Rotch Traveling Scholarship

Preliminary Competition Brief 2021

Outdoor Classrooms

Context

The last radical reconsideration of the traditional school building typology happened during a global health crisis similar to today's: the tuberculosis epidemic of the early twentieth century. Forest schools and open-air schools were built predominantly in rural areas, on the belief that sunshine, fresh air, and access to nature were important to prevent and cure disease. Even in cities like Boston, children learned in the open air, wrapped in blankets in the middle of winter. These health-driven ideas evolved into progressive pedagogies of environment-based learning, informing the design of innovative physical environments to promote movement, exploration and individuality. However, these models are more common in niche private schools, or in European social democracies that provide access to high quality early childhood education for all. Elsewhere, students spend most of their time sitting in traditional lecture classrooms—sealed and mechanized interior environments, often with no daylight, let alone ventilation—and with less time for recess.

Over a hundred years later, the 2020 COVID pandemic brought this problem back into sharp focus. Children had to transition to remote learning because low-density requirements and poor ventilation in old school buildings makes it challenging and unsafe to bring all children back into the classroom. In the fragmented capitalist system of public education funding in the United States, these spatial challenges intersect with other pressing issues of social, racial, and environmental justice, which are augmented and will likely worsen during and long after the pandemic. Poverty, stress, environmental pollution, food scarcity, racism, and climate change threaten the youngest, oldest, and most physically and socially-vulnerable populations.

This year, many school buildings are empty, unable to provide the minimum requirement of a safe space to learn. While many schools faced challenges before, the pandemic made the problems of the physical environment that much more urgent and apparent. In the absence of well and naturally-ventilated buildings, outdoor learning could be safer, and also more effective, but it requires open space and raises questions of shelter, services and other basic infrastructural needs. Urban schools often have limited open space, much less green space. At the same time, urban communities like Boston, where the average school building is 80-years old, need neighborhood schools within walking distance, because for many children school provides more than education; it provides food, health care, and safety. This crisis invites us to rethink the urban school, how it occupies urban space, and to redefine its connection with place, health and climate. How can schools engage a larger urban landscape of open spaces, streets, and parks in neighborhoods and beyond, to provide safer and more active environments in which to learn?

Call for Proposals

This brief asks for a radical reconceptualization of the elementary school classroom – not only as a temporary response to the pandemic, but also as a catalyst for new models of learning for the 21st century. Entries must define a new and fast-built prototype for an outdoor classroom—a solution to this pressing moment of remoteness that can allow children to be together safely—but that might also spark the creation of new pedagogical models free from the failed twentieth century school buildings.

This prototype should be designed for K-6 grades, and adaptable to the network of existing school sites and/or alternative sites in Boston. The prototype classrooms could be attached or detached, fixed or mobile; designed to be closely clustered on sites, or loosely aggregated into a landscape or region. Urban strategies should consider creative approaches to location, infrastructure, transportation logistics, and/or equitable access to supporting school services and landscapes while expanding the definition of urban spaces of learning. Entries may reference adaptations to models developed for different climates and/or in developing countries; and research-based evidence of how design supports better social, physical and mental health outcomes (during and post-pandemic, e.g. physical activity, cognition, socialization, active learning, healthy eating habits, etc.). Successful proposals will speculate curricular innovations that may emerge from the radical reconceptualization of places for learning in cities.

Open Air School in Amsterdam, Duiker & Bijvoet, 1927.

Programmatic requirements

- Each prototype must provide:
  - Minimum of 35 square feet per child of open activity area in roofed spaces (or 6ft separation)
  - Safe space for multiple and varied individual and group learning activities, for up to 20 children per prototype, in grades K-6.
  - Storage for furniture and equipment
  - Nature-based program for play, gardening, science, physical activity, and/or other educational uses.

Site

- Prototypes will be used by Boston Public Schools (BPS), to be deployed within City of Boston boundaries, but locations are not limited to BPS-owned sites.
- Prototypes should create, host or connect to natural landscapes in the urban environment.
- Proposals must demonstrate the adaptability of the prototype to different sites or communities. This could be achieved diagrammatically, e.g. as part of an urban-scale strategy; and/or as tectonic adaptations for particular site strategies.
- If prototypes connect to buildings or other existing infrastructure, whether physically or programmatically, proposals must explain these relationships in writing and diagrams.

Constraints and Opportunities

- Prototypes must be universally accessible.
- Children should have access to BPS meals, two times a day (breakfast and lunch).
- Enclosures are optional, but prototypes must provide rain and snow protection, shading and natural ventilation for all seasons, easy access to nature, and warming spaces/strategies for colder days
- Proposals must strategize connection(s), off-grid strategies, or access to electrical and sanitary systems, within or near prototypes
- Structural systems must have logical load paths to the ground and/or other structures.
- The footprint and height of single or clustered prototypes and related landscapes are unlimited, and could strategize future phases or expansion; but initial proposals should be limited to 60 children.

Project Requirements

- Project agenda, written in 250 words or less, in which the designer's approach is clearly articulated
- Urban scale map of Boston showing potential prototype locations and access to supporting sites, learning experiences, and/or services.
- At least one sample site plan, showing prototype(s) (top view or ground level plan cut) with related landscape, outdoor programs, and relevant adjacencies or infrastructure as applicable.
- Cross-section and longitudinal section of single prototype or cluster, showing relationships to any related outdoor or adjacent landscape program.
- Floorplan(s) with possible interior configurations, showing furniture and storage solutions
- Axonometric(s) of construction system, including structural, infrastructural and climate strategies
- Eye-level perspective of interior
- Diagrams of prototype concept, showing possible programmatic and pedagogical inventions, adaptability strategies, and/or urban applications

Submission Requirements

- The intention of the Rotch 2021 Preliminary Competition is that participants find **two days of work** to complete the deliverables in response to the competition brief flexibly within the window of possible time allowed: from Thursday, Feb 11 at 9am through Monday, Feb 15 at 9am.
- All entries will be submitted digitally in the form of a single, multi-page PDF in 16:9 ratio (landscape format). A convened jury will review submitted work digitally.
- The submission file may be no larger than 15MB.
- PDFs may be no longer than 3 (three) pages.
- Submissions must remain anonymous. Do not include your name anywhere on the submission pages. If your name is visible, the entry will be disqualified.
- Competition entries must be submitted electronically to: chart@architects.org
- You are welcome to use an FTP service such as 'dropbox.com' or 'wetransfer.com' if necessary.
- Files must be names as follows: Your first initial, your last name, underscore, '2021RotchPrelim' (for example: MLin_2021RotchPrelim.pdf). Once submitted, a third party will rename each entry a random number to ensure anonymity before they are viewed by the jury.
- You will receive a reply email confirming receipt of your entry.
- By submitting your entry, you hereby assure the Rotch Scholarship Committee that you are the sole author of your submission for the 2021 Rotch Competition and have not received criticism, suggestions, or help of any sort other than through the use of books and other published literature.
- The Rotch Scholarship reserves the right to use any submitted material in print publications and/or on websites.
- Electronic submissions must be received by 9:00am (EST) on Monday, February 15, 2021.

Evaluation Criteria

Submissions will be evaluated by the jury according to the following criteria:

- Conceptual clarity and intellectual premise of overall project, as articulated in the written project agenda and through graphic representation.
- Capacity to address contemporary challenges of urban schools in the short and long term, as described in the project brief.
- Ability to demonstrate adaptability to multiple sites and communities in a convincing urban strategy.
- Degree to which the current paradigm of school classroom has been reconceptualized, to transform pedagogies, educational environments and/or their relationship to urban landscapes.