Media Archaeology Final

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While each organism is able to build it’s own worldview; the perspective of a modern individual is organized by their gaze, or their fields of visibility. *Despite the abundant and profuse continuity of the natural environment, each organism gives birth to a world by selecting only a few important markers within this space. For the organism, everything else simply does not exist.* (Lahoud, 2015, Pg. 44)I propose to lay a path for defining and deconstructing global systems of oppression by comparing and contrasting “New Media” as defined by Lev Manovich and “Future Reality Technology” as defined by industry professionals and myself. These terms, though contrasting, are essential to building a framework of understanding for the coming changes to Media.

Lev Manovich ascribes several definitions to new media, from “digital data controlled by software”, to “*faster execution of algorithms previously executed manually or through other technologies*”. He also argues the pros and cons of each, but for our purposes we will be using this definition: “*New media as computer technology used as a distribution platform.*” With this description, Manovich helps set the stage to our understanding the history of and the problems with new media. Through this definition, I posit that new media is enframed within a militarized system of covert racism and oppression, a system of “lenticular logic” that, according to Tara McPherson, “*underwrites today’s information economy and is the central technology of post-World War II America*.” (McPherson, U.S. Operating Systems at Mid-Century, Race after the Internet. pg. 24)

“Future Reality Technology” is a much newer term; introduced in the last few years at “*Exploring Future Realities*”(ExFR), a conference dedicated to exploring, creating, and educating about emerging virtual, augmented and mixed reality media. Because these future reality technologies are still in the process of being born, it is possible to separate them from the biased computational systems in place. According to McPherson, “*The organization of information and capital in the 1960s powerfully responds—across many registers—to the struggles for racial justice and democracy that so categorized the U.S. at the time*.” This led to the systemic “*emergence of covert racism and its rhetoric of colorblindness.”* (McPherson, U.S. Operating Systems at Mid-Century, Race after the Internet. pg. 30)

Because of the current systems of power and authority, “Future Reality Technologies” are at risk of being trapped within “*The arresting power of optical technology”* also known as the *Actuarial gaze.* With the risk of having this emerging technology be utilized for militarized purposes, we have to understand the existing systems of oppression in place.

According to Feldman, *“The actuarial gaze is concerned with the powers of arrest in its fullest perceptual and criminalizing gauge. At sites like Guantanamo, Abu Ghraib, in the local policing of economic, racial and class margins, and in the medical and economic management of compromised immune systems, the actuarial-forensic gaze renders risk perception haptic, tactile, penetrative, and transformative.***”**(On the Actuarial Gaze, pg. 7, 2005.) Feldman goes on to say that this ideological environment creates a “police concept of history”, one that reframes the historical process into divided spaces, spaces separated into segments of “ideal safety” or “dystopic and risk-laden spaces.” I argue that new media falls under the fields of visibility of the Actuarial gaze, being built into the systems of covert racism and oppression within U.S. operating systems.

The concept of *Umwelt* as used by Adrian Lahoud in “*Error Correction: Chilean Cybernetics and Chicago’s Economists”,* referenceseach organism’s unique worldview, or perspective, that is built by a combination of the organism’s sensory apparatus and the natural environment surrounding it. *(Lahoud, 2015, pg. 45)*

*“The tick’s life world is contracted down to three stimuli: light, smell, and touch (Uexküll 2010). Light draws the tick to the tip of a tree branch, smell allows it to detect the passage of a host below and drop onto its back, touch to locate bare skin, so that it could burrow.”*

The Tick, just like the Badger in Kafka’s *The Burrow*, crafts its worldview using its local environment, and creates specific markers for its sensory understanding of those same surroundings.

“*I know that better than anyone, and it is certainly a risk to draw attention by this hole to the fact that there may be something in the vicinity worth inquiring into. But you do not know me if you think I am afraid, or that I built my burrow simply out of fear. At a distance of some thousand paces from this hole lies, covered by a movable layer of moss, the real entrance to the burrow; it is secured as safely as anything in this world can be secured; yet someone could step on the moss or break through it, and then my burrow would lie open, and anybody who liked -- please note, however, that quite uncommon abilities would also be required -- could make his way in and destroy everything for good.”* (Kafka, 1931, pg. 354)

Markers of fear, paranoia and security build these creature’s worldviews or gazes, in much the same way as the current worldview for many Americans is built. This is done through systems of new media that are distributed through computational systems such as National News, Internet Forums etc. With the rise of “terrorist” attacks, and the current talks of building walls and keeping immigrants out, citizens of the United States are more and more constrained by the actuarial gaze, the militarized powers of arrest and covert racism.

In a post-9/11 United States, the militarization of our policing, the exponential growth of our surveillance infrastructure, and the passage of the patriot act, launched the country into a powerful imposition of an actuarial gaze on a traumatized American public. The very shape of thoughts and perceptions is subordinated to an overarching perspective that situates daily life against a backdrop of hidden forces that we blindly trust in others to control/combat, by whatever means necessary. This same imposition of an actuarial gaze, by a governing body, is not unique to the United States.

In the 1970’s Chile elected Salvador Allende, a member of Chile’s Socialist party, to power. Allende began a cybernetic program call Cybersyn.

*“The program was first off an attempt by the national government to govern in real time at the scale of the entire national territory; second, the development of technical infrastructure that could track and shape fluctuations and changes in the Chilean economy; third, the conceptualization of a national political space along the lines of a business regulated by ideals drawn from corporate management; fourth, the invention of a scale and technique of government that begins at one end of the political spectrum and finds its ultimate conclusion at the very opposite.”* (Lahoud, 2015, pg. 38)

The Allende government used cybernetic automation (which originated out of a military need to have a missile hit a moving target, (*Lahoud, 2015, pg. 38)),* to assist with everything from the privatization of industries to the invention of new modes of governance. Ironically the one thing this military invention couldn’t do, was predict a military coup. The coup, led by Augusto Pinochet, led to some of the worst atrocities in recent Chilean memory as well as a long and “successful” career for Pinochet.

Framed around the kidnapping or disappearance of over three thousand people by soldiers of the Pinochet Regime, Patricio Guzman’s Film *Nostalgia for the Light (2011)* follows a post-Pinochet Chile. During Pinochet’s rule the people of Chile were kept in a constant state of arrest, of fear, and of paranoia, never knowing when the government would show up and take their sons, brothers, fathers or friends. In this way, Pinochet used the *Actuarial Gaze* to assert supreme control over “his people”. This control not only lasted an incredibly long time, it also had even further lasting impact. Not only did Pinochet stay in power for over 17 years, his only punishment for his human rights violations was a brief time in house arrest.

*“Though many of these events have remained ambiguous, obscured by trauma or lost in official dissimulation, overtime the contours of history have become less confused. Beyond the coup, the involvement of the United States or even the subsequent transformation of the economy, a more comprehensive story of radical experimentation on the Chilean social body has emerged.”* (Lahoud, 2015, pg. 38)

These events, according to both Lahoud and Guzman, helped create the worldview of almost all Chileans. Near the end of the film, we meet a woman whose parents were traded for her safety. When the government forces came to take away her parents, who had fled, the military threatened to take their young daughter. In an effort to at least save the life of their young granddaughter, the grandparents gave up the location of their children. By enforcing the literal arresting power of the actuarial gaze, not only did the Chilean government take away someone’s parents, in doing so they completely altered their worldview, and their whole life.

The actuarial gaze is a system of visual domination, of visual control and arrest inherently linked to new media. The scopic regime created by the actuarial gaze globally, has led to many of the technological innovations that we have today, from surveillance cameras, to logistical technologies, to even “justice” systems such as jails (Panopticon). This regime, like Pinochet’s, is one of militarization, deletion, and domination, implementing technology produced for militarized uses to control the movement and visibility of global populations.

*“Originally the Aspen Movie Map was commissioned by the Cybernetics Division of the Defense Advanced Research Projects Agency (DARPA) of the US military. Inspired by the use of a simulated environment by the Israeli army in the rescue mission at the Entebbe airport in Uganda in 1976, DARPA’s plan was not to just build a fake environment, but to simulate one with the purpose to pre-implant geographic knowledge and cognitive maps into soldiers before entering the real locale of combat. For Andrew Lippman, who was the director of the project, the main function of the Aspen Movie Map had, however, no geographical purposes. Instead, it was solely about developing more interactive environments and to try out the emerging technologies of video discs, high resolution storage and replay systems.”* (Halpern, 2015, pg. 58)

Here we can see one of the major problems facing the emergence of “Future Reality Technologies”, the inherent militarization of research and development. The government funders for the map wanted to use this as a militarized concept, the scientist/artist/theorist who created it wanted to create a framework of technology to utilize in the future. However, the artist/theorist sacrificed their ability to positively affect the inherently militarized system, in exchange for guaranteed funding. Instead, he simply enhances the militarized aspects of an already militarized medium.

Because the Aspen Movie Map was funded by the military and because Lippman willingly accepted the terms of agreement, the new medium was born integrated with McPherson’s systems of oppression and covert racism. As previously stated, this could stand to be the biggest opponent to future reality technology. If all virtual, augmented, and mixed reality developers follow Andrew Lippman’s path, then maybe future reality technology will fall into constantly changing and reprogrammed “new media”.

I firmly believe that this will not happen. The power of future reality technology is in the ability to alter Point of View, and according to some, create empathy. Virtual, augmented and mixed reality are so inherently remediative, existing in a state of meta-referential ecstasy, that the power to reshape systems lies within the technology. To remediate a technology is to re-articulate an existing or a past media into a new use. The word however, can also refer to the act of providing a solution, something I believe future reality technology is infinitely capable of.

Within the future reality industry, these remediations are called use-cases. A use-case is an example of the technology providing a solution to an overlooked problem. The problem can be as simple and pragmatic as creating a resume that shows additional information, to an incredibly powerful social problem involving workplace harassment. The remediative power of future reality industry lies in the ability for the technology to be manipulated in so many different ways that almost any problem, idea, or solution, can be explored.

While the technology itself may be simply a framework, it is the content created, and the creators of the content themselves, who create the power; it lies within it’s totality. Some of the best examples of powerful remediative future reality experiences come from unlikely creators, not a military or a corporation, but individuals in search of positive change. To be fair, these individuals are trained in the use of the technology by a company, and a big one at that. Google has started a program called [Google Daydream Impact](https://vr.google.com/daydream/impact/), and has begun distributing the daydream system (a virtual, augmented, and mixed reality creation platform) to non-profits, NGO’s, Teachers, Students, Artists, all sorts of creators, in an effort to create the next generation of future reality content.

As Audrey Lorde said in 2007 “*The Master’s Tools will never Dismantle the Master’s House”;* new media, by our definition, can be defined as a “Master’s tool”, a tool for racism and oppression. In contrast to this, future reality technology, because of its power to change users point of view and access different perspectives, can disconnect from the systems of oppression in order to be utilized as a tool devoid of the link to the “master” (systemized racism, sexism, and oppression). Now disconnected, this tool can be used to create other powerful tools of empathy and equality.

Future reality technologies are named as such because of the infinite possible iterations of virtual, augmented, and mixed reality media. Not able to be placed in a strict category, the term “future reality” allows for expanded growth of new systems of understanding point of view and perspective.

*“Bullying has found a worthy foe in virtual reality. In VR, we can influence not only how we think, but also how we act, sparking new kinds of learning, discussion and transformation in students and adults.”* (Adaora Udoji - Maker, VR action Lab, [Website](https://vr.google.com/daydream/impact/actionlab/))

The concept behind the power of future reality technology, is elucidated in a term Alan Feldman uses in *“Memory Theaters, Virtual Witnessing and the Trauma-Aesthetic.”* Virtual Witnessing is exactly what you are doing in many of these remediative experiences; in fact, virtual witnessing is the basis of many of the experiences that are proving so powerful.

Feldman writes, *“Truth is the result of transmission and does not precede it, an understandable position within the epistemologically murky space of death. Transmitted memory is already the rehabilitation of experience; transmission is agency out of an ecology where the project of the inmate was only to suffer, waste, and die, and where he/she is denied the status of speaking subject.”* (Allen Feldman, Memory Theaters, Virtual Witnessing and the Trauma-Aesthetic, pg. 182, 2004.) Interpreted through the optics of future reality technology, this statement showcases the power of point of view, of perspective, of that “transmitted memory” that virtual, augmented, and mixed reality allow.

Future reality creates transmitted memory; augmented reality for instance, is being used on Governors Island here in New York, to digitally transmit memory from historical objects and locations, directly into the hands of visitors to the island. (NYCMedia Lab’s Havas Fellowship. 2017. [Website](http://nycmedialab.org/havas?utm_source=NYC+Media+Lab+Mailing+List&utm_campaign=017066ecc3-EMAIL_CAMPAIGN_2016_12_30&utm_medium=email&utm_term=0_8d8d6abf51-017066ecc3-1204808441)) These transmitted memories will have a different sort of impact than those Feldman talks about, with obviously fewer stakes, but they will have power, even if only educational power.

This is just one example of a future reality use case; there are countless more, and many with much higher stakes and much more agency. The Brownsville Community Justice Center (BCJC) has been working within the community of one of the densest neighborhoods in the USA, and the murder capitol of New York City. According to the BCJC Panelists at the ExFR Conference (2017) the reason for the violence is the density (NYCMediaLab. ExFR Conference. [Link](https://www.youtube.com/watch?v=B3WHOjRhAss))

The community led team at the BCJC has been creating future reality content from within their community, attempting to give a face and a voice, to their community members. The biggest problem in Brownsville is the fact that it has the highest concentration of public housing in the nation. Because someone who lives in a development on one side of the street has never been to the other side of the street due to the threat of territorial violence, the community has never had the opportunity to grow close.

This disconnect of space within the community got so bad that people could not even access certain spaces in fear of their safety. By creating virtual replicas of the community, the BCJC has been able to give the gift of travel, at least virtually. In a video game titled “*Fireflies of Brownsville”,* the team 3d scanned actual community members into the game and 3d mapped the entire community in order to make the spaces available for everyone, regardless of location. By allowing community members to interact, even virtually, connections were able to grow and bridges built.

Another future reality use case to come out of Brownsville here in Brooklyn, is an application developed by John Bryant, a member of the community. John created an augmented reality application that works similarly to a storefront, but in virtual space. By connecting visual markers embedded with virtual information to abandoned storefronts around the community, he has been able to make a visible impact on community life, connecting people through creative means. The application allows community members to upload their crafts, whether clothing, photographs, music, or writing, and sell it safely in a virtual space accessed by a physical location within the community.

Because individuals are connected solely on creative interests in John’s app, the issues revolving territorial or gang beefs disintegrate. The power to bridge lifelong conflicts through virtual, augmented and mixed reality experiences is the reason that future reality technologies have such a powerful potential.

In *Arcana Mathematica Imperii: The evolution of Western Computational Norms*, Mateo Pasquinelli elaborates on the systems introduced in the first few paragraphs of this work. During my first week at Pratt Institute, starting my Master’s program in Media Studies, my definition of media studies was drastically altered. My understanding of the study of media had always been pragmatic, only interested in the technology and the creation. Minh Ha Pham quickly saw to remediating this flawed understanding. According to Minh Ha, to study media, is to study “questions of power”. Pasquinelli then, appropriately starts his article with this statement. *“Power has always been about measuring bodies and populations, and above all about decision making and political strategies that were designed according to the cunning interpretation of such numbers.”* (Pasquinelli, 2016, pg. 1) He further goes on to state that some of the very first systemic documentations were censuses, and food distribution plans.

The mathematicization of bodies, and populations, was also the core of the emergence of new media as computer technologies being used as distribution platforms. Sound familiar? As McPherson says, digital computing underwrites today’s information economy and became the central technology of a post-world War II world.

The way to see the contrast of “new media” and “future reality technologies” is to use McPherson’s terminology of lenticular lenses. *“Drawing from those 3-D postcards that bring two or more images together even while suppressing their connections, I have earlier termed the racial paradigms of the post-war era ‘lenticular logics’. The ridged coating on 3-D postcards is actually a lenticular lens, a structural device that makes simultaneously viewing the various images contained on one card nearly impossible. The viewer can rotate the card to see any single image, but the lens itself makes seeing the images together very difficult, even as it conjoins them on a structural level.”*

This post war lenticular logic, a logic of hiding while remaining in plain site, a logic of covert racism, is the logic of new media, it is the logic of an inherently flawed system, a system wrought with inequality, oppression, and racism. As McPherson so eloquently puts, *“The popularity of lenticular lenses particularly in the form of postcards, coincides historically not just with the rise of an articulated movement for civil rights, but also with the growth of electronic culture and the birth of digital computing (with both—digital computing and the civil rights movement—born in quite real ways of World War II)”* (McPherson, U.S. Operating Systems at Mid-Century, Race after the Internet. pg. 24)

What we have now is the birth of a new set of systems, of movements, of technologies; we have a whole new generation of future reality technology that will create a new type of logic. Not lenticular, divided, and hidden logic, but rather logic of pride, of equality, of togetherness; a new Logic. While it could be titled “virtual logic”, because of the continual emergence of future reality technology, it wouldn’t be smart to give this new logic a name so fast.

As said before, there is always the chance that future reality will follow the same path of systemization. If enough of the creative power within the industry is taken away from artists, theorists, and artist-theorists, there would be no agency, there would only be technology for technology’s sake.

According to Friedrich Kittler, the history of media is made up of three phases*: “the invention and dissemination (1) of the alphabet; (2) of the printing press; and, finally, (3) of the computer”.* I argue that with the emergence of future reality technology, there might be a 4th phase, a phase of such incredible importance, that humanity will likely not understand its importance for a hundred years. If new media is information distributed through a computation platform, what will we call information distributed through a platform of future reality?