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TRU 100 ILLUMINATE!

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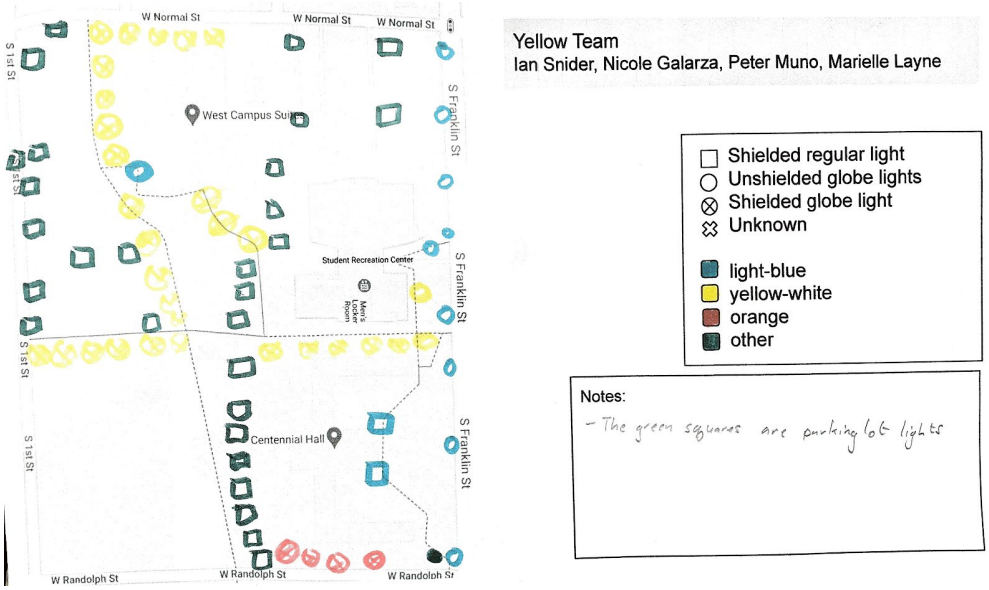
Illuminate Darkness

My time in TRU 100 ILLUMINATE! has certainly been an enlightening experience in terms of becoming aware of the different facets of light pollution. More specifically, I was previously unaware of how light pollution not only impacted being able to see the night sky, but how it also impacted energy efficiency and sleep. For my experience in this class, I was specifically tasked with redesigning the campus light fixtures as part of the Design Team. The design elements my team were most concerned with were the type of bulb being used and whether or not the light was shielded, meaning the lamp is only capable of shining light downward. Currently, the lights on campus consist of an even split between shielded and unshielded light bulbs encased in a clear globe, additionally there are also shielded parking lot lights. Below is a sample of the different types of lights on Truman's campus, specifically in the west campus area:



As illustrated by the figure, many of the globe lights in the west campus area are shielded, this includes the parking lot lights. However, this is still not ideal. The yellow notation on the map represents the yellow-white colored bulbs. This is still an issue to many students on the lower levels of the dorm halls who often complain of bright lights entering their room at night, also known as light trespass. The most ideal lamps are represented by the positions denoted with an orange circle and cross, these lights are the easiest on the eyes and do not shoot into the sky. Because these are examples of the ideal lights to have on campus, our goal as an entire class became finding a way to replace all lights (except for the parking lot lights) with these shielded fixtures and orange colored light bulbs. Additionally, the benefit of changing to these lights goes beyond light pollution and helping students sleep. After the initial implementation of these lights, continual maintenance would be cheaper than that of the current light-blue lights since there is less voltage required to power orange LED lights. In order to achieve this, we contacted Sam Guth from the Physical Plant and asked about the necessary actions for achieving a complete revamp of the campus lighting. Unfortunately we were informed that this would have to be a multi-year project and we could not complete our initial goals by the end of the semester. So, besides this setback in the ILLUMINATE! agenda we still achieved another major goal, namely, spreading awareness of the dark sky community.

Prior to being involved in ILLUMINATE!, I was completely unaware of the existence of the International Dark Sky Community (IDSC). The IDSC is an advocacy group for converting towns and cities in Dark Sky certified areas. After realizing that I myself had never truly experienced a clear night sky, I decided that I would do my part in spreading the awareness of light pollution and how to mitigate its causes. Aside from complaining about my overloaded class schedule, I often talked to my parents about IDSC guidelines for establishing a dark sky community. They seemed intrigued and decided to look into how they could turn their property into a IDSC approved location. Implementing a light system with a day/night detection capabilities is one of the easiest things a homeowner can do to contribute to reducing light

pollution in their area. Not only is it easy, but it also saves money on the electric bill. Many people also use bright-white light LEDs which are simply unnecessary. Changing your lights to orange colored lights reduces light pollution and saves additionally money due to the small voltage decrease. This is the message that needs to be spread. Being conscious of your effect on the night sky, not only gives everyone the opportunity to experience a clear night sky, but it reduces cost and cuts pollution in other places as well. In my personal experience, I have found that people are very receptive to these ideas, which is why I've started spreading the idea or reducing it to some of my friends around Kirksville. The solutions are simple enough and the payoff, while not necessarily immediate, has potential to be immensely beneficial. To spread awareness of light pollution, especially in semi-rural areas like Kirksville, it is as simple as bringing up the topic in conversation. In moving forward, I will post information about light pollution and the IDSC on my social media in order to appeal to people that I know will listen to me, and then as a consequence they themselves may spread IDSC on to their friends and so on.

To future ILLUMINATE! students I would like to remind you that this class is not just about putting in minimal effort and receiving your grade at the end of the semester, but it is about spreading awareness of light pollution and the remedies available. Your end goal is to find a way that you can appeal to others in your community and work towards conditions that meet the standards of the IDSC so that one day, we can all enjoy a clear night sky from the comfort of our own backyards.