One of the first green ventures but in the 19th Century. Built by Lila Vanderbilt Webb, Shelburne Farm, at 3,800-acres, employing 300 workers, was designed as a way to change the way all farms worked, and the way all agrarian life was lived.

THE TRUTH ABOUT GREEN ARCHITECTURE

By Duo Dickinson
Special to the Times

When Lila Vanderbilt Webb built her 24-bedroom idyll on Lake Champlain in 1886, she didn't just want to make a lovely summer home to beat the heat of Manhattan, she wanted to lead the world into a new way of thinking.

A 3,800-acre farm, employing 300 workers, Shelburne Farm was designed as a way to change the way all farms worked, and, in fact, the way all agrarian life was lived. To feel at home she used the same landscape architect, Frederick Law Olmstead, who designed Central Park.

For about 20 years new methods of farming and animal husbandry meshed with the intentionally picturesque vision of enlightened bucolic aesthetics to combine technology and art in a way Lila and her husband Dr. William Seward hoped would transform the farm life of Vermont and agrarian sensibilities in general.

Predictably it failed. Animal husbandry ceased to be a central issue for most produce farmers once the internal combustion engine came into common use. But after 70 years of slow decline into obsolescence, Shelburne Farms was reborn in the 1990s as a boutique Inn, extraordinary restaurant and specialty food purveyor. All its services and products are exquisite and, predictably, pricey. The brand's aesthetics are undeniably compelling and completely irrelevant to creating food and housing that will take rural New England let alone a resource challenged world into the 21st century.

So it is with the "Green" movement as it relates to the average American housing consumer. It was clear to Lila that the pre-20th century American farm had to address the changes wrought by the Industrial Revolution overtaking every other aspect of the culture.

Today it's clear that fossil fuels are not the answer for any aspect of our shared future (duh) and that the excesses of pre-housing-bust America are absurdly self-indulgent and damaging to our landscape and environment (double duh). But are the superficial "Green" solutions offered up today (bamboo flooring, florescent light bulbs, shredded denim insulation, et al) anything more than the very same well-intentioned eye-wash that allowed Shelburne Farms to be built while simultaneously dooming its viability?

For most of us, where we live is our largest investment and biggest liability – our homes - especially in this post boom crater. Emotions can influence what our perception of reality is (just ask teenage sweethearts). Most of us dearly want to love our homes. More and more of us want to feel morally defendable in our use of energy and the impact our lives have on the environment. Our homes are the most prominent mirror of our values. Because we care so much about them we regularly fall prey to hype and herd in trying to avoid making stupid mistakes when we build, buy or renovate.

It's easier to "find religion" and create from whole cloth a faith-based system of touchy-feely rationalizations than to take the time to carefully analyze the ramifications of the choices you make. People travel thousands of miles on jet planes to have "eco vacations." Cloth diapers feel good because you reuse them and will degrade in landfills, but the energy used in their sterilization for reuse is significant. Light bulbs that save a lot of power cost far more than their incandescent counterparts, and the florescent version of "green" lamps have mercury in them, that will either take a fair amount of energy to extract before recycling or will inevitably be introduced into our environment.

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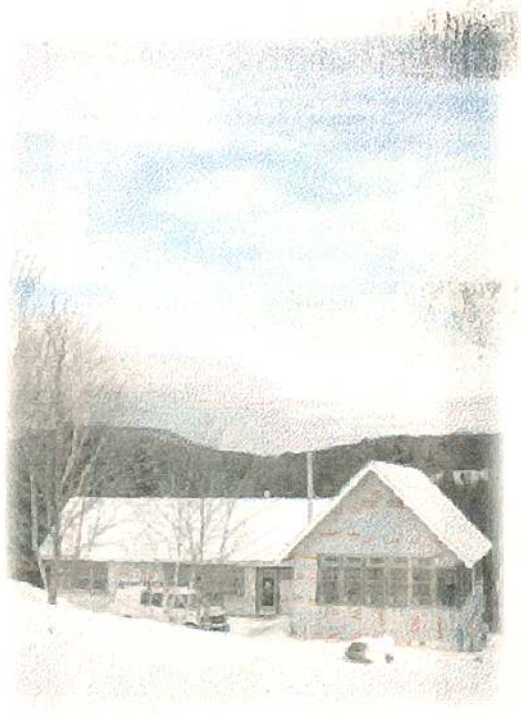

The Madison architect has his own vision of green building in nothern Vermont. Nestled into a hillside, the south of this energy-efficient home in northern Vermont uses south-facing glass to catch the winter sun and heavy eave overhangs and leafy deciduous trees to prevent the summer sun from baking the interior.

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"Plantation Grown" materials are another hot green product. Planted, grown, harvested and then replanted ad infinitum is the model of Green, but the truth in labeling is hard to verify much akin to the "organic" designation of many of the foods we eat... How can third world governments verify where materials come from if they cannot provide basic services and safety for their own populations?

"Green washing" has become a buzzword in response to the oxymoronic absurdities of marketing "sustainably designed" McMansions, "environmentally conscious" pesticides, or "plantation grown" products that we import from 12 time zones away. Good intentions and guilt-reducing rationalizations cannot blur one simple truth – to be truly green means making tough choices. You truly cannot "have it all." To use less energy over time you probably have to spend more now on better products and design services.

Green's "dead moose on the table", the ultimate truth that seldom gets mentioned, is that "going green" initially costs more to build per square foot of construction. However, designing truly Green may not ultimately cost if what's built is smaller than the unquestioned "norm" and if less maintenance is required and less energy is needed to light, heat and cool your building. When confronted with the real costs of waste, history shows we will wake up and smell the coffee. We stopped smoking when we saw the stats. We buckle our seat belts not because the law tells us to, but because it's just stupid to die when a two second regimen can pre-empt it.

Eventually the truth will out. Shelburne Farm was inherently inefficient and the Vermont weather was too inhospitable to transform good intentions into a viable economic entity, let alone a socio-technological revolution.

Just as with Shelburne Farm's ridiculously limited growing season in far northern Vermont, there is just too little sun for active solar design in this part of the world and too little wind for wind energy. Oxymoronically enough, Shelburne's exquisite architecture created a palatial farm. Similarly, in our quest to build green in New England, hay bales, thatched roofs, rammed earth or any other exotically seductive cult construction techniques simply don't work. They sound good and cost a fortune, but degrade in our often wet environment with large temperature swings.

Lila Vanderbilt's folly can teach us in this age of fossil fuel cost panic. Think more, build less, don't throw away what can still be used or reused. Not sexy, hip or even innovative. Just common sense – something someone said, long ago, is the most uncommon thing of all.

How green is my home? Architect offers real life solutions

There are some basic mindsets that are Green that do not involve feel-good self-indulgence, buzz-words or gizmos:Truly Green homes are simpler, smaller and designed to fit. You can't be in two places at once, so rooms that can actually chew gum and walk at the same time, "rumpus", "family," "media" and "den" do not need to be exclusive relationships. Fight the urge to over-light, over-toilet, and over-fireplace a single-family home.

Eaves on roofs are always good. Whether the sun beats on your siding and degrades it, or streams into your room in the summer and bakes it, or rain runs down the walls and finds places to rest and rot - the more you hold nature at arm's length by having your roof overhang your walls the better for your building.

More HVAC zones are always good. ways to divide their energy distribution to each and every space in your house. No matter what climate you are in, no matter what walls face what compass point, no matter what the layout of your home, more thermostats equal less energy consumption.

More insulation is always good, but venting is always good too. Just like a down jacket, fluffy stuff around your bod holds the heat in. In hot climes venting takes the heat out of your attic and lots of insulation in your ceiling keeps the cooled air from being warmed from above

Minimize Air Conditioning. Windows high and low on more than one wall, venting skylights or attic fans, generous eave overhangs, screen porches, - anything that promotes air flow over your skin and puts you in shade limits the time you want the air inside your home colder

Flat roofs always need more maintenance than pitched roofs. Cheaper to build, cooler to the chic set, roofs without pitch have a harder time keeping water out of your house, limit the attic air cavity that helps with venting and insulating, and thus always cost more for energy use and maintenance over time

The building you save is almost always "greener" than the one build after you tear its predecessor down. The "clean slate" approach of scorched earth site prep favors shallow thinking and instant gratification. The largest single contributor to landfills is construction waste – enough said.

Just say no to 72 degrees . Comfort is not a number. No super sophisticated heating/cooling system can overcome your desire for a ridiculously consistent interior environment.

Super-insulated windows almost never pay for themselves. Triple pane, argon-gas filled insulating glass with every coating imaginable easily doubles or triples the costs of standard windows that adhere to the Energy Code. All windows leak heat like sieves no matter how tightly they seal against the weather. The savings between 1/20th the efficacy of a typical wall's insulation and 1/10th is pretty minute, and the more complicated the glazing the greater the chance of voided seals, creating fogged windows that need repair or replacement – costing energy.

Insulating foundation walls below the frost line is a waste. The soil below about 4ft in most climates is at a constant 50 degree temperature – almost benign in its impact on heating or cooling. Conversely exposed concrete foundation walls are a true heat sink and either need to be insulated or not part of your home's heated envelope.

Unless you want to conserve water for reuse, guttering is a waste. In many climates it makes a lot of sense to collect rainwater for use in either irrigation, or with proper monitoring, domestic use. It's absurd to use them when you can create gravel beds at your roofs drip line that dissipate rainwater flow into the groundwater versus creating an entire plumbing system for its control.

The architect's project in nothern Vermont is a 21st century example of green design that is not just trendy.