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Sustainability Internship-Sewanee, TN

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This summer I was an intern under Marvin Pate, the head of Energy Conservation and the Sewanee Sustainability steering committee. My internship was kindly funded by the Dupont foundation. Responsibilities for this internship ranged from office work at 8 am Monday through Friday to Socratic seminar discussions on related readings. Participation in student gardens and delamping of various buildings on campus were some of our other main projects.

Office work included inputting energy and water bills and recording HVAC settings for buildings on campus as well as delamping of campus buildings. Woods classrooms and Dupont library bookshelves were delamped to save energy. An estimated two to three thousand dollars a year was saved in Dupont library by removing around three hundred fluorescent lights. While working on HVAC and light energy conservation projects my fellow interns and I learned valuable information on the processes of AC units as well as how to calculate energy savings. I also undertook a small research project concerning new power strip technology and the added benefits of 'smart' power strips that are new on the market.

We read multiple books and passages including Plan B 4.0 by Lester Brown as well as No Impact Man by Colin Beavan. Beavan's book was personally, the most enlightening book for me, this was a story of a NYC family who goes through stages to ultimately lead a zero waste life in a Manhattan apartment with a one year old daughter.

About two times a week we also helped the student garden located behind the baseball field on the domain. The garden has recently been rejuvenated , we created rows that aligned with the topography of the area for the maximum drainage on the one acre plot. We created fences to keep deer and other animals out as well as fencing for the bean plants to grow on. We planted a range of beans from edamame to kidney beans. A large project that was undertaken this summer was to de-weed an area by covering it with a layer of cardboard and a layer of mulch. Regular de-weeding, mulching and tilling was done regularly on bean rows. Tending to the Cheston cattle farm was also a responsibility. We also toured Sewanee Environmental Institute camp groups through the gardens.

Marvin Pate toured us through the HVAC system multiple times to ensure our knowledge of the HVAC network on campus. This system is located under Gailor Hall. We also toured a local worm farm, America's largest worm farm. This was an interesting tour due to the owner who built a productive infrastructure by being as self-efficient in his overhead costs and production process as possible. This included building a machine that would produce a special type fo plastic cup for his worms as well as another machine he designed to separate the worms from the dirt. He sells both the rich soil as well as the worms. His largest customer for his worms is Wal-Mart which, are parcularly popular to fish with.

The last project we undertook for the second half of our internship was learning about lighting and ultimately delamping fluourescent bulbs in Woods Jall and the Dupont Library. We met with electricians and Marvin to learn how to measure footcandles of rooms with a special device. Footcandles are a measured form of light intensity. In

Woods Hall, we measured footcandle readings of classrooms. For a typical classroom a footcandle reading should be between 60 to 100 ft-c however, due to the nature of our internship we aimed to adjust lighting of classrooms to be between 55-70 footcandles. Footcandles vary in rooms depending on windows, skylights, type of bulbs and the placement of the bulbs. It is better to have a higher footcandles reading where a chalkboard exists and lower footcandles reading over a whiteboard or computers to minimize glare. We recorded our efforts on maps we drew for the Woods classrooms. In Dupont library we took out unnecessary lights in bookshelves, which culminated to about 300 lights taken out of a total of four floors in Dupont. The estimated savings of Dupont library annually is two to three thousands dollars.

Over the eight weeks of this internship there were high points and low points. Challenges that I faced and ultimately learned from were time management and learning how to manage multiple tasks that were not closely related to each other as my day tended to change depending on the week. Some days were gardening in the morning and delamping in the afternoon, these days help me learn how to switch from one task to another and not be phased by the lack of daily routine. While this could be challenging it was also an advantage to my internship because I was never bored. Overall I think this internship had far more high points then low points. I really loved all aspects of the internship from the outdoor physical aspect in the student gardens to the indoor technical aspect of seminars on readings.

As a rising senior I have been giving a lot of thought in my future concerning career goals and career paths. This internship has given me added perspective on what type of work I would like to do once I graduate from Sewanee as Natural Resources

major. I think that while I find energy savings an important aspect in the field of Sustainability, I am far more passionate for the agricultural aspect of sustainability. I could see myself going into the field of sustainable agriculture as opposed to energy auditing and saving. I have found this summer's gardening a very rewarding process and hope to be involved with the student gardens this summer.