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RESEARCH ARTICLE

Third place social infrastructure, after and in crisis: insights from a local case study

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Following the 2008 global financial crisis, Digital Fabrication Laboratories (Fab Labs) have become a common feature of the urban landscape in cities throughout Europe. An emerging body of literature suggests that Fab Labs go beyond providing access to digital fabrication tools, and function as ‘third places’ as they enhance social connectedness. Drawing on a case study of a Fab Lab in the English city of Coventry, this article utilises the concept of ‘austerity urbanism’ to understand the changing nature of third places in England since the 2008 global financial crash. In doing so, we argue that a confluence of austerity urbanism and digital advancements has influenced both the emergence of new third places (such as Fab Labs) while simultaneously undermining long-established third places (such as libraries). As a result, vital aspects of social infrastructure are being shaped and reshaped in the contemporary era. The article reflects on what these changes mean for individual and community well-being.

Key words Fab Labs • third places • well-being • austerity urbanism • social innovation

Key messages

- Both the creation and loss of third places is a legacy of crisis and austerity induced social policy transformation.
- Third place social infrastructure plays a vital role in enhancing individual and community well-being.
- Demonstrates how third places provide support to individuals and communities during times of crisis.

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Introduction

In the aftermath of the global economic crisis that shook the world in 2008, and which led to a global recession the like of which had not been seen since the Great

Depression, many countries around the world responded with austerity-led policies. Predicated on the idea that government spending would pile up debt and stunt economic growth, austerity was an approach that aimed to reduce government budget deficits by cutting social spending.

Since the financial crash, the term ‘crises’ has become ubiquitous and pervasive (Bures, 2020). In relation to the global financial meltdown, it has been argued, the crisis was mobilised as an opportunity for governments to implement austerity policies that would radically undermine welfare states. Attributed to Winston Churchill, the cliché ‘never let a good crisis go to waste’ posits that moments of crisis can create opportunity. Across Europe, and particularly in the UK, the financial crisis was deployed to legitimise deep social spending cuts and the retrenchment of welfare support through the imposition of austerity (Blyth, 2013).

In the wake of the financial crisis, austerity policies became particularly prevalent across Europe, and varied in and between countries in their intensity (Turcu et al, 2015). The implementation of austerity policies impacted upon cities in particular ways. Economically, the urban economy of cities such as Greece, Spain, Italy and France saw substantial increases in unemployment. Socially, unrest and rioting grew in places where people suffered evictions and rising levels of debt at the same time as banks were being ‘bailed out’. Austerity-led policies also had an impact on the governance of cities with increasing cuts to, and privatisation of, public services, and fostered new types of multiple stakeholder partnerships (Turcu et al, 2015). In the technical and social spheres, urban responses to the crisis saw renewed interest in promoting technical and social innovation (Edmiston, 2015).

In a post-crisis era shaped by austerity and a reinvigorated neoliberalism (Farnsworth and Irving, 2018), interest in social innovation spaces in the form of Living Labs, Fab Labs and makerspaces increased. Fab Labs first emerged in the early 2000s, and were developed as part of a research programme led by Neil Gershenfeld, professor at the Massachusetts Institute of Technology’s (MIT’s) Centre for Bits and Atoms. In their book *Designing Reality* (2017), Gershenfeld et al assert that Fab Labs will form a vital component of the third digital revolution. These authors note that the first two digital revolutions in communications and computation ushered in far-reaching societal change, and suggest that Fab Labs will play a pivotal role in promoting universal access to digital fabrication tools as we enter the dawn of a new digital era.

In the years following the crisis, Fab Lab facilities grew at an exponential rate, particularly in Europe where there was a ‘veritable explosion’ in their number (Ramella and Manzo, 2018: 341). In the wake of the crisis, promoting economic development and maximising innovation and entrepreneurial activity became a key priority for governments worldwide (Pauceanu and Dempere, 2018). However, within the growing literature on Fab Labs there is an increasing recognition that they function as third places (Moilanen, 2012; Bar-El and Zuckerman, 2016; Taylor et al, 2016). Oldenburg (1989) developed the concept of ‘third place’ to describe publicly accessible places such as libraries, pubs and community centres. These places Oldenburg (1996/97: 7) asserted, produced several positive social benefits for individuals and communities as they enriched social interaction, served as ‘ports of entry’ for newcomers and visitors, and promoted psychological health and well-being. Fab Labs then, can offer much more than access to digital fabrication technology, yet, while these facilities have grown in the UK, there has been a corresponding erosion of long-established third places, such as public libraries.

This article begins by exploring the policy interest and growth in social innovation spaces and urban lab facilities in the wake of the crisis. We first situate and define these heterogeneous spaces within the framework of social innovation. We then focus on the UK context, and the creation of a Fab Lab in the English city of Coventry. Drawing on empirical material we consider the emergence and growth of Fab Labs in the post-crisis years ‘within a broader ecosystem of policy innovation’ (Joy et al, 2019: 37) and add weight to the characterisation of Fab Labs as ‘third places’. We then discuss the changing nature of third places more broadly under conditions of austerity by juxtaposing the growth of Fab Labs with the simultaneous decline of libraries to draw attention to what we argue amounts to ‘patterned responses’ within policy making that attempted to do more with less in an era of austerity (Peck, 2017: 20).

This article makes two key contributions. First, we extend the literature on contemporary physical third places, specifically their significance for the well-being of marginalised individuals and communities, an area of scholarship that is under-researched (Finlay et al, 2019). Second, we broaden the literature on global social policy transformation in the wake of crisis, demonstrating how policy plays out in the types of physical third places that people can access. In turn, we highlight how such places respond to the needs of people in times of crisis.

‘Labs’ as spaces of social innovation

In order to facilitate new ways of fostering innovation and approaching urban governance issues in the wake of austerity policies interest in utilising urban Living Labs, Fab Labs and makerspaces increased. Here we give a brief overview of the characteristics of these different types of ‘Labs’ and makerspaces. As noted in the previous section, a body of literature now exists that emphasises the third place characteristics of Fab Labs. Additionally, these types of facilities are viewed as social innovation spaces because of their potential to generate innovation activity (Smith, 2017). These spaces are highly heterogeneous with complex definitions; nevertheless, they share a set of common characteristics (Kasmi et al, 2022).

The Living Lab concept is both an approach and a physical entity. In terms of urban governance, Living Labs take a co-creation, multistakeholder, citizen involvement approach to understand and respond to the challenges that citizens and localities face. Research and refinement are integral to the Living Lab concept as they serve as test beds for innovative ways of addressing a host of social challenges. Central to this ‘approach’ is ensuring that ‘a greater diversity of voices are accounted for in decision-making processes and urban initiatives’ (Naumann et al, 2018: 197). A definition of Living Labs is ‘yet to be agreed upon’, however, their primary function is to: ‘enable citizens and urban actors to create experimental spaces and arenas outside the prevailing governance system as a means to generate novel solutions and engage new actors, collaborations, ideas, and funds’ (Naumann et al, 2018: 198).

The European Network of Living Labs was established in 2006 with the aim of creating a global network of ‘citizen-centric innovation ecosystems’ and promote the development of new innovation practices (ENoLL, 2020).

Fab Labs on the other hand, are facilities that house digital fabrication tools. Digital fabrication is a manufacturing process whereby Computer Numerical Control (CNC) machining, three-dimensional (3D) printing and laser-cutting machines are controlled by a computer. The proliferation and dissemination of this technology has led to a

corresponding rise in new social environments such as Fab Labs and makerspaces (Morisson, 2019). Many of these form part of a global movement of community-based digital fabrication workshops equipped with a variety of computer-controlled tools that use computer-aided design (CAD) software to construct two- and three-dimensional objects.

As social innovation became a dominant policy objective, a plethora of social innovation spaces, in the form of 'Labs' and makerspaces proliferated throughout the world, and aimed to respond to the prevailing social, political and economic contexts of the localities and regions in which they are situated. Taylor et al (2016) observed how a Fab Lab located in Belfast, Northern Ireland, was established with the aim of bridging the ethno-religious divide within the city, while a Fab Lab in Barcelona emerged against a backdrop of political and economic turmoil. Similarly, a Fab Lab in the deindustrialised city of Detroit in the US actively works to empower disadvantaged groups as part of a broader programme to address local social and economic deterioration and exclusion (Smith, 2017). These makerspaces and Fab Labs were set up with a specific aim to address local economic development, unemployment and exclusion, and promote social cohesion and reconciliation.

The rise of Fab Labs in the UK

The exponential growth of Fab Labs that occurred in the years following the 2008 financial crash led some to question whether this phenomenon was, in some way, connected to the crisis (Ramella and Manzo, 2018). In their work, Ramella and Manzo (2018) demonstrate that the growth of Fab Labs was not a direct consequence of the crisis. Yet, the crisis and its aftermath played a background role insofar as it 'raised awareness in a plurality of actors, both institutional and in civil society, of a need to search for innovative ways to create economic and social value' (Ramella and Manzo, 2018: 342). Joy et al (2019: 35) contend that the interest and growth in spaces of social innovation, or what they term 'Social Innovation Labs' (SIL), represent a 'new policymaking process that has spread rapidly since the 2008 financial crisis'.

As these Fab Labs expanded in Europe, a similar trend was observable in the UK, with the first Fab Lab opening in Manchester, England, in 2010 (Mets, 2010). Since then, Fab Lab facilities have grown in number, from a handful to nearly a hundred (Sleigh et al, 2015). Fab Labs aim to bring a diverse set of actors together to innovate, create, learn and collaborate (Moilanen, 2012; Kohtala and Bosqué, 2014; Bar-El and Zuckerman, 2016). As such, Fab Labs are places that enrich social interaction, and it is this particular aspect that has resulted in a growing body of research characterising Fab Labs as 'third places' (Taylor et al, 2016). However, while Fab Labs have proliferated during the last decade of austerity, at the same time, long-established third places such as libraries, have become a target of local government cuts. In the UK, almost 800 library services have closed since 2010 as local authorities prioritise statutory funding on providing vital services such as social care (Flood, 2019). This is, in part, a result of the fiscal pressures imposed on English local authorities by central government, and through processes of what has been termed 'austerity urbanism' (Peck, 2012; Hastings et al, 2017; Fuller, 2018). In the next section, we detail how structural factors, such as austerity cuts to pro-poor services has affected long-established third places in the city of Coventry.

Coventry in an era of austerity

Coventry, in the West Midlands region of England, has a fast-growing population estimated to be 371,000 in 2019 (ONS, 2021). In a city that has experienced deindustrialisation since the 1970s, 33 per cent of the population live within the most deprived 10 per cent of areas in England (Hastings et al, 2017). Between 2010 and 2018, the city has faced a reduction of £95 million per year in central government grant funding (Fuller, 2018), which has resulted in the city experiencing what Peck (2012) describes as austerity urbanism. Peck (2012) outlines austerity urbanism as a process that undermines the redistributive functions of local governments, the effects of which trickle down and disproportionately impact groups who are already facing marginality and economic disadvantage. Austerity urbanism, Peck (2018) notes, is not a recent phenomenon as cities have faced periods of fiscal stress due to a variety of factors. This is true of UK cities, such as Coventry, where the social and economic legacy of deindustrialisation was exemplified in the hit song ‘Ghost Town’ written by Coventry band The Specials, who sang in the 1980s as unemployment and urban decay marked the early years of Thatcher’s Britain (Gardner, 2017).

What demarcated contemporary processes of austerity urbanism from previous periods of economic stress was an intensified ‘neoliberal rationality of socially regressive and market-validated redistribution’ (Peck, 2018: xiv). Analysis of austerity and economic governance in Coventry has demonstrated that the city’s priorities have shifted away from more ‘collectivist’ approaches to economic development to one that prioritises market-driven pro-growth strategies that give precedence to the aims of property developers rather than local authorities (Fuller, 2018: 576).

Similarly, research by Hastings et al (2017) demonstrated that while Coventry City Council sought to protect pro-poor services (those services used more by lower-income groups), in reality, because these services make up such a large proportion of the budget ‘absolute cuts to these services had begun to effect service quality, co-ordination and, in some cases their ability to meet basic needs’. Their work on the effects of austerity urbanism in the UK demonstrates that, ‘in England, austerity urbanism involves a dual regressive redistribution: “targeting cities” leads to “targeting the poor”’ (Hastings et al, 2017: 2021).

Cuts to local public services, especially libraries, serves to illustrate this process (Davidson, 2020). In Coventry, libraries have reduced staff, implemented single staffing at some locations, while volunteers have taken over the running of others. Some have been relocated to community centres as part of the ‘connecting communities’ model (Nobes, 2019). These cuts and closures have led to active protest and campaigns in the city, such as the ‘Save Coventry Libraries’ campaign (Lillington, 2016). Despite public opposition and active protest, in Coventry one library has closed, while four have reduced staff and resources, and three libraries are now dependent on volunteers just to keep the doors open (Nobes, 2019).

As processes of austerity urbanism were impacting on these ‘traditional’ types of third places, the establishment of a Fab Lab in Coventry aimed to provide a physical space within the city centre that would benefit local people by providing access to training courses. The next section details the creation of Fab Lab, Coventry in the midst of austerity and large-scale cuts to public services.

Context and methodology

Coventry University established its first physical Living Lab – Fab Lab, Coventry – in 2015, in collaboration with Coventry City Council and the University of Warwick. This followed a series of workshops that researchers had conducted with local people and organisations in Coventry. The creation of a Fab Lab was intended to address the challenges identified in the workshops as they related to skills development, job support, social cohesion and digital exclusion. Moreover, the presence of a Fab Lab within the city aimed to promote Science, Technology, Engineering, Arts and Maths (STEAM) subjects, enabling individuals to learn new skills and access digital equipment to make products and prototypes. Fab Lab Coventry now provides Open College Network¹ (OCN) accredited courses in digital fabrication, aimed specifically at populations that are furthest from the labour market: the long-term unemployed, refugees, migrants and those experiencing physical and/or mental ill-health.

As part of an evaluation of the courses that are offered by Fab Lab, Coventry, a Theory of Change (ToC) exercise was conducted with staff, volunteers and students. ToC has been defined as a theory of why and how an initiative works (see [Weiss and Connell, 1995](#)). This approach to evaluation is increasingly being used to better understand how community–university partnerships add value, particularly as it allows for the inclusion of a range of community perspectives ([Hart and Northmore, 2010](#)). A standard ToC session was convened, starting with the definition of programme aims, activities and intermediate outcomes. A ToC diagram was then produced that showed that the main aim of the digital fabrication courses was, overall, to ‘improve lives through digital making skills’.

The ToC session helped to articulate Fab Lab, Coventry’s focus on skills development, while the inclusion and contribution of students drew attention to the intangible benefits of the courses as they related to the following issues: isolation and loneliness, increased social networks, confidence and self-esteem. Following the ToC change exercise, the research was concerned with exploring, in greater depth, in what ways lives were being ‘improved through digital making skills’. In particular, the research was interested in the wider benefits of Fab Lab as a ‘place’, moving beyond a focus on the courses, skills acquisition and movement, or not, into volunteering positions or employment. In order to elicit narrative accounts of journeys into, and subsequent use of the Fab Lab, the research employed qualitative one-to-one interviews with those who worked, volunteered and participated in the courses and activities it provided.

Narrative inquiry recognises that people make sense of their lives through stories and provides insights into people’s subjective experiences. As Sinclair Bell (2002: 209) asserts, narrative accounts: ‘allows researchers to understand experience. People’s lives matter, but much research looks at outcome and disregards the impact of the experience itself’. Undertaking interviews served two purposes. First, as a ‘social innovation’ space founded upon Living Lab principles, it was important for stakeholders to understand better how the space functioned, based on iterative and inclusive feedback from those whom the space was attempting to support. Second, and beyond this focus on the benefits of Fab Lab, we were interested, sociologically, in Fab Lab as a social milieu that actors chose to engage with for their own purposes. Epistemologically the research was premised on the assumption that social action can only be understood by interpreting the motives and meanings on which it is based while, at the same time, recognising that individual agency is itself mediated by broader socio-economic

historical processes. As Mills (1959: 3) asserted, ‘neither the life of an individual nor the history of a society can be understood without understanding both’.

Interviewing involves asymmetries and hierarchies of power, rooted in gender, class, age, ethnicity and other multiple intersecting identities and life experiences (Edwards and Holland, 2013). Our sample comprised a range of people from diverse countries and cultures and with experiences related to migration journeys, ill-health and long-term unemployment. We make no claims to overcoming the power relations between interviewer and interviewee; we could only remain reflexive in how we approached the interview. Following Karnieli-Miller et al (2009: 282) ‘power relations must be confronted with “real” research practices’.

Interviews were undertaken by the lead author, who spent time in the Fab Lab on a regular basis prior to interviews; as such she became more of a familiar face at Fab Lab and talked informally with potential participants prior to undertaking interviews. The rationale of the research was shared with participants, and interviews framed in terms of inviting participants to tell their own opinions and experiences of the Fab Lab, its courses and activities from their perspective. Karnieli-Miller et al (2009: 286) make clear that researchers must show genuine respect for individual viewpoints; ‘the feeling of true participation is based on a message of dignity and acknowledgement of one’s equal right to contribute knowledge’.

The first two interviews were treated as a pilot, after which adjustments were made to the interview schedule themes. Given that not all participants had the right to remain indefinitely in the UK, we omitted a final question that related to participants’ future plans. In attempting to mitigate harm and intrusiveness, it was also important to let participants talk about things that were significant to them, while trying to minimise against ‘positional suffering’ (or ordinary suffering) (Bourdieu et al, 1999). Beyond the suffering that material poverty brings, Bourdieu et al’s (1999: 4) experience of interviewing makes clear ‘how painfully the social world may be experienced by people who ... occupy an inferior, obscure position in a prestigious, and privileged universe’.

Interviews were undertaken at the Fab Lab premises in a quite upstairs area. Fab Lab was a convenient place for our interviewees; moreover, Fab Lab was itself central to the interview, as well as being a place where people make objects, many of which are displayed throughout the space. ‘Emplacing’ interviews afforded participants the opportunity to talk about the ‘place’ of Fab Lab, while at the same time it enabled participants to use the objects on display as points of discussion (Elwood and Martin, 2000).

We adopted a purposeful sample, and conducted 18 semi-structured interviews, which included 3 staff members, 1 resident entrepreneur and 14 students who had successfully completed courses. Interviews were recorded and transcribed verbatim. Qualitative data analysis software NVivo 12 was used to code our data, which was analysed thematically – in line with the themes highlighted by the students. It is this data set upon which we present and discuss our findings, including selected quotations to highlight central issues. All respondents have been given pseudonyms. In the next section we present our findings.

Making and connecting: Fab Labs as third places

Fab Lab, Coventry opened its doors to the public in 2016, and was originally planned with the primary function of supporting those furthest from the labour market into

education, employment or training. Therefore, the courses on offer were aimed specifically at supporting employability and digital skills development among the city's most economically disadvantaged groups. Moreover, given Coventry's status as a City of Sanctuary² and an asylum dispersal area,³ the Fab Lab aimed to be an inclusive public place that would offer support to those who were new to the city.

Our findings showed that gaining new skills and improving employment prospects was the main reason people signed up to the courses on offer at Fab Lab. However, although providing courses remained a core day-to-day activity, Fab Lab had evolved to become a more general community facility, offering advice and support on a range of issues, and a space for people to talk, socialise, and share skills and knowledge. Our interviews with Fab Lab staff and volunteers revealed a pragmatic attitude about the extent to which an OCN Level one and two course in digital fabrication could provide a direct path to employment. As Fab Lab Coventry's resident entrepreneur explained:

'Digital manufacturing is going to become a huge part of our economy but if you want to be a professional in that field you really need to go to university. So a lot of people we have coming on the course, a lot of them have the aptitude to do the level one and that's kind of a good hobby. It introduces them to new technologies, but in terms of funnelling these people into employment within this industry, I mean I have to compete in my job, be the best in my sector just to stay afloat and it is incredibly tough, so I think that getting people work in digital manufacturing through the courses that we offer, I think it's great as an outreach tool, its great as education, but as a way to get people into employment I'm not so sure, because the skills that employers are looking for are so colossally in advance of anything we can teach here. I'm an industrial designer, so where the jobs are, are in engineering, so I can't do those jobs because they require maths, physics, you know, so you can teach people to use a vinyl cutter and I think that's wonderful but bridging the gap between that and getting work at Jaguar Land Rover (JLR), because JLR has got an enormous skills gap it's not going to happen – they need university graduates.'

There is no clear pathway to further or higher education after completing the courses at Fab Lab. In terms of a recognised educational qualification, in England they are equal to grades C and B of a General Certificate of Secondary Education (GCSE). The Fab Lab had diversified in terms of the courses it offered, and had developed additional courses on jewellery making, woodworking, upcycling and workshops providing support with CV building and job applications. However, it was evident that the social benefits were just as valued by those who had attended the course. Particularly for those experiencing mental ill-health, Fab Lab, Coventry had become a haven, of sorts:

'Where I see it having the best impact is in sort of like a creative therapy space because a lot of people that come in, they have mental health problems or they're struggling with unemployment and they seem to get a lot of comfort and social contact from coming in here. From what I can see, not in terms of the numbers, but in terms of the day-to-day, that's where I see

the Fab Lab having the biggest impact on the city. It's almost like a refuge, just to help people get back on their feet and give people a break from the chaos or whatever is going on back home. Which I suppose is not really what its official mission is, but in terms of what I see as tangible effects on people from doing the course that is certainly what I would say it excels at.' (Resident entrepreneur)

The Fab Lab manager suggested that many of the people who completed the courses continued to frequent the space because they were experiencing social isolation related to a variety of factors: immigration status, unemployment and poor health. For this reason, the courses were a conduit through which people used the physical space of the Fab Lab as a reason to get out of the home and mitigate against social isolation: 'A lot of people that we do have say they stay at home all day – they don't really get out very much, so it's become that social space, and for me it's addressing the social isolation part rather than gaining skills. Although obviously gaining skills is great also' (Fab Lab manager).

According to the interviewees, visiting Fab Lab helped with their well-being. One male interlocutor made clear: 'well-being, it helps with my well-being – it's not necessarily the course, it makes me feel useful'. Similarly, another respondent related this to very personal experience:

'I'd spent a long while very ill with depression and that's still an ongoing issue, so actually having somewhere to go and something to do. It gets me out the house and introduces me to new people and also in an environment that I'm comfortable with because it's all IT and design stuff which is a skill set, while I don't have the finer details of, I can understand the concept. Coming here is very much part of the plan for managing that [depression], and I'm coming up with projects I can do with the support of the facilities here in order to actually get me more confident, and with technical skills demonstrations that I can produce and sell. I've been really quite impressed both with the staff and the facilities here. It's an opportunity thing because of the illness problem, spending time on my own at home doesn't actually manage or help with any of that, so getting out and doing projects in a communal space is incredibly useful, and the access to different tools has encouraged me to come up with new and interesting ideas.' (Keith)

Steve likewise, used the Fab Lab as a space to meet people and socialise. Steve often felt anxious in public places. He had completed both courses but it was the sociability of the space he valued most. Steve explained that some days he could be immensely happy and positive but that the next day he could be in the 'deepest depths of despair for no apparent reason'. Fab Lab, Coventry had become a safe space for Steve, as he explained:

'even if it's just to come in and say hi, drink all the coffee, eat all the biscuits and bummer off (laughs). No, it's a good friendly place and it's somewhere now, even if I'm going around town and I start to get a bit stressed or anxious I know I can just come in and say hi and gather my thoughts if I need to. They are all decent folk here, the friendships and the connections with the

staff and the volunteers here. It's also helped in the broader spectrum as well because people are now talking about digital fabrication and using the programmes like the inscapes and vectors and I can now understand what they are actually talking about and I can now join in. As I say, it's someplace else I can come to and chat and see people in a non-judgemental place, and there is no pressure. If you want to do things you can do things but if you don't want to you don't have to. There's more here with the electricians and stuff now and you're always welcome to tinker, which is great.' (Steve)

Newcomers to the city enrolled on courses at Fab Lab so they could improve their spoken English language skills, enhance their social networks and access skills and employment support. Over and above the opportunity to gain new skills, our analysis demonstrates that the presence of Fab Lab, Coventry is beneficial for individual well-being. According to Parr (2008: 22) those experiencing mental health problems are, in various ways, active in carving out spaces for themselves 'in the social and material spaces of their everyday lives ... in order to "rescript" their recoveries'. Those participants experiencing mental ill-health have found in Fab Lab a place where they experience acceptance, in a space that is not defined as a mental health service. It offers the sociality and connectedness that they seek while also offering learning and the chance to be creative, individually or as a part of a group. Staff at Fab Lab, Coventry, suggested that the creativity of making promotes positive mental health, an assertion backed up by a growing body of evidence highlighting the benefits for mental well-being (Gillam, 2018; Stickleby et al, 2018).

In the next section of this paper, we bring theories of austerity urbanism and policy priorities into conversation with the concept of social infrastructure to better understand the changing nature of physical third places in the years following the 2008 global economic crisis. In doing so, we reflect further on the value of third places more broadly, and the role they play in promoting individual *and* community well-being, after, and particularly *in*, times of crisis.

Social infrastructure after, and in, times of crisis

Eric Klinenberg (cited in Kelsey, 2021) offers a broad definition of social infrastructure, which he characterises simply as 'physical places that shape our capacity to interact with one another'. In spatial terms, Tonkiss (2013: 322) describes urbanism under conditions of austerity as 'an urbanism of (and by) enclosure as a keynote of austerity politics: seen in the privatisation of common or public space'. Nevertheless, Tonkiss also makes clear that austerity created the conditions for alternative types of physical urban spaces to flourish in the disused areas of post-crisis cities. In a similar vein, Mayer (2012: 558) suggests that neoliberal urbanism, coupled with austerity politics intensifies the dismantling of social infrastructure and encourages socio-spatial polarisation, while simultaneously enhancing 'many elements of urban alternative movements that feed cultural creativity and entrepreneurial activism'.

Fab Labs are not everywhere the same, but they can be viewed in this way as they hold out the promise of promoting new ways of tackling sustainable socio-economic urban development (Wilwert, 2015). In the wake of the financial crisis, fostering social innovation spaces moved up the agenda of policy makers locally and globally because they represented a mechanism through which to 'tackle complex social

policy and service design problems, such as poverty, that government is increasingly thought to be incapable of solving on its own' (Joy et al, 2019: 36). The crisis presented an opportunity for and represented a move away from doing 'business as usual' (Naumann, et al, 2018: 204) both in terms of evolving governance issues, and in the reconfiguration of welfare states. Prioritising social innovation, some suggest, compensates for the retraction of welfare state provision (Gregoire, 2016).

Utilising Peck's (2018) conceptual framework of austerity urbanism, we assert that targeting libraries for austerity cuts, while favouring the development of social innovation spaces, amounts to what, in policy terms, represents 'patterned responses' (Peck, 2017) to the crisis. As Kasmi et al (2022: 203) asserts, innovation spaces, from a policy-making perspective 'continue to be spread all over the world, and more and more policy and decision-makers are favouring the implementation of these physical innovation environments'. At the same time, in England budget cuts to library services have resulted in active protest (Khomami, 2015; Quinn, 2016), against 'unprecedented' staff losses and closures (Robertson and McMenemy, 2018: 4).

Our broad point here is that while the financial crisis and subsequent austerity created a space in which Fab Labs could flourish, it also created the conditions under which long-established third places are being 'hollowed out' (Robertson and McMenemy, 2018: 92), a process that impacts upon the most marginalised people and places (Davidson, 2020). These processes have real-world consequences, spatially, in terms of the availability of publicly accessible places that people move through as part of their everyday lives.

Beyond these overarching policy dynamics, and the impacts policy decisions are having on third place social infrastructure, it is people themselves that make places (Mean and Tims, 2005). People attach their own meaning and value to places, and use public space based on how it may meet their needs. Fab Labs share much with libraries insofar as they are both physically accessible spaces that provide access to job-searching advice, IT use, skills and information. Importantly, such places offer engagement with the wider world beyond the confines of the home. Helping to alleviate social isolation, they are particularly important for those whose social horizons are limited due to unemployment, ill-health or low income, and for those who are trying to find their way in an unfamiliar environment.

When COVID-19 restrictions resulted in the closure of publicly accessible spaces, libraries and Fab Labs were well placed to step up and support communities. Libraries quickly helped to establish Coronavirus Information Services as well as operating 'click and collect' book services, online events and support to some of their most vulnerable users (Poole, 2020). Meanwhile, Fab Labs were able to use their tools and technology to manufacture components of personal protective equipment (PPE) including face shields, mask clips, ear savers and acrylic partition boards, as well as producing components for life-saving equipment such as valves for ventilation machines (Fabfoundation, 2020). Fab Lab, Coventry played its part in this – using locally sourced materials, they produced thousands of pieces of PPE that were delivered to local businesses and community and healthcare workers, helping to protect frontline workers at a time when PPE was in woefully short supply. They not only helped to plug a gap between local needs and wider manufacturers' supply chains, they also moved to maintain engagement with their users through the provision of online courses and drop-in coffee mornings, helping to keep people connected and supported. As communities struggled in the face of an unprecedented health crisis,

both Fab Labs and libraries demonstrated their value both for the well-being of the mind, as well as the physical well-being of their communities.

Conclusion

This article has linked global and local policy responses in the aftermath of the financial crisis of 2008 to changing policy agendas that have favoured and led to the global growth of social innovation environments, such as Fab Labs. Utilising Peck's (2012) concept of austerity urbanism, we explain the rise and demise of third place social infrastructure as an ongoing process and continuing consequence of crisis, and in policy terms, what amounts to a patterned response (Peck, 2017), evident in the cuts targeted at library services, and as new social spaces are favoured and prioritised.

Both of these physical spaces enhance social connectedness, and while not an 'innovative' concept, social connection is a fundamental human need (Baumeister and Leary, 1995; Seppala et al, 2013). Both Fab Labs and libraries enable learning and creativity, which is, in and of itself, good for positive mental health (Gillam, 2018). This was something ancient civilisations seemed to understand, and it is said that an inscription above shelves in the ancient Library of Alexandria in Egypt read 'The place of the cure of the soul' (Manguel, 2008: 26).

In talking about the dynamics of social change and 'big, slow-moving processes', Pierson (2003: 177) stated that one of the major challenges for the social sciences was that 'many important social processes take a long time – sometimes an extremely long time – to unfold'. What is unfolding in terms of third place social infrastructure, the creation of new forms of third place, as well as the slow erosion of others, matters because they are beneficial in ways that cannot be measured in monetary value. Third places impact our everyday lives and influence the places we can visit, the people we exchange pleasantries with face-to-face, and the information and knowledge we consume. The long-term impact of our changing third places is yet to be fully felt. In the wake of ongoing economic and social insecurity, third places may be seen as a 'soft' response to the alleviation of mental suffering, yet it has long been acknowledged that such places may help people maintain positive well-being (Oldenburg, 1989).

While small in scope, this case study adds to our understanding about the creation and loss of third places in the aftermath of the financial crisis and under processes of austerity urbanism. Drawing on empirical material focused on the creation and use of Fab Lab, Coventry and through a focus on libraries, we have highlighted the consequence of crisis and how policy transformations have an impact on the physical places that people move through. In doing so, we contribute to a growing body of evidence that shows the intangible benefits of third place social infrastructure for individual, as well as wider community, well-being (Klinenberg, 2002; 2018; Finlay et al, 2019). Within these spaces, sociability may be casual, intermittent or habitual, yet these places enable face-to-face interaction and the chance to learn and create among others.

While this research has highlighted that Fab Labs can bring real value to people's lives, their ability to contribute to systemic change and bring about broader societal transformation is arguably limited (Shea and Gu, 2018; Naumann et al, 2018). However, like libraries, they do bring social benefits because people connect with these places, and it is through such connectedness that people and communities can be supported in hard times. The creation and loss of third place social infrastructure

is a slow-moving process that may have implications for the health of individuals and communities, particularly in times of crisis.

The word ‘permacrisis’ was chosen by the Collins English Dictionary as its word of the year 2022, to describe ‘an extended period of instability and insecurity’ (Sherwood, 2022). Crisis, it seems, is a situation with no end in sight. To help alleviate the current ‘cost of living crisis’, libraries across the UK are taking part in ‘warm bank’ schemes, aiming to provide heated safe spaces for the public, at a time when their own funding outlook is precarious (Smith, 2022). Amid the ongoing deterioration of public services, social infrastructure provides a refuge for people, yet their future is dependent on funding and investment. Prioritised funding for social infrastructure appears unlikely in the current climate, and as some have made clear ‘even where there are no further cuts, ‘austerity is “baked in” to future plans’ (Institute for Fiscal Studies director Paul Johnson, cited in Irving, 2021: 98).

This article has furthered understandings of the contemporary state of third place social infrastructure, showing the links between global policy responses to crisis, and how these processes have a real-world impact on people at the local level. Moreover, it has contributed and extended the literature on how both these forms of social infrastructure respond to the needs of people in times of crisis. Austerity measures impact most on those experiencing economic and social deprivation, and research has shown the negative effect austerity has on health (Stuckler et al, 2017). COVID-19 has worsened the status of mental health, and the current economic situation points to a worsening global economy. This will inevitably impact upon mental well-being and people’s ability to cope. The COVID pandemic revealed how vital social infrastructure is in supporting people through crisis. We call for a reinigorated focus on the shape-shifting nature of contemporary third places in the wake of the pandemic and against the backdrop of the current global economic downturn that may yet tip economies into another recession. The health and resilience of individuals and communities will be made all the poorer if third place social infrastructure continues on a trajectory of decline.

Notes

- ¹ Open College Network is a UK awarding organisation that develops and awards regulated qualifications.
- ² A City of Sanctuary is one that works actively to welcome and support people seeking sanctuary.
- ³ The UKs Asylum Dispersal Scheme moves people seeking refugee protection to local authority areas where housing may be easier to secure than in the south of England.

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Data availability statement

The authors take responsibility for the integrity of the data and the accuracy of the analysis. Due to ethical concerns, participants were assured raw data would not be shared.

Conflict of interest

The authors declare that there is no conflict of interest.

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