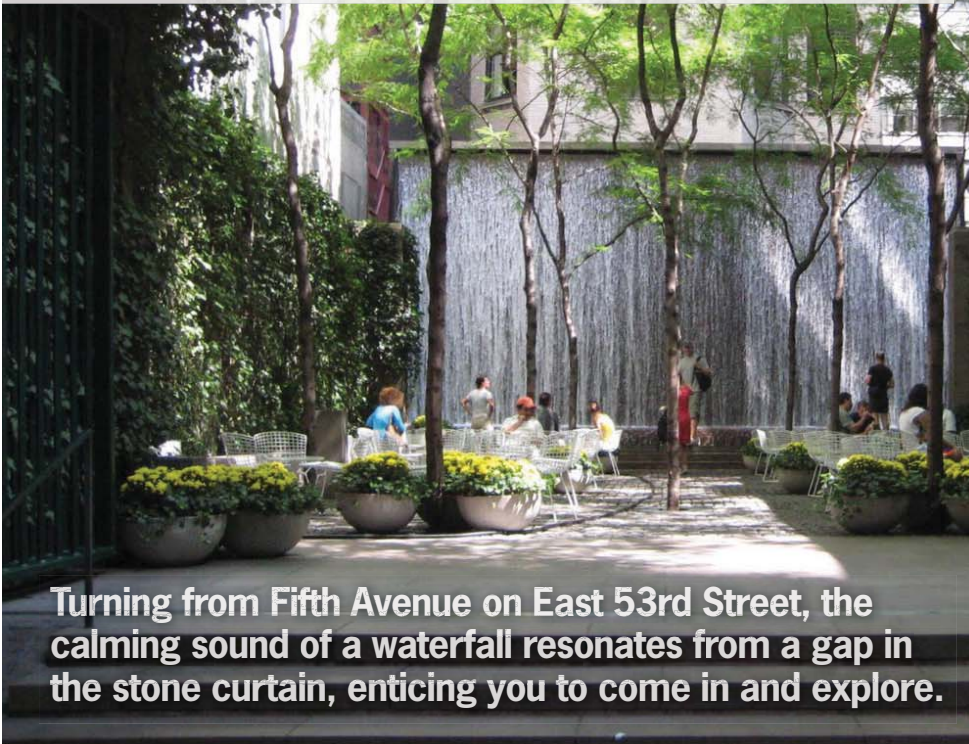


PALEY PARK

URBAN REFUGE



Turning from Fifth Avenue on East 53rd Street, the calming sound of a waterfall resonates from a gap in the stone curtain, enticing you to come in and explore.

PROJECT SUMMARY

Zion first introduced his idea for pocket parks, very small parks accessible to the general public, at “New York Parks for New York” in 1963. Paley Park—the first of its kind—opened just four years later in May 1967. The entrance to this small space faces south to maximize sun exposure at midday, and the east and west walls are covered with ivy. The north wall is dominated by the park’s 20 foot tall waterfall, which acts as the focal point for the space. Honey locust trees are planted between rough-hewn stone tiles, arranged in a loose formation to strengthen the ordered casualness of the space. Moveable marble-topped tables and lattice-wired chairs allow flexible seating throughout the space and create a dynamic and adaptable series of layouts.

Located in the heart of the nation’s commercial epicenter, Paley Park is the most heavily used park in New York City per square foot, with over 500,000 visitors per year (60 per hour). Very few of the tall buildings nearby provide usable outdoor areas, and Central Park is too far to reach for a short break. Paley Park is a unique oasis for office workers and Museum of Modern Art patrons. Owned and operated

by CBS, the park is a public space on privately owned land. A small coffee shop from the original design still sits tucked away in the southeast corner.

The defining feature of the park is its immense waterfall. Visitors consistently fill the space during weekday lunches and early evenings to sit and admire its calming effect.

Location

New York City, USA

Project Address

E 53rd Street, New York, NY 10022

Project Type

Public/Private Park

Square Feet

2,400 sq ft

Year of Completion

1967

Occupant

Public

Design Team

Zion Breen Richardson Associates

Keywords

Urban Park

Award + Recognitions

Gothamist – 8 best Parks in Manhattan - 1st

Biophilic Patterns

Presence of Water
Thermal & Airflow Variability
Dynamic and Diffuse Light
Refuge

Central view of Paley Park from E 53rd Street. A large waterfall dominates the space and focuses the visitors attention with providing a range of biophilic patterns. [P1](#) [P2](#) [P3](#) [P5](#)

NATURE IN THE SPACE

- [P1] Visual Connection with Nature.** Views of locust trees, ivy, and waterfall
- [P2] Non-Visual Connection With Nature.** Sound of splashing water from waterfall
- [P3] Non-Rhythmic Sensory Stimuli.** Waterfall on the north wall, ivy covered walls, rustling canopy leaves
- [P4] Access to Thermal & Airflow Variability.** Movable chairs and tables, differing levels of shading from locust trees, cooling effect from waterfall spray
- [P5] Presence of Water.** 20 foot waterfall covering the northern wall
- [P6] Dynamic & Diffuse Light.** Dappled light filtering through tree canopy, ivy covered walls allow different levels of light penetration
- [P7] Connection with Natural Systems.** Seasonal changes in canopy cover

NATURAL ANALOGUES

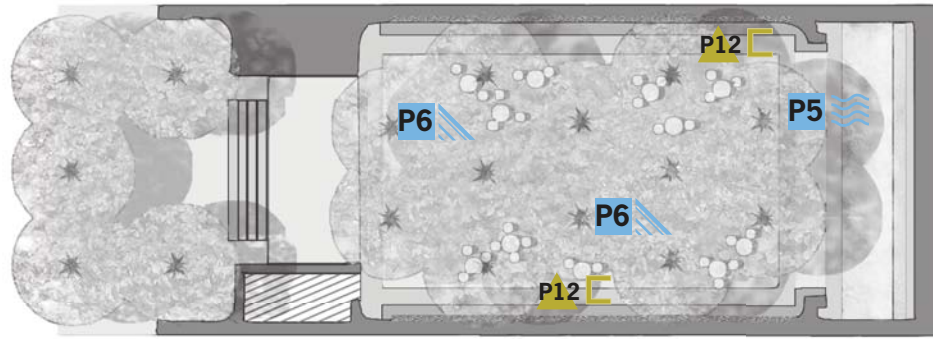
- [P8] Biomorphic Forms & Patterns.** Not present in design
- [P9] Material Connection with Nature.** Ivy covered walls
- [P10] Complexity & Order.** Not present in design

NATURE OF THE SPACE

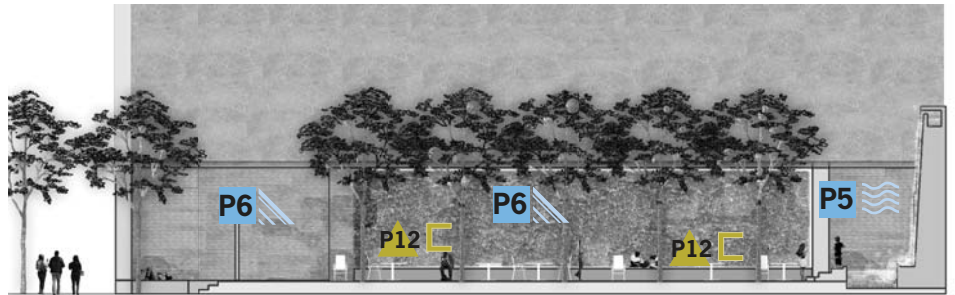
- [P11] Prospect.** Raised entrance and seating provides views to busy street beyond
- [P12] Refuge.** Limited visual access to street, inward-facing and protected benches, sound of waterfall
- [P13] Mystery.** Not present in design
- [P14] Risk/Peril.** Not present in design

Photo: The overhead tree canopy throughout the park contributes to the refuge effect and provides dynamic and diffuse sunlight and cover for songbirds in its branches. By changing with the seasons, the locust trees provide variability in both light transmission and color.

Photo: The raised prospect view is 98 feet (30 meters) from the waterfall to the East 53rd Street sidewalk.



PLAN



SECTION

[P5] PRESENCE OF WATER:

Approximately 20% of the total floor and wall area is occupied by the park's waterfall, and its sound can be heard from as far away as the sidewalk. At up to 90 decibels, it is loud enough to drown out traffic and other street noises, as well as neighboring conversations. Moving the chairs and tables closer or further from the waterfall allows occupants to choose the noise level most appropriate for them. It also allows them to choose between different thermal environments, as the waterfall cools the air significantly. While unintentional, kids play in the mist and splash the water pooling on the ground, creating a multisensory experience and increasing the feature's positive physiological impact.

The construction of the waterfall helps to amplify its impact on the space. A large vertical aggregate was used to create the surface's rough texture. This rough surface creates turbulent water streams that increase the sound, amount of mist, and the visual interest of the feature. 16 spot lights on either side of the wall highlight the texture and depth of the water.

By providing access to water, the space draws users in from the street. The soothing sound of water striking stone drowns out the street noise, yet is not so overpowering to be unpleasant, offering a calming auditory and visual experience.



[P4]
**THERMAL & AIRFLOW
VARIABILITY**

The shade of the trees, water feature, and moveable seating allow occupants to achieve optimal thermal comfort by moving around and occupying the space at their discretion. This endless customization also encourages social interaction by adapting easily to the needs of occupants.

The large waterfall lowers the temperature of the entire park, and is particularly appealing on scorching summer days in NYC. The waterfall is angled back about 10 degrees, and the large aggregate allows the water to break and ripple across the pool at its base, increasing the surface area and evaporation rate. Especially on hot days, the park is noticeably cooler than the surrounding area.

The locus trees provide shading in the summer. In the winter months, the trees drop their leaves and allow much needed sun into the park.

Left: Lighting basks the waterfall and amplifies its surface texture. This enhances the waterfall's shimmer and provides additional non-rhythmic sensory stimuli. **P3 P4 P5**



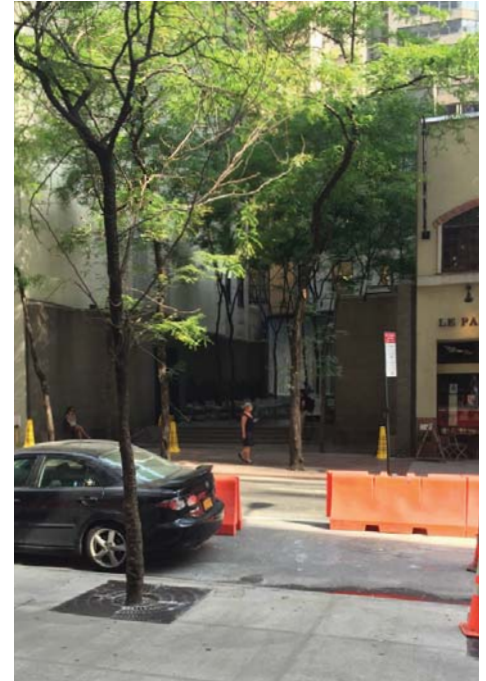
[P6]
DYNAMIC AND DIFFUSE LIGHT

The site's southwest aspect plays a vital role in its success and use because the space has dappled sunlight filtering through the canopy from midday to afternoon during the warmer months. The porous canopy of loose, rustling leaves allows light to penetrate and create shadows that dance on the cobble ground. Combined with the tall, ivy-covered walls, this allows for varying levels of light and thermal variability throughout the space. The ability to move tables and chairs according to shade and glare patterns also contributes to occupants' enjoyment and utilization of the space.

Seasonal changes in canopy cover moderate the changing temperature and sun exposure, connecting occupants to the natural cycles of sun exposure that occur throughout the year.

The restricted palettes of materials, colors, and water are visually relaxing while increasing the vivid impact of greenery within the space.

Center: The overhead canopy was specifically chosen to allow natural light to filter through the leaves in the summer and die back for ample sun in the winter. **P6 P7 P12**



[P12]
REFUGE

Paley Park was designed to offer ideal refuge. With limited visual access into the space from outside on the street, inward-facing benches with protected backs, elevation from the sidewalk that offers prospective views, and an informal arrangement of shading trees, occupants can enjoy a variety of refuge conditions.

The noise from the waterfall also provides privacy and refuge to occupants conversing. The vertical surface area occupied by the ivy and waterfall maximizes the inclusion of natural elements in the space. This lies in stark contrast to the experience of the adjacent street landscape, where the busy urban environment requires greater cognitive functionality, leading to mental fatigue.

These conditions make the visitor feel safe and secluded, but not alone. The restricted palette of materials and colors is visually relaxing. The soothing sound of water striking stone drowns out street noise, yet is not so overpowering to be unpleasant, offering a calming auditory and visual experience. The space demands little directed attention, leading to replenishment of mental capacities, as explained by Attention Restoration Theory (ART).

Right: The entire park is set back between two large skyscrapers. An elevated entryway and structural bump outs create an urban refuge for visitors. **P12**

HEALTH BENEFITS

Each of the biophilic patterns present in Paley Park contribute to the overall positive health effects of the space. The park's defining feature, the waterfall, produces positive psychological and physiological responses, including stress reduction and a drop in systolic blood pressure. Studies show an observed preference for water, linking it to improved concentration and memory, reduced stress, and lower heart rate & blood pressure.

[P1] Visual Connection to Nature.

Lower blood pressure/heart rate, improved mental engagement/ attentiveness, positively impact attitude and overall happiness.

[P3] Non-Rhythmic Sensory Stimuli.

Positively impacted heart rate, systolic blood pressure and sympathetic nervous system activity, observed and quantified behavioral measures of attention and exploration.

[P8] Biomorphic Forms & Patterns.

Observed view preference.

[P12] Refuge.

Improved concentration, attention, and perceived safety.

The waterfall also creates non-rhythmic sensory stimuli, capturing the visual and auditory attention of visitors. The sound of the water falling draws our ear, and our eyes are captured by the falling water and light reflecting off the droplets. This, too, can help reduce stress and blood pressure.

Direct observations of visitors show them reading, closing their eyes, and removing themselves from their surroundings. These actions demonstrate that the visitors feel safe, lowering their attention to external stimuli.



CRITICAL ANALYSIS

A review of the data, including observations, self-reported reviews, and spacial arrangement of the park show a strong correlation between identified biophilic patterns and increased physical and mental well-being of the visitors to the park.

Common phrases used to describe Paley Park include “oasis in the city” feel, “quite atmosphere” and “huge waterfall.” These reviews of the park go on to express visitors’ collective change in mood, increased happiness, and reduced stress. These self-reported qualitative changes show a strong correlation to the visitor’s presence in the park, and may be examples of Attention Restoration Theory in practice.

The adaptability of the seating in the space also encourages visitors to take some ownership and create the experience they want. It makes spending time in the space more enjoyable because it can be more personalized. This degree of public control allows for emotional ownership of the space to develop, and may in turn explain why the space has encountered virtually no vandalism.

The sense of safety shown by visitors who feel comfortable enough to close their eyes, contemplate the waterfall, and let the bustle of the nearby street fall away all show that this park is indeed a place of wellbeing. In a city as loud and busy as New York, it is a real challenge to grab the full attention of visitors. The design of Paley Park does just that, creating a restorative oasis in the midst of one of New York City’s busiest areas

The texture of the waterfall is increased using side lighting and large aggregate that works to break up the water as it falls. [P2](#) [P3](#) [P5](#)



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Terrapin Bright Green

Terrapin is an environmental consulting and strategic planning firm committed to improving the human environment through high performance development, policy, and related research, in order to elevate conversations and help break new ground in thinking creatively about environmental opportunities to shape the outcome of large-scale planning and design projects around the world.

Zion Breen Richardson Associates

Zion Breen Richardson Associates are an award winning architecture partnership famous for its role in Paley Park, establishing an archetype for the small urban park, inspiring a generation of landscape architects and architects to reimagine these small urban spaces.

All photos and illustrations courtesy of Terrapin Bright Green.