

“Transformative Urban Schools”

K-6 Elementary STEAM School in Downtown Portland, Oregon
For the Portland Public School District (PPS).



Kirkkojarvi School. Verstas Architects. Helsinki, Finland.

Introduction: “Transformative Urban Schools”

Public education is experiencing a revolution in thinking as educators, policy makers, parents, students and the public debate the most effective means of preparing students for an uncertain global future.

A leading researcher and voice on the subject, Tony Wagner of Harvard University, author of “*The Global Achievement Gap*”, “*Most Likely to Succeed*” and “*Creating Innovators: The Making of People Who Will Change the World*”, has identified a wide range of factors that create excellent schools. Wagner’s documentary film “*The Finland Phenomenon*” takes an in-depth look at public schools in Finland, ranked by the United Nations as # 1 in the world. Wagner’s documentary will make you want to become active in public education.

https://www.youtube.com/watch?v=VhH78NnRpp0&list=PLzsi_E489-gUXFVuciYegO3AyrPMVAjxP)

Key Issues of the Project

- Architecture in response to new thinking in educational philosophies and educational programs in public schools.
- Design issues for a school in a new high density, mixed use downtown urban neighborhood.
- Design of an “open school” which serves as a “center of community”.
- Urban design concepts for a critical new downtown redevelopment site.



Portland students at the Metropolitan Learning Center. An alternative K-12 “focus school” in Portland.

Studio Organization and Content

The studio will focus on public education, new thinking in educational programs and innovative school design from examples around the world.

Week 1: Research: Transformations in Public Education.

Saturday September 29. A class field trip is scheduled for Saturday September 29. It is highly recommended but optional. We will visit the US Post Office project site and the Trillium Elementary School in West Linn, Oregon where architect John Weekes FAIA will give a lecture-discussion on new thinking in design for education and discuss design concepts for the Trillium School.

Week 2: Research: Architectural precedents in design for education with a review of global examples.

Week 3+4: Urban Design Context Study and Charette Proposal for the US Post Office Site.

Week 5+6: Design concept studies and Mid Term Review

Weeks 7-9. Definitive design studies and communications.

Week 10: Final Review and preparation of Design Monograph.

Schools as Community Catalysts

In many communities of the world, rich and poor, public schools have become new community centers where neighborhood libraries, recreation centers, adult education and meeting spaces are combined with school programs. “Open schools” are an increasing movement, despite what we read about security concerns. Learning takes place in many settings including places outside the school building. High school students are increasingly engaged in their communities through volunteer and internship opportunities. Elementary schools reach out for parent and community participation. Simultaneously, community members engage the school through mentoring and volunteer teaching assistance and the use of school resources.

The “STEAM” school movement.

There is increasing interest in the concept of “STEAM” schools. STEAM stands for a curriculum that emphasizes Science, Technology, Engineering, the Arts and Math. The movement grew out of the STEM schools philosophy when advocates added arts to the educational focus. Public STEAM

schools are most often “magnet” or “focus” schools which draw students citywide to their special curriculum, rather than being strictly neighborhood schools. STEAM schools may be grades K-6, K-12 or another specific age group.

Portland Public Schools

Portland’s public schools are rated high academically by comparison to other major cities in the United States. Similar to matters of sustainability, parks, libraries and public institutions, citizens of Portland have been supportive of a strong public school system.

Unfortunately, Portland’s progress in improving the quality and equity of public education have not been matched by the caliber of its schools’ physical facilities. Most of the city’s school buildings are over 75 years old, some over 100 years old (Jefferson High School in north Portland and Couch School in Northwest Portland).

Realizing that many of the city’s schools are in need of renewal, the Portland school district (Portland Public Schools / PPS) plans to re-build most of its school buildings during the next 30 years. Voters passed a \$ 482 million bond funding initiative to rebuild Grant, Franklin and Roosevelt High Schools, and Faubion Elementary School, in 2012. A follow -up \$ 760 million bond was approved by voters in 2017 to rebuild three more high schools (Benson, Lincoln and Madison), Kellogg Middle School and fund improvements to several other schools. Additional building projects will be financed in a future bond issue expected within five years.

Portland’s west side of the Willamette River currently has severe overcrowding of its public schools. Despite the successful development of the River District (Pearl District) and other parts of the central city’s west side, the school district has not built a central city elementary school in over 70 years. The closest elementary school to downtown is Chapman Elementary School in Northwest Portland. School advocates have been lobbying for a new downtown elementary school.

Studio Focus and “Next Generation Schools.org”

During the past two years I’ve had the opportunity to work with Portland Public Schools and the community of school advocates in Portland. We sponsored a design symposium “*Next Generation Schools*” in April 2016 which brought international speakers to Portland. In Spring 2017 we organized the lecture and charrette by Colombian architect Giancarlo Mazzanti, the designer of several prolific schools in poor neighborhoods of Colombia.

Supportive Urban Design Course

Students in this studio are encouraged to enroll in the Arch 435/535 course “Principles of Urban Design” taught by the instructor. While not required, the urban design course will provide a valuable urban design background in tandem with the studio. “Principles of Urban Design” will include an urban design study of the downtown US Post Office site which will enable students to link the two courses into a comprehensive urban architecture project.

Project Site

The City of Portland is in the process of purchasing the downtown US Post Office site from the Federal government and redeveloping this large property for high density mixed use development. Urban design and development plans are currently underway. A master developer has been selected by the City’s redevelopment agency (Prosper Portland / formerly the Portland Development Corporation) although a precise development program and plan have not yet been submitted to the

City and public. School advocates are expected to press hard for an elementary school on the site as part of the overall development program.



Existing US Post Office site in Downtown Portland

Tectonics and Sustainability

This studio will include tectonics studies to design and document sustainability strategy, structure, enclosure, climate response and ECS. In our curriculum it is important for design studios to integrate subject courses into a comprehensive whole.



Strawberry Vale School. Victoria, BC. Canada. Patkau Architects. Vancouver, BC. Canada

Project Monograph

A project monograph / portfolio presentation will be prepared as a final product of the term in addition to the traditional gallery communications for the final review.

John Weekes, FAIA. Principal, DOWA/IBI Group. Portland.

We are honored to have architect John Weekes FAIA as a lecturer and consultant during the term. John has designed several award-winning schools in the region and is a renowned school design consultant around the United States and world. His recent projects include the award-winning Rosa Parks Elementary School in Portland, Sandy High School, Wilsonville High School, Redmond High School and the Trillium Elementary School in West Linn, Oregon.



Rosa Parks Elementary School. Portland (left). Redmond High School (right).
John Weekes FAIA. Principal. DOWA / IBI Group. Architects

Instructor Gerry Gast. Questions/ Information. ggast@uoregon.edu geraldgast@gmail.com

Gerry Gast is an architect, urban designer and member of the University of Oregon Architecture faculty. For several years he served as Visiting Associate Professor in the Program on Urban Studies at Stanford University where he developed and taught the two core courses in urban design. Professor Gast is a founding principal of Gast Hillmer Urban Design in the San Francisco Bay area. Other professional work includes the Urban Design component of the Redwood City General Plan; School Site Redevelopment Studies for the San Francisco Unified School District, "Uptown District"; a mixed use urban development of 313 dwellings and neighborhood retail center in San Diego's Hillcrest neighborhood; the San Diego County Government Center master plan on the downtown waterfront; the Oregon Science and Technology Park (OSTP) in Gresham – Troutdale, Oregon; and urban design studies for several cities in California.

Professor Gast currently serves on the Design Advisory Group and the Master Plan Committee for the new Lincoln High School in downtown Portland, now in design. The \$ 180 million Lincoln project will be the first new public high school built in Portland in over 60 years.

Current research and projects: Design of the new Stryiskyi Park campus for the Ukrainian Catholic University (UCU) in Lviv, Ukraine and research+design with the Pies Descalzos Foundation of Colombia, with focus on building schools in marginalized, high poverty neighborhoods of the country.

<http://www.fundacionpiesdescalzos.com/en/>

