Do Architects Build More Than Homes?

In recent years, technology has rapidly advanced, resulting in advances that change what we think is possible and impossible. Just last month, astronomers and scientists at NASA were able to take the first ever photograph of a black hole, a task previously thought to be impossible. Although lighting and LED technology haven't had the same level of breakthroughs recently, they have been getting brighter, more advanced, and cheaper to produce, leading to them growing in popularity, although their environment ramifications haven't been properly addressed.

Even in Northfield, while most of the street lights are angled downwards, each one is a harsh, bright, white light, and is still enough to overpower the light of the stars in our sky. These lights are the source of the environmental ramifications that are so problematic for humans and nature. They produce copious amounts of blue light, which triggers a negative reaction in humans that disrupt our circadian rhythm. That's not the end of the negative effects though, insects can get so encapsulated by these lights that they hover around them until they die of exhaustion, migratory birds could experience migration failure because the blue light would



disorient and confuse them, and even plants would get their day-night cycle disoriented because of our lights. During my walk through downtown, I noticed how each building had their own way to light up their areas, with some opting for bright warm lighting or for bright white lighting, and I wondered if there were any architectural

Downtown Northfield, Elliot Kirk

decisions for how the light faced, or if clients ever considered light pollution.

During this past Spring Semester, I took an Architectural Drawing course taught by two trained architects in the Minneapolis-St. Paul area. I felt the best way to answer my question was to ask one of my professors about their experience on light pollution during client meetings and the design process. I talked with Kurt Gough, founding partner at Shelter Architecture, and asked if clients have ever wondered about how much excess light their



Minneapolis, Wikimedia Commons

building produces and the environmental ramifications of this.

He responded that, to the best of his memory, no client has ever brought up light pollution when discussing site plans. I followed the question with how much he takes light pollution into account when designing buildings. He answered saying that he knows to angle light shells downward to focus the light where it truly matters, but confessed he doesn't consider the pollution aspect of it. He also mentioned that light trespassing is a different matter than light pollution, because when designing a building it takes multiple trips to the site to discover every intricate detail, which allows him to plan around potential light hazards that may occur after the building's completion. After discussing his personal experience in dealing with lighting, we both started to wonder if preventative measures for light pollution were more widespread than he and I were thinking, but that it just hadn't gotten to his firm yet. When we

looked on the American Institute of Architects (AIA) website, we found no specified regulations to deal with the growing threat of light pollution.

Despite the setback of finding no real regulation by the AIA, the organization International Dark-Sky Association Starry Skies Lake Superior created a documentary, "City Lights, Starry Nights," that helps illuminate the issue and how Duluth, Minnesota is combating the issue by having business owners and residents who care about how light interacts with nature and with their daily lives. In particular, residents are concerned by city plans that include the installation of bright, white, 4000K LED lights on a major area in downtown Duluth. Starry Skies in Duluth works hard to make sure residents are well-informed of the effects lights can have on their city, and to create a better informed populace that can work in unity to push regulations back that would negatively harm the environment they live in and the animals that live with them.

By following the example set by Starry Skies Lake Superior IDA, Northfield residents could learn about what effects light pollution can have and work towards the same goal of decreasing the light pollution within our city, bettering the lives of organisms that share our environment with us as well as our own. In addition to residents knowing what they can do on their own to help , architects could start addressing an issue that they could have a large part in unintentionally creating. With firms starting on their own to set boundaries and keeping light pollution in mind, the idea could work its way up to a national level and become a regulation that every architect would have to adhere to.

Works Cited

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