Infrastructures for disorder. Applying Sennett's notion of disorder to the public space of social housing neighbourhoods.

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Abstract

This paper contributes to the debate on whether introducing too much order into urban regeneration processes hinders social life and interaction in the public space. It engages with Sennett's call for introducing certain kinds of disorder into city life. While this debate has been addressed in urban literature, many urban regeneration processes in social housing neighbourhoods have attempted to remove all kinds of disorder from the city, thus removing urban life from the streets. This paper proposes 'infrastructures for disorder': strategies for intervention that create conditions for the unplanned use of the public realm in social housing estates.

Introduction

Urban renewal and regeneration processes normally attempt to remove disorder from the city to tackle urban decline. As Campkin (2013: 1) argues at the beginning of his book *Remaking London*, this has prompted a debate in the field of urban studies as to whether eliminating disorder from the urban environment removes the soul of the city and creates an alienating urban milieu. Twentieth century cities have witnessed how processes of urban renewal have sought to impose different forms of order—spatial, social, functional—in the urban environment.

In London, the socio-political situation after World War II (WWII), the housing shortage and unhealthy living conditions led to a major slum clearance process in favour of the construction of modernist housing estates. The drawbacks of this urban renewal process were soon identified by Willmott and Young ([1957] 1972), who denounced the loss of communal bonds as a result of relocating families from inner-city slums to new housing estates. Willmott and Young initiated a debate on whether relocating poor families in modernist housing estates is beneficial to social relationships.

Among the diverse reactions against modernist urban developments and the process of relocating poor families in the new housing estates, this paper finds Sennett's contribution particularly interesting. He states that "certain kinds of disorder need to be increased in city life" (Sennett, [1970] 2008: xxiii), so people become more tolerant towards difference and are better prepared to face unexpected situations. He criticises post-war modernist urban developments for avoiding any kind of disorder and for seeking to achieve an ideal of communal life free of conflict. This brings about the aforementioned debate on whether the elimination of disorder from the city by modernist architects and planners had the effect of removing the soul of the city (Campkin, 2013:1).

Other critics of the construction of modernist housing estates, such as Newman (1972) in the United States and later Coleman ([1985] 1990) in the UK, argue that there is a direct relationship between modernist urban design and social problems such as crime and insecurity. According to Newman (1972), certain aspects of modernist urban design lead to crime. He proposes corrective urban design measures based on his principles of 'territoriality', 'passive surveillance' and 'image and milieu' to tackle social problems and prevent crime. His position differs from that of Sennett, while Sennett sees the encounter with

strangers as something necessary for city life, Newman considers the stranger to be a threatening agent to be identified (see Minton, 2009: 142; Campkin, 2013: 88.). Urban regeneration processes inspired by Newman's *Defensible Space* have attempted to introduce order into urban areas experiencing urban decline. The subsequent interventions in the housing estates have aimed to remove any 'inappropriate' use of the public realm, which has restricted its use and has transformed the open spaces of these neighbourhoods into places where citizens are not encouraged to develop their ordinary life there.

As Minton (2009: 142) suggests, Newman's defensible space theory has had a much stronger influence on policy than Sennett's call for unregulated spaces for improvisation. Sennett (2009, 2011) recently argued that the situation of these neighbourhoods has worsened in many cases, since "as they have aged, [they] have become even more places where the poor are gated-in" (Sennett, 2011: 327). This makes it necessary to reconsider how to intervene in the public space of these neighbourhoods, using Sennett's notion of urban disorder as a starting point.

The paper aims to propose alternatives to how intervention in the public space of social housing neighbourhoods has been approached. It builds on Sennett's approach and aims to apply it to the current situation of the urban areas that he criticised over four decades ago and where the situation has not improved since they remain places with no public life. It proposes urban design strategies for interventions in the public space of social housing neighbourhoods. These proposals aim to address the question "how to design for disorder?", to provide a starting point for policy-makers, urban designers, professionals, local organizations, and other stakeholders.

This paper focuses on the public space of social housing neighbourhoods. While it acknowledges that there are other issues—property, structural, socio-economic—that influence social life in these neighbourhoods, it particularly emphasises how the design of the public realm can contribute to encouraging social relationships. This does not mean diminishing the importance of the socio-cultural context of neighbourhoods, but studying how the process of redesigning the public space can influence the way people relate to each other.

To do so, the paper first provides a critical review of social housing regeneration in London, focusing on attempts by authorities to eradicate disorder from the public space. Secondly, it proposes Sennett's ideas as an alternative approach to interventions in the public space of social housing neighbourhoods. Thirdly, in its urban design strategies, the paper uses terms commonly employed by architects and urban designers, such as 'surface', 'section' and 'process', which help take Sennett's notion of urban disorder from theory to practice.

A century designing order: from slum clearance to defensible neighbourhoods

Poverty, crime, antisocial behaviour, fears, social or racial tension, threat of insurrection have, at certain points in time, influenced authorities to carry out processes of urban renewal or regeneration in deprived neighbourhoods. London is a clear example of how social tensions have influenced urban contexts where urban renewal or regeneration processes aimed to eliminate disorder in response to such situations. There are two points in the twentieth century when social tensions have coincided with subsequent operations of urban renewal. The first was at the turn of the twentieth century when the poor living conditions in the slums brought about a significant change in London's urban fabric and socio-spatial structure. This took place from the beginning of the twentieth century until the post-war period. The second

change began at the end of the 1970s as a response to the social problems that London's deprived neighbourhoods were experiencing. This has influenced diverse processes of urban renewal and regeneration from the 1980s to the present day.

The slum clearance process was born as a response to the poor living conditions of families in working-class districts in cities in the late nineteenth century. Mearns's publication *The Bitter Cry of Outcast London* in 1883 denounced the dreadful situation of working-class families in these districts and raised the alarm on the need for intervention. This caused authorities great concern regarding the different forms of disorder found in the slums—criminality, immorality, threat of insurrection (Hall, [1988] 1994: 16-26)—, crying out for a solution.

If Mearns's publication was the one which denounced the poor living conditions of the slums, Booth's survey and poverty maps were the first studies on socio-spatial distribution of wealth. The cartographic representation of this class division geographically marked the most deprived areas, which made Booth maps a primary tool in the development of early slum clearance operations at the turn of the century.

The construction of public housing to replace the slums started at the beginning of the twentieth century and increased even more after WWII. In post-war London, the slum clearance process followed Abercrombie and Forshaw's plans (County of London Plan, 1943, and Greater London Plan, 1944), whose main aim was to reduce the density of the inner city by moving population to the outer suburbs. The bombings in WWII caused a serious housing shortage which made it necessary to build a large amount of dwellings in a short period of time.

Modern architecture played a major role in this operation seeking to remove disorder from the inner city and impose order in the form of a sub-division of functions, Cartesian geometry and social control (Psarra, 2012: vii). Modernist urban design (figure 1), which combined tower blocks and low-rise houses, was a feature of the construction of the welfare state, so much so that as an architectural style it has come to symbolize the birth and death of the welfare state (Cordell, 2010). These buildings aimed to build an egalitarian society and have become the symbols of poverty and urban inequality.

Figure 1: Loughborough Estate, 1958. Source: London Metropolitan Archives. Post-war housing estate built by London County Council on a bombed site in the 1950s. The development, which combines high-rise and low-rise, is clearly influenced by Le Corbusier's *Unitè d'habitation*.

The second moment in recent history was when social tensions in post-war social housing estates influenced the development of urban renewal processes that aimed to eliminate disorder. The concentration of poverty in social housing neighbourhoods contributed to the poor reputation of these urban areas and to spatial class segregation. In addition to this, by the 1970s a high proportion of the population of many of these neighbourhoods was made up of migrant population from diverse cultural backgrounds. This racial and socio-economic spatial division prompted the appearance of inner-city revolts such as the Brixton Riots in the early 1980s (Scarman, 1981). Some of the social problems of British housing estates were blamed on the urban design and architectural style of these neighbourhoods as leading to criminality and anti-social behaviour.

Various urban studies have proposed designing urban configurations to avoid anti-social behaviour and prevent crime (Coleman, [1985] 1990; Newman, 1972). Newman's corrective measures of 'territoriality', 'natural surveillance' and 'image and milieu' mentioned earlier

consist in creating a hierarchy of spaces from public to private spaces, subdividing the open space with fences or other devices to prevent strangers from entering common spaces of the neighbourhood, establishing methods to easily identify strangers and undesirables, and transforming modern architecture into an architectural style that does not contribute to the stigmatisation of the area (Newman, 1972). Newman's ideas were taken up by Coleman ([1985] 1990), who proposed some corrective interventions such as eliminating the elevated pathways or creating enclosures by adding new buildings to provide surveillance for the street. Coleman's corrective measures were implemented in different council estates, given that Thatcher's Conservative government promoted the application of these measures to some housing estates in the UK (Lowenfeld, 2008: 169).

Newman's proposal has had a strong influence on policy-making and on the interventions that have taken place in housing estates since their construction: many of these interventions have prioritised security measures such as fencing gardens (figure 2), improving surveillance, and providing a safer access to dwellings. Campkin (2013) explains the influence that 'defensible space' has had on the recent approach to council estate regeneration and calls for "radical alternatives, and a more democratic and incremental approach, responsive to residents and the existing built environment, and less vulnerable to short-term ideological and economic shifts" (Campkin, 2013: 104). Minton (2009: 142) has also highlighted the impact that 'defensible space' has had on policy making, while other approaches—such as those of Jacobs ([1961] 1993) and Sennett ([1971] 2008)—, which see strangers as positive rather than as intruders, have had a more limited effect on interventions in neighbourhoods.

Figure 2: Loughborough Estate, Brixton, London, 2009: Fenced gardens surrounding tower-blocks. Between 1992 and 1994 a major scheme was implemented, which consisted in fencing gardens, creating more car-park

spaces and closing the ground floor of the tower-blocks to create secured entrances and concierge spaces. Clear influences from Newman's principles of surveillance and territoriality can be found in this scheme[1].

Other responses to the need for renewal of social housing neighbourhoods have been the partial or total demolition of neighbourhoods to replace them with a vernacular architectural style seen as more beneficial to sociability (figures 3a and 3b). As Hall ([1988] 1994) explains, at the beginning of the 1980s the situation that had taken place a century before when Mearns and Booth identified the problems of the slums was being repeated: concentration of poverty and crime in housing estates was leading to the idea that demolishing and redeveloping these deprived urban areas could be a solution to their social problems. As happened before, this kind of intervention can lead to the same social alienation that Willmott and Young identified in 1957. Furthermore, the historic city cannot be reproduced by imitating its architecture (Sennett, 2008a, n.p.), since the city is the result of a process and a succession of events and constructions over time. The imitation of traditional architecture is another way of installing order. It is an imposed urban renewal process that replaces one architectural style by another, aiming for a stronger social control. The influence of the built environment on sociability goes beyond architectural styles, it is influenced by many other factors that include the process of transformation and the involvement of the residents on it.

Figure 3a: Demolition of Holly Street Estate in Hackney, London, photograph by sarflondondunc (flickr) CC BY-NC-ND 2.0. Figure 3b: Holly Street Estate after redevelopment, photograph by the author, 2012. The process, which lasted for 19 years, consisted of a phased demolition of a large council estate and the construction of new buildings following a traditional street pattern. Holly Street creates historicist revivals of a British city of the past and tries to recreate urban spaces like the Renaissance squares to be found in Bloomsbury.

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[1] Conclusions from: London Borough of Lambeth. Planning Application database [online]. London: London Borough of Lambeth, n.d. [Quoted on August 5, 2013] Available at the World Wide Web: <http://planning.lambeth.gov.uk/online-applications/>.

These transformations in some council estates prioritise crime prevention and the removal of undesirable activities from the public space. The main objective of some regeneration processes appears to be surveillance but they fail to address how people would begin to interact and how improvisation might come about in the public realm.

Sennett's notion of disorder as an approach to social housing neighbourhoods

Richard Sennett's book *The Uses of Disorder. Personal Identity and City Life*, published in 1970, came out in a context of distrust towards modernist urban design and the slum clearance process that was taking place in Europe and in the United States. Since the end of the 1950s, certain urban sociologists identified negative social effects in the construction of social housing neighbourhoods, such as the loss of communal bonds (Willmott and Young, [1957], 1972). Critics maintained that the replacement of traditional urban districts with new housing estates was destroying social relationships and city life, and advocated the street life characteristic of diverse, dense, historic urban settings (Jacobs, [1961] 1993).

In addition to this context of reaction against modernist urban design and slum clearance, Sennett's book is also influenced by the milieu and the socio-political situation of the late 1960s, as he admits in the preface of the 2008 edition of the book (Sennett, [1970] 2008: xi-xiv). The way this situation influences Sennett is probably what differentiates his position from the other reactions to modernist urban design and what makes it inspiring for rethinking the public spaces of the areas under study. Sennett wrote this book when he was twenty-five, in the context of the Protests of 1968. The book is influenced by the New Left of the 1960s, Neo-Marxism, and the counterculture against the social norms of the 1950s. This made

Sennett focus on personal identity and how city life influences it. In this context, he sees urban experience and its uncertainties as necessary to develop an adult identity (Sennett, [1970] 2008: xiii) that prepares people to face unexpected situations and encounter difference.

He calls for a need to increase "certain kinds of disorder" (Sennett, [1970] 2008: xxiii.) in city life so that people learn how to tolerate difference, see encounters with strangers as natural and accept uncertainty and unknown situations. He argues that there is too much order in modernist urban design and that all the functions and uses of the public space are predetermined, which does not allow spontaneous activities to take place. In contrast to the over-determination of functions, the urban disorder that he proposes is that which leads to the unplanned use of the public realm and encourages social interaction.

He criticises modernist planning such as that of the inner-city housing estates under study for its brutality and its functional simplicity (Sennett, [1970] 2008: 83). He identifies over-determination as one of the main problems of modernist planning: "disorder is *better* than dead, predetermined planning, which restricts effective social exploration" (Sennett, [1970] 2008: 142). In his recent works he insists that this problem persists today since public institutions and private developers still prefer predetermined planning given their fear of unknown situations (Sennett, 2008a, n.p.). In contrast, he suggests that planners should be concerned with creating "fields of unpredictable interaction" (Sennett, [1970] 2008: 98).

This challenging task that Sennett suggests for planners is precisely what this paper aims to bring to the design of the public spaces of social housing neighbourhoods: public spaces that are not regulated, where improvisation can happen, where diverse activities can emerge

simultaneously, a space constantly used where people do not feel threatened by strangers or unknown situations (see Sendra, 2015).

Later works by Sennett are more strongly linked to urban design as they illustrate how these kinds of disorder take place when there are certain relationships between the visual and the social (Sennett, [1990] 1992), and when public space is not completely designed and planned, but it is left "incomplete" (Sennett, 2007; 2008a). He introduces concepts that derive from the early idea of disorder, which serve to further clarify how he believes his ideas could be applied to interventions in the contemporary public space: firstly, he proposes creating spaces that encourage discovery and provocation by creating non-linear narratives in the public space—the succession of events, activities and visual stimulations in the built environment—and by mutations or changes in the modern urban grid that make it more humane and expressive (Sennett, [1990] 1992). Secondly, he proposes turning public spaces into open systems—which are in constant evolution—and exploring construction techniques to build 'incomplete' public spaces, which can be constantly upgraded (Sennett, 2007, 2008a).

Following the work of Jacobs and Sennett, academics such as Amin (2008, 2010) have highlighted the virtues of these non-regulated spaces: "open, crowded, diverse, incomplete, improvised, and disorderly or lightly regulated" (Amin, 2008: 8). These types of public spaces can be found in certain streets, squares, markets and they can contribute to the "civic appreciation of a shared urban space" (Amin, 2008: 8) and to the tolerance towards encounters with strangers. As mentioned above, authors such as Minton (2009) and Campkin (2013) also call for urban practices which are an alternative to regeneration processes based on imposing social order.

Despite these arguments, which support the benefits of conceiving non-regulated places, many of the interventions that have taken place in social housing neighbourhoods have focused on restricting the use of the public realm through subdivisions of the open spaces with fences, and introducing urban elements and new arrangement of the spaces that make the presence of strangers something threatening. These interventions result in a lack of urban experience and of the truly social life that Sennett talks about, since the public realm is restricted and the gardens are intended just for the use of residents, trying to avoid any possible conflict.

This paper takes Sennett's notion of disorder as an alternative approach to the interventions that have taken place in the neighbourhoods in the last decades. It takes it as a point of departure, not as a "planning manual", as Sennett [1970] 2008: xiii) warns. It looks at the potential that this provocative concept of 'disorder' can offer for rethinking the public spaces of post-war social housing neighbourhoods, which are the places where Sennett proposed to recover the 'contact points' (Sennett, [1970] 2008: 56) that modernist developments had removed.

However, in using this approach, it must be acknowledged that the situations of these urban neighbourhoods have changed since they were built and since Sennett wrote *The Uses of Disorder*. As Sennett (2009) points out in his response to Sampson (2009), the situation has worsened since there are more guarded neighbourhoods, but at the same time, the arrival of immigrants has added dynamism to the city. Some of Sennett's later work explicitly addresses the current situation of social housing in London. He acknowledges both the physical transformations and the changes in demography that these areas have undergone until reaching the current situation. On the one hand, he notes that "social housing estates (…), as

they have aged, have become places where the poor are gated-in, sealed off from daily contact with other Londoners" (Sennett, 2011: 327). On the other hand, Sennett also explains that because local authorities in London during the post-war period made the effort to build social housing estates throughout different parts of the cities, London is full of "local membranes" (Sennett, 2011: 327). This indicates a potential for recovery, since these neighbourhoods can be transformed into places for interaction between different social and cultural groups. It must also be acknowledged that some of these neighbourhoods have reached a very disadvantaged situation and proposing disorder in them can be confusing, since disorder is also seen as perception of decay, which is one of the problems of these neighbourhoods—see Sennett's (2009) response to Sampson (2009). In these cases, interventions need to redirect disorder into encouraging the emergence of activities and collective initiatives in the public space, which can create better places for sociability.

Infrastructures for disorder

The strategies that this paper proposes for addressing the problem of public space in social housing neighbourhoods are defined as 'infrastructures for disorder': urban design interventions in the public space of social housing neighbourhoods that *create conditions* for the unplanned use of the public realm and encourage social interaction.

The use of the term infrastructure here describes interventions that attempt to be a point of departure for a continuous and open process. They are initial interventions for reactivating public spaces and improving sociability. They are a sum of strategies that work together connected—not as isolated elements or as a whole intervention—, allowing new additions and changes responding to diverse needs, situations, and forms of social gathering and interaction.

The strategies proposed here are 'pieces of infrastructure' that make 'disorder' possible, understanding disorder as the unplanned and the acceptance of uncertainty.

The infrastructures for disorder aims to encourage actions from the bottom-up. It has been argued that *guerrilla* actions or do-it-yourself (DIY) urbanism are 'innovative, sophisticated, and low-cost solutions to difficult or unaddressed urban problems' (Finn, 2014: 381-382). However, certain urban areas such as some housing estates may not have an appropriate context where this kind of bottom-up urban actions take place and certain initial interventions might be necessary to motivate them. This is the role of the infrastructures for disorder, to encourage stronger relationships between people and their surrounding environment so they can have a more active role in its transformation.

The infrastructures for disorder address Sennett's early notion of disorder and contribute to his recent proposals on building the public space as an open system (Sennett, 2007, 2008). The public space is understood as an accumulation of elements and events over time, as a process where neighbours and their collective actions can modulate the surrounding urban environment. This can create a resilient urban space which can be adapted to changing situations and a public space which encourages spontaneity and informality, promoting the emergence of the unplanned. These spontaneous situations and activities can eventually lead to different forms of sociability, motivate social interaction and negotiations, and create an atmosphere of tolerance towards difference and the unknown.

Designing disorder

Having defined the concept of infrastructure for disorder, this section addresses the question: How can the public space of these neighbourhoods be re-designed to encourage public life and sociability in their streets?

For addressing this question, this paper will use common terms from architectural and urban design practice: surface, section and process. Each of them addresses Sennett's (2008a) suggestion for architects to build public spaces that are left 'incomplete'—which are open to indeterminate transformations—from different perspectives. The strategies on the surface will explore the materiality of the public space and its influence on the way people perceive the environment. The set of strategies in the section will explore how interventions in the three dimensions of space can create a transition of urban experiences, addressing Sennett's proposal of designing the "experience of passage" (Sennett, 2007: 294). Finally, the epigraph will present a set of strategies which is embedded in the other two and has also been implicit when explaining the concept of infrastructure: process. This set of strategies proposes a public space defined by interventions in increments as well as events over time, where the transformation of the public space is defined by the way the neighbours use it, rather than by imposed fixed functions.

Surface

This set of strategies proposes new relationships between the physical environment, the rhythms, the activities and the people in the urban surface. They explore how to create conditions that provoke the emergence of the unplanned by increasing the capacity of the urban surface—its materiality, its characteristics, its infrastructure, its possibilities—to encourage activities and social relationships (Wall, 1999).

The surface strategies propose a more intense interaction between the urban materiality and people, a more active role of the physical environment as well as changing and mutable conditions. Sennett's reflection on the relationship between "the I and the It" (Sennett, [1990] 1992: 205) supports the idea that the urban surface can induce certain behaviour towards the environment.

In order to achieve this active, enabling and changing condition of the physical environment, the surface strategies propose intervening on two scales:

∗ Surface as connective materiality*:* interventions on the urban fabric that work on the relationship between the neighbourhood and the surrounding areas, creating conditions for urban life.

∗ Surface as enabling materiality: to support the emergence of activities and facilitate sociability.

Surface as connective materiality

As Sennett (2011: 327) highlights, post-war housing estates in London are distributed through many parts of the city, which gives them strong potential for transformation into places of social and cultural interaction. However, although in many cases they are not far from the nearest town centre, some urban barriers and certain aspects of their urban design cause these neighbourhoods to be isolated. In order to tackle this urban segregation, Sennett (2011) proposes intervening in the margins of adjacent but unconnected urban areas to create intermediate spaces for social and cultural exchange. He proposes turning closed boundaries into permeable borders, which is something that the surface strategies attempt to make a reality.

To achieve this, the surface strategy should identify streets or urban spaces with the potential for becoming places for connection, association and exchange. A better definition of the continuity of the street and turning the space between buildings into meaningful public spaces can contribute to turning the urban surface into a place to stay in and spend time, not just for passing through. To achieve this, operations should generate a continuous surface that, at the same time, provides points of surprise (Borja and Muxí, 2003: 63). This can be done by enhancing existing connections and introducing alterations on the urban surface that make it more expressive (Sennett ([1990] 1992), providing a continuous and diverse experience when going from one place to another or entering the neighbourhood. This would make the path towards the neighbourhood more attractive and inviting.

Connecting does not just mean opening a street that physically links two points of the city. It means creating a succession of events that encourage people to go and stay in the area. Thus, the surface is not just a mere intervention in the urban fabric, but should also create conditions for the emergence of activities in the public space, and for improving the functional capacity of the surface. This leads to the other surface strategy needed to make these connections effective: *surface as enabling materiality.*

Surface as enabling materiality

This strategy aims to turn the connected urban surface into a public space where people stay and develop activities. In response to the restrictive and uninviting public realm of housing estates, it proposes the provision of an infrastructure in the form of an equipped platform that increases the capacity of the urban surface for supporting activities (Wall, 1999).

Constructing this flexible urban surface which is capable of adapting to changing demands implies not focusing so much on the design of fixed objects, but on the design of interactive surfaces, skins, membranes, paving systems, soil, and other sorts of surfaces. How can these surfaces be constructed as a process? How can they bring the positive uses of disorder advocated by Sennett?

Building on the idea of introducing mutations into the urban grid (Sennett, [1990] 1992), the strategies can think up new ways of arranging things on the surface. This requires analyses and diagnoses of the existing potentials of the urban surface. Subsequently, urban designers can propose mutations, distortions and alterations in the urban surface to enhance these potentials and produce new situations.

These operations involve manipulation of the urban surface, which transforms the non-expressive space between buildings into an engaging public realm. This attractive public space can be achieved through interventions in its materiality: providing different textures such as wood, metal, rubber, mixed hard-soft surfaces can lead people to stop at different points, to engage with the urban surface, or simply to appreciate the environment. Sennett (2008b: 232), describing Van Eyck's parks in post-war Amsterdam, explains how tactile variations on the surface can provide opportunities for surprise (figures 4a and 4b).

Figure 4a: Amsterdam-Nieuwwest. Buskenblasertraat, 1955. Source: Architektur für kinder. Figure 4b: Intervention by Aldo Van Eyck. Buskenblasertraat, 1955. Source: Architektur für kinder. Sennett uses the example of Aldo Van Eyck's small parks in post-war Amsterdam, which equipped empty spaces of the city with playgrounds without boundaries, and with changes in materiality—with different textures such as sand, grass, water, and rocks to climb (Sennett 2008b: 288-289)—inviting children to explore.

The public space as an unfinished process can be achieved by building the urban surface in modules, which permits addition, subtraction, and change of different elements. Sennett suggests building a public space out of "a series of cores" that "permit(s) "hinge" addition" (Sennett, 2008a: n.p). This modulation can be literal: proposing a construction system with a modular logic, designing the urban elements that compose it as elements that can be easily attached, detached, and altered according to changing demands. However, at times, this modulation may not be as literal and will not require a very sophisticated construction system, given that there is a modular and open logic behind it.

This modular system can provide access points to diverse infrastructures that allow people to develop activities in the public realm. These pieces of infrastructure can be water, electricity, fibre optics or any other format that permits people to plug into the urban surface to develop a particular initiative and benefit from this public infrastructure. These infrastructures may also include the foundations on the surface for plugging in other structures that give shelter or support potential activities.

One of the main challenges of building the public space as a flexible system is defining the initial interventions that will stimulate the emergence of activities: what form does the beginning of this process of creating an alternative urban surface take? The answer to this question can be starting the construction of the surface in strategic points, with localised changes on the materiality and concentrations of infrastructure. This can create spaces within the urban surface that have a wide range of services and more possibilities for activities to take place. These initial points—where there are more possibilities for the emergence of the unplanned—can be the beginning of the process and can later reproduce themselves throughout the surface.

Section

Proposing interventions just on the urban surface can lead to missing relationships that take place in the third dimension of space, such as the experience of the streets or the human scale of the built environment. The strategies on the section can complement the strategies on the surface in this way. They can help to understand and propose new relationships between the horizontal plane and the vertical axis, which actually describes many characteristics of the built environment.

Graham and Hewitt state that critical urbanism has concentrated on the horizontal plane while it has given less attention to the vertical axis. They call for a deeper study of the "vertical qualities of contemporary processes of urbanization" (Graham and Hewitt, 2013: 73). They identify how processes of segregation not only take place on the horizontal level, but also on the vertical axis: placing houses in vertical towers far from the disorderly public space.

Proposing strategies on the section implies designing the experience of people in the streets, which implies looking at the construction of the urban landscape both from its physical and cultural dimension. For intervention in the physical and cultural urban landscape—continuing with the analogy to the section as an architectural drawing—, this paper proposes urban design interventions to induce changes in the:

*   Longitudinal section, which seek to create a narrative through the different urban spaces.
*   Cross-section, which propose actions that create an atmosphere that encourage social relationships on the public space.

Longitudinal section

Proposing interventions on the longitudinal section seeks to address Sennett's proposal of designing 'passage territories' (Sennett, 2007: 294). Sennett ([1990] 1992) proposes designing 'narrative spaces' (Sennett, 2007: 296)—in opposition to linear spaces—, spaces which disrupt the linear sequence of the city and can provoke surprise and provide with places for indeterminate uses. He claims that architects and planners have problems designing "the experience of passing through different territories" (Sennett, 2007: 294).

Some social housing estates lack these narrative spaces. Those influenced by Newman's concept of 'territoriality' follow a linear sequence from private to public spaces, which optimises surveillance and makes it easier to identify strangers within a neighbourhood. At first glance, what Newman proposes may well seem quite logical. However, the clear demarcations that he proposes leave no room for improvisation. Furthermore, they promote the creation of enclosed spaces, which do not permit access to intruders and isolate the neighbourhoods from urban life.

In contrast with this linear sequence, the strategies on the longitudinal section aim to design a succession of narrative scenes. To do so, Sennett (2008a, 2011) suggests building porous 'borders' rather than strong 'walls'. In order to transform the neighbourhood into a porous border, the strategies will attempt to include the neighbourhood in an uninterrupted urban section. They will avoid the creation of hierarchies that isolate these urban spaces. Hindrances to the connectivity of the neighbourhood such as the construction of walls or urban barriers will be avoided or eliminated. Nevertheless, as stated when explaining the surface as connective materiality, continuity does not necessarily mean homogeneity and each urban space should have its own character.

Seeking differentiation in the longitudinal section means creating the places "full of time" that Sennett ([1990] 1992) describes. These spaces are where activities can start to emerge, where the beginning of the process can take place. To create these spaces in the longitudinal section, the interventions can consist in the addition of structures to the existing buildings, plugging them into the urban surface or the façade of the buildings, adding new vegetation and new textures to the section. Thus, hierarchy is provided by the diversity of the urban landscape and not by a fixed hierarchy of walls. Through the assembly of new structures and urban elements, the strategies on the longitudinal section will, firstly, construct porous borders that constitute spaces for interaction between the different spaces of the city. Secondly, they will provide diversity to the townscape. And finally, they will create spaces for discovery, for the emergence of unexpected activities that contribute to the positive perception of disorder that these strategies are aiming for.

Cross-section

The cross-section aims to produce detailed proposals for each of the urban experiences of the longitudinal section. The interventions will modify the physical environment taking into consideration how the resulting street space influences people's perceptions of strangers.

Gehl identifies how some public housing has "a diffuse interior structure and imprecise boundaries" and states that this "undefined physical structure is a tangible obstacle to life between buildings" (Gehl, [1971] 2011: 58). In post-war housing estates, the disappearance of a defined street has hindered life between buildings. However, the answer to this might not be to create more defined boundaries, but rather to create more permeable borders, as suggested

by Sennett, which allow social interaction and exchange. The creation of these spaces on the cross-section can contribute to overcoming the fear of strangers.

The fear of public space has led people, communities, and institutions to establish strong street limits dividing private and public, in an attempt to make people safer inside their homes. This division between the private and the public is one of the factors that hinder the use of the public space. To counter this effect, interventions should work on providing spaces of transition between private and public. The challenging question here is how this limit between private and public should be defined. How can street space be successfully delimited without provoking isolation? As explained in the previous point, these limits should be permeable borders (Sennett, 2007) that allow exchange and interaction between public and private. The structures and interventions that create permeable borders should seek porous limits with different degrees of privacy, permitting hearing, visibility and enjoyment of the gardens or open spaces. They should also host activities with a direct interaction with the public space, to provide it with the liveliness it is currently lacking.

In order to provide an urban landscape that encourages social contact, the strategies can work on the installation of vertical structures on the section that provide a more humane environment. The interventions can consist in providing initial structures to be used, extended and reassembled in different ways according to changing demands. These initial structures can be light constructions located on the edge between the public and the private to provide better definition to the never-ending surfaces inherited from modernism. However, the interventions should avoid executing this better definition of the street using very solid constructions or walls. In contrast, they should address Sennett's proposal, building the "cellular wall", which is both "resistant and porous" (Sennett, 2007: 194), and permits

interaction. The interventions should consist of light constructions, which can host initial activities that motivate the appearance of others and can also serve as storage for other possible structures. The initial structures have the possibility to associate with other structures and grow through the addition of different elements. This makes them part of a modifiable open process.

Process

Process as a way to approach interventions on the public realm is implicit in the term 'infrastructure' itself, which has been defined here as providing initial conditions—a beginning of a process—. It is implicit in the strategies on the surface and on the strategies on the section, which need initial strategies and a continuous upgrade in order to be implemented. The success of the strategies on the surface and on the section will very much depend on the process, which will have a strong influence on how the neighbours engage with the transformations of the urban space.

The strategies in the process examine functional capacities rather than fixed function. This implies that architects and planners should design *indeterminacy*: they should propose a process with multiple possibilities, where the outcomes are influenced by the way people use the public realm, rather than just an end result. This proposal for designing indeterminacy faces a great challenge when attempts are made to apply it to the ground. As Sennett (2008a) explains, authorities, clients, and the public in general do not normally accept indeterminacy since they fear losing control on the situation. This implies that architects are still today at the service of the fixed form and function.

Designing a process means designing an open system instead of a finished object. When proposing the public realm as an open system, Sennett (2007, 2008a) highlights the importance of thinking carefully about the different stages of the design process and the possible outputs of each step (Sennett, 2007: 296). These steps should not be linear, they should not reach a single end but may re-start or go back to a previous stage at any time. They could work at the same time, overlapping and interlocking with each other.

The first step for proposing urban design interventions should be to carry out in-depth qualitative research of the place to identify the existing processes that are already taking place, in order to recognise the potential and to identify the main needs. As Peter Bishop suggests, the urban design strategies should "make use of existing social and physical characteristics of an area, rather than eliminate them, (…) sculpting new programmes and places out of what is already there" (Bishop, 2012: 29). Initial strategies should aim to enhance existing potential by building urban design interventions that give power to the social and collective processes that are taking place. However, since the neighbourhoods under study are in a disadvantaged position, this enhancement of the existing processes might not be sufficient to achieve an active life between buildings and some initial transformations could be necessary.

Since the neighbourhoods under study lack urban life, they are in need of what Sennett ([1990] 1992) terms a "narrative beginning": a reconfiguration of the public realm that encourages unexpected activities. These "beginning" strategies should have three characteristics. Firstly, they should be small-scale—quick and easy to implement, and not too invasive for citizens—. Secondly, they should generate concentration of effort: the interventions should concentrate on specific points of the surface and the section to make

them visible and generate a self-replicating effect (Gehl, [1971] 2011). Thirdly, they must offer the possibility for "undoing": they should be flexible enough to have the option of receiving feedback from the users and redirecting efforts depending on the effect of each urban action.

A very important issue to consider is who delivers the first stages of the process, who carries on the initial strategies on the surface and on the section, and who manages and maintains the public realm during the different stages of the process. Public local authorities have the responsibility of providing a public space that meets the need of the citizens to socialise and enjoy urban life. They also have the responsibility of ensuring that the public realm is well maintained. However, the fact the public authorities are the main providers and maintainers of the space does not mean that the should take control of it. The initial interventions should allow people to assume the management of the public realm, self-organise themselves and turn it into a common ground. This is not a process with a single end, since the public realm needs constant repair and maintenance. This means that public authorities should constantly ensure that people has the necessary tools for the self-management of the public realm.

The initial strategies should go together with activities that intensify the use of the public space and promote the emergence of other activities. Intensification events should be proposed to get the most of the initial infrastructure provided. These activities will depend to a great extent on the existing social and cultural fabric and could be events for the youth, festivals, markets, outdoor film screenings or concerts. They should be activities that encourage civic engagement and collective activities in the public realm. These kinds of events can invert the fear and the unease of staying outdoors.

These initial interventions and intensifications events should generate a self-managed public space that can be transformed according to how people use it. To create an open and flexible public space, the strategies on the surface have proposed that the public space should have a modular character to ensure that it can be assembled, disassembled and reassembled. This makes participation more tangible and prevents it from coming to a standstill. It also allows the system to grow in different directions allowing "conflict and dissonance" (Sennett, 2007: 296).

The urban design interventions described here have unpredictable outputs. This uncertainty makes it necessary for each step of the process to be followed by continuous feedback. These pieces of feedback will provide information for redirecting the strategies, learning from the processes that do not work and rectifying. As Graham and Thrift (2007) suggest, learning from failure is how cities and public infrastructure are produced. To obtain this information, it is necessary to provide sources that will receive this feedback and observe the output of the strategies and how people use the public space.

The proposed system should always be kept on the move. The fact that the system is self-managed does not mean that no further intervention is needed. Quite the opposite, it needs to be in a continuous state of repair and maintenance: introducing new inputs and upgrades according to the feedback obtained. The public realm that the infrastructures for disorder can produce is in continuous crisis—understanding crisis as need for upgrade responding to changes and mutations—, since the definition of disorder that has been explained throughout the paper is not compatible with a stable state.

Conclusions

This paper has presented two kinds of contributions:

1. A contribution to critical urban theory: conceptual definition of 'infrastructures for disorder'.

2. A contribution to architecture and urban design: proposing urban design strategies that can be used by practitioners.

The main contribution to critical urban theory has been the definition of 'infrastructures for disorder'. This definition uses various readings of the positive uses of disorder in the city, as championed by Sennett, to address the lack of urban life in the public space in social housing neighbourhoods. The use of the term 'infrastructure' implies the provision of the *beginning* of a *process*, with *possibilities* for new associations.

Critical urban theory is in need of these kinds of concepts that offer alternative approaches (Brenner, 2009) to urban design intervention in the existing city. Critical theory is necessary to challenge the current urban processes that are taking place and to *propose* different options. Considering that certain urban renewal processes in these neighbourhoods are not successfully bringing life to their public spaces, this paper has proposed strategies to invite practitioners to explore how these places could work differently.

The main contribution to the fields of architecture and urban design is the materialisation of the conceptual definition of 'infrastructures for disorder' in urban design strategies. To avoid remaining abstract, the strategies have been presented using common terms from architectural design: surface, section and process. 'Surface' refers to the physical dimension of the space, to the materiality of the diverse urban surface. 'Section' refers to a more subjective

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dimension, to the urban experience, the atmosphere of place, while 'process' refers to the civic dimension of space, how people use the public realm over time.

The 'surface' and 'section' strategies address changes in the physical environment, whereas 'process' addresses how to do it and how citizens can interact and take part in the transformation of the urban environment. This last set of strategies is the keystone for creating successful infrastructures for disorder, since civic engagement will depend on how the process is carried out. In the case of the 'surface' strategies, the surface as a 'connective materiality' addresses the problems of discontinuity in the urban fabric and spatial segregation suffered by many of these neighbourhoods. On a more detailed scale, the surface as 'enabling materiality' provides strategies for transforming the proposed connections into places that encourage the emergence of unplanned activities and interactions in the public realm. The strategies address how these surfaces should be designed, how they could be built as a process, how they could work and how people could engage with the interventions. The strategies on the section also address both levels. The 'longitudinal section' strategies are proposed as a succession of narrative scenes that connect the urban area with other places of the city. On a more detailed scale, the 'cross-section' strategies make detailed proposals for each of the urban experiences proposed in the longitudinal section. They propose changes in the urban section by adding new structures that offer a more active interaction between the buildings and the streets, encouraging continuous negotiation in the borders between private and public spaces, and where activities can be held.

The 'process' set of strategies proposes a non-linear sequence of stages for redesigning the public space of these neighbourhoods. These are described as non-linear since they do not necessarily follow a specific order, but can overlap, change order or go backwards depending

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on the output of each stage of the process. This set of strategies provides orientation for building public space as an open system, where people's actions on the public realm have an effect on each step of the process.

The implementation of the infrastructures for studies has certain limitations if they are considered just from the urban design perspective and not taking into account other socio-political and economical factors. Firstly, they require a change on public authorities' approach to the delivery and maintenance of the public realm. The initial interventions and the maintenance of the public realm need public investment and also the appropriate tools to facilitate the self-management of the public realm. This may need a stronger effort at the beginning, but it can have mid-term and long-term benefits since it can create a sense of co-responsibility that makes the maintenance easier. Secondly, disorder can be a conflictive term to propose to local authorities and communities, since it is normally associated with perceptions of crime and decay. Instead, it is advisable to explain the essence of the term—creating conditions for the unplanned use of the public realm and encouraging social interaction. Thirdly, many of these neighbourhoods suffer of strong deprivation and social problems derived from structural reasons that cannot be tackled just from the urban design perspective. In this case, the role of urban design is to provide spaces for collective use and which have a limited effect on building more equitable societies.

The strategies presented are exploratory and have no definitive answers. However, they present alternatives as to how the public space of these neighbourhoods could work differently. The intention of these strategies is to help practitioners to recognise the uncertain condition of design interventions and the fact that the public space is an open and never-ending process.

References

Amin, A. 2008. "Collective culture and urban public space." *City* 12 (1): 5-24. doi: 10.1080/13604810801933495.

Amin, A. 2010. "Cities and the ethic of care for the stranger." In: *Joint Joseph Rowntree Foundation/University of York Annual Lecture*, York, UK, 3 February 2010. http://www.jrf.org.uk/sites/files/jrf/cities-and-the-stranger-summary.pdf

Bishop, P. 2012. "Approaches to regeneration." *Architectural Design* 215: pp. 28-31.

Brenner, N. 2009 "What is critical urban theory?" *City* 13 (2–3): 198-207. doi: 10.1080/13604810902996466.

Borja, J. and Z. Muxí. 2003. *El espacio público: ciudad y ciudadanía.* Barcelona: Diputació de Barcelona and Electa.

Campkin, B. 2013. *Remaking London: Decline and regeneration in urban culture.* London: I.B. Tauris.

Coleman, A. (1985) 1990. *Utopia on trial: vision and reality in planned housing*. Revised edition 1990. London: Hilary Shipman.

Cordell, T. 2010. *Utopia London*. [Documentary Film]. London.

Finn, D. 2014. "DIY urbanism: implications for cities." *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 7 (4): 381-398. doi: 10.1080/17549175.2014.891149

Gehl, J. (1971) 2011. *Life between buildings: using public space*. Revised edition. Washington DC: Island Press.

Graham, S. and L. Hewitt. 2013. "Getting off the ground: On the politics of urban verticality." *Progress in Human Geography* 37(1): 72–92. doi: 10.1177/0309132512443147.

Graham, S. and S. Thrift. 2007. "Out of order: understanding repair and maintenance." *Theory, Culture & Society* 24 (1): 1-25. doi: 10.1177/0263276407075954.

Hall, P. (1988) 1994. *Cities of Tomorrow*. Reprint. Oxford: Blackwell Publishers.

Jacobs, J. (1961) 1993. *The death and life of great American cities.* Edition with preface by the author. New York: Modern Library.

London Borough of Lambeth. Planning Application database [online]. London: London Borough of Lambeth, n.d. [Quoted on August 5, 2013] Available at the World Wide Web: <http://planning.lambeth.gov.uk/online-applications/>.

Lowenfeld, J. 2008. "Estate regeneration in practice: The Mozart Estate, Westminster, 1985-2004." In: *Twentieth century architecture 9: Housing the twentieth century*, edited by E Harwood and A Powers, 164-176. London: Twentieth Century Society.

Minton, A. 2009. *Ground control: fear and happiness in the twenty-first-century city.* London: Penguin.

Newman, O. 1972 *Defensible space: crime prevention through urban design*. New York: Macmillan.

Psarra, S. 2012. "Editorial: Julienne Hanson: A production of many dimensions." *Journal of Space Syntax* 3 (1): i-xxi. Available at: http://joss.bartlett.ucl.ac.uk/journal/index.php/joss/article/view/138/pdf.

Scarman, L. 1981. *The Brixton disorders 10-12 April 1981*. London: Her Majesty's Stationary Office.

Sampson, R. J. 2009. "Disparity and diversity in the contemporary city: social (dis)order revisited." *The British Journal of Sociology* 60 (1): 1-31. doi: 10.1111/j.1468-4446.2009.01211.x.

Sendra, P. 2015. "Rethinking Urban Public Space: Assemblage Thinking and the Uses of Disorder." *City: Analysis of Urban Trends, Culture, Theory, Policy, Action.* doi: http://dx.doi.org/10.1080/13604813.2015.1090184

Sennett, R. (1970) 2008. *The uses of disorder: Personal identity and city life.* Yale edition with a new preface by the author. New Haven: Yale University Press.

Sennett, R. (1990) 1992. *The conscience of the eye: The design and social life of cities.* Norton paperback edition. New York: W. W. Norton.

Sennett, R. 2007. "The Open City." In: *The endless city,* edited by R. Burdett and D. Sudjic, 290-297. London: Phaidon Press.

Sennett, R. 2008a. "The public realm." In: *BMW Foundation Workshop on Changing Behaviour and Beliefs*. Lake Tegernsee, Germany, 17-21 July 2008. Available at: http://www.richardsennett.com/site/SENN/Templates/General2.aspx?pageid=16 (accessed 10 February 2011).

Sennett, R. 2008b. *The Craftsman.* New Heaven and London: Yale University Press.

Sennett, R. 2009 "Urban disorder today." *The British Journal of Sociology* 60 (1): 57-58.

Sennett, R. 2011. "Boundaries and borders." In: *Living in the endless city*, edited by R. Burdett and D. Sudjic, 324-331. London: Phaidon Press.

Wall, A. 1999. "Programming the urban surface." In: *Essays in Contemporary Landscape Architecture*, edited by J Corner, 233-249. New York: Princeton Architectural Press.

Young, M. and P. Willmott. (1957) 1972. *Family and kinship in East London.* Revised edition 1962, reprint. Middlesex, UK: Penguin Books.