

My Culmination Project was to re-draft the Haunted Hotel lighting plot. After serving as crew head in 2018, I noticed that over the years, the production's paperwork has become outdated; with many undocumented changes being made to the lighting system. There are many fixtures mounted in non-traditional fashions (often bolted to set pieces) that the existing paperwork didn't express clearly, often leading to confusion during load in. After discussions with the lighting faculty before the 2019 run, I decided to work as crew head again, documenting every issue I'd come across, then re-draft the production afterwards for future seasons. The new paperwork package would include an updated 3D plot (to express section views), cable layouts, hanging cards, instrument schedules, a shop order, and a load-in schedule.

During the 2019 load-in, I took notes of issues that arose to correct later on. I planned on running the entire production first, then deal with drafting afterwards. That way, if new notes were taken that disagreed with older ones, they wouldn't require correcting in Vectorworks. While this did work well, it prevented me from getting any dimensions of the set while it was still in place. To draft the scenery, I was going to use existing scenery drawings, importing them into Vectorworks as a starting point. Unfortunately, the scenic paperwork wasn't maintained, and many of the original construction drawings were missing. This was a major setback, as even though I had a full scenic groundplan to work off of, I was missing many of the flat's heights, necessary for 3D. Using the dimensions I had as a starting point, I had to estimate missing measurements, and take care later on not to base any fixture placement dimensions off of said estimations. While this wouldn't be tolerable on a scenic draft, for lighting purposes it functions the same.

I learned a lot about how I work when I began drafting in Vectorworks. Starting off with only experience editing existing documents, all of my formal drafting training was in AutoCad. While the interfaces are different, and tools operate differently, much of my knowledge carried over smoothly. I found it more helpful to dive in, seeking online resources as questions arose and gaining experience; as opposed to learning about the software before I began my project. Juggling online classes this semester often wore out my tolerance for staring at a computer screen, which shaped the way I approached working on the project. Drafting while exhausted, I found myself more likely to make mistakes, setting myself back further. I learned to work at full efficiency for shorter, more frequent sessions as opposed to longer, more sporadic ones. This also made it easier to come back to, retaining much of what I'd previously worked on and knowing the next steps to take. Needless to say, I will be approaching future drafting projects with this mindset.

I picked up a lot of new techniques to use in future Vectorworks projects. 3D drafting is a helpful skill to have, allowing documents to express much more information through different views. Up until this point, I'd only worked in 2D, editing plots. A plot acts somewhat representational, using symbols to denote a fixture. A 3D draft allows a fixture to be seen far more accurately, and from any angle as a 3D model. Vectorworks allows both to be used in tandem, representing fixtures as they are traditionally on paper, and in a digital 3D environment. This is beneficial to creating drawings with multiple views of the same object. Instead of drawing each face individually in 2D, the entire object can be drawn at once in 3D, with viewports capturing each face. Further down the line, I see myself using vectorworks to help calculate beam angles when designing plots. Different fixtures can be spaced evenly on a pipe viewing from the top down, then shifting to a right to left view, their focus can be tested before even entering a space. In scenarios where fixtures must be rented, getting it right the first time is crucial.

Fortunately, my project remained relatively unaffected by COVID-19. I sourced the scenic drawings I needed ahead of time (many of them were hand drawn), ensuring I had everything on hand. While Vectorworks' student edition is functionally the same as the professional version, sans a watermark on printed documents; Lightwright's is limited to 60 fixtures; far under the amount of fixtures the Haunted Hotel has. Fortunately, John McKernon, Lightwright's creator, released an emergency license in the meantime, free to all. Now, I was no longer limited to the Light Lab's copy of Lightwright. Once I realized I'd be doing all of my drafting remotely, I set up an area to work, with a mouse, secondary monitor, and number pad. Drafting requires referring to many documents while drawing, and having the second monitor was very helpful.

Organization and scheduling were major components towards completing my project, and while I generally keep things neat, my skills were definitely put to the test. By the end of the production's run, I had a thick stack of printed paperwork that I'd been taking notes, sketching views, and jotting down dimensions on. I reread through all of it, creating a list of every change to include in the new paperwork. Afterwards when I began drafting, I learned just how specific I needed to be while drawing anything digitally, as it's class and layer need to be considered. Failure to do so creates a disorganized mess of the list of classes on the document. As for scheduling, I kept a steady pace, working little by little daily during the time I would've spent commuting. As mentioned previously, smaller more frequent sessions is now my go to for drafting work.

Overall, I felt that my project was a good closing to my time at City Tech. I enjoy leaving a lasting impression on the production, for future lighting crews to see. Up until this point, I didn't feel too comfortable working in Vectorworks; now I feel much more confident in drafting, especially with 3D under my belt. I look forward to using it as a tool while designing in the future, as up until this point I've been using sketches and mental math when making plots. Through this project, I'll be able to have a more professional approach on future productions.