

Urban Soundscapes: What Should a Public Space Sound Like?

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An Oasis Altered

Boston's Charles River Esplanade is an urban gem. Runners, roller-bladers, cyclists, and those just taking in the views frequent the riverside park throughout the year. Originally envisioned in Frederick Law Olmstead's 1889 design for "Charlesbank," the Esplanade was created in 1910 and expanded in 1928. The historic park has hosted the Boston Pops since 1929 when Arthur Fiedler first performed in a temporary bandshell on the future site of the Hatch Memorial Shell.

In 1949 the construction of a four-lane, limited access highway adjoining the Esplanade forever changed the character of the waterside park. In addition to constant traffic noise, MBTA red line trains rumble across a bridge every few minutes and helicopters arrive periodically at a nearby hospital. Although still an oasis of greenery and open space within the confines of downtown Boston, the Esplanade no longer offers the tranquility of Olmstead's original vision.

Adaptation vs. Design

Boston's Esplanade is an example of an urban park forced to adapt to a changing environment. Runners and cyclists tolerate the urban sounds surrounding them.

Concerts and outdoor films go on at the Hatch Shell accompanied by traffic noise. This park has managed to remain a popular public space despite the intrusion of urban noise sources into an otherwise idyllic setting. But what of new public spaces designed for specific purposes?

Should visitors be forced to adapt to the environment even if it's in conflict with the facility's intended uses? Or should the public space be designed and programmed with sensitivity to the existing and future acoustical environments?



Vintage Postcard of Charles River Esplanade

The Urban Soundscape

The term "soundscape" encompasses all aspects of an acoustical environment and often is used to characterize the natural sounds in pristine outdoor environments. Preservation of natural soundscape has been an important park management issue for the U.S. National Park Service since the National Parks Overflights Act of 1987. Soundscape planning and design also are critical for *urban* public spaces if they are to serve their intended purposes. Such urban spaces may include parks, mixed-use developments, entertainment venues, and outdoor monuments and memorials. Within urban settings, street traffic, aircraft overflights, and other noise sources can negatively affect the character and even prevent the intended use of an outdoor facility. In addition, sounds generated at the facility can adversely affect both visitors and the site's neighbors.

What Should a Public Space Sound Like?

“What should a public space sound like?” is a fundamental question in urban soundscape planning and design. The answer depends upon numerous factors including the historic and intended uses of the facility, the presence of intruding noise sources, the size of the site, the proximity of abutting land uses that may be affected by noise generated at the planned site, and the project’s budget.

A playground should sound different than a meditation garden, an outdoor concert venue should sound different than a public memorial, and a basketball court or skating rink should sound different than an outdoor café. Similarly, the range of feasible uses for a public space adjacent to a highway or beneath the departure flight track of a busy airport will be different than for a public space tucked into a residential neighborhood or even one hemmed in by local arterial streets.

Designing a public space without first asking this question is likely to result in the acoustical equivalent of a square peg in a round hole – activities mismatched with the site’s soundscape. The aftermath can include underutilized site amenities and facilities, annoyances or interruptions during outdoor performances or other programmed activities, and complaints from the new facility’s abutters.

Shortcomings of Impact Analysis

When considering a public space’s intended uses, an initial question should be: “What type of soundscape would be compatible with or enhance these uses?” But instead of helping to *guide* the planning process, acoustical analysis for public spaces too often *follows* completion of preliminary design. Typically the evaluation uses noise impact criteria designed to identify high levels of annoyance or the potential for speech and activity interference. Impact criteria, however, seldom consider the quality of the soundscape, the soundscape’s effect on a visitor’s experience, or even the suitability of the soundscape for planned activities. Consequently, the usual approach of first planning a project and then evaluating noise impacts fails the project’s designers, proponents, and ultimately the facility’s users by ignoring both aesthetic and practical issues. Including soundscape as an integrated part of the planning and design process is more likely to produce successful results.

The Changing Tide

A recent Request for Proposals (RFP) for a major urban development “in the midst of a world-class park system” and in close proximity to a robust transportation network included 16 pages of Design and Development Guidelines. The guidelines discussed the site’s context and gave guidance regarding uses, views, pedestrian circulation, provision for vehicles, building form, and landscapes: the development is intended to attract people to nearby park spaces and include ample spaces for people to congregate outdoors; outdoor spaces are to have “carefully developed relationships to each adjacent parcel and each of the adjacent activities.”

The RFP also included over two-dozen photographs illustrating *visual* concepts important to the site's development. Conspicuously absent from the Design Guidelines was any consideration of soundscape. The only two mentions of acoustical issues within the nearly 200-page RFP addressed compliance with local noise ordinances and minimizing impacts of traffic noise.

Fortunately, the tide is changing. Major new urban public space projects are including integrated acoustical evaluations as part of the planning and design processes. Recent examples include the World Trade Center Memorial Site in Manhattan – a site for quiet contemplation in the midst of an urban cacophony; the Brooklyn Bridge Park in Brooklyn – a landmark park located in the shadow of both the Brooklyn Bridge and the Brooklyn-Queens Expressway; and an extension of New York City's East River Walk in the vicinity of the United Nations – an area exposed to noise from local streets, the FDR Drive, and frequent helicopter traffic accessing a nearby heliport. By including soundscape planning from the outset, the likelihood is enhanced for these projects to be successful, valued additions to the urban landscape.



Public Park Adjacent to Manhattan's FDR Drive and East River



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