This is an Accepted Manuscript version of the following article, accepted for publication in *Landscapes*. Mills C & McIntosh I (2021) 'I see the site of the old colliery every day': Scotland's landscape legacies of coal. *Landscapes*, 21:1, 50-71. https://doi.org/10.1080/14662035.2020.1864095. It is deposited under the terms of the Creative Commons Attribution-NonCommercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

'I see the site of the old colliery every day': Scotland's landscape legacies of coal

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This article examines how landscapes of abandoned collieries in central Scotland are used, understood and experienced within the context of de-industrialisation and its lingering effects. A mixed methodology was adopted that consisted of an on-line questionnaire, face to face interviews and on site observations, together with two case studies focusing on the Polmaise colliery site at Fallin (Stirlingshire) and the Devon colliery at Fishcross (Clackmannanshire). Analysis of the data revealed ambivalent and more complex relationships with the sites than the current literature suggests, and the strength and nature of these associations are dependent on the local topography, the socio-economic history of the site, and time.

Key Words: coal mining; de-industrialisation; post-industrial landscapes; social haunting; ambivalent landscapes; half life

1. Introduction

Coal had a powerful presence in central Scotland. At its peak it employed around 150,000 people and produced around 15% of British annual output (Oglethorpe; 2006: 1 and 9). Colliery towns and villages were dominated by bings (waste tips), pit wheels, rail sidings and associated housing and clubs. Rapid decline from the 1960s brought closure, followed by repurposing of colliery buildings and/or demolition and redevelopment of the sites (Arnot, 2013; Hayman, 2016).

With few exceptions e.g. the 'Lady Victoria' colliery at Newtongrange, the home tof he *National Mining Museum Scotland*, a scattering of scheduled engine houses, such as the 'Devon' at Fishcross, and a handful of pithead baths, the surface remains of the Scottish collieries have been altered beyond recognition or have vanished. The once prominent and symbolic 'bings' that are left have been remediated and landscaped (Perchard, 2013). Prime examples in Scotland are *Plean Country Park*, in Stirlingshire and on a larger scale the *Earth Project* at Kelty in Fife. A handful survive intact, designated as scheduled ancient monuments to preserve the characteristic landscape features of the coalfields, such as Avonhead and Lochend (see Figure 1), both in North Lanarkshire.

Figure 1. Lochend bing, Noth Lanarkshire, author one.

Typically located on the periphery of what were once mining towns and villages, many sites simply remain as semi-derelict landscapes, largely unmanaged, surrounded by broken fences, with rough vegetation and shrub interspersed with hard standing, building rubble, rusting metal and the ubiquitous evidence of fly tippers; rotting mattresses, broken kitchen cabinets, and abandoned sanitary

appliances as in Figure 2. But these are still spaces people pass-by daily, where memories of past industry may linger, and powerful legacies can still be imagined and brought to mind and it is such aspects that we consider in this article. We explore the potential evocative power of such 'abandoned places' (Harper, 2015). How people physically engage with and value these marginal spaces and 'ambivalent landscapes' (Edensor, 2005a; Edensor et al., 2012; High & Lewis, 2007; Jorgensen & Tylecote 2007; Qvistrom, 2007), the factors that underpin and determine value and the extent to which the current scholarship reflects public use and perception. Following a review of the literature the study begins with the general landscape context before focussing on two comparative case studies. We argue that these demonstrate that these landscapes are not just understood and experienced in an oppositional context but in a more complex and ambivalent manner, that is largely dependent on their specific histories.

Figure 2. Fly tipping at Coalburn bing, South Lanarkshire, author one.

2. A divided literature

The literature on post-industrial landscapes and marginal spaces is largely polarised between negative and positive viewpoints. The dominant stance, largely from a socio-economic perspective, pre-supposes that these environments are barren wastes representing social dislocation and are strongly associated with both health inequalities and deprivation (Bambra et al., 2014: Byrne, 1995; High & Lewis, 2007; Maantay, 2013; Sandlos & Keeling, 2012). More abstractly, they are also portrayed and experienced as sites of 'social hauntings' (Bell, 1997; Gordon, 2008; Rhodes, 2013; Trigg, 2012). As Bell describes;

> We moderns, despite our mechanistic and rationalistic ethos, live in landscapes filled with ghosts. The scenes we pass through each day are inhabited, possessed, by spirits we cannot see but whose presence we nevertheless experience (Bell: 813).

Or as Trigg pointedly suggests; 'ruins occupy the spectral trace of an event left behind, serving to testify to the past through a logic of voids, disruptions and hauntings' (Trigg, 2012: xxvii).

Perhaps less visible are the counter-views that suggests that these landscapes provide urban wild spaces in which flora and fauna can flourish, provide leisure and 'play' opportunities free of overt regulation, and offer new forms of cultural heritage, despite their 'inconvenience' (Braae, 2015; Edensor, 2005b; Edensor, 2012; Mabey, 2014; Shoard, 2002; Symmons Roberts & Farley, 2012). Recent studies have also highlighted the affirmative role these landscapes play in narrating past industrial glories and in producing communal memory, identity and place (Baker, 2012; Boym, 2001; Casey, 2000: Linkon, 2013; Olick et al., 2011: Reiff, 2017: Storm, 2014; Waterton, 2011). A handful of scholars take a more holistic stance, such as Mar (2012) who adopts a 'lived experience' approach and suggests that post-industrial sites remained connected to their adjacent landscapes, and Storm who adopts the notion of a

scar, to signify both the positive and negative layers of meaning and memories attributed to the sites, and as a process of healing as an exploratory framework (Storm, 2014).

The literature raises several key issues which this study will address. The positive or negatives values attributed to sites are generally explored in isolation perhaps reflecting the researcher's own view point. The emphasis is often on large-scale dereliction and the demise of multinationals and only few studies (Mah, 2012; Storm, 2014) explore how communities living in close proximity to such post-industrial and ambivalent landscapes value these spaces. From a more expressly sociological position, Strangleman (2017a) has argued (alongside Inglis, 2014) for a return to a more historically sensitive and informed sociology, one that pays less heed to historically empty 'periodizing constructs' (Inglis, 2014) such as late/post modernity, liquid and network societies and roots its analysis more centrally in the lived experience (McIntosh & Wright, 2018) of those dealing with historical events and change (Abrams, 1983).

Relatedly, Strangleman also suggested that processes of de-industrialisation and industrial change, more generally, can be seen to have a 'half-life' (Strangleman, 2017b) whereby the effects, and experience, of the specific events of factory or pit closure (to draw on the two *loci classici* of deindustrialisation) can linger on in complex ways, perhaps decades beyond the immediate closure event. As Linkon puts it, '[D]eindustrialisation has a half-life, and like radioactive waste, its effects remain long after abandoned factory buildings have been torn down and workers find new jobs'. (Linkon, 2013: 475). In this way de-industrialised places can continue to be sites of a diversity of memories and associations and it is these that we explore below. (Emery, 2019; Meier, 2013). Whereas other authors, (such as Endensor, 2005a and High and Lewis, 2007) have highlighted loss and nostalgia as a consequence of dramatic socio-economic change, we, in addition, emphasise the role of the landscape within a historical context.

3. Approach and Methodology

A combined approach, grounded in landscape perception and memory studies, informed the data collection.[1] The key source consisted of a JISC, formerly BOS online, survey that primarily explored, connections, memories, current and past uses and values of abandoned colliery landscapes. (https://stirling.onlinesurveys.ac.uk/landscape-legacies-of-coal). A total of 66 participants responded, (3 of whom completed in hard copy). The questionnaire was augmented with 8 face to face in depth semi-structured interviews.[2] Participants, were recruited via social media, and in a few cases via known contacts.

To better understand what lies behind these values and connections a comparative exploration of two abandoned colliery sites was also undertaken, the Devon Colliery in Fishcross, Clackmannanshire and Polmaise Colliery, pits 3 & 4 in Fallin, in Stirlingshire. To assess how and in what way historical factors, such as the timing and nature of the closure of the pit and subsequent re-

development and/or repurposing of the landscape played a role, traditional archival research was undertaken to establish individual pit histories, and biographies of the sites since closure. These two collieries were selected largely due to their comparable size, average annual employment was just over 600 workers, (Oglethorpe 2006); the differences in their respective histories around closure and to the surviving documentary sources. [3] Remaining landscape features and topography, such as visibility and proximity of the locations to the respective local communities were also examined, together with numerous on-site observations taken across a twelve month period April 2017 to April 2018.[4] This opened a window onto how the public physically engaged with and used the two locations These were invaluable for noting ongoing activities at the sites and the immediate surroundings as well as gaining a more phenomenological (Tilley, 1994) sense of place and absence associated with the loss of the mining industry in relation to 'social haunting' (Bell, 1997; Gordon, 2008).

Figure 3. Wider Geographical Context of Fishcross and Fallin, author one, Digimap Ordnance Survey Collection, https://digimap.edina.ac.uk/, created 28/08/20.

Social media ensured wide coverage across the Scottish coalfields but it also introduced an element of self-selection bias. All respondents had connections to coal mining in some form. For example, three had an 'interest' in mining history and two had studied abandoned collieries sites as part of their degree programmes and maintained an interest. The remainder were all linked to the sites through occupation, family and/or place of residence. It is unlikely that those with neither a connection nor interest would have chosen to take part in the questionnaire, and the question of partiality is discussed below.

The study was part of a wider public engagement initiative, 'Landscape Legacies of Coal' (www.landscapelegaciesofcoal.com). *Author one* actively collaborated with local community groups and individuals, to produce an expanding series of curated heritage walks on a free to download mobile phone app. The walking routes narrate the story of Scottish coal mining through the medium of, and active engagement with, landscape features that have survived the decline of the industry. The close co-production of the routes (community groups and individuals largely designed the routes and identified the features to be included as points of interest) also offered *author one* additional insights into how these landscapes are rooted in every-day experience.

4. The Landscape Context: General Discussion

The survey captured a general cross-section of post-extractive landscapes across the Scottish coalfield including Ayrshire, Clackmannanshire, Fife, Mid-Lothian and Stirlingshire and is discussed below. Repurposing of the sites since closure of the pits can be placed into four broad groupings, housing and industry/agriculture, 'vacant land', as defined by the Scottish Vacant and Derelict Land Survey (https://data.gov.uk/dataset/485f83d4-beb7-45f9-9530-f98a7890b860/vacant-and-derelict-land), and managed or semi-managed public open space, with the exception of the mining museum at

Newtongrange. The latter two categories accounted for just under 50% of the re-usage (managed space at 21%). Several respondents commented that the private housing developments were beyond the reach of the local people who worked in the pit (36884127), one respondent commented that having paths and trails was a good idea but a majority of the community would like to see the return of mining, perhaps to be expected given the selection bias, another noted that although the land had been restored to farmland they had yet to see any farming activities (36875282).[5]

Just under half of the sites had some kind of memorial to the industry, ranging from monuments (often commemorating a disaster) to street names reflecting the mining past. Only three mining landscapes (e.g. the Lady Victoria colliery at the Mining Museum) had any formal interpretation. This lack of information, for a significant proportion of respondents was problematic, particularly in relation to visitors/tourists. '…if a stranger visited, they would never know that they were on the site of a deep mine'. (36875282) and '…they think they are on a nice coast walk without realising they are on an old colliery'. (36838479). One respondent saw it as evidence for the 'miners and their work being cleansed from the community' (36881987). Also lacking was an acknowledgement of an industrial past, a sense of loss that resonated strongly with participants:

> If you don't know your past you don't know who you are. In post-industrial areas of deprivation, such as Midlothian, people are in danger of becoming defined by the absence of industry, as though the very people themselves are ended, bereft, devoid of purpose, and the land has no further value other than to be developed into vast housing estates. There is an appetite in folk to remember that we did have a unified workforce with purpose and utility, and the landscape, geology and communities were our lifeblood (4544381).

In such ways these sites can provide both historical continuity and an anchor point for identity (see *Section 5*).

Most respondents lived close to the sites, only six lived more than 10 miles away. All but one visited their respective sites regularly, varying in duration from a 'few minutes' to 'a couple of hours'. Sites were used overwhelmingly for 'recreational purposes'. Activities included walking dogs, playing football, running, cycling and horse riding. They also offered opportunities for reflection. 'I visit purely to reflect on the many men, of my mother and fathers families, who spent their lives underground (40243167).

The sites were also associated with 'nature'; (as in figure 4) '...peaceable wildlife areas' and 'a wide variety of wildlife and wild edibles'. A few participants commented on illicit alcohol consumption and fly tipping and at one particular site, suicide (two respondents). These activities sit comfortably with the notion of 'edgeland' spaces (Shoard, 2006: 123), responding 'to whatever needs are thrust upon them, and in whatever way they can', but also as unregulated spaces for what Edensor (2012:68) would

describe as ‘hedonistic play’; ‘drinking, drug taking partying and sex’. With the exception of reports of suicide, these activities did not feed directly into a negative view of the sites.

Figure 4 Heather clad bings, Limerigg Wood, Falkirk, author one.

Fly tipping was not highlighted as a major problem in the online survey but field work for the heritage walking routes, revealed that the illicit dumping of rubbish was so prolific in some areas (e.g. North Lanarkshire) it warranted the installation of CCTV at specific sites (Figure 5), suggesting a perception of low value associated with the post mining landscape. These sites, however, were predominantly remediated open cast collieries and interestingly only one of the participants who completed the questionnaire focused on surface extraction, and described Meadowhill, Clackmannanshire as ‘an environmental disaster’ (45457656). The remaining sites were all locations of underground extraction. Retired miners in conversation with *author one* have indicated that open cast extraction is seen as unskilled; dumper truck drivers and not proper miners. These differences between opencast and underground mining landscapes perhaps indicate that cultural and social value of these sites is strongly tied into the nature and history of forms of labour and warrants further research.

Figure 5. CCTV at Greengairs opencast site, North Lanarkshire, author one.

Also interesting was the absence of any mention of potential pollution problems associated with ex-colliery landscapes. Field work for the walking routes on the app however, revealed that acid mine drainage (AMD) was present at a significant number of the sites, including both the focused studies at the Polmaise and Devon colliery locations. AMD is hard to miss as the oxidation of iron sulphide produces a bright orange colour (Figure 6), perhaps suggesting that AMD is perceived as ‘normal’ for abandoned colliery landscapes and not worth commenting on.

Figure 6: AMD, Vicar’s Bridge, Dollar, Clackmannanshire, author one.

5. Understandings: ‘seek to see the invisible’.

The respondent’s relationship to sites of former collieries can be complex and ambivalent. For some there is a perfunctory attachment and for others there is a deep feeling of loss when confronted with such sites. Thus when considering if a site held any particular memories or strong associations/identifications some respondents were curt in their dismissal; ‘[N]ot particularly’ (36487582) and ‘[N]ot personally no’ (40247422).

Others were more effusive and nostalgic;

> I walked these sites many times in complete ignorance of their history, which was a shame. The traces are there, but only if you know to look for them. These are fascinating remnants, such as the traces of the rail tracks for the carts … once I realised the significance, these places have an

> increased value to me, as I know they are more than simply places of meadows where wildlife now flourishes. (36838479)

Most respondents were ambivalent when considering the legacy of the sites and the extent to which it continues to resonate; '[A]s time goes on, the men who worked there are slowly fading away, new generations don't know of the industry that was all around' (36886154). Similarly, when considering the extent to which disused sites held a broader value for local communities there was a range of answers from a simple 'no' to more reflective assessments:

> From conversation with locals over 40 [years] there's a sort of hallowed appreciation of what was once there. But the younger generation have little awareness or appreciation, the connection is gone and they have no memories so without the heritage being signposted for them, it's lost. The children in school learn about the Romans … not the coal legacy. (36838479)

> It's hugely significant, people are proud of their rich mining heritage and culture. More so now as folk struggle with austerity and the last generation of miners begin to reach old age. (45443841)

> Remembering collieries near me when I was a child, for me it's a sense of wonder at how a site once so industrious became so invisible and reduced to nothing (36838479).

> The site makes me constantly seek to see the invisible. I'm always trying to imagine what it would have been like when the colliery was in operation. It creates a sense of unease, like the way it is now can't really be quite real (38926117).

An important role that these empty sites play for some is that they provide a form of historical and personal continuity.

> It stirs very deep emotions, l am glad I never had to work there, and I know it was very hard, difficult and dangerous work, so I have great respect and pride for those who did. As I've grown up with it, it was always there, and so it represents continuity, and of course is partly why it was so shocking when the industry ended. We have been mining coal at Newbattle for 800 years (45443841).

This was by no means a universally held view, for example one respondent commented '[C]oal mining is finished. Cannot possible see what good it [preserving the landscape] would do' (45220384).

However it was a common refrain that the empty sites allowed for a link to the past that helped to understand the present:

> Without this link to our own heritage roots are lost, and the voices of the ordinary person's everyday lives, and these are our ancestors (36838479).

> We can only learn where we are going from where we have been. Even if only for interest, future generations should be able to learn and see what mining was like (342444063).

> We have to remember where we have come from as a community or those men who toiled underground will be forgotten (40243167).

Even allowing for selection bias, the data suggests that an individual's relationship with post extractive landscapes is not characteristically binary. Neither is it wholly positive but significantly nuanced and ambivalent. The two focussed studies give an indication of the factors that shape and determine these relationships and understandings.

6. Taking a closer look: Fallin and Fishcross

Fallin: 'Our village is very much still remembered as a mining village'

Figure 7. Polmaise/Fallin Area Map, author one, Digimap Ordnance Survey Collection, https://digimap.edina.ac.uk/, created 10/02/20.

Fallin is 3.5 miles from Stirling (2,710 population). The majority of the settlement falls within the most deprived 20-30% of Scotland (SMID 2020). The Polmaise colliery and original miners' housing were developed at the eastern end of the village which straddles either side of the wide and straight A905 and is situated on the southern carselands of the Forth. Travelling east towards Stirling, a handful of detached owner occupied houses quickly gives way to small scale industry followed by austere pebble dashed social housing set back along wide tree lined service roads. The nature of the topography permits a line of sight straight through the village (see figure 8). There is no discernible centre aside from a small shopping precinct.

Figure 8. Main street in Fallin, looking east, author one

The village owes its origins to the colliery, and Fallin was probably the last mining village in Scotland to rise as a direct consequence of coal (Kerr, 1991: 10). The Alloa Coal Company started sinking the first shaft in 1895, reaching the coal seam in 1904. The pit went into production in 1905 extracting Anthracite, House and Steam coal. The same year the company began the construction of the houses to accommodate the workforce, followed by the construction of social housing in the 1930s. Polmaise was nationalised in 1947 and underwent major reconstruction in 1954. The colliery employed an annual average of 606 men (Oglethorpe, 2006: 248). The falling demand for coal meant a switch to working the poorer quality Upper Hirst seam to supply Kincardine Power Station. The pit had a long history of industrial action, the men struck for six weeks in 1912 for higher wages; they were locked-

out in 1921; the 'general strike' in 1926; the 'dirt-scale' strike of 1928 and the disputes of 1972 and 1974. The Fallin miners were the first to strike in 1984 and the last to return to work in 1985. (Kerr, 1991: 26-9). Closure in July 1987 was swift despite the withdrawal of closure plans in 1984 and a £20 million pound investment. The men were informed that they could have a three month trial period in alternative pits in neighbouring Fife, but most took redundancy. (McCormack, 2015: 53) Within two days, 112 men joined the 'dole queue' in a village that already had an unemployment rate of 36% and 64% of families claimed housing benefit (*Herald* 14.7.97). The shafts were sealed within months of closure leaving the equipment and infrastructure underground. The site, (not the colliery offices), the head gear and buildings were demolished by the end of 1987. Eventually full clearance of the site became the favoured option of the Council to 'eradicate all traces of this failed industry' (Stirling Central Regional Council Minutes, 18/07/88).

Figure 9. Access and signage to Fallin bing, author one.

The bing was re-profiled and the site handed over to the Council in 1991. It is designated as public open space and is no longer visible from the main road (figure 9). A memorial Cairn was erected to mark the location of the shafts. A miners' memorial dedicated to those who lost their lives was unveiled in 1994. A small open air museum memorial garden adjacent to the site was opened in 2006. These features together with the *Gothenburg* public house, bowling green and Miners' Welfare Society and Social Club front the main road (figure 10) and still dominate the eastern (original) end of the village.

Figure 10. Fallin Miners' Welfare Society and Social Club, author one.

As a 'former' pit-village, it is all too easy to represent Fallin as forgotten and left behind. The 'Polmaise malaise' (*Herald*, 14/7/1997) of course has its parallels in numerous mining towns in the UK (Arnot, 2013; Hayman, 2016). The move from a site of one of the UK's iconic industries to a classic example of a 'non-place' (Auge, 1993; Trigg 2012) gives a basis for understanding Fallin as being full of 'ghosts' (Carsten, 2007) and 'haunted' (Gordon, 2008) by a version of the relatively recent past that is kept alive by a declining number of people; 'former' miners, and their friends and family. For many the closing of the pit was the death of Fallin, 'the community spirit was also taken away as well as jobs' (36875461) and the remains of the bing serves as a constant reminder of this. As McCormack writes:

> When I drive down past the site where the pit used to be, I have to turn my head and look the other way' 'Fallin has lost a landmark' 'you'll know it (Fallin village) by the pit, the first thing you'll see.... is the pit bing; the miners' club is right next to it (2015: 55)

One interviewee emphasised that the bing is a permanent reminder of the village's past that every 'incomer' to the village cannot escape:

> They are aware of the mining history, the bing is the inescapable landscape feature … [it] gives a sense that everyone in the village is descended from people who came to work in the mine. (Interview, RS, 11/6/18).

The bing continues to be a key marker of the 'half-life' of Fallin mining. Similarly the Gothenburg pub, the bowling club and Fallin Miner's Welfare, are material markers of the village's industrial past, standing as constant material, social and spatial 'monuments' (Connerton 2009) to the continuing half-life of prior forms of work and sociality. As one respondent said:

> The Miners Welfare, such a heartbeat during strike and history of Fallin … these spaces mean more than a lick of paint and a few loose tiles. They have that connection to a people, a community, a way of life (42657994).

The void represented by the site of the former colliery is a visceral reminder of loss, particularly for those who regularly confront it, 'I see the site of the old colliery every day … every day in passing' (36884263). And for many it serves as an ongoing identification with the history of the village: 'it shows where we have come from, how the country and communities were built to bring us to where we are' (36429361).

Site observations indicate that the bing is used primarily by dog walkers, although few venture to the top of the bing, preferring to walk around the base on the level. It is also associated, apocryphally at least, with suicide and the memorial garden has been subject to periodic vandalism. One respondent occasionally walked the bing with 'the dog and kids, not often though due to people drinking on site and a few suicides doesn't make it a nice place' (36875905). Amongst the respondents, the Fallin bing was not strongly associated with 'nature' despite recent projects by Buglife (2014) and the Inner Forth Landscape Initiative (2014/5) highlighting the ecological value of the site.

The Devon: '..always on the edge between the visible/invisible…'

Figure 11. Devon/Fishcross Area Map, author one, Digimap Ordnance Survey Collection, https://digimap.edina.ac.uk/, created 10/02/20.

The Devon colliery is situated in Fishcross five miles from Stirling and two miles from Alloa, north of the Forth. It is a much smaller settlement than Fallin with a population of around 500 and marginally less deprived, falling within the poorest 30-40% (SMID 2020). Fishcross is located at the junction of the A908 with the B9140 and sits on the apex of what is known locally as the Sheardale Ridge. Colliery housing was developed around the crossroads. Several miners' 'rows' (single storey terraces) survived village expansion with private and local authority development.

Figure 12 Miners' Rows, Fishcross, author one.

The Devon has a longer history than the Polmaise pit and has been worked for coal since late 18th century by the Alloa Coal Company. It was abandoned in 1854 largely due to flooding. An estimated two million tons of coal remaining in a 430 acre site prompted reworking in 1873. New shafts were sunk and a Cornish beam engine and house, capable of pumping around 2,560 gallons per minute was erected. It was nationalised in 1947 (Carvell, 1944). Despite modernisation the Devon closed partially in 1959 with full closure in 1960, some 20 years before Polmaise and long before the 1984 miners' strike. It was a more gradual and a less traumatic closure, the decision being geological not political. The coal seam dipped steeply under the river Devon rising again on the northern side toward the Ochil fault and it was decided that it would be more economic and efficient to sink a new mine across the river at Glenochil (*Colliery Engineering,* June 1951, 253-5). Consequently, many of the Devon men simply transferred to the new operation. Close proximity to Alloa (see figure 3) also offered alternative opportunities in heavy industry, such as engineering, brewing and glass making. In contrast to Fallin much of the underground machinery was brought to the surface for reuse elsewhere before the shafts were capped. The Devon site is arguably one of transition rather than one of an abrupt ending as with Polmaise and is less troubled by 'ghosts'. The reminders of loss are less visceral and personal. Responses were often short and related to the loss of the wider historical context rather than the specific pit, for example 'it is sad to see the industry gone' (36566889) '…sad, there was a lot of history round about the area.' (36872087). One interviewee felt that 'how it went' [closed], was important in terms of how these sites are remembered 'the donkey didn't moulder away' as with the Devon, 'the donkey' (Polmaise) got shot' (interview MD 06/12/18). Only one respondent hinted at a 'sense of unease', but this was attached to 'trying to imagine what the colliery was like when it was in operation', and how the current landscape makes him/her feel that the past mining activity 'can't really be quite real' (38926117).

Demolition of the surface buildings and remediation of the bing, did not begin until 1976, sixteen years after closure The decision by the NCB to burn the waste in Methil Power Station, which was still to be built, caused the delay and this may have added to the notion of a gentle decline (Clackmannanshire Council Minutes, 23.06.67) Given that some sixty years has passed since the site closed down, that many of the miners have passed away and that there have been some, albeit small, shifts in the local demography any notions of loss may well have been weakened or simply faded away perhaps reflecting a need for a more nuanced application of the concept of 'half-life' (Linkon, 2013).

Ambitious plans were unveiled by the *Scottish Development Agency* to develop the site in the form of a heritage park with landscaping of the bing and repurposing of the engine house into a mining museum (Smith, *Scotsman*, 01.12.76: 11). Instead the site was remediated and intermittently leased by the council for equestrian use until it was eventually sold in 2006 to the SSPCA for a new wild animal hospital. The removal of the bing, which was conical in shape and stood around 240 feet (73 metres) high caused one particular interviewee to 'fall out with the council'. '[I]t was a there', 'a landmark'; 'a

testimony to the miners, every piece was hauled out of the ground by men', (interview MD 6/12/18). The objection letter from the time still survives in the archive (National Record of Scotland, DD27/5114). Today the bing is open grassland gently sloping down to the river Devon and the cleared surface site is mostly wooded through natural regeneration (see figure 9). The engine house, which was listed in 1973 and survived demolition, has become, as the interviewee who opposed the removal of bing feared; an 'odd fragment with no context' (MD 6/12/18).

Figure 13. Fishcross above the Devon bing site, author one

Although the notion of a half-life applies more partially to the Devon closure, it can also be argued that the history of the landscape, and its associations, has largely become invisible. See figure 14 that depicts access to site from the village. Even the imposing engine house currently lies unused, slowly disappearing behind a shield of regenerated trees. A small miners' memorial is situated around 15 minutes' walk away and the miners' welfare building, now a bar and restaurant, is unrecognisable. Several older members of the local community admitted that they could no longer remember precisely where the mine was located. (*Author One* in conversation with the Sauchie Community Group, 29.09.17). The only hint at the landscape's historic use is preserved in a single road name, *Engine Green*. There is little sense of a lingering haunting, 'if you leave the bing and the headstock as a monument, you or the community memorialise surviving buildings/landscape it means you or the community are stuck in the past and you haven't moved on' (author one in conversation with retired miner RG 18/10/19). There are no strong reminders, and notions of invisibility run through several of the testimonies. One respondent notes that 'when the colliery was in operation it's was always on the edge between the visible/invisible' (38926117). This likely refers to both the topography, the housing eventually developed on the southern slopes of the Sheardale ridge whilst the colliery was on the northern slopes and effectively hidden from view. and to the Alloa Coal Company's early policies to minimise the visual impact of their operations by shielding with trees (Carvell: 1944: 109).

Figure 14, The footpath from Fishcross to the site of the Devon colliery, author one.

The Devon mining landscape has a much longer history of public activity due to the lengthy period it lay abandoned. Memories of respondents focus not on the traumatic closure, as with Polmaise, or the dereliction but the opportunities it presented in terms of childhood play, and for vandalism and theft. This included stealing coal from the bing, achieved using an old pram with the hood up (author one in conversation with PH & LH 18/01/19) and more organised removal of materials (Geller, 2015: 156). Between closure and the demolition of the surface buildings and the landscaping of the bing, the NCB used the site to store equipment and supplies. Presently the site is surrounded by core footpaths and mostly used for walking and horse riding. In all it has a much more looser set of memories and associations then the disused Polmaise site.

6. Conclusion

This article explored how post-industrial landscapes, specifically disused collieries are used, understood and experienced. This was done partly via the notion of a 'half-life' (Linkon, 2013) which describes the ways in which effects and experiences of closures of industry can linger on in myriad ways long after the event(s). This certainly seems to be the case with the closure of many collieries and the various sites were they once stood. Although the data was skewed toward those wanting to take part, it still displayed a range of understandings and experiences that, in contrast the suggestions of the current literature, were complex and often ambivalent. For some there is a degree of interest perhaps borne of a direct connection with the mine but a dismissal of any ongoing importance attached to the empty space left behind. For others, seeing and walking through these abandoned spaces continues to be a very visceral and emotive experience. The sites of former mines, such as that in Fallin, continue to 'haunt' (Gordon, 2008) the locations within which they stood whereas others such as the Devon Colliery is slowly, it seems, fading from sight and memory reflecting the different histories and usages. The location and topography of these sites, at the heart of the village in Fallin and 'hidden' in the case of the Devon and also their particular socio-economic histories, traumatic closure as opposed to a gradual transition, combine in complex ways. This gives rise to differing interpretations and responses to similar landscapes which can provide links to the past as well as ways to contrast and understand the present. In aggregate these sites represent significant and ongoing sets of experiences for large numbers of people as they continue to move past and through them.

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[1] Constraints of space do not permit a full discussion of the approach. For landscape perception see Ward Thompson (2013), and for memory studies, Jones (2010) offers a succinct overview. Also see Summerfield (1998) and Cubitt, (2007). In relation to heritage and memory see MacDonald (2013).

[2] Oral interviews were conducted in accordance with the guidelines set by Scottish Oral History Centre, University of Strathclyde, where the recordings will be archived. https://www.strath.ac.uk/humanities/schoolofhumanities/history/scottishoralhistorycentre/. Full ethical and

GDPR approval was granted by the University of Stirling General University Ethics Panel (GUEP) https://www.stir.ac.uk/research/research-ethics-and-integrity/general-university-ethics-panel/. Application reference 168.

[3] Key documents accessed were the records of the National Coal Board held at the National Records of Scotland, Princess Street, Edinburgh; Stirling Central Regional Council Minutes, held at Stirling Council Archives, 5, Borrowmeadow Road, Stirling and Clackmannanshire Council Minutes, held at Clackmannanshire Archives, Spiers Centre, Primrose Place, Alloa.

[4] Full ethical and GDPR approval was granted by GUEP. Application reference 168.

[5] The numerical references refer to the unique anonymous identifiers allocated to the participants in the BOS Online survey.