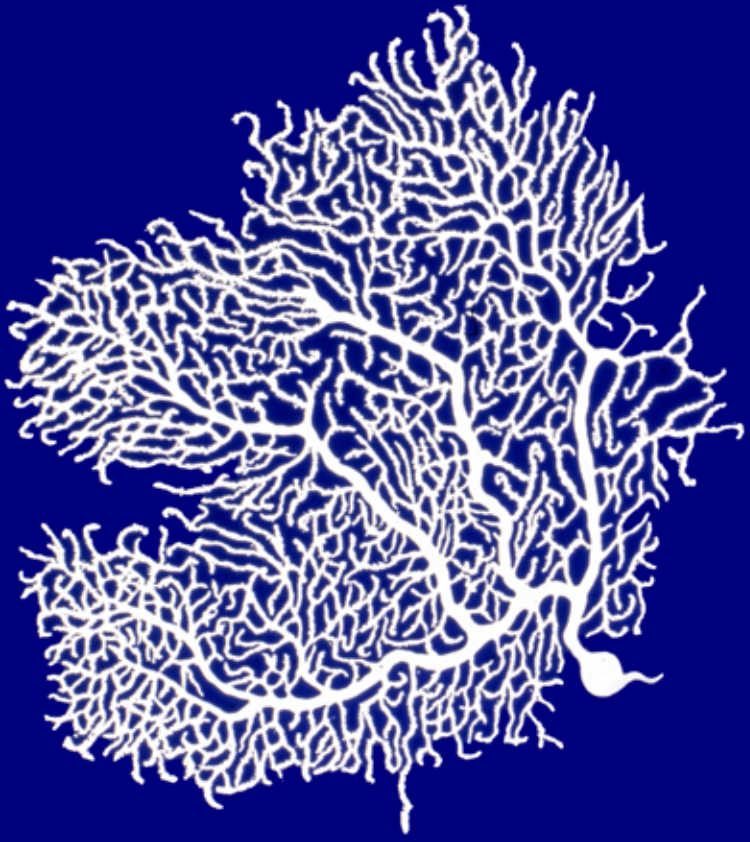
WEATHER REPORT



Humanity is flowing away from humans and toward machines. Marvin Minsky and Hans Moravec suggest that today's robots are our cognitive children. Let's be more specific here and speak of machines, robots, and technologies, not as cognitive children, but as emotion children,representational children, and memory children.

- Oliver Dyens, *The Sadness of the Machine*

I met Justin Williams when he first moved to New York in the Summer of 2011. He gave me a copy of *In Parenthesis* by David Jones, whose generous and strange prose has influenced the way I think about writing. Most recently he lent me a massive book of short stories by Anton Chekov.
Justin also makes music under the name Royal Jelly. I asked Justin why he uses the name and he said, "All the bees in the beehive make the jelly for the queen, she needs it."

How to Think About Mental Content 1 was shot in and around five architectural sites in Detroit with a camera mounted to a UAV (unmanned aerial vehicle) or drone. Those locations were filmed in the following order:

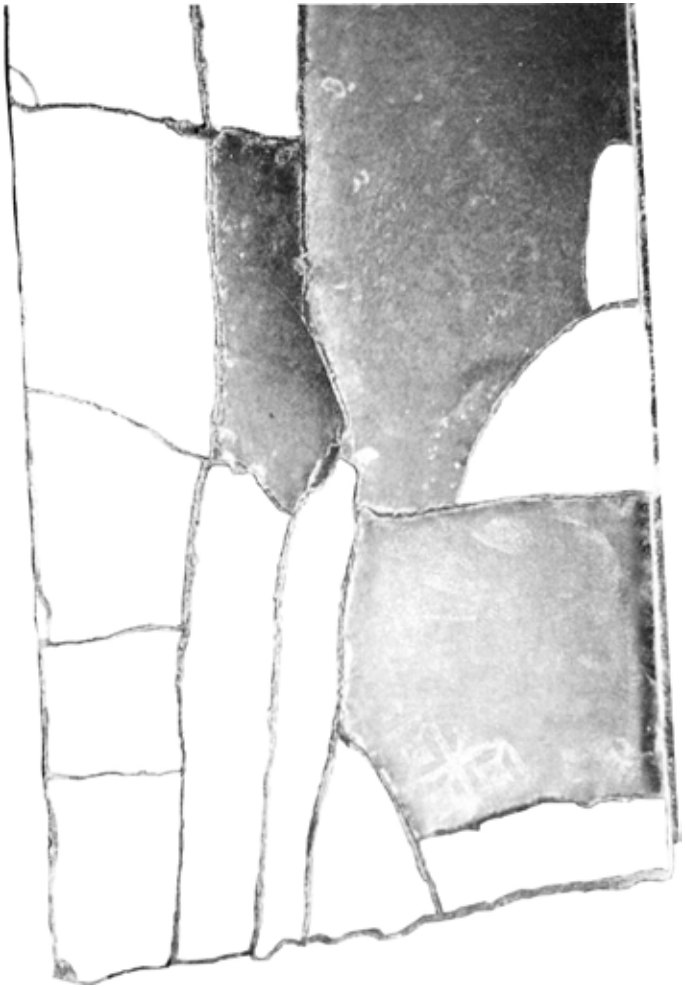
1. Brewster-Douglass Housing Projects.
2. The interior of the abandoned East Town Theatre.
3. The Packard Plant, an abandoned automotive fac tory, miles long.
4. Detroit-Windsor, the site of the border of US and Canada on the Detroit River.
5. The set built in downtown Detroit for the Holly-wood film *Transformers: Age of Extinction.*

The film runs just under half an hour at 28:05.
It was was shot at 60 frames per second, the same rate as contemporary video games. Its therefore closer to virtual depictions of space than film or video, being 24 frames per second and 30 frames per second respectively (online his film is 30 frames per second.) Justin took a plane to the city of Detroit during the Summer of 2013, the same Summer the city declared bankruptcy, to make the film. Scouting the locations, taking photographs in and around the buildings with a disposable camera.

Justin purchased the machine online and found a website run by a “flight enthusiasts club” based in Ann Arbor Michigan, whose members he solicited to help him. He met the operator of his drone in Detroit, and they shot the film over the course of two days, trading the drone itself in exchange for the mans help.

(The flight paths used during shooting were based on drawings inspired by elegant fractures in the architecture of those same buildings caused by the weather. This, Justin points out, is a non-linear pattern [weather=entropic energy/chaos] made linear via technological transformations [digital photography, drawing, human interpellation itself.] That pattern was then implemented into a GPS waypoint system and superimposed onto a map, giving automated instructions for the drone -which flew autonomously, without an operator.)

In Justin’s words, “there is a micro/macro pattern mirroring effect going on, a systematic and random approach to the depiction of the architectural landscape.”



GPS works like this:
24 interdependent satellites orbit the Earth, each one carrying an atomic clock, ticking with the accuracy of a nanosecond (one billionth of a second.) From any given location on Earth, at least four of these satellites but probably more are visible, and the GPS user can take a trilaterally constructed relativistic reading of her own location in relation to those satellites with absolute (millimetric) accuracy. A GPS tracking device for your car is around $15.00.

The title, *How To Think About Mental Content 1*, is lifted from the title of a paper by theorist/philosopher Frances Egan called *How to Think About Mental Content.* Her paper is regarding computational models of perception. She attacks the re-assignment of cognitive functioning to purely mathematical terms, pointing to a "gloss" of seemingly authoritative models of otherwise rational computation applied by computational science to mental processes.

(Justin found Egan's paper on a blog called *Integral Options Cafe*,whose website banner reads "Offering multiple perspectives from manyfields of human inquiry that may move all of us toward a moreintegrated understanding of who we are a conscious beings.")

Francis Egan has uploaded a video of herself online where she performs a "talk" summarizing her paper. Justin, in response, created "*How to Think About Mental Content 2,*" where her footage is introduced to an algorithm that was originally developed to explore the potentials of panoramic and 3-D video. Creating video from still images - an algorithmic fracturing and de-fracturing, breaking it down into individual frames and then re-compositing it again as video.

Egan's paper is a highly technical document, tough to decode for readers not familiar with cognitive neuroscience. The blurring of science and philosophy in Egan's dense theorizing is what seems to compel Justin to it, a certain un-paraphrasability it shares with art. Her paper stirs questions in us. What's the difference between a complex machine and a human brain? Or closer to Egan's line of thinking: is meaning assigned differently in our brains than a machine, or an algorithm, if we assume them both to be information-using systems? The summit of her thought promises an expansive view, but what will we see? As Justin's drone floats vertically higher and higher along the project building, finally ascending to the roof and then continuing up into the sky, we are suddenly presented with Detroit's horizon.

This landscape has obviously been changed by industry. Human structures cover it. It's a landscape so familiar it's uncanny (from the first Paleolithic fields of harvested vegetables, to the factory, from the hospitals of our births to the hospitals of our deaths, we are living in a built world, an artificial one.) In most cities we interact with increasingly complex commercial technology every day, but we also live in a completely degraded physical world, a catastrophic failure of design. Capitalism begets nightmarish conditions for life.

Here is a quotation taken from architectural historian and critic Kenneth Frampton, writing here about an artist's project similar to Justin's called JFK, by Laurent Malone and Dennis Adams, set in New York City during 1997, made not with a drone, but a 35 mm camera:

*A recent publication by the artists Laurent Malone and Dennis Adams recorded in photographic form the random topographic panorama that unfurled as they took a walk in a straight line from a storefront in Manhattan to the initial threshold of Kennedy airport. A more unaesthetic and strangely repetitive urban fabric would be hard to imagine. It is a dystopia from which we are usually shielded by the kaleidoscopic blur of the taxi window. Looked at through [a] pedestrian optic this is an in-your-face urban fabric. It is oddly paranoid, rather ruthless, instrumental, and resentful landscape compounded of endless chain-link fences, graffiti, razor wire, rusted ironwork, fast food [outlets], signs of all kinds, housing projects that are barely distinguishable from penal institutions, the occasional fading ad or former cinema … and as one gets further out …closely packed parsimonious suburban homes with their white plastic siding. And everywhere, of course … the signs of hardscrabble economic survival about to get harder … One cannot help asking oneself if these are truly the shades of the American dream for which we are ostensibly liberating the Middle East. Is there some fatal, inescapable paralysis that prevails, separating the increasingly smart, technological extravagance of our armaments from the widespread dumbness and meanness of our environment? (*Frampton *2003)*

This divide is perfectly collapsed in *HTTAMC1*. In Justin's work, the "increasingly smart, technological extravagance of our armaments" rushes to the "meanness of our environment." His film is the byproduct of that collision, a detached, machine's-eye-view of a post-industrial city visibly haunted by human lives (mattresses, graffiti, scrapping, etc. are omnipresent in the landscapes explored.)

EKKYKLEMA
An Ekkyklema was a piece of stage equipment used in the early Greek tragedies to reveal the outcome of an action too horrible to depict onstage. A murder, for example, would be revealed in the form of a body. It later became parodied as the tragedy gave way to the comedy, used instead to produce an absurd effect (the bicameral brain crystalizing into something newer, more banal, cynical, governed?)

Transformers: Age of Extinction, is the fourth installment of the Transformers movies, and the third Transformers movie to be filmed in Detroit. The movie was directed by Michael Bay, produced by Steven Spielberg, grossed over $1 billion worldwide, and features a fleet of villainous drones. Justin programmed his drone to explore the set in downtown Detroit (the set is supposed to represent China, where the movie probably made most of its money) before it was dismantled. In Justin's film the Hollywood enchantment is absent. Seen through the dispassionate eyes of the trespassing drone, the aura of this setting feels weirdly hollowed out. Its fabrication is obvious, even offensive in its reproduction of urban space. It's a high-budget meta-ruin surrounded by real ones. In a quiet way, Justin's movie undermines the entertainment business at its most unintentionally symbolic by representing it in such an unentertaining way.

Justin extrapolates, putting forth information without making comment. He has produced a surplus, and is in no hurry to draw conclusions from it, political or otherwise. His method is radically amateur, hinges mostly on a spirit of exploration and produces a document that is confusing to archive, indifferent to its commercial potential, and wildly impractical (logistically & financially) to make. He isn't working, but he labors tirelessly.

(Justin made another video in Detroit called *Wild Landscapes* - it's a "nature video" about feral dogs in Detroit who occupy the vacant structures in the city. The film moves through a carnival, a high school, a highway, and ends with footage of burning houses, arson being an extremely common, even cultural occurrence in Detroit. "Devil's Night" for example, where structural fires are started and buildings vandalized the night before Halloween.)

In *How to Think About Mental Content*, Egan sites Galistel's theory about the Tunisian desert ant ("widely regarded as a classic of cognitive theorizing,") wherein Galistel "posit[s] in the ant a Cartesian representation of its current position. He arrives at this description by examining the ant's behavior in its desert environment, taking into account patterns of success and failure." When the ant leaves its nest, it moves in a searching pattern, in loops and ringlets, but upon finding food will move in a straight line from its current location back to the nest, relating to the sun like a satellite to a GPS transmitter. It pictures itself as though on a map. There is no evidence to support that in these moments the ant is having a phenomenological experience of the world beyond its relationship to the nest. It is reminiscent of Justin's drone, drifting autonomously, unconsciously through space, recording images but not seeing, moving through space but not quite experiencing it. Is the technology used to make this film, like our own cognitive universe, an adaptation? And if so, why this particular mutation?

Like a lot of technologies, drones were developed by the American government for use in war, but have entered the consumer market. Drone flyover videos produced by hobbyists are common on youtube. Real estate companies use drones to make high-tech videos of the interiors and exteriors of properties for sale. Other artists are using drones in various ways.

- installation and video artist Ryan Trecartin's upcoming movie is rumored to be shot via drone... In September 2014, drones were used to 3D map the above-ground ruins of the Greek city of Aphrodisias.

Francis Egan and Justin offer revisions to pre-existing knowledge, drawing forth information and ideas in order to move in new directions, integrating various fields of study to uncover new dimensions of possible thought or action. Egan and Williams are in some ways worlds apart, but in other ways they share a common ideal -they ask questions and struggle to understand what it means to be a conscious form of life. Distanced as we may be from each other by time, by convention, by our proximities to each other, even by death, we needn't work alone. Our work is continuous. Today in the city of Detroit, the non-profit initiative Data Driven Detroit is working to create and house

"a comprehensive data system that includes current and historic demographic, socioeconomic, educational, environmental, and other indicators. This data system allows analysts to illustrate complex relationships by combining different datasets to reveal the true stories of our regions, cities and blocks. D3 is committed to serving all communities by adapting data into different formats for different audiences" (from datadrivendetroit.org.)

Then there is the more corporate but similar Loveland Technologies, who are working on a "blext," which is a text message sent by its users to identify blighted buildings. The "about" section of it's website reads:

"We work with governments, neighborhood groups, development, and conservation projects to gather and present public information about properties (the physical space and legal subdivisions that define the world) in clearer, more actionable ways. We love helping people get on top of big problems like foreclosure prevention, blight identification and reduction, the reuse of vacant space, and the preservation of community assets"

Another app, Why Don't we Own This?:

"We make public information about property freely accessible to the public through an online platform called Why Don't We Own This? Ownership information, zoning, tax assessments, and more are presented alongside tools to communicate with neighbors, and understand your city more deeply. Want to see your city on the map? Drop a line! Gain a detailed understanding of what's going on in a neighborhood." (from makeloveland.com.)

These initiatives utilize technologies to repair civic conditions by an informed engagement with the built environment. By imagining a possible ethical world it becomes partially realized. The re-purposing of technology for something egalitarian, adaptive. D3 and loveland technologies, by making data-driven decisions easier for the people and organizations of Detroit, are improving life in their city. Like Data Driven Detroit or Loveland Technologies, *HT-TAMC1* is design because it learns and takes risks, not for itself but ideally for the good of all. By infusing technologies with our own sense of decision making, of intuitive movement, we might see ourselves liberated, and technology redeemed. Computational mathematics are used in these efforts not to describe the human mind, but to inform it.

For all of it's 28 minutes and five seconds, *How to Think About Mental Content 1* is silent. This omission is commonsense. Why should there be a soundtrack? The resulting discomfort activates the viewer, it's like a silent film without an orchestra - you can hear yourself think. Look what Hafiz, 14th century sufi poet, wrote about quiet in his poem, Curfews:

Curfews
Noise
Is a cruel ruler
Who is always imposing
Curfews.
While
Stillness and quiet
Break open the vintage
Bottles,
Awake the real
Band.

HTTAMC1 doesn't lead the viewer, or grip the viewers attention (as say, *Transformers 4* might hope to) but by lack of narrative accommodation renders the viewer as a free thinking subject in relation to its content (and the media its seen by.) Its rhythm is set intrinsically by the pace of its content, which is minimally edited and simply shown in the order it was filmed in. Negating all of this, Justin thinks about *How to Think About Mental Content 1* as:
1. A drawing in GPS.
2. Landscape photography.

It is also an ethical floodlight illuminating liminal states of architecture, demonstration, an experiment in memory science, a disembodied silent march, a convoluted "walk around the block." A reminder that the ruins of of our cities belong to us as a kind of cultural inheritance, a material. Evidence that ruins are not ruins at all - their ambiguity is potential. "Theory of mind" is the understanding that beyond ones own mind there are uncountable others whose experience of the world differs from ours, that intelligence shines forth in a multitude of forms, sensorial or philosophical or otherwise. In scientific terms: all brains share the same basic material - around 100 billion nerve and glial cells sending electric or chemical signals to each other, but each individual brain sends those signals in wildly different patterns. Although capable of endlessly complex calculation, computers are historically unable to perform simple tasks that are innate to biological organisms.. decision making, intuitive movement.. these are what constitute intelligent life - play. Life seems to long for unbuilt worlds. We can imbue technology with our biological framework, but will it hear music? Can it experience what depths of memory are called forth by the smell of rain or the warm touch of a hand? Probably not, because those feelings are connected to our human bodies. Technology is different from us - indifferent. In this way it succeeds in being rational where people cannot. After all, the computer is another brain. But why waste time applying theory of mind to technology, when we can apply technology to theory of mind? The BRAIN Initiative (Brain Research through Advancing Innovative Neurotechnologies) is a massive federally funded (4.5 billion over the course of the next 12 years) initiative that envisions a complete scientific understanding of the brain by 2025. A BRAIN press release from Summer 2014 describes the acceleration of neuroscience in recent years as having "advanced to the level that we can envision a comprehensive understanding of the brain in action, spanning molecules, cells, circuits, systems, and behavior." This is thanks to the multidisciplinary integration of emerging technologies and fields of study. BRAIN maps out a course of research that will channel that tremendous momentum, enabling new discoveries and applications in medicine, government, psychology, and philosophy. By closely observing and tracing the electrical and

chemical activity within the circuits of the brain and linking that activity to our behavior and cognitive/emotional landscape, science could lead us to a potentially hyper-real understanding of ourselves. With knowledge of the brain this complete, humans could realistically engineer an artificial one, just as we have engineered the artificial heart.

To follow Justin's work to a logical conclusion is not possible; he has re-routed technology in an act of ground up cultural activism for uncertain purposes. Various meanings and courses of inquiry branch out, divide, veer off into uncertain conclusions, moonward or into semiotic rubble. The artist stresses that this work is a traditional drawing, but he makes this comparison to re-orient our thinking; there is more happening here. Look at his materials: Justin has arranged for a machine to go on a situational dérive, producing "a memory child," a kind of Pinocchio that longs to be part of a broader discourse. Egan concludes her paper by calling fixed ideas of computational models of memory into question. While useful in conceptualizing and understanding the brain, computational neuroscience requires that we transpose a theoretical gloss to its models in order for them to make sense. A purely mechanical account of the human mind, she argues, will not suffice.

(Experience is processed in our brains via information. Computational neuroscience can objectify human thought - represent neurological synapses with mathematical algorithms, but Egan suggests that using these systems alone is of no use - rational math is incongruent with life's complexities and evolutions. By itself, computational science relates to reality the same way economics does. That is to say as a parallel but separate system without consequence in reality except by it's own (mis)implementation, a hyper reality. Understood as a technology, computational science can be implemented to improve life dramatically. The computational scientific field is concerned with translating and aggregating information [i.e., tsunamis, earthquakes, the behavior of subatomic particles] just as Data Driven Detroit does for urban space, and so enables people to predict the probability of future events and plan for them accordingly.)

She denies that our biological experience of vision is hyper-representational or can be fully described by mathematical computational models, gesturing towards deeper, more elusive layers of mental content probably not yet present in machines (dreams [?], emotions[?].)

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