

THE FINE PRINT

Green School

Charlie Brown Goes Green

da Vinci School and the U of O team up to inspire innovative students

Posted by: Sam Holder on May 22, 2009 at 4:00PM

3 Comments



Photo: Sam Holder

Inside the day-lighting box, da Vinci students and Charlie Brown test their school's roof design.

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graduate students invited young students from the da Vinci School to witness the science behind their new music building.

BetterBricks, a commercial building initiative, seeks to integrate the desperate need for energy efficient buildings and the realistic need for commercial development. The BetterBricks lab at the University of Oregon (Portland campus), and the innovative leadership of Charlie Brown, helped bring the da Vinci project to fruition.

Brown's list of accomplishments with and contributions to green architecture extends beyond even the most esteemed CVs: in addition to over a hundred papers and three books on sustainable energy and design, Brown has served as an advisor on global warming to the U.S. Congress and has received numerous accolades including the prestigious National Award for Energy Innovation from the U.S. Department of Energy.

The da Vinci School project, which received over \$770,000 in funding from multiple sources including a grant from the Green Investment Fund at the City of Portland, is expected to be the nation's first **LEED-platinum certified** school building (following closely on the heels of Rosa Parks Elementary which attained gold certification from LEED in 2006). The roof's photovoltaic tiles, a donation from the **Bonneville Environmental Foundation**, which expect to generate up to five kWh each year, and the use of passive cooling and daylighting all contribute to the building's sustainable design.

The da Vinci School hopes to set the bar for future green construction both within the Portland Public School District and in Portland at large—and with LEED-platinum certification, that's quite a precedent.

Brown and his colleagues helped design the reflective roof—a combination of venetian blind-like skylights (called a louver system) that control the amount of sunlight absorbed into the large room, and mirrors that reflect the sunlight to the darker corners.

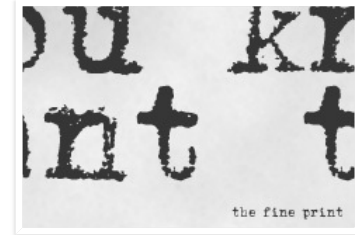
A handful of the da Vinci students in attendance have been intimately involved in the construction of their new building. Katie Fairhead, a Green Building Education Expert at Portland Public Schools has been working with the students both in and out of the new building. "Usually, we'll do a lesson in the classroom and then demonstrate it in the da Vinci room," she said.

Fairhead is an engaging educator—warm, knowledgeable, and confident. But she just can't compete with the day-lighting box. The cubed, mirrored room mimics different types of lighting

Charlie Brown is the most creative guy I've met. After designing a scaled model of the newly completed Da Vinci classroom—the free-standing, nearly net-zero energy music room at da Vinci Arts Middle School in Northeast Portland—the Director of Energy Studies at the University of Oregon needed a device to present the design's use of sunlight at different times of the year. "Well, we could use a cement mixer," Brown said.

Last Wednesday, at the Portland campus of the University of Oregon's **BetterBricks** Integrated Design Lab in Old Town, Charlie Brown and his architectural

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for building designers to test their models. Inside the box (which looks and feels like an extraterrestrial interrogation room), students have a chance to see solar rays hit and reflect off a prototype of their new roof—before the doors are opened for class.

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Fairhead's lessons, along with the wisdom shared by Brown, will pay off for these young greenies. When the da Vinci building opens for the 2009-2010 school year in early September, the students who attended the seminar on Wednesday and raised money to finance the building ("Run for the Music Building," a fundraiser last spring, raised \$28,000 to fund construction) will become "student ambassadors" for the school—a role that grants some serious green cred and gives the students the opportunity to showcase their knowledge on classroom tours with parents and schoolmates.

Comments

By Tim Grinstead on May 28, 2009 at 3:55PM

Great job Charlie! If anyone can teach those kids about great architecture you can! By the way - I hear SRG Partnership was the architect! I hear those guys can't be beat!

By Energy Studies in Buildings Laboratory on May 28, 2009 at 6:29PM

SRG Partnership is the architect for the DaVinci Music classroom design. SRG's work is very innovative, for example, the Mt. Angel Theological Studies Building, at Mt. Angel Abbey (where the first halos were used), does not need electric lighting anytime the sun is up and uses night ventilation of mass for cooling, eliminating the need for a mechanical cooling system. The Energy Studies in Buildings Laboratory is currently collaborating on several projects with SRG Partnership. Under the leadership of Kent Duffy and Jon Schleuning and a talented staff the firm has become the "greenest of the green."

By Bubba on May 28, 2009 at 9:16PM

hey you guys got in just before the New York Times:
<http://greeninc.blogs.nytimes.com/2009/05/28/shining-a-natural-light-on-green-schools/>

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