Reconstructing Community: A Case Study in Sustainable Dorm Design

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This project aims to address a sustainable re-design of Prospect Hall, located on Mount Holyoke’s historic and architecturally significant campus. Constructed in 1954, the dorm houses around 145 students in a mix of single and double rooms. The five-story structure also contains a kitchen, dining hall, and living room; its wide windows afford gorgeous views of Lower Lake. However, the dorm has fallen into disrepair, holes mar the walls, while outdated décor and cramped spaces make this dorm one of the least popular on campus. Additionally, the building falls short in its environmental sustainability and efficiency. Cinderblock construction and poor insulation make heating the building challenging and also cause widespread issues with water buildup and mold. The hall also runs entirely on fossil fuels, thus increasing its environmental footprint. Given the site’s history as a part of the natural landscape and its proximity to Lower Lake and Prospect Hill, it is a natural spot for a green intervention and design proposal.

Recently, Mount Holyoke announced a new sustainability initiative as part of the college’s 20-year plan. Although five buildings on campus are LEED certified, none come close to meeting the requirements for a certified living building (net-zero). The Living Building Challenge focuses on categories, Site, Water, Energy, Health, Materials, Equity and Beauty, to create projects that are sustainable, while maintaining their humanity and beauty. Looking forward, the dining hall space in Prospect will be repurposed as the new centralized dining center opens, presenting an opportunity to create a sustainably focused lakeside community space. By implementing renewable energy sources and passive design techniques in the dorm and dining space, Prospect Hall has the potential to become Mount Holyoke’s first living building-informed design, and set the standard for all future construction on campus.

This project tackles the application of these ideas and principles into a sustainable re-design that benefits the community as a whole. By further examining questions like, how do students live today? What constitutes net-zero design? How can the college implement renewable energy practices to reduce its environmental footprint? We can create a new kind of space on campus that remains environmentally conscious as it improves our community.