Conversion or From the Ground Up:
The Cost Effectiveness of Green-Building Strategies

I. Team Members

Max Minckler: English Major & Philosophy Minor
Areas of Interest: Jazz, Poetry, Cheesecake

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Areas of Interest: Crew, Tie-dying, Blackberry Pie


We plan to research the overall cost-effectiveness of methods of making already existing buildings, specifically homes, more environmentally friendly. Such an investigation must deal broadly with conserving energy, water, and various building materials, while bearing in mind the implications of such changes for human inhabitants, the surrounding environment, and the overall structural welfare. More specifically, we will focus on simple, cost effective ways in which residents can work toward these ends, without effecting macro-changes on the buildings themselves. Although our understanding of these methods is modest at best, we anticipate such methods will include water filtration, recycling of household products, alternate power sources (including wind and solar alternatives), as well as composting. We anticipate that this list of cost-effective methods will change as our research progresses, and hope to hone down a number of extremely simple methods that we can use as part of our final project with the mentor students back in the United States. This project will be driven by the hope that it will encourage the students to think proactively, or at least differently, about their membership in the malleable environment in which they live.

III. New Zealand

We will focus on New Zealand’s history of green building, and the successes or failures the country has seen on that front. Our interest is, again, principally on those changes
made to already existing homes so as to improve energy efficiency, water consumption, and waste disposal. From visits to the wastewater treatment plant, pulp and paper mill, and geothermal power plant, we hope to glean more specific methodological tools with which to deal with these issues. The cost-effectiveness of New Zealand’s present and past application of such techniques may serve as a model for anticipating such costs in the States. While on the ground in New Zealand, we hope to develop small at-home thought exercises or experiments by which our mentor students in the States can both understand and more intimately relate to the topics we will be investigating. These may be themed per location. For example, we may parallel water consumption in students’ homes with water consumption, on a grander scale. Questions as to students’ estimated water consumption, juxtaposed with the difficulties involved in purifying that water in a plant like New Zealand’s, will hopefully bring home the importance of water conservation.

IV. Parallels with the US/local area

Green building and green converting is still a fringe effort in the United States. Our rough impression of such efforts in New Zealand is more positive. We do know that New Zealand’s proportional use of alternative fuel sources, namely geothermal and hydropower, far exceeds the United States’, and thus we anticipate that New Zealand’s green building and green conversion efforts will be similarly more progressive than our own. We anticipate that our research in New Zealand will either confirm or refute these expectations.