

Made in Prison – Understanding knowledge exchange, co-design and production of cell furniture with prisoners to reimagine prison industries for safety, wellbeing, and sustainability

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1. Introducing the Cell Furniture design brief

In September 2018 the Design Against Crime research centre (DACRC) - in response to record high levels of both self-harm and assaults in prisons - were successful with their funding application to the Ministry of Justice (MoJ) to work with HMPPS Public Sector Prison Industries, Catering, PE & Retail (PSPI) to generate a new range of cell furniture for the HMPPS estate. The ambition of the 18 month 'Cell Furniture' project was to engage with HMPPS staff and prisoners via co-creation processes to improve safety, functionality, robustness and sustainability of prison furniture that was often destroyed – what prisoners term “flat packed”¹.

The context of creating more robust prison furniture was indirectly linked to the Safer Locals Programme (see Evaluation by Liebling et al 2005) which outlines ways of preventing self-harm and suicide in cells; also, by implication, the reduction by design of criminal damage to furniture or use of it in violence. The Safer Locals report had resulted in many new protocols for Safer Cells² but this was not the only catalyst. Cell furniture redesign advocacy had also been informed by the outrage following the 2006 Public Inquiry into the death in custody of Zahid Mubarek.

¹ Flat packing is a phrase used by prisoners we engaged with at Stanford Hill Prison to describe the destruction of cell furniture back to component parts or worse.

² “Safer Cells are designed to make the act of suicide or self-harm by ligature as difficult as possible. It is achieved chiefly by reducing known ligature points as far as is possible and by installing specialist “anti-ligature” furniture and fittings as an integral part of the cell fabric. Cells are either designated “normal accommodation” or “Safer Cell”. Reduced risk cell is not a recognised term in relation to Safer Custody and must not be used.” Quote from: <http://iapdeathsincustody.independent.gov.uk/wp-content/uploads/2011/06/QLB-Safer-Cells-Issue-4.pdf>

On 21 March 2000, Mubarek, a British Pakistani teenager, a first time prisoner for a minor crime, just five hours from being released from a 90-day sentence, was attacked in his cell by a racist cellmate and later died from his injuries. The cellmate, Stewart, clubbed Zahid using a wooden table leg that he had detached from furniture in the cell (later it transpired Stewart had made previous attacks using cell furniture³). This led Zahid's distraught parents to advocate for change and successfully demand an Inquiry. The Mubareks wanted to reform the prison services that had missed so many opportunities to protect Zahid from violent assault and to ensure this would not happen to future prisoners. The unprecedented decision by the Law Lords to allow the Mubarek Inquiry to happen in 2006 produced 88 operational recommendations for the Prison Service to ensure future prisoner safety, including ON3 recommendations about cell furniture design found in UK prisons. Recommendation 18 (of 88) states:

“As soon as practicable, the Prison Service should assess the popularity of the bolted-down furniture made from white wood which is currently being trialled. It should then formulate a policy about the most appropriate form of furniture for use in cells, balancing the need to keep prisoners safe from their cellmates against the need for prisoners to live in cells which have a measure of homeliness, and taking into account prisoners' preferences and cost.’ (Zahid Mubarek Inquiry, 2006, p.653).

Numerous prison reform initiatives made change happen. Safer cell furniture gradually emerged throughout the prison estate, although there are no formal records that we were able to access making it difficult to document the precise history. For example, a new furniture range was launched after Mubarek's death but before publication of the Inquiry report and thus we could not ascertain if they were directly connected. Nonetheless, the Inquiry mentions cell furniture and appears to have reinforced operational understandings about the widespread implementation of what is known as the “whitewood” range of cell furniture. What we can be certain of is that between approximately 2001 and 2010 best practice advice about safety changed and new cell furniture designs were distributed throughout UK prisons. Today the manufacture of furniture made in UK prisons includes: metal bunk beds (Fig 1 line drawing), a sturdy plastic chair (Fig 2 line drawing), the

³ “The fact that Stewart had used cell furniture as weapons before did not get into the Security Department's computerised system, and that could potentially have been a highly significant omission in the light of how Stewart was subsequently to attack Zahid.”(p. 629, 2006).(Report on gov.uk: <https://www.gov.uk/government/publications/report-of-the-zahid-mubarek-inquiry>)

whitewood furniture range (Fig 3 see line drawing of bunk design) - although mattresses for prison bunk beds are currently manufactured outside of UK prison industries.

When discussing cell furniture with MoJ colleagues, with whom we went on to co create the Cell Furniture project design brief⁴, we understood that we would need to address many safety concerns. Specifically, the MoJ drew our attention to the Mubarek Inquiry and we were asked to address Safer Cell recommendations and improve upon the whitewood furniture range. Our designs would need to avoid being easily destroyed, unusable as criminal weapons, and unable to support suicide in any way. They would also need to be even more robust and sustainable than previous designs, perhaps using new materials. Additionally, this new furniture would need to be easy to mass produce and transport, robust, hard wearing, inexpensive, kind to the planet, and foster well-being. No small challenge! The DACRC team accepted the brief and consulted with the University of Wolverhampton for support in figuring out how to evaluate outcomes.

2. Project context

The Cell Furniture project aimed to build on what Manzini (2015 p.53) calls “diffuse” design - in this case design delivered by prisoners with no previous design experience, facilitated by expert designers. Such an approach in UK prisons had been pioneered as part of the Makeright design education programme between 2014-16. Makeright, a world first, enabled prisoners to collaboratively learn about design “thinking” and design against crime “making”, subsequently leading to a number of design awards⁵. As outlined by Gamman and Thorpe (2018), Makeright incorporated a restorative approach enabling prisoners to pay something back to society whilst learning new skills to help with resettlement. This project eventually led to the development of a range of anti-theft bags and accessories sold by Able & Cole to raise profits for charity. Makeright also received positive feedback from prisoners who reported they had found this creative learning experience meaningful⁶.

HMPPS Public Sector Prison Industries, Catering, PE & Retail (PSPI) were approached by DACRC about taking the Makeright co design approach further, not least because within many other UK government contexts - as Buchanan (2020) has pointed out - co-production

⁴ See p.9 “Cell Furniture Catalogue”, 2019. See www.designagainstcrime.com

⁵ In 2017 for Makeright DACRC were awarded Runner up for the or the N.I.C.E. (Network for Innovations in Culture and Creativity in Europe) by the European Centre for Creative Economy (ECCE), also that year the Makeright project attracted a British Council INDIA-UK Excellence Award for Collaborations in Higher Education under the ‘Innovative Partnerships’ category.; in 2016 Makeright awarded Best Design Initiative 2016 by Sublime Magazine

⁶ <https://makerightorg.wordpress.com/interviews/list-of-interviews/>

with service users, “strategic design”⁷ for health, policy and civic sector had been underway for many years. The discussion with the MoJ that followed was full of exciting ideas and about whether or not it would be possible in public prisons to facilitate prisoners to co-create designs against crime in prison industries. The discussions also focused on this type of project could enable prisoners to learn a diverse range of new vocational skills, build resilience toward their reintegration in society, also to potentially find new uses for design against crime products “made in prison”.

There are currently over 83,000 people in prison in England and Wales (MoJ, 2020), close to the operational capacity of the prison estate. Prisons are full and incidents of self-harm and prisoner-on-prisoner assaults are high. In the annual prison performance ratings 2018/19 86% of prisons were rated as having performance of “concern” or “serious concern” in these areas (MoJ, 2019). An HM Inspectorate of Prisons (2017) report of prisoners being locked in their cells due to limited access to education, or association, recognised that such long lockdown periods - even before COVID 19 – ‘leaves prisoners very vulnerable’.

Physical environment - including cell furniture and cell space - undoubtedly has a significant impact on prisoner experience, learning, and well-being, and consequently on the material culture, experience, and well-being of prison staff. Large numbers of people in prison present significant emotional, personal, and mental health issues (Caulfield, 2016) that can be taken out on the furniture, and prison regimes and environments have been found to exacerbate existing mental health problems (Sered and Norton-Hawk, 2008). Wortley (2016) goes further and talks about prison creating situational precipitators which can be defined as aspects of the immediate environment that create, triggers or frustrations that intensify the motivation to commit crime.

One of the aims of the Cell Furniture project was to see whether or not strategic design activity, through a collaborative design process of cell furniture with prison staff, prisoners, graduate designers and students, could also help improve furniture provision and prison culture, democratise innovation, and impact positively on mental well-being.

- *Creating a collaborative, democratic environment*

⁷ Design has many different definitions and with Camilla Buchanan (2020) we understand “strategic design activity” to mean (1) the planning and deliberate conception of various design outputs (tools, techniques, products, services) which takes place through logical, intentional and constructive design processes aimed at instigating forms of change. (2) that such design activities may involve both professional “expert” designers and non-designers in co-production processes (3) that in strategic contexts design activity is likely to be diverse embracing graphic, products, furniture and service design but also might have a new role in both defining and implementing new strategies.

The DACRC team recognised when starting out that creating an environment that is conducive for collaboration between prisoners, prison staff, and the design-team is important but likely to present challenges. The relationship between staff and prisoners may be a key factor that can prevent prison suicide and improve well-being (Howard League for Penal Reform, 2014). We were aware of evidence that creative programmes in criminal justice settings provide opportunities for new, respectful relationships to form between peers, facilitators, and staff (Caulfield et al., 2020), but that systemic problems in UK prisons would not make it easy for us to go inside, engage, and make a difference. The Cell Furniture project aimed to engage prison staff and prisoners as ‘experts of their own experience’ (Beresford and Branfield, 2006) to work collaboratively with professional designers, via open innovation on the development of safer cell furniture, in a democratic studio atmosphere that we intended to set up and create. To build relationships would require a number of factors that we might not be able to control, given prisons are inherently hierarchical places, operating on control orientated organisational models (Douglas and Caulfield, 2014).

Douglas and Caulfield (2014) explored the experiences of prison officers working in democratic prison environments, where prisoners and staff can participate equally in decision-making and where a sense of equality and a culture of enquiry are promoted (Parker, 2007). Douglas and Caulfield found a number of challenges for staff adapting to democratic principles, with this approach contrary to standard officer training, staff reporting confusion at first, and taking time to adapt. We were well aware that similar issues were likely to arise in the Cell Furniture project.

Abrahams et al. (2012) note that the spaces within creative programmes, as opposed to traditional prison programmes, allow for social barriers to be broken down. The research literature generally makes note of the importance of how participants view the facilitators, with professionalism and personality of the facilitators highlighted (Eagle, 2008). The skills shown by facilitators have been argued to be essential in the successful delivery of programmes (McLewin, 2006) and levels of engagement are linked to how relevant participants deem the project to be, who seems to be behind the process, and whether or not they feel they belonged there for any purposeful reason (Daykin et al (2014)). The Cell Furniture project aimed to create conditions for participation that support open communication and constructive “empathic dialogue” (described by Koskinen, Mattelmäki, & Vaajakallio, 2014) amongst participating prisoners, prison staff and the project team. In addition to acknowledging the challenges this might present for staff, and the importance of the skills of facilitators (in this project, facilitation is assumed by the design team), there were important considerations about programme quality. Recent research on the development and implementation of innovative, creative programmes in criminal justice settings highlights

that high programme quality is essential to aid successful engagement and promote positive outcomes (Massie et al., 2019; Caulfield et al., 2020). If participants perceive the programme as high-quality, they are more likely to see value, and invest and engage.

- *Co-production in criminal justice*

Regarding public services the case has been made for engaging service users and providers in the redesign of the services they experience. The concept of 'co-production' has become increasingly used by government regarding social policy, public services, and health and social care contexts (Sorrentino et al., 2018). Involving designers in public and civic sectors in terms of framing and addressing problems has become more common over the last twelve years (Bason 2010, 2014; Binder, Brandt, Ehn, & Halse, 2015; Buchanan et al., 2019; Kimbell and Bailey, 2017; Junginger, 2013, 2017; Sangorini & Prendiville, 2017; Sanders, & Stappers, 2008; Staszowski, Sypek, & Junginger, 2014). However, the role of design in these strategic scenarios is not widely understood by non- designers (Mulgan, 2014) and there is no single definition of either "design" or "coproduction" in use. These words sometimes appear used in a vague, unfocused or 'woolly' way (Osborne et al., 2016). Bovaird (2007) defines coproduction as:

"the provision of services through regular, long-term relationships between professionalized service providers (in any sector) and service users or other members of the community, where all parties make substantial resource contributions."

In contrast, Osborne et al. (2016) define coproduction as:

"the voluntary or involuntary involvement of public service users in any of the design, management, delivery and/or evaluation of public services"

In public services, the use of the principles of coproduction has its roots in the 1970s Scandinavian trade union movement, and its engagement with human centred design (1988 ACM Conference described by Ehn 2015) as well as user and independent living movements (Bovaird et al., 2015). This approach, when linked to strategic design activity, has been seen to increase the effectiveness and efficiency of services, improving outcomes for service participants and reducing costs to the public purse (Manzini and Staszowski, 2013). Although such design activity is increasingly being used in public health and social care settings, the principles have been slower to take root in criminal justice contexts. Yet Fox et al. (2013) argue that there are similarities between social care and criminal justice

settings and that coproduction could usefully be used to reduce reoffending, but this would involve culture change within the sector. There are some examples of coproduction within criminal justice settings in recent years (Thom and Burnside, 2018). The principles have been successfully used in establishing time banks with young offenders (Drakeford and Gregory, 2010); describing police attendance and involvement in community meetings (Renauer et al. 2003); in the use of social cooperatives as a means to encourage desistance from crime (Weaver, 2016); as well as linked to strategic design activity via projects like Makeright (discussed above), Making for Change (a project run by London College of Fashion with women in prison) and Inhouse Records ('a rehabilitative record label for change', operating in and out of UK prisons). These projects are pioneering coproduction design techniques as part of their criminal justice offer. Consequently, there has been increasing acknowledgement of the potential of co-production and participatory design activity in such strategic contexts to effect change (Weaver et al., 2019; Caulfield et al., 2019).

- *Coproduced design and criminal justice*

Gamman and Hughes (2003) as well as Gamman and Thorpe (2016) argue that designers have traditionally not taken account of how product design can unwittingly aid criminal activity. This might be by failing to actively anticipate factors that allow crime to happen, or the ways that 'innocent' objectives and design affordances are embedded in objects and services that can be repurposed for criminal activities (like hacking a driverless automated car to cause an accident).⁸

Gamman and Thorpe (2011) have also discussed neurodiversity and the "dark side of creativity". They acknowledge that criminals can be very creative but also that there may be some learning differences (e.g. dyslexia) that explain why creative learning can work better with prisoners than traditional education. Gamman and Thorpe also draw on Johnson (1983) to argue that creativity and criminality may have some further connections and that in order to 'design against crime' it is necessary for creatives to understand the perspective and mind-set of offenders. The DACRC team therefore adopt user-centered and participatory design techniques as well as a co-production methodology to engage with people who use (and abuse) products, in order to create better understandings about crime opportunities and produce more sustainable design (Gamman and Thorpe, 2009). The DACRC methodology draws on numerous creative techniques including creating empathy probes and immersive engagements, 'scripting' and role-playing drawn from theatre and other disciplines (Gamman

⁸ <https://www.forbes.com/sites/jamiecartereurope/2019/03/05/hacked-driverless-cars-could-cause-collisions-and-gridlock-in-cities-say-researchers/>

et al. 2015) to understand crime, and introducing broad understandings about the materiality of “things” in order to enable prisoners to playfully engage with design against crime.

An iterative, co-design approach has been used in different ways inside and outside of prison. Involving young people who are at risk of offending behaviour in many making or co-producing creative activities is often described, somewhat dismissively, as “diversionary” (Adamson 2003) rather than a key activity that can deliver crime prevention. Such approaches have included involving youth in the design of the public realm in diverse ways to promote community safety and attempts to divert youth away from criminal activities. Davey, Wootton and Marselle (2011) point out that participatory engagement and a co-designed approach not only improves the physical and social environment through improved design, but also has benefits for the young people themselves in developing life skills, education and civic and social responsibility (p.31).

We saw that introducing design and designers into prison industries workshops constituted an unprecedented opportunity to ‘innovate inside’ in relation to safer custody furniture and to introduce frontline prison staff to design engagement”⁹. The Cell Furniture project therefore aimed to do this and become a prototype for future activities, leveraging the potential of *staff and prisoner-powered innovation* to address prison challenges. However, it is important to acknowledge current concerns about a ‘broken’ prison service (Howard League, 2019) and we were aware that fixing this was beyond the reach of the Cell Furniture project.

3. Knowledge exchange during the Cell Furniture project

Reciprocal learning through collaborative knowledge exchange, linked to strategic design research activity, enabled the sharing of skills, expertise (nouse¹⁰).in order to generate new cell furniture designs. In taking a collaborative design approach and involving prisoners, officers and managers, HMPPS staff, and evaluators in strategic design activities the DACRC team sought to involve participants in a porous ecosystem of knowledge exchange. It allowed individuals to understand rich accounts of how others’ experience their everyday lives (often discussed in regard to the material culture created by cell furniture), what problems they face, what issues/responses they prioritise, and what their unmet needs might be. All this rich information was generated through conversation, interviews, mapping, and creative design exercises linked to sessions inside and outside of prison. These design-led research activities enabled knowledge exchange to take place and informed the following design research stages:

⁹ See “Cell Furniture Catalogue”, 2019 on www.designagainstcrime.com.

¹⁰ “Nouse” in urban dictionaries is understood as “know how”, and practical skill derived from life experience.

1. Visualisation and mapping of HMPS' existing capacity and capabilities for furniture design, production and distribution. For this purpose, a system map was generated that did not exist previously.
2. DACRC created a historical review of cell furniture design found in UK prison that we could locate, something that did not exist previously. This detailed understanding of what types of furniture are already used in UK prisons and the manner in which it is misused and abused, including insights into the motivations that contribute to these scenarios.
3. Knowledge exchange occurred (i.e. via diverse presentations, interviews, Q&A sessions, design assessments, etc.) between design facilitators, prison staff, ex-prisoners, and design students.
4. Definitions/personas/needs emerged about human-centered requirements for cell furniture, drawn from collaborative design workshops in prison with prisoners, designers and prison staff. These had not been documented before.
5. Insight from conversations and design expertise from many partners and external consultants, including a range of material specialists who helped the team ascertain how cell furniture might become more sustainable, fire resistant, safer, and ultimately contribute to an ecologically sustainable prison.
6. Our DACRC designers engaged with HMPS/PSPI expert technicians and engineers' specialists in industrial practices like plastic materials and manufacturing, fire safety, waste management, recycling, metalworking and woodworking. This technical expertise and knowledge of prison staff regarding in-house industrial operations were crucial to the project.
7. Generating prototype designs. Some were catalyzed in design sprints with product design students, and some generated in co-design sprints with prisoners and expert designers from DACRC. One expert furniture designer (Rock Galpin) also generated his own range. All helped create a solutions pool of designs that could be drawn upon.
8. Evaluation staff independently assessed how the co-design process affected prisoners and staff in order to understand how it had worked for those involved. This also indirectly informed project outcomes and could impact on future thinking and the innovative R & D capacity of prison industries, staff and prisoners and the prison estate. The evaluation staff also made recommendations for future data collection to understand the impact of the new furniture designs on safety, security, and wellbeing.

Some of the above activities involved information gathering that has been compiled and documented on a password protected “Cell Furniture” website¹¹. As well as documenting the history of cell furniture and why safety issues need to be prioritised, the information on this website helped DACRC identify and document complex issues faced by prisoners, staff and the HMP estate regarding use and implementation of cell furniture. These operational (systems-based) and qualitative (e.g. motivations, use/misuse/abuse-case scenarios) understandings were visualised and fed back to diverse HMPPS staff and prisoners. All of this information was shared with students on the Cell Furniture project and professional designers at DACRC. The early stages of research helped DACRC better understand and address the complex issues faced by prisoners, staff and the HMP estate that result from interconnected factors of cell furniture production, supply, management, maintenance and use, misuse and abuse. DACRC’s subsequent insight sessions and collaborative design workshops, held at HMP Sandford Hill, built on these early research insights, and ultimately led to some collaboratively generated cell furniture design proposals with prisoners and staff.

To uncover such experiential and aspirational insights, it should be explained that DACRC supplemented interviews with ‘insight worksheets’ and used visuals to help the prisoners articulate and depict the world that they inhabited. These insights informed our understanding of use, misuse and abuse. Primarily about how we would apply our design methods in the next step of creating personas and corresponding sets of human-centred furniture requirements (the co-defined brief). With prisoners and staff, we visualised “personas” – semi-fictional characters representing the attitudes behaviours and experiences of real prisoners – whose needs we would address with cell furniture ideas. We defined persona likely needs with ‘Persona-building Sheets’ that we worked on in small groups of designers and prisoners. The sheets provided a detailed description, akin to a narrative, depicting the world that the prisons personas inhabit (e.g. what the prisoner persona might do in their everyday lives in the cells, their hobbies, routines, likes and dislikes). All of this description, based on real people was to help ascertain what qualities the new furniture ideas would need to incorporate to address human-centred needs. We then rapidly generated cell furniture ideas (ideation) with staff and prisoners using these collaboratively defined needs as a set of objectives and loose constraints.

By design, these human-centred insight work sheets and engagements processes, we call “design tools”, promote empathic consciousness raising, build on ethnographic information and real-world prison scenarios, to then frame new design ideas in terms of cell furniture designed for another person rather than for oneself. This human-centred methodology

¹¹ Add website reference – check permission from MOJ – still waiting permission.

inspires positive thinking, by looking at how to support or enable pro-social behaviour rather than eliminating misuse and abuse at the expense of the forms of use that are essential for wellbeing. For example, instead of making it difficult to exercise in cells, prison staff and prisoners imagined how furniture could aid such positive engagement, before turning ideas into concepts and prototypes. This collaborative approach clearly impacted on empathic learning, as documented in accounts of this project written by Gamman and Thorpe (2019) and subsequently Patsarika (2020).

At every stage of the project the DACRC team endeavoured to share as much information as possible with all involved to influence operational and innovative capacity. Ultimately the Cell Furniture project was the second time the design against crime methodology had been used in prison (see earlier discussion of Makeright). When applied to cell furniture, this process has proven again to be successful in as much it has produced a range of co-designed furniture/product outputs, new material specifications, and a digital design research archive. To be specific, at time of writing the Cell Furniture project has achieved the following anti-crime and pro-safety outputs:

- Two proposals for multi-purpose in-cell chairs, one of which is being prototyped and may undergo rigorous testing by HMP
- Metal single and bunk bed design proposals which may be prototyped in prison industry
- Storage-type furniture and hangers made of cardboard
- A proposal for a multi-functional and multi-material unit that can be used for storage or workspace, which also proposes a new model for distribution and manufacture by the HMP estate
- Toilet seat covers with odour-absorbing charcoal filters
- Cork and velcro storage units and accessories, which could be used not just to produce furniture, but to catalyse sustainable cork recycling in prison
- A system model and industry connections that could expand HMP's recycling program
- Proposal (with potential partnership) for improved prison mattresses and/or cushions
- A model for successful co-design with prisoners, prison staff, and designers
- A proposal for future data collection to allow HMPPS to better understand the impact and sustainability of prison furniture

From the above design proposals, a multi-purpose chair, metal bunk bed design and cardboard furniture were selected for prototyping and testing by HMPPS that we anticipate

will be tested /evaluated with prisoners in academic year 20/21. Also, at that time the MoJ will share our new catalogue containing up to date designs beyond student work circulated in 2019 that has already attracted strong press coverage¹².

4. Challenges and learning within the Cell Furniture project

The biggest challenge for the DACRC team when co-generating designs for this project was the “one size must fit everyone” policy that is currently operational when trying to generate new cell furniture. It became clear very early on that despite different categories of prisoners and prisons, operational policies in place to protect safety and life al so prevent address to diversity. This was disappointing because even the 2006 Mubarak Inquiry acknowledges the different requirement of high security and category C prisoners:

‘At present, the Prison Service is trialling a compromise solution, which retains the security feature of having the furniture bolted down, but which avoids the sense of the clinical which metal furniture inspires. These new cells are being fitted with fixed furniture made from inexpensive white wood. To put this furniture into a cell costs about £1,800 a cell. It will be interesting to see how prisoners react to this furniture, and it would be premature for me to make any recommendations which assume that a particular approach is preferable. *But it goes without saying that what is appropriate for a high security prison will be very different from what is appropriate for a category C or an open prison.*’ (p.462, 2006 italics our emphasis).

We were told by prison staff and their managers, in no uncertain terms, that we had to design as though all prisoners were high risk, even though some of the furniture would be used in open prisons. We could not simply assume Cat C prisoners we worked with would be less likely to misuse or abuse furniture, or harm themselves or others with it, as there had been previous precedents. We asked if new policy recommendations on this could be put forward, but prison staff we discussed this matter with were not hopeful, stating negative media coverage of prison “mistakes” as relevant here. We were also unable to place within our plans the fact that many of the men we were worked with at HMP Standford Hill (an open/Cat. C prison) had the technical skills to repair furniture and could easily have used the

¹² <https://www.theguardian.com/lifeandstyle/2019/sep/29/trends-for-autumn-whats-new-in-the-world-of-design>; <https://www.dezeen.com/2019/06/19/central-saint-martins-prison-cell-furniture-for-prisoners/>

wood shop there to kit out cells by building approved designs and/or repairing existing furniture¹³. We were told, even in an “Open” prison security meant secure furniture was needed because the protection of life at all costs was at all times a primary mission. Our plea to generate furniture designs for diverse needs and to reflect different circumstances was deemed not worth the risk. Although we found this fact very troubling, we accepted it.

There were other problems too. While the evaluation highlighted the success and benefit of the co-production model, it also surfaced that some of the MoJ and HMPPS staff had time management problems with the process. While both staff and prisoners appeared to enjoy engagement, some outcome-driven staff struggled and became impatient (see earlier discussion of work by Douglas & Caulfield). They had pushed back other work deadlines to accommodate co-creation potential that had no guarantee it would produce results, which resulted in tension for them. We realised that some prison colleagues were not used to open ended generative discussions, and saw little point in imagining that we could design for local needs of Category C prisoners, or future scenarios, when there were already very strict rules in place that prevented this. We recognised too that for some staff reflective processes are not always possible in the busy turnover of daily prison life. Yet the sort of reflection we facilitated (that Schön, 1983, describes as “reflection in action”) could lead to “reflective actions” that would be useful to prison staff and worth the time invested. This provided useful points of learning for us about working with prison staff to help them make the most of their involvement in this type of process.

Despite some conflicts, prison staff did enthuse about the design process, and it appeared to help these staff gauge insights and make new decisions. Discussions about the problems with cell lighting, for example, led one entrepreneurial prison manager to add LED bookmarks to the list of things prisoners could buy in prison. He found an independent way to resolve some of the complaints he heard during our sessions from men who wanted to read at night (when their cell mate wanted the lights off). We were glad to see staff using their agency to change things quickly, rather than passively waiting for new designs to be generated through the project. We also noticed that the cork designs generated by the students, that although not selected for further development, raised rich discussions by HMPPS staff about recycling management schemes could produce vocational work for prisoners (DACRC’s research into new mattress materials also contributed to this debate too). Positive discussions about the value of co-creating a sustainable prison industry drew enthusiasm from all involved. These discussions were often provoked and led by talented HMPPS managerial staff, who were already fully switched-on about the value of creating

¹³ We are setting up ROTL placement with Stanford Hill but Covid 19 has at time of writing caused delays.

vocational work within the prison estate. They articulated their views on this with insight and passion, although security issues always dominated because the need to protect life above all other issues came first. Similarly, the olfactory furniture designs that were also not selected by HMPPS for further development, did result in fruitful discussion. These discussions acknowledged prisoner complaints about unsanitary smells and how this might be better addressed in future with affordable existing products. For example, charcoal smell absorbing bin liners, which prison staff learned from our students were already available on the market as well as from our olfactory design specialist about the value of some essential oils in diluting negative smells. These offer examples of how, even outside of the core objectives of the Cell Furniture project, the discussions and shared knowledge exchange resulted in positive learning.

We also became concerned about the top-down approach to current cell furniture management, whereby some furniture design is outsourced and shipped to an HMPPS holding factory in Branston and stored there before distribution to over 100 UK prisons¹⁴. We had identified, when visualising a system map of the process, that this approach produced inevitable bottlenecks and needed alternatives. The negative cycle, where so much furniture is destroyed by angry men and women within the prison estate, means there is constant demand on the system to replace furniture. We tried to argue for a more networked and distributed manufacturing system, where furniture could be produced locally in individual prisons via designs sent to CNC machines or mended in local prison workshops. This process could contribute useful vocational learning for prisoners and would improve upon furniture shortages, as well create the positive systemic change needed in prison. However, these arguments were not heard and in response, we were informed of the many operational and security reasons why things could go wrong and put lives at risk and this was why distributed and decentralised making and mending of cell furniture across the prison estate was not possible.

5. Implications of co-production linked to design activity within the criminal justice context: a future call to action

Looking at ways to improve the production of cell furniture to reduce its role in violence, vandalism and self-harm, whilst trying to address issues raised by cost, efficiency and well-being, raised many rich discussions about difficult operational issues and also about the

¹⁴ There are 117 prisons in England and Wales. Her Majesty's Prison and Probation Service (HMPPS) runs most of these (104) while three private companies operate 13: G4S and Sodexo manage four prisons each, and Serco manages five (including HMP Thameside with whom we had previously worked).

overall value of prison and its ability to correct attitudes and facilitate rehabilitation. The Cell Furniture project was successful in as much as it prototyped a way of engaging with prisoners to involve them in the co-production of useful new cell furniture designs that may contribute to better daily living for future prisoners, as well as many other positive benefits of co-production within the criminal justice system.

There were of course limitations and challenges with our project. The reason cell furniture gets damaged is often linked to the wider frustrations of prisoners with the criminal justice system. The team recognised early on that we were addressing effects (to furniture), rather than the underlying causes of problems. The biggest challenge we faced was the impossibility of resetting prison industry agendas and redesigning the operational landscape that precipitates criminogenic problems. Rather we were able to produce some new furniture to support an already flawed prison system. We adhered to the brief and consoled ourselves with the knowledge that at least our new furniture designs could make some difference to prisoners real lives - if they are produced. However, to achieve change on a larger scale the bigger issues around prisoner wellbeing and mental health need to be addressed. However robust the new furniture designs we generated were, they would be unlikely to stop misuse and abuse when the underlying reasons for this behaviour remain.

Whilst involving prisoners in creative endeavour that democratize innovation is certainly possible - such as co-creating cell furniture that improves on previous design - and has other benefits as the Cell Furniture project has demonstrated, its value is of course determined by scale of activity. We recommend therefore that co-production, and its relationship to prison industries, is a site for further review and possible systemic change, that should be further explored by prison industries as well as UK crime and justice departments.

Co-production can help provide meaningful and aspirational activity, aid vocational learning, be enjoyable, and can lead to elements of individual transformation that are not always possible in prison. New designs generated through co-production can help provide positive material cultural benefits, including new ways of communicating, that are very much needed in the harsh prison environment. Such design learning and co-production processes may be labour intensive, but this should not be a barrier because manpower in prison is an asset that could be better leveraged. Co-production should be more seriously assessed as a workable strategy, even within current operational prison constraints. It could be linked, for example, to cost effective D Schools¹⁵ in prison industries based on a version of the

¹⁵ D.school helps people develop their creative abilities. It's a place, a community, and a mindset, linked to "learning through doing, rather than from traditional class room learning based on theories or books..

Stanford model¹⁶, or Maker movements (Dougherty, 2012) linked to ideas about “fab labs”¹⁷ as well as the European network of Living labs¹⁸, where design is used to bring people together in important relational ways, to develop creative potential, all warranting more systemic review by prison industries than we could instigate on a project aimed at designing cell furniture to be made in prison. We also propose setting up “designers in residence” schemes to find new ways to work in prison industries to facilitate co-production.

Allowing new co-production organisational models to be further trialled and assessed in prison industries is one of the key recommendations we have developed from our work on the Cell Furniture project. Design led co production spaces (often called Maker initiatives) should be seriously considered as having a role in prison because they could help address and improve some of the systemic failures that HMPPS is dealing with at present and could also offer a way of rejuvenating prison industries. Prison industries must deal with ever-changing norms about vocational education, because industrial machines and tools go out of date very quickly and are not linked to generative learning or adaptative skills that returning citizens may need to draw upon to successfully resettle in society. Ultimately the goal of creating more sustainable ways of understanding, producing, and making should urgently be encouraged to reduce the human, environmental and economic costs of prison. Reimagining future prison industries as a site of different types of co-production, vocational learning, including maker movement activity, where sustainable and co-creative learning happens as a matter of course appears to us to be a sure step in the right direction. This could certainly help improve, by design, not just the quality of cell furniture available in prison but the material culture apparent within UK prisons, and its impact on returning citizens.

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¹⁶ The Hasso Plattner Institute of Design, Stanford outline their account of how to start D. Schools here: <https://dschool.stanford.edu/how-to-start-a-dschool>

¹⁷ **Fab Lab**, or digital **fabrication laboratory**, is a place to play, to create, to learn, to mentor, to invent: a place for learning and innovation. **Fab** Labs provide access to the environment, the skills, the materials and the advanced technology to allow anyone anywhere to make (almost) anything.

¹⁸ Living Labs (LLs) are defined as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings. “Living Lab,” European Network of Living Labs, 2018, <http://openlivinglabs.eu/livinglabs>

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