Fall 2020

**Latent Territories**

Vasundhra Aggarwal

Jaclyn Doyle

Follow this and additional works at: [https://surface.syr.edu/architecture_tpreps](https://surface.syr.edu/architecture_tpreps)

Part of the Architecture Commons

**Recommended Citation**


This Thesis Prep is brought to you for free and open access by the School of Architecture Dissertations and Theses at SURFACE at Syracuse University. It has been accepted for inclusion in Architecture Thesis Prep by an authorized administrator of SURFACE at Syracuse University. For more information, please contact [surface@syr.edu](mailto:surface@syr.edu).
Through accelerated processes of recording and transmitting visual data of our built environment, architecture is increasingly consumed as a series of pixels and numbers by machine modes of vision for other autonomous actors.

The incessant processing and data-hoarding is saturating the networks that are perceived to be infinite, leading to the inevitable physical and digital decay. As weathering is to the physical, lags and glitches are to the digital. The effects of aging of physical degradation are evident in our environment, however, the loss of material integrity of digital files is much less visible.

Due to the mutable nature of digitally stored files, architecture is malleable and alterable on such platforms. The physical built environment, therefore, becomes an artifact of the digital. The degradation from digital storage can produce new, aesthetic effects. This digital decay, produced by glitches and lags, creates an altered legibility of architecture.
John Gerrard, *Farm*, Pryor Creek, Oklahoma, USA (2015)


Ingrid Burrington, *Amazon Wind Farm*, Scurry, Texas, USA (2017)


Xingzhe Liu, *Bitcoin Mine*, Ngawa Tibetan and Qiang Autonomous Prefecture, Sichuan Province, China (2016)

National Data Buoy Center, *ATLAS Buoy, “Null Island”*, 0,0 (2011)
The entirety of the earth, visible in our hands, through a digital screen. The cords and cables that power our monitors and allow the flow of data, are biting the earth — suffocating her for her last resources, while distracting and manipulating us to believe that it is saving her.
Null Island, Medusa of the times. Her fiber-optic snakes slither and trudge heavily along the ocean’s floor. Her tentacles stay hidden under the folds of dark currents and the corporate veil of blue constellations of the internet in the sky.
The sounds of sputtering vents and the smells of burning rare earth. The data center, now a cultural heritage site? Or a repository landfill of forgotten and illegible files? A demonstration of the harvested power by greedy corporations and the worst of our habits of consumption and overindulgence.
As you sit on your throne, commanding the network of machines to retrieve your information, you are ignorant to the consequences of your demands. A single internet search, takes up the power to run a lightbulb on for twenty seconds. The machine tries to warn you, a cry for help, as it malfunctions. But you brush it off, as machine insubordination and pesky annoyance. We are used to the gestalt of technological progress. An expectation of the consumer, and a promise of the corporation, to bring things to us faster.
You think you've cleaned yourself from being a hoarder, but you've simply swept it under the rug in your five external drives, three cloud locations, and two floppy disks, that you don't even know how to open. You've kept the data and continued to update the machines, but no way to retrieve information. The discrepancy between the new machine and your data files has altered the integrity of the file.

The cloud is a heavy place, the total carbon footprint of the world's data centers has already surpassed that of the airline industry and is presumed to have tripled this year. It has become your holy purging to cleanse your immediate environment while preserving it for someday, that will probably never come. Making the mess transparent for your eyes, yet in doing this, you forgo the "spring cleaning" ritual that must occur with your files.
image recognition

1. original image
2. black-and-white
gaussian blur
3. gradient magnitude

4. non-maximum
suppression
5. hysteresis threshold
6. localization

application for the visually impaired depicting the machine’s prediction of the mailbox as a fire hydrant; using parameters of form, texture, context, and association
Machine Vision

Image recognition processing → Collecting and organizing data → Predictive models

Unnecessary information is removed
Important information is extracted
Digital Decay

Physical manifestation → Information gathered → Disfigured, discolored, misaligned, inconclusive → Digital material residue → Translation of information → Transformation of information → Material degradation
Welcome to the laggy days. Sorry, it's still processing.
You've ignored the warnings and continued to hoard
information and update your machines, careless of how
this affects your files. The image now visualized from the
communication between machines, software, and files
has produced an evolved image - no reason to optimize
or update now, it's too late.
The infrastructure is too expensive to change, it was changed last week but, since yesterday has already become outdated. The new software, you run, can’t communicate with the machine to its job, instead it creates mutable data that evolves quicker than anything in the physical world.
Soon you're misidentified as a gorilla inside your local bodega, your roomba won't stop humping the extension cord, your electric car keeps pausing in front of every plastic bag on its windshield, and you have a new highscore on another round of the offline dinosaur game. Machines continue to communicate, but they all speak different languages.
Glitches appear and manifest themselves to convey imprecisions created by the machines trying to understand the saturation of information, leaving you mystified or scared - warning you that if you continue with this discrepancy of updating - your files will be reimagined or corrupted.

Lags warn you with misalignment in time and resolution to your data output, warning that the data pollutants and obesity you are creating is a quick killing agent of the search. While you may be annoyed, it's a warning of death that should not be taken lightly.