

2 texts from the reading list

Steyerl, H. (2009). 'In Defense of the Poor Image'. The Wretched of the Screen. Berlin: Sternberg Press, pp. 31–45.

In investigating the "Time & Scale" brief, we explored the friction between digital micro-temporality and the geologic time of climate change. To make a heavy website run smoothly, we compressed 200+ lighting JPEGs into tiny 50kb PNG-8 files. Stripping metadata and restricting images to 64 colors destroyed crisp details, reducing smooth gradients into harsh color bands and flat pixel blocks. However, Hito Steyerl's concept of the "poor image" (Steyerl, 2009) reframed this technical workaround. Steyerl critiques high-resolution media by exposing its materiality: pristine files demand heavy bandwidth and privileged infrastructure (Steyerl, 2009). Our enquiry builds upon this by recognizing that this material burden is inherently ecological—the digital "weight" of high-res files translates to server energy consumption. Therefore, restricting the file size becomes a method to reduce digital carbon footprint. The resulting harsh color bands serve as a visual indicator of digital decarbonization, making the hidden energy costs of our website visible.

Crucially, this digital overconsumption mirrors our physical enquiry into CSM's electricity waste: we mindlessly expect flawless high-res images exactly as we expect campus lights to stay constantly on. Embracing the "poor image" is a necessary design strategy to resist this energy-intensive default. It transforms our website into a practice of climate justice, reconciling immediate web performance with long-term environmental issue.

Reinfurt, D. (2019) 'I-N-T-E-R-F-A-C-E', in A New Program for Graphic Design.

In responding to the "Time & Scale" brief, our project utilizes the definition of an interface cited by Reinfurt (2019) as a "shared surface" that "reconciles" different elements. In our context, these elements are the micro-scale of human perception—daily lighting habits—and the macro-scale of geological time, where a 360,000 kWh annual load represents a long-term environmental burden.

Reinfurt (2019) notes that the public clock delivered humans into "abstract" time, erasing the "social labor" of natural rhythms. We challenge this erasure by programming a five-second asynchronous delay during the switch-off, mimicking the manual labor of staff patrolling floors. This intervention leverages Reinfurt's (2019) definition of a computer as a "clock with benefits," where the "clock speed" is recalibrated to compress twenty-four hours into twelve seconds. Consequently, the interface becomes a "thing itself" that "transmits a point of view" (Reinfurt, 2019); by altering the system's temporal logic, we transform abstract data into a perceptible duration, making the overwhelming scale of the climate crisis cognitively accessible.

2 texts outside the reading list

Morton, T. (2010). The Ecological Thought. Cambridge ; London: Harvard University Press.

Timothy Morton's (2010) concept of "hyperobjects"—entities massively distributed in time and space—frames our project's treatment of scale. Initially, cataloguing 3,000+ light fixtures at CSM felt like quantitative data collection. Morton's text reframed this: standing under a single classroom light is merely experiencing a "local manifestation" (Morton, 2010) of a vast, withdrawn system. Because hyperobjects involve temporalities far beyond human perception, individuals naturally fail to grasp their cumulative environmental impact (Morton, 2010).

Our interactive website serves as a translational method for this exact problem. By juxtaposing all 3,000 fixtures on a single grid and compressing temporal scales, where one year's 360,000 kWh accumulates in just over an hour, we force the hyperobject into the user's immediate phase space (Morton, 2010). The macro/micro zoom function actively demonstrates Morton's (2010) principle of nonlocality: it links the isolated, mundane experience of a single bulb to the overwhelming, viscous reality of the collective lighting system.

Heidegger, M. (1962) Being and time. Translated by J. Macquarrie and E. Robinson. Oxford: Blackwell.

Heidegger's (1962) tool-analysis elevates our project from a basic audit into an intentional effort to make invisible infrastructure visible. In everyday campus life, CSM's light fixtures exist in a state of "readiness-to-hand" (Heidegger, 1962). Students and staff seamlessly use the illumination while the physical fixtures remain cognitively invisible within the studio's arrangement.

Heidegger (1962) argues that the less we "stare" at a tool, the more natural our relationship to it becomes. Our project actively reverses this ideal to address the climate crisis. By systematically photographing every bulb, we initiated a "theoretical gaze" (Heidegger, 1962), a deliberate act of looking that drags these tools into a "present-at-hand" state (Heidegger, 1962). They transform from transparent utilities into perceivable physical objects.

Through our interactive grid, graphic communication design becomes a mechanism to force this shift in scale. By extracting light fixtures from their pragmatic background, we compel users to confront the massive annual energy usage. This reference enhances our practice by proving that making infrastructure "visible" is the first step in translating abstract institutional energy waste into a tangible scale of environmental accountability.

2 design projects

Worth, J. (2014). *If the Moon Were Only 1 Pixel - A tediously accurate map of the solar system*. [online] [joshworth.com](https://joshworth.com/dev/pixelspace/pixelspace_solarsystem.html). Available at: https://joshworth.com/dev/pixelspace/pixelspace_solarsystem.html.

Josh Worth's (2014) *If the Moon Were Only 1 Pixel* enhanced our methodology by introducing two critical interactive strategies: relatable metric conversion and autonomous navigation. Worth (2014) successfully contextualizes incomprehensible spatial dimensions by substituting them with familiar physical equivalents, such as Earths or Blue Whales. We directly adopted this translation method to demystify our website's abstract digital carbon footprint. By converting invisible cache consumption (KB) and CO2 emissions into the highly tangible carbon cost of producing an apple, we ensure the audience immediately grasps the ecological weight of their online interaction.

Furthermore, Worth's (2014) interface employs an autonomous axis, automatically propelling the user across vast horizontal spaces. We adapted this mechanical agency to drive our project's temporal dimension. We programmed our horizontal timeline to slide continuously in sync with the accelerated flow of time, advancing one monthly grid exactly every 360 seconds. This automated scrolling forces the audience to physically witness the relentless, uninterrupted accumulation of energy waste, immersing them completely in the massive scale of institutional consumption.

Eliasson, O. (2014). *Ice watch*. [online] [olafureliasson.net](https://olafureliasson.net/artwork/ice-watch-2014/). Available at: <https://olafureliasson.net/artwork/ice-watch-2014/>.

Olafur Eliasson's (2014) *Ice Watch* radically enhanced our understanding of how extreme logistical exertion generates profound public empathy. By physically transporting massive glacial blocks into urban centers, Eliasson proves that executing a conceptually 'absurd', highly demanding physical task forces audiences to confront abstract climate data as an undeniable, tactile reality.

We applied this strategy of exhaustive physical execution to our investigation of CSM's lighting energy consumption. By manually photographing over 200 individual fixtures, meticulously counting more than 3,000 lights across the campus, and conducting field interviews regarding operational habits, we committed to a somehow labor-intensive process. The foundational simplicity of this idea, literally documenting every single bulb, translates into an overwhelming visual. This accumulation of undeniable physical evidence could shatter audience apathy, transforming abstract institutional waste into a compelling reality.