

GREENING JUSTICE: EXAMINING THE INTERFACES OF CRIMINAL, SOCIAL AND ECOLOGICAL JUSTICE

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This article examines the growth of ecological awareness, alongside the emergence of environmental sustainability initiatives, within criminal justice institutions around the world. To date, such developments have received little empirical analysis from criminology scholars. Internationally, this article is among the first to critically analyse the 'greening' of policing, courts, prisons, offender supervision and community reintegration. Available literature and examples are reviewed, alongside original research findings. The motivations and ideologies underpinning this nascent green evolution raise deeper questions of 'why?' and 'for whom?' Innovative examples of sustainable justice architecture and catalysts for penal reform are differentiated from those which claim humanistic intentions and green credentials but, arguably, are based on instrumental fiscal motives that do little to challenge repressive carceral regimes.

Keywords: greening justice, sustainability, rehabilitation, penal reform

Introduction

This article examines the growth of ecological awareness, alongside the emergence of environmental sustainability initiatives, within criminal justice institutions around the world. To date, such developments have received little attention and empirical analysis from criminology scholars. In this article, we consolidate available information about such initiatives, revealing knowledge gaps in the extant literature. Implicit in this exercise is an invitation for others to expand and build on what is chiefly an exploratory and explanatory analysis. 'Greening justice' encompasses a variety of initiatives and actions within criminal justice which advance a more sustainable relationship between humans and the environment (Graham and White 2015). Fundamentally, it implicates practitioners, offenders and communities in efforts to reduce the social, economic and ecological costs of crime and criminal justice. The greening of policing, courts, prisons, offender supervision and community reintegration form the focus of analysis here.

Environmental initiatives in criminal justice have started to capture both professional and public interest in recent years, with periodic media attention turning the spotlight on new 'green' initiatives. Stories of offenders, especially prisoners, becoming involved in various conservation and restoration projects challenge pejorative stereotypes of the subjects of punishment and how they spend their time while 'doing time'. The increasing range of initiatives extends from British ex-offenders undertaking biodiversity training and woodwork courses to help save honey bees (Connectar Training and Biodiversity Trust 2014); to Australian prisoners rehabilitating native birds in conservation centres (Martin 2014); to a sustainable 'Heavy Eco' fashion label with organic clothing and accessories designed and made by Estonian prisoners (Davies 2011); to

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Turkish National Police rapid response teams using bicycles at public events to reduce emissions (Daily Sabah 2014); through to renewable energy and biogas technologies improving sanitation and energy cost-efficiencies in Rwandan and Indian prisons (Sharan 2012; Braw 2013). Evolving professional and public interest has, however, not necessarily been reflected in equivalent scholarly investigation.

Absences and opportunities in the extant literature

Further investigation of the international literature reveals three striking observations. First, within the interdisciplinary field of criminology, there is growing academic interest in the study of environmental harm, under the broad umbrella of ‘green criminology’ (South and Brisman 2013; White and Heckenberg 2014). Yet, within this sub-field, relatively little attention has been dedicated to the greening of criminal justice practices and institutions. Instead, this body of literature focuses principally on exposing types of environmental harm (such as the illegal wildlife trade, toxic waste dumping or pollution offences), critically analysing issues and impacts, and discussing how the criminal justice system is or ought to be responding to such crimes (e.g. see Beirne and South 2007; White 2008).

Second, until very recently, the established body of knowledge on justice architecture in Anglophone jurisdictions can only claim modest interest in these issues. Analysts and designers of justice architecture have been occupied with essential matters of safety and crime prevention (e.g. in prisons, the reduction of blind spots and hanging points), critiques of surveillance and the design of spaces which improve quality of life, productivity and human relations—with particular regard for political sensitivities and the perceptions of a tax-paying public (for insightful commentaries, see Jewkes and Johnson 2007; Millie 2012; Simon *et al.* 2013; Jewkes and Moran 2014). Where green policies and sustainable practices are discussed pertaining to justice architecture, interest tends to centre on the choice of building materials or novel state-of-the-art entries into ‘new generation’ prison design competitions; and yet it largely evaporates after construction is completed.

The third observation is that, with few exceptions (see Conrad 2011; Norton *et al.* 2013; Pretty *et al.* 2013; Stohr and Wozniak 2014), the small but emergent literature that does concentrate on ‘greening justice’ tends not to be derived from scholarly sources or empirical investigation, but rather reflects organizational interest in such matters (see, e.g., the United States Department of Justice National Institute for Corrections ‘Green Corrections Initiative’, n.d.). Ostensibly, it is those working in justice institutions, both practitioners and policymakers, who are most readily engaged in writing about environmental sustainability in an applied criminal justice context. Accounts from the field of such initiatives and policies are breaking new ground. They also have a tendency to be mostly descriptive, non-systematic and sporadic, with a narrow focus on individual initiatives or institutions.

Researching greening justice

Our interest in ‘greening justice’ emerged in the course of researching and writing about pioneering, innovative justice initiatives more generally (see Graham and White

2014; 2015). It became one of the thematic areas which feature in a larger international research project, 'Innovative Justice', which we co-lead. A strengths-based approach influenced our investigation of various forms of innovations in criminal justice in countries across the United Kingdom and Europe, the United States, Australia, the Middle East, Asia and North and South America. It was premised on a few overarching research questions, including 'what constitutes innovative justice?', 'how are ex-/offenders, practitioners and communities creatively engaged in ground-breaking justice initiatives and social innovations?' and 'what social and other consequences flow from the adoption of innovations in criminal justice, and for whom?'

Against this background, this article describes greening justice activities and policies across the major institutions of criminal justice, including our own research findings, and provides an analytical critique with an eye to the academic literature. The notion of sustainability is highly relevant in this endeavour. We use it to denote an ethos, actions and 'forms of production and consumption which maximise [human and] ecological wellbeing and biodiversity as foundations of the Nature-human relationship' (Heckenberg 2009: 12), and, more specifically, which minimize the social, economic and environmental impact of criminal justice practices and institutions.

The first section of this paper explores the activities and purposes of 'greening justice', who is involved and how these processes are undertaken. We then examine the interface between criminal, ecological and social justice, by exploring the potential of 'greening justice' in enabling processes of restoration, community reintegration and desistance from crime. The article reflects on the motivations and ideologies underpinning this nascent green evolution, raising deeper questions of 'why?' and 'for whom?' Innovative examples which seek to realize positive penal change and environmental sustainability are differentiated from those which claim humanistic intentions and green credentials but which, arguably, do little to challenge repressive carceral regimes.

Greening Criminal Justice

Criminal justice institutional interest in 'greening justice' is not the same as academic interest in 'green criminology'. There is, however, some cross-fertilization and overlap. This is found in the intersection between the social problem of crime and the need for successful offender rehabilitation and the environmental problems of habitat degradation, climate change, unsustainable production and consumption practices and pollution. For example, in the context of the United States, Brisman (2004) argues that the dearth of opportunities for ex-offenders to secure employment, housing and income benefits affects the ability of communities to devote resources to tackling environmental problems. It also reinforces the problem of crime-prone neighbourhoods, which can exacerbate urban sprawl due to fear of crime, and under-utilize what could be a valuable work asset for the community (namely, the human capital of ex-offenders). Similarly, Lynch (2007) underscores impending issues of 'the end of oil' and global warming as serious environmental pressures, observing that penal expansionism and the pursuit of bigger prisons across the United States is not sustainable. Instead, he argues that the world's biggest incarcerator would be better to adopt a more eco-friendly and less resource intensive philosophy of corrections with 'small, localised and environmentally friendly' prisons which depend on alternative energy sources and focus on offender rehabilitation (Lynch 2007: 213). Sustainable development therefore needs to

acknowledge not only the usual ideas of protecting the environment and resource efficiencies, but also the restorative opportunities and ethical ways in which ex-offenders might be invited to be part of this process.

A vanguard example of integrated and holistic thinking on sustainability is the [American Institute of Architects \(AIA\) Academy of Architecture for Justice \(2010\)](#) white paper, *A Green Guide to Justice*. This extraordinary document provides a systemic approach to ‘greening justice’ that amalgamates human and environmental concerns to advocate progressive thinking about the needs of different stakeholders, offender rehabilitation, as well as sustainable architectural design, resource conservation and efficient technologies. The authors establish their vision of sustainable justice as being informed by action across three scales:

- (1) *The Scale of Community*: The purpose of the justice system is defined as protecting public safety by channelling deviant behaviour into acceptable norms so that all citizens can have meaningful roles in their communities. This philosophy is foundational and transformative, emphasizing treatment over punishment and focusing on improved outcomes rather than retribution.
- (2) *The Scale of Building*: Structures supporting the justice system are sited, constructed and operated to maximize resource utilization and reduce consumption and pollution generation—to create a healthy, net-positive impact on the community and the environment.
- (3) *The Scale of Personal Experience*: The physical needs, health, dignity and human potential of all who come in contact with the justice system are respected and given opportunity to flourish. This applies equally to staff, detainees, visitors, service providers, media, jurors and court support agencies ([AIA Academy of Architecture for Justice 2010: 3](#)).

This white paper is one of the most sophisticated and philosophically coherent accounts of the possibilities of ‘greening justice’, albeit not without its own peculiar limitations as discussed below. Importantly, the central thrust is that physical design is only one facet of how sustainability ought to be conceptualized. In articulating this remarkable and optimistic vision, the [AIA Academy of Architecture for Justice \(2010; 2013\)](#) offers checklists and pragmatic targets across the institutions of policing, courts and detention/corrections. This vision frames the discussions which follow, against which activities within the remit of each justice institution are considered in turn.

Greening policing

Policing institutions and practices around the world seem to have had less engagement with environmental conservation and sustainability initiatives, relative to their criminal justice counterparts, given the relative dearth of public material in this area. Therefore, applied discussions here are necessarily brief. Yet, like prisons, police stations and resources are in use around the clock and, as a result, greening activities have the capacity to make a substantial impact.

[Lynch and Stretesky \(2012\)](#) write about the importance of decreasing car emissions and the need for tighter vehicle emissions policies to substantively reduce greenhouse gas emissions. Pitched at this level of analysis, the issue is one of law reform and enhanced regulation and enforcement, of changing particular harmful practices that

contribute to global warming. This fits with green criminological efforts to re-cast the nature of ‘crime’ and ‘harm’ in ways that criminalize that which destroys or diminishes the environment. Applying this line of reasoning to the criminal justice system, Lynch and Stretesky also call attention to the extensive use of large, eight-cylinder cruisers as the police car of choice in many US jurisdictions. They argue for a reduction in fleet and car sizes, as well as increased use of electric and hybrid cars. Additionally, they point out that developing the energy efficiency of police stations as buildings may produce savings in moving towards reliance on alternative power sources such as wind, solar and geothermal energy (Lynch and Stretesky 2010: 73–4).

These propositions are reflected in the greening justice activities being undertaken by the Hong Kong Police Force. There, ‘the Force’s mission is to enhance staff members’ environmental awareness through staff education and publicity, and to encourage their participation in conserving the environment’ in collaboration and partnership with other stakeholders (Hong Kong Police Force 2014). A ‘Green Police’ initiative has been established, which is accompanied by a three-tier structure of ‘green’ managers, assistant managers and wardens. The types of measures and activities which come under the remit of the Green Police include:

- waste minimization (e.g. reducing paper consumption, greater reliance upon electronic information storage, improving water management and installing low flow showers);
- fuel consumption (e.g. fuel consumption and air emissions of the Marine fleet);
- energy conservation (e.g. energy-efficient light tubes and lighting zones, solar water heating systems and reducing the unnecessary use of air conditions);
- promoting environmental awareness among staff (e.g. through intranet E-Green Corners where ideas can be exchanged, green segments in broader professional development and training, ‘paperless’ conferences, green fundraising and awareness-raising events with environmental charities);
- recycling programmes (e.g. facilities for source separation of commercial and industrial waste and recycling glass bottles, paper, used cartridges); and
- greening existing building spaces (e.g. green roof gardens in police stations) and sustainable new building design (e.g. use of renewable energy technologies) (Hong Kong Police Force 2014).

Metrics are produced and released online in annual environmental reports to track trends (generally downwards) in the consumption of energy, paper, envelopes, petrol and gas and in recycling and waste paper collection (generally upwards). However, the Hong Kong Police Force ‘Green Police’ initiative appears to be mostly instrumental, seeking to change the *modus operandi* of a large and expensive urban police force. The greening of policing in Hong Kong does not seem to incorporate reflexive consideration of or changes to the extension and expansion of police powers and numbers, nor the dominant ethos of policing strategies, which are pertinent in a place where ‘the police are a department of government’ in an ‘undemocratic’ state (Traver 2009: 65).

The above example stimulates critical reflection on the importance of synergies between broader ecological sustainability strategies and the imperative to engage and change policing practices, policies *and* cultures at the same time. A prominent illustration is found in the capacity for greening policing strategies to complement and further

the substantive aims of community policing. For example, shifts in the means and uses of transportation produce shifts in the means and quality of police–citizen interactions and community engagement. Strategies for reducing emissions and fuel consumption may necessitate the purchase and use of low energy modes of transport such as hybrid vehicles and battery-charged alternatives (e.g. two-wheeled segways, the three-wheeled T-3) (AIA Academy of Architecture for Justice 2010). Where possible and appropriate, increasing use of police bicycle and foot patrols reduces fuel consumption and carbon emissions, saves money and improves the physical health of officers. Other benefits include raising the quantity and quality of naturally occurring police–citizen interactions through street-level community policing to increase citizens’ satisfaction with and confidence in the police and enhance perceptions of police legitimacy and promote compliance and law-abiding behaviour (Mazerolle *et al.* 2013). Additionally, engaging with the community in regular non-coercive forms of contact provides a conduit for better intelligence about crime to inform crime prevention at a local level (Sutton *et al.* 2013), as well as an opportunity for increased visibility and public reassurance (Innes 2004). Greening policing also connotes thought on the location and functions of police stations. A proposition that the public access areas of new police stations incorporate a ‘community room’, a safe and welcoming space where police, other agencies and citizens can meet and collaborate, reduces the need to travel (AIA Academy of Architecture for Justice 2010). Community rooms may alter community perceptions of police stations, positioning them as public buildings and circumventing their typecasting as ‘intimidating’ bastions of social control or ‘secret places’ (Millie 2012: 1). Thus, these types of strategies are ‘not only energy conserving alternatives but also more effective ways of building trust-based cooperative relationships essential to the community policing perspective’ (AIA Academy of Architecture for Justice 2010: 13). Greater community engagement creates space for awareness-raising efforts to promote better understanding of the role of the police and reduce unnecessary call-outs and trivial demands on police time and resources. In essence, the strategies proposed here are visible and sustainable, allowing more coercive and consumptive strategies to be reserved for crime control issues and those emergencies which warrant such responses.

Greening courts

A few green criminologists and legal scholars have used the term ‘greening justice’ to describe the proliferation of specialist environment courts (see Pring and Pring 2009), however, its ambit here is much broader. Systematic appraisal of mainstream court design and operations, e.g., has identified a wide range of measures which can reduce the environmental impact of courts (Kaye and Pfau 2008). One of these relates to the proximity of court buildings to allied criminal justice institutions, such as police stations, prisons and probation. This reduces travel distances and management time and, if situated near public transport hubs (such as buses, tram and train stops), can enhance community access generally. The siting of courts needs to be assessed on a case-by-case basis since de-centralizing courts to local communities may create more buildings, while regionalizing courts for operational efficiency may increase the amount and distance of travel to and from the court (AIA Academy of Architecture for Justice 2010).

Much of the attention given to greening courts relates to the physical amenity itself. Here the key issues are how best to conserve resources and reduce pollution, while promoting access to justice and, where possible, capacity for court diversion and innovation. Again notions of shared purposes and shared spaces are important: 'A court with shared services, self-service centers, interpreters, co-located support agencies, extended hours in the evenings and Saturdays, and earlier morning calendars not only creates a user-friendly, customer service-oriented facility—it also means less physical building and less transportation between facilities are required' ([AIA Academy of Architecture for Justice 2010](#): 20). Community justice centres and community courts may achieve these imperatives to a greater extent than traditional courthouses. The greening justice synergies become even more pronounced when this new generation of courts produce significant rates of diversion of offenders to environmentally focused 'community benefit projects'. For example, the Brownsville Community Justice Center in the United States has a diversion scheme for young people on probation assisting with the greening and restoration of local areas and the construction of community teaching gardens ([Center for Court Innovation 2014](#)). These greening community justice activities make material and symbolic improvements to disadvantaged areas, which may reduce fear of crime, while improving perceptions of community safety and of the legitimacy of nature-based diversionary criminal justice sanctions. Importantly, they also boost the human and social capital and aid the identity change processes of the individual offenders involved.

A major thrust of greening courts, as with police stations and prisons, is to introduce energy-saving and waste management measures. Reducing the paper mountain associated with court and legal work is a key imperative (see [Chicago Bar Association 2008](#)). Another is to maximize the capacity of rooms and spaces for multi-purpose use, including different kinds of court processes (e.g. problem-solving and therapeutic, adversarial, restorative justice, alternative dispute resolution methods and approaches) ([AIA Academy of Architecture for Justice 2010](#)). New building projects can be guided by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System in the United States or counterparts like the Green Building Programme in Europe, which encourage the adoption of sustainable green building practices through standardized certification.

The architectural design of courts has major implications for how people feel within such premises, underscoring the therapeutic and aesthetic benefits of greening courts. Provision of views to nature and allowing natural light into occupiable spaces helps to create less stressful environments for all concerned—victims and their families, defendants and offenders, lawyers, police, journalists, members of the general public, the judiciary and court staff. Consideration might be given as to whether efforts to increase the greenery in and around courts may indeed be led by people with direct experience with the criminal justice system. Indoor and outdoor plants may be grown by prisoners. Gardens and courtyards may be maintained by people on community service orders. Beautiful and symbolic art forms using recycled materials may be crafted by victims or offenders (or both) for the gardens or to adorn austere public foyer walls. Public access areas, especially court foyers, should be opened up for use by others for community events and functions outside of standard hours of operation ([AIA Academy of Architecture for Justice 2010](#)). These activities may help to enhance the perceptions of courts as public spaces, reduce stress and offer something scenic to look at for those

waiting to enter the courtroom. An important caveat is that the involvement of offenders, victims and other stakeholders in such activities must be respectful, voluntary (in the sense of chosen, not forced) and positively recognized.

Greening prisons

The greening of corrections and notions of ‘the green prison’ have, relative to other criminal justice institutions, generated the most discussion amongst practitioners and policymakers (Feldbaum *et al.* 2011; Stohr and Wozniak 2014). It is understandable, and yet somewhat ironic and hypocritical, that this is most keenly observed in the United States. Sustainability efforts are being spearheaded in a nation criticized as ‘an apostle of “zero tolerance” policing, architect of “three strikes and you’re out” and world champion in incarceration’, including the widespread use of mass confinement in inhumane conditions (Wacquant 2012: 38). The social (including racial and intergenerational) and environmental impact of a burgeoning prison-industrial complex is staggering (see Garland 2001; Larson 2014).

Against this penal landscape, questions being posed by sustainable justice advocates stand out as particularly subversive: “how small – rather than how large – should we build our new jail?” without sacrificing public safety’ (AIA Academy of Architecture for Justice 2010: 24). Prioritizing sustainability and balancing criminal justice with social and ecological justice has the capacity to shift debates on penal architecture and carceral geographies, as smaller prisons, and indeed, open prisons and low security prisons are more sustainable. A ‘smaller building means a smaller footprint, with reductions in site use, materials, consumption, domestic water usage, pollution generation, energy and staff costs’ (AIA Academy of Architecture for Justice 2013: 25). Similar to the point raised in relation to courts, siting and designing greener prisons, with outlooks to nature and including eco-friendly practices, has the capacity to change the emotional geography of the prison as a place where people live and work, affecting how they feel and relate in different spaces (see Crewe *et al.* 2014). Of critical importance is the capacity for greener, smaller, more open plan and rehabilitation-oriented correctional facilities to diminish the symbolic violence of the prison as a dominant instrument of punitive penalty in Western neoliberal societies. Ostensibly, this should entail less concrete, less cages and bars and, ultimately, less reliance on the use of confinement and coercive control.

In their guide to ‘greening corrections’, Feldbaum and colleagues (2011) identify five distinct areas as relevant:

- (1) the greening of correctional facilities and their operations (e.g. buildings with low energy and resource consumption);
- (2) the education and training of inmates to prepare for re-entry including environmental literacy (e.g. an understanding of the green economy and opportunities offered by green-collar jobs);
- (3) the greening of correctional industries through pioneering sustainable and ethical processes, products, and partnerships (e.g. a bio-mass plant that produces sustainable electricity);
- (4) the greening of offender re-entry programs (e.g. landscaping, energy efficiency retrofitting); and

- (5) Sustainability awareness raising and ‘how-to’ guidance for strategic and frontline correctional staff in implementing sustainability practices and leadership, ranging in complexity and investment (e.g. creation of a sustainability working group).

These reflect the inter-related concerns of pursuing criminal, social and ecological justice, which are discussed in more depth later in the article.

A prime example of the institutionalization of these objectives is the Sustainability in Prisons Project (SPP) in the United States, a ground-breaking ‘greening justice’ initiative. It has been inherently collaborative from its advent in 2003, which involved scientists and educators from the Evergreen State College and staff from the Washington State Department of Corrections. Since then, it has expanded to offer activities arranged around four areas: science and sustainability education, conservation, sustainable operations and community contributions. The importance and place of conservation and scientific research within SPP is one of its hallmarks. The project connects people inside and outside prison walls to create a collaborative, intellectually stimulating environment, in which incarcerated men and women enjoy guest lectures and workshops, and play key roles in conservation and advancing scientific knowledge (Ulrich and Nakadarni 2009; SPP 2013).

A wide range of conservation interventions, rehabilitation activities for abandoned or abused dogs, toxic pollution remediation projects and scientific research constitute the present activities across prison services in Washington State. The Cedar Creek Corrections Centre in Washington State features diverse activities and projects designed and implemented by SPP participants, including:

- A greenhouse and garden located within the prison’s perimeter that provides healthy organic vegetables and saves thousands of dollars a year in food costs;
- Low-tech food composting (including worm culture) to support on-site gardening and landscaping, which serves to divert food waste from landfills, and saves money;
- Recycling of thousands of kilograms of paper and cardboard, which again diverts these from landfill and saves money;
- Beekeeping that offers both honey as food and beeswax that is an ingredient in the on-site produced hand lotion;
- Nurturing endangered species of turtles back to health and captive rearing of frogs; and
- Water catchment tanks and native landscaping, which support a broad array of migratory birds and pollinators such as butterflies.

For prisoners, these initiatives and activities have led some to pursue professional and educational goals after their release such as working at a plant nursery or enrolling in a horticulture course. They have had other immediate effects as well, such as giving a sense of hope and encouraging a strong work ethic (see Graham and White 2015). A female prisoner and SPP participant (cited in Millman 2014) describes her experience of providing care and obedience training for abandoned or abused dogs:

Having the exposure to the animals gives you a connectivity you wouldn’t have... Seeing them get a second chance, and being part of that second chance gives me greater hope for my future as well as theirs.

The built environment and daily prison operations are improved too, making these institutions ‘green facilities’ involving cost-effective environmentally sound practices

that engage offenders with direct responsibility for these activities. Related to this, it is acknowledged that ‘green collar workers’—people with expertise in ecology, energy efficiency and environmentally friendly development—are in increasing demand for their skills. Education and training under the auspices of the Sustainability in Prisons Project is geared toward conservation objectives and practical skill development. SPP includes preparing inmates for vocational and trade-level work, such as carpenters who construct green buildings, weatherization specialists, installers of solar panels and wind turbines, ecological research assistants, organic farmers and beekeepers (Graham and White 2015).

The sustainability of SPP is partly derived from the level of collaboration and ownership from the many stakeholders, and strategic support provided by corrective services management (see Vanneste 2010). The executive leadership of the Washington Department of Corrections (DOC) championed the idea of sustainability; there is an explicit DOC Sustainability Commitment to ‘reduce the environmental, economic, and human cost of prisons’.

Similar sustainability policies and projects that are smaller in scale can be observed in prisons elsewhere, e.g. prison community gardens and organic food distribution networks in Australia (see Graham and White 2015). These ‘greening prisons’ activities allow for the physical and mental health benefits of ‘green exercise’, vitamin D from sunshine, improved mood and stress relief (Barton and Pretty 2010), while participants develop a ‘work ethic’ and a ‘nature ethic’. The first refers to the capacity to undertake tasks within given boundaries and timeframes, accentuating pro-social values and interpersonal skills. The second refers to appreciation of the contours and dynamics of ‘nature’, including the importance of conservation and propagation of plant and animal species. This entails knowledge of tree and plant species, and in some cases animal species, and of general ecological, nutritional and agricultural principles. The psychosocial and interpersonal aspects of greening prison initiatives occur naturally as well. Prisoner participants are actively taking part in activities which support their rehabilitation, without necessarily doing a psychological cognitive skills programme or being overtly instructed in citizenship responsibilities. Positive affirmation of the roles of ‘gardener’, ‘citizen scientist’ or ‘horticulture student’ fosters their internalization and normalization. The outdoor environment, strong collaborative partnerships and contact with nature are the vehicle for positive and healthy features of community.

By way of contrast to America, for many years, penal systems in Scandinavia have invested considerable thought and resources into sustainability activities and routinely promoting human rights in criminal justice. For example, Bastøy prison, a low security prison island in the Oslo fiord in Norway, is the world’s first ‘eco-prison’. The Norwegian approach continues to attract international attention for its ethos of penal exceptionalism and the island’s sustainable eco-friendly practices (Pratt 2008). Practical operations and interpersonal relationships are guided by ‘human-ecological’ principles and the notion of ‘normalization’, where prisoners are expected to lead lives as productive and similar as possible to those of fellow citizens. At Bastøy, prisoners are engaged in animal husbandry, sustainable farming and food production, recycling, renewable energy use and carbon emission reductions; they also have access to generous facilities to promote their physical and mental health. As of 2013, Bastøy prison had a remarkably low re-offending rate of just 16%, compared to around 70% for prisons across Europe and the United States (James 2013). The architecture and ethos of its high security Norwegian

counterpart, Halden prison which is located in a forest and has no bars on its windows, generates similar amounts of international interest for the conditions granted to those offenders classified as ‘high risk’. However, no matter how burnished their eco credentials and exceptional architecture, Bastøy, Halden and other Nordic prisons like them are still prisons and therefore still primarily places of punishment (see [Hancock and Jewkes 2011](#); [Ugelvik and Dullum 2012](#); [Shammas 2014](#)). However, they serve as exemplars of justice architecture and practices which allow prisoners to live and work in conditions that mirror those of other citizens, in settings and doing activities designed to maximize human and ecological wellbeing, given the context in which they occur.

Greening offender supervision and community reintegration

This section canvasses international initiatives which involve people with offending histories undertaking environmental activities in the community, as a component of their supervised orders or following their completion. This is often done in collaboration with social enterprises, charities and community groups. Importantly, a reintegrative focus on ‘generativity’ (‘making good’ by helping others, making a difference which benefits the next generation; see [Maruna 2001](#)) is emphasized here. We are keenly interested in initiatives where people with convictions take up opportunities to do good work because they want to—not because they are forced to—with restorative benefits for the environment, themselves and the wider community.

The Offenders and Nature (O&N) schemes in the United Kingdom are an established example of a greening justice initiative which incorporates a moderately strong rehabilitative ethos ([Carter and Pycroft 2010](#); [Pretty *et al.* 2013](#)). These schemes involve adult prisoners and probationers working alongside Forestry Commission staff or a Probation Supervisor on woodland sites, carrying out tasks such as creating and maintaining footpaths, coppicing, fencing sites, brashing, tree planting, small-scale felling and opening up dense vegetation to create more diverse habitats ([Carter 2007](#); [Carter and Pycroft 2010](#)). The orientation of the O&N schemes is toward reparation through positive work that provides skills, satisfaction and payment, with highly visible effects.

In light of the age-crime curve and ontogenic (age-related) theories of desistance from crime (see [Uggen 2000](#); [Laub and Sampson 2001](#)), ‘greening justice’ initiatives which engage juveniles and young adults comprise distinct advantages. [The Skill Mill \(2014\)](#) is a social enterprise in Newcastle, England, which provides employment for young people aged 16–18 to realize a set of inter-related environmental and social aims. Its mission is to undertake water- and land-based management that helps to reduce local flood risks and improve the local environment. A core focus of the initiative is increasing engagement, employability and educational levels of young people with offending histories to enable them to gain long-term sustainable employment, to reduce re-offending and increase community safety ([The Skill Mill 2014](#)). Services offered by the Skill Mill include construction of walkways and access ramps, digging channels, waterway clearance of general and plant litter, waste clearance of household, industrial and commercial items, mapping of invasive species, mapping of protected species, habitat vegetation management and flood defence work such as sandbag wall construction. A student evaluation of the effectiveness of the Newcastle Youth Offending Team’s (YOT) Environmental Construction Scheme, a joint project of the YOT and the Environment Agency, found overwhelming support for the scheme on

the part of the young offenders. Approximately 80 per cent said they would go into this kind of work in the future, and a similar percentage said they enjoyed reparation work. Statistically, participants in the programme appeared to do better than the national average in terms of re-offending rates (Brown and Thorpe 2009). The apparent success of this approach means that it is currently being expanded to include numerous other locations throughout England.

In the United States, culturally relevant ‘green re-entry’ initiatives are achieving positive outcomes in the lives of Indigenous young people (Brachear 2010; McKay *et al.* 2013). Early indications from the Tribal Juvenile Detention and Re-entry Green Demonstration Program, e.g., appear promising. People from three tribes were involved: the Hualapai Indian Tribe, the Mississippi Band of Choctaw Indians and the Rosebud Sioux Tribe. This initiative assists detained and re-entering Native American young people to successfully reintegrate into the community through the use of green technologies and participation in environmental sustainability activities. Activities include gardening, beekeeping, building greenhouses, solar panel installation and hydroponics, as well as incorporating traditional tribal culture through cultural education, activities and ceremonies (McKay *et al.* 2013). This initiative promotes participants’ cultural citizenship and social rehabilitation, including opportunities to boost their cultural, human and social capital, and to restore their moral character and identity, in managing issues of stigma and shame.

The Interfaces Between Criminal, Social and Ecological Justice

The importance of ‘greening justice’ approaches to conventional criminological concerns (such as offender rehabilitation and desistance) can initially be assessed through consideration of the interface between the social and the ecological. The standard ‘social ecology’ approach to understanding crime, especially in regards to juvenile justice, situates the problem as one that demands attention at varying levels of the social structure—e.g. the individual, families, groups, neighbourhoods, communities, mass media, politics and industry (Cunneen and White 2011). It is the interaction between individuals and their socio-cultural and natural environments which are viewed as important in shaping options and choices for that person. Accordingly, crime and desistance from crime are reciprocally influenced by the conditions and contexts in which they occur (Farrall *et al.* 2010). The projects and initiatives examined in this article engage with the social ecology of crime and desistance through use of multi-faceted and contextually sensitive approaches.

Examining the interfaces between criminal, social and ecological justice becomes of paramount importance, however, when ‘greening justice’ policies and practices are evaluated in the light of the competing values and interests that underpin them. One of the propositions in the *AIA Academy for Justice Architecture* (2010: 28) white paper on sustainable justice presents a lucid illustration. In greening detention and corrections, its authors argue the need for greater use of technologies to ‘minimize inmate movement’ on fiscal and instrumental grounds. Instead, the greater use of video visits and electronic attorney-client conferences, video arraignment and court proceedings are suggested, to reduce transport costs and emissions, as well as the use of human resources (AIA Academy for Justice Architecture 2010: 28). Moreover, if prisons are conceptualized as akin to any other built public infrastructure, reducing human traffic

flow within them will necessarily reduce monetary costs and natural resources spent on heating or air conditioning and lighting to maintain a comfortable visual and thermal climate. While these propositions may make sense from an ecological and architectural perspective, they are problematic from a criminological perspective. Successful reintegration initiatives, e.g., necessitate frequent circulation of prisoners within the community and movement within the prison (such as prisoner mentor schemes, or green exercise activities in open spaces). Likewise, family contact is of demonstrable benefit and, while 'video visits' may have their place, it is not the same as face-to-face interaction. The logic of environmental sustainability may not match entirely the logic of rehabilitation. Insufficient thought and consultation regarding maintenance of a balance between criminal, social and ecological justice may acquiesce unintended and counterproductive consequences.

Nonetheless, where undertaken ethically and effectively, the potential benefits of greening justice for the human subjects of punishment appear promising. [McNeill \(2012\)](#) explains how mainstream criminal justice institutions and professional actors need to be mindful of the inter-related forms that offender rehabilitation may take—including but extending beyond psychological rehabilitation and correctionalism. He underscores the need for common rehabilitative interventions, such as cognitive skills programmes, to be accompanied by broader opportunities for social, moral and legal/judicial rehabilitation, to better enable reintegration and desistance processes ([McNeill 2012](#)). In the context of this article, greening justice initiatives which respectfully engage incarcerated and community-based offenders have the capacity to help them realize different forms of rehabilitation. Environmental rehabilitation and ecological justice may serve as a catalyst for social and moral rehabilitation and social justice, allowing offenders to volunteer alongside other community members and with charities, 'giving back' to help others and the environment. Becoming a community gardener or volunteering to save endangered species may facilitate processes of identity change—how they see themselves and how others see them—enabling their symbolic re-qualification as citizens to be welcomed back, rather than stigmatized and excluded, after punishment ([McNeill 2012](#)). Documenting their positive contributions in official records and files, in turn, may affirm civil rights, access to the labour market and capacity to reintegrate. For example, at a practical level, certificates of appreciation or green re-entry programme completion are useful in parole applications and job applications for entering environmental industries and the 'green-collar' workforce.

The greening of community-based offender supervision and community justice further highlights the potential benefits and synergies between criminal, social and ecological justice. Emergent research indicates that the greening of inner-city areas, especially vacant lots, is associated with reductions in certain types of crime and reductions in residents' fear of crime ([Kuo and Sullivan 2001](#); [Garvin et al. 2013](#)). [Maruna \(2012\)](#) points out the irony and opportunity inherent in mobilizing offenders, as volunteers and/or workforces, to lead the greening of public spaces for these purposes. 'Green' crime prevention in cities may yield multiple, inter-related benefits. Tackling the signs of disorder and the problem of 'broken windows' ([Wilson and Kelling 1982](#); but for critique of this see [Sutton et al. 2013](#)) associated with violence, fear and further crime can be materially addressed by repairing damage and replacing concrete with trees, shrubs, grass and gardens. Ostensibly, allowing offenders to lead green initiatives

which prevent crime and reduce residents' fear of crime may, consequentially, enable their desistance and reduce their risk of re-offending.

Green community justice and crime prevention initiatives which include urban community gardens and food security initiatives enhance social justice and food justice in the same moment that they provide positive outlets for sustainable local criminal justice (Brisman 2009). Urban greening and community gardening initiatives which involve people with convictions engender pride of place (i.e. the garden or restored environment itself, as well as restoring local community pride), pride in skilled achievement (i.e. something tangible is produced, a new garden and fresh food for low income earners) and pride in citizenship (demonstrating they are capable of change and fulfilling citizenship responsibilities).

Physically demanding labour is a core component of many 'greening justice' projects, but this in and of itself is not sufficient to the realization of positive benefits. Outdoor chain gangs, for instance, involve demanding toil but under circumstances that are extremely negative and brutal. The context and purpose of physical labour influences the lived experiences and perceptions of offenders and those with whom they interact. The places and spaces where the activity occurs must not only be neutral (or not overtly coercive), but attractive from the viewpoint of natural light, views of nature and hands-on engagement with plants (see Cammack *et al.* 2002).

Moreover, critical commentators raise the cogent reminder that, even though the architecture and aesthetics of 'new generation' prisons may be less brutal and repressive than traditional forebears, 'we must be careful not to de-politicize the nature of the material, embodied relations of production in favour of more romanticized, beautiful – but, perhaps anaestheticizing – versions' (Dale and Burrell 2003 cited in Hancock and Jewkes 2011: 627). While 'greening justice' initiatives may herald more natural beauty and resource conservation, scrutiny of the intended and unintended consequences of justice architecture and sustainability activities remains essential. Indeed, issues surrounding the motivations, ideologies and ethics of 'greening justice' warrant deeper, critical reflection, as 'green' does not necessarily always mean 'good'.

Motivations, ideologies and opportunities

From the point of view of the administrators and policymakers of criminal justice, for instance, there is an emergent agenda to cut energy, offset carbon emissions, save water and recycle waste—in other words, to transform the physical and operational infrastructure of criminal justice institutions to become more environmentally sustainable (Anderson 2009; Feldbaum *et al.* 2011; Sheldon and Atherton 2011). Our preliminary synthesis of available information identifies different rationales and dimensions of 'greening justice':

- *Fiscal*: saving money, creating revenue;
- *Architectural and Geographical*: siting and designing sustainable, green buildings;
- *Legal*: complying with State and international regulations, charters and laws;
- *Political*: public relations, electoral cycles and taxpayers as voters;
- *Environmental*: less waste and emissions, more eco-friendly practices;
- *Educational*: developing environmental ethics and awareness among practitioners, offenders, policymakers and communities;

- *Physical and Psychological*: reducing stress, more exercise, healthier police, court and corrections staff, healthier offenders;
- *Instrumental*: ‘keeping offenders busy’, staff ticking boxes;
- *Criminological*: crime prevention and safety, decarceration, reducing re-offending;
- *Moral and Ideological*: social innovations enabling desistance, citizenship; saving endangered species; and
- *Cultural*: positive shifts in police, judicial and penal cultures.

The financial and other benefits of ‘greening justice’ need to be interpreted carefully and contextually. For instance, there is a clear philosophical and practical ‘fit’ between systems based upon progressive rehabilitation and the construction of eco-friendly facilities. This is most apparent in Scandinavian countries such as Norway, where policy principles of penal exceptionalism are supported by ‘normalization’ strategies that simultaneously demand autonomy and skill development, as well as responsibility, among those few offenders who are incarcerated.

But what about the United States, England and Wales, Australia and other Western jurisdictions that host many of the projects discussed in this article? The United States, e.g., imprisons more people than any other nation on earth (Walmsley 2013), whilst the number of people in prison or on probation in England and Wales and Australia has risen sharply in recent years (Australian Bureau of Statistics 2014; Ministry of Justice National Offender Management Service 2014). In these places, prison is not a ‘last resort’; conversely, it seems that punitive penal populism is thriving (see Pratt 2007; Cunneen *et al.* 2013). In such contexts, it is plausible that ‘greening justice’ may be misappropriated as a cost-effective way to incarcerate even more people, while at the same time providing a ‘feel good’ gloss in regards to what are mixed intentions or even regressive penal cultures. Several examples illustrate this. While well considered in its environmental intentions and achievements, one of the stated objectives of the ‘green’ multi-purpose Blue Earth County Jail and Justice Center in Mankato, Minnesota, is ‘to allow for future jail expansion in a cost-effective manner’ (Beyer 2012: 2). Meanwhile, prisons in Australia and New Zealand have taken to using new or ‘recycling’ old shipping containers for use in prisons, which may be justified by proponents as saving money and resources and having low embodied energy. However, in the context of severe heat in parts of Australia, this raises pressing questions about their impact on wellbeing and human rights, not to mention what they signify in terms of penal politics (see Grant 2013). In the United States, investigations have revealed exploitative and unsafe correctional industries involving prisoners in e-waste recycling projects that are little more than ‘toxic sweatshops’ which fail in their duty of care to protect participants (Jackson *et al.* 2006; Kaufman 2010).

Arguably, one of the most serious warnings that ‘green’ does not necessarily equate to ‘good’ is found in the appropriation of the ‘green’ mantra by the US Government at the infamous Guantánamo Bay prison and naval base. Guantánamo boasts state-of-the-art green technologies, including four large wind turbines, multi-faceted fuel and energy reduction strategies, as well as bicycle-riding traffic police—which reduce emissions and consumption and save US taxpayers millions of dollars each year (Beuno 2005; Goldenberg 2011). The imbalance in values and ideologies in terms of criminal, ecological and social justice are most apparent where the ‘green’ credentials and

eco-ambitions of militarized carceral regimes are co-located with torture and other violations of fundamental human and civil rights (see [Gordon 2009](#)).

Yet, we argue that the advent and spread of ‘greening justice’ projects is not insignificant in terms of justice operations and human experiences and should not be assessed on the basis of extremes such as this, nor on historical penal trends. Our research suggests that ‘good’ things can indeed emerge from ‘bad’ places and troubling histories ([Graham and White 2014; 2015](#)). In this, we echo the sentiments of [Lyons \(2012\)](#) who points out that, while wholesale transformations are nigh impossible within the United States’ entrenched prison-industrial complex, there is hope nonetheless in regards to more sustainable prisons and their contributions to the prison food system: ‘Yet these micro-movements – with their local specificity, relatively low operational costs (as compared to national programs), and tangible benefits to local communities – can have broad reaching positive effects on recidivism, rural economies, public health, and sustainable agriculture’ ([Lyons 2012: 84](#)). In other words, ‘greening justice’ initiatives *can* create social value and make a positive difference, for some, in particular places, and under specific circumstances.

The very presence of ‘greening justice’ initiatives are important in terms of the politics of penal reform. Such initiatives tap into a penal abolitionist sentiment to the extent that rhetorical claims about protecting the environment are linked to efforts to reduce the number and size of prisons due to their ecological footprint. This is one of the arguments put forward by green criminologists ([Lynch and Stretesky 2010](#)). There are strong reasons—in terms of both ecological and social justice—to not build more prisons. In a criminal justice context, it is not only about doing more with less, it is about doing less. Indeed it is a truism that the most sustainable building is the one that is never built. It is entirely contradictory to the core notion of ‘sustainability’ to see claims about ‘greening justice’ that interpret it as justifying penal expansionism. Similarly, one of the paradoxical harms which may potentially be produced from the emergent ‘greening justice’ evolution is the reification of a new generation of ‘green eco-prisons’ as an ideal type, and through this a further legitimation of the penal project, rather than its transformation or abolition. In our view, true sustainability hinges upon the impetus to decarcerate, diminish in size and de-commission, restricting the use of confinement as a genuine last resort.

Conclusion

‘Greening justice’ fundamentally involves practitioners, offenders, governments and communities adopting more ethical and sustainable methods in the doing of criminal justice. This is occurring in different parts of the criminal justice system, across diverse jurisdictions, and involves considerable variation in specific project design and implementation. A coherent philosophy connecting such diverse initiatives is yet to be established, but the positive potential of ‘greening justice’ is rapidly being recognized, albeit selectively, within criminal justice institutions around the globe.

From our perspective, it is important to delve more deeply into the specific dynamics and contours of particular initiatives involved in ‘greening justice’ by talking directly with offenders, practitioners and communities about them. As part of this, it is essential to interrogate concepts such as ‘innovation’, both theoretically and concretely, and to ensure that the language itself (‘greening justice’) denotes something meaningfully

different (in terms of ‘sustainability’ as well as system and practice reform) to the *status quo* (see [Graham and White 2014; 2015](#)).

In a world that is rapidly being subject to the vagaries of climate change, more and more attention will be placed upon the natural environment and the Nature-human relationship. The ‘greening justice’ initiatives discussed in this article provide evidence that, in a number of respects, criminal justice institutions have the capacity to be at the vanguard of good ecological practice and conservation. Hence, there is a merger of interests as justice architecture and criminal justice reform (including personal reform for those with offending histories) circle around how best to make justice more environmentally sound. In this event, a win-win situation is created for humans and Nature alike. We believe that this holds true for ethical and effective ‘greening justice’ initiatives that pertain to community policing, crime prevention, courts, prisons, probation and community reintegration. In the end, much depends upon the precise relationship between criminal, social and ecological justice that, in turn, is forged in the crucible of particular social practices occurring within specific institutional contexts.

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