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**Binnington, Chris and Russo, Alessio ORCID logoORCID:
<https://orcid.org/0000-0002-0073-7243> (2022) Defensive
landscape architecture in modern public spaces. *Ri-Vista.
Research for Landscape Architecture*, 19 (2). 238 -255.
[doi:10.36253/rv-11421](https://doi.org/10.36253/rv-11421)**

Official URL: <https://oaj.fupress.net/index.php/ri-vista/article/view/11421>

DOI: <https://doi.org/10.36253/rv-11421>

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/10637>

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Defensive landscape architecture in modern public spaces

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Abstract

By 2030, we should have universal access to safe, inclusive, and accessible green and public places, especially for women and children, the elderly, and people with disabilities, according to the Sustainable Development Goals. However, the increasing privatisation of land and gentrification of the urban landscape is putting a limit on the amount of public space available for people to express themselves and use the city as they desire. This paper investigates and reviews the literature on defensive architecture, as well as its historical foundations, definitions, implementation, and reason for existence. The findings provide a clear reflection on the growing awareness of extreme defensive landscape architecture typologies such as spikes and other aggressive measures. Finally, the paper offers worldwide best-practice examples and recommendations for ensuring inclusion and safety in public spaces. We argue that in order to design sustainable public spaces, a holistic approach that considers both intangible values and social inclusion is required.

Keywords

Defensive design, urban space, gentrification, inclusive design, unpleasant design

Introduction

There is an agreement in the literature about the functions and benefits of modern public spaces (Mandeli, 2019). The Habitat III Conference in Quito (October 2016) established a New Urban Agenda that recognised the importance of public spaces as a component of urban development, calling them “drivers of social and economic growth” (Mandeli, 2019; Mehaffy et al., 2019).

However, from its roots in Ancient Greece, public space was founded on social interactions, trading and politics, exclusion of social groups was also a feature of the time, with this space exclusively being reflective and accepting of the popular status quo (Minton, 2006, p. 9). Since ancient times, it appears not much has changed, with the majority overruling the minority through consumer supply, fulfilled by private investors and stakeholders, and consumption, demands from middle- and upper-class society outweighing the needs of those who hold a higher dependence on the utilisation of public space (Collins and Shantz, 2009).

Recently, Honey-Roses, et al. (2020, p. 14) hypothesise that due to COVID-19, the privatisation of public spaces could be accelerated through the acquisition and closure of open public spaces, transforming them into exclusive and closed spaces.

Bicquelet-Lock (2020) and Honey-Roses, et al. (2020) when investigating planning for post-

COVID-19 urban areas, theorise that hyperlocalism and homeworking will increase, this will have a detrimental effect on traditional high-street retail with an increasing trend in online shopping, which in turn, will require these public spaces to adapt, repurposing urban spaces from being consumer-centric landscapes potentially into social or entertainment spaces. COVID-19 would also exacerbate implications for the most vulnerable in society, toughening access to good quality open public space which is especially tough on highly dependent spatial users such as the homeless (Honey-Roses, et al. 2020, p. 14).

The COVID-19 pandemic should serve as an opportunity to rethink places and spaces, to create more liveable cities for all, while also increasing their healthy use (Sepe, 2021). However, as pointed out by Low et al., (2005), nowadays, we face a distinct kind of threat to public space: patterns of design and management that exclude some individuals and limit socioeconomic and cultural variety, rather than one of disuse. This exclusion is the outcome of a purposeful program to minimize the number of undesirables in certain circumstances, and is the effect of privatization, commercialization, historic preservation, and specialized design and planning techniques in others (Low et al., 2005). Nonetheless, these methods have the potential to deplete the space’s vitality and vibrancy or reorganize it in

such a way that only one type of visitor – typically a tourist or middle-class visitor – feels welcome (Low et al., 2005).

Therefore, the objectives of this paper are:

1. To explore the concept and design approaches of defensive landscape architecture in public spaces.
2. To discuss the effects caused by defensive landscape architecture.
3. To illustrate examples of defensive landscape architecture in Bristol, UK.
4. To provide best-practice examples and recommendations for ensuring inclusion and safety in public spaces.

Defensive landscape architecture

Defensive landscape architecture is studied by a plethora of academics specialising in a variety of professional disciplines. What is described as defensive architecture in this paper has varying descriptive titles within the differing disciplines, such examples are defensive or unpleasant design as well as hostile, defensive or exclusionary architecture (Rosenberger, 2020; Chellew, 2019). Research utilising these defensive landscape architecture terms often reference specific literature, prominent examples include Oscar Newman's 1972 publication titled 'Defensible Space, People and Design in the Violent City' (Carr, 2020; Ceccato, 2020; Rosenberger, 2020; Chellew, 2019; Cozens, 2018; Smith and Walters, 2018; Kitchen and Schneider, 2017; Cozens and Love 2015; Reynald, 2015; Ratnayake, 2013; Thorpe and Gamman, 2013; Katyal, 2002; Howell, 2001; Gold and Revill, 2000; Merry, 1981; Saarinen, 1976) and Henri Lefebvre's 1974 publication 'The Production of Space' (Borden, 2019; Fuchs, 2018; Smith and Walters, 2018; Collins and Shantz, 2009; Wakefield, 2003; Howell, 2001; Gottdiener, 1993).

Even with these common foundations in research and literature, academics still have no clear binding, definitive definition of what constitutes defensive

architecture/landscape architecture/design, which has been found to, and remains to, differ from author to author (Chellew, 2019; Rosenberger, 2020). Across these differing definitions, however, some common traits can be found throughout research and literature (Chellew, 2019; Cozens, 2018; Smith and Walters, 2018; Kitchen and Schneider, 2017). Newman (1973) is often used as a basis for defining and exploring the physical use and reasoning behind the implementation of defensive design. He first described it as defensive space when he explored the concept of spatial security through environmental design and residential community surveillance, based off of Jacobs' (1961) work, *The Death and Life of Great American Cities* (Cozens and Love, 2015, p. 394). The impact of private, semi-public, and public zoning, along with the pedestrianisation of vehicular dominated space, and its influence on reducing crime rates are also researched in Newman's work. Exploring their effects towards controlling human activities and behaviour, subsequently improving residents' quality of life. When researching zoning, two varieties of barrier were identified, real barriers, consisting of locks and other physical defensive elements, and symbolic barriers, indicated by a change in texture or height to define a change in zone typology. These barriers help to define zones, illustrating the transition from one space into another, whilst simultaneously forbidding specific activities in particular zones (Newman, 1973, pp. 60- 66). Based on Newman's (1973, p. 64) description of literal barriers being a "component of a hierarchy of means of defining space which also includes a wide range of suggestive and persuasive symbolic elements". This suggests that modern defensive landscape architecture design elements are a component within this hierarchy. Attempting to remove the need for human intervention in controlling space and those who occupy it through the application of physical and symbolic measures. This is an attempt to subliminally indicate the landscapes range of acceptable functions, together with identification of ownership.



Fig. 1-4 – Examples of defensive landscape architecture in public space, Bristol (Images taken by Chris Binnington).

Defensive landscape architecture typologies

Although Newman's (1973) publication was ground-breaking for its time, advancements in technology and defensive measures have rendered some areas outdated (Fine Licht, 2017). New sub-cultures such as skateboarders, who some consider to be disruptive, together with the creation of new policies which have inevitably morphed the original 'defensive space' definition. Examples of measures introduced post-1972 being mass use of closed-circuit television cameras (CCTV) in public space, which were introduced in 1994 and the instillation of phys-

ical deterrents against undesired activities, such as skateboarding and rough sleeping. Skate-stoppers, homeless spikes and the introduction of the Crime and Disorder Act 1998 are a handful of measures introduced to deter these activities and communities (Chellew, 2019; Williams et al., 2000; Oc and Tiesdell, 2000). Further examples of these defensive deterrents can also be seen in Fig. 1-5, which are targeted towards a singular or collective of acts, such as skateboarding, unlicensed looking in bins for food, ball games, and even lying down.



Fig. 5 – Defensive landscape architecture in Brussels, Belgium (Image taken by Alessio Russo).

With these measures becoming commonplace in the evolving urban landscape, and an increasingly debated topic in politics, design, and on news and social media, they have become increasingly noticeable to the non-targeted (Rosenberger, 2017, p. 20). It is argued that defensive landscape architecture elements are being redesigned to become seamlessly integrated within public space, becoming artistic features within the landscape attempting to mask their intended purpose (Borden, 2019, p. 232).

Rational for utilising defensive landscape architecture

The use of defensive landscape architecture measures are often justified to improve safety and reduce opportunities for crime. Both the maintenance of safety and reduction of crime evolves around feelings or emotions regarding a potentially com-

mitted or previously committed act, impacting the victim and/or offender. When appraising the drivers for criminal acts within the landscape, eliminating the opportunity of a potential crime taking place breaks a metaphorical chain consisting of a motivated offender, an opportunity, and a target or victim (Oc and Tiesdell, 2000, pp. 188-190). Mitigation measures, in place to disrupt this chain of crime opportunity, can also be applied to acts that are deemed undesirable but are legal, rather than illegal within public space (Oc and Tiesdell, 2000). It has also been assessed previously, that people's tolerance towards those, committing no crime, but have the potential to be classed as undesirable within space, are impacted by environmental conditioning. This is through prolonged exposure to urban environments, affecting who they class as undesirables within landscape settings (Peršak and Di Ronco, 2018).

Skateboarding, in the 1990s, was classed as illegal within areas of the UK, due to factors such as safety concerns, damage inflicted to landscape features, and their visual contrast compared to the status quo (Borden, 2019 pp. 230-231). Kelling and Wilson's 'broken windows' theory, as deconstructed by Howell (2001, p. 16), proposes that minor scale damages caused to landscape features actively encourages further damages, which, in turn, encourages higher, more severe crime through escalation (Kelling and Wilson, 1982). Newman (1972, in Reynald, 2015, pp. 31-32) and Hunter (1978, in Reynald, 2015, pp. 31-32) emphasise the negative effects that dilapidation of physical features, combined with social incivility, has on an individual's sense of security and safety, due to fears of increased crime potential in comparison to well maintained and managed landscapes. The presence of skateboarders however, could be used to discourage and reduce crimes such as drug use and theft (Borden, 2019; Howell, 2001, p. 16). Within Love Park, located in Philadelphia, skateboarders deterred acts of drug dealing and violence through the forming of a community, together with the occupation and natural surveillance of the landscape (Howell, 2005, p. 40). By embracing skateboarding, a range of benefits, such as natural surveillance, community building, and youth development can be encouraged by "positively designing for and managing such activities [skateboarding], which, seen positively, build social skills and physical strength in teenagers, and can help to animate public spaces" (Woolley and Johns, 2001, pp. 227-228 in Carmona and Wunderlich, 2012, p. 171). Other essential and positive skills that are nurtured through the practice of skateboarding are problem-solving, determination, and career guidance, among other benefits (Borden, 2019). Driving factors behind the relocation of homeless individuals are often founded on the potential to increase economical yield, through the encouragement of tourism and middle to upper-class spatial users.

This is achieved through displacement, making the urban centre appear safer, cleaner, and more desirable to spend time in. Presence of the homeless can also have implications on peoples feelings of safety. When investigating physical and social attributes that affected park users experience in Cytadela Park, Ponzań, Bogacka (2020) uncovered that out of 501 survey participants, 51.2 percent, found that the presence of homeless individuals encroached on their feelings of safety, and negatively impacted their spatial experience.

Existing excluding design approaches to utilising defensive landscape architecture

Urban areas can consist of either an individual, or combination of, four varying safer city approaches. These being the fortress, panoptic, regulatory and animated. Each approach consists of features that mitigate the opportunity for specific crimes and unwanted actions to occur (Oc and Tiesdell, 2000, pp. 192-208). Physical defensive landscape architecture interventions, are a culmination of safer city approaches, features, and opportunity reducing measures. Chellew (2019) and Smith and Walters (2018, pp. 2983-2986) reflect this in their review of defensive urban design, noting target hardening, control and privatisation of public space, exclusion, deflection, rules, regulation and management of space. This is further supported when viewed in conjunction with Oc and Tiesdell's (2000, p.193) table '11.2 key features of urban design approached to urban cities'. Another form of excluding behaviour, consists of creating zones, to redirect those who intend to commit undesirable activities from high-end public and private space, into another less desirable space, creating what are labelled as 'hot and cold spots' (Carmona and Wunderlich, 2012, pp. 171- 172). This is enforced through the growing use of private security, to increase the financial prospects of private businesses situated within public space, indicating a growing trend of privatisation within the public realm.

This view of growing privatisation is supported by Collins and Shantz (2009), who concluded that

“the broad trend toward increasing regulation and surveillance, much of it undertaken by, or on behalf of, private commercial interests, is thought to be compromising its public character... What is being prioritized, in many instances, is the economic value of public spaces: their potential to facilitate consumer activity, attract tourists and investors, and encourage private investment” (Collins and Shantz, 2009, p. 521).

Excluding behaviours also operate in public space through policies constructed by politicians, banning what they deem as undesirable activities. Policies are not always influenced by public interests, due to their distrust in the general public’s ability to manage themselves, resulting in the hyper-regulation of space (Carmona and Wunderlich, 2012, pp. 171-172).

Controls that are used to discourage undesired actions within space come in two forms. Soft controls, which consist of signs and symbolic enforcement without direct intervention, and hard controls which are forms of direct intervention (Carmona and Wunderlich, 2012, pp. 172-174). Increasing common use of hard controls, in urban public and private space, have been found to suggest an imbalance between different social groups rights to space, highlighting a failure of appropriate management (Carmona and Wunderlich, 2012, pp. 172-174). These controls, that are branded as defensive landscape architecture, are progressively becoming best practice for practitioners, within the landscape architecture, design and construction industries. It has been argued, that something with the potential to cause such an impact requires regulation, until it has been researched further to uncover any detrimental effects to its use (Smith and Walters, 2018, p. 2992).

Effects caused by defensive landscape architecture

Increasing privatisation of the public domain is being secured through the implementation of Business Improvement Districts (BID). These agreements made between private investors and governing bodies, encourage the formation of pseudo-public space. It is further recognised, that urban public space, is becoming increasingly focused on capitalist consumerism gains. This has had a detrimental effect on the accessibility of space for individuals, who, unless fit the desired image, or are considered a contributor to society, no longer become welcome in these spaces (Shenker, 2017). As a result, individuals who are more dependent on public space (homeless, the young, etc) struggle to find space to occupy, and often feel outcast from mainstream society. Negative connotations, resulting from the integration of defensive landscape architecture continue, as its utilisation can have repercussions on the visual allure and aesthetic quality of the urban landscape (Oc and Tiesdell, 2000, pp. 191-192). Citing Fine Licht (2017, p. 30) “Mildly defensive measures... will probably be used more widely than more conspicuous defensive landscape architecture in the future, because most liberal, middle-class individuals react negatively to spikes and similar designs”. This, therefore, reveals a level of awareness displayed by a particular demographic group within society, stating they react negatively, but with no indication as to what extent. For example, with awareness of defensive principles growing, would defensive features deter middle-class liberals from spending time and money in an urban private, or public landscape which features defensive landscape architecture, compared to a less defensive one?

Defensive measures also have the potential to cause displacement, questioning the ethics of its effects, resulting in the shifting of undesired activities and crime, to already disadvantaged areas. The occurrence of displacement is also argued as an occasional phenomenon.

Hesselings' (1994) study in Schneider and Kitchen, (2017, pp. 113-114) highlighted no evidence of displacement in 22 out of 55 study areas, featuring situational crime prevention applications, and found other occurrences of displacement to be irregular and circumstantial. Some researchers also claim that displacement can be beneficial, driving crime and undesired activities from a wider area than originally intended to a singular, monitorable location (Schneider and Kitchen, 2017, pp. 113-114). This effect goes by various titles, however, for this paper Clark and Weisburd's (1994) term 'diffusion of benefits' as mentioned in Schneider and Kitchen, (2017, pp. 113-114) is used. Some researchers state, that displacement is immeasurable due to its countless forms, and is only evident due to the nature of opportunity, motivation and other crime generating factors. Displacement transpires in two forms, 'benign displacement', which mitigates the severity of the crime once the potential offender has moved into another zone, and 'malign displacement', which involves the severity of the crime increasing once moved into a new zone. Displacement however, is more supportive of, rather than against, the use of defensive landscape architecture (Oc and Tiesdell, 2000, p. 191-192). When critiquing exclusionary practices as a by-product of historical infrastructure, landscape design, and management practices Carmona and Wunderlich (2012) highlighted the bias against varying community demographics, such as ability and age. The percentage of people who struggle with mobility-based issues is growing, due to prolonging life expectancy, making this an increasing landscape design issue that needs to be addressed. The hypocrisy directed towards the young, elderly and ability-based groups, who are excluded from public space through defensive landscape design. Their safety, often being used as the premise for its implementation becoming a hinderance to their ability to use, access and experience landscapes.

They particularly express the effects against skateboarders (particularly younger practitioners) and unhoused individuals, who are heavy spatial users. These groups are considered undesirable due to their contrasting character compared to the majority of spatial users, particularly in the case of skateboarders causing damage to landscape features (Carmona and Wunderlich, 2012, pp. 169-171).

Examples of defensive landscape architecture and peoples growing awareness in Bristol

Historically, Bristol City Council has attempted to prohibit skateboarding, through the introduction of bylaws in 2014, intended to protect peoples "civil liberties" and tackle "antisocial and nuisance behaviours" that adversely affected their communities (Morris 2014). These bylaws were later dropped as they needed further analysis (Caulfield and Wilson, 2019). More recently, there were calls to prohibit skateboarding in specific areas of the city, with split opinions from the general public, some finding them annoying whilst others acknowledging it has their right to inhabit public space (Caulfield and Wilson, 2019). In 2015, it was found that defensive measures targeted towards skateboarders were becoming growingly popular within Bristol. Although discovered to be against the desires of the local opinion, the implementation of measures against skateboarding continued to grow. This seemed to further increase the creative resistance through the construction of Do It Yourself (DIY) skateparks, along with encouragement to find solutions, and invent manoeuvres to be able to skate these defensive features, resulting in skateboarders adapting and embracing the increase in difficulty (Mersom, 2015). The growing trend in the implementation of defensive design (Fig. 6-9) further targets the homeless and skateboarding population, becoming particularly damaging to the increasing homeless population, which currently stands at a ten-year high. The broad opinions and viewpoints from individuals within the



Fig. 6-7 – Features examples of defensive landscape features within the semi-privately owned space of Glass Wharf in Bristol. Pedestrians are free to pass through this space, however, it is privately owned, those classed as undesirable to the image of the area are actively displaced through the use of defensive features. Defensive landscape architecture fixings in Bristol (Images taken by Chris Binnington).

'comments' section of the article highlight the conflicting views of Bristolians, which revolve around fear of crime and understanding of defensive measures discussed, with others showing levels of compassion and sympathy towards the plight of Bristol's homeless communities (Grubb, 2020).

The installation of tree spikes were reported in the Clifton area of Bristol, targeted towards controlling birds inhabiting the area which were defecating on expensive residents' vehicles. Others in the area protested for their removal, even approaching Bristol County Council, who were found to be powerless against the spikes due to land ownership rights (Wood, 2017). This presents evidence of the contrast between private land ownership consumerist ideology against the liberal, further emphasising its need for research and regulation of use.

Considering intangible values and social inclusion in the design of public spaces: worldwide best practices

To design successful inclusive public spaces, we need a holistic approach that considers intangible values. Inclusive design means a "cultural space" that is "accessible, inviting and exciting to use" (CABE, 2008). It means: a place that is affordable; a place that is not even stuffy; a place that citizens can use with dignity and without anxiety; a place

where people are not verbally abused; a place where people can linger if they want to; a place that people can safely get home from (CABE, 2008). These tangible and intangible values must be incorporated in the masterplanning process. For example, the Coin Street Community Builders' work on London's South Bank presents a perfect attempt to establish a sustainable community in all senses, from tangible environmental objectives like sourcing construction materials from sustainable sources to the more intangible and challenging provision of a socially mixed and engaged community with associated local work opportunities (Carmona et al., 2010). This was achieved through a combination of fine-grained masterplanning over time, rather than a single 'big-bang' vision, the provision of affordable housing through a cooperative structure, and cross-subsiding accommodation, light industrial space, public spaces, and community programmes through commercial components like shops and restaurants (Carmona et al., 2010).

At the global level, multiple projects are attempting to integrate skateboarding into the design of urban space to encourage various benefits, such as economic improvement, gender equality, natural surveillance and security, animation of space, social, physical, and mental health. Within the city of Melbourne for example, provision of skateboarding fa-



Fig. 8-9 – Various defensive landscape architecture elements within Castle Park, Bristol (Images taken by Chris Binnington).

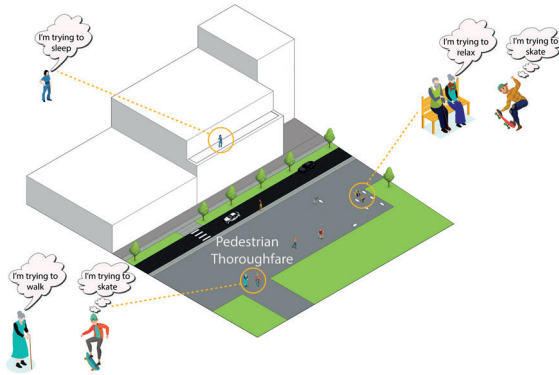
cilities within urban environments is being actively encouraged where judged to be safe, this is being integrated through the use of a policy document (Fig. 10)– that outlines foundations for safe spatial requirements (City of Melbourne, 2017). This is now taking shape in the UK, with plans to transform Hull in the north of England into the UK’s first skate city, following the principle set by Melbourne and other successful projects in Malmo, Sweden (Mersom, 2017). Through consideration of all varying groups requirements, design solutions can be identified and implemented to formulate a balanced space that negates the need for defensive landscape architecture, and instead encourages coexistence of groups within shared public space.

Huttenhoff (2021) outlines a set of guiding principles for homeless integration into the mainstream community to form coexistence between different social groups, together with the enhancements being made along the Guadalupe River Park within San José. Four identified facets were outlined, which revolved primarily around the design and management of the landscape, setting out drivers for engagement between different social groups to encourage understanding and promote inclusion. Exercises which assess housed and unhoused individuals’ priorities within public spaces were concluded, these encompass personal values, identi-

fication of acceptable behaviours and use of public servants and stakeholders to nurture social cohesion and would be able to act as wardens to monitor, maintain and encourage the progress coexistence within the space (Huttenhoff, 2021). This emphasises the importance of understanding the values of different social and community groups when designing public space, providing an example of how open communication between such collectives can overcome the need for the implementation of defensive landscape architecture.

In Europe, Parc Central de Nou Barris in Barcelona was revitalised through the integration of immigrant settlers which produced new businesses and introduced scattered settlements to the area. This integration of the immigrant community was a great success as it brought new life into a declining area, with this came the enhancement of the green space within the landscape which later became an award-winning landscape, it now features the second-largest urban park in Barcelona (Cities of Migration, 2011). In Copenhagen, Folkets Park (the People’s Park) represents an excellent example of socio-environmental justice. Since the late 1970s, this small park has been defined by disputes over distributive justice between economically vulnerable people and city managers (Rutt and Loveless, 2018).

COMMON CHALLENGES



CHALLENGES ADDRESSED

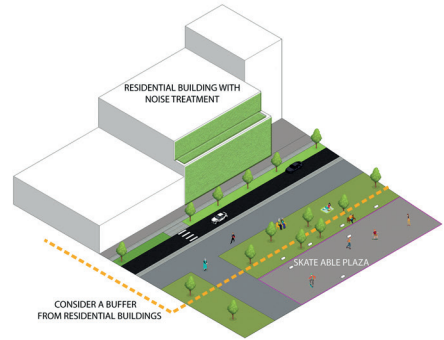


Fig. 10 – Challenges and design solutions to integrating skateboarding into public space (City of Melbourne, 2017, p.19). Vector files designed by macrovector/Freepik.

It was the epicentre of a gang battle, as well as a hotbed of violence and vandalism directed against the homeless, who were by far the most vulnerable users. Kenneth Balfelt, an artist who has focused his work on community inclusion for many years, led the inclusion renewal between 2013-2015 (Fig. 11). During the citizen involvement process, the Kenneth Balfelt Team met with a total of 175 people. Projects gradually took shape as a result of interactions with local stakeholders. In particular, Kenneth Balfelt and his colleagues in collaboration with Spektrum Arkitekter, worked hard to satisfy everyone, with certain decisions that were praised by all, such as reusing the bridge components to create a vivid new playground (Fig. 12, 13) (Rutt and Loveless, 2018).

Other decisions made by the team were more contentious, such as the installation of anti-defensive architectural benches, such as armless benches built for persons seeking sleeping space (Fig. 14), or the new 'zoned' track lighting (Rutt and Loveless, 2018). The city stated that a fully lit park would be more secure, but the team's discussions with park users revealed that for some, darkness provides security. For the homeless, the design team obtained lighting that kept a core path relatively illuminated while leaving some portions of the park in shadow (Rutt and Loveless, 2018) (Fig. 15). In North America, Kingery-Page and Brown (2019) have provided several examples of efforts to create inclusive public spaces that recognise the wicked issue of homelessness.



Fig. 11 – Folkets Park before the renovation (Image taken by Kenneth A. Balfelt).

For example, Oppenheimer Park in Vancouver designed by Space2Place has become a successful project of a public park that care for the homeless rather than attempting to isolate them from the community. The design firm Space2Place aimed to emphasise the park's historical significance while also welcoming the disadvantaged and homeless (Kingery-Page and Brown, 2019). The design team began by constructing a layout that allowed for clear sightlines. Open sightlines, which follow the concept of defensible space, mean that individuals are more likely to notice and report problems, contributing to a stronger sense of safety (Kingery-Page and Brown, 2019). In New Zealand (Auckland) the Griffiths Gardens offer a novel strategy for constructing inner-city public areas.

The gardens, which were first opened in late 2016, are the vision of Activate Auckland and serve as a multi-functional location where local office workers can eat lunch, children can play, and a variety of educational events are held each week. Because the Griffith Gardens are close to the City Mission, significant consideration was paid to ensuring that the space also included the experience of the homeless who would be using it. The gardens include common planting boxes, but the presence of a community fridge characterises the space. Anyone can give or receive food from the fridge, but it is especially useful to the Central Business Districts (CBD) homeless population (Auckland Design Office, 2017).



Figg. 12-13 – New playground at Folkets Park, Copenhagen (Image taken by Simone Cecilie Grytter).



Fig. 14 – Inclusive benches at Folkets Park, Copenhagen (Image taken by Kenneth A. Balfelt).

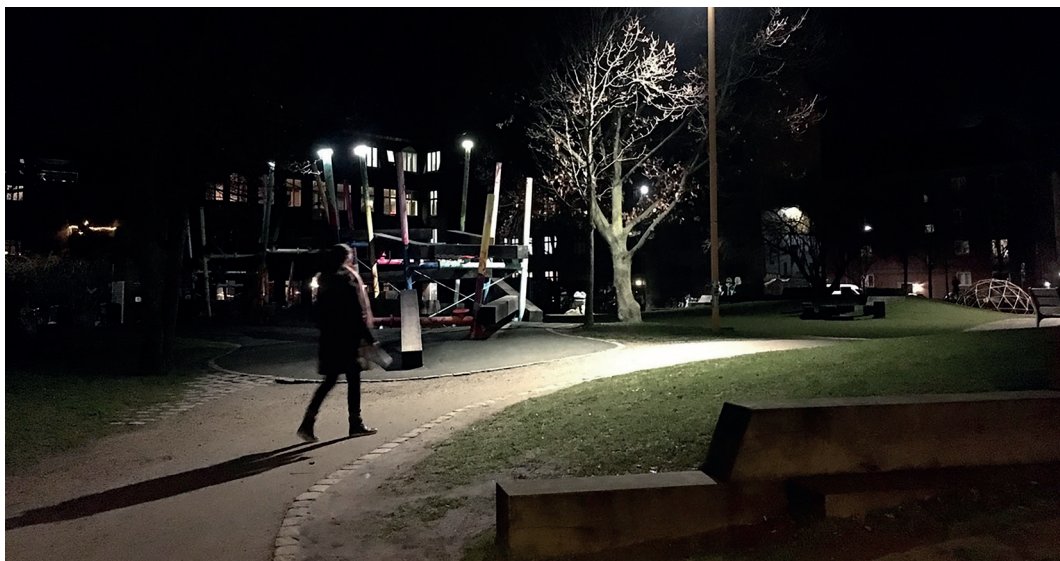


Fig. 15 – After park visitors raised concerns about bright lights making them feel unsafe, Kenneth Balfelt and his colleagues implemented zone lighting as part of the renovation (Tholl, 2017) (Image taken by Kenneth A. Balfelt).

Conclusion

Due to public spaces growth towards gentrification, urban spaces are becoming increasingly restrictive, not just towards the unhoused and skateboarding communities but also to other groups who are deemed to counter the modern image and economical demands of these new urban capitalist spaces. This has resulted in groups such as the elderly, those with disabilities, the young and those who are on the lower economic end of society finding it increasingly challenging to find public spaces to occupy.

On the premise of safety, that these defensive landscape architecture mechanisms are in place to protect individuals from harm, the literature has raised countering arguments for its utilisation in these cases. The use of defensive landscape architecture in some cases can affect the perception of the security of space and it can instead imply that crime occurs within the very area which it is implemented, therefore impeding on an individual's ability to feel secure within the space. In this article, we have illustrated several worldwide examples of urban spaces that have been transformed to make them inclusive. The above examples together form a positive solution to the inclusion of varying social groups into public space and negate the need for the use of defensive landscape architecture (Inclusion Through Access to Public Space | United Nations Educational, Scientific and Cultural Organization, 2017).

Inclusive public space does not have to be a utopian dream in the eyes of landscape architects and urban designers. As this study demonstrates, despite numerous obstacles, it is possible to achieve it to some extent, either temporarily or permanently (Landman, 2020). Therefore, moving from defensive landscape architecture to inclusive design modes necessitates a shift in thinking among people who create and manage the built environment (Carmona et al., 2010).

Acknowledgements

The authors would like to thank Kenneth A. Balfelt for the Folkets Park images.

We would also thank the editor and two anonymous reviewers for their constructive comments and suggestions.

Bibliography

Auckland Design Office 2017, *Public Spaces for Everyone, Including the Homeless*, <<http://admblog.co.nz/public-spaces-for-everyone-including-the-homeless/>> (10/21).

Bicquelet-Lock A. 2020, *A text-mining analysis of public views on the future of High Streets and Town Centres PLANNING FOR POST-COVID CITIES*, London, <<https://www.rtpi.org.uk/media/7388/tm-analysis-of-high-streetsfinal.pdf>> (12/20).

Bogacka E. 2020, *Safety of urban park users: The case of Poznań, Poland*, in Ceccato, V. and Nalla, M. K. (eds) *Crime and Fear in Public Places. Towards Safe, Inclusive and Sustainable Cities*, Routledge, Oxon, pp. 108-124.

Borden I. 2019, *Skateboarding and the City: A Complete History*, Bloomsbury Publishing Plc, London.

CABE 2008, *Inclusion by design: Equality, diversity and the built environment, Land Use Law and Disability*, Commission for Architecture and the Built Environment.

Carmona M. et al. 2010, *Public Places - Urban Spaces: The Dimensions of Urban Design*, Architectural Press, Amsterdam.

Carmona M., Wunderlich F. M. 2012, *Capital Spaces: The multiple complex public spaces of a global city*, Routledge, Oxon.

Carr Matthew M. 2020, *Urban Hostility: CPTED, Hostile Architecture, and the Erasure of Democratic Public Space, University Honors Theses*. Paper 892, Department of Architecture, Portland State University.

Caulfield E., Wilson K. 2019, *Calls for Cenotaph ban after vandalism - but skateboarders defend right to be there*, «Bristol Live», <<https://www.bristolpost.co.uk/news/bristol-news/skateboarders-cenotaphbristol-city-centre-2923547>> (03/21).

Ceccato V. 2020, *The architecture of crime and fear of crime: Research evidence on lighting, CCTV and CPTED features*, in Ceccato, V. and Nalla, M. K. (eds) *Crime and Fear in Public Places. Towards Safe, Inclusive and Sustainable Cities*, Routledge, Oxon, pp. 38-71.

Chellev C. 2019, *Defending suburbia: Exploring the use of defensive urban design outside of the city centre*, «Canadian Journal of Urban Research», vol. 28, n. 1, pp. 19-33. <https://www.researchgate.net/publication/334139026_Defending_Suburbia_Exploring_the_Use_of_Defensive_Urban_Design_Outside_of_the_City_Centre>(12/20).

City of Melbourne 2017, *Skate Melbourne Plan 2017-2027*. City of Melbourne, Melbourne <https://s3.ap-south-east-2.amazonaws.com/hdp.au.prod.app.com-participate.files/6115/7647/5297/Skate_Melbourne_Plan_City_of_Melbourne.pdf> (08/21).

Cities of Migration 2011, *Parc Central de Nou Barris*, <http://citiesofmigration.ca/good_idea/parc-central-de-nou-barris/> (08/21)

Collins D., Shantz B. M. 2009, *Public Spaces, Urban*, «International Encyclopedia of Human Geography», pp. 517-522.

Cozens P. 2018, *Designed features can make cities safer, but getting it wrong can be plain frightening*, <<https://phys.org/news/2018-08-features-citiessafer-wrong-plain.html>> (12/20).

Cozens P., Love T. 2015, *A Review and Current Status of Crime Prevention through Environmental Design (CPTED)*, «Journal of Planning Literature», vol. 30, n. 4, pp. 393-412.

de Fine Licht K.P. 2017, *Hostile urban architecture: A critical discussion of the seemingly offensive art of keeping people away*, «Etikk i Praksis - Nordic Journal of Applied Ethics», vol. 11, pp. 27-44.

Fuchs C. 2018, *Henri Lefebvre's Theory of the Production of Space and the Critical Theory of Communication*, «Communication Theory», vol. 29, n. 2, pp. 129-250.

Gold J. R., Revill G. 2000, *Landscape, defence and the study of conflict*, in Gold, J. R. and Revill, G. (eds) *Landscapes of Defence*, Taylor and Francis, Essex, pp. 1-20.

Gottdiener M. 1993, *A Marx for Our Time: Henri Lefebvre and The Production of Space*, «Sociological Theory», vol. 11, n. 1, pp. 129-134.

Grubb S. 2020, *The 'hostile' anti-homeless architecture you've probably never noticed in Bristol*, «Bristol Live», <<https://www.bristolpost.co.uk/news/bristol-news/gallery/hostile-anti-homelessarchitecture-youve-4673509/>> (03/21).

Honey-Roses J. et al. 2020, *The Impact of COVID-19 on Public Space: A Review of the Emerging Questions*, «Cities & Health».

Howell O. 2005, *The "creative class" and the gentrifying city: Skateboarding in Philadelphia's Love Park*, «Journal of Architectural Education», vol. 59, n. 2, pp. 32-42.

Howell O. 2001, *The Poetics of Security: Skateboarding, Urban Design, and the New Public Space*, pp. 1-23, <https://urbanpolicy.net/wp-content/uploads/2013/02/Howell_2001_Poetics-of-Security_NoPix.pdf> (12/20).

Huttenhoff M. 2021, *Coexistence in Public Space*, «SPUR» <https://www.spur.org/sites/default/files/publications_pdfs/spur_gehl_coexistence_in_public_space.pdf> (11-21).

Katyal N.K. 2002, *Architecture as crime control Article Architecture as Crime Control*, «Yale Law Journal», vol. 111, n. 5, pp. 1039-1139.

Kelling G.L., Wilson J.Q. 1982, *Broken Windows*, «The Atlantic», <<https://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465/>> (03/21).

Kingery-Page K., Brown S. 2019, *Designing for Public Space Inclusive of Unhoused People*, «The Field», <<https://the-field.asla.org/2019/03/07/designing-for-public-space-inclusive-of-unhoused-people/>> (08/21)

Landman K. 2020, *Inclusive public space: rethinking practices of mitigation, adaptation and transformation*, «URBAN DESIGN International», vol. 25, n. 3, pp. 211-214.

Low S., Taplin D., Scheld S. 2005, *Rethinking Urban Parks: Public Space and Cultural Diversity*. University of Texas Press, Austin.

Mandeli K. 2019, *Public space and the challenge of urban transformation in cities of emerging economies: Jeddah case study*, «Cities» vol. 95, 102409.

Mehaffy M.W., Elmlund P., Farrell K. 2019, *Implementing the New Urban Agenda: the central role of public space*, «URBAN DESIGN International», vol. 24, pp. 4-6.

Merry S.E. 1981, *Social Factors in Crime Control*, «Urban Affairs Quarterly», vol. 16, n.4, pp. 397-422.

Mersom D. 2015, *Bristol skateboarders take on "skates-topper" defensive architecture* | Cities, «The Guardian», <<https://www.theguardian.com/cities/2015/oct/07/bristol-skateboarders-skatestoppersdefensive-architecture>> (12/20).

Mersom D. 2017, *How Hull plans to become the UK's first skate city*, «Kingpin Magazine», <<https://kingpinmag.com/features/articles/skate-hull-hull-plans-become-uks-first-skate-city.html>> (08/21)

- Minton A. 2006, *The privatisation of public space*, RICS, London, <https://docs.wixstatic.com/ugd/e87dab_c893a52a18624acdb94472869d942a09.pdf> (03/21).
- Morris S. 2014, *Bristol plans ban for treeclimbing, skateboarding and "annoying" football | Bristol*, «The Guardian», <<https://www.theguardian.com/uk-news/2014/mar/18/bristol-plans-ban-tree-climbingskateboarding-parks>> (03/21).
- Newman O. 1973, *Defensible space: people and design in the violent city*, The Architectural Press Ltd, London.
- Oc T., Tiesdell S. 2000, *Urban Design Approaches to Safer City Centres: The Fortress, The Panoptic, The Regulatory and The Animated*, in Gold, J. R. and Revill, G. (ed.) *Landscapes of Defense*, Pearson Education Limited, Essex, pp. 188–208.
- Peršak N., Di Ronco A. 2018, *Urban space and the social control of incivilities: perceptions of space influencing the regulation of anti-social behaviour*, «Crime, Law and Social Change», vol. 69, n. 3, pp. 329–347.
- Ratnayake R. 2013, *Fear of Crime in Urban Settings: Influence of Environmental Features, Presence of People and Social Variables*, «The Planning Research Journal», vol. 03, n. 2.
- Reynald D.M. 2015, *Environmental Design and Crime Events*, «Journal of Contemporary Criminal Justice», vol. 31, n. 1, pp. 71–89.
- Rosenberger R. 2017, *Callous Objects: Designs against the Homeless*, University of Minnesota Press, Minneapolis.
- Rosenberger R. 2020, *On hostile design: Theoretical and empirical prospects*, «Urban Studies», vol. 57, n. 4, pp. 883–893.
- Rutt R., Loveless S. 2018, *Whose Park? The forty-year fight for Folkets Park under Copenhagen's evolving urban managerialism*, «People, Place and Policy Online», vol. 12, n. 2, pp. 99–117.
- Schneider R. H., Kitchen T. 2017, *Planning for Crime Prevention: A Transatlantic Perspective*, Routledge, Oxon.
- Shenker J. 2017, *Revealed: the insidious creep of pseudo-public space in London*, «The Guardian», <<https://www.theguardian.com/cities/2017/jul/24/revealed-pseudo-public-space-pops-londoninvestigation-map>> (03/21).
- Sepe M. 2021, *Covid-19 pandemic and public spaces: improving quality and flexibility for healthier places*, «URBAN DESIGN INTERNATIONAL», vol. 26, n. 2, pp. 159–173.
- Smith N., Walters P. 2018, *Desire lines and defensive architecture in modern urban environments*, «Urban Studies», vol. 55, n.13, pp. 2980–2995.
- Tholl S. 2017, *In Copenhagen, a "People's Park" Design Includes Dark Corners*, <<https://nextcity.org/features/view/copenhagen-park-design-includes-dark-corners>> (10/21).
- Thorpe A., Gamman L. 2013, *Walking with Park: Exploring the "reframing" and integration of CPTED principles in neighbourhood regeneration in Seoul, South Korea*, «Crime Prevention and Community Safety», vol. 15, pp. 207–222.
- Unesco.org. 2017, *Inclusion Through Access to Public Space*, «United Nations Educational, Scientific and Cultural Organization» <<http://www.unesco.org/new/en/social-and-human-sciences/themes/urban-development/migrants-inclusion-in-cities/good-practices/inclusion-through-access-to-public-space/>> (08/21)
- Wakefield A. 2003, *Selling security: The private policing of public space*, Willan Publishing, London.
- Williams K. S., Johnstone C., Goodwin M. 2000, *CCTV surveillance in urban Britain: Beyond the rhetoric of crime prevention*, in Gold, J. R. and Revill, G. (ed.), *Landscapes of Defence*, Taylor and Francis, Essex, pp. 168–187.
- Wood J. 2017, *People can't get over the fact anti-bird spikes have been put on a TREE near Somerset*, «Somerset Live», <<https://www.somersetlive.co.uk/news/local-news/people-cant-overfact-anti-964645>> (03/21)