

Medium Design



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MEDIUM DESIGN

Medium Design: It is not what you think. It is not new. It is not right. It is not magic. It is not free. It does not happen. It does not always work.

The oncologist follows not only the tumor but also the chemical fluctuations in surrounding tissues. The actor in the theatre transmits information not only through words but also through interdependent actions. The architect sees not only buildings with shapes and outlines but also the matrix of activities that inflects them. The geologist does not merely taxonomize specimens but rather reads them as traces of a process.

Still, while this medium thinking is practiced in many disciplines, it is perhaps under-rehearsed in the face of more dominant or ingrained cultural habits. Culture is good at pointing to things and calling their name but not so good at describing the relationships between things or the repertoires they enact. It privileges declarations, right answers, litigious proofs, universals, elementary particles and telos. It circles modernist scripts that celebrate freedom and transcendent newness — narrative arcs that bend toward a utopian or dystopian ultimate. This collective mind that looks for the one or the one and only is so often organized like a closed loop.

And since the loop that only circulates compatible information cannot abide contradiction, it also often lashes out with a binary fight against any challenger. Fighting is essential to being right. There is no growth or ideation without argumentation or debate. There is no literature without conflict. Favoring successive rather than coexistent thoughts or practices, the new right answer must kill the old right answer. The newest redemptive technology will make you free, but the freedom of one group must rob another of its freedom. And the fight should build to a revolution or an apocalyptic burnout. Cue the brooding music.

Oscillating between loops and binaries, an unnecessarily violent culture, having eliminated the very information it needs, is often banging away with the same blunt tools that are completely inadequate to address perennial problems and contemporary chemistries of power. A bully is elected, a migration of refugees swells in number, a financial crisis makes properties worth less than nothing, an industrial disaster kills thousands, shorelines flood due to global warming, or teenagers join ISIS. If economic and military templates of causation provide no explanation, if new technologies do not provide the solution, if the consensus surrounding laws, standards or master plans provide no relief, little sense can be made of the problem. Assuming that these problems are simply impossibly deadlocked or unresponsive to rational thought, even the smartest people in the world stand with hand to brow.

These are the hackneyed plot lines of our “humanities.” The binaries of wars and the chest-beating Westphalian sovereignty of nations remain in place as darlings of history. *Homo economicus* is allowed to upstage and hold forth. Rom-coms align with the ancient folktales of a patrilineal society. Sci-fis align with ancient tragedies, and

dark conspiracies foil our hero. Smart is confused with new. Empowered is confused with free. Dissent, also adopting a binary, exists in a world of enemies and innocents. Since the world's big bullies and bulletproof forms of power thrive on this oscillation between loop and binary, it is as if there is nothing to counter them — only more ways of fighting and being right and providing the rancor that nourishes their violence.

So how do you drop through a trapdoor and engage the flip side of these logics?

On that flip side, where nothing is new and nothing is right, there are no dramatic manifestos. But maybe there is a chance to rehearse a habit of mind that has been eclipsed. You are already able to detect, as if with half-closed eyes, a world at a different focal length. Rather than only declarations, right answers, objects and determinations, you can detect and manipulate the medium or matrix in which they are suspended and in which they change over time. Just as this *medium thinking* inverts the typical focus on object over field, maybe *medium design* can invert some habitual approaches to problem solving, aesthetics and politics.

Speaking to any discipline or treating anyone as a designer, medium design uses space to prompt productive thought about both spatial and non-spatial problems. Like those media theorists who are returning to elemental understandings of media as surrounding environments of air, water, or earth, the approach treats the lumpy, heavy material of space itself as an information system and a broad, inclusive mixing chamber for many social, political, technical networks. Space does not need the screens and sensors of the *internet of things* to make its stiff arrangements dance. It is already dancing. And even at a moment of digital ubiquity and innovation, space may be an underexploited medium of innovation with the capacity to make other information systems dumber or smarter. Not bound by notions of media as communication devices, analysts of socio-technical networks, political theorists, designers and artists among others share a scaffold of thought or engage in *medium thinking*. (See *Medium Thinking*)

The largest sociotechnical organizations of space — the repeatable formulas for formatting space all around the world — may prompt innovative thought because they are everywhere and nowhere. From the micro to the macro scale, from institutions to cities, they are too large or too widely distributed to be assessed as a discrete object with a name, a shape or an outline. They don't respond to singular solutions or determinations, and they can really only be assessed by the activity or disposition immanent in their organization as it unfolds over time and territory.

But in any context, large or small, designing the medium is managing the potentials and relationships between objects, the activity or disposition immanent in their organization. The disposition of any organization makes some things possible and some things impossible. Like a growth medium, it determines what will live or die. Like an operating system, it sets the rules of the game that link and activate the components of an organization.

Since unreasonable politics easily unravels reasonable politics, being right is a bad idea in medium design. It is too weak. It does not work against gurus and totalitarian bullies. Stock narratives of history about the succession rather than coexistence of knowledge, sci-fi futurologies, persuasions about lubricated freedoms or righteous activism do not make sense. Instead, multiplying problems can be helpful. Messiness is smarter than newness. Obligations are more empowering than freedom. Histories can expand to include things that do not happen. Problems can be addressed with responses that do not always work.

Culture's spectacular failures together with the underexploited powers of medium inspire alternative ways to register the design imagination — form making in another key or part of speech. Inverting the authority given to declarations, master plans, standards or laws, medium design discovers extra political and aesthetic capacities in indeterminacy, discrepancy, temperament and latency in organizations.

INDETERMINACY

Designers are very good at making things, but medium design is less like making a thing and more like having your hands on the faders and toggles of organization. It is the design of interdependencies, chemistries, chain reactions and ratchets. It benefits from an artistic curiosity about spatial wiring or reagents in spatial mixtures, a curiosity about designing not a single object but a platform for inflecting populations of objects or setting up relative potentials within them.

There is a comfort with dynamic markers and unfinished processes that are *indeterminate to be practical*. The dispositions of space are manipulated not with solutions but with time-released active forms — multipliers, switches, governors or other organs of interplay with extended temporal dimensions that allow them to unfold and remain in play. Since urban space is not a steady state, a master plan can always be gamed or corrupted. But interplay might have both the practical capacity to react to changing conditions and the political capacity to respond to the moment when it is outmaneuvered. Instead of information cancelling loops or instead of a paradoxical quest for freedom, maybe empowering or information-rich situations gain strength through interplay — mutual obligation, checks and balances, offsets, and bargains. An interplay is not a solution but something that should not always work.

Consider a simple spatial variable to augment the new autonomous vehicle — a technology heralded as transportation's magic bullet. By efficiently grouping or platooning, AVs are projected to deliver perfect driving with increased mobility, fuel savings, reduced emissions and increased productivity. But there is a boomerang effect. If they are individually owned cars used in lieu of public transit, they will actually *increase* congestion, emissions and sprawl. The smart car will be in a dumb traffic jam. But there may only be a very simple physical spatial volume missing from the equation — an urban “switch” that brings together many strands of infrastructure so that spatial and digital information systems can make each other smarter rather than dumber. While a switch may even be a building in the urban information system, in some ways it is a thing as well as a delta, a thing that influences how many things will change over time. It inflects an indeterminate and ongoing series of choices. Designing that switch is medium design.

Or consider an interplay of spatial variables that induces development to retreat from flood plains by reverse engineering the mortgage that has been a germ of sprawl and financial disaster. One deceptively simple shift in the organization allows for mortgages to be considered in groups or pairs and then rated for complementary or counterbalancing attributes — not for virtual financial abstractions but rather for heavy values that take into account climate, energy, transportation, flooding. Higher scores and incentives are given to groups of transactions that result in a move to higher ground or a reduction in collective risk for all. The groupings compound benefits and help stabilize properties that are literally or financially under water. As these transactions multiply, settlement patterns shift. Just as

the house became a contagion, maybe a counter-contagion can leverage decreased environmental risk, more predictable budgets for families and government agencies, and even new opportunities for employment in deconstruction. Designing that protocol, and redesigning it as necessary, is medium design.

While, in a world of closed loops, organizations and institutions try to eliminate any contradiction or error, medium design also likes to multiply problems. Parrondo's Paradox is a game theory demonstrating that if you play a game with a low probability of winning, you will lose, but if you alternate between two games, each with a probability of losing you can begin to generate wins. The resulting graph of the wins resembles a ratchet, and the process may actually behave like a ratchet — as if the losses create a kind of traction against which to make many small gains that generate a win.¹ Not homeostasis but imbalance, not fixed pools of information but rather extrinsic information, contradiction and mixtures of information systems provide a wealth of potential to disrupt the closed loop and the binary. Maybe it is not the existence or content of a problem but the interplay between problems that is important.

Medium design would then be something like playing pool, where knowing about one fixed sequence of shots is of little use. But being able to see branching networks of possibilities allows you to add more information to the table and make the game more robust. In pool, you don't know the answer; you only know what to do next. The balls are sometimes attached to known forms or rules of play, but the art of pool involves assessing their collisions. The player "knows how" to respond to a string of changing conditions over time with an organ of interplay.

DISCREPANCY

Medium design, like pool — a game that may deploy skills of shooting as well as hustling — also has a currency in discrepancy. To assess and manipulate medium, it is almost as if you have to cultivate a capacity to perceive in a split screen — to straddle mental partitions that separate the nominative and active, the determinate and the dispositional. You develop something like a canine mind; you see things with names and hear humans speaking words but those things cannot be comprehended in the absence of a thousand other affective cues and relative positions between things in context. The position of the human relative to the door or the dog bowl, their posture or potential for violence are all being assessed equally with the sound of words and their assigned meanings.

In this split screen, it is easier to detect the difference between what an organization is saying and what it is doing, and how organizations decouple their messages from their real activities and underlying dispositions. The authority given to declarations may camouflage the undeclared activity that is hiding in plain sight. But turning the sound down on those declarations reveals the discrepant attributes of the organization. On one side of the screen, stories about sociotechnical organizations — be they railroads, hydroelectric networks or blockchains — may be about decentralization and freedom. But the real disposition of the organization may be concentrating power and authority with a universal ambition. A dumb binary of likes and dislikes filters a social media network that purports to be information rich. A centralizing power espouses a populist message. A global network of Dubai-style zone cities facilitates not free trade, but manipulated trade.

The world's superbugs and bulletproof forms of power may be masters of monistic demagoguery and binary head-on brutality, but they are also masters of the split screen. Like a confidence man, they know how lies work. Just like being right is a bad idea, telling one lie is a bad idea. But telling many lies works very well. One lie calls for reconciliation and truth. Many lies create a Teflon surface on which rationality slips and slides. Unburdened by truth and running rings around the earnest declaration, the superbug knows how to make words dance around and fascinate in the absence of meaning and information. Lies are everywhere, animated and in color. They lubricate and insulate. The discrepancy that others are futilely trying to reasonably reconcile is the raw material of fully mediated rumor and contagious fictions which batter the walls and work the back channels with stunning success. It's not what the lies say but how they bounce that is important. Ideas and meanings double onto each other while the disposition of authority and control grows stronger. Fill in the blank with content. Superbugs simply want to dominate and pervade — make the most noise or attract the most attention. They are mediated, but, more than that, they become the medium; activity divorced from content or meaning.

Design that has any hope of effecting change manipulates the organization as well as the narrative that attends it. How else can

design exploit the powers of giant macro-organization strata with moves that are potentially sneakier or more politically agile? That narrative may not be about the rational explanation of the design and its problem-solving capacities in the mode of elevator pitches and TED talks. Instead, it may be a dissonant story that, however non-physical, has physical consequences. It may be a narrative that makes something contagious or that generates a Teflon surface of its own. It may have an emotional message that renders some power more vulnerable. Or it may have a surprising cultural bounce because of its irrationality, outrageousness, cuteness or violence.

TEMPERAMENT

To observe organizations in the split screen — not only the stories and lies on one side but also the oscillation between closed loops and binaries on the other — is to observe temperament in organization. While temperament is a construct usually associated with the human psyche, any organization possesses a potential for either concentrating or distributing power as well as a potential for escalating or reducing violence. Attuned to temperament, medium design can adjust stories and organizational potentials on both sides of the screen.

There might be messages that incite or calm, but without having to make declarations or organize confrontation, the designer might also operate like the parent with squabbling children. The parent does not try to parse the content of the argument but swiftly changes the disposition of the context. They lower the temperature of the room, move a chair into the light, increase the blood sugar of one child, or introduce a pet into the arms of another so that the chemistry of the room no longer induces or supports violence.

Similarly, there are countless ways to adjust the solids and liquids of the urban world to reduce violence and tension. Like material advantage in a chess game, urban morphologies, topologies and relationships embody potentials. As they concentrate or distribute power, they have the capacity to include or exclude. Urbanity typically relies on breaking loops and binaries by multiplying and diversifying its components or placing them in interdependent relationships. A student of information theory, Jane Jacobs, observed the dancing systems of the street — the changing relationships and subroutines that made it safe or dangerous, weak or robust.² Vantage points, walking distances, populations of people are all part of this information system. Or consider a street where large parcels consolidate power within a small number of players versus a street where many small parcels allow a low buy-in from a large number of players. The wiring of urban space also filters and directs the passage of bodies in ways that may be more dangerous or resilient. On the day that the World Trade Towers and the Pentagon were struck with airplanes, their organizational disposition either restrained escape with a linear organization of stairs or increased chances of escape with multiplied simultaneous exits.

Nations and neoliberal economies, organized as a closed loop, often do not recognize the rights of migrating individuals or workers and form a binary opposition to this perceived contradiction. Global trade has perfectly streamlined the movements of billions of products and tens of millions of tourists and cheap laborers, but the same legal and logistical ingenuity is somehow absent in the face of a need to move millions of people away from conflict or environmental disaster. The nation has a dumb on/off button to grant or deny citizenship or asylum. The NGOcracy offers a universal solution like the refugee camp that has no hope of responding to the particular needs of millions of individuals. But countering the violence immanent in those looping, binary or

monistic dispositions, one-to-one relationships between a migrant and a sponsor have long been a more successful way to provide relief. Moving away from the one or the binary, medium design can multiply the one-to-one exchange. It can even offer the potentials of urban information systems as variables in that exchange — spatial variables that might have more authority in global governance.

In the medium, some unanticipated means to counter violence or encourage productivity may have the capacity to engage mysterious or stubborn problems. For Gregory Bateson, information-rich networks or organizations where information flows more freely were less tense or destructive. He used a dispositional temperamental model to understand the difficult problems of addiction, alcoholism, as well as the mysteriously successful twelve-step programs. He frequently analyzed organizations where two entities are either in a “symmetrical” binary with oppositional escalating tensions (alpha dog versus alpha dog), or a “complementary” binary in which one party is submissive to another (alpha dog and beta dog).³ The symmetrical condition describes the ongoing competition with drugs or alcohol that led to escalating tensions. This fight of willpower against drugs is relieved by assuming a complementary posture — relaxing and giving in to an episode of using. Or alternatively, in an apparent paradox, the only moderately successful treatment involves not a war against drugs and alcohol, but a submissive acknowledgement of powerlessness in the face of drugs and alcohol that is at the center of AA fellowship. Even more stable reciprocal organizations are ones that share power and take turns winning, so that obligation might be more empowering than dominance, competition, independence or freedom.

Medium design also potentially expands the repertoire for shifting those conditions that support oppression and violence. Without directly confronting the superbug or other power on its own terms, remote or meta-organizational actions are available. As Caroline Levine observes, Jane Eyre does not fight the head of Lowood School, but instead leapfrogs his power through legal means — operating one step or jurisdictional level away. To reduce the threat of violence for herself and others, she manipulates forms within the context of her story, but she also has further meta effects by changing the status of the heroine in literature.⁴ Or in the famous scene from Stanley Kubrick’s *Spartacus*, Roman authorities make what they portray to be a magnanimous announcement to a field of slaves who are shackled and chained to each other. The captives will all be spared crucifixion if they identify the insurgent leader named Spartacus. But, just as Kirk Douglas (*Spartacus*) is about to stand and identify himself, Tony Curtis (a fellow slave) stands with him and both shout: “I am Spartacus.” Then one by one and in groups, more and more of the slaves stand and shout over and over again, “I am Spartacus. I am Spartacus.”⁵ By going to their death together, the slaves instantly turn the tables on their captors. Rather than handing success to an authority, the slaves dissipated violence towards one of their members and forced the dominating power to extinguish all of its human property.

LATENCY

Punctuating events, like crises, competitions, victories and defeats, capture the attention of the most familiar cultural narratives, but in medium design, disposition does not *happen*, because it is ever-present as a latent property. Just as glass doesn't have to break to be brittle, dispositional qualities are changing and unfolding. There are no well-rehearsed scripts of military, scientific or economic causation — no law, declaration or ideological ultimate. There is no drawn sword in Bateson's analysis of AA meetings or Jane Jacobs' analysis of the city — only potentials that they learned to detect. A robust city with a heterogeneous, information-rich arrangement of pieces has no precise event or metric to mark its productivity. If an unsafe factory collapses or burns, there is an event to mark the violence, but in countless factories or industrial parks that do not buckle under the weight of their own denial, there is no event. There is only the constant aggressions of blatant imbalanced power dynamics with their drumbeat of daily effects.

Medium design enhances an ability to detect and manipulate latent potentials in the absence of event or declaration — the slow-moving, persistent violence or the interplay of rich potentials for which there is often no history. There are many ways of monetizing or militarizing spatial experience, but dispositional evidence about organizations is sometimes granted less authority. These changes are often treated as anecdotal or magic — events that come from nowhere because a narrative about the behavior of latent properties remains untold.

Histories of *things that do not happen* might be structured like an epidemiology or a branching set of thresholds and points of leverage, and they might be largely concerned with how to modulate violence in organizations by making them information rich. More like chemistry than law, they would highlight agents of change that become contagious or seemingly immovable deadlocks that suddenly dissolve — the moment when the bully succeeds or retreats against all odds.

What were the spatio-political reagents or accelerants in moments of political metastasis and remission? Jane Eyre eventually slips away from Lowood or Frank Welch says to Joseph McCarthy, "Have you no decency sir," or Tony Curtis says "I am Spartacus.". What is the structural key to changes like those in the United States around gay marriage and smoking, and how are they different in disposition from controversies surrounding abortion or gun violence or free speech in different global political contexts? And how do these different historical narratives provide some techniques for a stealthier form of activism that, without being targeted as an opponent, makes systemic changes that are under the radar?

IT'S NOT WHAT YOU THINK

The most robust forms come from a deep synthesis of mental habits. There is more information in messy, mixed, exchanges between completely different species of thought and endeavor. Still, while the non-modern may be the real departure from prevailing thought, humans are consistently fooled into thinking that it will somehow not have a radical edge or a dangerous silhouette. *Even when it is clear that the exclusive or pure embrace of the new and the modern makes culture dumber, the impure embrace remains under-rehearsed.*

Might some of the world's seemingly intractable or unresponsive problems — the superbugs and losing games — respond to medium design? With the ability to detect and manipulate indeterminacy, discrepancy, temperament and latency, is there a way to productively engage problems that have evaded cultural understanding or that are unresponsive to familiar approaches?

Bringing into focus the dispositional macro-organizational attributes of spatial arrangements and changing the terms of the game may deliver any number of conventional and unconventional design precipitants — solids as well as adjustments to matrix. Maybe the documents of medium design are unusual mixtures of popular stories and technical specifications or explicit architectural instructions — like a cross between a novel, a building, a platform, an actuarial table, a film and a blockchain. Maybe heterogeneous mixtures of new and familiar technologies can form impure mixtures that, by being information rich, reduce violence and develop cultural capacities beyond the small fraction of potentials now in play.

MEDIUM THINKING

MEDIA/MEDIUM

Medium thinking is not confined to the study of communication, and it gives no more attention to digital technologies than any other. Those media theorists who consider the broadest historical sweeps refer to the earliest uses of the word media to describe the elemental atmospheres like water, air, earth or fire.⁶ In one of these recent synthetic philosophies of media by John Durham Peters, Harold Innis, Marshall McLuhan, Régis Debray, Niklas Luhmann or Vilem Flusser join an array of thinkers in the arts and sciences including Herman Melville, Jacob von Uexküll, George Sanders Peirce, Walter Benjamin, Gregory Bateson, Bruno Latour and Arjun Appadurai among many others. “Media,” Peters argues, “are vessels and environments, containers of possibility that anchor our existence and make what we are doing possible.”⁷

Innis or McLuhan are present as one example of those who, in a culture focused on declaration, foreground the ways in which communication is inflected by its medium. In a lifetime of “dirt research,” Innis researched the capacities and myriad cultural forms associated with, for instance, the, stone, paper, clay on which the message was carried across time and in different milieus.⁸ McLuhan’s popularizing of “the medium is the message” makes it easier to look at medium as a cultural project. When he writes that “juicy piece of meat carried by the burglar to distract the watchdog of the mind,” he is arguing that what the medium is saying sometimes prevents us from seeing what the medium is doing.⁹ Still medium design considers the registration of information that exceeds the idea of “message.”

DISPOSITIF/DISPOSITIO/DISPOSITION

When Giorgio Agamben, like Gilles Deleuze, returns to pursue Michel Foucault’s contemplations of *dispositif* or social “apparatus,” he describes more properties of medium. For Foucault, *dispositif* is

“a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions — in short, the said as much as the unsaid. Such are the elements of the apparatus. The apparatus itself is the system of relations that can be established between these elements.... In short, between these elements, whether discursive or non-discursive, there is a sort of interplay of shifts of position and modifications of function which can also vary very widely.”¹⁰

Agamben links Foucault’s *dispositif*, to the Greek *oikonomia* with the Latin root *dispositio*. He considers a “family of terms, disposition, dispositif, dispositor, disposal, to dispose, etc.”. So for Agamben, dispositif is an economy of pieces, “literally everything that has in some way, the capacity of capturing, determining, orienting, intercepting, shaping, guiding, securing or controlling, the behaviors, the gestures, the opinions, the discourses of living beings or substances.”¹¹

Other contemplations of disposition, like those of philosopher Gilbert Ryle, discuss latency and indeterminacy. Disposition is a lucky word that means roughly the same thing in both philosophy and common parlance. Using practical activity and ordinary language in his contemplation, Ryle discusses disposition as the latent agency or potential immanent in an arrangement — a property or propensity within a context that unfolds over time. One might assess the disposition of someone's personality over time or the disposition of a house in relation to the weather or landscape just as one might describe the disposition of an organization. Ryle notes that glass does not have to break to possess a brittle disposition.¹² Philosopher Stephen Mumford similarly describes the ways that this immanent disposition may exist — not as an event, but as a “promise” or “threat”.¹³ Ryle also describes the difference between “knowing that and knowing how”; the difference between knowing the right answer and knowing how to do something like tell a joke.¹⁴ Knowing how is dispositional and essentially indeterminate because it requires the deployment of practical skills unfolding over time and the ability to react to a changing sequence of cues.

Bringing together these multiple contemplations to think about the space of large infrastructure organizations or cultural matrices stretches Foucault's notions of *dispositif*. Writing about socio-technical systems, Rosalind Williams observes that they are in no one place. They are too large to be assessed as an object with a name, a shape or an outline and

“reduce (if not eliminate) the possibility of place-based resistance. You can imagine taking over a prison, but how do you seize control of an entire highway system? Local rebellion becomes impossible, and general revolution necessary, when protest against systems requires the construction of other systems.”¹⁵

PERFORMANCE/AFFORDANCE

Psychologist J. J. Gibson brings to medium thinking an observation of the affordances of forms or the repertoire of actions they make possible for humans and non-humans, from things like a seat to an inclined surface to a cave. His observations of affordance as an interaction between creatures and their surrounds disrupts the distinction between “subjective-objective” or “physical and psychical,” assessing these things in relation to interactive behavior in an ecology of forms. An affordance or repertoire for an object has some durability but it cannot be used to classify an object; while the object has potentials or capacities, it can be used in different ways, just like a rock can be piled or thrown. “You do not have to classify and label things in order to perceive what they afford.”¹⁶

Similarly, Bruno Latour foregrounds an indeterminate matrix of human and non-human activity in the sociotechnical networks of the medium. He argues that we often observe active phenomena until we think we can declare “what it is” — its stabilized, essential “competence.” But “what it is” can never be separated from “what it

does.” It is impossible to separate object from action, competence from performance or actors/actants from networks. Nothing then can be merely an object. Things are actants that induce relational action from humans. They reciprocally format each other. Rather than making declarations about objects that reinforce existing assumptions, Latour calls attention to an unfolding trajectory of activities between humans and nonhumans that is harder to determine. Latour uses the example of cotton wool which we declare to be an object that absorbs liquid only after observing its performance over time.¹⁷

AESTHETIC/MAGIC

The discussion of medium in relation to arts and aesthetics reverberates with many of the same constructs present in other disciplines. Walter Benjamin prompts Antonio Somaini to make a rigorous synthetic appraisal of media that again returns to its elemental origins. Benjamin conjured a “medium of perception” in which culture is both made and received — a medium inflected by atmospheres as well as the *apparate* (apparatus) for making or reproducing it¹⁸ Rancière’s *aesthetic practices* describe, not a connoisseurship of forms but rather aesthetics to accompany forms that enact as well as depict and forms that are distributed into multiple perceptions, contexts and receptions. *Madame Bovary or Sentimental Education* could inspire political actions that were never expressed in the texts.¹⁹ In a reappraisal of literary forms Caroline Levine invokes Benjamin, Gibson, Rancière, Latour. Departing from both structuralists and post-structuralists, she, like Gibson or Rancière, does not classify forms but recognizes some of their “affordances” as dynamic markers. For instance, binaries or universals present consequential qualities and chemistries. In their “collisions” with each other, forms have a special political instrumentality. Characters act within their staged context even as they also act on meta-narrative forms. *Bovary* or *Jane Eyre*, about whom Levine writes, are agents within the novel as well as reagents in culture. Their actions interact with conditions in culture to inspire liberatory behaviors they never enacted themselves. Narrative forms and cultural forms in plural overlapping networks have capacities or affordances that are inherently political and that alter the ways in which power is organized. The ricochet is difficult to predetermine.²⁰

While the authority of the determinate can sometimes sideline medium thinking as soft, magical, or ephemeral, it is not unmoored, invisible, unknowable, or magic. Benjamin suggested that hashish was useful in accessing the atmospheres of the medium and wrote about the phantasmagoric, a halo or aura, the spiritual and mystical, the veil or disguise.²¹ But it amused Ryle that some of his most elegantly educated colleagues saw in this latency or indeterminacy a kind of “occult.”²² Ultimately practical, does this knowledge of medium — the knowledge of “knowing how” — constitute *most* of what we know and more of what we might know?

FORM/INFORMATION

Gregory Bateson analyzed potentials in human and non-human arrangements and exchanges as if they were information systems. He observed that a man, a tree and an ax is an information system.²³ Even those contemporary thinkers like César Hidalgo who are foregrounding digital tools in complex economic formulations do not separate digital networks from the networks of people and “solids” in the world. All of these are information systems that “compute.”²⁴ And yet despite the temporary dumbness that sometimes ensues in the first blush of a new technology, culture often tends to erase the older components of a cultural complex and stake all of its dreams on the newest.

Bateson also often said, “Information is the difference that makes a difference.”²⁵ His insistence on disciplinary collisions — “convulsive moments” that have the same effect as humor — or his ability to see relational systems in things as diverse as circuitry or AA meetings no doubt contributed to some of the most groundbreaking developments in digital technologies.²⁶ Levine similarly describes forms as “all shapes and configurations, all ordering principles, all patterns of repetition and difference.”²⁷ So while culture may be more comfortable focusing on forms in a steady state, perhaps those forms deliver so much more information and measure so much more difference when they collide or bounce in the chemistries of medium.

END NOTES

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