

FOR UNIT2

DINGYI TANG / ALEX

POSITIONS THROUGH ITERATING

WEEK 1

TOPICS

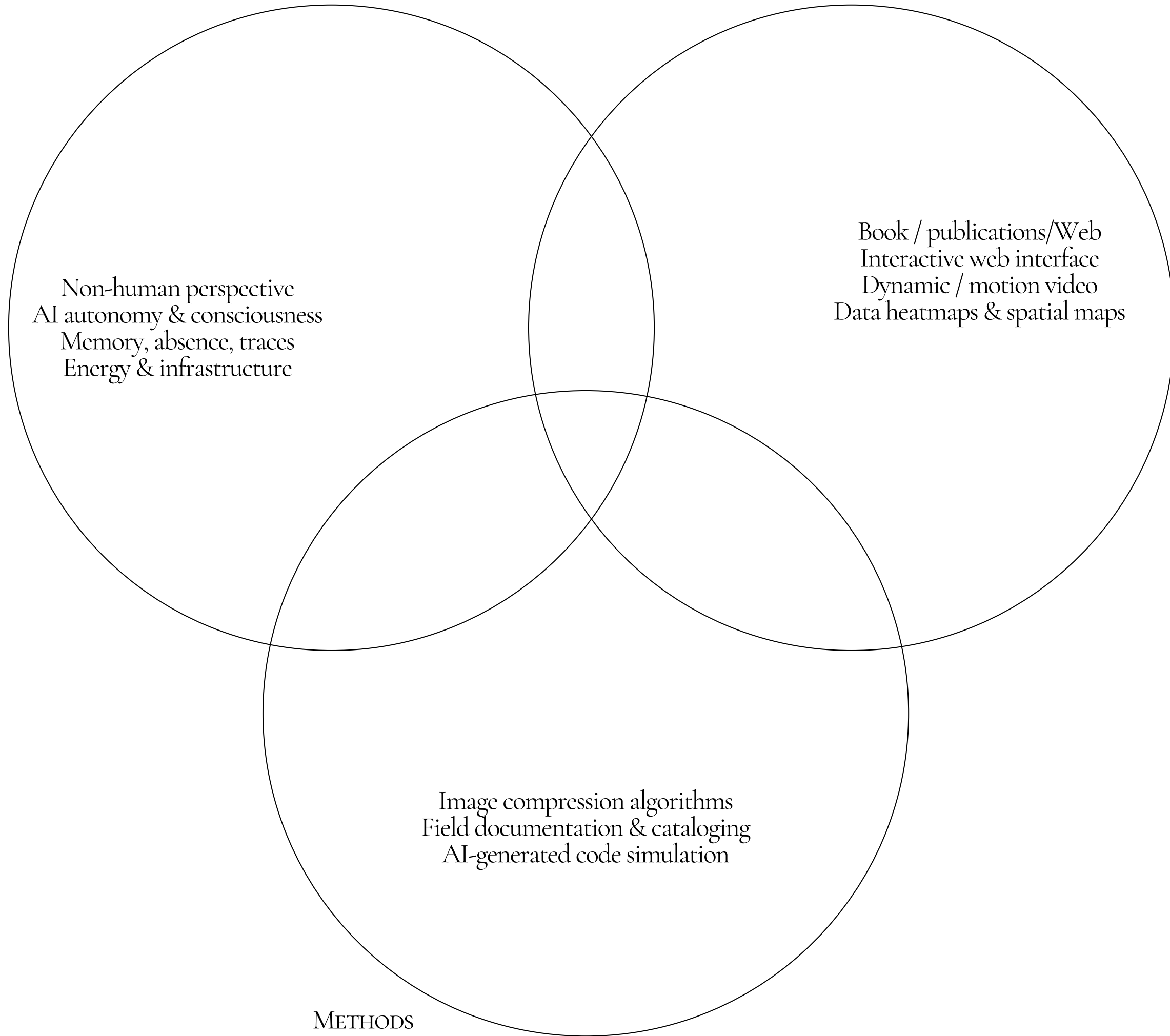
Non-human perspective
AI autonomy & consciousness
Memory, absence, traces
Energy & infrastructure

Book / publications/Web
Interactive web interface
Dynamic / motion video
Data heatmaps & spatial maps

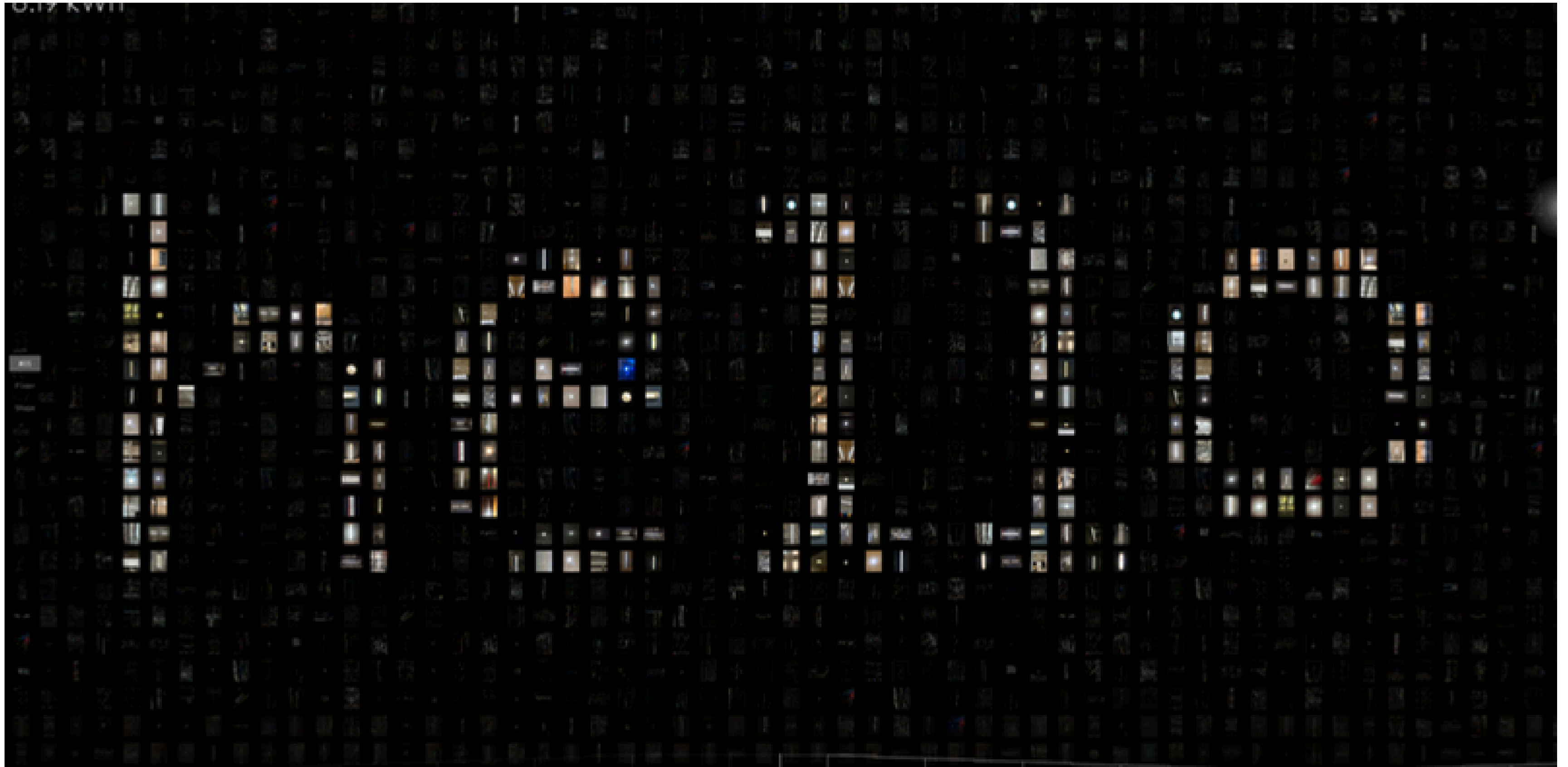
MEDIA

Image compression algorithms
Field documentation & cataloging
AI-generated code simulation

METHODS



This project began with our web-based dataset of lights in CSM
We wanted to document and display a large number of lamp photographs on a single interface.

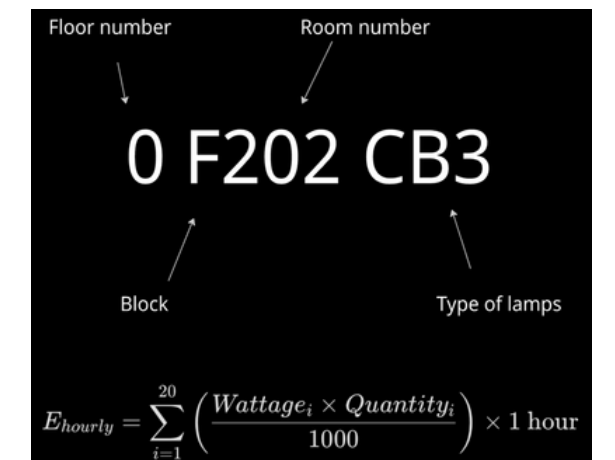
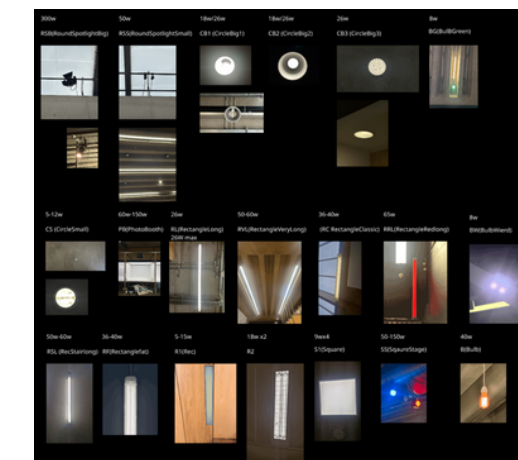


<https://e2city.netlify.app/>

An issue encountered during the process

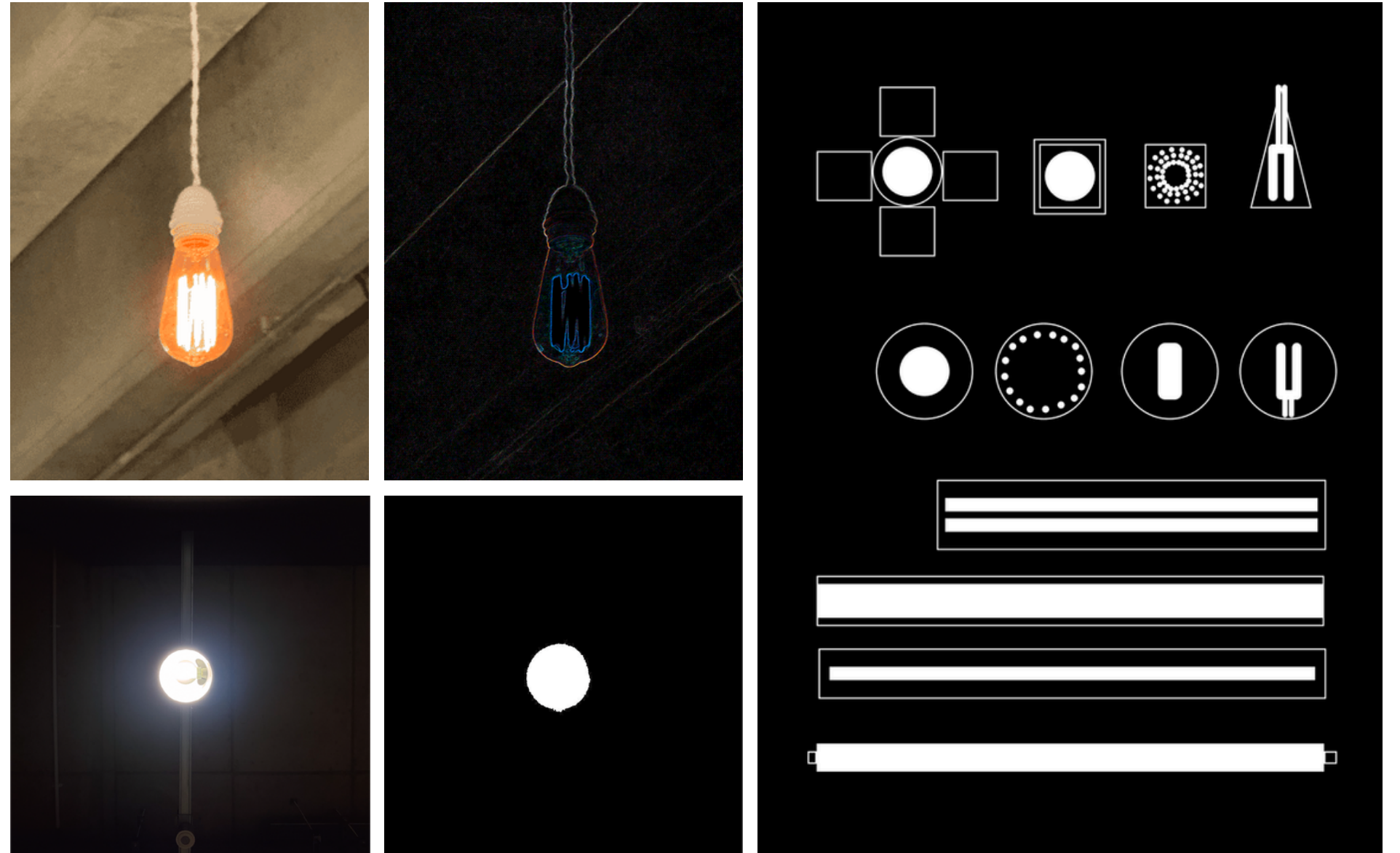
Web pages often need to display a large number of photos.
 Raw photos are large in size, which slows down page loading.
 Real-world photos contain complex information, making it difficult to create a clear visual hierarchy when displayed together.

How can hundreds of photographs remain usable on one page?



During the group discussion, we repeatedly debated how to depict turning lights on and off, as well as different types of lighting. But later we realized that the more fundamental issue was how to simplify complex lighting photographs into a lighter, more readable visual format.

How can photographs of lights be transformed into lighter, more readable graphic forms for a web-based dataset?

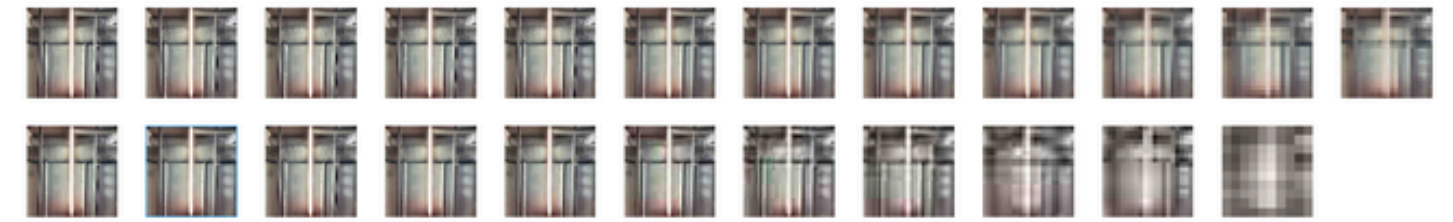


So, in this iteration of the project, I wanted to test how different image processing methods strike a balance between three key factors: file size, readability, and visual character. To do this, I isolated the issue from the web project and turned it into this 100-page publication.

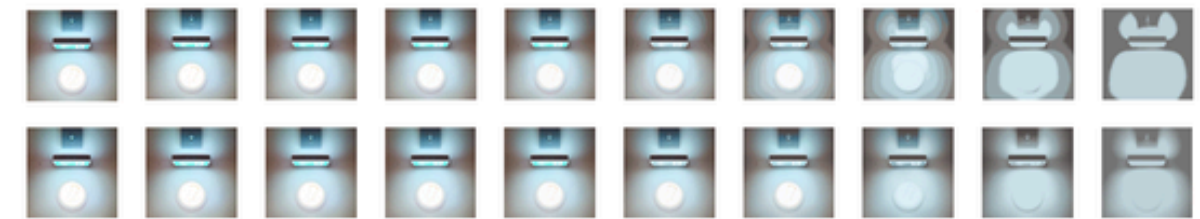


Given this constraint, this project tested various image processing methods, such as Compression, Colour Reduction, Vectorization, Binarization and edge enhancement. It explored how to strike a balance between file size, image legibility, and visual language.

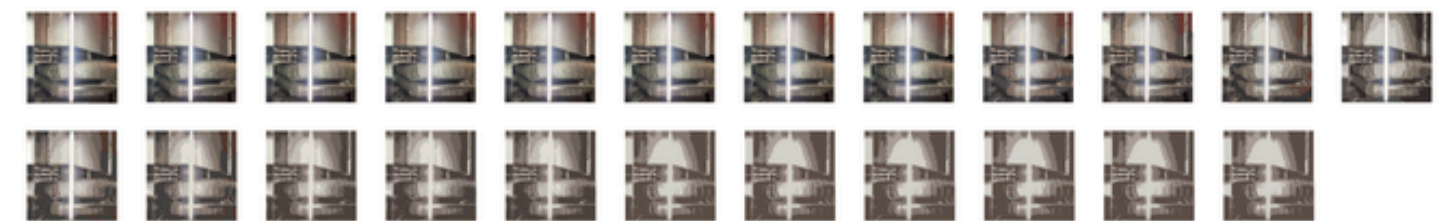
COMPRESSION



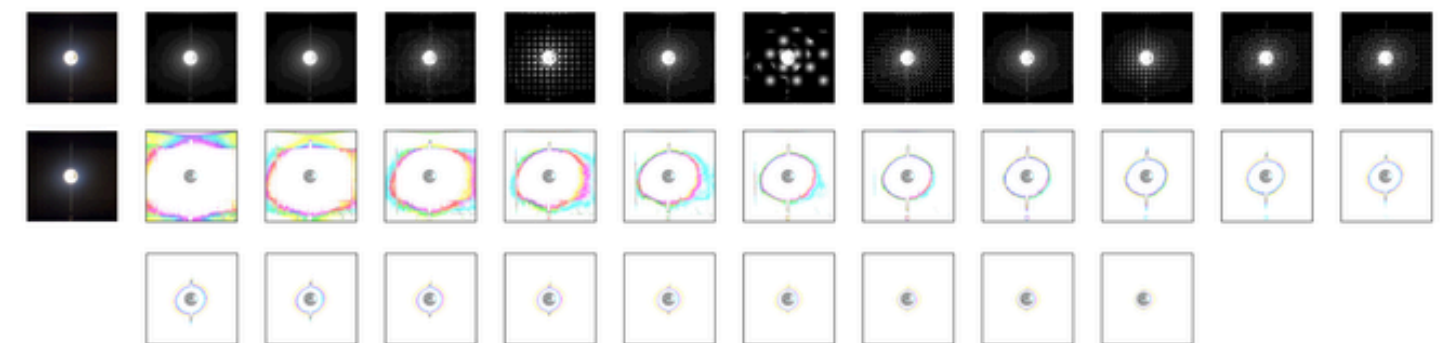
COLOUR REDUCTION



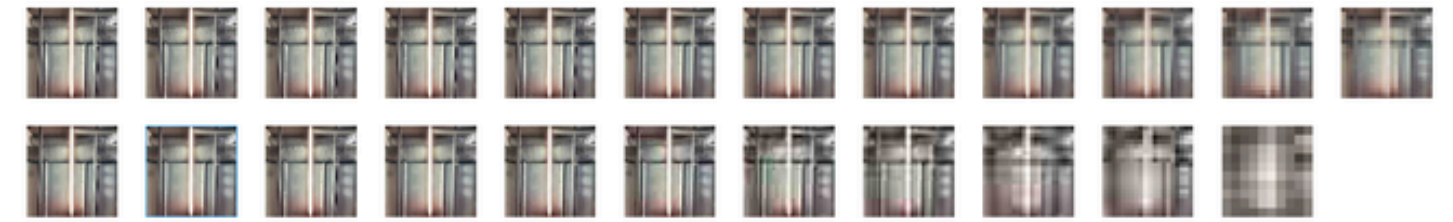
VECTORIZATION



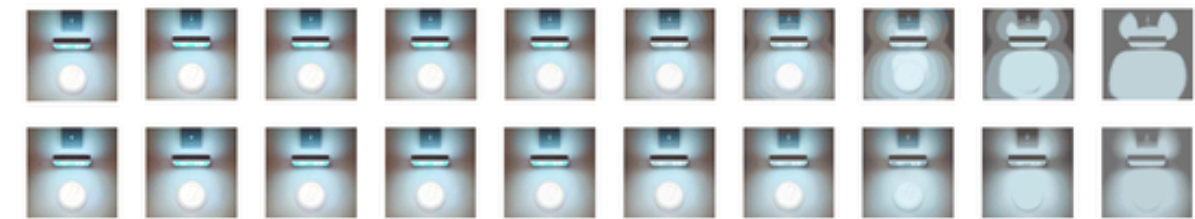
BINARIZATION



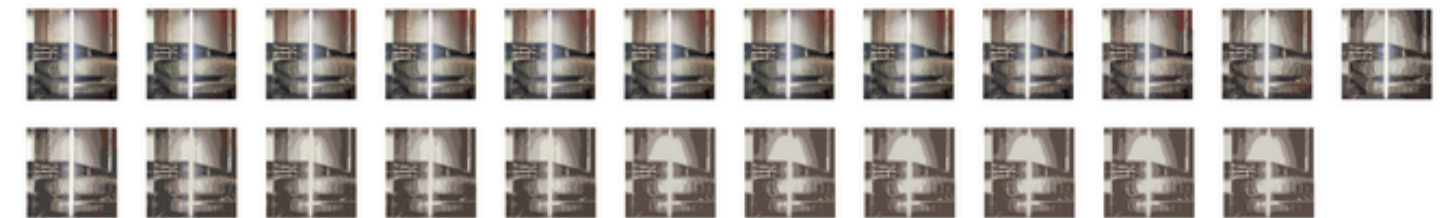
This section explores how the appearance of a photo changes as its resolution and file size are gradually reduced. I tested two different methods of resolution compression, and when the images became very small, the difference was very obvious.



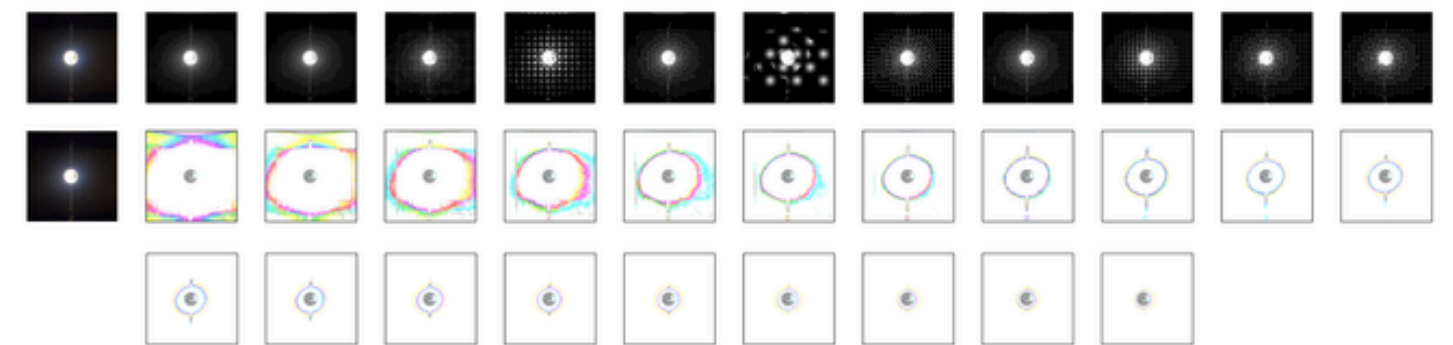
This section focuses on the removal and compression of colour information. I tried two different methods to gradually reduce the colour range of the images. As a result, the photos began to show a faded texture, similar to the way images are repeatedly compressed, copied, reposted, screenshotted, and converted during digital circulation.



This section explores what happens when a photograph is turned into a vector image. Through image tracing and gradual simplification, the photo is replaced by flat areas, edges, and graphic outlines. Also the colors the details in the image fade.



This section pushes the image towards an extreme black-and-white state and strong colour edges through low-bit conversion and contour-based processing. The visual effect of the photo becomes rougher, sharper, and more primitive, and the image is reduced to contrast, edges.



CONTENT

Compression

This section explores how a photograph of light changes when its resolution and file size are gradually reduced. As the image is compressed, the lamp begins to lose surface detail and spatial clarity, breaking down into blocks, blur, and mosaic-like fragments.

Colour Reduction

This section focuses on the removal and compression of colour information. As the palette becomes more limited, the photograph starts to develop a faded, flattened, and slightly degraded digital appearance, similar to the worn-out texture of old internet images.

Vectorization

This section investigates what happens when a photograph of light is translated into traced shapes and vector outlines. Through image tracing and gradual simplification, tonal transitions are replaced by flat areas, edges, and graphic contours.

Binarization

This section pushes the image towards an extreme black-and-white state through low-bit conversion and contour-based processing. As tonal range is stripped away, the photograph becomes harsher, sharper, and more primitive in appearance, with the lamp reduced to contrast, edge, and silhouette.



Light, Reduced



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That's it
Thanks

WEEK 1