

Medieval Hunting and Wood Management in the Buzzart Dykes Landscape

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Abstract – Whilst research into medieval park landscapes has been limited in Scotland, recent efforts to enhance our understanding of the design, construction, and functions of these structures through archaeological methods have been fruitful. This paper discusses the results of excavations at the site of Buzzart Dykes in Perthshire. As the site lacks historical documentation, little was known about how and when it was constructed and managed. Here we evaluate the modern interpretation of the enclosure as a medieval park used for hunting, and present evidence for additional economic utilizations that revolved around wood management. Excavations of the park bounds and associated longhouse structure clarify the landscape history of Buzzart Dykes, and demonstrate an effective methodology for studying park landscapes in Scotland.

Introduction

Historical and archaeological research into medieval parks in Scotland has severely lacked progress over the last forty years, resulting in a poor understanding of the design and utilization of this significant form of anthropogenic landscape. Classic discussions of medieval parks in Scotland have tended to emphasise the importance of these sites as aristocratic hunting reserves. Such interpretations, though not wrong, have the effect of minimizing the importance of other functions parks served that included secure grazing, wood management, and timber and fuel production. Of the many parks that appear in the extant documentary sources, few are recorded in great detail. The written history of many Scottish parks is nebulous due to the limitations of surviving textual records before the fifteenth and sixteenth centuries. Some are undocumented or have been attributed false histories. In other instances, the original names of some parks have been lost or forgotten. One site plagued by each of these problems is Buzzart Dykes in the council area of Perth and Kinross, located approximately three miles west-northwest of Blairgowrie (Figure 1). Despite the site's enigmatic nature, the roughly rectangular Buzzart Dykes and its surrounding landscape remain remarkably well preserved, retaining nearly three-quarters (Figure 2) of the park's original earthen barrier, a nearby longhouse structure that

may have served as the site's 'hunt hall' during the thirteenth century (Figure 3), and a well-defined section of medieval rig and furrow immediately adjacent to the longhouse's northeast corner.

Parks were large-scale enclosures that ranged in size from less than a hundred to occasionally thousands of acres in area depending on ownership, and were organized and, at times, compartmentalized to achieve a multifunctional landscape utilized for a variety of social and economic activities.¹ Found in both urban (e.g. Holyrood Park) and rural settings (e.g. Kincardine Park), parks were typically associated with an elite residential structure such as a castle or hunt hall, either attached directly or located nearby.² Although parks varied in design from site to site, park barriers typically consisted of an earthen embankment with internal ditch that employed wooden palisades, fences, or hedgerows along the bank's crest to add height.³ Although less common, stonewalls were occasionally employed as the primary barrier, as was the case at Stirling Park.⁴

Although poorly researched in Scotland, parks have been comparatively well studied in England.⁵ While the body of work on English parks is undeniably useful for comparison, it has subsequently fueled assumptions about Scottish parks based on their southern contemporaries

¹ J.M. Gilbert, *Hunting and Hunting Reserves in Medieval Scotland* (Edinburgh: John Donald LTD, 1979): 82; I.D. Rotherham, 'Reinterpreting Wooded Landscapes, Shadow Woods and the Impacts of Grazing. in I.D. Rotherham, (ed.) *Trees, Forested Landscapes and Grazing Animals: A European Perspective on Woodlands and Grazed Treescapes*, pp. 72-86. (London: Routledge, 2013): 73-74; S.A. Miles, *Parks in Medieval England*, (Oxford: Oxford University Press, 2009): 64-67; F. Beglane, *Anglo-Norman Parks in Medieval Ireland* (Dublin: Four Courts Press, 2015): 9, 55-56, 59-60.

² Gilbert, *Hunting and Hunting Reserves*, 80-82.

³ Ibid, 82.

⁴ Beglane, *Anglo-Norman Parks*, 90.

⁵ For examples see T.B. James and C. Gerrard, *Clarendon: Landscape of Kings* (Cambridge: Windgather Press, 2007); Miles, *Parks*; R. Liddiard, (ed.) *The Medieval Park: New Perspectives*, (Oxford: Windgather Press, 2007).

with little archaeologically obtained evidence to support such interpretations. Prior to our initial work on Kincardine Park, Buzzart Dykes, and Lintrathen Park in 2010, no medieval park site in Scotland had been excavated.⁶ Thus, the validity of perceptions of these sites as hunting landscapes must be regarded as questionable until a larger sample of archaeological evidence can confirm or dispel such interpretations. This study focuses on the further excavations of Buzzart Dykes conducted in 2013, in an effort to broaden understanding of how parks were utilized and organized, and illuminate part of the history of this complex landscape. Specifically, we explore the validity behind Buzzart Dykes' reputation as a hunting landscape and the significance of other functions such as wood management in the park's design, operation, and economic viability through excavation of the park's bounds and the nearby longhouse structure.

Background and History of Buzzart Dykes

As it is constructed, the Buzzart Dykes site exploits the natural topography of a series of three massive glacial eskers, demonstrating a degree of careful planning on the part of the builders, and is a testament to medieval comprehension of the land. Estimates find the length of the southern boundary to be approximately 1730 metres long, the northern boundary to be 1827 metres, and the western boundary 565 metres. The eastern boundary has yet to be identified archaeologically and does not appear to survive. However, a fragment is visible on the *1st Ed. Ordnance Survey Maps*, so it may have stood prior to improvement of the land.⁷ In total, the

⁶ See D. Hall, K. Malloy, and R. Oram, "A Hunting We Will Go?" Stirling University's Deer Park Project', *Tayside and Fife Archaeological Journal* 17 (2011): 58-67; K. Malloy, D. Hall, and R. Oram, 'Prestigious Landscapes: An Archaeological and Historical Examination of the Role of Deer at Three Medieval Scottish Parks', *Journal of the American Society of Irish Medieval Studies* 6 (2013): 68-87; K. Malloy and D. Hall 'Archaeological Excavations of the Medieval Royal Kincardine Landscape in Aberdeenshire' *Medieval Archaeology* (In Press).

⁷ *1st Ed. Ordnance Survey Maps* (1840s-1880s).

estimated area enclosed is roughly 300 acres. A number of small sections on the southern side have been lost as a result of erosion caused by the Lornly Burn watercourse that runs parallel with the inside of the boundary (Figure 2). It is situated between 200-260 metres a.s.l., an altitude typically considered today as less than optimal for arable agricultural development in Scotland. This has contributed to preservation throughout the site, not only of the medieval structure, but the underlying prehistoric landscape as well.

The park was one phase of a deceptively complex landscape with a history of occupation that spans millennia. Until the mid-twentieth century, the site was believed to have been a Caledonian encampment associated with the famous Roman battle of Mons Graupius in the AD 80s, and is labeled as such on multiple historical maps.⁸ Although the accuracy of this interpretation went largely unexplored for decades, by the end of the nineteenth century this designation was beginning to seem questionable to some. In 1899, David Christison characterised the site as being one of ‘Dubious Works or Sites Marked Fort or Camp on the O.M’.⁹ However, the prevailing view was that of people like Alex M. Scott (1919:30) who argued that the site’s interpretation as a Caledonian ‘camp ground’ was incontrovertible, stating:

In all probability, the camp being the centre of the Caledonian army, the defence here would be stoutest, and viewing these vestiges that still remain of the great battle for freedom which took place here over eighteen hundred years ago, no Scotsman could but feel moved with emotion and patriotic pride when he recalls to mind those stirring times.¹⁰

⁸ For example, J. Knox, *Map of the Basin of the Tay, including the greater part of Perth Shire, Strathmore and the Braes of Angus or Forfar*, (1580-1850); J.E. Fraser, *From Caledonia to Pictland: Scotland to 795* (Edinburgh: Edinburgh University Press, 2009).

⁹ D. Christison, ‘The Forts, “Camps,” and other Field-Works of Perth, Forfar, and Kincardine’, *Proceedings of the Society of Antiquaries* 34 (1899): 43-120.

¹⁰ A.M. Scott, ‘The Caledonian Camp, the Haer Cairns, and the Steed Stalls in the Stormont’, *Transactions and Proceedings of the Perthshire Society of Natural Science* VII (1919): 32

John Gilbert argues parks were ideal as military camps due to a defensible rampart, timber for supplies, and game to feed the troops, and examples of just such a use of a park are known from the Wars of Independence (AD 1296-1329).¹¹ Yet, while the banks of Buzzart Dykes bear resemblance to a defensible rampart, no evidence indicates that the site was ever used in this manner. Nevertheless, this perception persisted until the middle of the twentieth century.

In the 1940s, V. Gordon Childe and Angus Graham surveyed the site's perimeter, acknowledging the antiquity and complexity of the landscape, but refrained from presenting a discussion of its function or age.¹² It was not until O.G.S. Crawford examined the site in 1949 that it was recognized that the interior ditch lining the earthen embankment reduced the site's defensive qualities.¹³ Upon this realization, Crawford suggested the site was not in fact the remains of a true and noble Caledonian encampment but rather the remnants of a medieval 'deer park'.¹⁴ Unfortunately, in the time since, with the exception of a handful of minor discussions, little attention has been devoted to the site's archaeological character.¹⁵

Documentary records have revealed little about the site's use and ownership, with the exception of some circumstantial evidence. An entry in the Scottish *Exchequer Rolls* in the late-fourteenth and early-fifteenth centuries refers to an annual rendering of broad arrows at the nearby estate of *Drumlochty* [Drumlochy].¹⁶ Presently, this is the only identified medieval

¹¹ Gilbert, *Hunting and Hunting Reserves*, 32.

¹² V. G. Childe and A. Graham, 'Some Notable Prehistoric and Medieval Monuments Recently Examined by the Royal Commission on Ancient and Historical Monuments of Scotland', *Proceedings of the Society of Antiquaries of Scotland* 77 (1943): 31-49.

¹³ O.G.S. Crawford, *Topography of Roman Scotland north of the Antonine Wall*, (London: Cambridge, 1949): 75-77.

¹⁴ Crawford, *Topography of Roman Scotland*, 75-77.

¹⁵ For example see J. Fletcher, 'The Rise of British Deer Parks: Their Raison D'être in a Global and Historical Perspective', in I.D. Rotherham (ed.), *The History, Ecology, and Archaeology of Medieval Parks and Parklands*, pp. 31-44 (Landscape and Ecology 6, 2007).

¹⁶ J. Stuart, et al. (eds.) *Exchequer Rolls of Scotland* 7 (Edinburgh, 1878-1988): 230.

reference that even hints at a utilization for hunting activities. In the eighteenth-century maps of the *Roy Military Survey* the word ‘Dykehead’, likely referring to the park dyke of Buzzart Dykes, appears on the southern side of the Lornly Burn, precisely where the southern boundary runs.¹⁷ What constitutes the park’s interior is labeled ‘M of Drumlochy’, ‘Wood of Drumlochy’, and ‘Drumlochy’.¹⁸ Therefore, by the eighteenth century the lands were partially under the control of the estate of Drumlochy, located approximately one mile to the east. Yet, it is certainly possible this ownership extends back into the late-medieval period. Interestingly, the map makes no mention of a ‘Caledonian Camp’, suggesting this designation was conceived of later in time, or was not common knowledge.

Another contender for park ownership is the nearby castle of Glasclune. While not all parklands were contiguous with a residence or castle, it is common for a residence of some sort to be located in close proximity. To complicate matters further, one eighteenth and three nineteenth century estate plans of the lands of Cochrage, Glasclune, Drumlochy, and Balleid show that the interior of the park was divided up into different sections of land that were owned by both Glasclune and Drumlochy.¹⁹ Neither are royal estates, and the above evidence appears to reflect later land divisions that occurred after the site fell out of use, rather than indicating the site’s original proprietors. Unfortunately, there is no explicit documentary evidence to suggest the crown originally created and owned the site either. What is known is that the royal hunting

¹⁷ W. Roy, *1747-1752 Military Survey of Scotland*, National Library of Scotland (NLS).

¹⁸ Roy, *Military Survey*.

¹⁹ NAS RHP31893, ‘Plan of the Estate of Balleid (Achalader), Including Glasclune & Drumlochy’, *National Records of Scotland* (NRS, 1855); NAS RHP22117, ‘Plan of the lands of Balleid, Glasclune, & Drumlochy: Lying in the Parish of Kinloch’, (NRS, 1771); NAS RHP22119, ‘Plan of the Estate Ballied (Balleid) with Glasclune (Glassclune) & Drumlochy belonging to John L. Campbell of Achalader’, (NRS, 1855); NAS RHP22120, ‘Plan of the Estates of Cochrage, Glasclune, Drumlochy, and Balleid belonging to John L. Campbell of Achalader’, (NRS, Mid-Nineteenth Century)

forest of Clunie, created in AD 1161, located just beyond the western boundary of the park, attests to royal lands in the immediate vicinity. The three nineteenth century plans depict the line of the park's northern and western boundaries but fail to map out the southern or eastern boundary lines.²⁰ The eighteenth century map does not present any representation of the park's boundary line but does map out a small enclosure adjacent to Middleton Farm named 'Westownend Park' along Buzzart Dyke's northern boundary.²¹ How or if this small enclosure relates to the larger park is unclear.

Finally, there may be one last piece of documentary evidence that reveals the history of the landscape as a park. While Gilbert does not specifically discuss Buzzart Dykes, he does point out that an unnamed area of land, in roughly the same location as the park, may have been reserved by King William I between AD 1195 and 1206 for his own personal use.²² If Gilbert is correct about this portion of land being reserved for hunting, there is a strong possibility that this is referring to the land Buzzart Dykes occupies. It would also explain some of the difficulty in finding references to the site in the historical documents, as little material survives from this period. More importantly, it demonstrates that there was royal interest in the area, beyond the royal forest of Clunie, and places the aforementioned rent of 'broad arrows' paid to the king by the estate of Drumlochy into a clearer context by suggesting hunting was an important focus of this landscape.

Apart from the documentary record, additional information derived from place name evidence provides only faint hints to the landscape's historic character with labels such as

²⁰ NAS RHP31893, 'Plan of the Estate of Balleid'; NAS RHP22119, 'Plan of the Estate Ballied'; NAS RHP22120, 'Plan of the Estates of Cochrage'.

²¹ NAS RHP22119, 'Plan of the Estate Ballied (Balleid)'.

²² Gilbert, *Hunting and Hunting Reserves*, 94.

‘Woodhill’ and ‘Woodhead’ appearing in a nineteenth century map by Aaron Arrowsmith.²³ The name ‘Parkhill’ is also found on multiple maps and is listed today as Parkhill Farm just to the east of Buzzart Dykes, yet not within the bounds of the site.²⁴ Aside from this, the place name evidence remains limited regarding the site and its historic uses. Presently, the land within the bounds of the park is used primarily for sheep and cattle grazing. There are two small plots of modern forestry, but surviving historic woodland in the form of ancient coppiced or pollarded trees has not been identified within the enclosure. Any ancient wood relating to the so-called ‘Wood of Drumlochy’ mentioned in the *Roy Military Survey* appears to have vanished.²⁵

Methods

The Buzzart Dykes excavation consisted of three trenches A, B, and C. Work commenced on June 6, 2013 with the planning of the potential hunting lodge in its entirety followed by the clearing of heather and turf from the structure’s surface (Figure 3). Trench A was located within this structure located outside the northern boundary of the park and was 12 metres x 2 metres. Trench B was orientated perpendicularly across the northern boundary of the park approximately 145 metres from its northwestern corner and measured 4.5 x 1.5 metres. This trench was roughly half the length of the typical trench we employ in excavating park boundaries, but was necessary because the internal ditch on this part of the boundary consisted of a permanent stream. The final trench undertaken at Buzzart dykes, trench C, was orientated perpendicularly across the western boundary, approximately 230 metres from the northwestern corner of the park, and was 9.5 x 1.5 metres.

²³ A. Arrowsmith, *Map of Scotland constructed from original materials* (London: 1807).

²⁴ For example Knox, *Map of the Basin of the Tay*; Roy, *Military Survey*.

²⁵ Roy, *Military Survey*

As cultural deposits were present immediately beneath the turf and topsoil it was not necessary to excavate by arbitrary depth increments. Both trenches B and C suffered from substantial bioturbation. All three trenches were recorded, planned and backfilled.

Results

The three 2013 excavation trenches at Buzzart Dykes have greatly expanded our knowledge of an extensive, designed landscape, carefully planned and meticulously incorporated into the natural topography and have provided the first clear, archaeological insights into medieval Scottish park construction. Furthermore, in investigating the rectangular longhouse structure, this work marks the first excavation of any rural medieval hall of this size in Scotland.

Buzz02: Trench A – ‘Hunt Hall’

Located towards the eastern end of the longhouse remains, Trench A examined the structure suspected of having served as the park’s ‘hunt hall’. The structure was 37 metres in length and 8.5 metres wide from the outside edges of the north and south walls (Figure 3). There was a clear entrance slightly off center on the south face of the building, towards the west end. We believe this to have been the main entrance, while a smaller secondary entrance on the eastern end may have operated as a service entrance. The structure was surrounded by a ‘drip trench’ that drained to the southeastern corner of the building near the secondary entrance.

Immediately below the turf and topsoil, medium (10-20 centimetres) and large stones (>20 centimetres) in the interior of the building, a result of wall fall (level 102) with a matrix of compacted orange/light brown sediment (level 101), were identified. The northern wall of the structure was composed largely of collapsed stone and contained the foundation of the wall with

traces of a clay-bonding agent (level 103). Beneath the turf and topsoil on the exterior face of the northern wall was the drip trench that was lined with large stones.

Previously, it was unclear as to when this structure may have been built, but on the first day of excavation a single sherd of glazed Scottish Redware was recovered from the southern drainage trench running along the outside of the building's wall. Ceramic expert Derek Hall dated this sherd to no earlier than the thirteenth century and no later than the fourteenth century. Following this find, 135 additional sherds from the same vessel, a single handled, glazed drinking jug, were recovered, further solidifying Hall's initial assessment of the ceramic dating to between the thirteenth and fourteenth centuries (Figure 4).²⁶

The remnants of this jug were the only refuse artifacts recovered from the drainage trench, and no other vessels or ceramic types were identified. The only other piece of ceramic recovered from this excavation area, found in the structure's interior floor surface, was a small sherd that was possibly from a mould and does not appear to be associated with the first vessel. In the same area, a small (<2 centimetres) portion of decayed bronze was recovered, so fragmentary it was unidentifiable. Unfortunately, in regards to faunal remains from the 'hunt hall', a single, small (<2 centimetres) piece of unidentifiable burnt bone was recovered. Based on the thickness of the cortical bone, it appears to have come from a large mammal. Any further classification was impossible. It remains a possibility that excavation of a portion of the adjacent medieval rig and furrow may reveal further artifactual and environmental information. While this was beyond the scope of this project it should be incorporated into future project designs on the site.

Dating of charcoal recovered from the structure has confidently placed occupation of the site to the second half of the thirteenth century, between AD 1253-1289 (Table 1).

²⁶ D. Hall pers. comm. (2013)

Buzz02: Trench B – The Northern Boundary

The northern boundary is situated between two glacial eskers in a low-lying marshy environment. Where there would typically be a ditch lining the length of the bank is instead a small stream that directly corresponds to the barrier. Deposits comprising heavy blue-gray clays were identified at the bases of both the interior and exterior faces of the bank (contexts 202 and 203). The main up-cast of the bank was a similar blue-grey clay/silt material but was noticeably drier than the overlaying context layers. The bank appeared to be built up from earthen material dug out of what later constituted the interior ditch, and what is now a small watercourse.

Excavation along the northern bank of Buzzart Dykes initially revealed two postholes (206 and 208). A small sondage was cut into the trench to the east to explore a potential third posthole (210). The three postholes were 50 and 60 centimetres in distance apart from each other, appeared intentionally staggered, and were angled towards the park interior at an angle of between 60° and 75° (Figures 5, 6 and 7). All three features were fully excavated but contained no remnants of organic material for carbon dating. Due to the limitations of our scheduled monuments consent it was not possible to expand the trench width further to see if this pattern continued.

An examination of the northern barrier immediately to the east of the excavation trench revealed what appears to be a terminal end before reappearing approximately 57 metres to the east. Whether this was the result of erosion or human intention is unclear.

Buzz02: Trench C – The Western Boundary

The results of the 2010 test excavation along the western boundary of Buzzart Dykes revealed a stone core within the earthen embankment. The stones were randomly placed but formed a distinct stone layer within the bank's structure (see Malloy et al. 2013). However, the 2010 trench from the excavation was located on the northern side of a terminal end in the barrier that we now believe constituted an entrance from the Forest of Clunie to the east. One goal of the 2013 excavation was to test the hypothesis that an internal stone core was present throughout the entirety of the western boundary. This hypothesis was ultimately rejected, as excavation did not reveal a consistent internal stone core. Rather, the height of the bank (approximately 2.25 metres from ditch base to bank top) was achieved through piling of earth alone. In addition, a shallow rectangular feature that bisected the trench and appeared to run both north and south along the top of the barrier was interpreted to be evidence for a hedgerow lining the top of the barrier (Figures 8 and 9). The extent and continuity of this feature needs to be confirmed through further excavation.

A small piece of charcoal was recovered from the interior of the bank and submitted for carbon dating. The initial result returned a date of 4719-4616 BC or roughly the Mesolithic period. As this date is considered to be nearly six thousand years older than what was expected, and there was a suspected mistake made during the original test, the sample was retested with the same result. Considering the antiquity of the surrounding landscape and isolated nature of the sample, the date is regarded as not representative of the park, but rather a result of secondary deposition during the site's initial construction.

Only one artifact was recovered from Trench C, a small piece of bluish-grey slate with what appeared to be human-created grooves. What type of tool and material created these grooves is unknown but is the subject of an ongoing experimental microwear study. As this

landscape has been occupied for thousands of years and possesses both prehistoric and historic archaeological elements, it is not unreasonable to posit that the slate was mixed in from prehistoric deposits. Unfortunately, without a way of dating the object, it is difficult to make any assertion as to when it was created.

The interior of the bank was disturbed by a sizeable krotovina, or animal burrow, that penetrated from the eastern (interior) face through the center to the western (exterior) face of the bank. Interestingly it would seem that the krotovina's floor was at the intersection of the bank's beginning deposits and the old ground surface (OGS). This could be an indication that the OGS was more compact and difficult to burrow through than the bank deposits for the animal. The krotovina does not appear in the profile (Figure 9) because it cut through the center of the trench.

Discussion

The results of the second round of excavations have drastically changed our earlier ideas about the park, revealing new evidence that support an interpretation of a multi-functional landscape. Upon completing test excavations in 2010 along the western embankment, we believed the site to be too small to have provided for an effective and entertaining hunt, therefore arguing it may have served as a live-larder.²⁷ In his discussion of equivalent English sites, Robert Liddiard has suggested that many parks may be more accurately perceived as 'venison farms' rather than hunting enclosures, as the average English park ranged between 100-300 acres, an area less than conducive to long distance chase-style hunts.²⁸ In her discussion of Irish parks, Fiona Beglane has taken the question even further, asserting that many parks never housed deer

²⁷ Malloy et al., 'Prestigious Landscapes' 68-87

²⁸ R. Liddiard, 'Introduction', in R. Liddiard, (ed.) *The Medieval Park: New Perspectives*, 6 pp. 1-8 (Oxford: Windgather Press, 2007).

as such an enclosure would make for an uninspiring hunting venue.²⁹ Instead, the true importance of parks lay in their pastoral land and wood supplies.³⁰ Initially, this seemed a reasonable interpretation for Buzzart Dykes, leading us to question the site's ability to provide a worthwhile hunting experience. However, during our 2013 work, one aspect that became apparent was that the dramatic topography created by the large eskers makes for a challenging landscape to maneuver for both humans and deer, and would easily have served as an exciting hunting arena. It hardly seems coincidental that the park is a near perfect enclosure of these glacial landforms. Yet, the evidence for a wattle fence suggests that hunting was not the only function of the site, but that wood management also played a significant role in the park's successful operation, maintenance and possibly aesthetics.

It seems likely the dramatic topography provided an attractive location for a hunting park. It was not unusual for parks in England to have been placed in similar areas where natural features of the land created challenging obstacles for the hunt and added to the excitement of the pursuit.³¹ Furthermore, such topography could have assisted in the creation of deer traps. Stephen Miles on argues that medieval English parks often exploited hilly terrain that allowed people to easily build traps or station lookouts.³² The long, rolling esker slopes of Buzzart Dykes may have provided the ideal topography for such deer trap creation, similar to those found in other Scottish parks and the Scottish Isles. Incorporation of the steep sloping southern esker valley carved out by the Lornty Burn also presented an ideal location to carve out the southern barrier.

²⁹ Beglane, *Anglo-Norman Parks*, 41-44.

³⁰ Ibid.

³¹ Miles on, *Parks*, 33.

³² Ibid.

One of the primary questions surrounding the parks of medieval Scotland is whether they were constructed in a similar manner to English parks of the same period, utilizing timber palisades or other wooden structures on top of the embankment as a means of increasing the barrier's height and effectiveness. Construction methods have long been assumed analogous but never investigated archaeologically. A goal of the work at Buzzart Dykes was to determine if there was a barrier lining the top of the bank. In Scotland, the first evidence of a timber structure, probably a post and rail fence, built on top of a park bank was found at Lintrathen Park in 2010, but excavation failed to identify similar structures at Buzzart Dykes or Kincardine Park in those initial excavations.³³ Thus, identification of the three postholes, and evidence for a hedgerow on top of the western bank in the second round of excavation, are intriguing developments, and support the idea that both deer and wood supplies were managed within the enclosure. The three postholes were set into the northern bank at an angle and staggered in position (Figures 5, 6 and 7). The distance the posts were spaced, 50 and 60 centimetres, suggests a wattle fence was used. Historical evidence that medieval parks in Scotland did at times incorporate wattle fences exists in the form of a fifteenth century seal of George Douglas 4th Earl of Angus (AD 1417-1463), and depicts what appears to be a deer park surrounded by a wattle fence.³⁴

The archaeological findings have indicated a continuous wooden structure lining the northern embankment. A palisade or fence that reached across the top of the entire northern boundary would have required roughly 3,045 – 3,654 timber posts provided each post was spaced 50 to 60 centimetres apart as were the three postholes identified during excavation. This estimate is calculated based on the understanding that the northern boundary was intended to be

³³ Malloy et al., 'Prestigious Landscapes' 68-87; Hall et al. 'A Hunting We Will Go' 58-67.

³⁴ H. Maxwell, *A History of the House of Douglas: From the Earliest Times Down to the Legislative Union of England and Scotland*, (London: Fremantle & Co.,1902).

continuous and unbroken (which it possibly was not) and covers the length to where the boundary is argued to terminate (which may be short of where it actually terminated). In addition to these calculations, consider the design of the southern bank. Little is known about this section of the park's boundary out of respect for the landowner, but it is conceivable a bank and fence carved partially into and partially on top of the slope of the esker valley would have been quite effective at inhibiting deer from escape. Based on the current estimates of the southern boundary's length, a timber fence constructed in a similar manner along the top of this boundary would have required roughly 2,833 – 3,466 timber posts. Of course, much of the southern bank has been eroded away by the Lornty Burn making this estimate and interpretation quite tenuous. This is simply meant to illustrate that by these calculations alone, between 5,878 and 7,120 timber posts would have been required to line these two sections of the park. In reality, if the timber palisade was consistent along both boundaries, this number was probably higher. This also does not take into consideration whether there were sections of timber palisade or fence along the western boundary, since currently there is only scant evidence for a hedgerow, nor is there information as to how the eastern boundary of the park was constructed, as none of it appears to survive in the landscape.

These estimates, as well as the evidence that the palisade was made of wattle, demonstrate a tremendous amount of wood material would have been required to build such a fence and provides insight into whether there was managed woodland or wood-pasture in the park. Although it did happen, importing wood for a wattle fence was difficult, as the ethers had to be fresh to be adequately flexible. Alasdair Ross' analysis of two documents dating to AD 1585-1612 demonstrates the stark reality of the amount of wood required to maintain such

structures.³⁵ Much of Ross' discussion pertains to specific buildings and their internal couplings, but he also finds that things like fences and wattle were likely replaced on an annual or biennial basis.³⁶ The wattle he refers to was internal, whereas wattle fencing exposed to the harsh Scottish weather would have required even more frequent repair and replacement. While not everything would have necessarily been replaced on an annual or biennial basis, Ross argues that full renewal of the timber used in the settlements discussed in the two examined documents occurred on a seven-year cycle, and the number of trees utilized for implements and fencing alone over a seven-year period reached well into the thousands.³⁷ If this seven-year cycle were applied to Buzzart Dykes, the northern boundary would have required the above numbers of timbers every seven years. For argument sake, if the site was utilized and maintained for a period of one hundred years, this translates to approximately 82,292 – 99,680 timber posts, not including the thousands of immature trees needed to create the ethers used in the wattling woven between each fence post. Of course, this assumes every post was replaced once within a seven-year stretch, which may not have been the case, and was also dependent on the type of wood used in the structure. Certain woods, like birch and alder, if used for fence posts will rot quickly when exposed to damp conditions (like those found in all of Scotland) and may have required more frequent replacement.³⁸

The above numbers are relatively inconsequential when compared to the question that they raise and its broader implication. From where were fencing materials being obtained?

Oliver Rackham argues that, with the exception of extremely small-scale examples, wattle

³⁵ A. Ross, 'Two 1585x1612 Surveys of Vernacular Buildings and Tree Usage in the Lordship of Strathavon, Banffshire', in *Scottish History Society, Miscellany Series*. Series 6, 14 pp. 1-52, (Glasgow: Scottish History Society, 2012).

³⁶ Ross, 'Two 1585x1612 Surveys' 45.

³⁷ Ibid, 46-47.

³⁸ Ibid, 45.

structures required ready access to a coppiced wood supply when used internally in buildings.³⁹ When considering the wattle structure in question at Buzzart Dykes was a large-scale fence exposed to both the animals and the elements, it is apparent the need for a large amount of wood would have been even more significant. As the site is relatively rural it is possible, if not likely, the wood obtained for maintenance of the fencing was coming from somewhere close by, and possibly from within the park itself, a common practice in England and Ireland.⁴⁰ In her work on Irish parks, Beglane argues that a chief function of the medieval park, far more important than the management of deer, was the production of wood and timber.⁴¹ Trees were well protected within a park from unauthorised wood cutting, allowing greater control over one's lands and resources.⁴² In Scotland wood production may have carried even more weight, as evidence suggests deforestation was an ever increasing problem during the medieval period.⁴³ Wood, the preferred choice for everything from construction and implement materials to fuel, was becoming an increasingly scarce and valuable natural resource in many parts of the country, and owning a secure enclosure for managing such a resource was undoubtedly remunerative. To manage wood production, the park would have employed coppicing or pollarding, methods of intentionally cutting trees to promote new growth.⁴⁴ This new growth was routinely harvested

³⁹ O. Rackham, *Woodlands*, (London: Collins, 2012): 233-235.

⁴⁰ Rotherham, 'Reinterpreting Wooded Landscapes', 72-86.

⁴¹ Beglane, *Anglo-Norman Parks*, 79-80, 88-89

⁴² Ibid.

⁴³ Numerous studies exist on that attest to the deforestation of Scotland and much discussion has been dedicated to the topic. For examples see Tipping, R. *Bowmont: An Environmental History of the Bowmont Valley and the Northern Cheviot Hills, 10,000 BC – AD 2000*. (Edinburgh: The Society of Antiquaries of Scotland, 2010); Mills, C. and A. Crone 'Dendrochronological Evidence of Scotland's Native Timber Resources Over the Last 1000 Years.' *Scottish Forestry*. 66:1 (2012) 18-34.

⁴⁴ Rotherham, 'Reinterpreting Wooded Landscapes', 74-76.

once the *poles*, or resulting shoots, had reached an adequate size.⁴⁵ If park maintenance necessitated such staggering wood supplies, as the evidence suggests, then it is certainly conceivable this kind of wood management was conducted within the enclosure. Such supplies would have also ensured sufficient wood for winter animal fodder, construction materials, domestic tools, firewood and many other purposes.⁴⁶

Unfortunately, evidence for compartmentalization of the park that often signifies such management practices has not been recognized. There is no apparent evidence for wood banks (earthen bank and ditch structures designed to keep animals out of a section of managed woodland) or field boundaries within the site. Instead, wood-pasture that incorporated pollarded trees, as opposed to coppices, may have been employed at Buzzart Dykes.⁴⁷ Rackham refers to this type of wood-pasture regime as *uncompartmentalized*.⁴⁸ In this form, trees were pollarded instead of coppiced in order to reduce the destruction caused by grazing animals.⁴⁹ The animals simply lived and grazed among the trees without damaging the wood supply, and such a regime may have added to a feeling of authenticity to the habitat for the hunters. It is also possible that evidence for compartmentalization has simply vanished from the landscape, as it was likely far more surficial than the park's robust perimeter.

Archibald A.M. Duncan argues that twelfth and thirteenth century agricultural expansion across Scotland, and particularly between Perth and Dundee, resulted in extensive land clearance.⁵⁰ However, these pressures came not only from the expansion of grazing and arable

⁴⁵ Rotherham, 'Reinterpreting Wooded Landscapes', 74-76.; Beglane, *Anglo-Norman Parks*, 78-79.

⁴⁶ Beglane *Anglo-Norman Parks*, 78-79.

⁴⁷ *Ibid.*

⁴⁸ Rackham, *Woodlands*, 16.

⁴⁹ *Ibid.*

⁵⁰ A.A.M. Duncan, *Scotland: The Making of the Kingdom*, (Edinburgh: Mercat Press, 1975): 366.

lands, but from greater demands on fuel and timber production as well.⁵¹ Vegetation levels varied across the country and wood was scarce in south-east Perthshire, especially around Perth itself.⁵² Assuming dates recovered from the longhouse structure correspond with the park's utilization, it may have been cost effective to manage wood within Buzzart Dykes, even if it was for purely maintenance purposes. Any discussion of whether people sold surplus wood supplies produced within the park to the wider public is mere speculation, but it is certainly possible that timber grown in Buzzart Dykes provided an additional economic opportunity to its owners.

The angled wattle fence coupled with the gaps in the northern barrier may also be concrete evidence that hunting was a motivation. The northern boundary of the park is set in the valley floor between two large eskers. The majority of the valley floor is marshy, and the level of water present in the marsh and strength of the stream vary with season. This is of note because of how the northern boundary is laid out, where there is a section of bank and then a deliberate gap, followed by a section of bank and another deliberate gap. While other gaps in the park barrier are due to erosion, the gaps in the northern bank appear intentional and were present during Childe and Graham's analysis.⁵³

One possibility is that these sections are remnants of lowered portions of park bank, known as 'deer leaps' designed to allow deer into the park without allowing them to escape. Another explanation is that the goal was to drain some areas and flood others, achieving multiple objectives. First, a small body of water would be created. As a barrier, it would have been ineffective against deer intent on their freedom as many cervids are capable of escape by

⁵¹ Duncan, *Scotland*, 363-366; R.D. Oram, *Domination and Lordship in Scotland 1070-1230*, (Edinburgh: Edinburgh University Press): 237-247.

⁵² Oram, *Domination and Lordship*, 246.

⁵³ Childe and Graham, 'Some Notable Prehistoric and Medieval Monuments', 45-48.

swimming away from danger.⁵⁴ Instead, these small bodies of water may have actually been intended to create an opening for deer to be able to escape. It is possible when the deer were not fleeing, the water served as a suitable deterrent, but when in flight, the ponds were obstacles the deer could overcome. This leads to the second achievement of making the hunt more interesting and exciting by creating opportunities for the hunter's quarry to escape. With victory less than guaranteed, the hunt becomes more 'authentic' in an otherwise controlled setting. Gilbert has suggested this was the case in the early-seventeenth century when James VI ordered sections of barrier broken down at Falkland Park to allow deer to pass in and out of the park during a hunt.⁵⁵ The hedgerow lining the western boundary and the wattle fence lining the northern boundary would both have made it difficult for deer to escape, particularly when they were fleeing during a hunt; thus, making the small gaps the only feasible point of escape.

A strong indicator of the land's function as a hunting ground is also found in the longhouse structure excavated north of the park. At 37 metres long and 8.5 metres wide, it was certainly far larger than the typical farmstead and would seem to be elite, possibly having served as the site's hunt hall. It currently has no equal when compared to analogous structures that have been examined. Eldbotle and Springwood Park are contemporary examples of rural medieval settlements with similar rectangular, cruck-framed buildings, clay-bonded stone foundations, and earth and timber bodies.⁵⁶ While the Buzzart Dykes 'Hunt Hall' seemingly repeats this design

⁵⁴ J. Fletcher, *Gardens of Earthly Delight: The History of Deer Parks*. (Oxford: Windgather Press): 36.

⁵⁵ J.M. Gilbert, 'Falkland Park to c. 1603', in *Tayside and Fife Archaeological Journal* 19/20 (2014).

⁵⁶ P. Dixon, 'A Rural Medieval Settlement in Roxburghshire: Excavations at Springwood Park, Kelso, 1985-6', in *Proceedings of the Society of Antiquaries of Scotland* 128 (1998): 671-751; E. Hindmarch and R. Oram, 'Eldbotle; the Archaeology and Environmental History of a Medieval Rural Settlement in East Lothian', In *Proceedings of the Society of Antiquaries of Scotland* 142 (2012): 245-299.

(although incorporation of a cruck-frame is unknown), it surpasses its contemporaries, more than doubling even the longest analogue in size. It is also an isolated building, whereas Elbotle and Springwood Park possess multiple buildings and multiple phases in the immediate vicinity that suggest organized settlements and prolonged use.⁵⁷ The presence of the glazed Scottish redware vessel represents evidence of feasting within the structure, and Gilbert's aforementioned discussion of land reserved by William I for hunting in this general area places the building approximately where the reserved tract was located.⁵⁸ It remains unclear how long the Buzzart Dykes 'Hunt Hall' was used and there does not currently appear to be evidence for multiple phases of occupation, but the carbon dates recovered from the structure suggest the building was in use during the thirteenth century. Thus, its size, artifacts, location, and age all lend credence to an interpretation of elite ownership. With this in mind, an interpretation of the Buzzart Dykes enclosure as a park complete with hunt hall, used for both hunting and wood management is supported.

In the absence of faunal material, a firm understanding of popular medieval hunting methods coupled with a comprehension of the different species' behavioral traits provides clues as to which species (red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*), or fallow deer (*Dama dama*)) may have been pursued for sport in the enclosure. A variety of hunting methods were prevalent during this time that included the popular drive method, as well as various chase methods like *par force des chiens*, coursing, stalking, and trapping.⁵⁹

⁵⁷ Dixon, 'A Rural Medieval Settlement', 671-751; Hindmarch and Oram, 'Eldbotle', 245-299.

⁵⁸ Gilbert, *Hunting and Hunting Reserves*, 94.

⁵⁹ F. Beglane, 'Deer in Medieval Ireland: Preliminary Evidence from Kiltasheen, Co. Roscommon', in T. Finan, (ed.) *Medieval Lough Cé: History, Archaeology and Landscape*, (Dublin: Four Courts Press, 2010): 145-158; Gilbert, *Hunting and Hunting Reserves*, 52-60; Liddiard, 'Introduction', 5.

Pre-dating the Norman invasion of AD 1066, the drive consisted of large groups of men with barking dogs and horns who drove the deer towards the hunters, waiting on horseback to slaughter the unsuspecting animals with spears and arrows.⁶⁰ Medieval chases consisted of a few methods. The style of *par force des chiens* was unpredictable and consisted of chasing a single animal on horseback over many miles for an entire day, followed by the ritualistic killing of the exhausted animal.⁶¹ Coursing on the other hand was a chase style of hunt that pursued an individual or handful of animals over predefined routes.⁶² In discussing English parks Liddiard argues that because *par force* required such a large area of land to be considered a worthwhile hunt, it was not effectively executed within the confines of a park.⁶³ While a *par force* hunt is best carried out in large tracts of land, we contend that challenging topography within a smaller area (100-300 acres) could also provide for a condensed, yet no less thrilling hunting experience.

Of course, a successful hunt was also dependent on the type of animal being hunted. Roe deer colonize hedgerows and small tracts of woodland, making parks that are divided into various sections, compartmentalized for different economic uses, tricky to stock with this species.⁶⁴ John Fletcher has argued that roe deer would have made poor park animals for a number of reasons.⁶⁵ Roe deer are browsers that do not survive well on a diet consisting solely of grasses, requiring a great deal of supplementary feeding throughout the year.⁶⁶ They are

⁶⁰ A. Fenton, *Life and Society: The Food of the Scottish: A Compendium of Scottish Ethnology*, Scots Book 5 (Edinburgh: John Donald. Edinburgh, 2007); Fletcher, *Gardens of Earthly Delight*, 51-53; Gilbert, *Hunting and Hunting Reserves*, 53.

⁶¹ Liddiard, 'Introduction', 5.

⁶² Ibid, 6.

⁶³ Ibid. 5.

⁶⁴ Mileson, *Parks*, 64-66; A. Pluskowski, 'The Social Construction of Medieval Park Ecosystems: An Interdisciplinary Perspective', in R. Liddiard (ed.) *The Medieval Park: New Perspectives* pp. 63-78 (Oxford: Windgather Press, 2007): 66.

⁶⁵ Fletcher, *Gardens of Earthly Delight*.

⁶⁶ Ibid.

exceptionally antisocial in temperament and extremely susceptible to intestinal parasites and liver fluke.⁶⁷ He suggests that in order to be managed as a park animal, roe deer would have been kept in low numbers in a park with a great deal of acreage and plenty of coppiced or pollarded trees for additional fodder.⁶⁸ As a hunting quarry, the poor endurance of roe deer causes them to be easily run down by dogs, making them a poor choice for long distance chase hunts that employed dogs. Naomi Sykes also describes roe deer as ‘notoriously unsuitable as park animals’, arguing they become extremely territorial to the point of being dangerous when enclosed.⁶⁹ When confined to a small area the deer become hostile and occasionally kill each other.⁷⁰ However, Sykes does suggest that they were perhaps sometimes selected intentionally for their ‘volatility while confined, giving the hunting ground a more dangerous feel’, as park ‘hunting’ was markedly tamer than in the wild.⁷¹

In contrast, red deer have many advantages as park animals and tend to be favored today by modern park builders.⁷² Their large size ensures great quantities of meat and they possess great stamina for a pursuit over many miles before experiencing exhaustion.⁷³ Both of these qualities endeared them to medieval hunters. In response to being enclosed red deer maintain a very sociable nature with other red deer and humans, making them easier to manage most of the time.⁷⁴ However, red deer presented a problem in the amount of fodder required to sustain them.

The preferred habitat of red deer is along the margins of woodland so that they can graze on both

⁶⁷ Fletcher, *Gardens of Earthly Delight*, 97.

⁶⁸ Ibid.

⁶⁹ N. Sykes, ‘Animal Bones and Animal Parks’, in R. Liddiard (ed.) *The Medieval Park: New Perspectives* pp. 49-62 (Oxford: Windgather Press. Oxford): 60.

⁷⁰ V. Geist, *Deer of the World: Their Evolution, Behavior, and Ecology*. Mechanicsburg: Stackpole Books, 1998): 310.

⁷¹ Sykes, ‘Animal Bones’, 51-52, 60.

⁷² Fletcher, *Gardens of Earthly Delight*, 98.

⁷³ Ibid, 98; Sykes, ‘Animal Bones’, 51.

⁷⁴ Fletcher, *Gardens of Earthly Delight*, 98-101.

the open grasses and the leaves and barks of shrubs and trees.⁷⁵ It is thought that red deer in modern Scotland are capable of eating the equivalent of their own body weight in as little as ten to fourteen days.⁷⁶ This would make the maintenance of a large herd within a park like Buzzart Dykes very difficult, particularly in the winter months, requiring a great deal of either hay or other supplementary fodder, some of which could have been supplied by wood-pasture within the park. Beglane has suggested that parks all but necessitated a range of habitats within the enclosure that included open grazing land and managed woodland.⁷⁷ At roughly 300 acres, Buzzart Dykes was not among the largest of Scottish parks, but was undoubtedly big enough to maintain just such a variety.

The introduction of fallow deer to the British Isles, probably at the end of the eleventh century in England, and to the best of our current knowledge, the mid-thirteenth century in Scotland, was just the most recent example in a long history of captivity for the species.⁷⁸ Despite having poor stamina and a pitiable reputation as chase animals, fallow deer possess key attributes to make them suitable park animals. Typically grazers, they can survive on a diet consisting primarily of grasses far more sufficiently than roe or red deer, thus requiring a less diverse food source.⁷⁹ Fallow deer are extremely gregarious, doing well when confined in large numbers and are known to be resistant to parasites and diseases.⁸⁰ The species also refrains from travelling great distances and are thought to ‘transmit’ home territory information between

⁷⁵ Beglane, ‘Deer in Medieval Ireland’, 146.

⁷⁶ J. Birrell, ‘Deer and Deer Farming in Medieval England’ in *The Agricultural History Review* 40:2 (1992): 112-126.

⁷⁷ Beglane, *Anglo-Norman Parks*, 91.

⁷⁸ Fletcher, *Gardens of Earthly Delight*, 97; Geist, *Deer of the World*, 95-96; Stuart et al. *ER*, 1:38; Taylor, S., D.E.R Watt (eds.) with B. Scott, D.E.R. Watt, (Gen. ed.); *Scottichronicon by Walter Bower* 5 (Books IX-X) (Aberdeen: Aberdeen University Press, 1990).

⁷⁹ Geist, *Deer of the World*, 95-96.

⁸⁰ *Ibid.*

generations, meaning existing herds can be directly descended from historic populations.⁸¹

Interestingly, fallow deer can still be found around the area of Buzzart Dykes, and may represent the descendants of a medieval population. Following the introduction of the species to the British Isles, faunal remains recovered from castle sites in England commonly reveal an increase in fallow deer and a decrease in roe and red deer over time, particularly after the start of the thirteenth century.⁸²

So how does this relate to deer management in Buzzart Dykes? The site's size seems to suggest that roe deer were probably too capricious to be managed in the park, unless at extremely low population densities. Alternatively, red deer and fallow deer would have likely thrived in this enclosure. Although the area is only around 300 acres, far more limited in area than much larger royal parks that exceeded a thousand acres, we argue that the difficult topography made it possible to successfully carry out a small chase-style hunt, and that red deer could have been kept within the enclosure. Alternatively, drive-style hunts, utilizing the hilly topography for deer traps and kill zones, may have also been possible, capitalizing on the more herd-like mentality of fallow deer for this type of pursuit.

One question that remains is how the park was stocked with deer. Fletcher has suggested that if the park was filled with red deer, a simple way of stocking the park would have been to simply wait for the animals to follow the flow of the Lornty Burn from the royal Forest of Clunie into the enclosure, and secure a wattle gate behind them.⁸³ Red deer are known to follow the flow of watercourses in evening and the Lornty Burn presents an ideal location for this method.⁸⁴

⁸¹ Geist, *Deer of the World*, 95-96.

⁸² O.H. Creighton, *Castles and Landscapes: Power, Community and Fortification in Medieval England*, (London: Equinox, 2010): 19.

⁸³ Fletcher, 'The Rise of British Deer Parks', 41.

⁸⁴ *Ibid.*

The gap in the embankment between the western and southern boundaries of the park easily allow for the incorporation of a wattle gate. As archaeological evidence from Trench C suggests that wattle was employed along the northern boundary, and is therefore reasonable to suspect wattle was also used in other sections of the park. In addition to this method, the work carried out in 2010 revealed a deliberate terminal end with a small gap in the bank along the western boundary. Excavation revealed what appeared to be an angled stone core, opening towards the west in the direction of the royal Forest of Clunie. This seems to be a genuine entrance point into the enclosure, rather than a remnant of site deterioration, and one possibility is that deer were driven and funneled into the site from the forest grounds through this point. However, the presence of a hollow way that corresponds to the bank gap attests to the frequent travel between the different landscapes. The entrance likely served as key access point to and from the park and forest lands, utilised for delivering winter fodder for animals, the transportation of timber and wood, and the movement of captured deer and/or processed venison between locations.

In general, Buzzart Dykes was constructed around dramatic topography and would have adequately functioned as a recreational hunting ground. That the site was used as a hunting park is supported by the archaeological evidence, much of which is surficial in nature. Although surficial evidence for alternative uses (e.g. evidence of compartmentalization for different functions, surviving historic managed woodland, etc.) was not identified during the archaeological investigations, the fence present along the northern barrier is a tantalizing hint of woodland management within the park, and future geophysical analysis may be able to reveal a clearer picture of the park's organization. Ultimately, it is difficult to know for certain without

environmental data, geophysical analysis, and potentially further excavations if wood was coming from the park, the nearby Forest of Clunie, or a more distant location.

Conclusions

Buzzart Dykes survives today as an outstanding example of a medieval park structure in Scotland. While previous assessments confidently identified the site as a park, the results of this excavation have provided the first archaeological evidence to support such an interpretation. Excavations along the northern and western barrier of the park have led to a new understanding of the construction methods employed at Buzzart Dykes, and among medieval Scottish park sites. The presence of a wattle fence, orientated inwards along the northern boundary, indicates the use of measures to prevent animals from escaping the enclosure. Thus, it is logical to interpret Buzzart Dykes as a park rather than a defensive structure. This is further supported by evidence of the presence of a hedgerow along the western bank. No direct dating evidence from the park itself has been recovered, but artifacts and carbon dates from the hall structure provided some of the first definitive evidence for the landscape's medieval use. The combination of archaeological evidence and the few hints towards its history from the documentary record suggest that the park may have been of royal creation, lending additional credence to an interpretation of leisurely sporting activities and natural resource management. Overall, the evidence strongly supports the interpretation of the site as a park in which both wood and deer were managed.

Buzzart Dykes presents a unique opportunity to explore the multi-functionality of park sites in Scotland. Development in and around the site has been limited when compared with the state of other medieval parks in Scotland. Excavation of the rectangular structure in conjunction with the park bounds has revealed a history of the rural medieval landscape that has been seldom

explored. In this spirit, it is important to build on this work. It is possible that Buzzart Dykes, with its extremely marshy valleys, may provide suitable areas for environmental sampling that may help to address the question of wood used to construct the palisade, the wood used for wattle between posts, and the types of hedges being grown along the western boundary (if any). Environmental analysis may also clarify whether wood was grown within the confines of the park or was imported from elsewhere.

A clearer understanding of the park landscape's environmental history is needed to understand how the site was utilized, and this cannot be obtained from analysis of the contemporary documentary sources alone. Unfortunately, unlike the parks at Stirling or Holyrood, we possess few clues from the historical records about how the site was used or to whom it belonged. Thus, future research into this landscape must incorporate the ecological history of the park using primarily pollen analysis to gain deeper understanding of this landscape's utilization. Attention should also be directed towards the medieval rig and furrow immediately northeast of the 'Hunt Hall'. Finally, employing different methods of remote sensing (GPR, LiDAR, etc.) may prove valuable in revealing the full extent of the park's boundaries as well as evidence for past compartmentalization to examine how this rural landscape was created and utilized in the medieval period.

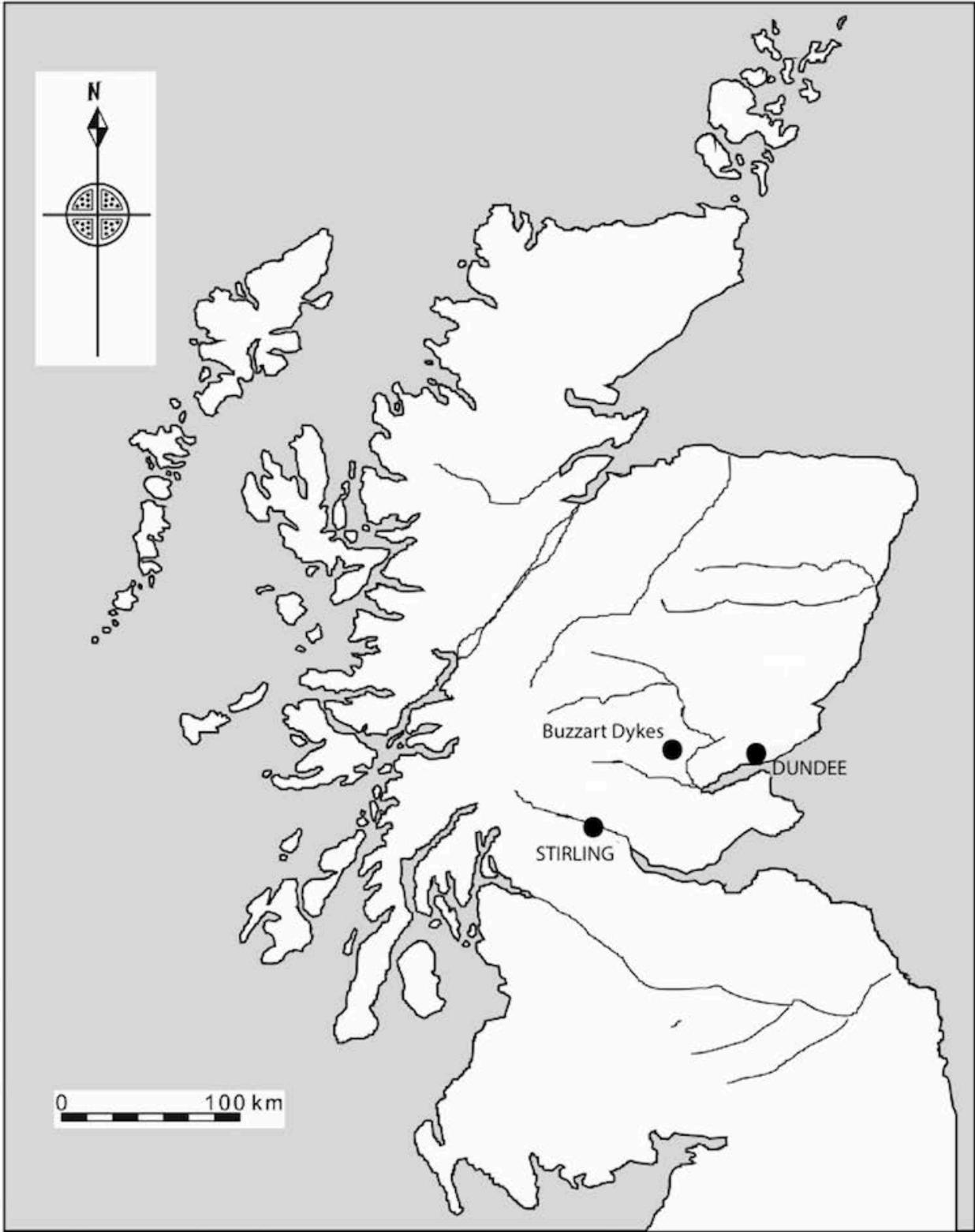


Figure 1: Buzzart Dykes Site Location

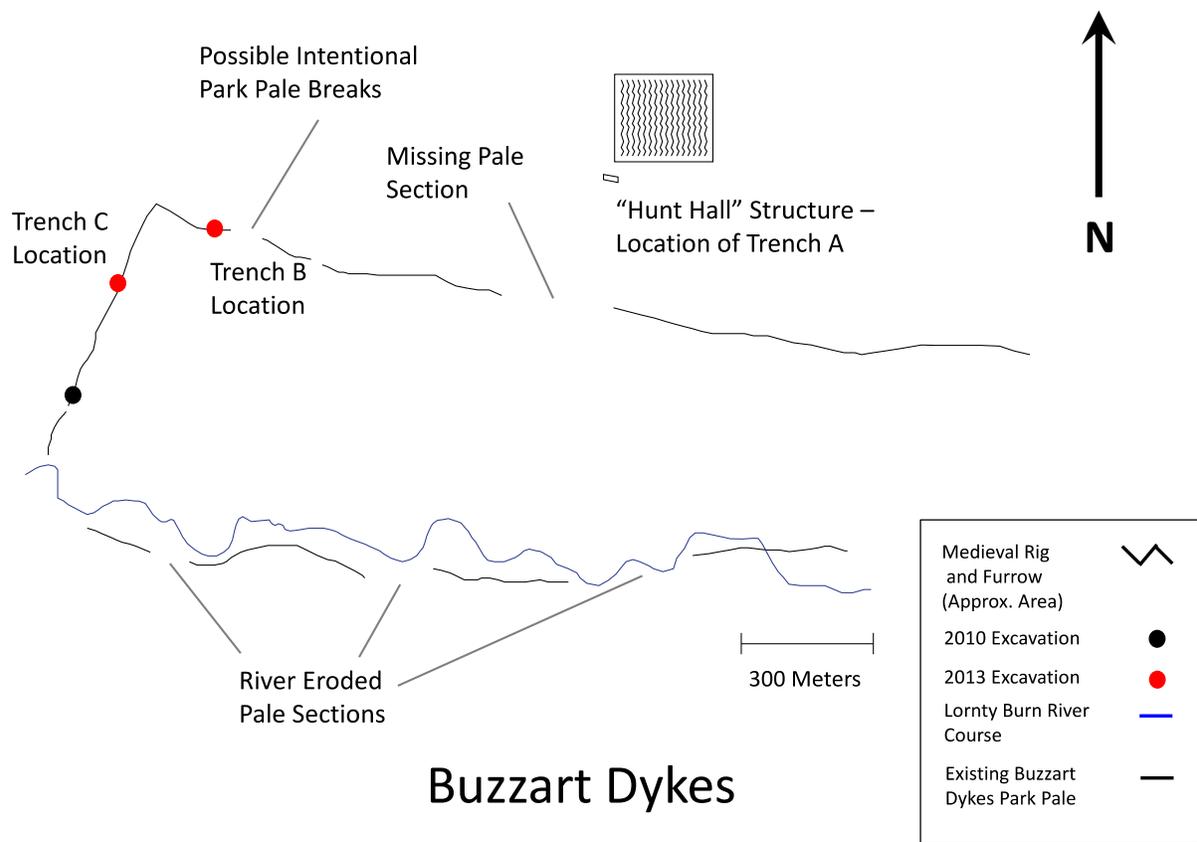


Figure 2: Buzzart Dykes Site Map and Landscape

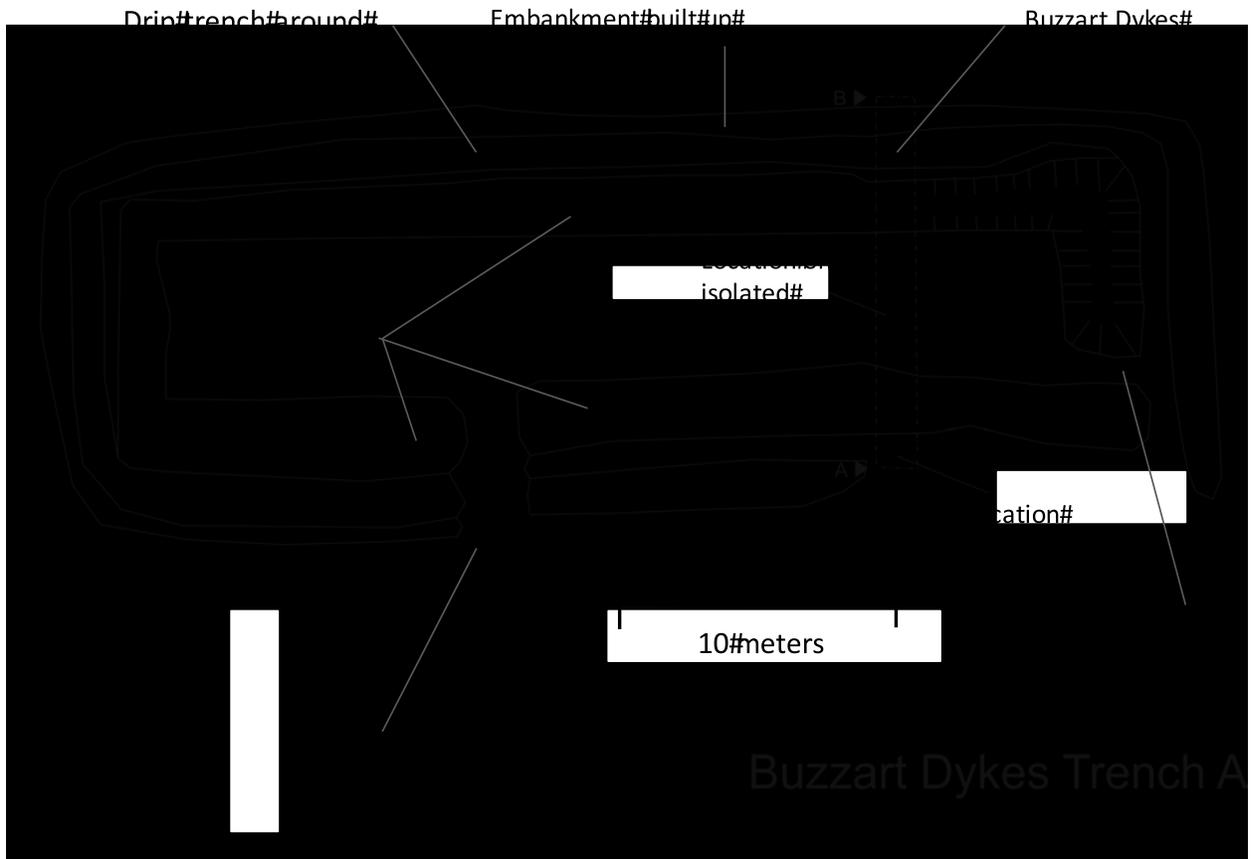


Figure 3: Buzzart Dykes 'Hunt Hall' site plan.



Figure 4: The handle of the Scottish redware jug recovered from the drip trench of the 'Hunt Hall'. The total number of ceramic sherds from this pot equaled 136 pieces.

Item sampled	Uncalibrated Date	2 σ Calibrated Date	3 σ Calibrated Date
Charcoal (from Hunt Hall structure)	740 \pm 34	1253 – 1289calAD (68.2%)	1219 – 1295calAD (95.4%)
Charcoal (from Western Bank interior)	5814 \pm 34	4719 – 4651calBC (50.2%) 4642 – 4616calBC (18.0%)	4770 – 4752calBC (3.2%) 4745 – 4552calBC (92.2%)

Table 1: Carbon dates from the both the 'Hunt Hall' and the western bank.

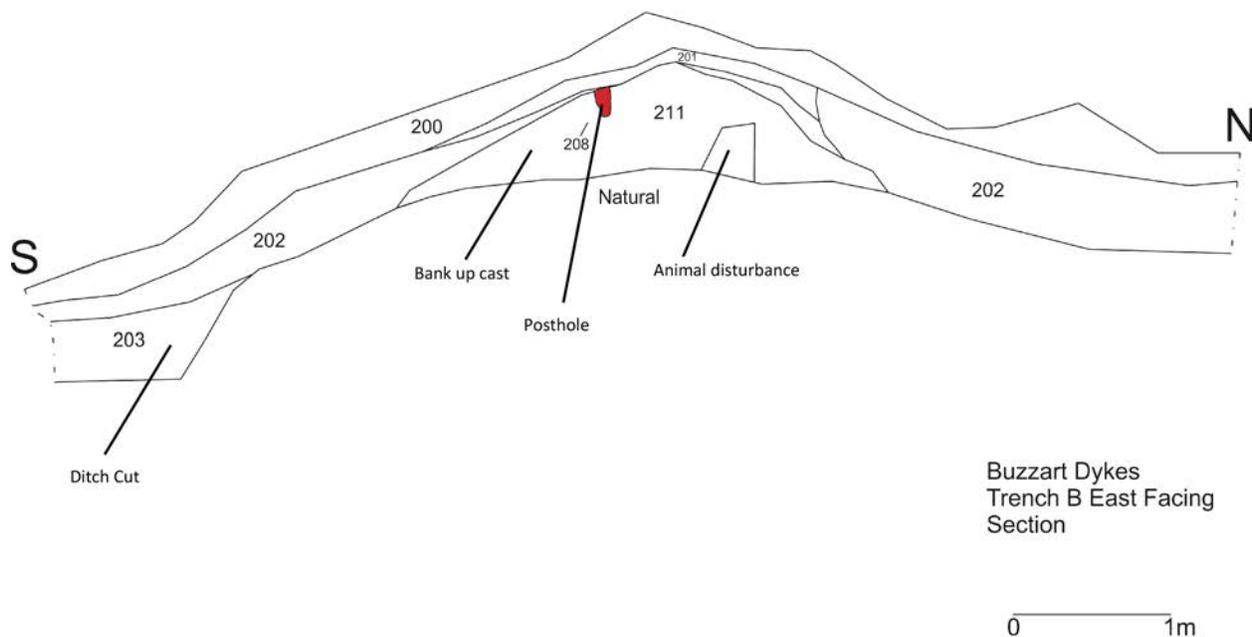


Figure 5: Profile of Trench B with one of the posthole features visible.

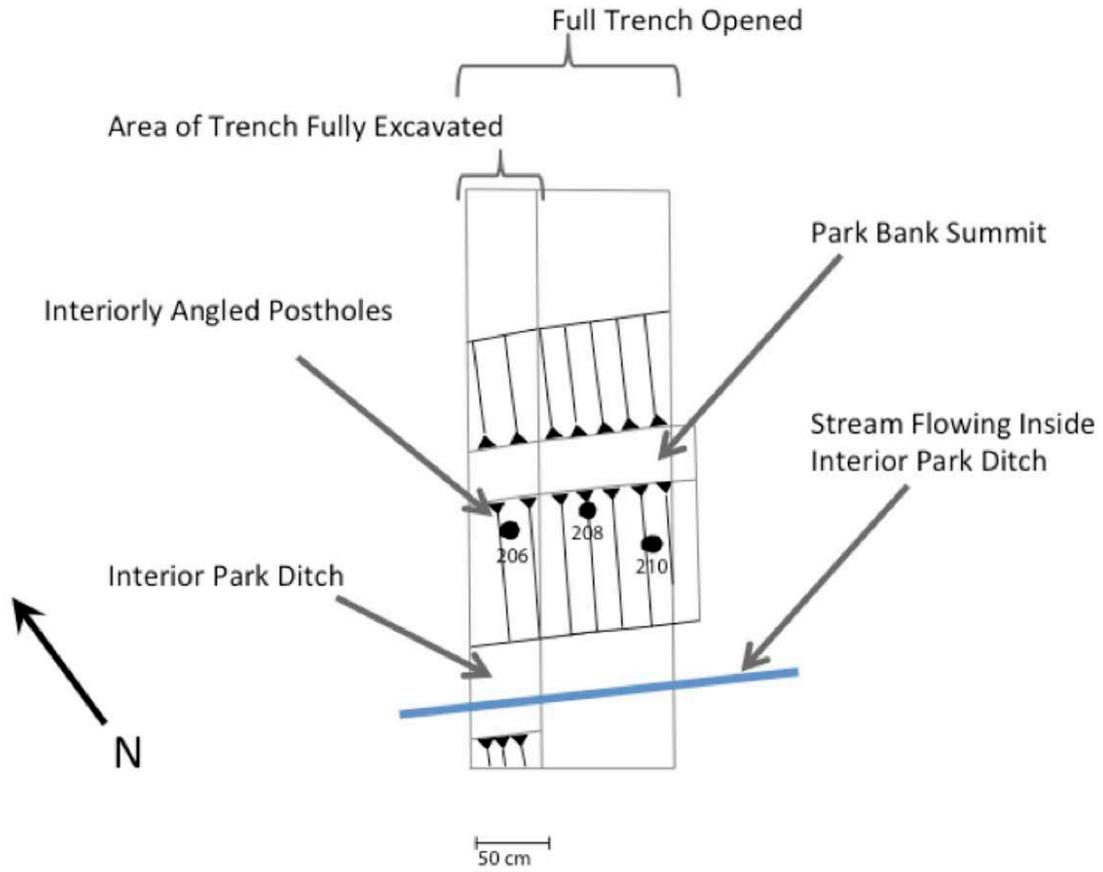


Figure 6: Plan of the three posthole features identified in the Trench B excavation.



Figure 7: Image of the three posthole features identified in the Trench B excavation.



Figure 8: Image of the western bank and ditch structure bisecting a glacier esker to the south.

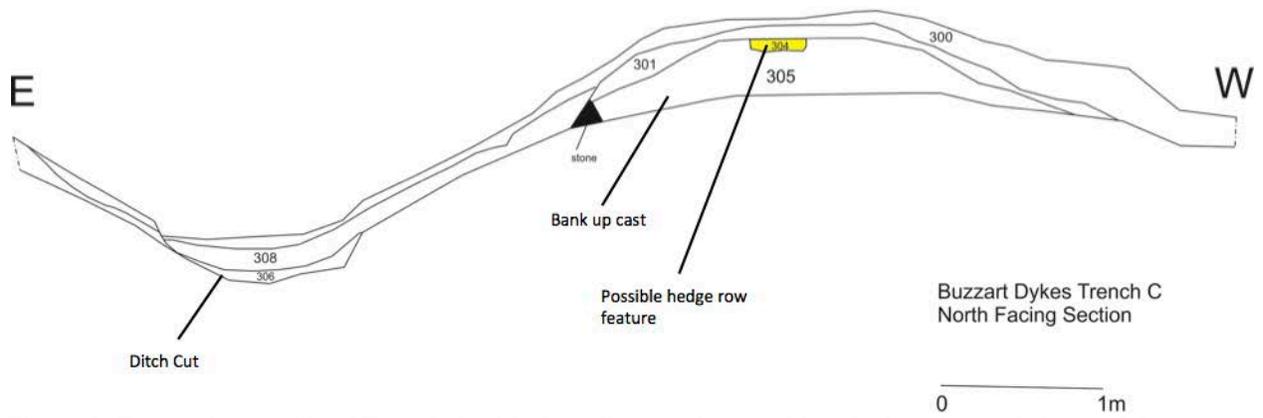


Figure 9: Excavation profile of Trench C with the yellow section marking the location and shape of the possible hedgerow feature.

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