



## “Green” prisons: rethinking the “sustainability” of the carceral estate

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**Abstract.** This exploratory paper introduces the notion of the “green” prison, uncovering the ways in which environmental sustainability inflects carceral policies and practices. Focusing on the United States, it highlights the construction of an “organizational sustainable development” discourse within the correctional system, and argues that it is the system, rather than the environment, which is being “sustained”, through the promulgation of a “green” prison discourse which serves to deflect attention from the mounting human and financial costs of mass incarceration. It examines the ways in which “sustainability” plays out in correctional facilities, narrowly structured around compliance with “green” environmental and energy-related regulations, and the provision of “green-collar” training for inmates. Drawing on architectural geographies and notions of therapeutic landscapes, the paper theorizes an alternative interpretation of the “green” prison as a nurturing environment, but argues that this model functions only in decarcerative settings imbued with a rehabilitative, rather than a retributive, atmosphere.

### 1 Introduction

The expansion of the United States’ carceral estate, in the context of mass incarceration, comes at considerable financial, human and societal cost. With 2.2 million inmates at the time of writing the US has the largest prison population in the world (Bonds, 2012:129) – one that grew sevenfold between 1970 and 2003. US spending on prisons, probation and parole has nearly quadrupled over the past two decades, making this the fastest-growing budget item after Medicaid. In addition to these direct outlays, mass incarceration also delivers costs to social services, child welfare, and education, and its opportunity costs mean that resources spent on corrections cannot therefore be used for other purposes. At the individual, family and community levels, incarceration causes financial strain, disrupts parental bonds, separates partners, places severe stress on remaining caregivers, and leads to stigma and restricted opportunities (Henrichson and Delany, 2012).

Although the US correctional system has been widely taken to task for its financial and human costs (e.g. Pattillo et al., 2006; Clear, 2007), the environmental cost of mass incarceration has yet to attract widespread critique. For the correc-

tional industry, though, “sustainability” is already becoming 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 system.

US prisons are extremely resource-intensive facilities. They perhaps 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. Many correctional facilities 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. The convergence of this voracious consumption of resources, with the post-Kyoto advance of environmental legislation, means that the sustainability agenda has started to permeate the US carceral estate. Viewing the correctional system through the lens of organizational sustainable development after Tregidga et al. (2013), this paper argues that “green” discourses and practices are being adopted as much to sustain the prison system as to address

environmental issues and imperatives. Taking the “sustainability” of the US carceral estate as an indicative case study, it traces the emergence of parallel concerns for the “greening” of prison facilities and the introduction of “green” interventions for inmates, and points out the disconnect between these two agendas in relation to the function of prison buildings, in that they tend to be viewed as inert containers within which sustainability practices are enacted, rather than as environments whose design has the potential to deliver specific types of effect. Drawing on burgeoning literatures within architectural geographies, as well as geographies of affect and notions of therapeutic landscapes, the paper then shifts focus to the carceral context of northern Europe, where more experimental, progressive penal architecture has the potential to connect these parallel agendas. Reflecting on the context of mass incarceration, it concludes that the underlying penal philosophy is key to understanding the role of sustainability in correctional systems.

## 2 “Sustainability” and organizational sustainable development

The “sustainability” agenda derives from the Brundtland report, which coined the phrase “sustainable development” and defined it 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). It is widely acknowledged that the “meaning” of sustainable development is both highly contested and intensely political and politicized, leading some to argue that the term itself generates confusion over what it is exactly that “is to be sustained – the natural environment, or the economy/market” (Tregidga et al., 2013, 102).

The basic idea of sustainable development is radical in itself, encompassing the potential to require sacrifices in the present in order to protect future generations’ ability to meet their needs, all of which could have effects on present levels of growth, income and wealth distribution. For organizations and corporations, there is a need to adopt an appropriate position in the sustainable development arena, even where core functions may seem fundamentally at odds with sustainable development, such as in the case of extractive industries. Resisting the agenda altogether may be disadvantageous in numerous ways, but a pragmatic position is essential. Organizations have, therefore, developed a pragmatic notion of sustainable development (termed “organizational sustainable development”), and have been engaging with the sustainable development debate for some time, on these terms. This response of organizations has been seen by some to represent a move away from “mainstream” notions of sustainability deriving from Brundtland, towards a position more aligned to “sustaining the corporation” (Banerjee, 2003; Milne et al., 2006; Christen and Schmidt, 2012). This corporate response

has been used to adopt, or even to hijack, the sustainability concept and discourse in a way which is “business-friendly” and which does not fundamentally challenge the operational rationale of the organization, that is, its underlying purpose, and the practical means by which it achieves that purpose.

Considering the operation of this process in relation to large corporate businesses, Tregidga et al. (2013) took a discursive theoretical approach to understanding how organizational sustainable development is defined, and the circumstances under which certain actions and organizations become understood as “sustainable”. Using the Foucauldian concept of power/knowledge, in which knowledge production is always inside relations of power, and both power and knowledge are inseparable from discourse (Foucault, 1975, 1976, 1980), they understood knowledge claims by organizations about sustainable development as embedded within relations of power, and as having performative effects. In this way, and within this power/knowledge formation, “silences” or “absences”, those things which are subjugated, and not discussed, are just as important as those things that *are* included in discourse. The significance of this is that discourse *forms* the concept of organizational sustainable development, in that it exists as a system “which produces, regulates and circulates statements which are positioned as true” (Tregidga et al., 2013, 105), and what is considered “true” about organizational sustainable development is a function of these discursive formations and power relations. As Hall (1997, 49) argued, “knowledge linked to power, not only assumes the authority of “the truth” but has the power to *make itself true*”. Not only can knowledge within a discourse be produced as “truth”, but this “truth” can have effects; as Tregidga et al. (2013, 105) argued, “the constitution of organizational sustainable development is likely to affect the way organizations interact with the environment and society, and the way society (and its members) interact with organizations”.

In their own work, Tregidga et al. (2013) studied the sustainable development reports of large corporations, and identified in these reports a number of “taken-for-granted assumptions” about sustainable development, around which they argued that organizational sustainable development is constituted. These assumptions included a sense of “enlightened self-interest”, in which “going green” makes pragmatic sense because it makes organizations more competitive (a “win-win” situation, where both the organization *and* the environment benefit); a sense of sustainability as “necessary and important”, both in terms of compliance with legislation, and in response to moral obligations; and a clear message that sustainability is a “challenge and an opportunity” for organizations. Analysing these assumptions within the Foucauldian power/knowledge framework, they concluded that constructions of sustainable development within this organizational context remained largely within the organizational frame of reference; in other words, they did not challenge the “traditional economic objective” of organizations (*ibid*, 124); instead, they served to reinforce organizations by legitimizing

them and their activities, and marginalizing alternative understandings. The construction of sustainable development as “enlightened self-interest” was, in their eyes, potentially dangerously limiting, as it raised concerns surrounding the levels of change which are possible; for example “if an initiative has clear environmental, social and/or economic “benefits”, but does not result in a “win” for the organizations, to what extent can such an initiative be realized under this construction?” (ibid, 124). Although the work of Tregidga et al. (2013) was undertaken with reference to corporate firms, the fundaments of their argument have considerable relevance for correctional organizations, since they are also actively engaging with the agenda of sustainable development, constructing discourses which allow them to adopt a pragmatic position, and to legitimize their operations by selectively including and excluding certain things from those discourses.

Any overview or assessment of the “sustainability” or “greenness” of prisons is beyond the scope, and redundant to the purposes, of this paper. Our intention here is not to judge whether or not prisons have reduced their environmental impact – rather to consider the ways in which correctional systems have adopted and deployed the “sustainability” agenda, and the implications of this strategy. The paper draws on a discourse analysis of official publications pertaining to the sustainability agenda in the US corrections system, including the “Strategic Sustainability Performance Plan” (US Department of Justice, 2010) and “The Greening of Corrections: Creating a Sustainable System” (National Institute of Corrections, 2011). The *Strategic Sustainability Performance Plan* (hereafter *SSPP*) is a formal statement from the US Department of Justice which sets out its plans for compliance with the Executive Order 13514 *Federal Leadership in Environmental, Energy and Economic Performance* in relation to federal-level correctional facilities. Aimed at both federal and state-level facilities *The Greening of Corrections: Creating a Sustainable System* (hereafter *GoC*) is a report published by the National Institute of Corrections, commissioned by the US Department of Justice, Federal Bureau of Prisons, from external partners, with a view to providing information and guidance about current tools, strategies and practices of sustainability within correctional facilities, and to providing recommendations to practitioners in applying this information to their own facilities. In addition to these overarching documents, we also refer briefly to state-level publications, including the *Sustainability Plan* (Illinois Department of Corrections, 2012).

Considering discourse as a cluster of related statements cohering to produce both meaning and effects in relation to a particular topic at a particular moment, each of these documents was read as part of a discourse analysis. The methodology employed comprised two stages – first identifying the documents, and second seeking to identify within them taken-for-granted assumptions embedded in organizational discourse on sustainable development. In terms of selecting the documents, although in the corporate sector or-

ganizational sustainable development discourse is embedded within a diverse array of texts produced by individual companies, trade organizations, regulatory bodies and so on, in the correctional context the number of texts is smaller, limited to official publications produced by or on behalf of relevant structures of government at national and sub-national level. In this case, we analysed all of the current US federal-level publications, and a small sample of state-level publications. Analysis itself took the form of close reading of the texts, and in particular of extracts where the concept of sustainable development was deployed. This process did not seek to “code” the entire text; rather it was an interpretive process through which where extracts were retrieved based on focused reading.

Using the discourse analysis of these documents, in the following section of the paper we consider the ways in which the construction of discourses of sustainability which focus on the physical structures of correctional facilities and the programming which occurs within them, serve to legitimize the US correctional system and to narrow the functional scope of sustainability.

### 3 “Green” and “greening” prisons

Since Brundtland, “green” has become a buzzword for all kinds of technologies and practices adopted by organizations 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. If “sustainable development” and “sustainability” are vague terms, then “green” is perhaps even more arbitrary in terms of its intuitive nature, and assumed meanings. Perhaps for this reason, “green” has become the trope of sustainability in relation to US correctional facilities, with official publications peppered with references to “green” prisons, the “greening” of the economy, and “green-collar” training for inmates.

It is perhaps unsurprising that the publications of the US Department of Justice pertaining to sustainable development within the correctional system are replete with the kind of “taken-for-granted assumptions” identified by Tregidga et al. (2013). For example, *SSPP* opens with a statement about the necessity and importance of sustainability, both in relation to compliance with Executive Order 13514, as well as other laws and statutes, but also in relation to the Department of Justice’s obligations around environmental stewardship, and its environmental footprint. Notions of “enlightened self-interest” (the “win-win” situation, where both the organization and the environment benefit) are also prominent, as in this section from the opening of *GoC*:

We believe that the path to sustainability is not only technically feasible for correctional facilities but also critical as it allows us to reduce our costs of doing business, assist in making our communities

more sustainable, help our inmates reintegrate into society in a productive and meaningful way, and ultimately ensure that we are preserving our environment now and for generations to come.

In the same document, the “challenge and opportunity” of sustainability are also foregrounded. 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 (*ibid*).

The discourse of organizational sustainable development laid out in each of these documents is based firmly on the “taken-for-granted” assumptions of enlightened self-interest: necessity, compliance and obligations, and frame sustainability as both a challenge and an opportunity. The discourse is continued at the state level, for example with the Illinois plan noting that “The greening of the agency provides a multitude of opportunities to create more efficient, sustainable facilities. This will reduce the financial costs of our facilities through reduced energy and resource consumption” (Illinois Department of Corrections, 2012, 2). Tregidga et al. (2013) observed for the corporate sector that the construction of a discourse around enlightened self interest, necessity and obligation, and challenge/opportunity meant that organizations could justify their continued operational rationale without questioning certain aspects of their behaviour and functionality. The same is true here. Deploying this kind of sustainable development discourse allows the US correctional system to adopt programmes and practices aimed at increased “sustainability” in ways which reduce its environmental impact, but at the same time, by reducing its costs, make the correctional system *itself* more sustainable.

Large US prisons are immensely resource-hungry facilities, and the near-doubling of the US prison population since the 1990s has seen more and more of them being built to accommodate the astonishing increase in the captive population. It is perhaps redundant to observe, therefore, that in the discourse of sustainable development advanced in the publications considered here, there is no glimmer of recognition that the most effective way to reduce the environmental impact of the correctional system might be to reduce the numbers of people incarcerated, and therefore the need for these gluttonous facilities in which to confine them. Just as Tregidga et al. (2013) have noted for the corporate sector, any questioning of the core principles of the correctional system is subjugated and silenced in these documents, which take for granted the necessity for correctional facilities to con-

tinue to exist at their current scale of operation, regardless of their environmental cost. Even in *GoC*, whose authors critique “tough-on-crime naysayers” (National Institute of Corrections, 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 Loïc 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 punitive-ness” (Pratt et al., 2013), in relation to more austere and over-crowded prison conditions, longer sentences, increased criminal sanctions and more “humiliating” punishments. However, of most interest for the purposes of this paper is what exactly is being *done* in the name of sustainability; the ways in which the version of sustainable development espoused in these publications is translated into practical measures which are either already being introduced, or which are recommended, for the correctional system. More specifically, it allows us to identify which aspects of the correctional system are open to change, and which fall outside the remit of consideration, as the discourse of organizational sustainable development allows certain aspects of the correctional system to come under the spotlight in terms of sustainability, and others to be manoeuvred out of view.

#### 4 “Greening corrections”: prison buildings and inmate programming

The sustainability discourse as constructed by the US correctional system is translated into practical measures in two areas of activity, one of which is afforded far more attention and investment than the other. Driven by the need for compliance with various mandates and policies, most efforts are directed into following recommendations and regulations about the physical structures of correctional facilities, focusing on engineering the built environment to reduce its intensive use of resources. A secondary area of activity is programming for inmates, providing “green” interventions for prisoners, intended to increase their employability on release and therefore to reduce recidivism.

The emphasis is very heavily on the environmental impact of the facilities themselves. In relation to high-performance green buildings, the US Department of Justice has stated its commitment to meeting the goals set out in EO 13514, aiming for zero-net energy for all new federal buildings by 2030, and managing existing building systems to reduce energy, water, and materials consumption. The *SSPP* therefore focuses almost exclusively on correctional facilities, intending to improve the energy efficiency of buildings and operational factors; to manage water use in an environmentally sound manner; to plan, build and procure high performance,

sustainable buildings; and to prevent pollution and eliminate waste through sustainable practices. It provides detailed technical information about the Bureau of Prisons’ obligations under federal legislation in relation to water use efficiency and management, development and maintenance of an agency-comprehensive greenhouse gas inventory, its pollution prevention and waste elimination goals, and so on.

In providing guidance to the corrections industry, *GoC* also foregrounds prison buildings, structuring its discussion of correctional facilities around the LEED (Leadership in Energy and Environmental Design) and EnergyStar benchmarking schemes for green buildings. Specific examples are given of existing “green” prison buildings, such as the Denver Detention Center, which is described as “a model for current practice in detention center planning and design. It is a LEED Gold facility with well-insulated walls and roof, highly efficient mechanical systems, and low projected water use appropriate to its site in the arid high desert of Colorado” (National Institute of Corrections, 2011, 10). Although the Denver Detention Center is an “exemplary model of current best practices”, there is still room for improvement in terms of use of “utilising the abundant local sunshine as a renewable resource via solar collectors” (*ibid*).

Bolted on almost as an afterthought to the retrofitted “greening” of existing correctional facilities are aspects of inmate programming, where associated relevant training is argued to offer opportunities for released inmates to find work in the “emerging green economy” after release. In relation to the “agency mission” (in relation to public safety, law enforcement, and punishment of unlawful behaviour), the *SSPP* briefly notes that inmate work and self-improvement can be linked to this agenda, through training in job skills related to renewable energy and recycling, to prepare them for future employment in a “greening” economy. Reflecting its broader mandate, *GoC* focuses more closely on interventions and programmes which prepare and train inmates to take future employment within this “greening economy”. Examples here include the activities undertaken by the Washington State Department of Corrections, through its “Sustainable Prisons Project”, which involved not only the kind of “green buildings” measures in relation to energy, water and waste described earlier, but also a concerted effort to provide “green-collar” education and training to prisoners:

Inmates engaged in the growing, sorting, building and cultivating tasks of the Sustainable Prisons Project 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 (National Institute of Corrections, 2011, 15).

Aside from the functional linkage between the retrofitting of “green” technology and associated inmate training, there is very little evidence of synergy between the “buildings” and “programming” agendas. In this sustainability discourse, a “green” prison is first and foremost a resource-efficient building, which might or might not contain associated inmate programming. Missing from this discourse, which positions prisons as inert vessels whose lived experience is rarely mentioned in these documents, is any recognition of a building’s properties beyond its thermal efficiency, its lighting demand, its water management, and its capacity for solar collectors. Any rehabilitative aspect of the “greening” of a prison is considered to operate either through its accommodation of “green-collar” inmate training, or tangentially through the “calming” effects of certain measures (such as daylighting), which arguably make prisoners easier to manage. There is very little sense in which a “green” prison facility could *itself* have any rehabilitative or therapeutic effect on its inmates. Where any wider effects of a prison building are considered, the audience is usually the surrounding community, rather than the captive population. For example, in *GoC*, the design of the Denver Detention Center is described as “specifically intended to reflect the solid and dignified limestone massing of the adjacent Beaux Arts neo-Classical buildings of the civic center, including the Denver Mint, with no visible signifiers of a punitive purpose” (National Institute of Corrections, 2011, 10). In visualizing the “sustainable correctional/detention facility of the future”, in the same document, the recommendation to replace traditional razor wire perimeter fences with building walls and planted boundaries was intended to “allow the facility to be viewed by neighbours as a more normal part of the community” (*ibid*, 51).

This disconnect between “building” and “programming” agendas speaks both to an under-researched aspect of prison design, namely the architectural and cultural geographies of prison buildings, and to the underlying penal philosophies which drive prison systems. In the remainder of the paper, we therefore briefly address both of these issues, firstly by considering the “green” prison as a therapeutic landscape, and secondly by drawing attention to carceral contexts in which the “greening” of a prison is interpreted rather more broadly than in the United States.

## 5 The “green” prison as a therapeutic landscape

Human geography has over the past 10 years seen affect and emotion reemerge as major themes, with a growing body of work both *in* embodied, emotional and affectual geographies, and discussing the relationships *between* them (e.g. Anderson and Smith, 2001; Thrift, 2004; Bondi, 2005; Pile, 2010). Drawing on this scholarship, Rose et al. (2010) have argued that emotional and affectual geographies have percolated into geographies of “big things” (Jacobs, 2006) such as airports, tower blocks, office blocks, shopping malls, libraries and

ships, in that geographers interested in such “big things” have begun to reflect this distinction between emotion and affect. Some have explored “feelings” in terms of the emotions expressed by human subjects, while others worked with a version of affect that creates bodily behaviour and sensory perception with little or no mediation by subjective processes (ibid 339). Recent commentaries within architectural geographies and cultural geographies of buildings (e.g. Kraftl and Adey, 2008; Kraftl, 2010; Jacobs and Merriam, 2011) have argued for the importance of considering buildings in a number of connected ways: as everyday spaces in which people spend a significant proportion of their lives, as expressions of political-economic imperatives that code them with “signs, symbols and referents for dominant socio-cultural discourses or moralities” (Kraftl, 2010, 402), and in terms of perspectives that emphasize materiality and affect.

Recent work within carceral geography has addressed the significance of carceral space (Moran et al., 2013), recognizing space as more than the surface where social practices take place (Gregory and Urry, 1985; Lefebvre, 1991; Massey, 1994), but although geographers understand that space can affect the ways people act within it, and are increasingly applying this perspective to carceral spaces, Siserman (2012) points out that studies of prisons as buildings and environments where the behaviour of inmates can be dramatically changed, and which investigate how this might happen, remain scarce. Prisons might also be labelled “big things” after Jacobs (2006), but as of yet very little attention has been paid to the emotional or affective geographies of prisons, whether referring to prisoners, visitors, or any of the myriad people who engage with carceral environments.

Extending to prison buildings Kraftl and Adey’s (2008:228) contention that, through their design, buildings have “potential capacities to affect their inhabitants in certain ways”, it is clear that prison design is almost always assumed to impinge upon the lives of those inhabiting carceral space in harmful rather than therapeutic ways. This assumption is readily demonstrated in a recent campaign in the US for architects to decline commissions to design supermax facilities. In 2005, Architects/Designers/Planners for Social Responsibility (ADPSR) launched a “Prison Design Boycott” urging architects to refuse death chamber and supermax prison commissions on the grounds of human rights violations, supermax prisons being considered to inflict torture through long-term solitary isolation. The American Institute of Architects (AIA) was asked to amend its Code of Ethics and Professional Conduct to prohibit the design of execution chambers and solitary confinement, strengthening the existing Ethics Code which calls for support of human rights by identifying the relevant United Nations standards and stating that AIA members should not be involved in the designing of buildings intended to accommodate specific activities that violate human rights.

In the light of this campaign, considering prisons as potentially “therapeutic” may appear obtuse, at the very least.

However, in relation to the purposes of imprisonment, although it is perhaps tempting to consider prison design only in relation to the function of punishment, attention should also be drawn to its stated function of rehabilitation, and therefore to a discussion of the extent to which prison buildings can perhaps “heal” as well as harm<sup>1</sup>.

The notion of “therapeutic landscapes”, first introduced by Gesler (1992) and explored further within geographies of health and care (e.g. Milligan et al., 2004; Gesler et al., 2004; Williams, 2002; Laws, 2009; Curtis et al., 2007), suggests that certain environments promote mental and physical well-being, and that these landscapes can be “created” as well as “natural” (Milligan et al., 2004:1783). Based on an understanding of the ways in which environmental, societal and individual factors intersect to promote healing and well-being, “therapeutic landscapes” reflect a sense of place as relational, and a holistic model of “health” that encompasses the physical, emotional, spiritual, societal and environmental (Moran forthcoming). Milligan et al. (2004) noted, though, that discourses around therapeutic landscapes have tended to focus on famous or one-off events or places, rather than on everyday, quotidian spaces, and to highlight the health-promoting aspects of historical places, rather than to illustrate how it might be possible to “develop everyday places that promote [...] physical and mental well being” (ibid:1783). Although prisons may not necessarily be “quotidian” spaces as Milligan et al. (2004) understood them, for prisoners and prison staff they are indeed the spaces of their everyday lives.

The therapeutic landscape approach has not yet been applied to prison buildings, but other institutional spaces have been considered in this light. For example, Dunkley’s work (2009) on US recreational camps considered them as therapeutic “taskscapes” for troubled youth. Gesler et al. (2004:117) discussed the debate in the UK over what constitutes “good hospital design” in conditions in which expert discourses of costs and clinical functionality tend to take precedence, but in which there is an acceptance that hospital buildings need to “work” to promote patient recovery and healing, in ways which resonate with a rehabilitative interpretation of imprisonment. Their conception of hospital buildings as therapeutic environments in terms of physical, social and symbolic space has much in common with Kraftl and Adey’s (2008) suggestion that buildings can engender certain affects and evoke certain types of situations.

<sup>1</sup>Although considered penal anomalies, there are four “Therapeutic Community” (TC) prison wings in the UK and one “whole” TC prison, HMP Grendon, in Buckinghamshire. Specializing in treating violent offenders who predominantly suffer from psychopathy or personality disorders, Grendon’s establishment in 1962 was facilitated by political support for the rehabilitative ideal at that time. The subject of many academic studies highlighting the success of its regime and practices, no study has focused on Grendon’s design or landscape as an important aspect of its therapeutic environment.

## 6 The green, nurturing prison?

Recent developments in prison architecture and design out with the context of the “new punitiveness”, and also in criminological research into prison aesthetics and “anaesthetics” (e.g. Jewkes, 2013), echo Kraftl and Adey’s (2008:228) suggestion that one function of buildings can be an attempt to stabilize affect, “to generate the possibility of precircumscribed situations, and to engender certain forms of practice, through the design and planning of buildings, including aspects such as form and atmosphere”. In their own work, they found that certain generic expressions of affect evoked certain kinds of inhabitation, materialized via buildings in their “potential capacities to affect their inhabitants in certain ways” (*ibid*). In parts of the world where the “new punitiveness” of the US has not taken hold, prison designers have focused overtly on the rehabilitative function of imprisonment, and have experimented with progressive and highly stylized forms of penal architecture, which both reduce environmental impact, and provide environments which are intended to rehabilitate, designing internal prison spaces with soft furnishings, colour zoning, maximum exploitation of natural light, displays of art and sculpture, and views of nature through vista windows without bars. This kind of design of new prisons, in the northern European context typified by Norway, Iceland and Denmark, arguably plays up and enhances certain generic expressions of affect connected to openness, flexibility and “humane” treatment, to evoke certain kinds of inhabitation encouraging personal and intellectual creativity, and even a lightness and vividness of experience (Hancock and Jewkes, 2011).

For example, in designing a women’s prison in Iceland, the project team from OOIIO Architecture<sup>2</sup> explicitly set out to design a prison “that does not look like a prison, forgetting about dark spaces, small cells, and ugly grey concrete walls, etc. We based the building design on natural light, open spaces, and natural green materials like peat, grass and flowers.”

Instead of designing one large building (like a “typical repressive old prison”), they decided to break it into several “human-scale, connected” pavilions, which must be efficient and functional to enable the spatial separation of prisoners, but which must have “natural light and exterior views, to increase the feeling of freedom”. The architects also had an eye to the speed and ease of construction, and to the eco-standards of the building, planning to draw upon Icelandic vernacular architecture to insulate the building. With a façade constructed from peat-filled cages, planted with local flowers and grasses, they intended to deliver a building “that changes with the seasons”, making prison life “less monotonous and more human and natural related”.

<sup>2</sup><http://www.archdaily.com/244702/female-prison-ooiio-architecture/> accessed: 1 December 2014, last access: 3 February 2014

The Icelandic example of a futuristic prison laid out like interlocking clockwork cogs, and covered with flowering peat, is on the surface very different from the classic example of an environmentally friendly prison – Bastøy, in Norway. Located on an island in the Oslo fjord, Bastøy describes itself and its island community as “run under human-ecological values and understanding”, meaning that the prison farm is organic, the prison recycles its own waste, and there is “a constant focus on minimizing CO2-emissions”<sup>3</sup>. The prison focuses heavily on education, training and work, in order to build inmate responsibility and to prepare prisoners for successful release. In order to limit its environmental impact, it uses solar panels, wood-fired heating and strict recycling systems. Horses are used to transport firewood around the island, and prisoners learn to manage the island woodland to preserve the wood supply both as a source of renewable energy, and to undertake maintenance of the prison buildings. Where Bastøy and the Icelandic prison converge is in the configuration and philosophy of the buildings. At Bastøy, the buildings also reference the local traditional vernacular style; they are low-rise and wooden, and the 100 or so inmates are similarly accommodated in small units, in the form of houses sleeping 7 to 15, with kitchens, living rooms, and modern conveniences. The small housing units in both facilities allow for efficient climate control, and therefore minimize energy use. In both Iceland and Norway, these prisons are placed in stunning natural landscapes where the boundary between inside and outside can be blurred, with huge, bar-less windows, natural building materials and plenty of outdoor space available to prisoners.

Although the recidivism rates claimed by Bastøy in particular are extremely low (16 % compared to 20 % in Norway as a whole, and at least 40 % in the US), there is no clear means to isolate the causal effect of the prison environment from the other aspects of this prison system which aims to rehabilitate rather than to punish. However, returning to Kraftl and Adey (2008:228) and their suggestion that buildings have the potential to affect their inhabitants in certain ways, to generate certain types of situations, and to engender certain forms of practice, the thought that watching clouds, birds, daylight, weather and so on could enhance rehabilitation and diminish physical and psychological violence resonates strongly with notions of therapeutic landscapes in which environmental, societal and individual factors promote well-being, via a holistic approach to physical, emotional, spiritual, societal and environmental factors.

<sup>3</sup><http://www.bastoyfengsel.no/English/bastoy-fengsel-Eng.html>, last access: 18 February 2014

## 7 Conclusions

By drawing attention to the green agenda as it pertains to prison buildings, and to the tension between the humane, “green” values engineered into prison buildings, and the arguably inhumane treatment of prisoners within them, this paper opens a space for further development of geographies of architecture and affect in relation to places of confinement, where building design is frequently saturated with concerns for efficiency, cost saving and security at the expense of consideration of the everyday experience of these spaces, and their role in the rehabilitation, or otherwise, of those confined within them.

In the United States, the sustainable development agenda has been co-opted to legitimize the extant correctional system, in the face of abolitionist critique of the multiple costs of mass incarceration. The discourses of sustainability detailed here 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 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 1 in 100 of the US population.

So why, in the US system, does the “greening” of the correctional system proceed in this manner? The answer lies in the underlying philosophy of imprisonment. In his discussion of environmental reforms for US prisons, Webster (2010:175) advocated “self-sustaining” prisons, and looked to Bastøy as an example of an “ecological prison” which has minimal environmental impact. Having detailed the solar panels, wood-fired heating, organic farm, educational programmes and small-scale communal accommodation, Webster conceded that although Bastøy represented a prime example of both minimal environmental impact and prisoner rehabilitation, “this type of facility is not the ideal model for how the United States can save money without *drastically changing the present infrastructure* [...] The problem with the Bastoe [sic] model, when transferred to the United States, is that it does not conform to the *traditional retributive model of justice*” (ibid 188, 190, our emphasis).

The US’s “present infrastructure”, reflecting its “retributive model of justice” (ibid), is informed by a “less eligibility” principle that prisoners should “suffer”, not only through the loss of freedom, but also by virtue of prison conditions, which should be of a worse standard than those available to the poorest free workers. In other contexts, prison conditions are intended to correspond as closely as possible to living conditions in society, with the intention that penalties for offences are implemented in such a way that they do not unduly interfere with prisoners’ participation in society, but as far as possible promote it. The intention here is neither to oversimplify nor to romanticize the “penal exceptionalism” of the Nordic countries (Pratt and Eriksson, 2012; Ugelvik

and Dullum, 2012; Shammas, 2014), but rather to point out that both the different philosophies of imprisonment and the different relative prison populations which these deliver require and enable different intentions to be translated into the built form of prisons. Whereas the United States is highly *incarcerative*, some other countries are by contrast *decarcerative*, actively deploying different techniques and sanctions to decrease their prison populations to a level where the mass housing of inmates in resource-hungry buildings is simply not required<sup>4</sup>.

Although programmes such as “green” technology retrofits and prisoner training may deliver some genuine benefits in the US, they also function to counteract critiques of mass incarceration. By adopting a pragmatic position in relation to sustainable development which allows limited “green” savings to deflect attention from the mammoth costs of mass incarceration, the correctional system marginalises abolitionist arguments, legitimizing and sustaining its operations. Responding to the *New York Times* on energy savings resulting from “green” technologies within US facilities, 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”.<sup>5</sup> In order to drastically change its present infrastructure to accommodate a “greening” of the carceral estate which sustains the natural environment rather than the correctional economy, the US prison system would need to construct and operationalize a discourse of sustainability outside of its existing organizational frame of reference, challenging its operational rationale and fundamentally questioning its own purpose.

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<sup>4</sup>For example, since 1970, Finland has reduced its prison population from 113 prisoners per 100 000 inhabitants to 59 prisoners per 100 000, while Sweden is currently closing four of its prisons due to an “out of the ordinary” decline in prisoner numbers – and this, despite no significant fall in crime rates (Orange, 2013).

<sup>5</sup>New York Times 3 March 2009

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