



Le pouvoir dans la réversibilité de la pollution lumineuse

The Power in the Reversibility of Light Pollution

C'est quoi? What is it?
Light pollution is the excessive and unnecessary use of artificial lights, leading to negative effects on humans and wildlife alike. This is an issue that is especially prominent in the city of Montreal and the metropolitan area as shown in light pollution heat maps that show the general areas of high and low pollution.

Collection
We are proposing to collect measurements of sky brightness at night throughout various locations in Montreal, determining where light pollution is specifically most prominent. This data will be able to support the input of legislation or regulations surrounding the control of leaving unused building lights on over the course of the night. In the creation of this project, the city map and pedestrian count datasets from the city sources can be used to determine the optimal installation locations, showing where there is high pedestrian activity, as this is who would be conducting the measurements of sky brightness.

Complément Complementing
The data will complement the pre-existing heat maps and give further insight into why the whole city has such a high level of pollution when it is brighter in certain areas, like the downtown core of sky-scrapers, and darker in more residential areas. Upon pinpointing these specific high-pollution areas, additional art installations can be used to promote the eco-didactic messages of reducing electricity consumption unnecessarily and the great importance of the dark sky for research, education and circadian rhythms.

Engageant et instruisant Engaging and Educating
This project uses the installment of Sky Quality Meters (SQM(s)) throughout the city of Montreal to encourage citizen contributions of data collection while providing educational appreciation. Night time passersby attracted by the blurred photo of city lights will take part in a short activity that will teach them how to measure the brightness of the current sky with SQMs, which further raises their awareness in the city's light polluted skies.



Sky Quality Meter (SQM)
SQM's are easy to use tools that measure sky brightness at night in magnitudes per square arcsecond. They are to be held overhead, pointing towards the sky and with a click of a button, they will calculate the current brightness in that area.



Placement des SQMs au centre ville Downtown Device Placement
Using the city map and pedestrian count datasets, we can determine where to install each system, according to neighborhood sizes and level of activity. In the illustrated map, we have placed two devices in proximity of a few tall buildings in the downtown area.



The original unblurred photo of Montreal at night. Photo from Besotv (besotv.com).

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