Knee deep in the hoopla: rebuilding our cities beyond rocks and walls. A review of human-need satisfaction during the COVID-19 pandemic.

Georgina Guillen-Hanson¹, Mattia Thibault¹

¹ Gamification Group. Faculty of Information Technology and Communication Sciences. Tampere University. Kalevantie 4, 33100, Tampere. Finland. georgina.guillen@tuni.fi, mattia.thibault@tuni.fi

Abstract. Play in, with, and within the city is a topic that includes notions such as our right to the city and the challenges that current urban layouts and settlements largely determined by socioeconomic circumstances about, Through the lens of Gehl's Urban Quality Criteria and Max-Neef's Human Development Scale, this paper explores the evidence of how playfulness enabled the satisfaction of human needs as a part of the adaptation process to the "new" interactions with and within the city, taking the dynamics that emerged after the implementation of the COVID-19 pandemic as a reference. This paper argues that issues hindering our right to the city can be reframed and understood differently from a human-need satisfaction approach. This appreciation can help harness the pandemic's learnings about play in urban environments, contextualize them among ongoing global crises (i.e., war in Europe, climate change), and support reshaping relationships with and within the city inspired by playfulness.

Keywords: Fundamental human needs, playfulness, urban quality criteria, urban play, gamification

1 Introduction

"Say you don't know me or recognize my face; say you don't care who goes to that kind of place. Knee deep in the hoopla, sinking in your fight, too many runaways eating up the night" (Starship, 1985)

The mid-eighties hit "We built this city" by Starship presents an interesting portrait of what expressing ourselves with and within all sorts of urban spaces convey. Departing from [1] notion of play as a free activity that differs from the "ordinary life" and intensely absorbs the players in its own boundaries of space and time, there is a measure of playfulness, "an activity, motivation or affordance that prioritizes engagement over

193

external consequence, realness or convention" [2, p. 23] in the anonymity, individuality, and freedom offered by large cities, which let citizens choose what to do and who to be. On the other hand, this same anonymity can lead to a lack of attention or care about those around us, about where they come and go – as long as their actions do not interfere with ours.

Urban play, sometimes declined in paradigms of ludic [3] and playable [4] cities, or in urban gamification [5], or even as part of Do It Yourself (DIY) Urbanism [6], has long been a discussion topic. It has roots in [7] and its considerations on the "right to the city" and situationist cities like Constant Nieuwenhuys' "New Babylon," a city designed for the Homo Ludens [8] and extends to forms of urban utopias and dystopias [9]. Nevertheless, play remains challenging to define, and urban play is often ambiguous in its expressions' meanings and contexts. For example, what would be the difference between a hopscotch traced with chalk on a sidewalk and a hopscotch sprayed with paint on a wall? While the former might be seen as cute and even invite passersby to hop around, the latter might be labeled as vandalism, and hardly anyone will feel invited to hop on it. While the actions are very similar, a drawing made on a public surface, the affordances that they offer, the temporality of the intervention (one fleeting, the other long-lasting), and the meaning we assign to them generate such different interpretations. Interpretation is also a key tool for urban gamification – which can be defined as an action of playfully and systemically shifting the meaning of urban spaces, resemantisizing them [5] effecting behaviors that can invite new people to join existing or bring about new resemantizations; thus, influencing more behaviors in what becomes a playful circle [10]. This ability to change the meaning of our surroundings without modifying them is highly influenced by our perception of and behaviors in the city. This is always the result of a negotiation with the urban spaces themselves, which can impose levels of control or even deter playfulness. For example, the proliferation of shopping centers is turning inhabitants into consumers [9], inhibiting playfulness, and normalizing the act of consumerism as part of our interactions with the city. On the other side of the spectrum, play in the city can be perceived as a social practice, a cultural manifestation, and, in many cases, even an expression of public service [11]. The latter is clearly explained in some cases of DIY urbanism, often defined as a group of spatial, cultural practices that make informal physical alterations to the urban built environment [6]. Sometimes, these demonstrations may be considered illegal or even become a form of civil disobedience [12]. Nonetheless, disobedient or not, playfulness in cities presents itself as a form of bottom-up reappropriation and repurposing of public spaces, where the people behind them are transforming their surroundings into something meaningful that conveys a message to others. From subtle flower patches on sidewalks to loud flashmobs and other artistic demonstrations in the public space, these actions connect people with the city and each other differently than before, even if it is only for an instant. The playful dynamic between players and audience becomes a cocreative process where individuals can experience their cities in a different light and, importantly, find alternative ways to fight for their right to the city and satisfy their fundamental needs. These "fights for the right to the city" are relations and processes that transcend re-ordering urban spaces, highlighting disbalances in the meaning and place of space; the resemantization of the right to the city entails building alliances and breeding radical urban politics [13] effecting behaviors and leading to question the

fairness of the right to the city as such and how individual needs can be justly satisfied in the wider context of urban areas.

While playable cities have often been suggested as an antidote to the dehumanizing nature of contemporary urban spaces [4], little has been written on how playability and playfulness can be deployed to this end [14]. As a contribution to the state of the art, in this study we explore what the Human Development Scale [15] further detailed in section 1.1, can offer to urban gamification seen as an opportunity to rethink urban planning. In particular, we will focus on how city-making can play a role in transitions resulting from crises, considering socioeconomic situations (i.e., the aftermath of COVID-19 with pervasive income inequalities, climate change, ongoing war in Europe, disruption of food and fuel supply chains) that push people towards changing their habits and interactions, sometimes without even realizing it. Existing research about how the relationship between human activities and public spaces morphed during the pandemic, notes the relevance of space design to encourage people to maintain restrictions such as social distancing [16], highlighting how public areas became a necessity [17, 18] and urban play emerged as a prime activity to cope and develop resilience amidst adversity [19; 20; 21; 22]. It is on this line that the present study contributes to the state of the art by offering a human-need perspective, represented by the Human Development Scale, to engage and provide a more nuanced overview of the possible benefits of urban play in times of crisis. The present study concerns itself with the exploration of playfulness in the city as a satisfier of the fundamental human needs during times of crisis, elaborating a human need / urban quality framework to analyze different playful approaches implemented with and within the city during the COVID-19 pandemic.

1.1 About the Fundamental Human Needs: The Human Development Framework

In order to re-enable the right to the city, it is necessary first to understand the interplay between human needs and our living places. Since the mid-twentieth century, Abraham Maslow's "Theory of Human Motivation" [23], which depicts five needs to be satisfied from the bottom to the top, this is, from physiological to self-actualization, has served as a backdrop to illustrate the functional parameters of urban settings [24]. Maslow's perspective implies that physiological needs such as food and shelter should be first fulfilled before satisfying the needs for safety, followed by the psychological needs of belonging, esteem, and reaching one's full potential (self-actualization). However, the present study challenges the assumption that human needs respond to a hierarchical order and elaborates on [15] understanding that our fundamental human needs (FHN) are a system of interrelated, interactive ways of existing in terms of being, having, doing and interacting; that are expressed through axiological needs: Subsistence, Protection, Affection, Understanding, Participation, Idleness, Creation, Identity and Freedom [15] Also, realizing the difference between needs and satisfiers, is essential. The former are the same regardless of time, geographical location, or culture; the latter vary across geographies, times, and any other contextual characteristics. Thus, there are different types of satisfiers: synergistic, singular, inhibiting, violators or destroyers, and pseudosatisfiers [15]. While synergistic satisfiers can simultaneously satisfy various needs, enabling the oeuvre to exist, singular, inhibiting violators and pseudo-satisfiers are the

ones having the opposite effect because these satisfiers are imposed, institutionalized, ritualized, and induced by an individual or group, thus hindering the potential to satisfy other needs. For example, destroyers, such as the fences we erect with the delusion of protection and safety, are overtaking our rights to the city, as they "not only annihilate the possibility of its satisfaction over time, but they also impair the adequate satisfaction of other needs. These paradoxical satisfiers seem to be related particularly to the need for Protection. This need may bring about aberrant human behavior to the extent that its non-satisfaction is associated with fear. The special attribute of these violators is that they are invariably imposed on people." [15].

Considering the above, this study applies the FHN for its analysis because it offers an approach to gain a more nuanced, more profound understanding of the right to the city. Besides providing an inclusive and detailed definition of needs, the FHN includes needs defined by other researchers [25]. It is concerned with the ability to shape urban spaces beyond mere physical access as it entails participatory processes that give a sense of connection and belonging. Moreover, the FHN offers a comprehensive framework to picture the relationship between playfulness and need satisfaction as a crucial contribution to exploring how to operationalize urban play and beginning to understand what the role of play in contemporary cities can be. This could help urban planners, researchers, and citizens alike, to analyze past and ongoing activities and to enable and engage in playful interactions with and within their cities, aiming to increase the citizens' need satisfaction. Due to its scale (global), origin (health), and implications (economic recession, quick policy intervention, to name a few), the COVID-19 pandemic represented an unparalleled challenge for policymakers and urban planners alike, as it required to rethink spatial planning and management of urban living [26], calling for the acceleration of innovations in both rural and urban areas [27], rethinking urban operation models such as public-transportation planning [28], the role of city centers [29] relationships between cities and suburbs [30], and even the integration of nature-based solutions to maximize the use of public spaces [31].

As the pandemic highlighted some of the perils of current urban living (i.e., housing crises, quality of urban dwellings), and knowledge pitfalls to manage urban systems, it also became an opportunity to tap into people's resilience and ingenuity, allowing us to rethink urban and social design, highlighting opportunity areas to learn from different response measures and interventions that led to transitions in urban areas. Therefore, to achieve its purpose, in this article we first reflect on the lessons learned from urban playful interactions during the COVID-19 pandemic lockdowns, as they put the relationship with urban, public spaces under a new light for reflection [18], opened situations that created new boundaries, fleshing out novelty and indeterminacy for playfulness to thrive [32] before presenting the broader context of today's fear-fueled "need satisfaction" discourse pervasively marring our rights to the city and capabilities to play in it. In taking this approach, we will analyze how play in (with and within) the city can synergistically satisfy our fundamental human needs and, as such, has a transformative potential to help rebuild our relationships with ourselves and our cities.



Fig. 1. Keep the distance (please) – A child's take on social distancing. Image by the author

1.2 The setup matters: design considerations and the right to the city

As a design strategy for social interaction, [33] suggests that universities and all their stakeholders, can turn their institutions into experimental public spaces and that this would enable a humanistic approach - focusing on areas such as culture, affection, linguistics, and social spaces - to address crises allowing for a more comprehensive understanding of how they transform the status quo in our cultures and societies. This can stir the "sense and sensibilities of our collective selves [...] demanding integrative knowledge environments as new kinds of experimental public spaces" [33] where individuals are part of a greater whole, shaping and being shaped by their environment and their interactions with it and its inhabitants. We claim that such a vision can be extended to other urban spaces and social spaces within. This notion is backed up by existing research that take Gehl's approach to urban life quality, which has the criteria of functional spaces in cities that are also aesthetic, accessible, environmentally friendly, safe, comfortable and consider the number of people present in a specific space as well as the amount of public space to be used [34] of more equitable, sustainable, and more livable spaces. [35] propose an urban quality criteria tool enrooted in the notions of protection, comfort, and enjoyment as a basis to explore how public urban spaces satisfy several human needs. These studies bear in mind that public places have many functions, which change according to factors such as daytime or seasons [36; 25]. Moreover, considering the Human Development Scale for spacedesign activities helps to describe the qualities of the needs to be fulfilled, the types of services needed, the functions for providing such services, and the elements required to perform these functions [25]; thus, contributing the dynamic construction of social spaces, which exist beyond physical areas as they relate to individual experiences, cultural practices and human interactions [37]. Building on [38] view that urban play goes beyond using cities' physical spaces by bringing forward the possibilities to discuss local issues, and [39] observations that urban play entails games and activities outside of traditional boundaries reserved for play, creatively entering digital, physical, and social spaces; this paper argues that urban play can satisfy the fundamental human needs on times of crises, such as the COVID-19 pandemic.

Lefebvre [40] notes that cities can be made or exploited (make the best use of). The former entails activities that modify the city's physicality either directly or indirectly, whereas the latter implies using existing spaces and infrastructure as the place for the activities to happen. Elaborating further on the notion of made / use as the rights to the city, [41] note that self-regenerating cities require the creative and democratic participation of every citizen to reshape their urban spaces through strategies such as gamification and games, and technologies such as smart city infrastructure, e-participation, and crowdsourcing. Each of these rights is below.

- The right to be represented in the city; Feeling represented in and by the city in which we live is a primary need that strongly influences our sense of belonging
- The right to use the city; The possibility of moving and acting freely in the urban spaces is fundamental for its citizens. Restricting these possibilities creates situations of conflict.
- The right to write the city; The power to shape the urban environment is usually unequally distributed and is centralized to certain powerful actors in a city. Average citizens often have little to no possibility of acting directly on the city.

Against this background, satisfying fundamental human needs entails a constant dynamic between making and benefitting from the city; therefore, our analytical approach considers the Gehl's Urban Quality Criteria (UQC) to represent the utility elements of the city and the rights to facilitate regenerative cities [41] to describe how cities are made and how playfulness satisfies each of the FHN.

The UQC [34, 35] shown in (Fig. 2) departs from the notion that, instead of being designed for vehicular circulation, cities should be walkable and enjoyable for its inhabitants, thus considering both the quality and the use of public spaces and opportunities within while keeping people safe, thus inspiring design to prevent un-safe practices like jaywalking [42]. For our analytical framework, the UQC represents a series of enablers where play and playfulness act as satisfiers, facilitating actions across the different rights to the city [41].

| | | PROTECTION |
|------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P1 | <u> </u> | PROTECTION AGAINST TRAFFIC AND ACCIDENTS. FEELING SAFE Protection for pedestrians and cyclists, secure crossings, eliminationg fear or trafic. |
| P2 | \Diamond | PROTECTION AGAINST CRIME AND VIOLENCE. FEELING SECURE Lively public realm, overlapping functions day and night, goog lighting, allow for passive surveillance. |
| Р3 | | PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES (e.g. wind, cold/heat, pollution, noise) |
| | | COMFORT |
| C1 | | OPPORTUNITIES TO WALK/CYCLE Room for walking, no obstacles, accesibility for everyone, interesting facades, good surfaces. |
| C2 | | OPPORTUNITIES TO STOP AND STAY Edge effect, attractive zones for standing / staying, supports for standing or leaning against, detailed facades that invite staying. |
| СЗ | | OPPORTUNITIES TO SIT Zones for sittin using advantages: view, sun, people; good places to sit, benches for resting; good mix of public and café sitting. |
| C4 | | OPPORTUNITIES TO SEE Reasonable viewing distances, unhindered sightlines, interesting views, good lighting (when dark), easy orientation. |
| C5 | * | OPPORTUNITIES TO TALK AND TO LISTEN Low noise levels, street furniture ("talkscapes" - seating arrangements conductive to communicating) |
| C6 | | OPPORTUNITIES FOR PLAY AND EXERCISE Invitations for creativity, physical activity, exercise and play any time of the day or night regardless of the season; temporary activities (exhibitions, markets, festivals, etc.) |
| | | DELIGHT |
| D1 | | SCALE (DIMENSIONED HUMAN) Buildings and spaces designed to human scale, observing senses, movements, size, and behavior. |
| D2 | ** | OPPORTUNITIES TO ENJOY THE WEATHER AND OVERALL CLIMATE Shelter and exposure to sun/shade, heat/coolness, breeze, etc. |
| D 3 | | AESTHETIC QUALITIES + POSITIVE SENSORY EXPERIENCE Good design and detailing, good materials, senspry experiences through trees, plants, water; fine views. |

Fig. 2. The UQC as enablers of play [adapted from 34, 35]

1.3 Examples of playfulness in times of COVID-19

Existing research about playfulness in times of COVID-19 pandemic highlights how playful approaches to urbanism revealed themselves as low-risk, low-stress ways to (re) build social connections whilst adapting to changing constraints [43]. To better

illustrate how playfulness satisfied diverse fundamental human needs during the pandemic, this study considers several well-documented examples of activities that took place across the world during the lockdown days [19, 20, 43, 44]. The short descriptions are presented in forms of playfulness *with* the city, activities that entailed using existing infrastructure or repurposing physical public spaces; and playfulness *within* the city namely activities that happened in private areas such as the interior of the households.

Playfulness with the city

- Super Street Arcade a portable set up featuring oversized game elements to be placed on street and outdoor locations for passerby visitors to interact, play, and engage with other members of the community without going to an indoor, confined area [45].
- **Balcony performances** singing, playing an instrument, DJ'ing or even panbeating to the rhythm, were some of the expressions people used to connect with their neighbors. Social media contributed to spreading invitations to join and share a moment of joy [46].
- Guerrilla gardening a "mysterious activity" that brings together people to work a land without the permission of the authorities [47]. The purposes of the gardening activities could be to beautify a plot, carry out urban agriculture activities and create community spaces. They are also considered a form of peaceful protest as well as an opportunity to provide cleaner air and improve the citizen's mental health [48].
- Rooftop tennis matches, concerts, and more While being semi-private areas, shared by the inhabitants of the same building, rooftops also became spaces of playfulness, allowing activities that ranged from tennis matches to public concerts, always observing social distancing rules [32].

Playfulness within the city

- The Teddy bear challenge displays of teddy bears at the windows (sometimes with messages of hope) so people could see them from the streets and try to find as many as possible [21; 32].
- Online gaming an activity that "provided something to do when there was nothing to do" [49]. online communities helped to keep a social life, providing spaces to interact with others and cope with boredom and stressful situations, becoming a tool for resilience and adaptation.
- Remapping the world An international initiative to portray through maps how the pandemic transformed living spaces. Entries from all over the world illustrated issues that ranged from domestic rearrangements to the emotional toll of missing nature and new, virtual connections [50]
- **Indoor play** engaging in playful activities within the living environments which ranged from playing games to embarking on creative endeavors [51].

2 Methodology (Say you don't know me or recognize my face)

In this article, we offer a critical reassessment of research on urban play and attempt to integrate its different theories and perspectives with frameworks related to need satisfaction - particularly the Human Development Scale. In order to do so, we first carried out a thematic literature review in 2020 to answer the question: to what extent do people have equal rights – in terms of ability and/or access – to play in the city today? The review explored the topics of right to the city, freedom in urban areas, access to the city, urban playfulness, and play in public places, notions that were used as search keywords via Google on October 26, 2020. This methodology was chosen because thematic reviews study literature concerning specific research questions, in this case, how play in the city satisfies our fundamental human needs particularly in times of crises and their aftermaths, outlining the results from research on the field, comparing them and enabling the development of a comprehensive summary of the analyzed phenomenon [52]. Due to its systematic, qualitative, and narrative nature, thematic reviews are built on selective sampling [53] and, using the above noted keywords, the search for literature stopped when most of the content displayed showed irrelevant or outdated information (i.e. conferences, advertisement). For the first part of this study, the sample consisted of academic research, case studies, and social initiatives published in grey literature such as newspapers, institutional reports, and similarly peer-and expert reviewed publications. Besides being about the right to the city, demonstrated in the title, abstract, or executive summary, the material chosen had to meet the inclusion criteria that consisted of content in English, German, or Spanish with full, unrestricted access; the material came from reliable sources such as peer-reviewed journals, specialized multilateral agencies (e.g., the United Nations), research institutions, wellestablished newspapers; and, books. Material that needed more reliable references, such as scientific information backed up by peer-reviewed publications or statistic agencies (e.g., Eurostat, Statista), or that was wholly or partially behind a paywall, was excluded. As shows, the final sample of the first search round comprised 30 sources, of which 14 were academic publications (journals and conference proceedings), followed by 5 book chapters. The thematic analysis highlighted the change in cities' layouts, proliferation of shopping centers, and overall socio-economic divisions leading to the growth of slums and how these could be repurposed to close the gaps, as some of the main challenges to equitable and fully accessible rights to the city.

We wanted to confront the results with the lived experiences of experts and the general public. Therefore, in order to discuss and expand the result of the review, the first author of this paper created "This Quarter in Play," a 4-entries blog hosted by the website of the Sustainable Consumption Research Action Initiative (SCORAI). This online space allows sustainability researchers and practitioners to network, exchange information, and carry on international, multidisciplinary dialogues. Publishing the blog through this outlet entailed several advantages, such as having a broader outreach and promotion (the blog was advertised through the network's newsletter, which had a distribution of over 800 recipients), something that a self-created blog would need to build over time. Data collection through a blog was chosen as a methodology to validate the thematic review results because of its benefits for social scientific research, such as providing publicly available, instantaneous, and low-cost opportunities to collect data through immediate text generation [54]. Moreover, blogs provide anonymity and access

to populations the researcher may not have social or geographical access to; thus, blogs allow micro-comparative, trend, and panel longitudinal research [54]. Throughout 2021, the blog was used to share different views of what playing with, within, and in urban areas can entail. While it started as a reflection about social inequities and how cities' layouts exacerbated those, the dialogue between the blog author and the readers, mainly researchers in the fields related to systems of sustainable consumption and production, invariably led to the discussion about how COVID-19 measures were reshaping our cities and our activities within them – play included. The discussions and feedback of the people who engaged in the dialogue from the blog entries, informed the second step of our thematic literature review. The second search took place on October 26th, 2022. Whilst the same keywords and inclusion criteria used for the first search were applied, we widened our scope by focusing on publications related to play in times of crises, particularly playfulness during the COVID-19 pandemic.

| Table | l. Study | sample | per 1 | type of | t publicati | ion |
|-------|----------|--------|-------|---------|-------------|-----|
| | | | | | | |

| | Peer reviewed | Institutional reports | Book chapters | Newspaper article | Magazines | Blogs/ news website | Total |
|----------------|------------------|-----------------------|------------------|----------------------|-----------|---------------------------|-------|
| Round 1 (2020) | 14 | 1 | 5 | 3 | 2 | 5 | 30 |
| Round 2 (2022) | 18 | 5 | 0 | 9 | 5 | 3 | 40 |
| Total | 32 | 6 | 5 | 12 | 7 | 8 | 70 |

These thematic literature reviews were the basis for the third step of our research, which aimed to bring forward a more nuanced academic perspective to address the challenges that crisis-led transformations possess. To this end, we adopted a practice-oriented approach inspired by [55] reflection that in situations of reinvention and revival, the main challenge is remembering, rescuing, and perhaps adapting existing know-how rather than generating "from scratch." In this paper, we critically reflect on the arguments in favor of rethinking urban planning from a humanistic point of view and potentially leading to their consideration for re-developing our relationships with cities. This lens led to emphasize the issue of spatial injustice as the context of the analysis. In light of the COVID-19 lockdown experiences, we will focus on how urban play can be understood and operationalized as a pivotal strategy to fulfill citizens' needs and promote human development in the context of greater global challenges. (Fig. 2 shows the research process followed).

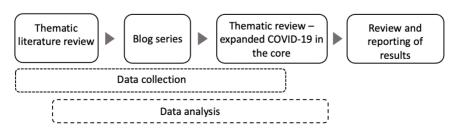


Fig. 3. Overview of the research process

3 Spatial Injustice (Say you don't care who goes to *that* kind of place)

According to the UN, by the year 2030, 60% of the population will live in urban environments; of these, 3 billion will likely be living in shantytowns or slums [56]. The emergence of these informal settlements highlights one key issue when it comes to urban play and citizens' needs: spatial injustice. How can we promote urban play across spaces with vast differences in accessibility, safety, services, and so on? In other words, how do we deal with "that kind of place"? Because humans want to live in safe, equal, inclusive societies; however, thriving in their cities is blatantly hampered by all sorts of physical and socioeconomic limitations, including the access to virtual spaces that could otherwise help overcome the physical barriers. For example, while the use of smartphones keeps increasing, with an expected total of 5.1 billion users by 2028 [57], in many countries with large urban conglomerates such as India or Bangladesh, less than 50% of the population owns a smartphone [58]. Today's cities are topographical spaces containing microcities within, with fences and gates physically delimiting these areas. Despite sharing the same gates and walls, each of these enclaves has its own characteristics and social dynamics - "in" and "out" convey the difference between having access to basic services like public transportation, water and sanitation and even better education opportunities. "Out" means to face the "off-putting, discomfiting, vaguely threatening, rough life" [9]. For example, slums and ghettos are defined as "low-income enclaves" spaces where economically vulnerable population concentrates [59] and are often tied to groups of the same culture.

On the other hand, "in" tends to describe communities more economically affluent, in many instances gated and guarded, called "golden ghettos" [60] even when the economic means to live in that particular part of the city is the only thing that the inhabitants of these areas have in common. [61] observes that the "prisoners of space," hence those deprived of their right to the city, are the individuals who choose to be physically separated, retaining a spatial and social distance from others. Nonetheless, these communities of "gated minds, gated lives" [61] are the ones driving the power structures that not only hinder the right to the city, but also determine how activities are carried out in the everyday, presenting what [62] described as systems of consumption, surveillance, and property relations.

Play within the boundaries of one's "right" side is also limited by another set of rules and power structures, where social relations are less driven by spaces of social equity and lived experiences and more by economic interests. Depending on who is talking, "that kind of place" could be areas inside or outside of what is "protected" by walls, which are mere representations of fear [61]. Claiming the right to play in "that kind of place" also comes with very high stakes for the players; after all, playing with fear implies the existence of a risk inherent to going to the other side of the wall. From low-income to high-income areas, the activity is called trespassing, an often highly punishable offense. Would the players going from the high-income to low-income areas face a similar fate for leaving the "safety" of their walls behind? Would anyone call the police, feel threatened by the presence of someone from the other side? It is difficult to predict the outcomes of this setup. "That kind of place" also applies to areas designed to drive material consumption under the notion that it is something fun, that endless

consumption of goods and services fulfills all sorts of needs. However, these shopping areas, which are increasing as the main spaces of human interaction, are taking over the urban spaces essential for living in inclusive, creative cities [9]. Consumerism, taking place within walls, under artificial lights, numbing noise, and strict rules of conduct, is controlling how our resources are spent, thus limiting our time and creativity for exploring our urban spaces, caging the citizens, and controlling the right to the city, diminishing it, if not subduing it altogether.

Another way to understand "that kind of place" could be the areas where fences no longer play a role, where the right to the city as the space for equal, democratic relations and integration is latent, encouraged through play and creativity. Some noteworthy examples include cleaning of buildings, painting them with bright colors, and providing messages (and services!) that dignify the living conditions of the inhabitants in the less-privileged areas of the city [63, 64, 65], or the installation of portable parklets [66], sharing a meal with the neighbors to enable conviviality [67] and even questionable practices like "slum tourism" (where tourism is not a mean to alleviate poverty rather being the attraction) [68]. The right to the city entails the possibility to be our playful selves in all kinds of places; after all, that is the way we, as Goethe's Faust, "plunge ourselves into the roar of time, the whirl of accident; may pain and pleasure, success, and failure, shift as they will it's only action that can make a man."

4 Rights and Needs in the City (Knee deep in the hoopla, sinking in your fight)

The expression "knee deep in the hoopla" means to be "very involved, mixed up in the excitement or fervor of the moment" [69] which could be another way of describing immersion and even Lefebvre's *oeuvre* – the work of art where the city escapes material logics and responds to aesthetic needs as well – that is increasingly threatened by the gated layout of cities, regulatory frameworks for the use of public spaces, and Locke's tragedy of the commons. In the context of this paper, being knee-deep in the hoopla is the praxis of recovering the meaning of creative activity in urban spaces through the appropriation of time and space; this is, letting the oeuvre manifest itself. Under the lens of Maslow's hierarchy, *oeuvre* is a high-level need that may never be reached as other "basic" needs, such as safety, should be first fulfilled. As presented earlier, in our current urban settings, this pursuit of safety is expressed through limitations to the freedom of movement, giving a clandestine character to the very creative activity that makes the city thrive. Conversely, the existential-axiological need matrix proposed by [15] positions play as the satisfier of various needs, highlighting its relevance for "doing idleness," (Fig. 4). Playful activities such as the balcony performances are an example of how this need was satisfied. Such performances, besides helping to relieve anxiousness and boredom, also became a way to "lift one another's spirits" [46]. Remapping the world, a gameful satisfier of interacting idleness, was an activity that also satisfied various other needs, such as being - affection, doing - creation, and interacting – freedom, because it invited participants to explore their "new world" through charting her feelings, sensations and even desires [50], inviting others to join their journeys.

| | EXISTENTIAL NEEDS | | | | | | |
|-------------------|-----------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--|--|
| | | BEING HAVING | | DOING | INTEREACTING | | |
| AXIOLOGICAL NEEDS | IDLENESS | Courious, receptiive, imaginative, playful, reckless, humorous, tranquil, sensual | Games, recreational areas, playgrounds, spectacles, clubs, parties, peace of mind | Daydream, brood, dream, recall old times, give way to fantasies, remember, relax, have fun, play | Privacy, intimacy, spaces of closeness, open spaces, free time, surroundings, landsapes | | |
| IOLOG | ENABLERS (Gehl's UQC) | \bigcirc \frown | | All | All | | |
| ¥ | EXAMPLE | Online gaming | Super street arcade Guerrilla gardening | Balcony performances | Remaping the world | | |
| | RIGHT | All | Representation Use | All | Use | | |

Fig. 4. Play as a synergistic satisfier. From doing idleness to being playful, having recreational areas, and interacting in spaces of closeness

Through this lens, the city enables the satisfaction of the needs of having, doing, and interacting idleness. It is relevant to highlight the difference between idleness and laziness, as both terms are frequently used interchangeably. The latter has a negative connotation and often entails an attitude of rejection, whereas idleness implies simultaneously a notion of emptiness and openness as a quality of contemplation [70, 71]. The satisfiers of being idle drive the impulse to cross fences and reappropriate our urban spaces: playfulness, imagination, and recklessness. For example, in the context of the COVID-19 pandemic, the safety measures deployed as contention as mitigation strategies could not and should not be considered a destroyer of freedom, as many claimed. These measures were actions toward fulfilling our communal needs of protection (having a functional healthcare system) and subsistence (being healthy). Acting against these measures undermined the possibilities of others around us to satisfy these needs. Inhibiting satisfiers over-satisfy one need up to the point that other needs are overlooked.

Living in a locked-down environment limited but did not eradicate other satisfiers like play. The overall situation gave rise to new playful practices that satisfied different human needs according to the setups of the time. Besides being a satisfier for idleness, which sometimes is also presented as leisure, during the COVID-19 pandemic, play contributed to fulfilling various other needs, enabling other satisfiers than those related to idleness. In some cases, the contribution was direct, like enabling physical and mental health (satisfying the need of being subsistence) or strengthening the links with family and relationships with nature (satisfying the need of having-affection), facilitating the expression of emotions (doing – affection), and even giving a new

| | | EXI | STENTIAL | NEEDS | |
|----------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| | | BEING | HAVING | DOING | INTEREACTING |
| | SUBSISTENCE | Physically and mentally healthy | Food, shelter, work | Feed, rest, work | Living environments, social settings |
| | Enablers | | | | |
| | Example Right | Balcony performances, window quests | | | Indoor play, Rooftop play Use |
| | PROTECTION | Autonomous, adaptable, resilient, careful | Social security, health systems, work. | Cooperation, plan, help, take care off, support | Dwellings, social environments |
| | Enablers | All | | All | |
| | Example | Teddy bear challenge | | Indoor play | Guerrilla gardening |
| | Right | Write | | Write, Representation | Use |
| | AFFECTION | Humorous, sensual, respectful, generous | Friendships, family relationships with nature | Share, take care of, make love, express emotions | Privacy, intimate spaces of togetherness |
| EDS | Enablers | All | All | All | |
| Ш | Example | Remapping the world | Indoor play | Teddy Bear Chalenge | Online Gaming |
| Z | Right | All | All | All | Use |
| AXIOLOGICAL NE | UNDER- STANDING Enablers | Critical capacity curiosity, intuition All | Literature, education, teachers, policies All | Meditate, investigate, analyze, study | Schools, communities, families, universities |
| O | Example | Online gaming | Indoor play, super street arcade | | Guerrilla gardening, indoor play |
| | Right | All | All | | All |
| 0 | PARTICI- Pation | Receptiveness, dedication, sense of humor | Responsibilities, duty, work, rights | Cooperate, dissent, express opinions | Associations, parties, churches, neighborhoods |
| | Enablers | All | All | All Guerrilla gardening, | |
| | Example | Balcony performances | Indoor play | isuper street arcade | |
| | Right | All | All | Representation | |
| 3 | CREATION | Imaginative, bold, inventive, creative | Abilities, skills, techniques | Invent, build, design, interpret, compose, work | Spaces for expression, worshops, audiences |
| | Enablers | All | | All | |
| | Example | Teddy bear, indoor play, balcony performances | | Indoor play, Remapping the world | 四 爺 Guerrilla gardening, Balcony performances |
| | Right | Write, Use | | Write, Representation | Use |
| | IDENTITY | Sense of belonging selfesteem, consistency | Values, language, customs, religions, norms, work | Grow, get to know oneself, commit oneself | Places one belongs to, everyday settings |
| | Enablers | All | All | | All |
| | Example | Online gaming | Indoor play, rooftop play | Indoor play | Remaping the world |
| | Right | Write | All | All | All |
| | FREEDOM | Autonomy, selfesteem, determination, passion, assertiveness, openmindedness, boldness, tolerance, rebelliousness | Equal rights | Dissent, choose, be different from, runrisks, develop, awareness, commit oneself, disobey | Temporal/spatial plasticity (everywhere) |
| | Enablers | All | | All | All |
| | Example | Indoor play, balcony performances | | Guerrilla gardening | Remaping the world |
| | Right | Representation | All | All | All |
| | - | | | | |

Fig. 5. The synergies of playfulness as a satisfier

meaning to the spaces of togetherness (interacting – affection) [19, 20 49]. Indirectly, playfulness during the pandemic also contributed to satisfying needs such as having-understanding through endorsing policies and giving more space to curiosity (being-understanding). Even for those who rebelled against the policies and expressed their dissent in urban areas, their oeuvre allowed them to satisfy their need of doing-participation, for example. (Fig. 5 illustrates each of the axiological and existential needs including the UQCs that enable their satisfaction, examples of playful activities, and type of right to the city).

As shown in Figure 5, several needs were addressed by the same activity. For example, the Teddy Bear challenges were often reported as an approach to relieve children suffering from social isolation. This activity was enrooted on the connotations of comfort and consolation that plush toys provide [21; 32]. The multitude of teddy bears (and other plush toys) present in windows across the world gave a sense of community, unity and support, strengthened by a sense of sweetness that fulfills needs related to affection [21]. In a similar way, Indoor Play satisfies doing protection and creativity while, having affection, understanding, participation, identity, and even freedom. For example, children were able to build resilience while having more autonomy for playing within their living spaces, deemed as "safe settings" due to the reduction of parents' mediation as they had to deal with additional responsibilities, such as homeschooling [51]. During COVID-19, there was an increase in activities involving arts and crafts, board games and puzzles, both among children and adults, as a way to "take comfort in the known, the ordinary, the mundane" [51; p 379]. Activities of playfulness with the city, such as guerrilla gardening, satisfied the needs of doing participation and freedom simultaneously, as they are enterprises that bring communities together voluntarily [47] while still allowing for the necessary social distancing, for example.

5 Discussion (Too many runaways eating up the night)

Taking the human fundamental needs into consideration for the good design of public spaces as suggested by Gehl, the need to adapt the design and implementation rules calls for special attention should be given to communication, safe distances, and enjoyment [36]. Thus, if we hypothesize that "cities that play together stay together" [5], urban gamification enables moments of connectedness between citizens and their surroundings regardless of the zeitgeist. The fulfillment of fundamental human needs happens through collective expressions such as portable, free to use, temporary public spaces [66], setting up a 215 mt. long table to share meals with the neighbors [67], to name a few examples. The pandemic illustrated how this connectedness did not disappear but morphed and adapted itself to the reality of the times. Areas that would typically buzz with the hustle and bustle of the every day turned eerily quiet, witnessing a parade of all sorts of mouth masks and awkward exchanges of people keeping their distance or engaging in a dance-style interaction between strangers in the public areas: "you go left, I go right," encounters that resembled two like-poles of a magnet repelling each other. In times of crisis, such as the last pandemic, avoiding other people becomes the norm, challenging the resilience of citizens and cities alike [26, 44]. To enable some

level of socialization, interaction, and even mental sanity, many of us "internalized" playgrounds at home, changing not only our work practices but also our playing ones [19] within the limits of our living areas. Outside, urban spaces underwent rearrangements, either as an official measure implemented by planners and governments [72] or informal, like the proliferation of desire paths in parks, meadows, and other open areas [73]. Through it all, playfulness, shone as a coping mechanism [19, 32, 49].

Notwithstanding the increase of video games use and growth of interactions through online communities [20, 49], as more physical distance was needed hampering the contact with traditional community assets such as family, neighbors, and friends, people explored new means of togetherness enabled by the city, for example, through placing teddy bears in windows, clapping for health workers, writing messages of hope, and undertaking window expeditions [21; 32]. Thus, playfulness and demonstrations of play came across as transformative forces that "exemplified the best of human behavior" [22]. It is worth noting that most of these playful demonstrations took place from private areas (the windows, balconies, rooftops) to the open ones (the streets, other rooftops), emphasizing the urban quality criteria for delight: scale, opportunities to enjoy the weather and overall climate, and aesthetic qualities to facilitate sensorial experiences.

What about the expressions of playfulness happening in the common areas? The lockdowns and other restrictions implied that play on the streets and other public spaces was to happen clandestinely or not occur at all. Any outdoor interactions of people from different households were subject to fines, and even playgrounds became inaccessible despite these being essential for children's development [74, 75]. When it came to playing outdoors, socioeconomic differences also affected the adherence to safety rules. particularly among children. In northern India, for example, middle – upper-income families adjusted their activities to the regulations, reporting anxiety and difficulties for social encounters; whereas in poor urban, peri-urban, and rural areas, "children played as usual, slipping out onto the street to play with other children by avoiding scrutiny" [76]. On a broader societal level, these restrictions for interacting outdoors boosted expressions of temporary and tactical urbanism, also defined as the transformation of underutilized urban spaces through small, experimental design projects led by diverse actors [77]. These solutions offer low-cost, low environmental impact, agile solutions to engage local communities and strengthen the sense of place, bringing vitality to streets and neighborhoods [78]; moreover, they are an easy to reproduce approach that enables partnerships between different societal stakeholders, like city councils, small neighborhood businesses, and can help to rebuild trust among citizens, generating new connections, making the UQC of comfort for exercise a play an imperative. Given the interconnectedness between the needs and satisfiers, it is possible to clearly depict the right to the city as described by Lefebvre [7]. Under this lens, satisfiers, such as living spaces and social environment, are variable and subjected to their context, and one may argue that the freedom to play in inclusive urban areas where all citizens can fulfill their fundamental human needs is a rather ingenuous take. [7] noted that generalized segregation is a pervasive force that keeps creating urban apartheids [9], increasing social differences and contributing to ongoing struggles such as the aftermath of the pandemic.

As the pandemic restrictions were lifted, the relationships with public spaces are also being explored through different lenses, with notions such as "build back better" through playful learning landscapes [79] and, as a response to the ways people connected through public spaces through the pandemic, reframing public art, connecting people and public spaces in creative ways [43]. Recent studies exploring ways to foster and maintain the changes brought by playful, community-led activities in cities after the times of crises, observe the relevance of basic forms of human communication and creativity, such as story-telling [80] and photographic-based essays [81] and various other approaches that could be endorsed through technology [82] or not, emphasizing creativity and the formation of human connection as the core. All these notions have in common collaborative social dynamics, however, the real challenge for building back better, is until what extent these reconnections will maintain or even exacerbate the divisions that scar our urban environments and hamper our ability and rights to play in the city today. It is worth noting that perhaps not all the playfulness deployed on times of crises are meant to be preserved as they responded to a particular moment (e.g. balcony singing), whilst other playful approaches may help addressing human needs in the longer term due to the way that urban set ups enable their existence as social spaces and the various ways they help citizens to enact their rights to the city (e.g. guerrilla gardening, super street arcade).

6 Conclusion - We Built this City

While understanding the satisfaction of human needs and the relevance of play as a synergistic satisfier that may help to reappropriate urban areas, (as illustrated on Fig. 5) it is important to note that socio-economical divisions will continue to exist, and the opportunity rests on transforming these divisions into forces of change. The HDS lens shows how the capacity to participate in the creation of the *oeuvre* is latent in each and every one of us; it can be suppressed through arguments and actions justified to act towards our safety; however, the social actors enforcing these measures (i.e., businesses, policymakers, or even neighborhood watch) are not the only ones with the power to drive change. For example, the success of the top-down COVID-19 directives implemented in New Zealand, which were presented as positive, collective enterprises, was driven by the population's goodwill, expressed through collaborative dynamics [83]. Of course, the fact that the government provided economic support to those affected by the lockdowns also contributed to facilitating the compliance of these rules. During the pandemic, creative approaches to reinforcing safety rules and the importance of play demonstrated their relevance for revisiting the right to the city as a fundamental human need, giving a new sense to daily connections with our living spaces and with each other, shifting the ways that local governments manage spaces and enabling the re-imagination of social life in urban spaces [43, 78, 79, 81, 82]. While some call for a complete re-thinking of urban planning [43], it is important to bear in mind that some of the COVID-19 "temporary" solutions can help to tackle some of the ongoing socioeconomic challenges also hitting the world like a deadly virus, for example, keeping the bike paths that encouraged and facilitated riding the bike instead of cars and other fuel-powered vehicles, can contribute to lower the burden of soaring fuel prices, reducing pollution levels, and even increase health levels. For the "rethinking" process, it is also relevant to remember that getting our knees deep in the hoopla, in other words, engaging with the *oeuvre*, is not about taking the streets with expressions of violence or total antagonism, but rather actions that invite to create new realities where multiple oeuvres can co-exist.

The present study portrays how the diverse activities, motivations, and affordances (e.g. balcony singing, window expeditions, paths of desire [32; 73] that prioritized engagement over convention and seized existing elements of urban quality, helped to cope with uncertainty and changing regulations during the last global crisis; showing how, even in the most restrictive environments, being knee-deep in the hoopla together is possible [19, 20, 32]. Some of the post-COVID-19 community activities are building upon social engineering processes where public spaces, healthcare (both physical and mental), mobility, and environmental preservation [48] are the basis for new (or rediscovered) forms of play with and within the city. Many examples include crosscultural and multicultural experiences that "tear down the walls" both physical and mental [61], like bringing conviviality through food, acts of solidarity and playfulness between neighbors [66]. With the expansion of online communities and interactive technologies, the possibility of enabling hybrid forms of interaction, artistic and cultural expressions are also finding new spaces, using multimedia experiences as a way to not only connect citizens with each other but also enable new partnerships and forms of collaboration like street arcades in Melbourne [45] and portable, interactive playgrounds [84]. A United Nations Development Program study in 2020 states: "Citizen initiatives to respond to crises can emerge spontaneously, but not by spontaneous generation" [85]; this is because regardless of the type, size, and people involved, these initiatives have something in common; a collaborative reaction to meet the needs that crises (of any sort) bring about. Zooming into the dynamics of urban quality criteria, need satisfaction, and the rights to the city, it is possible to distinguish the elements representing the playfulness in all these instances; thus, showing how reshaping the satisfaction of human needs through playfulness can be taken forward. While the future of these playful interactions after the time of emergencies is still unfolding, in times of multiple global crises, the learning from the responses to COVID-19 shows how cohesive, playful approaches to a crisis can help overcome the physical and mental barriers that disconnect us from each other and our cities, the transformations many of our activities underwent through the pandemic are currently giving shape to new forms of interaction, becoming a series of avenues worth exploring. What we make of them is still to be seen. The right to the city is a tale of every city. For some, today may be the best of times; for others, the worst. This spring of hope and winter of despair shows that, despite lockdowns and in the city, we have everything before, behind, and around us. We demonstrated to ourselves that new relationships between individuals and spaces can be playfully created, recreated, and adapted despite the walls that may surround us. The rules of the game keep morphing; in many places, we still need to keep our masks on. We are redefining "that kind of place" every day; therefore, playing with our cities is a very attainable goal, let's remember what Dickens' Monsieur Ernest Defarge (a wine shop owner turned French revolutionary in 'A Tale of Two Cities') noted "Is it possible! Yes. And a beautiful world we live in, when it is possible, and when many other such things are possible, and not only possible but done."

Acknowledgments. This research was supported by the Foundation for Economic Education [Grant No. 210301 - GAMETH], the Fortum and Neste Foundation (agreement 20200029) and the Academy of Finland Flagship Program 337653 - Forest-Human-Machine Interplay (UNITE). Special thanks to Dr. Dale Leorke for his encouragement and support and to MBA Lupita Guillen for the improvement of the images.

CRediT author statement. Georgina Guillen-Hanson: Conceptualization, Methodology, Formal analysis, Writing – original draft preparation. **Mattia Thibault**: Validation, Writing – review and editing.

References

- Huizinga, Homo Ludens: A Study of the Play-Element in Culture, Routledge Kegan Paul Ltd., 1949.
- 2. Masek, L. and Stenros, J. (2021) "The Meaning of Playfulness: A Review of the Contemporary Definitions of the Concept across Disciplines", *Eludamos: Journal for Computer Game Culture*, 12(1), pp. 13–37. doi: 10.7557/23.6361.
- Stevens, Q.: The ludic city: exploring the potential of public spaces, Routledge, 2007. https://doi.org/10.4324/9780203961803
- Nijholt, A.: Playable cities, Singapore: Springer (2017). https://doi.org/10.1007/978-981-10-1962-3
- 5. Thibault, M.: ReClaim: Urban Gamification for City Reappropriations, Tampere University Press, (2021).
- Orum, A.M.: The Wiley-Blackwell Encyclopedia of Urban and Regional Studies, John Wiley & Sons, (2019). https://doi.org/10.1002/9781118568446
- 7. Lefebvre, H.: Le droit a' la ville, Anthropos, (1968).
- 8. Sadler, S.: The situationist city, MIT press, (1999).
- 9. Ladiana, D.: Urban dystopias: Cities that exclude, International Journal of Sustainable Development and Planning. Pp. 619–627. (2017) doi.org/10.2495/SDP-V12-N4-619-627
- 10. Thibault, M. Ludosemiotica. Il gioco tra segni, testi, pratiche e discorsi, Rome: Aracne. (2020)
- 11. Leorke, D., Owens, M.: Games and Play in the Creative, Smart and Ecological City, Routledge, (2020). https://doi.org/10.4324/9781003007760
- 12. Sibbald, S.L., Graham, R., Gilliland, J.: The public health response to 'do-it-yourself'urbanism, Global health promotion 24 (3) Pp. 68–70. (2017) https://doi.org/10.1177/1757975915602632
- 13. Iveson, K. Social or spatial justice? Marcuse and Soja on the right to the city. In City (Vol. 15, Issue 2, pp. 250–259). Informa UK Limited. https://doi.org/10.1080/13604813.2011.568723. (2011).
- 14. Hassan, L., Thibault, M.: Critical playable cities, Making Smart Cities More Playable: Exploring Playable Cities. 71–85. (2020) https://doi.org/10.1007/978-981-13-9765-3 4
- 15. Max-Neef, M.A.: Human scale development: conception, application and further reflections (1991).
- Sepe, M. Covid-19 pandemic and public spaces: improving quality and flexibility for healthier places. *Urban Des Int* 26, 159–173 (2021). https://doi.org/10.1057/s41289-021-00153-x

- 17. Schuff, S. How Covid-19 demonstrated the importance of public space in cities https://citiestoday.com/industry/covid-19-demonstrated-importance-public-space-cities/ (2020)
- 18. Luger, J., & Lees, L. Revisiting urban public space through the lens of the 2020 global lockdown. In Urban Geography (Vol. 43, Issue 6, pp. 797–809). Informa UK Limited. https://doi.org/10.1080/02723638.2022.2073084 (2022).
- 19. Hjorth, L., Lammes, S.: Playing with the 'new normal' of life under coronavirus, The Conversation 6 (2020).
- 20. Kleinman, E., Chojnacki, S., Seif El-Nasr, M.: The gang's all here: How people used games to cope with covid19 quarantine, in: Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, Pp. 1–12. (2021) https://doi.org/10.1145/3411764.3445072
- Heljakka, K.: Liberated through teddy bears: resistance, resourcefulness, and resilience in toy play during the covid-19 pandemic, International Journal of Play 10 (4) Pp. 387–404. (2021) https://doi.org/10.1080/21594937.2021.2005402
- Tonkin, A., Whitaker, J.: Play and playfulness for health and wellbeing: A panacea for mitigating the impact of coronavirus (covid 19), Social Sciences & Humanities Open 4 (1) 100142. (2021) https://doi.org/10.1016/j.ssaho.2021.100142
- 23. Maslow A.H. (1943) A theory of human motivation. Psychological Review, 50 (4), pp. 370-396, 10.1037/h0054346
- 24. Sheikh, W. T., & van Ameijde, J. (2022). Promoting livability through urban planning: A comprehensive framework based on the "theory of human needs." In Cities (Vol. 131, p. 103972). Elsevier BV. https://doi.org/10.1016/j.cities.2022.103972
- 25. Aly, D., Hassan, D. K., Kamel, S. M., & Hamhaber, J. (2018). Human needs as an approach to designed landscapes. *Journal of Natural Resources and Development*, 8, 15-26. https://doi.org/10.5027/jnrd.v8i0.03
- 26. Song, X., Cao, M., Zhai, K., Gao, X., Wu, M., Yang, T.: The effects of spatial planning, well-being, and behavioural changes during and after the covid-19 pandemic, Frontiers in Sustainable Cities 3. 686706. (2021) https://doi.org/10.3389/frsc.2021.686706
- 27. Makkonen, T., Mitze, T.: The geography of innovation in times of crisis: a comparison of rural and urban rdi patterns during covid-19, Geografiska Annaler: Series B, Human Geography. Pp. 1–23. (2022) https://doi.org/10.1080/04353684.2022.2093252
- 28. Gkiotsalitis, K., Cats, O.: Public transport planning adaption under the covid-19 pandemic crisis: literature review of research needs and directions, Transport Reviews 41 (3) Pp. 374–392. (2021) https://doi.org/10.1080/01441647.2020.1857886
- 29. Lashgari, Y.S., Shahab, S.: The impact of the covid-19 pandemic on retail in city centres, Sustainability 14 (18) 11463 (2022) https://doi.org/10.3390/su141811463
- 30. Vicino, T.J., Voigt, R.H., Kabir, M., Michanie, J.: Urban crises and the covid-19 pandemic: An analytical framework for metropolitan resiliency, Urban Planning 7 (3) Pp. 4–14 (2022) https://doi.org/10.17645/up.v7i3.5376
- 31. Lekic Glavan, O., Nikolic, N., Folic, B., Vitosevic, B., Mitrovic, A., Kosanovic, S.: Covid-19 and city space: Impact and perspectives, Sustainability 14 (3) 1885 (2022) https://doi.org/10.3390/su14031885
- 32. Thibault, M., Baer, M.F.: Urban gamification during lockdown and social isolation-from the teddy bear challenge to window expeditions, GamiFIN Conference, CEUR-WS. org, (2021)
- 33. Sorlin, S.: Humanities of transformation: From crisis and critique towards the emerging integrative humanities, Research Evaluation 27 (4) Pp. 287–297. (2018) https://doi.org/10.1093/reseval/rvx030
- 34. Gehl, J. (2013) Cities for people. Island Press.
- 35. Gehl, J., Gemzøe, L., Kirknaes, S., & Søndergaard, B. S. (2006). New city life. The Danish Architectural Press.
- 36. Dietrich, U., & Erto, G. K. (2017). Liveable public Urban spaces: Criteria for assessment and design. WIT Transactions on Ecology and the Environment, 223, 273-284. https://doi.org/10.2495/SC170241

- 37. Buttimer, A., Social Space and the Planning of Residential Areas. In Environment and Behavior (Vol. 4, Issue 3, pp. 343–344). SAGE Publications. https://doi.org/10.1177/001391657200400309 (1972).
- 38. Schouten, B., van der Spek, E., Harmsen, D., and Bartholomeus, E. (2019). "Chapter 12: The playful scientist: stimulating playful communities for science practice," in *The Playful Citizen*, eds R. Glas, S. Lammes, M. Lange, J. Raessens, and I. Vries (Amsterdam: Amsterdam University Press), 235–254. https://doi.org/10.1515/9789048535200-014
- 39. Nijholt, A., (ed.). (2019). *Making Smart Cities More Playable. Exploring Playable Cities. Gaming Media and Social Effects Series*. Singapore: Springer Nature. https://doi.org/10.1007/978-981-13-9765-3
- 40. Lefebvre, H. (1991). The production of space (Vol. 142). Nicholson-Smith, D. (trans). Blackwell: Oxford.
- 41. Thibault, M., Buruk, O., Hassan, L., & Hamari, J. (2021). Anagenesis: A framework for a gameful, playful and democratic future smart cities. In M. Vesa (Ed.), Organizational Gamification: Theories and Practices of Ludified Work in Late Modernity (pp. 201-229). Routledge. https://doi.org/10.4324/9780429316722
- 42. Silvennoinen, H., Kuliga, S., Herthogs, P., Recchia, D. R., & Tunçer, B. (2022). Effects of Gehl's urban design guidelines on walkability: A virtual reality experiment in Singaporean public housing estates. In Environment and Planning B: Urban Analytics and City Science (Vol. 49, Issue 9, pp. 2409–2428). SAGE Publications. https://doi.org/10.1177/23998083221091822
- 43. Innocent, T., Stevens, Q.: Urban play as catalyst for social wellbeing postpandemic, Frontiers in Computer Science 3. 634145 (2021) https://doi.org/10.3389/fcomp.2021.634145
- 44. Sacchetto, D., Raviolo, M., Beltrando, C., Tommasoni, N.: Covid-19 surge capacity solutions: our experience of converting a concert hall into a temporary hospital for mild and moderate covid-19 patients, Disaster Medicine and Public Health Preparedness 16 (3) pp. 1273–1276. (2022) https://doi.org/10.1017/dmp.2020.412
- 45. Leorke, D.: Super street arcade: Yawa and yomeci. www.playablecitymelbourne.com (2022)
- 46. Taylor, A., Music and encouragement from balconies around the world. https://www.theatlantic.com/photo/2020/03/music-and-encouragement-from-balconies-around-world/608668/ (2020)
- 47. Hardman, M., Look out behind the bust stop, here come guerrilla gardeners digging up an urban revolution. https://theconversation.com/look-out-behind-the-bus-stop-here-come-guerrilla-gardeners-digging-up-an-urban-revolution-29225 (2014)
- 48. Rasbash, Z., Huxley, J., Guerrilla Gardening: taking back the city one seed bomb at time. https://shado-mag.com/do/guerrilla-gardening-taking-back-the-city-one-seed-bomb-at-a-time/ (2021)
- 49. Bengtsson, T.T, Bom, L.H., Fynbo, L.: Playing apart together: Young people's online gaming during the covid-19 lockdown, Young 29 (4 suppl) S65–S80. (2021) https://doi.org/10.1177/11033088211032018
- 50. Bliss L., Martin, J.L. How 2020 remapped your worlds. https://www.bloomberg.com/features/2020-coronavirus-lockdown-neighborhood-maps/
- 51. Barron, C., Emmett, M. J., Patte, M. M., Higham, S., & Bulgarelli, D. Indoor play during a global pandemic: commonalities and diversities during a unique snapshot in time. In International Journal of Play (Vol. 10, Issue 4, pp. 365–386). Informa UK Limited. https://doi.org/10.1080/21594937.2021.2005396 (2021).
- 52. Braun, V., Clarke, V.: Using thematic analysis in psychology, Qualitative research in psychology 3 (2) p. 77–101 (2006) https://doi.org/10.1191/1478088706qp063oa
- 53. Grant, M. J., Booth, A.: A typology of reviews: an analysis of 14 review types and associated methodologies, Health information & libraries journal 26 (2) Pp. 91–108 (2009) https://doi.org/10.1111/j.1471-1842.2009.00848.x

- 54. Hookway, N. (2008) "Entering the blogosphere": some strategies for using blogs in social research' Qualitative Research, 8(1) 91-113. https://doi.org/10.1177/1468794107085298
- 55. Shove, E.: The shadowy side of innovation: unmaking and sustainability, Technology Analysis & Strategic Management 24 (4) Pp. 363–375 (2012). https://doi.org/10.1080/09537325.2012.663961
- 56. UNstats, Sustainable development goal 11 sustainable cities and communities: un.org/sdgs/report/2019/goal-11/ (2019).
- 57. Statista a. Smart phone users in the world projections to 2028. https://www.statista.com/forecasts/1143723/smartphone-users-in-the-world
- 58. Statista b. Smart phone penetration per country. https://www.statista.com/statistics/539395/smartphone-penetration-worldwide-by-country/
- 59. Kelly, M.P.F.: Slums, ghettos, and other conundrums in the anthropology of lower income urban enclaves, Annals of the New York Academy of Sciences 749 (1) Pp. 219–233 (1995). https://doi.org/10.1111/j.1749-6632.1995.tb17396.x
- Alvarez-Rivadulla, M.J.: Golden ghettos: gated communities and class residential segregation in montevideo, uruguay, Environment and Planning A 39 (1) Pp. 47–63 (2007). https://doi.org/10.1068/a38469
- 61. Brunn, S.D.: Gated minds and gated lives as worlds of exclusion and fear, GeoJournal 66 (1-2) Pp. 5–13 (2006). https://doi.org/10.1007/s10708-006-9012-5
- 62. Lefebvre, H.: La production de l'espace, L'Homme et la societe 31 (1) Pp. 15–32 (1974). https://doi.org/10.3406/homso.1974.1855
- 63. Leuzzi, M.: Art in slums. www.blog. artinslums.wordpress.com (2012)
- 64. D'Allant, J.: How art helps slum residents in the global south. The Huffington Post, https://www.huffpost.com/entry/how-art-helps-the-global-south b 3943767 (2013)
- 65. Rayomand, Are slums dark and dangerous? this artist is using paint to change your mind, in the better india. www.thebetterindia.com/132477/misaalmumbai-art-slums-rouble-nagi (2018)
- 66. Stevens, Q., Leorke, D., Innocent, T., Tolentino, C.: The playful parklet: a research report for the city of Stonnington, City of Stonnington (2022).
- 67. Yeung, P.: 'it's a beautiful thing': how one Paris district rediscovered conviviality., www.theguardian.com/world/2022/jul/14/its-a-beautiful-thinghow-one-paris-district-rediscovered-conviviality
- Frenzel, F., Koens, K., Steinbrink, M., Rogerson, C.M.: Slum tourism: State of the art, Tourism Review International 18 (4) Pp. 237–252. (2015) https://doi.org/10.3727/154427215X14230549904017
- 69. LostSoulColo69, www.urbandictionary.com/define.php?term=knee+deep+in+the+hoopla
- 70. Liebich, L. From a human doing to a human being? Exploring the potential of laziness through exercises in doing nothing. Aalto University. School of Arts, Design and Architecture. (2021).
- 71. Fuest, L. Poetik des Nicht(s)tuns: Verweigerungsstrategien in der Literatur seit 1800. München: Wilhelm Fink . (2008). https://doi.org/10.30965/9783846746141
- Calcagno, P., Consilvio, A., Di Febbraro, A., Sacco, N.: Reshaping metro station spaces to improve social distancing during covid-19 pandemic. 7th MT-ITS, Pp. 1–6. IEEE, (2021) https://doi.org/10.1109/MT-ITS49943.2021.9529315
- 73. Tait, A.: Paths of desire: lockdown has lent a new twist to the trails we leave behind. www.theguardian.com/lifeandstyle/2020/jun/14/paths-of-desire-lockdown-has-lent
- 74. Wake, S.: Rewind on imagining future cities through drama and design (2020).
- 75. Reutlinger, C., Unsichtbare kindergeographien: Dominierende denkfiguren von kinderorten in der stadt, sub\urban. zeitschrift für kritische stadtforschung 9 (3/4) Pp. 13–32. (2021) https://doi.org/10.36900/suburban.v9i3/4.653

- Chaudhary, N., Kapoor, S., Pillai, P.: 'it was peers and playgrounds that were missing, not play': young children in northern indian homes during the pandemic, International Journal of Play 10 (4) Pp. 405–419. (2021) https://doi.org/10.1080/21594937.2021.2005397
- 77. Stevens, Q., Awepuga, F., Dovey, K.: Temporary and tactical urbanism in Australia: Perspectives from practice, Urban Policy and Research 39 (3) Pp. 262–275. (2021) https://doi.org/10.1080/08111146.2021.1963225
- 78. Daly, J., Dovey, K., Stevens, Q.: We can't let coronavirus kill our cities. here's how we can save urban life, The Conversation 5 (2020).
- 79. Hadani, H., Vey, J.: Scaling playful learning: how cities can reimagine public spaces to support children and families (2020).
- 80. Ortiz, C. (2022). Cultivating Urban Storytellers: A Radical Co-Creation to Enact Cognitive Justice for/in Self-Built Neighbourhoods. In Urban Planning (Vol. 7, Issue 3). Cogitatio. https://doi.org/10.17645/up.v7i3.5430
- 81. Ferentinos, P. (2022). Urban fragments 'on hold': Reflections of COVID-19 in the urban Greek environment. In JAWS: Journal of Arts Writing by Students (Vol. 7, Issue 1, pp. 97–118). Intellect. https://doi.org/10.1386/jaws 00033 1
- 82. Poplin, A., de Andrade, B., & de Sena, Í. (2023). Let's discuss our city! Engaging youth in the co-creation of living environments with digital serious geogames and gamified storytelling. *Environment and Planning B: Urban Analytics and City Science*, 50(4), 1087-1103. https://doi.org/10.1177/23998083221133828
- 83. Trnka, S.: From lockdown to ra hui and teddy bears in windows: Initial responses to covid-19 in aotearoa/new zealand, Anthropology Today. Pp11–13 (2020) https://doi.org/10.1111/1467-8322.12603
- 84. Matjeka, L.P., Svanæs, D., Wang, A.I.: Turning eight family homes into interactive, pervasive playgrounds during the covid-19 pandemic lockdown, Frontiers in Computer Science 4 (2022). https://doi.org/10.3389/fcomp.2022.822337
- 85. Landa, G.R., iniciativas ciudadanas ante covid-19: ¿resultado de generación espontánea o producto del capital social de la CDMX?. www.tinyurl.com/mvwz9r74