



Article

The paradox of the 'green' prison: Sustaining the environment or sustaining the penal complex?

Theoretical Criminology

2015, Vol. 19(4) 451–469

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DOI: 10.1177/1362480615576270

tcr.sagepub.com



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Abstract

This article examines the ways in which sustainability discourses intersect with carceral policies. Building new prisons to 'green' industry standards; making existing prison buildings less environmentally harmful; incorporating processes such as renewable energy initiatives; offering 'green-collar' work and training to prisoners; and providing 'green care' in an effort to reduce recidivism are all provided as evidence of 'green' strategies that shape the experience of prisoners, prison staff and the communities in which prisons are located. Although usually portrayed positively, this article proposes an alternative, potentially more contentious, interpretation of the green prison. In the context of mounting costs of incarceration, we suggest that green discourses perversely are fast becoming symbolic and material structures that frame and support mass imprisonment. Consequently, we argue, it may be the penal complex, rather than the environment, which is being 'sustained'. Moreover, we suggest this is a topic worthy of attention from 'green criminologists'.

Keywords

Environmental harm, green criminology, green prisons, mass incarceration, sustainability

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Introduction: Where is the green prison in green criminology?

In recent years concerns about climate change, the global poverty divide and the waste generated by casual consumption of disposable goods have moved being 'green' from fringe to fashionable to fundamental. Uniting the political right and left in moral, ethical and, sometimes, self-righteous accord, an environmental conscience has, in a relatively short space of time, become the *only* position to adopt on a broad range of issues. Expressions of scepticism or resistance to the 'green' agenda have become regarded as a mark of selfishness, ignorance and heresy.¹

Against this backdrop, there has been a dramatic growth of interest in topics that come under the umbrella term 'green criminology', following the publication of a special issue of *Theoretical Criminology* on the subject in 1998 (edited by Piers Beirne and Nigel South; see also Lynch, 1990 for what is frequently cited as the first publication in the field). Since then, a relatively small and exclusive band of 'green criminologists' has produced a wealth of scholarship taking the field into new and imaginative areas of concern, including climate change, air and water pollution, genetically modified food and animal abuse (inter alia Graham and White, 2015; Solomon-Westerhuis et al., 2013; South and Brisman, 2013; Stretesky et al., 2013; White, 2013). However, the focus of green criminology has been largely confined to environmental crime, its investigation and the regulatory and legislative frameworks set up to deal with it, with some attention also directed to processes of alternative and new forms of justice ('green justice' or 'eco-justice') devised specifically to deal with environmental offences (Solomon-Westerhuis et al., 2013; White, 2013). While it is natural that an emerging field would pursue innovative lines of inquiry, it is noticeable that green criminologists have eschewed some of the traditional concerns of the discipline, including largely neglecting to capture what 'green' means to the established structures and processes of criminal justice. This is starting to change (see, for example, White and Graham, 2015), but there remains little work which addresses environmental strategies in relation to punishment and even less on the specific ways in which environmental and sustainability discourses reflect, influence, mesh with or, indeed, mask carceral policies and practices.

This omission is puzzling for several reasons. First, the expansion of correctional systems, especially those in the United States (whose prison population grew sevenfold between 1970 and 2003 and currently stands at a little over 2.2 million people), has been widely criticized by criminologists and others for its financial and human costs but the environmental cost of mass incarceration has yet to attract widespread critique. Second, the common metaphors of corpulence and excess used to describe prisons sit in opposition to dominant ideologies and discourses (including in corrections) concerning sustainability and environmentalism, which tend to be constructed around terms such as 'lean and green', 'clean', 'smart' and 'efficient' (for example, Sheldon and Giovannielli, 2013). Third, although the focus of some, limited analysis within green criminology, the topics of 'green-collar' training, education and green care in prisons arguably have not yet been the subject of theoretical analysis, but have been confined to evaluation studies, policy documents or scholarly summaries that recount 'success stories' from prisons around the world (Graham and White, 2015) or unproblematically call for prisons to be

less environmentally harmful, within a broader discussion of the benefits to society of 'going green' (Stohr and Wozniak, 2014). As we shall go on to discuss in this article, there may be deleterious consequences for those nations and states which 'greenwash' their corrections policies in an attempt to bring the public with them on prison expansion programmes. Relatedly, and the fourth reason why we might expect green criminology's interest to be piqued by the green prison, is that this emergent field shares a vocabulary similar to that used by prison researchers, particularly those who write from a critical, radical or abolitionist perspective. In simple terms, the powerful construct the meaning of 'green', just as they define 'crime' and 'punishment'.

The aim of this article is not to undermine the premises of green criminology, but rather to test the claim that its horizons are 'reflective and prospective' (South and Brisman, 2013: 3) by extending the scope of its inquiries to the prison industrial complex. From repurposing contaminated sites and regenerating communities that have fallen on economic hard times, to embracing issues such as thermal efficiency and bio-waste management as a means of reducing the costs of incarceration, the global corporations which design, construct and manage prisons do not appear to have suffered any of the inertia or resistance to environmentalism that green criminologists have identified in other types of organization; indeed 'sustainability' has already become deeply embedded in corporate discourse in response to standards, policies and mandates, and as a means to communicate specific messages about the purpose and functioning of the correctional complex.

Our interest in green prisons (by which primarily we mean prisons with sustainability accreditation), arises from ongoing research interrogating 'official' definitions of 'sustainability' against the *social* sustainability of 'green corrections'. This project, in turn, has emerged from researching and writing about the tensions between the punitive (and deterrent) purposes of imprisonment, and its rehabilitative aspirations, as they are manifested in prison architecture, design and technology (ADT).² In essence, while researching current prison planning, commissioning and design in the UK, it became clear that it is, to a large extent, impossible to separate these processes from the Sustainable Development (SD) agenda, for reasons that will be explained below. For both research projects, we have conducted interviews with a wide range of prison commissioners and advisers (including on ecobuilding), constructors and architects, and these data inform the arguments that follow. There has been significant overlap between the two studies, exemplified by initiatives such as the American Institute of Architects (AIA) Architecture for Justice (2010) white paper, 'A Green Guide to Justice', described by White and Graham (2015: 6) as an 'extraordinary document' for its 'integrated and holistic thinking', and the implementation of a new construction strategy in the UK called Government Soft Landings (GSL), involving Building Information Modelling (BIM) and end-user engagement, that aims to 'improve performance of buildings and to meet the requirements of those who use them' (bmitaskgroup.org). While not the specific focus of this article, the implementation of such strategies underlines the growing synthesis between human needs, environmental concerns and architecture (see further White and Graham, 2015).

In what follows, we outline some of the sustainability initiatives that underpin the design, planning and construction of prisons with particular reference to policy

and practices in the UK and USA. To our knowledge, this is the first attempt to analyse critically these developments from a criminological perspective. We then briefly describe some of the 'green' prisoner-centric programmes, spaces and approaches that have been introduced in recent years, the rationales behind them and the contested meanings they give rise to. While these kinds of initiatives have been the focus of considerable attention across a range of disciplines, including criminology, scholars have tended to take an uncritical approach, taking at face value their claims to 'nurture' and 'care' while at the same time 'responsibilizing' the prisoner. Our argument is that the reshaping of custody around ideologies that purport to rehabilitate and responsibilize may be no less insidious than more traditional forms of discipline and control, for being part of a treatment modality packaged in moral and ethical rhetoric (see Brown, 2014). Indeed, throughout our discussion of dominant interpretations of the meaning of green to the prison(er), we challenge the orthodoxy that 'green is good' in the corrections sphere. Discourses of sustainability and green ideologies are embedded in the growth of the carceral estate and that environmental policies are enmeshed with broader goals of the criminal justice system within a political economic context that has vested interests in its continuation and expansion. Our conclusion is that the political and cultural hegemony of the green agenda is, perhaps counter-intuitively, serving to sustain both the prison system and the myriad private companies behind the consortia that tender for Design, Construct, Manage & Finance (DCMF) contracts, while espousing the value of sustaining the environment (see Lynch et al., 2013).

Designing and constructing green prisons

In the design and construction industries, 'green' has become a buzzword for all kinds of technologies and practices to improve the efficiency of resource use, to reduce negative environmental impacts, to mimic natural processes and systems and to integrate notions of socio-economic equity and environmental ethics (Moran and Jewkes, 2014). The green agenda derives from the 'Brundtland' Commission and Report, which defined SD as a process which 'meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987: 8). Brundtland was a precursor to subsequent protocols, including Kyoto (1997) which aims to reduce greenhouse gas emissions and stabilize climate change. As we shall see in relation to correctional facilities, the sustainability agenda has had far-reaching impacts on the planning and design of new buildings, although application of the label 'green' is fairly arbitrary in terms of its intuitive nature and assumed meanings. Perhaps for this reason, 'green' has become the trope of sustainability in relation to correctional facilities in both the UK and the USA, with official publications in both countries now peppered with references to 'green' prisons, 'green care', 'green-collar' training for inmates, 'green awards' for notable successes and even environmental policies and hardware which lead to claims of incarceration going 'deep green' (<http://www.breeam.org/page.jsp?id=474>).

While green construction industry standards are differently organized, perceived and utilized around the world—which arguably immediately undermines any claims made about the benefits to the planet of adopting them—the UK and USA share a rhetorical

commitment to high-performance construction which minimizes the environmental impact of the buildings, and this priority extends to correctional facilities. Where the UK and USA differ from each other is in the frequency and intensity with which they enforce their respective environmental codes and standards pertaining to prisons. In its 'Strategic Sustainability Performance Plan' the US Department of Justice (2010) has stated its commitment to meeting the goals set out in the US President's Executive Order on Federal Leadership in Environmental, Energy, and Economic Performance, aiming for zero-net energy for all new federal buildings by 2030, and managing existing building systems to reduce energy, water and materials consumption, and to secure radical reductions in greenhouse gas emissions (Executive Order 13514, 2009). Directed at both federal and state-level facilities, 'The greening of corrections: Creating a sustainable system' is a report commissioned by the US Department of Justice, Federal Bureau of Prisons (2011) and published by the National Institute of Corrections. Its purpose is to provide information and guidance about current tools, strategies and practices of sustainability within correctional facilities, and to present recommendations to practitioners in applying this information to their own facilities. Their approach to the challenges posed is robust, as can be seen in this extract from 'The greening of corrections':

Today, with the increases in the prison population combined with the rising costs of protecting public safety and rehabilitating prisoners, correctional leaders across the country are challenged with operating at maximum efficiency to provide quality services in a time of limited resources. These challenges range from rising energy costs, increased water use and food, to the provision of education and training for prisoners to help them successfully transition into their communities. While many of these challenges may seem daunting, we believe that some of the most innovative and greatest cost savings solutions can be found in the greening of corrections.

(US Department of Justice, 2011: i)

However, despite the vigorous tone of the policy documents, the USA's industry building standard, Leadership in Energy and Environmental Design (LEED), has had little real impact. A commercial organization run by the US Green Building Council (USGBC), LEED has attracted 6500 paying members bringing in over \$24 million a year (<http://www.ukgbc.co.uk/leed.php>). The accreditation process is difficult and costly, resulting in only 1500 buildings having LEED accreditation in the USA, since it was formed in 1995. This low figure might be indicative of a number of obstacles but industry experts in the UK suggest that the US green building industry is hampered by high costs and a comparatively weak commitment to sustainability generally (exemplified for many by the USA's failure to ratify the Kyoto agreement).

In the UK, the independent Sustainable Development Commission was abolished in 2011, after which the Government published a new strategy document, 'Mainstreaming sustainable development' (DEFRA, 2011). At the forefront of this paper is the need to stimulate economic growth, with maximizing social well-being and protecting the environment represented as linked, but subsidiary, concerns. The National Planning Policy Framework (2012) highlights the need to be resilient to the impacts of climate change, through reduction of greenhouse gas emissions, delivery of renewable and low carbon energy and associated infrastructure and provision of ecosystem waste and water

management services. These policy documents underpin BREEAM (Building Research Establishment Environmental Assessment Methodology), the non-commercial UK industry standard for assessment and certification that can be used at the design, construction and refurbishment stages of a building's life-cycle to demonstrate its environmental credentials. A building's performance is measured by independent assessors against a set of criteria, giving a rating of Pass, Good, Very Good, Excellent or Outstanding. Over 250,000 buildings have been BREEAM certified and over a million have registered for certification since it was first launched in 1990 (<http://www.breem.org/about.jsp?id=66>). BREEAM includes a specific sustainability assessment method and standard developed especially for the prison sector in association with the National Offender Management Service (NOMS). All new-build prisons are required by government to achieve a BREEAM Excellent rating, and major refurbishments must reach a standard of Very Good³ (hence the salience of 'green' issues in a research study – on the effects of prison architecture, design and technology on prisoners and staff – that, initially at least, did not foresee their significance).

Reducing the environmental impact of a large, continuously operating building, especially one whose security requirements prohibit the use of materials that would be utilized in other types of construction, is frequently expressed as a conundrum with the answer often lying in the deployment of clever technology. In interview, architects at the firm behind HMP Oakwood highlighted the difficulties of sourcing appropriate local building materials with low embodied energy. Because of strict Ministry of Justice design standards and security requirements, they avoided using sustainable constituents in favour of heavy duty building materials; the green(ish) rationale being that the buildings have longer lifespans before needing repair or replacement. However, the team were able to achieve a rating of Excellent across all 12 BREEAM Prisons criteria by implementing measures such as harvesting rainwater, implementing a holistic strategy to 'minimize environmental harm across the entire design and build process' and incorporating 'interesting, forward-thinking features', including 'an anaerobic digestion facility, an on-site waste sorting facility and the use of biomass power' (Pick Everard, 2012: 1). Other recently completed prison projects have included a range of features designed to meet the BREEAM Excellent standard. For example, a new house block at HMP Parc, Bridgend, South Wales—built as part of a £47m expansion of the existing Parc Prison and YOI—features natural ventilation and good daylight in the majority of areas, low water-use sanitary fittings, rainwater recycling and a 14 per cent reduction in the building's CO₂ emissions through closed-loop geothermal boreholes. In Huntington, Cambridgeshire, 12 new buildings containing 120 cells have been constructed at HMP Littlehey YOI, each utilizing site-wide biomass heating, natural ventilation, responsibly sourced materials, rainwater recycling and a sustainable drainage system (RICS, 2012).

While these initiatives undoubtedly go some way to countering accusations of *unsustainability*, some of our interviewees suggested that BREEAM 'points' could be amassed with much less imagination and investment than these examples suggest. BREEAM certification at various levels can be achieved by a selective targeting of credit-bearing criteria. In a prison, where for example, good fresh air ventilation (a BREEAM criterion) would be difficult and costly to achieve in cells with windows which do not open, designers could direct attention and resource towards more straightforward sources of credit,

and still achieve high scores and eco-accreditation. Furthermore, when viewed in relation to the Prison Service's standards about living conditions (PSI 17/2012), including indoor environmental quality issues such as ventilation and temperature, the picture becomes more complicated as *these* instructions are vague enough to discourage litigation from prisoners whose cell conditions may contravene more specific standards, and to allow governors operational flexibility to manage conditions locally, for example by providing warmer bedding rather than additional heating, especially in older facilities with less energy-efficient heating systems.

In both the UK and the USA, policy and strategy documents relating to sustainable development emphasize that long-term sustainability relies on synthesizing economic, social and environmental concerns and solutions. However, in practice it is clear that, where there are obvious environmental and/or social 'benefits', but where these benefits undermine economic viability, a project probably will not be realized; hence the low numbers of LEED accredited buildings in the United States. The UK Green Building Council is critical of the US commercial model:

It is still cheaper and quicker to ignore environmental concerns ... Sourcing the right materials, using the right professionals, and securing suitable design features in your building, has an 'environmental levy' that businesses and residents are currently unwilling to pay. It costs more to build a green building and until that changes, accreditation will remain a conscientious decision not an economic one.

(<http://www.ukgbc.co.uk/leed.php>)

Nevertheless, organizations and corporations may perceive a need to adopt an appropriate position on sustainability, even where achieving efficiencies and maintaining competitiveness may seem fundamentally at odds with sustainable development. Resisting the sustainability agenda altogether may be disadvantageous in numerous ways, not least in being seen to be radically out of kilter with clients, customers and the prevailing culture. Some organizations have therefore developed a pragmatic notion of 'organizational sustainable development', which *appears* to embrace the idea of environmental sustainability, while actually adopting a position more aligned to 'sustaining the corporation' (Christen and Schmidt, 2012).

The sleight-of-hand which underpins organizational sustainable development is alluded to by Tregidga et al. (2013) who analysed the sustainable development reports of large corporations and found that they iterate a number of 'taken-for-granted-assumptions' about its benefits. One is a sense of sustainability as 'necessary and important', often couched in terms of social and moral responsibility, although equally 'necessary and important' is compliance with legislation and avoiding incurring fines. A second strand of the discourse is a clear message that sustainability is both a challenge and an opportunity for organizations; it is part of the bigger picture of problem-solving that the design of any large building entails. The 'challenge and opportunity' discourse is prominent in green prison building in the USA, as 'The greening of corrections' extract quoted above illustrates. However, it is also increasingly to be found in the UK. For example, a special 'security' issue of *Modus*, a publication produced by the Royal Institute of Chartered Surveyors (RICS, 2012: 6), urges its readers to 'get into prison', stating: 'The

need to meet BREEAM standards is an extra challenge in a sector where security is paramount and budgets are tight, but this is also part of what makes the custodial market one that will keep you on your toes.’ A third component of organizational sustainable development is a sense of enlightened self-interest, in which ‘going green’ makes pragmatic sense because it makes organizations more competitive (Tregidga et al., 2013). In combining these three aspects of organizational sustainability, corporations create a ‘win–win’ situation, where both the organization *and* the environment benefit, although the additional social/moral discourse underpinning these documents might more accurately be termed ‘win–win–win’; a ‘triple bottom line’ whereby corporate rewards are not simply financial, but also social and ecological (Stretesky et al., 2013).

Only one UK prison, HMP Thameside, has been awarded a BREEAM Outstanding rating for its new four-storey, 600-cell Living Unit. Emphasizing the taken-for-granted, ‘win–win–win’ benefits of going green, Ray Handy, Design Director at prison constructor Skanska greeted news of the award excitedly:

Skanska carries out green construction because it is the right thing to do. We have to change our society to protect the planet for future generations, and in this instance the world’s first BREEAM Prisons Outstanding Award demonstrates that we’re not only ‘on the case’, but a long way down the road on our journey to Deep Green. This Outstanding building is the result of working smarter—our design team and sustainability & project delivery team really engaged with each other and our client to drive out inefficiencies in the building. The end product is one that ensures our customer (Ministry of Justice) has an energy efficient building in a highly competitive market.

(<http://www.breem.org/page.jsp?id=474>)

Such statements seek to make organizations appear more competitive, more technologically advanced and more morally accountable. The claims made—‘because it’s the right thing to do ... the result of working smarter ... to drive out inefficiencies ... in a highly competitive market’—mask the fact that discourses of sustainable development within this organizational context have remained largely within that organization’s frame of reference. In other words, corporations have adopted the sustainability concept and discourse in a way which is ‘business-friendly’, and which silences or subjugates any principles that run counter to those of the organization (Tregidga et al., 2013). From a criminological perspective, this hypothesis recalls Mathiesen’s (2004) description of the process of ‘silent silencing’, or the unobtrusive acceptance of political standpoints which preserve the dominant order. Following his argument, it might be suggested that the green agenda has become absorbed into the ‘background interests, executive institutions and ... audience which the executives address ... prevent[ing] the last link in the chain—the public—from being disturbed by “thoughts of a more long-term character”’ (2004: 33)—that is, the continuing growth of the prison estate. Furthermore, proclamations about efficiency, competitive edge and moral certitude appear natural and unassailable, arguably constituting the kind of ‘common sense’ that Gramsci (1971: 419) described as ‘a reservoir of historically discontinuous and disjointed ideas that functions as the philosophy of non-philosophers’, a folklore whose fundamental distinction is its ‘fragmentary, incoherent and inconsequential character’. The unassailability of the ‘green’

discourse (evidenced by the requirement that all new-build prisons must achieve BREEAM Excellence and major refurbishments must reach a standard of Very Good) works to sustain those organizations which enter into competitive tendering processes for prison design and construction, and may divert attention from the perverse consequences of sustainability in practice.

Two examples of the disjointedness in philosophy and practice, and its perverse consequences, that we witnessed while conducting fieldwork, may serve to illustrate the point. First, the recently constructed prisons in England and Wales that meet BREEAM standards of efficiency in their design and build quality lack the green spaces in landscaping that might be regarded as part of the holistic picture of green care, that will be discussed below. In an age where prison design and construction are driven by the imperatives of (low) cost and (high) security, planting trees and flowerbeds in prison grounds is regarded both as an unnecessary frippery and a security risk, because trees 'interrupt sightlines' and flora 'might be used to hide contraband' (interview with prison architect). But without plant life, prison sites do not attract birds, insects and other wildlife and can become curiously sterile, artificial places; anathema to the notion of a healthy or healing environment (Jewkes, 2014a). A second example concerns an unforeseen effect of the efficient insulation and building materials used in the construction of new additions to existing establishments as part of the UK government's current 'modernization' programme. During a visit to one facility in the summer of 2014, senior managers informed us that prisoners and staff were enduring high ambient temperatures. In cells, prisoners rely for fresh air on window grilles with dense steel security mesh. The thermal efficiency of the building is such that, with limited natural ventilation, the summer indoor environmental quality led to uncomfortable conditions for prisoners and staff alike. Exacerbating the discomfort of its occupants, the prison has in the past been under 23-hour lock-down during periods of high temperatures and humidity, to keep order. While blankets may be distributed to prisoners in cold weather, prisons do not lend themselves to flexible ventilation when the temperature is hot, and prisoners (and staff) are 'at the mercy' of the building to a greater degree than, for example, office workers who can open a window, or go outside during their lunch break. Introducing cooled-air technology (air conditioning) is also widely viewed as a step too far in terms of the public acceptability of prison conditions. BREEAM standard prisons might be worthy of awards for their thermal design, then, but (this example at least) may well be regarded as an infringement of human rights, and an illustration of a point made by others that legislation (even when formed with good intent) is difficult to contest once a building is built, even if it has produced poor conditions for its occupants (Reiter, 2012, makes a similar point in relation to the US supermax being an un-challengeable physical embodiment of the tortuous conditions that courts sought to avoid).

Aside from their unintended outcomes, it might be argued that the standards embodied in LEED and BREEAM can only scratch the surface of individual facilities and have no discernible global impact whatsoever given the size of the prison industrial complex. In the construction of new correctional facilities, all building materials—typically steel, concrete, wood and glass—must be transported to the site by various resource-intensive means and frequently the locations chosen for new prison builds contain traces of dangerous materials from previous occupants of the site which must be removed or made

safe. Once constructed, prisons most closely resemble large hospitals, in that they operate round the clock, are densely occupied and consume more energy on an annual basis than typical commercial or residential buildings (Moran and Jewkes, 2014). Many parts of prisons need to be lit constantly and security alarms, cameras and other electrical devices must be active at all times. Most prisons also consume more water per square metre than standard building types, and their functional requirements in terms of security make conventional energy-saving measures challenging to implement. Little wonder that prisons have been described as 'environmental toxic hogs' (Stohr and Wozniak, 2014: 198).

Green care and green-collar training

One aspect of the 'greening' of prisons which has received some, though limited, attention from green criminology is the incorporation of 'green' initiatives into elements of the social environment and regime, including 'green-collar' training which, it is claimed, enhances prisoners' chances of finding work after release. There are many examples of accredited and non-accredited nature-based interventions operating in the UK and the USA, encompassing therapeutically driven horticulture, farming, forestry, 'green exercise', 'wilderness therapy' and animal assisted interventions (Pretty et al., 2013). Such schemes claim to assist offenders through relationship building, self-esteem enhancement, physical exercise, qualification gaining and transferable employment skills. They also purport to benefit the wider community; not only in terms of reducing recidivism but also as 'reparation'. For example, they may offer tangible benefits to the public, such as the maintenance and improvement of areas of countryside, including public footpaths, that would normally remain overgrown and neglected (Pretty et al., 2013). One such scheme in the UK is the Dartmoor Rehabilitation Project, a partnership between Dartmoor Prison and the Forestry Commission, whereby prisoners carry out practical forest and management tasks (www.forestry.gov.uk).

Another example, highlighted in a recent report by Her Majesty's Inspectorate of Prisons is found at HMP Oakwood, where good use has been made of local and national employment data to identify employment gaps so that, among the courses on offer, is one which trains and accredits prisoners in mending and maintaining rail tracks (reparation of two kinds), resulting, it is hoped, in enhanced job prospects on release for those who gain the qualifications. The Inspectorate's report also notes that a group of prisoners had worked on a comprehensive proposal for the prison to provide training in the sustainable energy industry in line with the National Offender Management 'Green Deal' agenda, with the aim of providing additional work and skills training opportunities for prisoners when released (HMCIP, 2013).

'Green-collar' training and nature-based prisoner therapy can also be found in correctional facilities in the United States. For example, Washington State not only takes a holistic approach to sustainability, implementing the kinds of 'green buildings' measures in relation to energy, water and waste described earlier, but has also launched the 'Sustainable Prisons Project', which made a concerted effort to provide 'green-collar' training and nature-based therapy to prisoners who are engaged in 'growing, sorting, building and cultivating tasks', through which they:

glean career and technical skills that can translate into career pathways in the growing green sector of the economy. Prison building maintenance programs are integrating green elements: over 60 inmates involved in the Sustainable Prisons Project are gaining skills in horticulture, composting and beekeeping.

(US Department of Justice, 2011: 15)

Such schemes are part of what has been labelled ‘green care’; an inclusive term for interventions that use the natural environment as a framework in which to create health benefits for vulnerable groups of people (Sempik et al., 2010). More than this, however, nature-based interventions speak to a rehabilitated, ‘responsible prisoner’ model and to society’s aspirations that prison should promote a more productive life. In an imaginative article that constructs the prison through the lens of the garden, Michelle Brown (2014) notes that prison gardens infuse sedentary spaces with life, hope, purpose and future. The cycles of nature are viewed as metaphors for personal growth; compost becomes a metaphor for life’s mistakes; the act of gardening necessitates the weeding out of negative thoughts. But, while gardening amounts to the harvesting and cultivation of anarchy, and carries with it connotations of maturation, care giving and rehumanization, Brown highlights an alternative reading which posits that the tropes of mortification, immobilization, atrophy, disintegration and death are also common to both the garden and the penitentiary. The prison garden, she says, represents ‘the space of death and the will to live in the same moment’ (2014: 73). For Brown, prison horticulture programmes display a familiar paternalism founded on a ‘presumed civil society audience—the asserted “we”’ positioned against the imaginary inmate who, like the garden he works, requires civilizing, cultivating, taming, controlling and defining. Several authors have analogously compared mass incarceration to slavery (Alexander, 2010; Davis, 2000; Jewkes, 2014b), but here Brown extends the metaphor to the violent dislocation of poor, indigenous people from their land, the forcing of African slaves to work in cotton fields and plantations and the positioning of ‘black bodies in white gardens’ (2014: 76). Against this backdrop, she says, the ‘correctional’ prison garden echoes the USA’s shameful penal past.

Such connections between palliative/reparative initiatives which are heralded as a fundamentally ‘good thing’, and former penal philosophies and practices that have long since been discredited and abandoned may seem paradoxical, yet they are by no means uncommon, as illustrated by the chain gangs reintroduced in some US states over the last 20 years which, among other activities, may spend the day picking up litter, weeding public spaces and clearing brush (Farndale, 2012). In another example, US News reports that prisoners at Santa Rita do Sapucaí prison in Brazil are able to reduce their sentences by pedalling stationary bicycles in the prison exercise yard, by one day for every 16 hours pedalled (Handley, 2012). Generating renewable energy to power local streetlights which would otherwise be switched off, and lauded as a ‘win–win situation’ by the prison’s director because ‘people who normally are on the margins of society are contributing to the community and not only do they get out sooner in return, they also get their self-esteem back’ (Handley, 2012: n.p.), it is nonetheless hard to read about this initiative without thinking of the 19th-century prison treadmill.

But even if we limit our discussion to the more benign initiatives whose stated purpose is rehabilitation, not punishment or reparation, they remain conflicted, not least because they can come and go with changes in administration, governance and budgets. Even the simplest of prison gardens are subject to the whims of authority: 'will the garden be allowed? Will it persist once authorized? Will there be resources for equipment, seeds and support? Will the custodians who oversee the labor allow the inmates autonomy and the space to think?' (Brown, 2014: 77). Moreover, the limited academic studies of nature-based schemes suggest that they are only available to a very small number of 'model' prisoners, who are judged likely to benefit from activities in surroundings that are 'rife with potentiality' (Brown, 2014: 79), but whose behaviour indicates that they themselves are 'rife with potentiality' and are among those most likely to be rehabilitated anyway (Graham and White, 2015). Even commentators who observe a less careful selection policy for participants in green behavioural programmes suggest that their benefits may be centred on short-term well-being, rather than on long-term rehabilitation and desistance from crime (Pretty et al., 2013).

Discussion: The greenwashing of corrections

HMP Oakwood's combination of green initiatives and Washington's Sustainable Prisons Project are unusual in offering a joined-up package of initiatives from green buildings through to green care and training. But while such efforts may benefit some prisoners (albeit in very small numbers), it is arguable that the re-casting of prisons as *green* prisons amounts to a 'greenwashing' of mass incarceration by corporate interests. In a critique which pinpoints the similarities between cultural criminology and green criminology but which follows the classic studies of advertising and consumption by Vance Packard in the 1950s, Jeff Ferrell (2013: 351) locates cases of environmental harm within the exploitative dynamics of contemporary economic arrangements, noting that advertising 'is designed not to address existing needs but to create new ones, then to be filled, allegedly, by the advertised product'. One might argue that this is little different from the marketing/rebranding trick being pulled off by the companies contracted to incorporate green initiatives into the design, construction and management of prisons.

For example, the language employed by those who promote a green agenda in corrections has a motivational tenor every bit as seductive as that of the advertising industry's 'hidden persuaders' (Packard, 1957). Given the ubiquity of metaphors of greed, corpulence and excessive consumption widely employed to describe the prison industrial complex (Loader, 2009; Simon, 2010; Stohr and Wozniak, 2014), the environmental movement's language of restraint, of paring back and making more efficient, may be one of the reasons why the 'green prison' is so attractive to politicians, prison designers, constructors, charitable reformists and the public, who are united in moral certitude that sustainability is the way forward in corrections. But, just as Packard (1960) went on to demonstrate in his examination of *The Waste Makers*—an ironic but apt metaphor for prisons given that they have been described as human warehouses designed to manage 'untouchable toxic waste' (Lynch, 2011: 79)—growth can become an unexamined virtue, and the rise in consumption and in the number of consumers is regarded as an unqualified good.

What is subjugated in discussions of the green prison, then, is any challenge to the notion that correctional facilities will continue to exist at their current scale of operation. Even in 'The greening of corrections: Creating a sustainable system', whose authors critique 'tough-on-crime "naysayers"' (US Department of Justice, 2011: 53) and appeal for an overt focus on the rehabilitation of offenders, the implicit long-term vision of the correctional system envisages no significant change in its size and scale. This 'silence' in the sustainability discourse is not unexpected, in the context of what Wacquant (2011: 3) has described as 'the great penal leap backward', with the United States occupying the dubious position of leading the world in mass incarceration, and exemplifying the 'new punitiveness' in relation to more austere and overcrowded prison conditions, longer sentences, increased criminal sanctions and 'shaming' punishments. Yet it is between these two hegemonies—environmentalism and mass incarceration—that the green prison is perfectly pitched. To those on the political right, sustainability is a way of making the carceral estate more efficient, more competitive, more productive and, when green-collar training is offered, more reparative to the society wronged by the offender's actions. To those on the political left, who may hold views that lean towards decarceration, the green prison promises a 'healthier', more 'nurturing' and rehabilitative experience for offenders, while also, in some cases, being showcases for environmental policies in action.

The narrow construction of the advantages of sustainability iterated in corrections documents inevitably raises questions about what it is that is being sustained (Tregidga et al., 2013). Certainly, there is no glimmer of recognition in any of these texts that the most effective way to reduce the environmental impact of the correctional system might be to reduce the numbers of people being incarcerated, nor any acknowledgement of the fact that if the claims of saving costs to individual facilities through implementation of environmental policies have any validity, they make the entire correctional system more sustainable. An example is the partnership formed between the UK Ministry of Justice and wind energy developer Partnerships for Renewables (PfR). In February 2013 two giant 2.3MW wind turbines were opened at HMP Standford Hill on the Isle of Sheppey in Kent. Promoted as part of the UK's green energy transition, the project's economic value was applauded in the green press. Under the terms of the agreement with the Ministry of Justice, the prison is paid rent based on a percentage of the power sold from the turbines and, with plans to install a private transmission line between the turbines and the prison, PfR claim that the turbines will reduce the prison's energy bills and carbon footprint, as well as creating a revenue stream for the public purse. Aside from the irony in these claims, given that the largest amount of money goes to the wind farm developer and that wind power has had a negligible impact on the continually rising costs of fuel to the consumer, there were additional controversies that had to be surmounted by PfR. In the face of local opposition, which included objections to the turbines being erected on a previously protected site, PfR undertook a number of steps to help secure public support for the project, including setting up a community benefit fund, promising over £10,000 a year to support projects in the local area and committing to a programme of bird monitoring and habitat management covering a 90 acre area around the site for the whole 25 year life of the project. One reader's comments on the pages of the online *Guardian Environment Network* sums up the elision of corporate, social and environmental benefits in schemes such as this:

This is ONLY about selling out to Big Green Multinationals and wrecking our few wild areas to do it. Industry has had its eye on these protected area (*sic*) for half a century or more, and now that they have found this brilliant marketing scam they think they have died and gone to heaven.

(<http://www.theguardian.com/environment/2013/feb/15/windpower-renewableenergy>)

At the same time, the faith shown in green therapies and training programmes—by the government, the popular media, some academic commentators and evaluators and, of course, the individuals and groups responsible for delivering them—have failed to comprehend that, while they appear to personify the philosophies of rehabilitation and reintegration, they run counter to all the evidence that prisons perpetuate psychological harms and criminogenic behaviours. The common refrain, ‘if it is unlikely that prisons are going to go away, we may as well make them as environmentally positive as possible’, illustrates how, somewhat perversely, politically progressive and ‘liberal’ policies contribute to the expansion of the carceral project. Those who think that an environmentally friendly prison is preferable to an environmentally harmful one are seemingly unable to recognize the contradiction in their position.

In this sense ‘green’ prisons bear similarities to ‘educational’ prisons or ‘secure colleges’, and advocates of both might do well to heed the consequences of a new prison built in a politically progressive Midwestern US city, as discussed by Judah Schept (2013). In proposing a prison where education and training would be prioritized, community leaders with liberal and leftist leanings were able to reconcile their broad resistance to mass imprisonment with a proposal for a model of incarceration which symbolized and expressed their progressive politics. As Schept observes, local officials drew up proposals for the most drastic expansion of carceral control in the county’s history but veiled it in discourses that were about rehabilitation rather than punishment, healing rather than harming and education, not warehousing (Schept, 2013). In a similar way, the combined forces of the fashionableness of the green movement and its political and cultural hegemony have arguably resulted in a situation wherein even individuals and communities which would claim antipathy towards the prison come to embrace the logics and practices of mass incarceration if they believe it to be environmentally positive. Even housing prisoners in repurposed shipping containers (as several countries, including the USA, Australia and New Zealand have done) has been justified on environmental grounds; a fallacy described by Elizabeth Grant (2013: 41) as an ‘eco-romance where one takes the excesses of capitalism and through human ingenuity transforms them into a serviceable object’ which is neither sustainable nor ethical, but which does permit the incarceration of greater numbers of individuals who can be ‘packed, racked and stacked’ (2013: 41). Meanwhile any claims by a prison to be ‘healing’ or ‘therapeutic’ may be sufficient to silence academics and other experts. Perversely, as national and transnational logics of incarceration have become reframed in pursuit of ‘objective structures’ such as zero emissions, sustainable development has assisted in completing the political-economic trajectory from industry to incarceration.

Concluding thoughts

Our aim in this article has been to contribute to the growing field of green criminology by focusing our gaze on the pressing topic of prison expansion and the perverse consequences of some of the green initiatives being embraced by corporations and governments in the name of progress. In many ways, our arguments speak to broader discussions within mainstream criminology about how attempts to 'improve' prisons through legal or humanizing reforms can make it harder to challenge more fundamental problems or injustices (e.g. Reiter, 2012). Nonetheless, it is still somewhat puzzling to us that, for the most part, *green* criminologists have sidestepped prisons and imprisonment as subjects worth investigating. Recent commentary by White and Graham (2015) in their broader discussion of the 'greening' of policing, courts, prisons, offender supervision and community reintegration, is to be welcomed, but otherwise (and as White and Graham also point out) there has been a curious silence on the subject of prisons from within this rapidly growing field. The absence of empirical research on the relationship between sustainability and mass incarceration is especially curious since green criminology shares a lexicon similar to that used by prison researchers, particularly those who write from a critical, radical or abolitionist perspective. Harms against humanity, disposal of toxic (human) waste, the differential impacts across communities linked by class and race composition, concerns about profit-driven partnerships between corporations and governments and calls for radical solutions to inexorably rising global problems, inflect scholarship in both areas. While it is conventional to think of capitalism and environmentalism as opposing each other for economic expansion to continue, in corrections they seem to co-exist happily. Green criminologists claim that the definitions of 'solutions' to environmental harm are created by the powerful who occupy privileged positions from which they continue to produce and reproduce systems that do harm (South et al., 2013), just as critical criminologists and penologists argue that the definitions of 'criminal' and 'non-criminal' are created by those who occupy positions of power, who perpetuate injustices over vulnerable populations and along class-based and racially stratified lines and who govern through crime (Simon, 2007).

We would not deny that the incorporation of 'green' technology into new prison builds and retrofits, and the introduction of green care and green-collar training for prisoners may deliver some genuine gains, but our aim here has been to underline that they also usefully function to counteract critiques of mass incarceration. By adopting a pragmatic position in relation to sustainable development which allows limited 'green' savings or rewards to deflect attention from the mammoth costs of mass incarceration, the correctional system marginalizes abolitionist arguments, legitimizing and sustaining its operations. Responding to the *New York Times* (Schwartzapfel, 2009) on energy savings resulting from 'green' technologies within US facilities, architect and prison reform activist Raphael Sperry commented 'Sure, saving fifty per cent on energy when you're locking people up is a savings. But not locking them up at all would be a larger savings—and would also address social justice concerns.' In order to accommodate a 'greening' of the carceral estate which sustains the natural environment rather than the correctional economy, the prison systems of the USA and the UK would need to construct and operationalize a discourse of sustainability outside of their existing organizational frames of

reference, challenging their operational rationales and fundamentally questioning their very purpose (Moran and Jewkes, 2014).

Critical criminologist and prison abolitionist, Thomas Mathiesen (2004: 15), has warned against the dangers of individuals and groups who become ‘carriers of messages which have a “future”’. He notes that ‘in large parts of industrial life, “farsighted” businessmen become the carriers of messages which are “ahead of their time”’ (2004: 15) and which give ‘rounded edges’ to projects that are inherently harmful, so as to neutralize them, make them more palatable to a broader cross-section of public opinion and avoid criticism of the state (2004: 15). Given its roots in ‘critical’ perspectives, we urge green criminology not to collude with the softening or ‘rounding’ of the sharp edges of mass incarceration. We hope that this article prompts other criminologists to address the paradox at the heart of the green prison; that is, that rather than challenging the hegemony of incarceration, advocates of green prisons are arguably perpetuating and legitimizing the expanding penal estate. The discourses of sustainability detailed in this article highlight a win–win scenario of reduced environmental impact and lowered financial cost, as well as the projected benefits to prisoners of training for jobs in the ‘green’ economy. These discourses attempt to absorb or silence critiques of the size and scale of the prison system itself; as if by reducing prison energy bills, and training prisoners to fit solar panels, attention can be deflected from the vast carceral monolith which imprisons one in 100 of the US population and, in the UK, is legitimating an ambitious ‘modernization’ programme, replacing old prisons with efficient but ineffectual human warehouses.

Green prisons are, after all, still prisons.

Funding

This work was supported by the Economic and Social Research Council [grant number ES/K011081/1].

Notes

1. Of course, there are always exceptions that prove the rule: some ‘green’ issues, including global warming and fracking continue to polarize along party political lines.
2. ESRC Standard Grant ES/K011081/1 “‘Fear-suffused environments” or potential to rehabilitate? Prison architecture, design and technology and the lived experience of carceral spaces’.
3. BRE (Building Research Establishment, UK provider of BREEAM certification) introduced its 12 prisons criteria in 2008 with, they say, ‘input from key stakeholders/clients in the UK such as healthcare, prisons and other non-standard building type’, but exactly what issues were considered, and how these considerations were accounted for in assessment documents, remains unclear. The evaluation has now been superseded by a single BREEAM New Construction (2011, 2014) document with tailored criteria for prisons.

References

- Alexander M (2010) *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. New York: The New Press.
- American Institute of Architects (AIA) Architecture for Justice (2010) A green guide to justice [white paper]. Available at: www.aia.org/aiacmp/groups/ek_members/.../pdf/aiab085932.pdf.

- Brown M (2014) Of prisons, gardens and the way out. *Studies in Law, Politics and Society* [special issue on 'The Beautiful Prison'] 64: 67–85.
- Christen M and Schmidt S (2012) A formal framework for conceptions of sustainability: A theoretical contribution to the discourse in sustainable development. *Sustainable Development* 20(6): 400–410.
- Davis A (2000) From the convict lease system to the super-max prison. In: James J (ed.) *States of Confinement: Policing, Detention, and Prison*. New York: St Martin's Press.
- DEFRA (2011) Mainstreaming sustainable development: The government's vision and what this means in practice. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183409/mainstreaming-sustainable-development.pdf.
- Executive Order 13514 (2009) Federal leadership in environmental, energy, and economic performance. The White House, 5 October. Available at: www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf.
- Fardale N (2012) The world's only female chain gang. *Telegraph*, 27 November. Available at: <http://www.telegraph.co.uk/news/features/9696000/The-worlds-only-female-chain-gang.html>.
- Ferrell J (2013) Tangled up in green: Cultural criminology and green criminology. In: South N and Brisman A (eds) *Routledge International Handbook of Green Criminology*. London: Routledge, 349–364.
- Graham H and White R (2015) Greening justice. In: Graham H and White R *Innovative Justice*. London: Routledge, 54–72.
- Gramsci A (1971) *Selections from Prison Notebooks*. London: Lawrence & Wishart.
- Grant E (2013) 'Pack 'em, rack 'em and stack 'em': The appropriateness of the use and reuse of shipping containers for prison accommodation. *Australasian Journal of Construction Economics and Building* 13(2): 35–44.
- Handley M (2012) Stationary bikes get Brazilian prisoners closer to freedom. *US News*, 12 July. Available at: <http://www.usnews.com/news/articles/2012/07/12/stationary-bikes-get-brazilian-prisoners-closer-to-freedom>.
- HMCIP (2013) Report on an unannounced inspection of HMP Oakwood, 10–21 June. Available at: <http://www.justice.gov.uk/downloads/publications/inspectorate-reports/hmipris/prison-and-yoi-inspections/oakwood/oakwood-2013.pdf>.
- Jewkes Y (2014a) Prison contraction in an age of expansion: Size matters, but does 'new' equal 'better' in prison design? *Prison Service Journal* 211: 31–36.
- Jewkes Y (2014b) Punishment in black and white: Penal 'hell-holes', popular media and mass incarceration. *Atlantic Journal of Communication* [special issue on 'Reframing Race and Justice in the Age of Mass Incarceration'] 22(1): 42–60.
- Loader I (2009) Ice cream and incarceration: On appetites for security and punishment. *Punishment & Society* 11(2): 241–257.
- Lynch M (2011) Supermax meets death row: Legal struggles around the new punitiveness in the US. In: Pratt J, Brown D, Brown M, et al. (eds) *The New Punitiveness: Trends, Theories, Perspectives*. London: Routledge, 66–84.
- Lynch MJ (1990) The greening of criminology: A perspective on the 1990s. *The Critical Criminologist* 2(3): 3–4, 11–12.
- Lynch M, Long M, Barrett K, et al. (2013) Is it a crime to produce ecological disorganization? Why green criminology and political economy matter in the analysis of global ecological harms. *British Journal of Criminology* 55(3): 997–1016.
- Mathiesen T (2004) *Silently Silenced: Essays on the Creation of Acquiescence in Modern Society*. Winchester: Waterside.

- Moran D and Jewkes Y (2014) 'Green' prisons: Rethinking the 'sustainability' of the carceral estate. *Annual Special Issue Social Geography 'Criminality and Carcerality across Boundaries': Geographica Helvetica* 69: 345–353.
- Packard V (1957) *The Hidden Persuaders*. New York: David McKay.
- Packard V (1960) *The Waste Makers*. New York: David McKay.
- Pick Everard (2012) *Sustainability in Action on New BREEAM Excellent Prison Development*. Available at: <http://kalahari.krystal.co.uk/~pssainfo/wp-content/uploads/2012/11/PSS2-5-pg18.pdf>.
- Pretty J, Wood C, Bragg R, et al. (2013) Nature for rehabilitating offenders and facilitating therapeutic outcomes for youth at risk. In: South N and Brisman A (eds) *Routledge International Handbook of Green Criminology*. London: Routledge, 184–196.
- Reiter K (2012) The most restrictive alternative: A litigation history of solitary confinement in U.S. Prisons, 1960–2006. *Studies in Law, Politics and Society* 57: 69–123.
- RICS (2012) *MODUS: The Security Issue* No. 22. Available at: <http://www.ricssbe.org/RICSINDIA/media/rics/PublicationandResources/Modus-Security-Issue.pdf?ext=.pdf>.
- Schept J (2013) 'A lockdown facility ... with the feel of a small, private college': Liberal politics, jail expansion, and the carceral habitus. *Theoretical Criminology* 17(1): 71–88.
- Sempik J, Hine R and Wilcox D (2010) Green care: A conceptual framework. Loughborough University. Available at: http://www.umb.no/statisk/greencare/green_carea_conceptual_framework.pdf.
- Sheldon P and Giovannielli L (2013) Lean, green, eating machines: Bio-digesters for prisons and jails. CorrectionsOne.com, 18 July. Available at: <http://www.correctionsone.com/jail-management/articles/6330428-Lean-green-eating-machines-Bio-digesters-for-prisons-and-jails/>.
- Simon J (2007) *Governing through Crime: How the War on Crime Transformed American Democracy and Created a Culture of Fear*. New York: Oxford University Press.
- Simon J (2010) Do these prisons make me look fat? Moderating the USA's consumption of punishment. *Theoretical Criminology* 14(3): 257–272.
- Solomon-Westerhuis D, Walters R and Wyatt T (eds) (2013) *Emerging Issues in Green Criminology: Exploring Power, Justice and Harm*. London: Palgrave MacMillan.
- South N and Brisman A (eds) (2013) *Routledge International Handbook of Green Criminology*. London: Routledge.
- South N, Brisman A and Beirne P (2013) A guide to a green criminology. In: South N and Brisman A (eds) *Routledge International Handbook of Green Criminology*. London: Routledge, 27–42.
- Schwartzapfel B (2009) Greening the prison-industrial complex. *New York Times*, 3 March. Available at: <http://green.blogs.nytimes.com/2009/03/03/greening-the-prison-industrial-complex/>.
- Stohr M and Wozniak J (2014) The green prison. In: Cullen F, Lero Jonson C and Stohr M (eds) *The American Prison: Imagining a Different Future*. Los Angeles, CA: SAGE, 193–212.
- Stretesky P, Long M and Lynch M (2013) *The Treadmill of Crime: Political Economy and Green Criminology*. London: Routledge.
- Tregidga H, Kearins K and Milne M (2013) The politics of knowing 'organizational sustainable development'. *Organization and Environment* 26(1): 102–129.
- US Department of Justice (2010) Strategic Sustainability Performance Plan: Discovering sustainable solutions to power and secure America's future. Available at: http://www1.eere.energy.gov/sustainability/pdfs/doe_sspp.pdf; http://www.energy.gov/sites/prod/files/edg/media/DOE_Sustainability_Plan_2010.PDF.

- US Department of Justice (2011) The greening of corrections: Creating a sustainable system. National Institute of Corrections. Available at: <https://s3.amazonaws.com/static.nicic.gov/Library/024914.pdf>.
- Wacquant L (2011) The great penal leap backward: Incarceration in America from Nixon to Clinton. In: Pratt J, Brown D, Brown M, et al. (eds) *The New Punitiveness: Trends, Theories, Perspectives*. Oxford: Routledge, 3–26.
- White R (2013) *Global Environmental Harm: Criminological Perspectives*. Cullompton: Willan.
- White R and Graham H (2015) Greening justice: Examining the interfaces of criminological, social and ecological justice. *British Journal of Criminology*. Epub ahead of print 3 February 2015. DOI:10.1093/bjc/azu117.
- World Commission on Environment and Development (1987) *Our Common Future* [The Brundtland Report]. Oxford: OUP.

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