

## **Are privately owned public spaces effective design and planning tools that can favour the creation of healthy, public spaces in contemporary cities? Notes from an empirical study in New York.**

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### **Abstract**

With urbanization growing at an accelerated rate, designing, curating and planning healthy public spaces in large, densely populated contemporary cities are challenges that cannot be overlooked by urban designers, planners and city managers who aim at operating in accordance with the New Urban Agenda, the UN Sustainable Development Goals and the WHO Healthy Cities Program. This contribution addresses this challenge, by discussing whether and to which extent privately owned public spaces (POPS) can be effective design and planning tools for the creation of healthy, public spaces in contemporary cities. In New York City, POPS are spaces owned and managed by the private sector and accessible to the public by law. They are created by developers in exchange for the provision of space or tax reduction, and are regulated by zoning policies. A scrutiny of previous studies about New York City POPS shows that researchers have examined how the evolving environmental policy has affected the design quality, functionality, sociability and inclusiveness of these POPS. However, so far no studies have explicitly evaluated New York City POPS as spaces that can provide “opportunities for quiet respite” from the city or for contemplation, nor have they focused on the physical and immaterial characteristics which can make these spaces beneficial for our physical and mental health. This contribution addresses this gap in literature by presenting an empirical study conducted by the author in the Spring 2019 in over seventy New York City POPS, namely “plazas” and “through block connections”, including similar small public spaces. After providing an overview of the evolution of the regulatory status of POPS in New York, the fieldwork study is introduced, outlining the empirically grounded methods, drawn from auto-ethnography and soundscape studies. Subsequently, results are outlined, consisting of a map of twenty spaces, selected by applying a qualitative approach to data synthesis informed by qualitative indicators drawn from the Sixteen Hush City Qualities framework. In conclusion, the limitations of the study are discussed and preliminary recommendations are given, referring to the NYC Zoning Resolution, as to exploit the potential of POPS as design and planning tools for the creation of healthy, public spaces. Further research will be needed to fully assess these findings and finalize them in the form of recommendations, which could inform planners and policy makers on how to continue their goals in developing regulations that can guide the private sector to produce healthy urban environments.

### **INTRODUCTION**

In parallel to urbanization growing at an accelerated rate with predictions from the Organisation for Economic Cooperation and Development that almost 70 per cent of the world’s population will be living in urban areas by 2050<sup>1</sup>, researchers have noted that most countries are already pursuing policies which encourage the building of dense cities. If living in dense cities can provide people with a range of benefits, including higher

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<sup>1</sup> See: <https://www.oecd.org> (Accessed October 2019).

productivity, shorter commutes, preservation of green spaces to name but a few, on the other hand, literature reveals that it can also expose residents to higher levels of pollution and, partially as a result, higher mortality rates (Ahlfeldta and Pietrostefani 2019). The New Urban Agenda (Habitat III 2017) was set up to for creating more socially, economically and ecologically successful and sustainable cities and the importance of public spaces<sup>2</sup> in addressing these goals has been affirmed (Haas and Mehaffy 2018), with the World Health Organization positioning health as key to this agenda (WHO 2016, Grant et al. 2017). Designing, curating and planning healthy public spaces in large, densely populated contemporary cities are opportunities, which cannot be overlooked by urban designers, planners and city managers, who aim at operating in accordance with the New Urban Agenda, the UN Sustainable Development Goals and the WHO Healthy Cities Program (UN 2015, WHO 2016, Talia 2019). Against this backdrop, this contribution reflects on the potential of privately owned public spaces (hereafter abbreviated as POPS) as effective design and planning tools for the creation of healthy, public spaces in contemporary dense, big cities, by looking at POPS in Manhattan, New York. According to the NYC Department of Planning, privately owned public spaces are “spaces dedicated to public use and enjoyment and which are owned and maintained by private property owners, in exchange for bonus floor area or waivers”<sup>3</sup>, and are regulated by zoning policies. The New York POPS Program is dated back to 1961, when the New York City’s Zoning Resolution was overhauled: it was subsequently reformed in the 1970s, 1980s and more recently in the 2000s<sup>4</sup> and, as of October 2019, it produced over 550 POPS primarily located in Manhattan<sup>5</sup>. Since 1961, several types of outdoor and indoor POPS have been introduced in the New York Zoning Resolution, including: plazas, arcades, covered pedestrian spaces, through block arcades, through block connections, sidewalk widenings, open air concourses, and gallerias, among others (Figure 1).

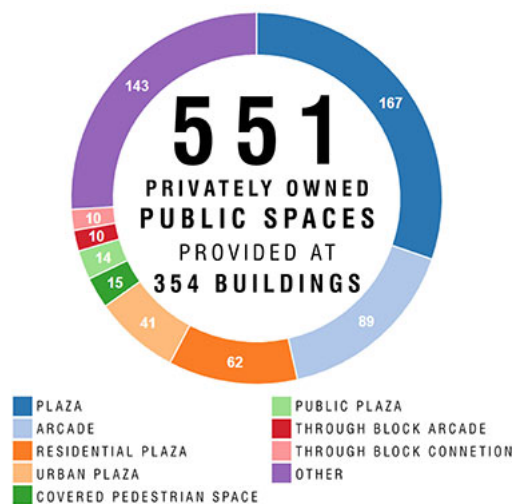


Figure 1: New York City’s privately owned built public spaces as of August 2018. Image source: NYC Department of City Planning.

<sup>2</sup> The definition of public spaces used within the context of this study coincides with “public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive” (Garau 2015).

<sup>3</sup> See: <https://www1.nyc.gov/site/planning/plans/pops/pops.page> (Accessed October 2019).

<sup>4</sup> For an overview of the history of the New York Zoning Resolution, see, for example: (Kayden 2000) and (Schmidt et al 2011).

<sup>5</sup> Combined, NYC POPS provide nearly 3.8 million square feet of additional public space in the City. Source NYC Planning 2019.

In 2007 and 2009, amendments to the New York Zoning Resolution introduced a new type of POPS, the public plaza, which replaced provisions for urban and residential plazas. In parallel, the Program refined POPS' amenities and operational standards, following specific purposes. Accordingly, public plazas shall "serve a variety of users of the public plaza area; provide spaces for solitary users while at the same time providing opportunities for social interaction for small groups; and provide safe spaces, with maximum visibility from the street and adjacent buildings and with multiple avenues for ingress and egress" (NYC Zoning Resolution Section 37-70).

The operational standards currently regulating the public plazas are twenty-three<sup>6</sup>, addressing POPS': location, dimension, visibility, elevation, sidewalk frontage, circulation paths, seating, planting and trees, lighting and electrical power, litter receptacles, bicycle parking, public space signage, additional amenities, kiosks and open air cafes. They also define both the restrictions and permitted obstructions, accessibility, hours of access, uses and walls fronting on public plazas (NYC Zoning Resolution Section 37-70).

A scrutiny of previous studies about New York POPS shows that researchers have extensively researched this topic, for example examining how the evolving regulatory policy has affected the design quality, functionality, sociability and inclusiveness (e.g. Kayden 2000, Schmidt et al. 2011, Huang and Frank 2018). However, to the best of the author's knowledge, previous studies have so far not explicitly evaluated New York POPS as spaces that can provide "opportunities for quiet respite" from the city (Loukaitou-Sideris and Banerjee 1998 in Schmidt et al. 2011) or for contemplation nor have they focused on the physical and immaterial characteristics, which can make these spaces beneficial for our physical and mental health.

This contribution addresses this gap in literature by presenting an empirical study conducted by the author in the Spring of 2019 in over seventy NYC POPS, namely "plazas" and "through block connections", including similar small public spaces. Firstly, the fieldwork study is introduced and the empirically grounded methods, drawn from auto-ethnography (Chang 2008) and soundscape studies (Schafer 1977, ISO 2014) are outlined. Subsequently, results are presented, consisting of a map of twenty spaces, selected by applying a qualitative approach to data synthesis informed by the application of the Sixteen Hush City Qualities framework (Radicchi 2019c). In conclusion, the study limitations are discussed and preliminary recommendations are given, referring to the NYC Zoning Resolution, as to exploit the potential of POPS as design and planning tools for the creation of healthy, public spaces.

## **METHODS AND MATERIALS OF THE FIELDWORK STUDY**

The fieldwork study<sup>7</sup> was conducted by the author in New York in the Spring 2019, between February and May 2019, in over seventy outdoor POPS, including similar small public spaces, in the borough of Manhattan, from Harlem down to Lower Manhattan, e.g. in

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<sup>6</sup> For the full zoning text related to the public plaza design standards, see Article III Chapter 7 Section 70 of the New York City Zoning Resolution, available at: <https://www1.nyc.gov/site/planning/plans/pops/pops-plaza-standards.page> (Accessed October 2019).

<sup>7</sup> This fieldwork study was part of a broader research project, conducted by the author within the context of a research stay at the New York University, and aimed at: studying current policies and regulations related to quiet areas; researching state-of-the-art projects across the fields of urban design, placemaking and acoustics, which can positively impact the sonic quality of urban public spaces; conducting field work to study existing and potential everyday quiet areas in Manhattan; and disseminating the soundscape concept and related methods among scholars, professionals, activists and the public, via interviews, public presentations, soundwalks. See: (Radicchi 2019a).

Harlem, Morning Heights, Central Park, Upper West Side, Midtown, Chelsea, West and East Village, NoLiTa, Little Italy, Soho, Bowery and Lower Manhattan. The categories of the New York POPS investigated included: plazas and through block plazas, the latter indicating “those spaces located on a midblock that connect two street frontages” (NYC Zoning Resolution Section 37-70). In order to investigate both the material and immaterial characteristics which can make these spaces appropriate for quiet respite and beneficial for our physical and mental health, empirically grounded methods were applied, drawn from auto-ethnography (Chang 2008) and soundscape studies (Schafer 1977, ISO 2014). Solo soundwalks<sup>8</sup> (Radicchi 2017a) were conducted by the author in the spaces under investigation to evaluate their environmental quality, including acoustic characteristics, and to collect in-situ mixed data, such as: pictures, *sonicshots* (i.e. short videos of up to twenty seconds) and observational notes. Sketching was also used as an analytical method to annotate site design characteristics, relevant to making these spaces small islands of relative quietness. Then, the Sixteen Hush City Qualities (Radicchi 2019c) were applied to assess the potential of each space to provide with opportunities for quiet relief from the city and for contemplation. The Sixteen Hush City Qualities originate from previous research conducted by the author and discussed in (Radicchi et al. 2017, Radicchi 2019c), and they have been conceived as a conceptual tool for the identification and assessment of small urban quiet areas, i.e. everyday quiet areas. These Sixteen Qualities are articulated in four categories: Spatial Justice, Acoustics, Comfort, Aesthetics. The category Spatial Justice includes: neighbourhood scale, fit within the walking distance grid (Welle et al. 2015), human-scale size (Gehl and Svarre 2013), accessibility, whereas the Acoustics category includes the presence of natural, animal and/or human sounds, and the absence of foreground traffic noise. The Comfort category comprises options for social interaction and relaxation, options for having undisturbed conversations, and options for primary sitting. Lastly, the Aesthetics category is composed of good visual and landscape quality, cleanliness, and well maintenance. The spaces which mostly the Sixteen Hush City Qualities were included in the list of potential quiet areas (see Table 1), which were mapped by using the Hush City app<sup>9</sup> (Radicchi 2017b) and linked to the web-based, global Hush City Map<sup>10</sup> (Radicchi 2019b).

## PRELIMINARY RESULTS

The results presented in this section originate from the fieldwork conducted by the author in over seventy outdoor POPS, including similar small public spaces, in the borough of Manhattan in the Spring 2019. These spaces were analysed using the Sixteen Hush City Qualities framework (Radicchi 2019c): accordingly, twenty spaces fulfilled more than thirteen out of the Sixteen Qualities and they were selected as potential everyday quiet

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<sup>8</sup> Soundwalking as an educational and research practice was first experimented in the 1960s by Michael Southworth and in the 1970s by the members of the World Soundscape Project, and since the early examples of soundwalks, scholars and practitioners have explored a huge variety of methods within the arts and humanities, social sciences, ecology studies and engineering (for an overview of the method, see: (Westerkamp 1974), (McCartney 2014), (Radicchi 2017a)). More recently, soundwalks as a participatory method of conducting scientific research have been defined by the ISO norm on soundscape with the aim of unifying its application, thus facilitating comparative studies (ISO 2018).

<sup>9</sup> Hush City is a free mobile app for iOS and Android, invented by the author, which allows the crowdsourcing of mixed, geo-referenced and time-stamped data of quiet areas, which are then linked in real time to a web-based, open access platform: The Hush City Map.

<sup>10</sup> The Hush City Map is available at <https://map.opensourcesoundscapes.org/view-area> and it contains the everyday quiet areas crowdsourced worldwide with the Hush City app.

areas. Out of these twenty spaces, eight spaces fulfilled all the Sixteen Qualities. The latter are included in the map and represented via images displayed in Figure 2. In terms of spatial distribution, the twenty spaces are located in the borough of Manhattan, with a concentration in Midtown (see Table 1), whereas the eight spaces that fulfilled the Sixteen Qualities (in bold in Table 1) are scattered throughout Manhattan and are located in Harlem, Upper West Side, Midtown, West Village, New York University Campus neighbouring Washington Square Park, NoLIta and Lowe Manhattan.

<b>Harlem</b>	<b>Morning Heights</b>	<b>Upper West Side</b>	<b>Midtown</b>	<b>West Village</b>	<b>NYU Campus</b>	<b>NoLIta and Bowery</b>	<b>Lower Manhattan</b>
<b>#2300</b>	#2299	#2363	<b>#2309</b>	#2072	<b>#2210</b>	<b>#2289</b>	#2380
	#2301	<b>#2361</b>	<b>#2312</b>	#2203	#2365	#2288	#2376
			#2307	<b>#2073</b>			<b>#2375</b>
			#2308				
			#2311				

Table 1: List of the twenty spaces, which were selected as potential small, quiet areas. These spaces were also mapped with the Hush City app and linked to the web-based Hush City Map. The code (#) refers to the number of these areas displayed in the Hush City Map.

The typology of these twenty spaces varies and includes: pocket parks (N=1), community gardens (N=2), church gardens (N=2), university campus garden (N=1), free-car alleys (N=1), POPS plazas (N=6), POPS through block plazas (N=4) and square parks (3). In terms of spatial configuration, these spaces are usually embedded in the blocks, have a human-scale size and are at walking distances from residential and working places and public transportation hubs, giving access to subway and bus lines. They are all open accessible outdoor spaces, without physical elements that can limit personal mobility. A quality acoustic environment, determined by natural, animal and human sounds and absence of foreground traffic noise is also a key characteristic of these spaces. With regard to comfort qualities, they offer options for having conversations and relaxing in relative quiet niches, while providing opportunities for social interaction and playing. Seating is also well conceived, offering a variety of comfortable options, including moveable and fixed chairs, fixed benches with backs, seat walls, planter ledges and seating steps. Aesthetic qualities also distinguish these spaces, which are usually well designed, properly maintained, clean and often surrounded by valuable architecture and/or landmarks. Quality landscape, in the form of trees and planting, are essential components of these spaces, along with water amenities, like waterfalls, fountains and reflecting pools.



Figure 2: Map of the twenty potential small quiet areas resulting from the assessment of over seventy outdoor POPS, including similar small public spaces, in Manhattan. Image source Antonella Radicchi 2019

## DISCUSSION AND CONCLUSION

This fieldwork study in New York was empirical and exploratory in nature, and as so, its findings shall be interpreted as heuristic and indicative for future research and action. Nevertheless, further examination is required to highlight at least three important preliminary results. Firstly, the findings show that the twenty small, quiet areas identified through the fieldwork study do not overlap with the Quiet Zones officially designated by the NYC Department of Parks and Recreation (Radicchi 2019a). This result shows the untapped potential of these New York spaces as an existing healthy infrastructure, which could be protected by the NYC Department of Parks and Recreation, by designating these spaces as official Quiet Zones of New York City.

A second important result regards the scattered POPS' spatial distribution<sup>11</sup>, which reveals that the allocation of the POPS in Manhattan follows the interests of the private sector in the absence of a general masterplan. This result confirms previous studies, e.g. by Loukaitou-Sideris and Banerjee (1998), who, referring to similar spaces in San Francisco and Los Angeles, highlighted how the creation of such exclusionary spaces indicates a paradigm shift in urban design into a market driven practice, leading to the production of fragmented and disconnected spaces. It would be therefore recommendable to include the POPS within a general masterplan, which could support effective strategic planning in light of spatial justice.

A third important result emerges from the analysis of the common material and immaterial characteristics of the twenty spaces, selected as potential small, quiet areas, if compared with the current standards set up by the New York Zoning Resolution to regulate the POPS' type of plazas (NYC Zoning Resolution Section 37-70). For plazas

<sup>11</sup> The NYC Planning's interactive map provides an overview of all POPS in the city, see: <https://capitalplanning.nyc.gov/pops/M060075#14.09/40.7496/-73.9705> (Accessed October 2019).

working as effective spaces of quiet respite and contemplation<sup>12</sup>, it would be recommendable to augment some of the current New York Zoning Resolution's standards, for example, as following. Minor portions: the plaza regulations shall not only permit, but oblige for small areas of the plaza to take the form of alcoves or niches adjacent to the main portion of the plazas and located not on the street frontage. Sidewalk frontage: the plaza regulations shall require that 50% of the sidewalk frontage contain traffic noise barriers, in the form of light design elements, like sonic crystal acoustic barriers, not exceeding four feet (approximately one meter and twenty centimetres) of a plaza wall. Water amenities: water amenities, such as waterfalls, fountains and reflecting pools, shall be required as mandatory and their location and configuration shall be regulated as to address quality acoustic environment via sound masking and/or sound distraction effects. Seating: options for sitting shall be required to be located in the proximity of the alcoves or niches and avoided on the street frontage. Installation of "sonic islands"<sup>13</sup> may also be permitted in the plazas. Planting and Trees: specific plants and vegetation shall be positioned along the street frontages to make people feel less disturbed by potential nearby traffic and increase the presence of natural sounds<sup>14</sup>. Planting specific vegetation to enhance the acoustic environment of the plazas shall be regulated and planting options and related sonic effects shall be provided (e.g. see the Parisian "Jardin des Bambous"). Circulation paths: regulations shall provide a list of specific materials for circulation path design<sup>15</sup> to enhance the acoustic qualities of plazas.

Overall, in terms of implication for policy-making and urban planning, these findings suggest that, if properly tailored, the regulatory policy of the New York POPS has the potential to favour the creation of spaces for urban quiet respite and contemplation, especially in the case of new development and urban regeneration projects in dense, big cities. However, the interpretation of these results is still at the discursive level and these findings should not be intended as conclusive. Further research is needed to fully assess these results and finalize a set of recommendations, which could inform planners and policy makers to continue their goals in developing regulations that can guide the private sector to produce healthy urban environments.

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<sup>12</sup> For a comprehensive list of design and planning recommendations see: Table 3 in (Radicchi 2019c).

<sup>13</sup> Sonic islands are benches with loudspeakers playing natural sounds, like those chosen by the local residents for the redesign of Nauener Platz in Berlin (Schulte-Fortkamp and Jordan 2016).

<sup>14</sup> For example, see: (Berlin Senate 2009).

<sup>15</sup> For example, see: (Daumal 2002).

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