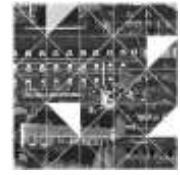


---

# CIDADES, Comunidades e Territórios

---



## What happens when teenagers reason about public open spaces? Lessons learnt from co-creation in Lisbon

**Carlos Smaniotto Costa**<sup>1</sup>, Universidade Lusófona, CeiED Interdisciplinary Research Centre for Education and Development, Portugal.

**Joana Solipa Batista**<sup>2</sup>, Universidade Lusófona, CeiED Interdisciplinary Research Centre for Education and Development, Portugal.

**Marluci Menezes**<sup>3</sup>, Laboratório Nacional de Engenharia Civil, Portugal.

### Abstract

This contribution, based on the European research Project C3Places, focuses on co-creation of public open spaces and addresses placemaking from the perspective of adolescents. It analyses their spatial practices and needs and the co-produced ideas for a teenagers-sensitive public space. The Project results must be seen in the context of the pandemic SARS-CoV-2 which is challenging the urban fabric, placemaking and research continuity. More than ever, it is crucial to develop strategies for inclusive and responsive public spaces. This paper aims to: 1) introduce the dynamics and insights acquired in a case-study with teenage students in Lisbon; 2) review the literature related to urban planning, especially in the public space production and consumption, in the context of the global pandemic; and 3) reflect on the ontological and methodological challenges that placemaking faces as a response to call for collaborative approaches.

**Keywords:** public open space and planning, co-creation, teenagers, SARS-CoV-2 pandemic, placemaking challenges.

---

<sup>1</sup> [smaniotto.costa@ulusofona.pt](mailto:smaniotto.costa@ulusofona.pt)

<sup>2</sup> [joana.batista@ulusofona.pt](mailto:joana.batista@ulusofona.pt)

<sup>3</sup> [marluci@lnec.pt](mailto:marluci@lnec.pt)

## Framework

Amid a global pandemic and following public health recommendations, restrictions on the use of public spaces worldwide have been unprecedented. Several authors are expressing concerns about how restrictions will permanently affect people's sense of place and space, influencing uses and perceptions (Honey-Rosés et al., 2020). Settersten et al. (2020: 2) point to understanding the pandemic considering the “difference between being infected and being affected”, since consequences are not only of biological nature and of health, but influence different life domains that are interconnected, such as family, work, and education. The consequences will also be manifold, on interpersonal, social, and economic relationships. It is also likely that different disciplines will react by refocusing their work through the lens of public health concerns. Urban planning, urban studies and research, and public open space development will certainly need to focus, in the immediate future, in finding a balance between preventing the spread of the disease and allowing a safe use of the urban fabric. Public open spaces<sup>4</sup>, as “publicly owned or of public use, accessible and enjoyable by all for free and without profit motive” (UN-Habitat, 2015: 15), are crucial for individual and community well-being, with potential to contribute to quality of urban life, to foster social, cultural, and economic capital, as highlighted by the New Urban Agenda (UN-Habitat, 2016). Among the public space network are streets, squares, plazas, marketplaces, parks, green spaces, greenways, community gardens, playgrounds, waterfronts, urban forests, and agricultural used land, each one playing a relevant role in providing the mobility infrastructure, offering a place for recreation and interaction, or conservation due to landscape resources and ecological-environmental merits (Smaniotto et al., 2008).

The European research Project C3Places<sup>5</sup> (05/2017-01/2021) developed four different case studies in Ghent, Belgium; Lisbon, Portugal; Milan, Italy; and Vilnius, Lithuania. Each one tackling the spatial needs of different groups, as teenagers, older and disabled people, and their potential as co-creators of inclusive public spaces. The case studies followed the same general guidelines and tested in different ways co-creation as methodology to engage people with public space enhancement. However, each case had its own characteristics, targets, and implementation strategies. Some sought for a more quantitative and ICT-based methodology, others, like in Lisbon for qualitative data. This widened the scope of research, but also limited a direct transferability and comparison of data. The Project is crafting recommendations on how to involve people in co-creating a more responsive and inclusive urban environment. The results from these different cases were discussed in Smaniotto et al. (2021). In Lisbon, the analysis of the collected materials (detailed in the following section) revealed that teenagers face some difficulties experiencing and using public spaces. Issues such as poor urban literacy, lack of spaces that meet their needs or difficulties in identifying their own spatial needs, negatively affect their public space use. On the positive side, teenagers appreciated the discussion with peers, researchers, and local authorities, and valued the opportunity to express their points of view and ideas for public space development. They are also sensitive to the fact that public spaces are common goods and thus benefit everyone, of all ages. For them, in the same way for all of us, public spaces are fundamental places for physical, emotional, and social development. For this reason, it is crucial to develop strategies that streamline the process of connecting young people with their environment. Building their territorial capacity could be a way, i.e., boosting the knowledge and experience of the territory (and public spaces) and using the space as both site for learning and of learning (Estrela & Smaniotto, 2019) in formal and informal learning activities; another way could be through actively involving teenagers in placemaking, co-creation or other participatory strategies for urban planning and design. A call that is again endorsed in 2021 by UN-Habitat and by several strategies of the Lisbon Council – all of them attesting the need for involving citizens in the production of the city. The most relevant are: The Strategic Charter of Lisbon 2010-2024 (CML, 2009), LX-Europa 2020 - Lisbon in the Framework of the Next Community Programme (CML, 2012) and The Street Design - A Guidance for Public Space (CML, 2015). On the ground, however, there is an inability to connect these strategic goals to their implementation, due to the lack of a clear process and legal support to promote the active civic participation

---

<sup>4</sup> Henceforth referred to as *public space*.

<sup>5</sup> <http://www.c3places.eu>

in urban planning. It should also be noted that non-formal education and civic participation are identified as fundamental for the children and adolescents' development, and as a way to ensure inclusion and to contribute to the future society (CML, 2012). Teenagers, due to their transitory situation (no more a child and not yet an adult), need a special attention in order to not be excluded from placemaking and the discussion on their own spatial needs. This only reinforces the Project's argument that placemaking and co-creation offer a suitable path to connect people to their environment. For this reason, even being aware of the speculative character of placemaking and co-creation approaches and the uncertainties they face, in Lisbon they are explored to promote socio-urban inclusion.

This contribution addresses an example of both approaches, combined with Living labs with teenage students at a secondary school in the neighbourhood of Alvalade. It reflects on the relationship of adolescents and public spaces under the shadow of a pandemic, an emerging issue posed in recent articles, surveys, and news. Within this framework, the importance of being outdoors for growing up is discussed, as some findings indicate that widening the spatial range in the adolescence influences the use and knowledge of the environment. Although C3Places seeks to answer how to better design inclusive public spaces, creating a place that fulfils users' needs is a challenge, one that can be better tackled with a solid base of knowledge and understanding on the needs and negotiation ability of different groups. Teenagers' appropriate public spaces in complex ways and with different purposes. On the flip side, teenagers may meet several mechanisms and attitudes of exclusion, and a general disregard by adults of their rights to fully participate in society and city engagement. The lockdown poses further challenges to teenagers. They should get used to a completely new way of life, since learning and socializing have moved online more than ever before. It is too soon to draw conclusions on teenagers and public space use during the SARS-CoV-2 pandemic, but it is important to reflect on how to, continuously, involve them in the dialogue about current discussions, views, plans and agendas for the future of urban planning and design. It may seem odd binding together in the same discussion results from a case-study developed and implemented prior to the pandemic and its social consequences. It is not our intention to create a relationship between them, but rather to claim that any current discussion is anachronistic if it does not reflect on the consequences of the pandemic on urban space. Thus, this article addresses three main issues: (i) a reflection upon involving teenagers in co-creation of public spaces highlighted from results of a case study in Lisbon, developed and implemented prior to the pandemic, (ii) literature review and theoretical reflection on the effect of the pandemic on use of public spaces and the consequences for teenagers, and (iii) a discussion on the potential of collaborative approaches, such as placemaking, co-creation and other participatory strategies for engaging young people in the production and consumption of the urban space.

## **Co-creative learning of urban planning with teenagers: notes from a case study in Lisbon**

### **Research design and methodological approach**

Empirically the research in Lisbon, developed and implemented prior to the outbreaking of the pandemic<sup>6</sup>, is grounded in the relationship between teenagers (young people aged 13 to 18) and the public spaces network. The study took place at the Secondary School Padre António Vieira in Alvalade neighbourhood, the ultimate modernist neighbourhood and a paradigmatic example of city building in the history of Lisbon<sup>7</sup>. The main reasons for working with this school are: 1) There was already a strong link between the university and the school due to joint educational studies. 2) It is a school of large dimension and with broad social and cultural diversity. 3) The Project idea of engaging students in placemaking found at school government a fertile ground also due to the fact that these activities could be integrated in the national pilot programme "Curricular Autonomy and Flexibility" in which the school was involved. This programme enables a greater curriculum

<sup>6</sup> Project C3Places started in 2017 and the methodological and theoretical framework was developed between 2017-18. In Lisbon, the empirical research was applied between 2018 and 2020 in accordance with the school calendar and the results analyzed in 2020, already during the pandemic.

<sup>7</sup> The Urban Development Plan of Alvalade, designed by the architect João Faria da Costa in 1930-45 and completed by the 1980s, was a measure to provide rent-controlled housing and to control the poorly organized urban expansion of Lisbon. The design attributes, high residential density mixed with retail zones and service facilities, traffic hierarchization and block interiors sometimes treated as common spaces, are considered an example of well-distributed functions and equipment (Coelho, 2007; Costa, 2002; Tostões, 2001).

flexibility, allowing schools to autonomously organize the subject contents and class hours, and encourages a wider connection between the schools and the community, in order to develop students' skills with a more holistic perspective (Decree-Law 54/2018, 2018). The Secondary School Padre António Vieira created the subject "Domains of Curricular Autonomy" where students worked on individual projects (with the support of all teaching staff) to be presented at the end of the school semester. 4) The school is located at the edge of the neighbourhood, in an area not well served by public spaces, and thus demanding greater attention.

To explore how teenagers use public spaces along with their spatial needs and preferences, several methods and tools, as field observations, interviews with experts and Living labs with teenage students were put in place. For the Living labs, the selection of the school classes was undertaken in consultation with the school government. The lab aimed at providing a framework to:

1. Assess the user-friendliness (responsiveness) of the public spaces in Alvalade to identify features, typologies and facilities; to be achieved through structured field observations – also with support of the students. Particular attention was given to the street corner in front of the school.
2. Backed by the Living labs concept, experiment with co-creative and participatory methodologies tailored to the context of teenagers. To achieve this, strategies were developed for the co-design of public space with the support of digital technologies.
3. Explore and analyse teenagers' practices and behaviours in public spaces, as well as their perceptions, needs and requirements, and detect potential conflicts of use; to be achieved through structured field observations and living labs.
4. Gain knowledge of social and urban policies to support the development of design and planning recommendations for public spaces more sensitive to teenagers; to be achieved through in-depth semi-structured interviews with different experts working in public space management at the city council.

### **Summary of results**

Field observations enabled the Project to gain familiarity with Alvalade and its local public space network. Assessed were the dimensions considered by PPS (n.d.) as indicators of a good public place: (1) accessibility and linkages, (2) comfort and image, (3) uses and activities, and (4) sociability. These indicators, according to PPS' diagram "What Makes a Great Place" (n. d.) refer to: (1) how easy and convenient it is to access the space; considering issues as walkability, readability, connections, proximity and continuity, (2) are related to the perception of users in matters of safety, cleanness, greenery, attractiveness, or historic relevance, (3) address the purpose of use and consider the ways people appropriate the place, (4) is related to the social interactions taking place considering matters of diversity, stewardship, cooperation, neighbourly, pride, user friendliness, interaction or welcoming. These dimensions and their indicators were adapted to the C3Places Project needs. Two observation grids were created to record the findings on the quality and use of space by all users, in general, and by teenagers, in particular. The observation grids were analyzed, together with researchers' field notes and photo archive.

The research revealed that in Alvalade teenagers' public space usage turned out much lower than expected. Furthermore, the students involved in Living labs were not able to immediately name a public space they often use. The broad street corner in front of the school seems to be the most known and used space. The fact that students were unable to identify «own» places in the neighbourhood evidenced two constraints: the lack of public spaces that teenagers could value and appropriate, and a deficit in urban literacy. This can also be explained by the fact that most students do not live in the neighbourhood, but elsewhere.

In the first labs, the teenagers answered a questionnaire on their current spatial experiences. This questionnaire was organized in two parts, while the first aimed at capturing trends of public/urban space and ICT use, the second, with open questions, enables the Project to get some clues on teenagers' conceptual/abstract perceptions of the city, public space and their maintenance. The questionnaire had a total of 48 respondents: the majority aged 15 to

17 years (75%), 56% male and 44% female. The analysis revealed that only 15% of the students live in Alvalade. The majority live in other parishes in Lisbon, or even in different municipalities (only 60% are from Lisbon municipality). A vast majority (94%) say they often use a public space; 81% of them use public spaces frequently: (65%) more than once a week, (10%) many times during the week, and a few uses public spaces daily (6%). In many activities, the researchers observed that when asked about public spaces use the students' first answers were directed to private or semi-private spaces such as shopping malls, cafes or fast-food shops. Considering this data, in a second questionnaire teenagers are asked on the usage of an outdoor space in their neighbourhood. This survey was organized as a co-research exercise, where some students performed the role of the researcher posing the questions, while others provided the answers. The results cannot be directly analyzed and compared with the previous survey, but qualitative and content analysis revealed that many teenagers could identify a public space close to home as a favourite place, mostly public gardens and parks, where they usually practice sports, hang out or walk with friends/family, walk pets, just to relax or cross it. In Alvalade, the field observation results show that teenagers' spatial practices are mostly related to walking to/from school and thus connected with school schedules – teenagers use public spaces during the day, mostly early in the morning and later in the afternoon. At weekends they are less present. Children and young people are more frequently observed near the schools, hanging out – mostly in groups –, chatting or smoking, sometimes sitting and playing around equipment designed for other purposes.

The semi-structured in-depth interviews with the four planning experts working with public space issues at the Alvalade Parish Council<sup>8</sup>, revealed that these experts see teenagers as a difficult group to work for/with. In their understanding, teenagers' behaviour in public spaces is inappropriate, because they tend to cause damage to the space and its equipment. Experts highlight rather the negative features of teenagers' practices, mentioning that teenagers "use spaces that are not designed for them (...) degrading and misusing the space, they [teenagers] do not allow others to use the space" (Interviewee #1). These experts also raised issues about teenagers' group usage, misuse of equipment (e. g. playground equipment with age and weight restrictions) or loud noise caused by them. Interviewee #3 also argues that these are the same claimed reasons for residents' complaints. Nevertheless, the experts are aware that adolescence is a period of transition and acknowledge that there is a lack of public spaces that meet teenagers' needs. These experts on the flip side explained that public spaces should be diverse, and interventions must promote the use and sharing of space by all age groups.

The Living labs, developed as a co-creative and collaborative practice, opened the opportunity to identify teenagers' spatial practices and needs, and to explore their involvement in placemaking. The labs were implemented with both indoor and outdoor activities (Figure 1) and in two phases. While the first (pilot) phase was devoted to debating with the teenage students the construction of the city and the roles of public spaces, the second lab was implemented as a co-design workshop and for testing the potential of ICT to enable engagement. The pilot phase was organized during four months in 2018 with two 10<sup>th</sup> grade classes (N=49 students, aged 15-18). The results were analyzed and disseminated (e.g., in Almeida et al., 2018; Smaniotto et al., 2020) and used to buttress the development of the second phase. The first phase enabled the Project to identify the public space to be used as case area in phase II, as well as those research activities that are more suitable for teenagers. Representatives of Alvalade Parish Council and the civic society also participated in some of the sessions, providing insights into public policy and discussing with teenagers' their role in public space production. Different materials were collected as questionnaires, group discussions, debates, as well as the students' field observation notes on Alvalade public spaces. The qualitative analysis of co-produced materials and field notes<sup>9</sup> provided insights into topics as teenagers' capacity to reason public space, their favourite places or those used frequently as well as dilemmas about experiencing the urban space. Table 1 shows the summary results of the discussed main topics, teenagers' responses, and the impact of this issue. The second phase consisted of a week-long lab organized in 2019 with two classes of the first year of professional training education (N=20, aged 16-18). For the students, the labs offered a forum to freely express values, ideas, and preferences in public spaces, while creating an

---

<sup>8</sup> This is the local administrative and executive authority in Portugal and is the first tier of local government.

<sup>9</sup> Using thematic analysis (Braun & Clarke, 2006).

environment in which students are empowered, their urban knowledge fostered and their interest for placemaking captured.

Our findings show that flexibility is an important feature when involving teenagers in co-creation and participatory approaches. To be collaborative and open these approaches have to consider unpredictability. Even if a clear structure is a demand, participants must be allowed to engage with a degree of autonomy and freedom. The activities must be open to accommodate what teenagers’ value most and in the way they prefer to contribute. In an interactive and collaborative process the collection and analysis of data is always more demanding. It may not be possible, e.g. to register contributions in a format that would allow a direct analysis, or the contributions from other participants involved, i.e. researchers and teachers, may not be easily separated from those of teenagers. In co-creation, researchers and planners must anyway reduce their control efforts and create a more flexible environment of knowledge production. In any moment, unexpected events may occur and affect (in a positive or in a negative way) the results. This means, to acknowledge that data may be more difficult to analyse by default and findings will always refer to an interactive and collaborative process where different actors are involved – in our case, researchers, teenagers, teachers, representatives of the local authorities and civic society.

**Figure 1. Students were taken to a discovery trip through public spaces in Alvalade**



Note: Here they are discussing and analysing their field notes.

Source: C3Places Project (2018).

**Table 1. Main spatial issues and their impact emerged from Living labs with teenagers**

<b>Issues</b>	<b>Indicators</b>	<b>Impact</b>
Capacity to reason urban spaces	Weak urban literacy and spatial representation skills	Difficulties with terms and definitions in the context of urban fabric and public realm
Identify favourite places	Indoor spaces, i.e. shopping malls as places to hang out and meet peers	Weak understanding of the differences between private and public space
Identify own spatial needs and preferences	ack of arguments and knowledge about the benefits of public spaces	Difficulties in expressing ideas for a responsive public space

Source: C3Places Project (2020).

### **A wide street corner as an experimental site**

The wide street corner in front of the school was selected as spatial focus for the second phase of Living labs, as this space seems to be the one the students were more familiar with. Four streets intersect to this corner, which as linear space has only a linking function and has been turned by car reliance and auto-centric urban design into an unattractive and completely paved space. It has few street furniture, i.e., along the street the only bench available is in a bus stop shelter. The students use this street corner to congregate, around the bus stop and at the entrance to the school. Besides the bus shelter the students also sit in groups in the entrance of the neighbouring buildings, or on bikes of a sharing station (Figure 2), provoking conflicts with other users. The periods of greater activities are directly related with school schedules, as the students use the street before and after school hours and during breaks. The field survey revealed that on weekends and evenings there are no significant activities. The patterns of activities are limited to walking across/passing by or collecting a bicycle from the sharing station. Teenagers use this space mostly to gather in groups, to stay around smoking or to chat with one another on the sidewalks.

**Figure 2. Students hanging out in the bus shelter and leaning on the sharing-bike station**



Source: Project C3Places Project (2019).

In the labs, students developed and justified design proposals for this space. Collaborative work and use of digital aids (Padlet, image bank, presentation programmes and online maps) were objectives of the survey; tablets and drawing materials were provided by the facilitators. The students were introduced to basic concepts of urban planning, design, and co-creation, and visited the site in small groups, where they were encouraged to reflect on the quality and attractiveness of the space. Prior to the labs the whole secondary school was encouraged to write down ideas and concerns for the public space in posters pasted on the wall in the school main entry (Figure 3). Building on this reflection, students were divided in two groups, where they discussed the problems and brainstormed ideas to solve them. They negotiated their goals and design solutions, and drew their ideas including decisions on materials, pieces of furniture and equipment. The last session ended with a presentation to the class, teachers, and facilitators. The main ideas behind the developed proposals are in line with known needs of public spaces: teenagers want an inviting place to socialize and mingle, with equipment to sit, protection from the weather and surrounded by greenery. A place that is accessible and safe, i.e. with less traffic and safer pedestrians' crossings. This however does not mean teenagers have no specific needs. They understand that places must be inclusive, and thus shared and negotiated with others. Regardless of the arguments about teenagers' lack of skills and experience, they can actively and creatively become engaged, and make proposals that benefit all. They are sensitive to the needs of other users and aware that sustainable environments increase quality of life. The labs also revealed that despite an expected challenge in terms of resources, time and motivation, teenagers can dynamically and collaboratively participate in non-formal activities. Smaller groups can ease the interests of students,



transforming learning into a more organic process. This is relevant, as the recent education legislation in Portugal requires more curricular flexibility and considering the particularities of the community (Decree-Law 54/2018). Teenagers also benefit from a better urban education or territorial capacity building as “a way of giving people some certainty and of embodying knowledge rooted in their spaces, the ones they create and know at the same time that they create themselves, as individuals and citizens” (Estrela & Smaniotto, 2019: 48). To build more inclusive, safe, resilient, and sustainable cities, policy makers must commit to building teenagers’ capacity and overcome stereotypes.

**Figure 3. Students interacting with a structure available in the school lobby prior to the labs to collect ideas from the broader school community**



Source: C3Places Project (2019).

### **Public open spaces in the pandemic**

Since the outbreak of the SARS-CoV-2 in December 2019, the global response in the form of lockdowns, confinement, restrictions on mobility, border control, etc., directly influenced the usage of urban fabric, limiting the access to public spaces, and demanding a quick response from the authorities. The response from the Lisbon City Council is contradictory. On the one hand, the Council closed parks and squares, and even removed equipment such as benches and tables from some spaces to discourage people from congregating outdoors. On the other hand, reconfiguring traffic lanes created new or enlarged bicycle tracks or reducing parking slots in residential areas created more communal spaces for the residents.

Over the years, public spaces have been idealized as democratic domains, ground for political and social practices, and for the enactment of citizenship and democracy. A large body of literature focuses on their social function, as providers of the “space” where people – either acquaintances or strangers, either from the same or different social or generational groups can interact with others or with the environment (Carmona et al., 2003; Gehl, 1987; Innerarity, 2006; Jacobs, 1961; Lefebvre, 1974 [1991]; Sennett, 1977). In public spaces, people’s differences, and similarities are put on display, allowing distinct groups to claim their right to appropriate places and manifest their sense of belonging to society (Innerarity, 2006; Mitchell, 1995). Public spaces also provide opportunities to stay physically active and in contact with nature, critical for our health and well-being.

2020 has been an exceptional year and the forecast for 2021 seems to confirm an extraordinary situation. The global event, the SARS-CoV-2 outbreak, taught us new ways of learning, working, shopping, and relating to one



another. It has uncovered social and health systems inequalities and revealed issues that, although latent for a while, have a great influence in society, from self-interest globalization and systemic racism to climate change and fear of economic depression. For many authors discussing, at this early stage, the consequences of the pandemic on public space, urban resilience and safety are crucial. More precisely, Ribeiro (2020) notes that the major lesson is the need to rethink the urban settings, assuring everyone has a right to the city and quality of life. In the Anthropocene era, pandemics are likely to occur and unlikely to be quickly contained. Hence, safer, and more resilient urban environments are a fundamental requirement to prepare the society for the future (ibid, 2020). Kang et al. (2020) frame the likely effects of the pandemic: 1) changes in the urban structure and community planning directed to urban density<sup>10</sup>; 2) house instability and changes in function, since home is becoming the central place of work, education and living; 3) the economic shock of lockdowns and closed borders on regional and national economies will provoke mass unemployment; and 4) privacy concerns with the emergence of smart city technology and tracking/tracing applications as a solution for controlling the spread of the pandemic. A recurring issue in recent studies is the call to give special heed to those with severe socioeconomic disadvantages, and to emerging anxieties and prejudices that may emerge in a context of social distancing, where a fear of the other is on display. While physical distancing seems to be the best means to control the infection rate, UN-Habitat (2020) also advocates that people need to spend time outdoors – i.e., to work, for shopping and socializing, since social isolation also affects physical and mental health. For this reason, public spaces should be part of the response to the SARS-CoV-2 pandemic. This calls for public spaces within an immediate neighbourhood, able to offer a «space» for all. UN-Habitat (2020) also acknowledges public spaces as an asset in times of crisis, as they support mobility, recreation and even provide a livelihood for the poorest. To increase urban resilience is paramount to sustain a well-connected and integrated system of public spaces, including streets and greener environments, providing walkable space and better air quality. Cities should expand the amount of land allocated for public use, embrace flexibility in their function, and boost their capacity as providers of essential services, as well as allow those who make their livelihood on public space to continue to work and earn (ibid, 2020). Medium and long-term policy agendas should also integrate measures to help reduce the effects of a health crisis, such as an equitable distribution of public spaces across the city, selection of adequate design, materials and a management and maintenance approach that respond to the needs of users. UN-Habitat (2020: 4) also brings into focus the value of a compact, self-sufficient neighbourhood, a “15-minute compact city neighbourhood” with all basic facilities available in a walking/biking distance. Kang et al. (2020: 15) rightfully note that improving the accessibility to essential services and building “self-sufficient living zones” are the foundation for a livable neighbourhood. This assertion appears to be based on the “15-minute city”, the concept coined by Carlos Moreno. This concept, being tested in Paris, gained attention, and is becoming a lifesaver in the pandemic. The 15-minute city – a chrono urbanism – as an alternative way of planning and designing the urban environment integrates sustainability, mobility, sociability and meets basic needs (Moreno, n. d.). Of course, it is too early to fully understand how the social functions of public spaces will be affected by the pandemic. The semantics of referring to social distancing instead of physical distancing may be a negative indicator on sociability both in public and private. Vachianno (2020) notes that the distancing has been more physical than social, and that «new» forms of interactions are arising, such as chatting, singing, and dancing at balconies and windows with neighbours, sharing meals with distant friends through web video services, or providing services for at-risk strangers, like grocery shopping.

Public spaces are intertwined with daily affection – they are shared with friends, family, and strangers; people come together near to sit around, to relax, to chat, play, practice group sports, or just walk. All these spontaneous encounters are now limited by a set of rules – distance to others, mask wearing, ban for some equipment, curfew, and time to be spent outside, etc. No doubt that those measures are essential to slow down transmission and save lives, but policy makers, urban planners and researchers must reflect on the consequences for the public life and space sociability. On a positive side, Gehl (2020), in a series of studies in four Danish cities documented in snapshots the changes in the way people use public space in this pandemic. Preliminary findings show that although a significant drop in activities in the city centres, especially in shopping districts (this has for sure economic consequences), cities are being more used for recreation, play, and exercise. While movements and mobility decreased significantly, the use of public space remains the same, showing however a high demand for

---

<sup>10</sup> In recent studies, the impact of population density to contagion rates has been a prevailing topic. See: Hamidi et al., 2020; Megaheda & Ghoneim, 2020; Ramírez & Lee, 2020; You et al., 2020.

those places that offer a wide range of activities (such as playgrounds). The study also detected that new forms of activities and urban life are emerging, which seems to indicate that the search for quality outdoors boosts creativity. Another positive outcome is that more children and older people are using the cities than before. On the flip side, some places became too popular hampering physical distancing rules (ibid, 2020: 11). Shaping the urban fabric to allow people to move around safely is a topic that is receiving more and more attention by municipalities. Lisbon, as Honey-Rosés et al. (2020) report, with a decrease in tourism, is also likely to be affected by initiatives designed in a world where physical distancing will be the norm for the foreseeable future. Interventions, like bike lanes, more greenery and gardens in parking slots and streets, are shaping the city now.

In Portugal, despite the quick response from the academy to gather data on the social impact of the pandemic, it seems that most research is centred on housing and economic inequality, mental health and violence, and the effects on education and work. Investigating the impact on public space use, practices, and needs is paramount since public space has been a Ground Zero in the imposed restrictions. The Lisbon City Council seems to focus on multifunctional public spaces, large, adaptable, and versatile, and able to respond to needs and activities of different groups. That is a good sign for the future. In fact, only through a process of placemaking with the community, experts from different fields, local authorities and other local entities of interest can a real dialogue over the public realm be initiated. The call for civic engagement in public space development is paving the way for more inclusive design and improvements of participatory methodologies (Carmona et al., 2003). This dialogue is crucial even during a pandemic, since it will help to solve conflicts, and to negotiate the sharing of spaces, and enabling everyone's rights to experience public space. Such participatory perspective will be beneficial in fostering a sense of belonging and in promoting sustainability, assuring that a place will be used, cared for and fit the needs of current and future generations. This perspective sounds like a cliché, and implies the next question: Will the increase of knowledge be enough to promote such an idea?

### **Teenagers' public life in strange times**

The impact of the COVID-19 global pandemic has changed common, everyday life, which has led to major changes in the way we use the city. The pandemic has awakened a discussion of how cities can face the pandemic, mitigate its effects and what will be a better and healthier place to live in the future. The current pandemic situation raises the question on the relevance of public space in urban societies, and this calls attention to exploring this issue from a perspective of a group with specific spatial needs. For the Project C3Places, the posed question is how a public space will respond to the needs and preferences of citizens, including not least adolescents, in a crisis situation. This also gives rise to the question of equal access to the city, which also implies the quantity and distribution of quality public space. Public spaces must be where people need them, within an immediate neighbourhood and able to offer a «space» for all – as a democratic and inclusive place. In this aspect the pandemic is evidencing inequities, while those who live in wealthier neighbourhoods have access to facilities and services, people living in socioeconomically disadvantaged neighbourhoods are likely to be affected to a much great extent, also because the lack of creative places that help to maintain social, mental and physical health.

To return to the subject of the Project C3Places, in Lisbon the study focuses on teenagers' appropriation of public space. In the literature a recurrent trend points to a stereotyped attitude against teenagers, that leads to their exclusion from public life in multiple ways. For example, they are portrayed as those who dare to be in a group, too loud and too disrespectful (Skelton & Valentine, 1998), in places where thin and subtle rules and boundaries are in place, with established behaviours, that teenagers seem not to comply with. For this reason, teenagers are often viewed as a disturbing element in the public realm (Wyn & White, 1997) and consequently, not always well accepted by other users or neighbouring business owners (Laughlin & Johnson, 2011). On the other side, in adolescence, through a playful use of space, the range of spatial action is widened, enabling a larger understanding of the surroundings and the acquirement of spatial competences (Van Vliet, 1983). In public spaces teenagers explore their environment, develop spatial skills and environmental capacities, and gain cultural experience by mimicking behaviour. These interactions foster a collective experience (Lentini & Decortis, 2010; Thompson, 2002). Hence, space and environment influence the interplay between external *stimuli* and internal inputs, as well

as the process of construction of a collective and individual memory, which in turn affect the cognitive, emotional, and psychological development of children and teenagers (Strecht, 2011). Studies also found a correlation between time spent outdoors and the development of creativity and the immune system (Muñoz, 2009).

The global pandemic is bringing teenagers new challenges on use of public space. Institutions as family and schools, prevalent in their daily life (Ennew, 1994), are being affected by the reorganization of work, education, and sociability. It is estimated that three out of four children and young people worldwide have stopped going to school in the first phase of global lockdown (Boo, 2020). In Portugal, most teenagers had home-schooling from March to September 2020 and from January to April 2021. With a cautious deconfinement, schools can be a sort of laboratory to explore the reopening of schools in the age of COVID-19<sup>11</sup>. The first lockdown revealed fragilities in the management of learning outside of the school context. Schools were requested to provide a quick response in the context of digital learning, but disparities in accessing technologies by the students influenced the learning abilities. Staying at home also exposes teenagers to social isolation and sedentarism, poor mental health, and to risks such as domestic violence and exploitation (Children's Commissioner, 2020). The lack of social contact could be minimized by online communication and interaction, but this cannot substitute face-to-face contact (Orben et al., 2020). Jones McVey et al. (2020), reflecting on the need of reorientation, state that the fastness of daily existence of the youth, marked by sociability, ambition, creating memories and self-discovery, is being replaced by a state of inertia. The authors state that if the slowdown provides opportunities to reconnect with family and engage with household members, on the flip side, young people miss physical contact and spontaneity of encounters, and many realized, for the first time, that face-to-face interaction is what gives authenticity to the moment. The tiers and lockdown rules restricted teenagers' opportunities to hang out outdoors, to interact with peers, to play and observe people – all fundamental components in the construction of an individual and social identity (Owens, 2002; Pais, 1993; Strecht, 2011). Public spaces are for teenagers an arena to gather, socialize, talk to one another, share information, or just hang out. Hanging out is a way of marking and claiming territories, and to participate in the world by 'actively doing nothing' as Woolley (2003) asserts.

In Portugal, children, and teenagers after months of home-schooling are, for as of April 2021 back to school, and schools, fearful of being a source of contagion have been extra diligent, provoking negative consequences. Complaints have been reported of crowding at entry and exit times and class breaks, mostly due to a lack of articulation between the school yard and surrounding public spaces and a prohibition of eating or freely strolling inside the school, etc. (Lito & Bento, 2020). This poses the question: what are the consequences for teenagers – during the pandemic and in the future – if the activities teenagers most value are those not recommended for health safety reasons? We are convinced that what teenagers do in public space provides insights into what “new normality” in sociability will be (or will it be possible to go back to business as before?).

The pandemic is also affecting public engagement. Participatory planning, as co-creation with face-to-face interactions may not be a priority now but avoiding engagement can be also a threat. Marchesi (2020), based on the experience from Italy, questions how the notion of social citizenship will be affected and reconfigured in post-pandemic. The author argues that citizenship had been boosted recently through an expansion of initiatives promoting direct engagement toward lively neighbourhoods – where sociality, solidarity and sociable public spaces are crucial elements. SARS-CoV-2 reverted that completely and a “good” citizen became the one who refrains from social interaction and stays at home. The potential of participatory planning is therefore not being fully boosted. Developing innovative strategies and making use of digital tools are fundamental<sup>12</sup>. To weave the social dimension of public space requires the understanding of how people influence and transform space, and are, in return, shaped by it, as Jacobs (1961) and Gehl (1987) called to. This puts people at the core of public spaces, as advocated by Project C3Places. Even during the pandemic, Design Council (2020) proposes to consider the involvement of people and communities, the integration of different partners with different types of knowledge, and the development of partnerships as a fundamental strategy towards developing healthier spaces and reducing health inequalities.

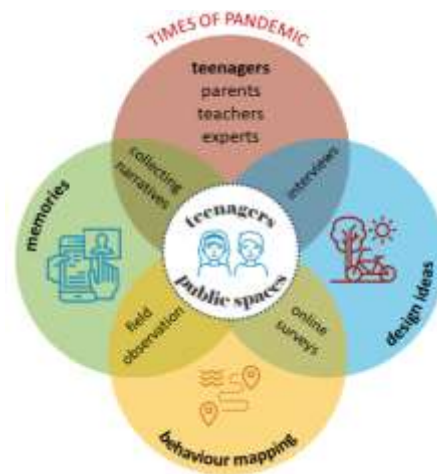
---

<sup>11</sup> As of mid-April 2021, the schools are opening again after a new lockdown was imposed by the end of January.

<sup>12</sup> Žlender, Šuklje Erjavec and Goličnik Marušič (2021) report about the ICT tools used in the Project C3Places.

Children and teenagers are frequently not involved in planning since adults are considered qualitatively more important and the actors of reference who can speak and act in their name (Qvortrup, 1994; Valentine, 2004). However, if not involved, they will suffer restrictions in using or accessing the city. Moreover, there are also design and planning decisions that do not consider teenagers' physical and social characteristics, not responding to their needs, as e. g., the lack of sitting arrangements to allow them to be in groups or design solutions that privileges the vigilance of adults (Owens, 2002; Strecht, 2011). Adolescence poses several (individual and collective) challenges, especially in a moment of uncertainty as this pandemic. If public spaces are not planned to accommodate the needs of this age group, this can provoke their active exclusion from public life. This in turn potentially leads to further negative development, such as isolation, losing sense of belonging to the environment and missing opportunities to exert control over it (Pais, 1993; Strecht, 2011). Directly engaging teenagers in the urban agenda, through participatory actions and projects, may be an answer, as pointed out in the Lisbon study (Figure 4).

**Figure 4. Strategy background to engage teenagers in co-creative processes in the pandemic**



Source: C3Places Project (2020).

## Conclusion

Research has long established that civic engagement is paramount to achieve resilient and inclusive urban environments. Amid the global SARS-CoV-2 pandemic, resilience has been pointed out by several authors as the most crucial feature for the future of cities. Resilience, as flexibility to respond/adapt to adverse and unexpected circumstances, seems to be an unquestionable issue, as the new U-Habitat report (2021) calls for. However, it is neutral. Our capacity to adapt does not mean that the adaptation will be positive. Placemaking has also been widely acknowledged as a suitable way for ensuring social cohesion which in turn has become increasingly important for the development of the public realm. Clearly, it is too early to draw any conclusion on how people can be involved in decision making during a pandemic, and it is understandable that this is not a top priority at the moment. But it should become one. Now, more than ever, people must be engaged in decision-making about the city and public spaces, because decisions will be about the future urban environment and not only about local interventions. As Honey-Rosés et al. (2020: 18) asserts, the future “will be the result of negotiated interests, power relations, priorities, and decisions” and this shapes the future public space. Harnessing digital tools to boost participation could be a solution. However, the most pertinent question now more than ever is related to the slow pace between research results and city transformation and between planning and implementation, as different actors involved move at different scales and velocities. During the pandemic, public space interventions must be quick, and this in times of (legal) exception could put approved urban agenda at risk, as city councils would implement measures disregarding residents' needs. On the positive front, as it has been observed worldwide, examples of alternative, grass-roots appropriations of public space by residents. These seem to indicate an understanding that the

environment we inhabit may be managed by authorities, but it belongs to us all and we all may transform it, even if temporarily.

Finally, to provide an answer to the question posed in the title, the case study in Lisbon supplies empirical data to show that teenagers are aware that public spaces are a shared place. They do not want exclusive places nor flamboyant designs, but rather a sociable place filled with nature in a wealthier, playful connection with the surrounding. This does not differ much when other people are asked about their preferences on public spaces. Teenagers however question their interaction with their environment, express different ideas and needs, ponder on possible transformations, or identify problems and possible solutions. Such a simple answer is not simplistic. As Schütz et al. (2019) rightfully note, when participation in research takes place without clear roles and objectives (i.e. beyond funding policy guidelines), the process can lead to greater frustration on all parts involved – be it researchers, research funders, or laypersons. Negative experiences can haunt new placemaking projects.

The experience of Living labs in Lisbon provides arguments for a discussion on opportunities and benefits of engaging people with different backgrounds in urban planning, even during the pandemic. First, considering the challenges for education and the constraints on teenagers' leisure time and use of public space imposed by restrictions, it is crucial to find a balance between health safety and a return to social interaction. In Alvalade, it was observed that the school surroundings are used by students, usually in groups, to hang out and chat with peers. Sanitary measures and circuits are now a reality in all Portuguese schools, but schools are not islands, they are connected and accessed by public spaces. This can either be a resource for fighting the pandemic (UN-Habitat, 2020), if restructured for a secure use, i.e., less car parking and more spaces for people to practice physical distancing; or a menace without more public spaces or a change in boosting crowds, as observed around the schools (Lino & Bento, 2020).

Moreover, the gaps in understanding the relationship between urban structures, quality of life and well-being, low urban literacy and awareness is not restricted to teenagers. Our "urban fabric experience" may be too utilitarian: we may walk, ride or cycle through streets, sit down in squares, gardens, or parks, use commodities as public transportation, housing, public spaces, and buildings; but the use alone does not seem to be enough to capacitate or motivate people to reflect on urbanity. This calls for using open spaces and outdoor facilities as "sites" for learning, not just to learn "about", but to learn "in" the nature, outdoors.

Due to their potential and growing importance, public spaces must be negotiated among a variety of stakeholders, not only scientists or practitioners from different interdisciplinary fields, but also citizens from different backgrounds – considering a constantly growing pluralist urban society and tackling the different, often competing, power relations and interests (economic, social or political). Among these stakeholders are also those considered vulnerable, as children, adolescents, the elderly, or disabled people. Public spaces represent therefore at the same time an invaluable resource and a great challenge for social cohesion in urban societies. In the time of pandemic, described by many authors as a "waiting time", children and teenagers' development, and adults' mental health and well-being seems also to be on hold until an immediate disease control. We advocate that public spaces should be part of the response to SARS-CoV-2, as they are assets in times of crisis. Meeting the needs of different user groups, does not only pose challenges, but it also opens opportunities for urban planning. For more resilient cities, those assets must be negotiated with people and captured through participative and collaborative processes. Empowering and capacitating stakeholders to act collectively and collaboratively is key to achieving a more inclusive living environment and better quality of life. This paves the way for more sustainable and inclusive urban societies. And this assumption poses the last question: what is exactly a teenager-sensitive public space? It is more than providing them places to be on their own, it is a commitment to give them a voice in community-centred urban planning processes.

With the pandemic, public spaces and outdoor areas gained awareness of their key role in the promotion of individual and social well-being. To respond to the pandemic, restrictions and hygiene guidelines for use of the urban fabric were put in place. Both will have consequences on the use and design of public spaces in the future. For teenagers, this may have consequences in the way they value public spaces, especially because such 'waiting time', whilst unfortunate, forces all of us to think about a more sustainable urban future – with less cars, more nature, with hybrid forms of work and learning, but physically meeting outdoors, in public spaces.

## Acknowledgements

This paper has been supported by the Project C3Places – Using ICT for Co-creation of Inclusive Public Places ([www.c3places.eu](http://www.c3places.eu)) under the European Union’s Horizon 2020 Research and Innovation Programme (Grant Agreement no. 693443) and financed by Portuguese funds by FCT – Fundação para a Ciência e a Tecnologia, I.P.

## References

- Almeida, I., Batista, J. S., Menezes, M., & Smaniotto Costa, C. (2018). *Adolescentes e Cocriação do Espaço Público. Oficinas Temáticas de Urbanismo 2017 - 2018. Relatório Preliminar sobre o Estudo de Caso de Lisboa*. Lisboa: Edições Universitárias Lusófonas. [https://c3places.eu/sites/default/files/publications/Relatorio\\_Officinas\\_Urbanismo\\_240718.pdf](https://c3places.eu/sites/default/files/publications/Relatorio_Officinas_Urbanismo_240718.pdf)
- Boo, F. L. (2020, July 27). Crianças invisíveis, outro efeito da pandemia, *El País*. <https://brasil.elpais.com/opiniao/2020-07-27/criancas-invisiveis-outro-efeito-da-pandemia.html>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3 (2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- CML - Câmara Municipal de Lisboa (2015). *Lisboa: O desenho da rua. Manual do espaço público*. Lisboa: CML. <http://www.cm-lisboa.pt/viver/urbanismo/espaco-publico>
- CML (2012). LX-Europa 2020 - Lisboa no quadro do próximo período de programação comunitário. Lisboa: CML. [https://issuu.com/camara\\_municipal\\_lisboa/docs/lisboa\\_europa\\_2020\\_versao\\_online/4](https://issuu.com/camara_municipal_lisboa/docs/lisboa_europa_2020_versao_online/4)
- CML (2009). Carta Estratégica de Lisboa 2010/24 - Um compromisso para o futuro da cidade. Lisboa: CML. [https://www.lisboa.pt/fileadmin/municipio/camara/documentos/Carta\\_Estrategica\\_Lisboa\\_2010\\_2024.pdf](https://www.lisboa.pt/fileadmin/municipio/camara/documentos/Carta_Estrategica_Lisboa_2010_2024.pdf)
- Carmona, M., Heath, T., Tiesdell, S., & Oc, T. (2003). *Public Places, Urban Spaces: The Dimensions of Urban Design*. Michigan: Architectural Press. <https://doi.org/10.1111/febs.12167>
- Children’s Commissioner. (2020) *Teenagers falling through the gaps*. <https://www.childrenscommissioner.gov.uk/publication/teenagers-falling-through-the-gaps/>
- Coelho, A. B. (2007). *Alvalade, de Faria da Costa. Uma cidade na cidade - o mistério de Alvalade*. <https://infohabitar.blogspot.com/2007/12/alvalade-de-faria-da-costa-uma-cidade.html>
- Costa, J. P. (2002). *Bairro de Alvalade: Um Paradigma no Urbanismo Português*. Lisboa: Horizonte Arquitectura.
- Decree-Law n.º 54/2018 (2018). Presidência do Conselho de Ministros. Diário da República n.º 129/2018, Série I de 2018-07-06, 2918-2928. <https://data.dre.pt/eli/dec-lei/54/2018/07/06/p/dre/pt/html>
- Design Council (2020). Using design to reduce health inequalities. Virtual roundtable discussion summary publication. Design Council. [https://www.designcouncil.org.uk/sites/default/files/asset/document/Health\\_and\\_Wellbeing\\_Roundtable\\_Summary.pdf](https://www.designcouncil.org.uk/sites/default/files/asset/document/Health_and_Wellbeing_Roundtable_Summary.pdf)
- Ennew, J. (1994). Time for children or time for adults (pp. 125–144). In J. Qvortrup (Ed.), *Childhood matters: social theory, practice and politics*. Aldershot: Avebury.
- Estrela, E., Smaniotto Costa, C. (2019). Reflections on territorial capacity - the interplay between education and understanding and acting in the urban fabric (pp. 25-34). In Menezes, M. & Smaniotto Costa, C. (Eds.),



*Neighbourhood & City - Between digital and analogue perspectives*. Lisbon: Lusófona University Press. <http://cyberparks-project.eu/sites/default/files/publications/cultureterritories3.pdf>

Gehl (2020). Public Space & Public Life during COVID 19. Gehl, Municipality of Copenhagen and Realdania. Retrieved 23 November 2020, <https://covid19.gehlpeople.com/files/report.pdf>

Gehl, J. (1987). *Life Between Buildings: Using Public Space*. New York: Van Nostrand Reinhold.

Hamidi, S., Ewing, R., & Sabouri, S. (2020). Longitudinal analyses of the relationship between development density and the COVID-19 morbidity and mortality rates: Early evidence from 1,165 metropolitan counties in the United States, *Health Place*, 64. <https://doi.org/10.1016/j.healthplace.2020.102378>

Honey-Rosés, J., Anguelovski, I., Chireh, V. K., Daher, C., Bosch, C. K., Litt, J. S., Mawani, V., McCall, M. K., Orellana, A., Oscilowicz, E., Sánchez, U., Senbel, M., Tan, X., Villagomez, E., Zapata, O. & Nieuwenhuijsen, M. J. (2020). The impact of COVID-19 on public space: an early review of the emerging questions – design, perceptions and inequities, *Cities & Health, Special Issue: COVID-19*. <https://doi.org/10.1080/23748834.2020.1780074>

Innerarity, D. (2006). *O novo espaço público*. Lisboa: Teorema.

Jacobs, J. (1961). *The Death and life of Great American Cities*. New York and Toronto: Vintage Books - Random House.

Jones McVey, R., Clancy, I., Curzon Price, A., Hall Dixon, S. R., Qiu, J., & Song, M. (2020). Youth in a viral age: a collated auto-ethnographic response by young people (dis)orientated in strange times, *Social Anthropology*, 28(2), 289–290. <https://doi.org/doi:10.1111/1469-8676.12815>

Kang, M., Choi, Y., Kim, J., Lee, K. O., Lee, S., Park, I. K., Park, J. & Seo I. (2020). COVID-19 impact on city and region: what's next after lockdown?, *International Journal of Urban Sciences*, 24(3), 297–315. <https://doi.org/10.1080/12265934.2020.1803107>

Laughlin, D. L. & Johnson, L. C. (2011). Defining and exploring public space: perspectives of young people from Regent Park, Toronto, *Children's Geographies*, 9 (November), 439–456. <https://doi.org/10.1080/14733285.2011.590703>

Lefebvre, H. (1974 [1991]). *The Production of Space*. Malden, Oxford and Victoria: Blackwell Publishing.

Lentini, L. & Decortis, F. (2010). Space and places: When interacting with and in physical space becomes a meaningful experience, *Personal and Ubiquitous Computing*, 14(5), 407–415. <https://doi.org/10.1007/s00779-009-0267-y>

Lito, R. & Bento, S. (2020, Outubro, 18). O vírus do exagero nas escolas: pais e alunos protestam, *Sábado*. <https://www.sabado.pt/vida/detalhe/o-virus-do-exagero-nas-escolas-pais-e-alunos-protestam>

Marchesi, M (2020). From sociality to social distancing: reversing values of solidarity in Italy, *Social Anthropology*, 28(2), 309–310. <https://doi.org/doi:10.1111/1469-8676.12885>

Megaheda, N. A., & Ghoneimb, E. M. (2020). Antivirus-built environment: Lessons learned from Covid-19 pandemic, *Sustainable Cities and Society*, 61. <https://doi.org/10.1016/j.scs.2020.102350>

Mitchell, D. (1995). The End of Public Space? People's Park, Definitions of the Public, and Democracy. *Annals of the Association of American Geographers*, 85(1), 108-133. <https://doi.org/10.1111/j.1467-8306.1995.tb01797.xa>

Moreno, C. (n. d.). The 15 minutes-city: for a new chrono-urbanism! Carlos Moreno Website. <http://www.moreno-web.net/the-15-minutes-city-for-a-new-chrono-urbanism-pr-carlos-moreno/>

- Muñoz, S. A. (2009). Children in the Outdoors: A literature Review. *Forres: Sustainable Development Research Centre*. [https://www.ltl.org.uk/childhood/documents/Childrenintheoutdoorsliteraturereview\\_tcm4-597028.pdf](https://www.ltl.org.uk/childhood/documents/Childrenintheoutdoorsliteraturereview_tcm4-597028.pdf)
- Orben, A., Tomova, L., & Blakemore, S. J. (2020). The effects of social deprivation on adolescent development and mental health, *The Lancet Child & Adolescent Health*, 8(4), 634-640. [https://doi.org/10.1016/S2352-4642\(20\)30186-3](https://doi.org/10.1016/S2352-4642(20)30186-3)
- Owens, P. E. (2002). No Teens Allowed: The Exclusion of Adolescents from Public Spaces. *Landscape Journal*, 21(1), 156–163. <https://doi.org/10.3368/lj.21.1.156>
- Pais, J. M. (1993). *Culturas Juvenis*. Lisboa: Imprensa Nacional da Casa da Moeda.
- PPS. (n. d.). What Makes a Successful Place?, *Project for Public Spaces*. <https://www.pps.org/reference/grplacefeat>
- Qvortrup, J. (1994). Childhood matters: An introduction (pp. 1–24). In J. Qvortrup (Ed.), *Childhood matters: social theory, practice and politics*, Aldershot: Avebury.
- Ramírez, I. J., & Lee, J. (2020). COVID-19 Emergence and Social and Health Determinants in Colorado: A Rapid Spatial Analysis, *International Journal of Environmental Research and Public Health*, 17(11). <https://doi.org/doi:10.3390/ijerph17113856>
- Ribeiro, L. C. de Q. (2020). As metrópoles e a COVID-19: Dossiê Nacional (apresentação), *INCT Observatório das Metrópoles*. <https://www.observatoriodasmetrololes.net.br/as-metrololes-e-a-covid-19-dossie-nacional>
- Schütz, F., Heidingsfelder, M.L. & Schraudner, M. (2019). Co-shaping the Future in Quadruple Helix Innovation Systems: Uncovering Public Preferences toward Participatory Research and Innovation, *She Ji: The Journal of Design, Economics, and Innovation*, 5(2), 128–146. <http://doi.org/10.1016/j.sheji.2019.04.002>
- Sennett, R. (1977). *The Fall of Public Man*. London: Penguin Books.
- Settersten R. A., Bernardi, L., Härkönen, J., Antonucci, T. C., Dykstra, P. A., Heckhausen, J. Kuh, D., Mayer, K. U., Moen, P., Mortimer, J. T., Mulder, C. H., Smeeding, T. M., Lippe, T., Hagestad, G. O., Kohli, M., Levy, R., Schoon, I., & Thomson, E. (2020). Understanding the effects of Covid-19 through a life course lens, *Advances in Life Course Research*, 45. <https://doi.org/10.1016/j.alcr.2020.100360>
- Skelton, T. & Valentine, G. (Eds.). (1998). *Cool Places: Geographies of Youth Cultures*. London and New York: Routledge.
- Smaniotto Costa, C., Solipa Batista, J., Almeida, I., & Menezes, M. (2020). Exploring teenagers' spatial practices and needs in light of new communication technologies, *Cities*, 98. <https://doi.org/10.1016/j.cities.2019.102574>
- Smaniotto Costa, C., Solipa Batista, J., Almeida, I., Menezes, M., Skaržauskienė, A., Mačiulienė, M., Botteldooren, D., van Renterghem, T., Pizzi, R., Ceravolo, P., Šuklje Erjavec, I., Žlender, V., Goličnik Marušić, B. (2021). *Using ICT for Co-Creation of Inclusive Public Places. C3Places Project*. Lisbon: Lusófona University Press. <https://doi.org/0.24140/2021/EB-978-989-757-154-1>
- Smaniotto Costa, C., Šuklje Erjavec, I. & Matthey, J. (Ed.) (2008). *GreenKeys @ your city - A Guide for Urban Green Quality*. Dresden: IOER
- Strecht, P. (2011). *Uma Certa Harmonia Notas sobre arquitetura, urbanismo e saúde mental infanto-juvenil*. Lisboa: Assírio & Alvim.
- Thompson, C. W. (2002). Urban open space in the 21st century, *Landscape and Urban Planning*, 60(2), 59–72. [https://doi.org/10.1016/S0169-2046\(02\)00059-2](https://doi.org/10.1016/S0169-2046(02)00059-2)

Tostões, A. (2001). O Bairro de Alvalade no quadro do desenvolvimento urbano de Lisboa. In AA.VV., *Lisboa: Conhecer Pensar Fazer Cidade*. Lisboa: Centro de Informação Urbana de Lisboa.

UN-Habitat (2015). Adequate Open Public Space in Cities. A Human Settlements Indicator for Monitoring the Post-2015 Sustainable Development Agenda, *UN-Habitat*.

UN-Habitat (2016). New Urban Agenda: Quito Declaration on Sustainable Cities and Human Settlements for All, *Habitat III Conference*. UN-Habitat. <http://www.eukn.eu/news/detail/agreed-final-draft-of-the-new-urban-agenda-is-now-available/>

UN-Habitat (2020). UN-Habitat key message on COVID-19 and public space, *UN-Habitat*. [https://unhabitat.org/sites/default/files/2020/05/unh\\_covid-19\\_ps\\_key\\_message.pdf](https://unhabitat.org/sites/default/files/2020/05/unh_covid-19_ps_key_message.pdf)

UN\_Habitat (2021). Cities and Pandemics: Towards a More Just, Green and Healthy Future, *UN-Habitat*. <https://unhabitat.org/un-habitat-report-on-cities-and-pandemics-towards-a-more-just-green-and-healthy-future>

Vachianno, F. (2020). On the proximity of distancing: notes on Northern Italy, *Social Anthropology*, 28(2), 309–310. <https://doi.org/10.1111/1469-8676.12885>

Valentine, G. (2004). *Public space and the culture of childhood*. Aldershot: Ashgate.

Van Vliet, W. (1983). Exploring the fourth environment: An Examination of the Home Range of City and Suburban Teenagers, *Environment and Behavior*, 15(5), 567–588. <https://doi.org/10.1177/0013916583155002>

Woolley, H. (2003). *Urban open spaces*. London and New York: Routledge.

Wyn, J. & White R. (1997). *Rethinking youth*. Crow's Nest: Unwin & Allen.

You, H., Wu, X., & Guo, X. (2020). Distribution of COVID-19 Morbidity Rate in Association with Social and Economic Factors in Wuhan, China: Implications for Urban Development, *International Journal of Environmental Research and Public Health*, 17(10). <https://doi.org/10.3390/ijerph17103417>

Žlender, V., Šuklje Erjavec, I. and Goličnik Marušić, B. (2021). Digitally Supported Co-creation within Public Open Space Development Process: Experiences from the C3Places Project and Potential for Future Urban Practice, *Planning Practice & Research*, 36(3), 247-267. <https://doi.org/10.1080/02697459.2020.1829286>