.historicenvironment.scot/designation/SM90303 (accessed: 18 May 2022). Keiller believed the legislation had been effected in 1926.
[120] Aberdeen Press and Journal, 12 November 1928, 5, col. e.
[121] Aberdeen Press and Journal, Monday 11 March 1929, 2, col. c; NRS 1927-30, MW 1/619.
[122] Keiller 1934; Welfare 2011, 222; the Classicist, Hadrian Allcroft, had proffered a synthesis in 1927, based upon published materials alone. This had briefly mentioned that Tomnaverie shared with Tillyfourie an internal kerb (Allcroft 1927, 145), but Coles' language did not clearly convey that this formed part of an internal cairn (Coles 39, 203-8). Keiller did not think much of this analysis or its conclusions (Keiller 1934, 21-2; Welfare 2011, 220).
[123] Childe 1933; Childe 1934; Kilbride-Jones 1935.

Old Keig was a severely shattered monument that had been badly disturbed in the Late Bronze Age and again when it was squeezed into a shelter-belt during the Improvements of the late 18th – early 19th century. Although built on a much larger scale, it shares many features with Tomnaverie and also plausibly the same sequence of construction.[124] Childe noted evidence for burning on the subsoil and one Beaker sherd was recovered. However, the plethora of Late Bronze Age plain wares (interpreted as Iron Age at the time) and their incidence in what appeared to be primary contexts, persuaded him that the monument should be attributable to the Iron Age.

Kilbride-Jones also found evidence for burning associated with cremated bone at **Loanhead of Daviot**, which he believed resulted from funerary pyres predating the erection of the cairn. Moreover, he also located Beaker sherds in potentially early contexts, which, amongst other considerations, led him to conclude that the recumbent stone circle was Early Bronze Age in date, while the internal cairn was later. He paid particular attention to the stratigraphic context of the recumbent stone. This convinced him that it had been introduced at a relatively early stage in the sequence of construction.[125]

No further developments occurred at Tomnaverie during the 1930s-40s, but a postcard published by Valentine and Sons in 1947 indicates that it continued to be a popular local amenity.[126] In the early 1950s a brief description of it appeared in the Ministry of Works' Illustrated Guide to the Ancient Monuments of Scotland written by Gordon Childe and Douglas Simpson, but the account on recumbent stone circles was largely devoted to Old Keig and **Loanhead of Daviot**.[127] A photograph taken from the quarry floor in 1955 (figure 18) shows the fence erected by Lord Aberdeen, the enclosure erected by the Ministry of Works and the revetment wall built by the council above the badly eroding quarry face.[128]

[124] Bradley *et al* 2002, 847-8; Bradley 2005, 100-1; Welfare 2011, 422-7.
[125] Thus, contrary to the sequence Bradley observed at Tomnaverie, Cothiemuir Wood and Aikey Brae; Bradley 2005, 100-2; Welfare 2011, 385-91.
[126] Captioned 'Morven from Tomnaverie Stone Circle, Tarland', the view looks over the east kerbstones behind the fallen east flanker and part of the recumbent to Morven rising loftily in the background. University of St Andrews Library and Museums Special Collections JV-B-416.
[127] Childe and Simpson 1952; 1954 (2nd edition), 33; **East Aquhorthies** was also briefly described.
[128] HES Historic Scotland Photographic Library SC2080057. Digitised copy of image available to view online on Canmore: SC2080057 - Tomnaverie Stone Circle Coull, Aberdeenshire General View (canmore.org.uk) (accessed 26 January 2023).

Figure 18: The quarry face south of the recumbent stone circle in 1955 SC 2080057 © Crown Copyright: HES

Another phase of fieldwork was introduced in 1955, when Alexander Thom took a new survey of the recumbent stone circle.[129] This was the most accurate to date and, stone for stone, bears comparison with any made since (figure 19). However, he was not concerned to plot the relocated west flanker and like others before him he failed to recognise the stone on the north-north-east (10) as an orthostat. He planned all the kerbstones but was not overly interested in the cairn and the platform, as his real focus lay in the orientation of the monument and what this might contribute to his archaeoastronomical studies. Unlike earlier researchers, he took his measurements from the centre of the ring across the midpoint of the recumbent stone. This yielded a reading of 235º – an azimuth for which he could find no clear astronomical alignment.[130]

[129] Thom 1967, 136 (B2/9); Thom, Thom and Burl 1980, 210-11; Ferguson 1988, 66, Plan is also held at HES Archives DC4411.
[130] Burl 1980, 194, 199.

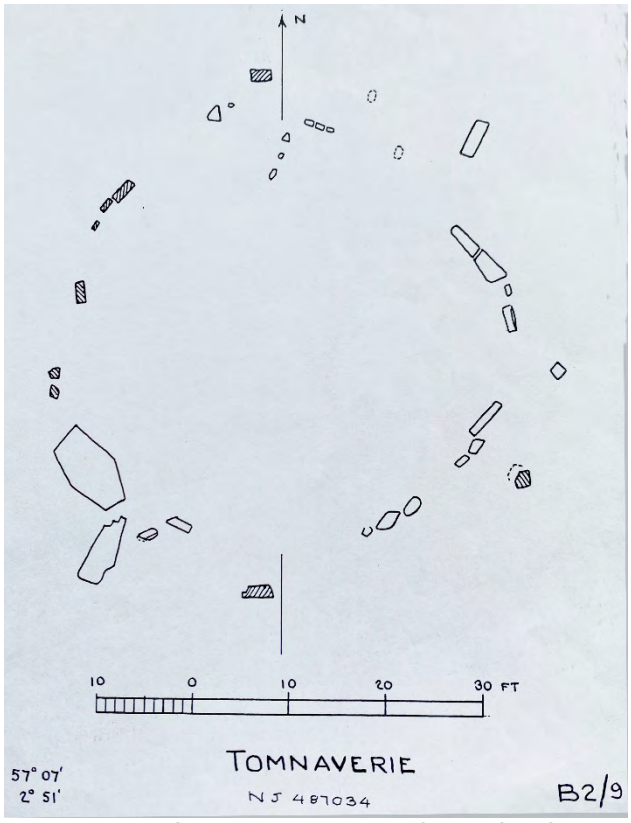

Figure 19: Alexander Thom's Survey of 1955. © Courtesy of HES (Professor Alexander Thom Collection)

A brief note about the recumbent stone circle appeared in Richard Feacham's guide to the prehistoric sites of Scotland in 1963, but this added nothing new.[131] However, Richard Little, an archaeological field investigator with the Ordnance Survey, visiting the site five years later as part of the general map revision programme, confirmed Ogston's identification of the north-north-east stone (10) as a genuine orthostat.[132]

No major synthesis on recumbent stone circles had appeared since Keiller's hasty effort of 1934, but this deficiency was addressed in 1970 when Aubrey Burl published a detailed analysis of their characteristics.[133] This included data from Tomnaverie, which he calculated belonged to his typological Phase IIA: monuments that comprised features both early and late. Burl interpreted the distribution of the recumbent stone circles through a diffusionist prism and believed that their floruit lay between c.1800–1500 BC. He recognised that they were often associated with cremation, which he understood took place within the stone circles before the construction of any internal cairn.[134] However, he thought cremation might not be their only function and that they might have had a broader ritual importance. He seems to have recognised that the orientation of Tomnaverie pointed unusually far west, but having considered their wide variation generally, concluded they were astronomically meaningless.

[131] Feacham 1963, 39.
[132] Ordnance Survey Record Card NJ40SE 1.
[133] Burl 1970, 60, 61 ftn, 79.
[134] Burl 1973, 47 characterises this as a 'definite ring-cairn', as does Kenworthy 1973, 29.

When Burl returned to the subject two years later in a substantial study of the stone circles throughout the British Isles, he used the siting of Tomnaverie, 'battered and wire fenced alongside a gorse-grown quarry', to contrast with the general low-lying situations that were occupied by the Clava-type Cairns.[135] As Tomnaverie was approximately circular, he thought it probable that its plan had been laid out using a central stake and a rope. He also accepted that it enclosed a ring-cairn and that this was linked to the stone circle by what he termed a 'platform' – the space defined by the extruded kerbstones between the rear of the recumbent setting and the cairn. That same year he published a paper that explored the capacity for numeracy in Neolithic and Bronze Age Britain.[136] He examined 26 recumbent stone circles and noted how they were often delimited by an even number of stones arranged in opposing pairs. Where the number was odd, as at Tomnaverie (the only monument he calculated as having had 13 stones), he maintained that this could reflect a wish to establish a location opposite the recumbent, in order to facilitate archaeoastronomical observations across the ring's axis. Burl had also begun to excavate at Berrybrae, a Buchan ring in the northern part of the recumbent stone circle distribution.[137] Burnt bones and a typologically late Beaker were located within the interior. This vessel was found in association with charcoal that supplied an Early Bronze Age date – albeit one he considered recent for this kind of monument. Four years later he was invited to excavate Strichen House, another Buchan ring, which again produced traces of burning on the subsoil and at least one Beaker sherd from a potentially early context.[138]

A boost to the profile of the monument was provided by a new guidebook from Ian Shepherd and Ian Ralston at the end of the 1970s, when it was described along with nine other recumbent stone circles.[139] Shepherd and Ralston were local professionals, but their selection was also made with the help of the Grampian Regional Archaeological Committee, and three criteria informed this: the monument should be representative of prehistory in the North-East, it should be a good example of its type and it should also be able to withstand visitor pressure.[140]

Meanwhile, Burl was becoming more and more fascinated by the orientations of recumbent stone circles and what significance this might hold. The influence of Thom's work and his ideas about a sophisticated elite with a sophisticated knowledge of astronomy and geometry had grown substantially over the previous decade and had become again a topic of great public interest. They disrupted then current perspectives on the nature of early prehistoric societies.

Burl had dismissed the recumbent stone circle orientations as astronomically meaningless a decade earlier, holding out for an explanation that emphasised their symbolic significance, but now he re-examined the data in the hope of finding a satisfactory explanation.[141] Recumbent stone circles, as a class, provided a reasonable sample, which might well provide duplicate alignments and so clarify the

[135] Burl 1976a, 170,175, 353.
[136] Burl 1976b, 32.
[137] Burl 1975, 7; 1976c, 6; 1977, 4-5 (c.1750 BC); Buchan rings are a regionally distinctive form of recumbent stone circle; the excavation is essentially unpublished.
[138] Burl 1979, 77; Phillips, Hampshire-Monk and Abramson 2006, 116, 125, 129-30.
[139] Shepherd and Ralston 1979, 15.
[140] Aberdeen Press and Journal, Saturday 5 August 1978, 7.
[141] Burl 1980.

purpose of the orientations. Tomnaverie was one among fifty of the monuments that were sufficiently well preserved to contribute to the analysis; and with the aid of the plans that had been taken by Coles, Keiller, Lockyer and Thom, supplemented by his own evaluations with a compass and an autoranger, he discovered that all their bearings clustered between 155°-235°. This was a range that extended from south-south-east to a point between south-west and west-south-west, with Tomnaverie marking the most westerly of the orientations. Although the risings and settings of no single celestial target fitted these values, Burl argued that the moon tracking across the southern sky embraced the whole of this spectrum. He reinforced this explanation by reference to the location of recumbent stone circles on hillsides with excellent outlooks, the possibility that the graded heights of the stones might represent the wavy lunar transit, the prospect that the cup-marks might be representational, while also arguing that the incidence of white quartz near the recumbent could have been regarded as 'fragments of the moon itself.' The monuments were known to be associated with cremation and death, but now it seemed the moon had performed an important role in the rites and ceremonies enacted within them.

The plan of Tomnaverie, drawn-up from Thom's survey was published the same year as this analysis, along with those of the other recumbent stone circles he had investigated.[142] However, the following year Clive Ruggles began a new, more fastidious programme of fieldwork at these stone circles, as part of a wide-ranging archaeoastronomical study seeking statistically significant trends in the data.[143] Having carefully collected the information he required from Tomnaverie and elsewhere, he was able to analyse the data afresh in the light of an important qualification: there were, in practice, two potentially valid measurements of the orientation, which previous researchers had confused: a centre line azimuth projecting from the centre of the ring through the middle of the recumbent and a perpendicular line azimuth at right angles to the latter's long axis. With the aid of a theodolite he found that the centre line azimuth at Tomnaverie measured 235.5°, a value that differed by only 0.5° from those established from the plans taken by Thom, Ogston and Coles.[144] In sum, the readings from all the recumbent stone circles fell within a band no more than 90° broad centring on the south-south-west. This clustering confirmed that at least a very basic kind of astronomical observation underpinned the orientations. Ruggles also gathered measurements of the azimuths marking the ends of the recumbent and its centre, together with the respective altitudes and declinations of these points.[145] This was the best he could do here, but in those monuments where the flankers had not fallen, he could test whether the 'indicated horizon' – the space between the flankers above the recumbent stone – was of more importance than a simple axial alignment. In the event, his findings confirmed that the orientations extended well beyond the solar arc into the pathways of the moon and its 18-year cycle. Although there was no simple interpretation of the pattern, the majority appeared to be generally related to the southern limit of the

[142] Thom, Thom and Burl 1980; Burl took the opportunity to draw attention to Coles' observations in relation to the colour of the stones at Tomnaverie, so allowing Lynch to quote this in her influential paper (Lynch 1998, 65).
[143] Ruggles 1984.
[144] There was also an unpublished value obtained through fieldwork by Burl of 232°. A value for the perpendicular line azimuth was not obtained.
[145] Ruggles 1984, Table 3.

rising or setting moon over the recumbent stone.[146] The aim might have been to orient these monuments so that the midsummer full moon would shine over the recumbent stone and light up the interior of the ring.[147] Ruggles also noted that prominent landmarks, such as Lochnagar at Tomnaverie, also sometimes appeared within the 'indicated horizon'. These did not relate to any specific astronomical event, although the spread of the declinations again hinted at a possible association with the moon.

John Barnatt and his colleagues were also undertaking detailed and sometimes complex analyses in connection with Thom's claims about the geometry of the rings and the units of measurement that had been used in their setting-out. Tomnaverie was not included in these calculations, but it was recognised that recumbent stone circles were generally much closer to being genuinely circular than other monument types.[148] Nevertheless, Barnatt collected data from the monument for a general analysis to allow comparisons to be made and its salient characteristics were described in a gazetteer.

Despite being a Guardianship site since 1930, Tomnaverie seems not to have been widely known, but this may have been partly because the Howe of Cromar is not a major tourist destination unlike Royal Deeside. Nevertheless, under the still novel heading 'Circles of the Moon', it was one of eleven recumbent stone circles that were briefly described in a new RCAHMS guide by Ian Shepherd in 1986.[149] While the entry stressed the spectacular views south and west and rehearsed the diameters of the circle and the cairn, it also drew the attention of the visitor to the contrasts between the geology and colour of the recumbent and the four upstanding orthostats. Unfortunately, the accompanying photo taken from the north-east failed to reveal the impressive vista. However, in a real sense the description of Tomnaverie and the other recumbent stone circles were ancillary to the introduction, which provided an up-to-date overview of what was known about these monuments. This stressed that they may not necessarily have been built originally for funerary purposes, although cremations and pyre-burning did occur within them. The internal cairns were only later constructed within the rings, 'perhaps many centuries after their erection'. Burl and Ruggles' studies greatly influenced the narrative. The link to the moon was partly explained as a means of defining 'broad seasonal changes', but Shepherd suggested other rituals would also have been performed in the flickering light of bonfires burning into the night. Cup-marks and the presence of quartz simply reinforced the lunar connection. 'They were primarily communal, seasonal ritual centres, some of which were subsequently adapted to cremation burial'. When the guide was reissued in a new format ten years later, only one word of this account was changed.[150]

Shepherd and Ralston's earlier guide had originally been conceived as a self-guided trail, and by the 1990s this idea had been developed by Aberdeen Council and the

[146] Ruggles 1985.
[147] Ruggles 1999, 97-8.
[148] Barnatt 1989, 28, 86, 87, 90, 304; It may have been Barnatt who was responsible for circulating the idea that one of the stones had fallen into the quarry.
[149] Shepherd 1986, 152.
[150] Shepherd 1996, 159.

Aberdeen and Grampian Tourist Board into 'The Stone Circle'.[151] Burl also published a guidebook in the mid-1990s, but this covered the whole of the British Isles and extended to Brittany.[152] Nevertheless, it included entries for twenty-seven Aberdeenshire recumbent stone circles and another four that were to be found in the surrounding counties. Each comprised a brief description of what was known about a particular monument, but his account of Tomnaverie had little new to add as 'its stones are now a jumble and a wreck'. Julian Cope produced another kind of guidebook – an enthusiast's 'pre-millennial odyssey through megalithic Britain', as its sub-title would have it.[153] Cope paid a visit on a sour July afternoon in 1992, when the wind thrusting around the hilltop was gusty and cold. 'This natural, sacred rocky outcrop', he wrote, 'was surmounted by a fine stone circle now horribly overthrown and wretched' – a sentiment that quite possibly articulated what many visitors must have thought if they were unlucky enough to encounter the remains under such woeful conditions. Yet, despite this, the poem he declaimed to the elements on this occasion ends on a redemptive note:

> A strange and pitiful delight,
> To see this place – and still it pleases,
> Turns the wild tornadoes into breezes.

The verses are reproduced beside Ogston's survey, which was still better known then than Thom's revision. However, it is Cope's photograph that provides the most telling comment. The view is from the floor of the quarry looking west towards the monument, but all that can be seen are the weed-grown waste heaps fronting the consolidated quarry edge and just a glimpse of the tumbled recumbent stone.

Burl and Cope's brief accounts were the last to be published before the turn of the millennium. As if in response to the end-times, Ruggles and Burl produced detailed recapitulations of their major studies. Tomnaverie had only ever played a supporting role in these and again no new information was forthcoming.[154] The timing was unfortunate as Burl was unable to take into account a new research programme that had already begun to unfold. This has been characterised as a sequel to that conducted by Richard Bradley and a team from Reading University at the Guardianship site of **Balnuaran of Clava** from 1994-1996.[155] It had long been recognised that the Clava-type cairns and recumbent stone circles shared many architectural elements, but their cultural and chronological relationship remained uncertain. The new project would build upon the approach that Bradley and his team had developed in that campaign, to clarify their character, chronology and structural development. It was planned to completely strip Tomnaverie of its soil and vegetation cover before sampling its stratigraphy at key points. The results were subsequently to be tested against small-scale excavations at Cothiemuir Wood and Aikey Brae - two recumbent stone circles situated further afield that differed in

[151] Shepherd and Ralson 1979. Initially, 'The Stone Circle' comprised an eclectic mix of monuments, but over the years the pamphlets advertising it have gradually come to focus upon the stone circles alone. 'The Stone Circle Trail' includes Tomnaverie as one of the ten best in the region: Aberdeen Council 2015.
[152] Burl 1995, 110; the entry for Tomnaverie in the second edition is unchanged: Burl 2005, 110.
[153] Cope 1998, 53, 93, 394.
[154] Ruggles 1999, 187, 212-13, 214, 216; Burl 2000, 226, 422; Burl does slip in an unreferenced note that dowsing at the monument 'has given hints of an avenue' (225). The dowser was Peter Donaldson, who investigated a number of recumbent stone circles from the late 1990s.
[155] Bradley 1994, 34-5, 1995, 39, 1996, 60-1; Bradley *et al* 2000; Bradley 2005, 4.

certain respects. In addition, it was hoped that the results of the excavation would provide useful information that would inform the redisplay of the monument, while field walking in the surrounding area would throw some much-needed light upon the location of contemporary settlement.[156]

In the autumn of 1998, RCAHMS was asked by Richard Bradley to undertake a new survey of Tomnaverie in advance of the first season of excavation. The plan produced by Ian Parker and Adam Welfare showed every visible stone within the Guardianship enclosure.[157] Additionally, the most important stones were all measured, the contours were mapped, a profile was drawn across the site from east to west and a short report was prepared. This drew attention to the fact that the earthwork appeared to extend over the hilltop and that cup-marks were to be found on the recumbent, two kerbstones and also upon a nearby outcrop to the north-east.[158] Improved access to the site for future visitors was also an important part of the overall project and in the following months, to further this aim, Derek Alexander undertook a walkover survey of the local area during which further cup-marked stones were located.[159]

The first season of excavation commenced in 1999, when the monument unexpectedly proved to be exceptionally well preserved despite the damage to the stone circle that had been recognised for many years.[160] Some important structural details emerged quite clearly, cremated bone was observed at the centre, while charcoal recovered from the old land surface was expected to throw light upon the date when the monument was built. The following year the sequence of construction was resolved and was found to be divided into main two stages. What appeared to be the earliest feature on the site was a low mound of burnt detritus, which derived from a cremation pyre (or pyres) as it included human bone, but this turned out to be Late Bronze Age. This had been set at the centre of a polygonal cairn, which was revetted externally by a platform of rubble that sealed some Beaker sherds. After an interval of unknown length, the monument was completed with the introduction of the stone circle, which was deliberately linked to the cairn through a reconfiguration of the kerbstones behind the recumbent setting.[161] Two pits at the centre of the cairn, resulting from much later disturbances, represented a fourth and fifth phase of activity. Meanwhile, finds made in the course of field walking the enclosures surrounding the monument suggested that it had been situated some distance from contemporary settlements. A third season of excavation was undertaken at Cothiemuir Wood and Aikey Brae in 2001, in order to compare and confirm their structural sequence with that at Tomnaverie.[162]

One of the most important discoveries of the campaign was that the finished monument at Tomnaverie was probably conceived from the outset despite having been built in stages; another was that this sequence might well have also been

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[156] Bradley 2005, ix, xi, 4, 6.
[157] RCAHMS 1998, 108; HES Archives DC44478; digital copy accessible online on Canmore: SC1313272 (canmore.org.uk) (accessed: 26 January 2023).
[158] Like so many before them, the surveyors not only failed to recognize the north-north-east stone as an orthostat (10), but also misconstrued the large stones at the centre of the cairn as the remnants of a central court.
[159] Alexander, D. 1999, 7.
[160] Bradley 1999, 7-8.
[161] Bradley 2000a, 9; Bradley 2000b; Bradley *et al* 2000.
[162] Bradley 2001a, 11; Bradley and Ball 2001, 12; Bradley 2001b.

followed at Old Keig and possibly **Loanhead of Daviot**.[163] In a more reflective paper published in the midst of the project, Bradley used the discoveries he had made at **Balnuaran of Clava** and Tomnaverie to contrast the character of these monuments in order to explore some broader themes: the monuments as expressions of time, their place in the landscape and their relation to the skyscape.[164] At this stage the radiocarbon dates from Tomnaverie had yet to be released, but when these were published it was evident from charcoal retrieved from a pit sealed by the rubble platform directly below the recumbent, that construction of the monument had been initiated during the Early Bronze Age.[165] Other dates supported this, but also confirmed a Late Bronze Age disturbance at the centre and another again at the centre in post medieval times.

At the end of the excavation the fallen stones were re-erected in their sockets and the stone on the quarry floor which was part of the monument was also replaced in the nearest socket, which fitted exactly. A car park was created below the ridge on the north and a simple network of paths was introduced along with new signage.[166] This included an explanatory panel on a low plinth situated just north of the recumbent stone circle, which reproduced a pen and ink drawing by Aaron Watson of a fire burning within the completed ring.[167] The infilling of the quarry accelerated from a slow beginning in 2001 and during this process a watching brief was undertaken by Joseph Murray in 2003, when three hummocks of quarry detritus bordering the stone circle on the south, were removed.[168] The full publication of the excavations (preceded by a busy round of lectures)[169] occurred in 2005.[170] Although Bradley took most of the photographs that were included in the volume, some were taken by Jim Henderson, a local professional photographer, who later posted a whole series of images on the Internet recording the excavation as it progressed.[171]

One question that Bradley and others had considered in the years before the excavation was whether there was a connection between stone circles and their setting – in particular, whether their circularity was related to the surrounding the horizon. Mark Lake and Patricia Woodman decided to explore this at Tomnaverie and eighteen other recumbent stone circles using GIS software to remove the subjective element from the viewsheds they created.[172] The horizon from Tomnaverie was found to be fairly far off, but while it formed a consistent arc to the north, it was made up of different elements at varying distances to the south and south-west. This led to the development of new methods of calculation to quantify the perception of circularity, with the aim of providing archaeologists with a means of conveying this impression a little less subjectively.

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[163] Bradley *et al* 2002, 840-8.
[164] Bradley 2002a, 122-38.
[165] Bradley 2002b, 142-3.
[166] Ewart and Murray 2002, 8-9.
[167] Watson's drawing was made in 2002 and represents a fire in the centre of the monument burning in Late Bronze Age times.
[168] Murray 2003, 16.
[169] Bradley 2003, 11, 12-13.
[170] Bradley 2005; Reviews included Wickham-Jones 2005, 964-7; Brophy 2005, 188-91.
[171] Galleries accessible to view on his website: www.jimhendersonphotography.com/stones (accessed on 10 January 2023).
[172] Lake and Woodman 2003.

If the project at Tomnaverie partly inspired Lake and Woodman's study, another important outcome was that it stimulated the publication of the excavation that Burl had started some thirty years earlier at Strichen House and had then passed on to two of his former students.[173] Although this is classed as another Buchan Ring like Aikey Brae, the report's writers were a little uncertain whether its early evolution explicitly followed the Tomnaverie model, because the construction of the ring-bank and the insertion of the uprights of the stone circle could not be clearly distinguished chronologically.[174]

Parker and Welfare's plan of Tomnaverie taken in 1998 was additional to a field survey that RCAHMS were then undertaking in neighbouring Strath Don. This was concerned with a wide range of field monuments, but it is also where almost half the known recumbent stone circles are situated.[175] The results of the Strath Don research went to press after Bradley's final report was issued and did not inform the discussion of its field archaeology.[176] However, Tomnaverie had provided an opportunity to look further afield and as a consequence, a wider programme of investigation was set in hand by RCAHMS, with the aim of producing a detailed overview of recumbent stone circles as a whole. The results of Bradley's excavation and the new perspectives it offered are threaded through the pages of this later analysis.[177] Apart from a detailed entry in the gazetteer focussing on the remains at Tomnaverie and a brief review of what has been learned about the monument over more than two centuries of study, there are several plans and photographs of the site scattered throughout the text, in addition to numerous references that compare and contrast its various elements to features observed elsewhere. Moreover, a team from the National Museums of Scotland conducted a thorough re-examination of the geology of the stones as part of the project.[178] Their work confirmed that the recumbent, the flankers, the orthostats and the kerbstones of the internal cairn were all Granite-Granodiorites. The admixture in the recumbent included a high quotient of quartz grains, which resulted in it being a slightly paler red than the other stones in the monument. An important element of the overall analysis was the rejection of the idea that the orientations were literal readings centred upon the movements of the moon and instead placed the emphasis on the sun. In addition, the symbolism built into other aspects of their architecture was also stressed.

Over the next decade and a half, Bradley continued to work on stone circles and other prehistoric monuments in the region, with two further excavations taking place at rings in the Howe.[179] Waulkmill (NJ 4753 0499), a stone circle situated in a low-lying field just to the north of Tarland and about 1 mile (2km) south-east of Tomnaverie, had been destroyed in the first half of the 19th century. Nevertheless, its site was located in order to compare and contrast it with Tomnaverie. Hillhead (NJ 5072 0714) conversely, was initially thought to be a round house, but instead turned

[173] Phillips, Hampshire-Monk and Abramson 2006.
[174] However, Welfare has suggested that the heavily compacted, semi-circular spread of clay and rubble on the south-south-east may result from the destruction of the ring-bank immediately prior to the addition of the recumbent setting. If so, this suggests some interval of time elapsed between the construction of these elements (Welfare 2011, 456).
[175] RCAHMS 2007, 59-67.
[176] Bradley 2001b; Bradley 2002a, 122-38; Bradley 2002b, 142-53; Bradley *et al* 2002, 840-8.
[177] Welfare 2011; The Illustrated Gazetteer is available to download for free online: Great Crowns of Stone (historicenvironment.scot) (accessed 26 January 2023).
[178] Miller *et al* 2009: Location 58.
[179] Bradley and Nimura 2016, 2.

out to be a demolished recumbent stone circle enclosing a comparatively well-preserved ring-cairn.[180] This was situated about 2.5 miles (4.2km) north-north-east of Tomnaverie and at a much higher elevation. Neither monument proved to be a replicate of Tomnaverie, but Bradley used all three Cromar rings, together with the Blue Cairn of Ladieswell (NJ 4113 0633),[181] situated 5 miles (8.1km) west-north-west of Tomnaverie, in an analysis comparing and contrasting their characteristics.[182] One aspect of this was an exploration of the social dynamics that perhaps underpinned their variety, which could have been influenced by a geographical component: Tomnaverie and Waulkmill might have been the product of a small number of people living relatively close-by, whereas Hillhead and the Blue Cairn might have been the product of greater numbers possibly living either side of the Howes' watershed.

Tomnaverie has continued to inspire and contribute to other research projects. Garth Watson has noted the intervisibility of Tomnaverie, Lochnagar and Ben Rinnes, in drawing attention again to the prominent hills visible from these monuments;[183] while Liz Henty has taken a fresh approach to the archaeoastronomy, by considering the skyscape from a viewpoint located between the two north-eastern orthostats (8 and 9) situated almost opposite the recumbent setting.[184] Whether one accepts her idea that the recumbent setting monumentalises a single solar and lunar 'crossover' point at the winter solstice, matters less than the fact that it rekindles the discourse about orientations. In a later analysis, Bradley played down the role of the moon in Neolithic and Bronze Age architecture and instead emphasised how solstitial alignments in Early Bronze Age monuments with their stress on the setting sun emphasised darkness as a metaphor for death.[185] Douglas Scott has not only photographed the setting sun over Lochnagar in early November, but has calculated that it will then move to the east flanker by the winter solstice before moving back to centre upon Lochnagar again in early February.[186]

These are the outcomes of studies that have considered largely physical aspects of the monument, whereas Neil Curtis and Neil Wilkin have sought to integrate Tomnaverie and the other recumbent stone circles into their contemporary regional context. Radiocarbon dating is the crucial element in defining this, and through the employment of Bayesian statistics they have suggested that when the two most recent dates of the six obtained by Bradley from the charcoal in the pit underneath the recumbent are combined, the date of its construction is translated from the 25th century BC to the 23rd–22nd century BC.[187] Thus, instead of being constructed before the arrival of Beakers and the first metalwork in the region,[188] Tomnaverie may have been built during a period when these innovations were relatively well established. This would help explain the incidence of the Beaker sherds adjacent to the north-east kerb below the platform of the monument, as well as their occurrence at Berrybrae, Corrie Cairn, **Loanhead of Daviot**, Hillhead, Old Keig, Old Rayne, and

[180] Bradley and Nimura 2016: Waulkmill, 27-55; Hillhead, 7-26; Waulkmill: NJ40SE 4 (Canmore ID 17039); Hillhead: NJ50NW 61 (Canmore ID 138717) (both accessed 26 January 2023).
[181] Welfare 2011, 314-6; Blue Cairn Of Ladieswell: NJ40NW 4 (Canmore ID 17000) (accessed: 26 January 2023).
[182] Bradley and Nimura 2016, 134-40.
[183] Weston 2007, 131-2.
[184] Henty 2014.
[185] Bradley 2016.
[186] Scott and McHardy 2020, 100-2.
[187] Curtis and Wilkin 2012, 242-3.
[188] The Migdale-Marnoch bronze manufacturing tradition.

Strichen House, where most of these sherds materialised from derived or debateable contexts.[189] They also noted that Beakers and recumbent stone circles share a similar regional distribution, while their orientations are also common to many short stone cists.[190] This does not explain their emergence in the North-East or their social context, as Beakers are a widely spread phenomenon throughout Britain and Europe.

The study of Tomnaverie has a long and distinguished history and there is every reason to suppose that the evidence it has supplied will continue to inform and inspire further research well into the future. Bradley was careful to leave much of the stratigraphy intact and there can be little doubt that, at some point, old and new questions alike will lead to the need to revisit this once again. In the same vein, Alison McCaig and Adam Welfare revised the RCAHMS plan in 2015, in order to allow a direct comparison to be made between the features that were visible before the excavation and then after the restoration.[191]

The monument has also long been a resort for visitors, whether local or from further afield. As such it brings individuals to a less explored part of North-East Scotland to the benefit of the local economy. Its future now seems secure – unlike over a century ago, when Frederick Coles and his temporary assistant, Mr John M'Robbie, the tenant of Mill of Wester Coull, crawled through the broom to the very edge of the quarry to make the first detailed plan.

[189] Welfare 2011, 165-6; Bradley 2016, 19, 21.
[190] Curtis and Wilkin 2019, 251-2.
[191] HES Archives SC1766620.

APPENDIX 2: TIMELINE

Neolithic (4300 BC–2500 BC)	Cup-marked stones were located outside the recumbent stone circle during Bradley's excavation work and a cup-mark was recorded on an outcrop 21m north-east of the east orthostat during survey work. These may be as early as the Neolithic, although those carved on the monument may well be contemporary with its construction.
Early Bronze Age (2500 BC–1500 BC)	
2300 BC–2200 BC	Construction of Tomnaverie Stone Circle. This is suggested by Beaker sherds found beneath the platform at the foot of the cairn's kerb and charcoal found in a pit below the recumbent stone which was radiocarbon dated and the date was later refined by Bayesian analysis.
Middle Bronze Age (1500 BC–1200 BC)	A bronze wing-flanged axe of Type Ulrome (c. 1400 BC–1250 BC), said to be from the stone circle at Tomnaverie is now in the collections of Marischal Museum, Aberdeen. Nothing seems to be known of the circumstances that led to its discovery.
Late Bronze Age (1200 BC–700 BC)	Burnt material associated with cremated bone at the centre of the monument dated to c. 1000 BC indicates further activity at the site about one thousand years after the monument was created.
Later 1st millennium BC to the mid-2nd millennium AD	How recumbent stone circles were viewed across subsequent centuries is not well understood, but Tomnaverie seems to have been undisturbed.
Post Medieval Period	
16th or 17th century AD	Final episode of activity detected at the site by recent excavation: A pit was found to have been cut through the deposits at the centre of Tomnaverie, and into the natural soil below. This contained charcoal which was dated to the 16th or 17th century and cremated bone and Late Bronze Age pottery sherds which were derived from earlier deposit that the pit's creation had disturbed. Bradley noted that the charcoal might possibly derive from the use of the hill as a beacon.
16th century	Hector Boece claimed that the country people interpreted the recumbent stone as an altar and that

	they were commonly believed to be ancient temples.[192]
18th–21st century	
1792	Alexander Robertson describes Tomnaviere as a 'Druidical temple'.
1860s	Link with cremation and funeral pyres was being perceived.
Mid-1860s	Tomnaverie is first mapped by the Ordnance Survey.
19th century	Quarry opened to the north-west of the site which later threatened the recumbent setting.
July 1904	James Ritchie of Port Elphinstone captured the earliest known photographs of the bracken and broom-grown monument.
1905	Frederick Cole took the first detailed archaeological plan of the site as part of a project overseen by the predecessor body of the National Museum of Scotland. Cole noted that quarrying had approached perilously close to west of the ring and was threatening to undermine it.
1911	Sir Alexander Ogston took another survey which includes the first archaeoastronomical observations taken on site.
Sometime after 1911	The quarriers seem to have heaved the west flanker off the sloping ramp at the edge of the platform.
1923	Alexander Keiller took sketches and measurements of the individual stones for a projected monograph.
31 May 1927	Tomnaverie was Scheduled as an Ancient Monument.
23 September 1930	After an agreement was reached between the local council, the landowner Lord Aberdeen and other interested parties, the monument was taken into Guardianship to protect it from the encroaching stone quarry.
1930s	Broom was removed and ground re-sown with grass. Thereafter, a sub-rectangular area surrounding the monument was enclosed within a tall wire fence, with a gate on the north, adjacent to its north-east corner.
1950s onwards	Tomnaverie appeared in guidebooks.

[192] Boece 1527, II, xvi.

1950s	A Royal Observer Corps (ROC) post was formed to the south-west of the stone circle.
1955	Alexander Thom took another plan of the monument, as part of his archaeoastronomical and geometrical studies of megalithic sites.
September 1956	It was noted that 'protected accommodation' (that is, underground shelter) would be required for the ROC post. The Scottish Head Quarters in Edinburgh did not object to this proposal.[193]
1960s	Aubrey Burl collected and synthesised the data on all the known recumbent stone circles.
1960	The ROC bunker was completed and taken into operation.[194]
1970s	Popular accounts of Tomnaverie became more readily available.
1991	ROC stand down. The post at Tomnaverie ceases to be in use.
1997	The Cromar History Group approaches HES wishing to promote the improvement of Tomnaverie and make it the focus of better visitor interpretation and facilities for the area.
1999 – 2000	Two seasons of important excavation work were carried out at Tomnaverie under the direction of Professor Richard Bradley.
2000	Following the excavation, the monument was restored for public display.
2000s	Soon after excavation the neighbouring fence was removed to allow the monument to return to a more aesthetically pleasing open environment.
2005	A new Guardianship Agreement was completed. This extended the area in State care beyond the stone circle alone, to include a car park and the Royal Observer Corps Bunker.
2011	RCAHMS published a new overview of recumbent stone circles.
25 April 2017	Last amendment of the schedule which updated the entry in the Schedule as *Tomnaverie, stone circle* to bring it to current documentation standards.

[193] AIR_2_20118 Royal Air Force. [Post] 29: ~~46~~; ~~45~~; 55.
[194] AIR_2_20118 Royal Air Force. [Post] 29: ~~46~~; ~~45~~; 55.