OPINION ARTICLE

The unplanned city: Public space and the spatial character of urban informality [version 1; peer review: 2 approved]

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Abstract

The 'unplannable' is a welcomed exception to the formal order of urban planning. This opinion article explores some examples of informal urbanism and discusses its ambiguous relationship to public space and unplanned activities in the city. The informal sector offers important lessons about the adaptive use of space and its social role. The article examines the ways specific groups appropriate informal spaces and how this can add to a city's entrepreneurship and success. The characteristics of informal, interstitial spaces within the contemporary city, and the numerous creative ways in which these temporarily used spaces are appropriated, challenge the prevalent critical discourse about our understanding of authorised public space, formal place-making and social order within the city in relation to these informal spaces.

The text discusses various cases from Chile, the US and China that illustrate the dilemma of the relationship between informality and public/private space today. One could say that informality is a deregulated self-help system that redefines relationships with the formal. Temporary or permanent spatial appropriation has behavioural, economic and cultural dimensions, and forms of the informal are not always immediately obvious: they are not mentioned in building codes and can often be subversive or unexpected, emerging in the grey area between legal and illegal activities.

Keywords

Public space, informal urbanism, tactical interventions, Burning Man Festival, surveillance and facial recognition, public health crisis, the unplanned city

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Introduction

The city is not merely a repository of pleasures. It is the stage on which we fight our battles, where we act out the drama of our own lives. It can enhance or corrode our ability to cope with everyday challenges. It can steal our autonomy or give us the freedom to thrive. The good city should be measured not only by its distractions and amenities, but also by how it affects this everyday drama of survival, work and meaning. . . . The city is ultimately a shared project, like Aristotle’s polis, a place where we can fashion a common good that we simply cannot build alone.

– Charles Montgomery (2013, 36)

Cities are many things. At their best, they offer essential breathing spaces that facilitate social inclusion and encounters, allowing for the unplanned and enabling a diverse range of informal activities to occur. They support autonomy, empower people to ‘do their thing’ (for instance, as micro-entrepreneurs), and give them the freedom to thrive and lead a happy life. The city is never an easy cocktail to get right. It needs the optimal mix and balance between efficient public transport systems, a walkable public space network, integrated green space, fair and decent quality housing, good workplaces, cultural vitality, and great health care and education. Social inclusion is of particular relevance, as it is the process by which efforts are made to ensure equal opportunities – that everyone, regardless of their background or social status, can thrive and achieve their full potential in life (Whyte, 1980). Gentrification, excessive control of space and the increasing privatisations of public space are constant threats to this potential.

Over the last 50 years, urbanisation has become an inevitable, fast-moving global phenomenon, and informality has emerged as an inseparable feature of this process in numerous cities, not limited to developing cities in the Global South. However, the process of urbanisation can be ruthless and is frequently driven by greed and one-sided monetary motives (AlWaeer & Illsley, 2017). Therefore, in most large-scale urban developments, residents, planners, governmental decision makers and developers make efforts to ensure social inclusion can occur once the project is completed. These efforts include policies and actions that promote equal access to public services, space and amenities; reduce the threat of gentrification; and enable citizens’ participation in the decision-making processes on developments that frequently affect their lives in cities.

Redefining urban informality

The concept of informality emerged in the early 1970s, at this time simply defined as ‘the informal sector of the urban poor’ and limited in its focus to people living in slums and squatter settlements (Königsberger, 1975; Moser, 1978; Rudofsky, 1964). Informality was closely associated with urban poverty and deprivation; and indeed, it often involves the lower-income group that falls into the informal sphere. However, with globalisation’s enabling of social mobility and the levelling of economies, we have gained a much wider view of urban informality and its modus operandi. This led to a more differentiated and multifaceted view of informality. More recently, the lack of affordable housing, functional infrastructure and high unemployment are present in all kinds of cities and geographies, not limited to cities in the Global South, and have made a clear differentiation between formality and informality more difficult and vager (Bardhan et al., 2019).

It is estimated that informal is the daily condition of at least one-sixth of our world’s population. This article explores some examples of informal urbanism and its relationship to public and private space. The author believes that the informal sector offers important lessons on the adaptive capacity and use of space in general, and on its social role. For instance, it is fascinating to examine the ways in which ‘marginal groups’ appropriate informal urban spaces in Mexico City and how this adds to a city’s character, entrepreneurship and success (Hamm & Feireiss, 2015; Lara-Hernandez et al., 2019).

The characteristics of informal, interstitial spaces within the contemporary city, and the numerous creative ways in which these spaces are appropriated, challenge the prevalent critical discourse about our common understanding of ‘public space’, place-making and the character of social order in the city. One could say that informality redefines our relationship with the formal. Unplanned informal spaces punctuate the homogenous, controlled, ‘official’ pattern of the public space network and the everyday ubiquitous spaces of the contemporary city. However, they are often overlooked or relegated simply as messy ‘left-over space’ or ‘urban voids’. Informal spaces are excluded from what is commonly defined as the ideal concept of the controlled city because they run contrary to the dominant image of an ordered city, such as that promoted in conventional masterplans and the clean marketing of the official urban scenarios (Sennett, 2018).

How urban informality, public space, growth and inequality are interconnected has long been a field of scholarly reflection and research. It has been argued that cities exist because people tend to agglomerate around space for social, economic or political reasons. Increased job access, trade, housing and amenities, combined with safety and fewer restrictions on personal choices, indicate some critical advantages of urban informality. However, depending on its context, the definition of informality varies greatly. In constantly evolving cities, there exist very different types of informality, for instance, in the context of sustainable urban development and in its relationship to environmental sustainability. It’s worthwhile to explore how informal urbanisation can be interpreted within such different contexts and how it frequently embeds principles of sustainability, such as reuse, recycling, resourcefulness and resilience.

The informal is often defined as ‘casual’, with a lack of legal status. However, ‘informal’ should not be equated with ‘illegal’, as a legal option may not exist. Urban informality conceptualises and illustrates temporary appropriation of space as a phenomenon that contributes to the conformation of relevant themes within the urban agenda, including topics such
as citizenship, inequality, social inclusion, migration, urban social sustainability, health care, employment, growth, informal entrepreneurialism and resilience. The informal temporary appropriation of urban space has behavioural, economic and cultural dimensions, and forms of appropriation are not always immediately obvious: they are not mentioned in building codes and can often be subversive or unexpected, emerging in the grey area between formal and informal activities in the city.

As life must adapt to site-specific solutions, the real life of cities often takes place in the corners where no one is watching, where communities coalesce and develop organically, and where the thousands of people who might call the place home interact on a human scale. Informality is likely to contribute huge potential to solve all kinds of urban challenges, such as the housing crisis or the threat of gentrification, which often accompanies urban regeneration activities. A good example of this is the housing project by Elemental in Constitution, Chile. The project allows for infill and self-built completion (as a tactical intervention) by the inhabitants over time, at a later stage. Architect Alejandro Aravena argues that ‘half a house can build a whole community’ (2016), as a low-income family cannot afford a large house immediately. The idea is to build a ‘half house’ that residents can finish by themselves incrementally and informally over time, allowing people to build whatever they like for themselves within a given frame. This informal, incremental, self-built completion leads to an unplanned and unexpected variety that makes each house unique. Residents provide their own time, labour and any extra materials to complete the second half of the house later, which delivers affordability and allows for more funding to uplift and improve the surrounding public space. In addition, the architects provide the complete residential designs as an open-source resource on their website for free download to help tackle the affordable housing crisis (see Figure 1).

**Working definitions of informality**

The term *informality* means ‘the absence of formality’. It describes an unregulated non-formality that relates to the ‘unplanned’, the part of a city which evolved and has grown organically outside of a regulatory framework or system – without any formal arrangement or management. Informality is therefore frequently characterised by its relaxedness, organically shaped structure and easy accessibility as ‘the unofficial version’ of the city. However, these definitions imply that informality is widely unrestrained by regulations such as building codes and is likely to include the characteristics of spontaneity, efficiency and flexibility (as pointed out by AlSayyad, Roy, Dovey and other scholars who have been working on a better understanding of urban informality for decades).

*Urban informality* in particular relates to the unplannable, but it is far more than poor squatter settlements or slums in the Global South. Much relevant research over the last two decades has examined the organisational structures of slums and squatter settlements. As a consequence, the author feels that the term requires a wider definition. Urban informality is a phenomenon clearly not limited to the Global South (despite the fact that in Africa, six out of ten urban dwellers live in slums today). It can be found in many forms as a mode of metropolitan urbanisation, such as in homelessness in developed cities, displacement, micro-entrepreneurship along streets, or city-ward migration (Harvey, 2009).

In *Architecture without Architects* (1964), Bernard Rudofsky asked for a new aesthetic, and even a science of cities, to better understand the interconnectedness of all kinds of actions and user patterns that occur within cities. The life-long question that kept driving him could be summarised in one simple sentence: What makes a good city? In his seminal book, Rudofsky states that ‘Architectural history, as written and

![Figure 1. Housing by Elemental in Constitution, Chile.](https://example.com/housing.jpg) Individual two-storey half houses for informal, incremental self-building by the residents (2010). Aravena has championed an approach he describes as ‘incremental’, in which governments fund construction of ‘half a good house’, with residents completing the other self-built portion informally as resources allow (photo courtesy of Elemental).
taught in the Western World, has never been concerned with more than a few select cultures’ (Rudofsky, 1964, 36). He attempted to break down the limited idea of this architectural history by contrasting it to the vast theory and wise world of ‘non-pedigreed architecture’ (an adjective he used to describe informal, vernacular, ephemeral, indigenous and often anonymous contributions to the built environment).

This article sheds light on the dynamics generating the urban areas and conditions of urban informality, including ‘shadow citizenship’, and to contribute towards a better understanding of the drivers of urban inequalities that pose such significant challenges to the existence of our urban societies. Just think of the interstitial urbanisation that is happening in major metropolises, leading to informal spaces and spontaneous occupation (examples could range from the anti-gentrification movement in Berlin to the democratic uprising in Hong Kong). In this regard, urban economist Joseph Stiglitz noted, “The more unequal a society is, the more the likelihood of its social polarisation to intensify; and, the wider the spatial and social inequality, the lower the economic growth of a country or city, and consequently the higher the threat to the sustainability of its welfare state’ (Stiglitz, 2013).

One could say that urban informality is the result of ineffective bureaucracies or even the lack of top-down democratic processes.

Urban informality is not automatically a fertile breeding ground for bottom-up democracy or political participation. Urban informality happens rather ‘outside’ the order of formal urbanisation, planned and built by non-professionals (AlSayyad and Roy; Lehmann) and it can be a ‘rich source of learning’. However, the urban character and concept of informality have often been misunderstood (as argued by Perlman; and Harris). Favelas and slums were too often the study of aesthetic interests and romanticisation. Informal urbanism can appear “picturesque, but one should never aestheticise or romanticise poverty” (Dovey, 2013; Yiftachel, 2009). On the other hand, every favela or slum is an active recycling centre, an extremely resourceful and dynamic form of complex settlement (although this resourcefulness of informal communities comes at a social cost, as the residents are not setting out to be resourceful by their own choice).

Learning from informality should therefore become a key aspect of our planning approaches. While cities are great social laboratories, there is still not enough learning going on between cities and decision makers on issues of urban informality and the unplanned. Researchers are now engaged in revealing the underlying urban patterns and hidden data of informality, e.g. data on movement, trading of goods or the intrinsic behaviour of people in public space (Hucherzermeyer and Karam). Urban informality and the temporary appropriation of public space are two closely related phenomena. Temporary appropriation is usually read as a form of informal practice, e.g. in the form of micro-entrepreneurship in the streets and plazas. Some concepts of informal behaviour in urban settings could be better understood when viewed as a form of temporary appropriation, as there is clearly a need for a deeper understanding of the relationship between informality and spatial appropriation. This is still an under-researched field. There is also the challenge that – while we have plenty of useful data – architects and urban designers rarely perform a deep data analysis, and data sets are too fragmentated or disconnected to be analysed (e.g. in numerous cities, reliable data on household consumption or health data is still lacking).

Cities are the key to social integration, and they are essential for localising the UN’s Sustainable Development Goals (United Nations, 2015). However, city layouts have been surprisingly stable over a long period and resistant to change, making it almost impossible to quickly transform developments or reverse urban sprawl. Obviously, it is much more difficult (and expensive) to provide infrastructure retroactively or to retrofit a neighbourhood, compared to using infrastructure newly planned from scratch. Here, informality provides constant services at a very low cost and keeps cities inclusive and running (for example, in many of the world’s growing cities in Africa and Asia, semi-formal buses form the basis of public transit systems). In the process of rolling out the North American model of suburban car-dependent sprawl, the chances for any informality to occur remain minimal. Today, in terms of understanding urban informality, we have probably reached a turning point and new readings of urban informality are emerging (Harris, 2018; Kundu, 2019; Oswalt et al., 2007).

**Cities built for cars?**

Cities form when people try to take advantage of shared infrastructure (e.g. by creating marketplaces for trade and information) and cultural amenities. In cities, companies and workers benefit from knowledge creation, job opportunities and matching, as well as information sharing.

For most of urban history, city streets and public spaces were for everyone. There was the shared road that led to public space such as a market, plaza or playground. Nevertheless, streets that serve the needs of motorists first create an automobile lifestyle that favours private vehicles passing through over the people who live there. Over the last 70 years, as our cities have continued to sprawl and as more and more people are forced to live in car-dependent suburbs, we have been making it harder for social interactions and human connections to occur. The urban planning school of thought that promoted zoning and separation led to strict segregation of the various functions of a city (as embedded in simplistic zoning regulations) and made walkable, mixed-use and compact neighbourhoods almost impossible. The 20th-century zoning laws simplified the idea of a city with strictly separated places for living, working, shopping and recreation. While such a planning system might have the advantage that it is easier for planners to understand and control, it bans complexity and restricts freedom (Lehmann, 2019; Sennett, 1974).

In the mid-20th century, with the emergence of the car-dominated city, the new notions of freeway, shopping mall, suburbs and parking lots became dominating forces of our urban lives. This new conception of a city based on movement through private vehicles and a network of freeways has reduced the level of social interaction and walkability
and increased anonymity. It has also increased the need for informal solutions on the pedestrian scale. Recognizing that cities are places where both problems emerge and solutions are found at the citizen level, urban activism has been increasingly considered an important part of the governance processes, as local actors desire to participate in politics, influencing decision-making through legal tools and participatory practices.

According to Lewis Mumford, social and spatial inequalities are an intertwined phenomenon, and to understand them, we must address them simultaneously. Chouinard refers to migration when he describes urban informality as ‘places of shadow citizenship and entitlements’ (1997) in which inequality and injustice proliferate. His research sheds light on the dynamics generating the urban areas and conditions of urban informality, including the condition of ‘shadow citizenship’, and aims to contribute to a better understanding of the drivers of urban inequalities that pose significant challenges to the existence of urban societies.

A short literature review: Urban informality and socio-economic inequality

Charles Montgomery notes that ‘cities have always been a happiness project’ (Montgomery, 2013). His research shows that happiness in urban living depends on criteria such as commute times, air quality, housing affordability, crime rates and access to local green spaces. Urban residents tend to be happier if a great public space or garden is just around the corner. Public plazas, parks and other meeting places, for example, can encourage new social connections and interactions while giving residents a sense of common ownership over the space, where everyone has a stake in the city’s success. Access to multiple modes of mobility – from trains and buses to bike shares and e-scooters – can help remove one’s sense of isolation amidst the crowds. Pedestrian-friendly streets boost the city’s overall well-being by encouraging active lifestyles and even more face-to-face interactions. However, nothing could be more important to the health of urban dwellers than diversity in its population, its housing opportunities, its variety of public space and its employment opportunities (Alexander, 1979; Gehl, 2011; Montgomery, 2013; Perlman, 1976).

Placeless, auto-dependent and socially isolating sprawl has always created more problems than it solved. Density, on the other hand, can resolve many of our current challenges: it makes mass transit possible and allows for a better public space network, with active streetscapes and more affordable housing. It creates environments where people can walk, supports public hospitals, vibrant cultural institutions and allows us to curb climate emissions (Florida, 2003; Jones, 2016).

However, gentrification, growing privatisation of public space and lack of affordable housing, as well as a lack of accessibility to high-quality public spaces and parks, have exacerbated the urban conditions of inequality. More compact urban form and infill supports all forms of active mobility, such as walking and cycling; facilitates public transport; and reduces the capital costs for infrastructure. It is the walkable city that facilitates all forms of urban informality. Engendering the dynamics of the United Nations’ 2030 Agenda for Sustainable Development (with Goal 11 specifically calling for cities and human settlements to be ‘inclusive, safe, resilient and sustainable’), spatial inequality and particularly inequalities exacerbated by the economic crisis and austerity measures have been addressed by activists through the means of political protest and social innovation (Dovey, 2013; McKnight, 2016; Rivera, 2013).

The concept of informality has its origin in the emergence of the ‘informal sector’, which was coined as a concept in the early 1970s. Caroline Moser (1978, 1051) described the informal sector as simply ‘the urban poor’, or as the people living in slums or squatter settlements. Today, most scholars agree that this definition fell short of the many facets that informality can display. In the 1980s, the definition became more refined, and informality was understood not solely as poverty, inequality, illegality or marginality per se; to paraphrase Castells (1983), it was seen not as a product but as a process, constantly in the making, shifting and redefining relationships (in many cases dependent and essential) with the formal.

Rakowski emphasised the link to the economy when she argued that informality in peripheral societies is the expression of the uneven nature of capitalist development (Harvey, 1989; Lefebvre, 1996; Rakowski, 1994; Yiftachel, 2009).

Informality plays a different role in different cities. In cities in India, for example, slums are an essential part of the cityscape and all major cities have massive areas devoted to informal settlement growth (See Figure 2). Roy (2005) and Roy (2009); Roy (2012) describes the complicated relationship between what is legal and illegal in the Indian city, or authorised and unauthorised, arguing that informality is a deregulated system not synonymous with poverty. Scholars, including Porter et al. (2011), as well as Jana et al. (2016), point out that informality is not outside formal systems, but is instead produced by formal structures and always intimately related to them. They have equated informality with a kind of self-help arising from the inability of the government and market forces to provide essential services like affordable housing and employment, as is the case in the Indian example (Alsayyad & Roy, 2004; Huchzermeyer & Karam, 2006).

The importance of public space is in the manifestation of social relations and is a social relation itself (Florida & Mellander, 2018; Koolhaas, 1998). Although accelerating urbanisation can have a significant impact on the spatial outcomes of economic activity and inequalities, it affects social inclusion in urban areas in contradictory ways (Chouinard, 1997; Lefebvre, 1974). Cities in the developed world experience a paradox wherein rising levels of human capital, economic activity and employment are accompanied by a trend of increasing levels of socio-economic inequality, gentrification and spatial segregation. While agglomeration effects in cities can act as engines of urban growth, they can also be drivers of gentrification and inequality, not only in economic terms but also in a wide range of quality-of-life aspects (Brahmblatt, 2015; Lehmann, 2019).

Such increasing inequalities have become a multi-scale issue. It is evident that the urban environments of developed cities face a situation in which, despite their continuously rising shares of economic activity, employment and wealth, levels of
socio-economic inequality are increasing and express a spatial footprint in cities as well as between neighbourhoods.

**Dynamic micro-entrepreneurship needs walkable streets**

There is growing recognition that informal jobs and informal housing constitute significant proportions of urban economies (Castells, 1983; Haas & Olsson, 2014; Jana et al., 2016), and this form of self-employed micro-entrepreneurship is thought of as economic empowerment. Urban informality has taken on new forms under the forces of globalisation that cannot be disentangled from public space. In addition, informality today is not limited solely to a geography of periphery or urban core, nor to poverty, inequality, illegality or marginality per se.

Like Disneyland, the Las Vegas Strip is a carefully choreographed urban machine that provides rare high-quality walkable space not often found in US cities: it presents a walkable, mixed-use city centre densified with sensory pleasures of consumable goods and decorated with vernacular or historical facades. Both places, the Strip and Disneyland, are privatised ‘quasi-public spaces’. They require a vast urban system behind the scenes to support the experience machine. It is no accident that every visit to the Strip (just like to Disneyland) “begins and ends with a walk along Main Street USA: a parade of cartoon-cute shops and unhurried bustle that simulates the perfect small town cliché” (Montgomery, 2013, 31). Visitors delight in Main Street USA and the experience of walkable public space, which is very different from the car-dependent suburban sprawl they are used to in their home cities of Phoenix, Houston or Los Angeles.

Informality, once associated with squatters and slums in the Global South, has now become a generalised urban form in most cities of the developing and developed worlds. Many of the informal activities that occur within the formal city are driven by the micro-entrepreneurship of immigrants trying to make a living. These micro-business operations of marginalised immigrants are usually happening in unregulated space, at street level, uncovering ephemeral opportunities and temporal potential. Ortega describes the impact of the informal mobile car wash vendors’ business on the formal street life in Las Vegas (Ortega, 2015, 115). He found that the group of mobile car wash vendors in Las Vegas occupy the edges of parking lots and strip mall developments, forming part of a resistant cultural infrastructure’ (see Figure 3). The car wash vendors are an informal entrepreneurial group appropriating the streetscape to sell their services in a non-regulated grey zone, side-by-side with the formalised and regulated tourist activities concentrated along the boulevard. This includes the mobile activities of self-employed male or female street hawkers, shoeshine boys and other marginalised groups. Their activities occur along the busy streets of cities, where globalisation and economic liberalisation have given rise to new dynamic geographies. There is demand: the informal sector steps in to provide products and services that are in demand but not offered affordably by the formal sector. This is the reason Hernando de Soto described informality as ‘heroic entrepreneurship’ (2000). Low-paid and self-employed residents have no financial buffer to fall back on, but we all rely upon their work to keep the city moving. In numerous big cities, informal workers are the backbone of the urban systems, keeping these cities functioning.
Tactical urbanism as a form of informality

The use of public space changes over time, and urban informality is closely linked to the unplanned, dynamic use of public urban space. Consequently, numerous public spaces are linked to temporal informal activities such as pop-up markets and demonstrations, or as spaces for particular celebrations. For example, just think of the carnival celebrations every February in South America that temporarily change public spaces. Informal spaces are often perceived as ‘unplannable’, as informality tends to occur in a deregulated rather than an unregulated realm.

Public spaces offer endless opportunities for tactical urbanism as a form of informality. In contrast to institutionalised urbanism, tactical urbanism is defined as temporary (short-term), low-cost projects that aim to make a part of a city more lively or enjoyable. It is frequently referred to as guerrilla urbanism, pop-up urbanism or DIY urbanism. It includes quick, low-risk, temporary changes (‘interventions’) to the built environment, intended to improve local neighbourhoods and city-gathering places. Figure 4 shows an example of tactical urbanism in the public space of Times Square, Manhattan.

The outcomes of large-scale institutionalised urban developments have frequently been disappointing in their results. Conventional hierarchical master plans are struggling to deliver on their many promises because society has much more complex requirements today. Therefore, the question arises: can a city still be planned or predicted? In Back to the City: Strategies for Informal Urban Interventions (Lehmann, 2009), I described the power that tactical and improvised interventions in underused public spaces can have and their ability to become catalysts for long-lasting urban change. Use of vacant and derelict sites for new programmes, activities and citizens’ participation has allowed for the reshaping of disregarded urban spaces. It represents a ‘messy and imperfect grassroots design activism and spontaneous Guerrilla urbanism’ (Lehmann, 2009), in which community-driven small-scale projects often become the embodiment of unexpected outcomes that a formal planning process would have rarely achieved. These dynamic ‘everyday’ urban design processes and interventions can operate in contrast to the institutionalised over-regulated planning process.

Burning Man: Informal versus formal arrangement

This article examines cases ranging from self-built housing in Chile to car wash vendors in Las Vegas to tactical urbanism in New York’s Times Square. Following are two more case studies:

- the Burning Man City, a temporary festival town in the desert of Northern Nevada, a once-small-scale spontaneous construction that has evolved into a gigantic event.

- the negative impact that new digital technologies for control, surveillance and facial recognition have on public spaces in China.

The Burning Man spectacle is an interesting case of informal tactical urbanism. Every year, volunteers erect a temporary ‘desert city’ over the short period of two weeks in remote Northern Nevada, outside Reno. What started in 1991 as an annual festival of self-expression and spontaneous gathering in a deregulated space has now grown into a massive urban development that exists for only a short time every year. However, since it has grown to over one hundred thousand people, the festival city has become one of the most regulated initiatives, planned over months down to the smallest detail. The explosive growth of the countercultural event, due to its utopian vision of peace and love, meant that it needed a more structured organisational system with a full city infrastructure and medical stations.

Urban planner Rod Garrett is credited with developing the master plan for Burning Man City, also called Black Rock City (See Figure 5). Its simplistic but practical figure-ground plan of a concentric semicircle has a gigantic sculpture in its
Figure 4. Tactical urbanism includes ephemeral appropriation and temporary interventions in public space. An example is the transformation of Times Square in Manhattan simply by adding lawn chairs to create a traffic-free area (photo courtesy of New York City Department of Transportation, 2009).

Figure 5. The annual ephemeral Burning Man City grew over the last decade, and in 2018 and 2019 it housed 100,000 people. Ironically, the informal event is organised within a highly formal, radial figure-ground plan that forms a ring (photos courtesy of Jason Bean, 2019).

centre. Its formal layout is flexible enough to allow for all kinds of informal activities within its rigid structure to flourish. People stay in thousands of tents, trucks, cars, recreational vehicles and camp sites that together form the gigantic C-shaped circular ‘city’. Movement along the circular and radial roads of this self-referential shape happens by walking or biking, not by driving. This temporary city plan is built around the spectacle of art, music and human interaction. While the earlier festival occupied random sites that brought feelings of dislocation, the circular design was naively intended to express a sense of communal belonging. The city plan needed to be easy for all those arriving to grasp because it would be built within two weeks. Everyone who attends needs to know their place within the bigger picture. The area closest to the centre is reserved for art installations, creating a park-like zone that complements the ‘residential neighbourhoods’. The early dynamic, informal and messy guerrilla grassroots beginnings of Burning Man, with its unpredictable nature, are long gone, and the institutionalised mass event it has become has a significantly negative environmental impact. Here, ironically, the informal complex event is organised within a highly formal, radial figure-ground plan of the ring.
Surveillance and new technologies in Chinese public spaces

For centuries, architects and urbanists have observed people’s movement and behaviour in public space, and these observations have often informed their design decisions. For instance, the discreet distinction between private and public space, or the sense of belonging that we can experience in good public space, have been guiding themes for new urban plans. However, in the twenty-first century, urban space is challenged and changing under the pressure of technological advancement and a new relationship between the city and digital technologies. This process is closely connected to how new technologies – artificial intelligence, big data and autonomous technologies in particular – have commenced to impact public space and urban life (Ratti, 2019). Facial recognition technology has turned Chinese cities into the largest areas of constant mass surveillance. Data models are constantly feeding and optimising our urban experience, and the urban landscape of tomorrow will depend not only on human-to-human relationships, but more and more on machine-to-human relationships that drive and optimise the invisible systems and connections that keep the city moving. This evolving relationship between urban space and technological innovation, the cultural integration of fast-evolving digital technologies and their environmental contradictions, is still little understood and under-researched.

Facial recognition technology has been around for a while, but in 2019 it became a facet of life in China. Facial recognition systems are being rolled out in public spaces such as railway stations, schools and shopping centres across the country. Enabled by a vast network of cameras, the government is using the technology for total surveillance, turning its cities into a police state. China has installed some 200 million cameras by its own estimate (2019; see Figure 6), feeding into a surveillance-based biometric dataset of millions of people. Part of an effort to monitor ethnic minorities in the name of national security, it has now become mainstream in Beijing, Shanghai and numerous smaller cities. Citizens are indexed by information such as their criminal history, and facial recognition data records whether they were bearded or wearing a mask and what ethnicity they were. China’s facial recognition technology is now so advanced that it can positively identify 98.1% of human faces within 0.8 seconds, according to the China Daily (2019). So far, there has been little pushback in China against facial recognition technology and data harvesting. While this is not entirely surprising (after all, the Chinese Communist Party is well known as an oppressive authority), these surveillance systems are being deployed extensively and invasively to achieve total control of its people and their behaviour in urban areas. Following the 2020 Coronavirus pandemic, which started in Wuhan (China), the Chinese Government justifies the excessive surveillance of its citizens as a necessary public health measure.

The quality of public space in authoritarian countries is being diminished by exorbitant control and surveillance. Spaces for spontaneous informal interaction without regulation, control and commitment to consumption are a good thing for society. Flourishing cities have always relied on such informal spaces and activities to function, enabling a mix of possibilities that allow for surprises and the unplanned to occur. This is why the extensive surveillance of Chinese public space and its excessive control is detrimental to the vitality and quality of these cities.

A public health crisis leaves its mark on cities and erases informal activities

Pandemics can radically alter the way we work in and think about cities: during the 2020 health crisis, people have self-isolated, stayed at home and avoided public space and contact...
with others. At time of writing, it is still unclear how this pandemic will alter urban life and what exactly will be the impact from this crisis on cities and their informal sector. It’s likely to have a deep long-lasting impact. Since the global cholera outbreaks in the 19th century, pandemics have reshaped cities, and some of these consequences can include increased surveillance, de-densification of neighbourhoods, remote working from home (made possible by the intensification of digital infrastructure) and even the introduction of new urban systems (e.g. around 1850, European cities introduced modern drinking-supply and sewerage systems as a direct result from the devastating cholera pandemic).

Jack Shenker (2020) suggests that in future, ‘urban planners will face the apparent tension between densification – the push towards cities becoming more concentrated, which is seen as essential to improving environmental sustainability – and disaggregation, the separating out of populations, which is one of the key tools being used to hold back infection transmission’. This indicates an emerging conflict between the competing demands of public health and the need to stop climate change. In an almost predictable urban future, informal activities will increasingly be push out or made impossible. Oppressive regimes could soon employ security robots to control and patrol public spaces, and check the identity and medical condition of people, leading to a fundamental shift in social relationships and erase all informal activities.

De-densification will not resolve the public health challenges. In general, density is not bad for our health, as it enables walkable cities, an active public space network and bustling commercial corridors, which fosters health, makes communities more resilient and allows us to curb climate emissions – a public health problem of an entirely different kind. In all the discussion about the health risks of density, it is important to remember that urban density can also provide for health, resiliency and space for informal activities that are integral to our society. We will need to rebuild trust in public space and to rethink the types of public space and their role as spaces of shared values.

The economy, sustainability and informal opportunities
Global cities act as both locus and regulator of the ‘uneven processes of capitalism’ (Harvey, 1989), and places where increasing investment in the financial sector rather than in other productive activities has shaped the geography of unequal development. However, the growth of spatial inequality is not limited to global cities. Geographical inequalities are frequently a reflection of an out-of-equilibrium economy characterised by the dynamic coexistence of regionalised growth and localised decline, unequal interactions and asymmetrical power relations between the urban core and peripheries.

Since the sidewalk and market vendors of the Greek agora, the public realm has always been a place to sell goods and services. The impact of the 2008 economic crisis and subsequent austerity measures, accompanied by the persistent stagnation of some economies (along with rapid technological changes in the world of communication and work), have caused conditions of inequality to further proliferate. Alongside regions and cities that have functioned as poles of attraction for private capital investment and innovation, boosted by ad hoc public and private interventions, are areas in which economic hardship has been coupled with not only private-sector but also public-sector retrenchment. Therefore, opportunities for social and economic development generated by global economic, financial and political trends have not benefited all countries, cities and populations equally, nor have these opportunities been distributed evenly across regions, cities and neighbourhoods or among people (Marcuse et al., 2009; Sassen, 1991).

Numerous scholars have elaborated on the learning that can be gained from the richness of informal settlements, their non-hierarchical systems and their resourcefulness (such as described by Dovey, Jones, AlSayyad, Roy and others). This is why, increasingly, research has focused on the localised clustering of economic activity and the importance of informal entrepreneurialism, for instance, the conditions which enable the intense informal activities that can occur along busy city streets and on plazas. Massey’s (1984) work on labour policies and the consequential spatial division of labour indicates that each stage of economic growth creates new spatial divisions of labour; each period reflects different socio-spatial configurations, introducing new dimensions of inequalities and relations of dominance and dependence among activities in different places and involving different people. Uncovering the relationship between informal spaces and the economy is crucial to understanding the benefits informal urbanism can provide.

The opportunity to reclaim the ‘democratic’ public space that privatisation and gentrification have conquered lies in the sphere of civil society, where the urban problems are being defined, articulated and addressed. However, the juxtaposition between spatial inequality and social stratification has dramatically constrained opportunities for specific categories of individuals. Those experiencing a combination of spatial and social disadvantages (e.g. the elderly, urban poor or disabled people in need of health care services) find themselves entrapped in a cycle of deprivation. This spiral of deprivation reveals the interlocking systems of power that have an impact on the most marginalised in society and resonates with Crenshaw’s (1989) ‘intersectionality of structural identities’ based on categories such as gender, race, sexuality and class, which interact with each other in various ways and further create inequalities and discrimination. In this context, the significance of opportunities for informal activities and appropriation of public or private space for micro-entrepreneurship becomes obvious, and the need to facilitate informality gains an entirely new dimension.

The Greek agora was a truly public place where commercial goods, information and ideas were traded freely. Cities are full of contradictions, particularly when one considers the complexity inherent in places that mix living, working, shopping, recreation and other functions. Cramped market streets and urban informality lead to serendipitous encounters with other
people and places, distractions, conversations and outdoor life that enable the benefits of messy public space. Planners frequently display a tendency towards simplification of inherently complex systems to avoid unplanned urban informality; with a new understanding, accepting and enabling informality will become part of the planner’s future toolbox.

**Conclusion – enabling urban informality is relevant**
Addressing urban informality is a pressing issue and important in guiding the expansion and transformation of cities. Informality is a phenomenon that cannot be disentangled from space and urban planning. Many of the urban theories remain rooted in the developed world and urban studies are still dominated by the idea that the First World/GLOBAL North provides ‘models’ for Third World ‘problems’. It is time for urban studies to move beyond this simplistic dichotomy and value learning and solutions from Third World cities’ implementation of and policy responses to informality (Roy, 2005). In these settings, the ‘unplannable’ is a welcomed exception to the formal order of urban planning (Hall & Pfeiffer, 2000).

The traditional concept of a rigid master plan as a set of rules and set-backs has become outdated, since the narrow perspective of master planning as a design-led activity frequently neglects the human dimension and is not sufficiently flexible and resilient to successfully deliver sustainable outcomes. This has resulted in the creation of places unable to deal with informal activities and change. There is, therefore, a need for an improved way of thinking: a new, integrated approach to master planning aimed at addressing the unpredictable nature of community development and accommodating elements of change (climate change as well as shifts in employment).

This article examined a range of different cases. It found that informal spaces emerge because these are beyond the realm of planning controls. In the case of the informal settlements that have developed on public land along rivers in Mumbai (Figure 2), the urban poor have built their own city without any reference whatsoever to the overarching bureaucratic apparatus of planning and control in the formal city next door (Hall & Pfeiffer, 2000).

At Burning Man City in the desert of Northern Nevada, city dwellers from all over the US created their idea of an ideal city based on a simplistic approach and radial model. Just because a structure is temporary or ephemeral like this one does not necessarily make it informal. In the case of China, the increasing control of public space, such as through facial recognition technology, is detrimental to the quality and diminishes the enjoyment of public space.

The question for decision makers should therefore be less about how to manage informality and should instead ask whether informality needs management at all. Informality will continue to be part of cities’ socio-economic systems, and too much control (such as in the Chinese case) will only reduce the quality and enjoyment of public space.

This article explored some examples of informal urbanism and its ambiguous relationship to public and private space, where the informal sector can offer important lessons about the adaptive capacity of these spaces, its unexpected use and its social role. It examined various ways in which specific groups appropriate informal spaces and how these can add to a city’s character, entrepreneurship and success. The characteristics of informal, interstitial spaces within the contemporary city and the numerous creative ways in which these temporary or permanently used spaces are appropriated (which are not always immediately obvious) continue to challenge the prevalent critical discourse about our understanding of ‘authorized planning’, formal place-making and the character of social order within the city in relation to these informal spaces. In conclusion, one could say that informality is a deregulated self-help system that redefines relationships with the formal. The presented cases from Chile, the US and China illustrate the dilemma of the relationship between informality and public/private space today.

**Data availability**
No data are associated with this article.

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Dovey K. ‘Informalising Architecture: The Challenge of Informal Settlements’.
Mohammad Shahidul Hasan Swapan
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The article addresses a predefined problem of the Global South and its conceptual ramifications in the Western World. The author has traced the conceptual debate in the field of informality and shows its translation into various dimension. It is time-worthy and critical reflection on to go beyond the traditional thinking of informality which is historically tied with slums and squatters. The author should also highlight the issues with informal economy in the form of street vending and other informal activities.

While informality becomes new normal and sometimes redefine the entire planning regime - few arguments should be justified to reflect such transformation (informalisation to formalisation).

The article made some useful conclusion regarding informality of private and public spaces - I am curious how space will be re(defined) to accept informality to address future pandemic?

Is the topic of the opinion article discussed accurately in the context of the current literature?
Yes

Are all factual statements correct and adequately supported by citations?
Yes

Are arguments sufficiently supported by evidence from the published literature?
Yes

Are the conclusions drawn balanced and justified on the basis of the presented arguments?
Yes

Is the argument information presented in such a way that it can be understood by a non-academic audience?
This article well-articulates the unplanned city's ambiguous relationships between public spaces in particular case studies. It analyses the character of the left-over spaces and the interpretation of informal urbanisation in three diverse cases in Chile, the United States (New York and Nevada) and China. Apart from Chile’s self-housing buildings as kind of removal of people’s autonomy, the author argues that cities are breathing spaces – for people. What is rather curious is the connection made between the macro to the micro scale-links of the Burning Man festival in Nevada, and the reality of surveillance technology involved with facial recognition in China, tracing how people move through space. The strengths of the article poses the casual space as being ‘informal’ and it points out how the informal space is not the same as an ‘illegal’ space. While the informal sector is portrayed as the uneven nature of capitalist development, new forms of urban informality become apparent under the forces of globalisation. Another interesting point made is about ‘tactile urbanism’ – DIY urbanism. If any, what do Chile, the US and China case studies have in common?

As far as informal spaces are concerned, they become formalised once the micro-entrepreneurial venture absorbs or connects with other left-over spaces.

Above all, this article's conclusions inevitable challenge the face-to-face reality and relation and
characterisation of public space and the reality we are confronted today with informal spaces.

Are modest spaces the same as the entrepreneurial ‘casual space’? Are informal spaces no longer a ‘common good’?

Minor things to address:
Page 5. 1st column, 2nd para, ...(Stiglitz 2013) missing reference page number.
Page 6. 1st column, 2nd para, Lewi Mumford reference is missing
Page 13. 2nd column, 2nd para, line 3, whom in particular had argued?

Is the topic of the opinion article discussed accurately in the context of the current literature?
Yes

Are all factual statements correct and adequately supported by citations?
Partly

Are arguments sufficiently supported by evidence from the published literature?
Yes

Are the conclusions drawn balanced and justified on the basis of the presented arguments?
Yes

Is the argument information presented in such a way that it can be understood by a non-academic audience?
Yes

Does the piece present solutions to actual real world challenges?
Yes

Is real-world evidence provided to support any conclusions made?
Yes

Could any solutions being offered be effectively implemented in practice?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: urban design history; modern and contemporary architecture; landscape architecture and sustainable luxury in cities

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.