

# GREEN GREENER GREENEST

Making Equestrian Design Sustainable

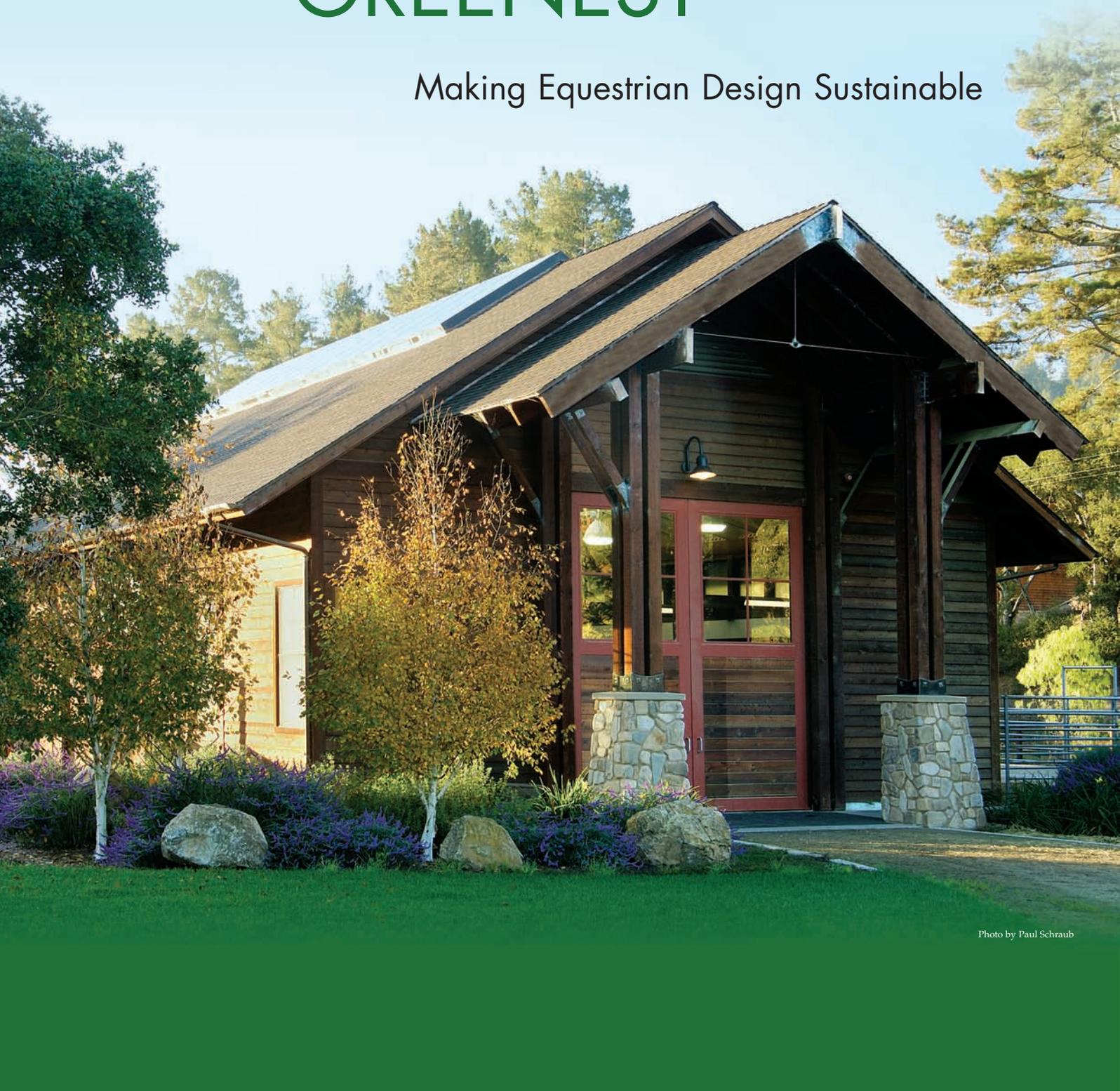
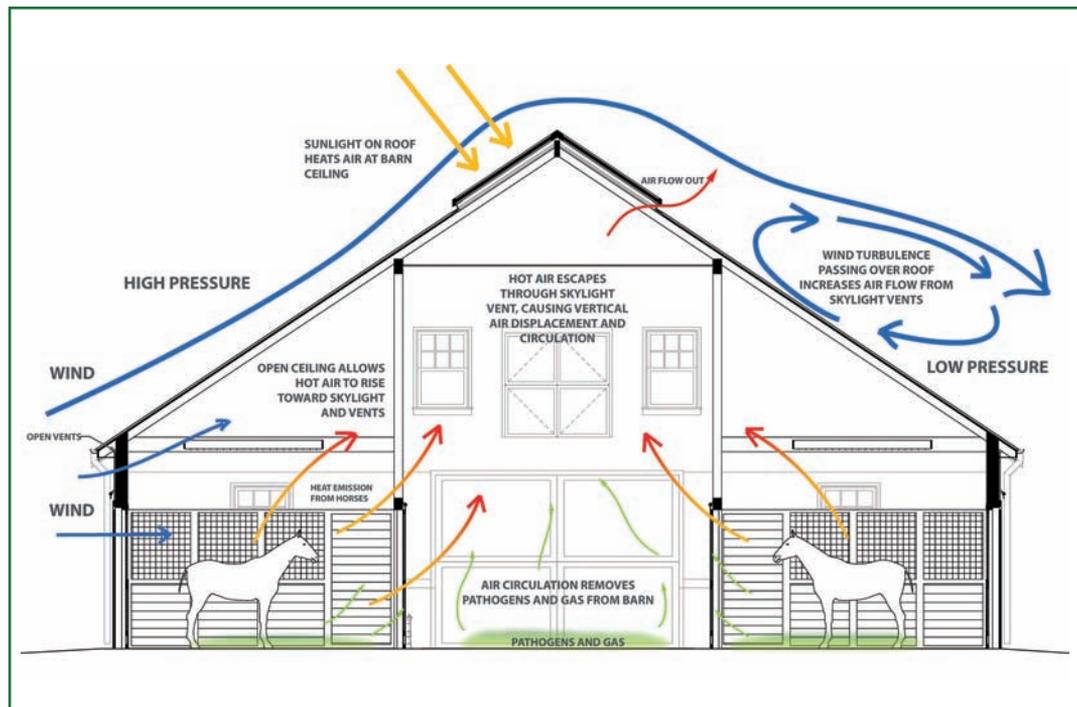


Photo by Paul Schraub



Vent diagram courtesy Blackburn Architects, P.C.

**G**reen design is the latest term coined for a new environmentalism spawned by rising fuel costs, global warming, and concern for the future. The consumer should beware though, because “green” can also be used as a marketing ploy riding a cultural trend. However, for John Blackburn of Blackburn Architects there is nothing trendy about designing with sustainable principles: He’s been doing it for 25 years.

According to John Blackburn, “We asked ourselves early on: How do we approach a project in a way that is the least wasteful, that conserves resources, respects the local environment, and satisfies both the needs of the client and the horse?”

His solution was to find ways to cooperate with natural forces instead of competing against them. Stable design is an ideal opportunity to limit reliance on electricity and reduce the impact on the land, at the same time producing a safe and healthy indoor environment for the horse. Passive design solutions can minimize the risks to animals living in a confined space while depending on nature for light and ventilation rather than the use of electricity.

Photo by Lee P. Thomas Photography



John Blackburn

### Green: Site Planning

“The first step is to evaluate your site carefully,” says John. “Numerous site-planning decisions impact the local environment. Placing your barn perpendicular to prevailing summer winds, respecting local streams and watersheds with regard to runoff, minimizing the disturbance to mature trees, planning for the potential to harvest the sun’s energy on the large roof space of barns and arenas, creating efficient work flow—these are all opportunities to build green and build smart that start with a careful evaluation of your site.”



Photo by Brant Gamma

### Greener: Natural Light and Ventilation

John has been designing barns that are naturally bright and filled with fresh air since his first equestrian project, Heronwood Farm in Upperville, Virginia, 25 years ago. "Placing the barn perpendicular to prevailing summer breezes allows the barn to use wind and solar energy to ventilate the stables passively." John explains, "Air enters the barn at ground level where it is cool and exits through ridge vents at the top as it rises." This thermal effect of warm air rising creates a vertical breeze that ventilates your stables effectively and healthfully. Fresh air moves through the stalls vertically and helps prevent the transmission of disease from one horse to the next. "Adding skylights to your design provides natural lighting throughout the day and increases the thermal effects that drive passive ventilation," says John, "and if it's masonry, it's even better. Then you get a real temperature difference between

the bottom and the top – anywhere from a few degrees to as much as 20 degrees.

So, if you're standing in a Blackburn barn in the middle of the summer, even if there's no breeze outdoors, you'll feel air movement, keeping your horses cool and healthy. And that is what our designs are intended to do. They create wind where it doesn't exist naturally using solar energy and effective design."

### Greenest: Solar Power

"My approach has been a natural one, the architecture of passive design," John insists, "but it doesn't have to drive the aesthetics of a building." Green design can be hidden in the design of a structure. No wind scoops or solar panels are required to announce the sustainable qualities of the building. Buildings can be designed to reflect the architectural vernacular of a region, yet remain effectively "green" without sacrificing aesthetic beauty.

"However," John points out, "there was never a better opportunity to generate electricity for your farm, your home, and maybe even return a surplus to the local grid than to use the vast roof space of stables and arenas." Those large roofs are practically begging for solar panels, and John believes that owners should plan for this opportunity even if it can't be part of the beginning budget. If you know that solar power is something that you might choose in the future, your design can take it into account in the design phase.

For more information on Blackburn barns and green design, please visit Blackburn Architects' Web site at [www.blackburnarch.com](http://www.blackburnarch.com) or contact us at [info@blackburnarch.com](mailto:info@blackburnarch.com). John has a design blog called "Stable Minded" at [www.blackburnarch.wordpress.com](http://www.blackburnarch.wordpress.com) that you can check for more information and to blog directly with the designer. **||**