

Meditations in an Emergency:

Being Several Orations Delivered by Myself to Myself While Sheltering in Place

Meditation 1: The Poison and the Cure (05/05/20)

At the beginning of the lectures he delivered at the College du France in the academic year '76-'77, Michel Foucault observed that a fundamental torsion in the concept and practice of politics began to emerge in the eighteenth century, displacing the sovereignist paradigm of power that had been regnant hitherto.

According to Foucault, this shift owed in no small part to growing recognition of a simple “fact”: man is a species among others. The name Foucault gave to this transformation was bio-politics. On his account, the regulation of birth and death rates, disease control and patient monitoring in hospitals, as well as more contemporary phenomena like the collection of consumer data, health insurance, and psychological and sexual profiling, become intelligible only within the context of this bio-political paradigm. It is a paradigm of governance rather than rule, in which the sovereign fiat of monarchical or popular will is progressively supplanted by the anonymous protocols guiding collective decision-making in complex bureaucracies driven by the specialized mandates of diverse professional and intellectual-disciplinary communities.

According to Foucault, the social technologies (*dispositifs*) through which the logics of biopower are operationalized cluster along two distinct but related vectors: the first, discipline (whose incipience is already detectable in the sovereign mode of power) concerns the collective inculcation of habits and practices designed to render the bodies of individual subjects docile and productive (the anatomo-political strategems of the Fordist assembly line or the modern carceral institution come to mind); the second, security (a truly novel creation of the bio-political imagination) concerns those strategies designed to insure the docility and productivity of entire populations, albeit under the guise of administering to their health and safety (as in the administration of quarantines and medical surveillance). As Foucault observes in *Territory, Security, Population*:

One of these poles, the first to be formed—centered on the body as a machine; its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and docility, its integration into systems of efficient and economic controls: all of this

was ensured by the procedures of power that characterized the *disciplines*: an *anatomo-politics of the human body*. The second, formed somewhat later, focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary. Their supervision was effected through a series of interventions and regulatory controls: a biopolitics of the population. The disciplines of the body and the regulations of the population constituted the two poles [discipline, security] around which the organization of power over life was deployed.

On Foucault's account, each of the modalities in his taxonomy of modern power (sovereignty, discipline, security) evince distinct architectural-geographical proclivities, the differences among which he describes as follows:

Sovereignty capitalizes a territory, raising the problem of the seat of government, whereas discipline structures the space and addresses the essential problem of a hierarchical and functional distribution of elements, and security will plan a milieu in terms of events or series of events or possible elements, of series that will have to be regulated within a multivalent and transformable framework. The specific space of security refers then to a series of possible events; it refers to the temporal and the uncertain, which have to be inserted within a given space. The series in which a succession of uncertain events unfolds is, I think, roughly what one can call the milieu.

Foucault cites as early examples of this two-pronged (discipline/security) operationalization of biopower: the English poor law, the "medical-police" of eighteenth century Prussia, birth control programs, urban hygiene efforts, and hospital reforms in nineteenth century England and France; but we could certainly add to this list the current forging of environmental policy and associated legislation at a global scale. In these we see reflected both the enduring imbrication of the technological, economic, and political regimens whose enlacement Foucault associated with bio-political governance and the routine deployment of the same applied sciences he identified as biogovernmentality's intellectual-disciplinary correlatives (statistics, demography, political-economy, epidemiology). At the time in which Foucault was writing, the algorithmic assessment of risk to the health and security of populations that is currently such a conspicuous feature of national and trans-national policy and planning—and which finds lurid expression in the endless succession of charts and graphs designed to feed our collective obsession with 'flattening the COVID curve'—was still in a nascent state.

More recently, Sebastian Vahlken, in his "Contagious Agents: Epidemics, Networks, Computer Simulations," suggests that to these distinct modalities of power, with their distinct architectural-geographical expressions, there also correspond distinct strategies of pandemic response. For sovereignty,

there is “the great confinement,” whose paradigm is the leper colony. For discipline, there is the monitored space of urban pestilence, exemplified in the response to the cholera outbreak of 1832. Finally, and corresponding to the securitized milieu, there is the strategy first devised in response to smallpox, in which the ideal of a rigid monitoring of and control over the behavior of individuals is abandoned in favour of an environmental modulation addressed to the population as a whole. In this last instance, risk assessment and tactical responsiveness to changing circumstances largely supplant the rigid disciplinary protocols and segregated spaces previously addressed to individuals.

Even prior to **the event that currently holds our collective imaginations in thrall**, Foucault’s observations concerning biopower seemed with each passing year to accumulate rather than cede urgency. Having said that, COVID-19 has brought the lethal implications of the “fact” that lies at the base of these observations into especially vivid relief. To the extent that it is a result of novel practices and patterns of human settlement affecting the habitats of adjacent species, “zoonotic spillover” (the viral phenomenon at the source not only of coronavirus but of most of the pandemics of the past two centuries) is a chilling testament to our status as “a species among others.”¹ Nor should our qualification of this phenomenon as viral lull us into imagining that there is anything natural or apolitical about its genesis and subsequent dissemination. Nested inside of every pandemic we will find not only the viral pathogen, but also ecological transformations expressing themselves simultaneously at local and global scales and precipitating new modes of propinquity between human and non-human species, globally distributed networks of transportation and communication, national and transnational political negotiations, bureaucratic and para-political policy agendas and their associated healthcare infrastructures, and a host of other factors traversing the distinction between the natural and the artificial. Moreover, the way in which these factors interact with one another is in every instance highly singular and contingent.

An example may serve to communicate something of this contingency. The year 2007 saw an unexpected outbreak of the West Nile Flu Virus in Kern County in northern California, most especially in the municipality of Bakersfield. Initially, the outbreak puzzled analysts, as that year an unseasonably hot Spring had led to a reduction in insect and avian species, the prime carriers of the virus. Aerial photographs of the region ultimately revealed the outbreak to be the result of rather far-flung circumstances. An early casualty of the subprime mortgage crisis that was to sweep the nation in the months that followed, Kern County had that Spring already recorded a 300% increase in mortgage default, with the result that no less than 17% of the swimming pools, hot-tubs, and ornamental pools that are such a conspicuous feature of the regional landscape had been **left unattended and these unattended pools offered an ideal breeding ground** for the

¹ Robert G. Wallace, *Big Farms Make Big Flu: Dispatches on Infectious Disease, Agribusiness, and the Nature of Science* (Monthly Review Press, 2016, p. 52).

mosquitoes that served as conduits for the passage of the virus into human populations. It is this complexity and contingency of the factors, both natural and manmade, leading to pandemic that make prediction and prevention such a challenge for public health experts.

In 2016, the biologist Robert G. Wallace had already made the connections among agribusiness, globalization, and the forms of zoonotic transfer at the origin of epidemics such as HIV, SARS, Ebola, and Avian flu (H5N1). In his cartography of their nexus, Wallace describes a divided aetiology of pandemic diseases corresponding to a productive landscape bifurcated between core and hinterland. In the context of that description, he identifies a constellation of factors responsible for the flourishing of those viruses emanating from the former. Chief among them is unregulated proximity between agribusiness and slums at the periphery of major urban centres. Speaking specifically to Avian flu, Wallace observed that: “Rural landscapes of many of the poorest countries are now characterized by unregulated agribusiness pressed against periurban slums. Unchecked transmission in vulnerable areas increases the genetic variation with which H5N1 can evolve human-specific characteristics.” Germinating under these conditions, the viruses then spread along the commodity circuits and attendant migrations of labour characteristic of global capitalism. As Wallace stresses, at stake here is not merely the oft noted fact that global migrations of goods and labour serve as unintended conduits for the spread of lethal viruses; it is also a question of the accelerated mutation of the viruses as a result of the hypercompetitive environments that these conditions produce and which favor the specific traits that cause pandemics, viz., rapid viral life cycles, the capacity for zoonotic transfer, and the accelerated evolution of transmission vectors. As for COVID-19, although its precise provenance remains uncertain, its most probable origin would seem to be in the wild game (snakes, koalas, peacocks, salamanders, bamboo rats, and, of course, pangolins) sold in the wet markets of Wuhan, and, in particular, in the Wuhan Wholesale Seafood Market. On its face, such a provenance may seem to fall outside the agribusiness paradigm just described. However, this would be to ignore the profound impact of capitalist enterprise in that second region of the global productive landscape Wallace maps, the hinterland. Today the absorption of even the wildest subsistence species into AG commodity circuits (as exotic cuisine or domestic pets, sources of therapeutic or pseudo-therapeutic materials, and a myriad of other culturally significant purposes) has, in combination with the unstinting pursuit of arable lands, pushed “increasingly capitalized wild foods deeper into the last of the primary landscape (sic), dredging out a wider variety of proto-pandemic pathogens.” This perilous circumstance is according to Wallace exacerbated by the fact that the forms of environmental devastation attendant on capitalist development have a deleterious effect on the environmental complexities and ecological redundancies that in forest ecosystems serve as disruptors of virus transmission chains. According to Wallace, the Ebola virus is a good example of the pandemic potential of imprudent incursion of capitalist enterprise into the hinterland. Indeed, he notes that “every Ebola outbreak appears connected to capital-driven shifts in land use, including back to the first outbreak in Nzara, Sudan in 1976, where a British financed company spun and

wove local cotton.” On Wallace’s account, the connection between agribusiness and Ebola is most patent in the outbreak which occurred in Guinea in 2013, in the immediate wake of the Guinea government selling off large tracts of land to international agribusiness conglomerates, including Palm Oil companies whose deforestation practices destroyed the ecological redundancies essential to interrupting transmission chains and whose cash crops acted as magnets for the same bat species that serve as a natural reservoir for the virus.

In light of Wallace’s eerily prescient observations, the contemporary implications of Foucault’s analysis of biopower reveal something of both their complexity and their gravity. However, the danger posed to our collective well-being by the novel forms of species propinquity issuing from the eco-industrial conditions of global capitalism is attended by another threat, one to which the opponents of neo-liberal governmentality—from Giorgio Agamben to the gun-totin’, MAGA hat wearin’, defiantly unmasked Michigan militia—seem to be especially sensitive. It is the threat of a wholesale transformation of politics into a practice of governance that abandons causes like civil liberty and popular sovereignty in order to devote itself exclusively and unremittingly to insuring the “health and security of populations” (Foucault) as these have been algorithmically determined according to probabilistic criteria by technical experts tasked with assessing not only the risks faced by individual citizens but also the risks **posed** by said citizens. As in a kind of neo-liberal, control-state wet-dream, an urgent species imperative demanding the highest levels of medical and technocratic expertise that global state-of-emergency powers can muster seems (for the foreseeable, and, perhaps, the unforeseeable future) to have trumped the idea of politics as a process of institutionalized contestation in which the differences constitutive of a collectivity are subject to a symbolically regulated negotiation made manifest in organically embodied forms of social performance transpiring in a public sphere. The scale and morphology associated with traditional forms of public assembly quickly collapse when faced with the exigencies of sheltering-in-place. But here’s the rub: all reliable indicators suggest that the **pandemic is not a plot or conspiracy hatched by some technocratic cabal with a view to dispersing collective assembly**, but much rather an eruption of something we might meaningfully call the real, that is, a set of bio-chemical events that, unchecked, could threaten the zoological substrate upon which politics, and, indeed, every other form of human institution, depends. In naming these two threats, let us call them the poison (zoonotic spillover) and the cure (the atomization and desomatization of public life), we have named the mandible and maxilla between whose respective teeth our collective destiny is currently clutched.

Meditation 2: On Certain Slogans (06/05/20)

Let us not say, as is frequently said these days, that we are all in this together; rather, let us say, this is in all of us together. For what is at stake in togetherness just now is not our being enveloped in some external milieu held in common; our togetherness is not an amniotic quilt we wrap around ourselves to feel cozy while sheltering in place; rather, what is here now is the embeddedness of some “this” in all of us, a viral commons, if only in the virtual form of a threatening imminence which may at any moment present itself in any one of us, or what is perhaps worse, may at any moment arrive without presenting, may at any moment take covert refuge in us, so that we are made its secret agent, secret even to ourselves, blind to the lethal threat that we ourselves are to those to whom we wish to draw close for motives that lack an iota of ill will.



Meditation III: Pandemic and the Eco-Technical Apparatus (07/05/20)

It is perhaps unsurprising that amongst the cognoscenti it was the Italian philosopher Giorgio Agamben (certainly the most influential and arguably the most intellectually consequential of the contemporary interpreters of Foucault's theory of bio-power), who first undertook to assess the meaning of COVID-19 as a bio-political event. This assessment was published in Italian in *Quodlibet* on 26/02/2020. Equally unsurprising is the fact that this assessment should reflect the peculiar transformation to which Foucault's theory is subject when refracted through the lens of Agamben's own philological-philosophical preoccupations. Under pressure of this interpretive mediation, the mid-career Foucault is made to rub anachronistic shoulders with two of the more significant political philosophers who came of age in the German context in the first half of the twentieth century, Carl Schmitt (1888-1985) and Hannah Arendt (1906-1975). The audacity of pairing these two figures as twin precursors of Foucault will not be lost on those who have even a passing acquaintance with the widely differing ways in which Arendt and Schmitt's respective intellectual trajectories arrayed themselves along the political-philosophical fault-lines opened up by the Nazification of Germany. In the face of such audacity, it is fitting that some brief account of what Agamben imagines to be the salient features of their respective political philosophies should serve as prelude to our examination of his assertions concerning COVID-19 as a biopolitical event.

From Arendt, Agamben takes the notion that the Greek foundation of politics implies a clean separation of the *oikos* (that domestic sphere in which, thanks to the unsung efforts of wives and slaves, the needs associated with the biological subsistence of the male property-owning citizen are met) and the *polis*, at whose secular centre, the *agora*, these same male citizens assemble face-to-face with a view to both doing trade and arriving at a deliberative consensus on the issues associated with their collective well-being. This face-to-face assembly is what Arendt famously describes as "the space of appearance," a "space" she considers to be an essential feature of any democratic polity. In Agamben's hands, this urban-territorial distinction between *oikos* and *polis* is transformed into a distinction between the types of life to which these polarities are designed to offer succor: *zoë*, (bare life), in the case of the *oikos*; *bios* (form-of life), in the case of the *polis*. However, whereas Arendt, in her elegiac description of Greek political life, insists that politics, properly thought, implies a separation of the space of the *oikos* (as the place of mere biological subsistence) from that of the *polis* (as the zone in which autonomous collective assembly and consensus-building transpire), Agamben contends that the two ways of being-alive cultivated in this apparently bifurcated terrain in fact conform to a more complex topology, one according to which the bare-life sustained in the *oikos* is paradoxically included in the very *polis* putatively founded on its suspension or exclusion. The paradox may be thought to consist in this: bare life, life lived in the home-economical sphere, is included in

the agora-centred *polis*, but *as excluded*. Also paradoxical is the apparent neutralization of expected antecedence, *zoë* does not precede *bios* as its precondition; rather, it emerges alongside it, as its necessary exudate. For Agamben, what is outside of the political is inside to the extent that the original gesture of casting it out produces a permanent deformation on the interior, but also to the extent that this deformation serves as our exclusive point of access to the pre-political condition that is thought to have given rise to that gesture; it is as though, apart from the fate of being excluded, bare life did not exist. To affirm this is also to affirm that politics has always been biopolitics, so that Foucault's archeology of political modernity is swapped out for a full-blown political ontology, albeit an ontology bifurcating, for reasons that cannot concern us here, along two theological vectors, the one, political-theological (with sovereignty as its signature), the other, economical-theological (with governance as its signature).

It is in the devising of this topology of the element that is included as excluded that Agamben's recasting of Foucauldian biopolitics is drawn into the conceptual orbit of Carl Schmitt. Especially important to Agamben's conception of biopolitics is Schmitt's somewhat notorious theory of the sovereign exception, according to which the rapport between executive and legislative branches of government is predicated on the exceptional power invested in the former in the event of national emergency, a power to suspend the law in the very name of the law. In Agamben's scheme of things, this exceptional power, when applied to the individual citizen, amounts to a power to reduce that individual's form of life to bare life, to, as it were, include him or her *as excluded*. The interpretation of bio-politics that Agamben elaborates in his omnibus work, *Homo Sacer*, is one that links the analysis of biopower to the at once painstaking and urgent task of simultaneously excavating the historical preconditions and highlighting the contemporary consequences of the fact, first observed by Walter Benjamin in response to Schmitt, that for modernity the exception is the norm, so that bare life, included as excluded, is the very form of modern political existence. In aid of that interpretation, Agamben elaborates, in a volume of *Homo Sacer* titled, appropriately enough, *State of Exception*, a genealogy of twentieth and twentieth-first century invocations of state of emergency powers that extends from Napoleon's decree of December 24, 1811, via Germany's *Verordnung zum Schutz von Volk und Staat* (decree for the protection of the people and the State) on 28 February 1933, to the American Patriot Act post-9/11, in the process relating this dense succession of juridico-political episodes to certain key features of Foucault's anatomy of biopower. (As a Canadian born in the late 1950s, my most direct exposure to this juridico-political instrument came with Pierre Elliot Trudeau's invocation of the War Measures Act on October 16, 1970, which suspended basic civil liberties in response to what was subsequently named the FLQ Crisis.) This genealogy offers convincing testament to Agamben's Benjamin-inspired claim concerning the increasing normalization of state of exception measures under conditions of political modernity. According to Agamben, the architectural-geographical expression of this normalized exception is the camp, of which he observes: "In the camp, the state of exception, which is essentially a

temporary suspension of the rule of law on the basis of a factual element of danger, is now given a permanent spatial arrangement, which as such nevertheless remains outside the normal order.”

It is with this quite singular interpretation of Foucault’s theory of biopolitics as the backdrop, that Agamben undertook—on 26/02/20, which is to say a full fourteen days before Prime Minister Giuseppe Conte’s imposition of a national quarantine, and so at a time when the threat posed by COVID-19 presented very differently than it does today—to offer the view that the media have—in some still to be explicated, not to say inexplicable, collusion with the Italian government—set out to induce that state of what Walter Benjamin described as “petrified unrest” (*estrarrte Unruhe*) which is the ideal collective-affective prelude to the imposition of state of emergency measures. Armed, like the rest of us mere mortals, with only the rear-view of Janus’s pivoting vision, Agamben suggested at that time that his government had re-insinuated into Italy’s political history the rather sinister juridico-political legacy of state of emergency powers in the name of fending off what amounts to a nasty version of the flu. As evidence on behalf of that assertion, Agamben went on to quote a declaration issued by Italy’s National Research Council to the effect that: “The infection, according to the epidemiologic data available as of today and based on tens of thousands of cases, causes mild/moderate symptoms (a sort of influenza) in 80-90% of cases. In 10-15% of cases a pneumonia may develop, but one with a benign outcome in the majority of cases. It has been estimated that only 4% require intensive therapy.” He concluded his brief meditation by suggesting that we can observe in the government’s response a “perverse . . . circle” whose orbit is not less vicious for being entirely familiar: “the limitations of freedom imposed by governments are accepted in the name of a desire for safety that was created by the same governments that are now intervening to satisfy it.” In sum, pandemic-- but we could, based on what has already been said, broaden the rubric and say environmental catastrophe—is on Agamben’s account the terrorist threat rebranded for ecologically anxious times. It is now the imminent emergency in the face of which we are all expected to show our solidarity by coming to heel. You know the drill: everyone together, recycling, six feet apart.

The first to respond, the following day in fact, was Agamben’s friend, the French philosopher, Jean-Luc Nancy. A day later—with a rapidity that, arriving in the near wake of Nancy’s own prompt risposte, probably deserves to be called viral—came Roberto Esposito’s response to Nancy’s response to Agamben. According to Esposito, Nancy’s tactfully critical reply to Agamben is coloured by his broader antipathy to the concept of biopolitics. In fact, Nancy’s approach to the concept of biopolitics is less an outright rejection than a semantic displacement in which the various features that Foucault and others associate with the term are transferred to what is from Nancy’s perspective the more adequate rubric of eco-technics. In other words, the technological investment of living bodies and their surrounding milieux is taken by Nancy to be the epochal event in whose light the contemporary indeterminacy of the relationship between biological and political spheres stands revealed. Although he never mentions Arendt and her description of

public life as “a space of appearance,” what is at stake in Nancy’s description of an eco-technical inflection of the contemporary rapport between politics and our biological condition at least in part concerns the technical mediation of the forms of appearance and practice associated with public life. On his account, the process of planetary technicization involves *both* a contaminating investment of the living body with ‘spare parts’ designed to extend by inanimate means the expressions and capacities native to its animacy *and*, no less contaminating and no less original with regard to what it contaminates, the infrastructural retrofitting of the *Umwelt*, the transformation—underway from the first day that we wandered out of the forest and unto the savannah, but today advancing at a breath-taking pace—of the biome into a construction site, the hominid sensorium into a continuously evolving techno-immunological bubble. To affirm the reality of this eco-technical condition is to affirm that contamination and immunological protection exist in a state of co-constitutive complicity with one another—an affirmation that places Nancy’s eco-technical reflections in the neighborhood of the analyses of the geopolitical culture of auto-immunity undertaken in different ways by Peter Sloterdijk, Jacques Derrida, Bernard Stiegler, and the aforementioned Esposito. I will have occasion to return to these analyses in what follows. What matters first for Nancy’s response to Agamben is that the myriad “viral emergencies” that have wracked and continue to wrack the globalized body politic are all in one way or another the result of the human body’s contamination by the immunological introjections and exosomatizations whose first and today enduring purpose is to serve as prophylactic protection against an original condition of frailty and exposure. Today we are in the throes of a species wide auto-immune response, besieged on all sides by the toxic consequences of our cumulative attempts to insulate our fragile minds and bodies from the dangers and inconveniences emanating from a landscape whose disposition to our presence gives every appearance of having shifted from indifference to outright hostility. Far from being crises manufactured by the State as the alibi for political-legislative abuse and cynical contempt for democratic principle, the “viral emergencies” to which Nancy alludes are much rather the successive traumas arising from our frantic attempts to align our most durable political values—liberty, equality, fraternity, to name a few—to rapid transformations in the media through which our commitment to these values is both expressed and operationalized and which are inseparable from the just mentioned introjections and exosomatizations. Today, the space of appearance that Arendt associated with the ancient agora is densely wired, connected to a teeming network of global locations, interfaced places at once intimate in their singularity and monumental in their dispersion. What appears between us always from now on outlives us in other appearances in different spaces and at different times and this has implications for what we mean by democracy, but more broadly, what we mean by getting along with one other on a global, but for just that reason rapidly shrinking, stage. Thanks to this wiring, everything connects, but without any of us having the first clue as to what might distinguish this ubiquitous connection from a generalized state of anomie, or more to the point, without any of us knowing how to sort that difference again and again, in response to each new technologically induced transformation in our rapport with ourselves, our surroundings, and all the others with whom we share those surroundings. That, if I am not

mistaken, is what Nancy means when he says, à propos of Agamben's criticisms: "There is a sort of viral exception—biological, computer-scientific, cultural—which is pandemic. Governments are nothing more than the grim executioners, and taking it out on them seems more like a diversionary manoeuvre than a political reflection."

I have already hinted that Roberto Esposito has a different reading of Nancy's response, one that sees it as indexed to Nancy's broader antipathy to the concept of biopolitics, which he in turn reads as the product of an intellectual contagion contracted as a result of prolonged exposure to the theoretical miasma emanating from the person of Jacques Derrida, an apparently toxic ideological cumulus containing, as one of its more noxious components, a "dystonia with regard to Foucault." Esposito gets it half right. Nancy's preference for eco-technics over bio-politics does mark a point of affinity between what he takes to be at stake in the COVID-19 event and certain fundamental currents in Derrida's thought. However, the point of affinity does not concern any antipathy—real or imagined—on the part of either thinker for the thought of Foucault (genuine differences of perspective notwithstanding.) As I have already hinted, the point of affinity rather concerns their shared insistence on the original intrusion of a techno-prosthetic apparatus at the scene that sees politics conjoined to life. At stake in this apparatus would be nothing less than a pursuit of life's instincts, interests, and ends by other than animate means, as if *technē* was a Greek word for life putting death to work. This tangency between Nancy's thought and the thought of Derrida is signaled in the former's post-scriptive intercalation, a kind of surgical insertion, of Agamben, or, rather, his friendship with Agamben, into a story—a true-to-life story, as they say—which he had already related to his readership on previous occasions, initially and most movingly perhaps in a text he had published some two decades earlier, under the title *L'Intrus* [The Intruder] and which is retold and mined for its philosophical implications in Jacques Derrida's somewhat roundabout study of Nancy, *Toucher, Jean Luc Nancy* (2000). The story concerns Nancy's receipt of a heart transplant sometime in the 1990s. In prose that is both deeply touching and dispassionate, Nancy recounts in "L'Intrus" the experience of uncanny self-estrangement that accompanied this technological contamination of the body he had been born with (and whose parts, while in various stages of deterioration, were still *his* parts, doing, more or less, what they have been doing since he was born). This estrangement is described as unfolding in several stages: from his initial sense that his own heart had betrayed him, lost interest in his survival; to the sense, acquired over seemingly endless hours of consultation with various medical experts, that his relationship to that survival had become a collaborative affair in which his voice was merely one among others, and among them by no means the most authoritative; to, on the other side of the operation itself, the unsettling persistence of the thought that the organ occupying his body-schematic core once belonged to somebody else. What gives Nancy's account of this experience its simultaneously bio-political and eco-technical accent (for, indeed, in Nancy's thought, there is no necessary antagonism between these two registers) concerns, among other things, the historically contingent intersection of distinct "programs" that are themselves the products of contingent

histories. From among these programs, Nancy singles out the physiological and the technological, but to the extent that the coordination of physiological and technological programs is orchestrated in accordance with a medical-therapeutic program intricately connected to both the disciplinary and the health/security regimes of the State, we may speak of social and political programs as well. According to Nancy, the stratification of these contingent programs is at once a “metaphysical adventure” and a “technological accomplishment”:

. . . my own heart, therefore, was no longer of any use, for a reason that was never clarified. [The last I heard of this came from a doctor who told me:” Your heart was programmed to last fifty years.”] And so, in order to live, it was necessary to receive someone else’s heart, the heart of another.

But what other program was my own physiological program coming across then? Less than twenty years earlier there were no transplants, and above all not with recourse to cyclosporine, which protects against one’s rejection of the transplanted organ. Twenty years from now we shall certainly be dealing with another kind of transplantation, using other means. Personal contingencies are crossing *contingencies in the history of techniques*. Earlier, I’d have been dead; later, I would survive some other way. But “I” always finds itself squeezed into the narrow slot of *technical possibilities*. That is why it is in vain that those who wanted it to be a metaphysical adventure take on those who held it to be a *technical accomplishment* [performance technique]: it is a question of both—one within the other.

So how is Agamben’s quick out the gate response to COVID-19 retroactively implicated in this story, this narrative program along whose episodic length physiological, technological, medical-therapeutic, and bio-governmental strands have been laid and overlaid like so many tectonic plates? Well, according to the addendum that Nancy adds in his risposte to Agamben’s remarks of 26/03/20, Agamben was exceptional, indeed alone, in the group of intimates with whom Nancy consulted in his deliberations on whether to undergo the transplant, exceptional in urging Nancy to decline to welcome this strange organ into his core. On the question of Agamben’s counsel with specific regard to the immediate matter at hand, Nancy’s judgment is clear: “If I had followed his advice, I would probably have died soon enough.” But how, if at all, does that judgment resonate in the “register of general reflection [concerning COVID-19],” as Nancy explicitly assures us that it does? Is Nancy, moving from the singular (his heart transplant) to the general (global pandemic), simply making a statement of bloody-minded pragmatism on the order of: “Look, my friend Giorgio, really smart guy, exceptionally smart, but whatever you do, don’t take his medical advice; you’ll wind up on the wrong side of the dirt”? Is that it, or is there something more philosophically consequential implicit in the anecdotal conclusion to this altogether rather gnomic risposte? Is there

something that might implicate COVID-19 and so by extension all of us in a metaphysical adventure that is also a technological accomplishment, one within the other? I believe that there is. I believe that we can read into Nancy's discrete (to the point of obscure) criticism of Agamben's position a rebuke of the latter's failure to take full measure of the way in which an eco-technical imbrication of biological and social-political regimens operating at every scale of planetary life, from the genomic to the geo-political, has transformed what it means to do politics, to claim rights for ourselves, and to oblige others to honour them. In these changed circumstances, neither "space" nor "appearance" are what they used to be. Today emergency truly is normal, and the global distribution and management of the risks relating to serial catastrophes all of which find their origin in the anthropogenic imbrication of ecological and technological registers has become the first order of political business. What seems to concern Agamben, and should concern all of us as well, is the fact that the object to which the algorithmic assessment of such risk addresses itself, that is to say, the object that serves as the prime module in the composition of populations whose health and security is administered, is not the individual, be it as living organism or as rights claiming citizen. The object to which the bio-political assessment of risk addresses itself is rather the individual. In COVID-19, as in all other viral emergencies, the logic of politics, of individual subjects freely, if tacitly, consenting to participate in the institution and maintenance of a kind of mega-subject, the City or State, intersects the logic of infra-politics, of the individuals harvested from the morselization of our subjectivity in genetic sequences, transplantable organs, and algorithmic profiles. The potentials of that intersection are dystopic in the extreme. Just as unsavory are the potential consequences of a failure to intersect, an unsuturable rupture between executive fiat (the political lightning strike of sovereign decision) and bio-governmental rationality (the patient and multi-scalar analyses of human and non-human populations that today are the proper prelude to every such strike). On the perilous threshold where the conversations between President Donald Trump and Dr. Anthony Fauci, Prime Minister Justin Trudeau and Dr. Theresa Tam transpire, our tremulous futures wait to unfold.



Meditation IV: Risky Business (08/05/20)

Could it be that what we are witnessing in the ‘culture war’ that has arisen ‘south of the border’ around the questions of whether to wear a mask, whether to go to church, and whether—second amendment rights notwithstanding—it’s really such a good look to be packing a rifle in the middle of a pandemic—could it be that this is less a war than a ceremonial agon between competing, but nevertheless uneasily symbiotic world-pictures? On the one hand, we have the discourse and attendant analytics informing the “high risk/ high dividend’ speculation characteristic of the hyper-rentierism from which Donald Trump emerged; on the other hand, we have the discourse and attendant analytics informing the “low probability/ high risk “ scenarios that innervate the preemptive algorithmic simulations employed by the medical, environmental, and geopolitical securitization apparatuses developed in the highest echelons of technocratic power post 9-11. Thanks to COVID-19, the logic of 24/7 casino life, hitherto regnant from Wall Street to Wynn/Encore, confronts the logic of lockdown. A Tale of Two Risks unfolds. Little wonder that on 23/04/20 the City of Las Vegas, represented by its mayor, Carolyn Goodman, offered itself as a special municipal locus for the utterance of patent imbecilities concerning the relationship between economic enterprise and public health matters. In a political landscape as rigidly bifurcated as that of the United States, the negotiations between economic and public health advocates either relies on nonsense as the magical solvent for intractable logical

differences or descends into a zero-sum contest, a Manichean face-off between the need to swell aggregate demand and the countervailing need to flatten the COVID-curve. The algorithms designed for calculating financial and medical risk are not programmed to assist us in deciding on which side our own wager ought to fall.



Meditation V: The Edges of Immunity (09/05/20)

COVID-19 seems to have suspended, not to say settled, the not so long ago raging debate around borders, immigration, and illegal aliens. It is one thing to potentially share in some small measure the financial and social costs associated with opening our borders to those facing dire economic hardship and/or political persecution. It is quite another to be asked to share in their health risks. Once implanted, the thought is not

easily banished that the peregrinations of this new precariat may represent, through no fault of its members, a privileged conduit for the virus's global migrations. The telos toward which "social distancing" inclines all our thoughts and practices at every scale is a condition in which every unfamiliar other is greeted as a potential threat.

In ancient Rome, the founding of a city involved a ritual called the *sulcus primigenius*. Its performance is described by the architectural historian Joseph Rykwert as follows:

The founder then gathered his followers in the agreed spot. Having set his plough aslant, so that all the earth would fall inside the furrow, his head covered by the edge of his toga which was wound tightly round him, he ploughed round the site of the city . . . the walls cut by the plough were sacred, while the gates [along whose lengths the founder had carried his plough above the ground] were subject to civic jurisdiction. The new town was [thus] fully constituted. The new inhabitants had taken possession of the site and expelled such previous ghostly inhabitants as were unfriendly.

Where are these lines inscribed today, where are these boundary-clarifying furrows furrowed, if not across the bodies of our own "ghostly inhabitants," the *sans papiers*. In spectral demarcations, their image reveals to the rest of us our own edges, clarifies the limits of our hospitality.



Meditation 6: Noli Me Tangere (10/05/20)

“Your confines my confines confine themselves.”

--Michel Deguy

The English word contagion fuses the idea of being together (*con-*) with the idea of touching (*-tangere*). In fact, it is hard to imagine those ideas apart. Only those things that are first gathered, *congregated*, are at risk of tangency. The state of being touched together, *contagion*, thus suggests a kind of limit case or final destination for the condition of being gathered, one wherein the line between being close to someone and being right beside or even inside them dissolves. On the other side of that dissolution, proximity flips into fusion, the asymptotic bull's eye on which oceanic fantasy and phobic aversion simultaneously converge.

Writing prior to Augustine's consolidation of the doctrine of *originale peccatum*, the third century A.D. theologian, ascetic, and scholar, Origen of Alexandria avers that, as a consequence of Adam's initial transgression, an image of it (*similitudinem praevaricationis Adame in unoqueque*) was implanted in each member of each subsequent generation “like a slight contagion” (*levi contagione*). Eleven centuries later, in the Prologue to the tale told by the Second Nun in Geoffrey Chaucer's *Cantebury Tales*, “contagion” signifies the corruption of the soul through intimate contact with the body that personates it. By the sixteenth century, the term had already acquired the medical sense of a physical contamination conveyed not from soul to body but rather from body to body, from one mortal creature to the next. By the seventeenth century, it had also come to be applied by analogy to forms of psychological and societal influence. Over time, the application ceases to be analogical. In a treatise penned in 1733 with the intent of debunking theological explanations of ecstatic experience, the French physician Philippe Hecquet determined that such experiences constituted a medical ailment for which he coined the term *épidémie convulsionnaire*. This ecstatic contagion was said to pass from person to person according to a law of “personal atmosphere”:

It is a continuous and abundant transpiration or an emanation of imperceptible corpuscles, which escape without interruption as a vapor from the pores of the skin of each individual. Thus, around each body of man and woman there forms an atmosphere . . . When, due to proximity, atmospheres mix, the air that gets into the lungs also brings corpuscles shaped by the body that they have

served. But bringing with them into the neighboring body the property that they acquired at the origin, they transmit these same properties into the body in which they enter.

In other words, the air (*spiritus*) we share serves as a conduit of psychic influence and it is this influence that accounts for the pathogenic manifestations of the *épidémie convulsionnaire*. Psychical contagion is thus conceived as a product of con-spiracy in the literal sense of co-respiration. A little more than a century and a half later, the French polymath, Gustav Le Bon, who was, among other things, a medical practitioner, can still be found describing the transport of ideas, emotions, and beliefs between individuals on analogy with the transmission of microbial pathogens. At roughly the same time, another early sociologist of crowd behavior, Gabriel Tarde, spoke of mimetic contagion as a vicarious power of suggestion. It was, in his view, the very motor of social conduct. His ideas have been subject to significant extension and refinement in the work of the cultural anthropologist, René Girard, the philosopher, Peter Sloterdijk, and the historians of science, Mikkel Borch-Jacobsen and Jean-Michel Oughourian, among others. At the beginning of the last century, first Theodor Lipps and then Edmund Husserl and his students Edith Stein and Max Scheler approached much the same phenomenon from the perspective of empathy (*Einfühlung*), while first Charcot, then Freud came at this 'contagious' dimension of social life from the perspective of hypnotic suggestion and its transference effects. All of this is to say that the concept of contagion implicates a complex history unfolding at the threshold between epidemiology and group-psychology.

No less complex is the history of our collective practices of haptic and co-respirational intercourse. How we touch and breathe together in our various proximities to one another is an issue to which responses vary depending upon history and geography, but always, we may imagine, with a concern for the deleterious, at times even lethal, potentials laced into the event of one body touching or breathing up against or into another. Of course, the more distant the origin of, and the more recent our first acquaintance with, this other, the more acute the concern. Familiarity may breed contempt, but its opposite breeds panic. In no small part as a result of our new-found awareness of the unintended effects that global trade circuits can have on the minutiae of daily interactions in our homes and neighborhoods, we seem to be in the midst of a transformation of the codes concerning our touching together, one whose resilience remains to be seen. Put simply, for now, the new rule, globally administered, is this: no more touching, not yourself, not your lover, not your Mom or Dad, not your kid, not until further notice. Did I mention not yourself? Ya, not yourself, especially not your face. It spreads the virus. I know the mask is itchy, but especially not your face.

COVID-19 has alerted us to many things in our cultural landscape that were hitherto hiding in plain sight. Among those previously unobserved details of our daily existence is the startling frequency with which each of us, when left to our own spontaneous impulses, is given to touching his or her face. For many of us, unlearning that habit has proven surprisingly challenging. In the foreseeable future, some psychologist of

our rapport with our own bodies will no doubt undertake to clarify what auto-affective impulse is being satisfied in the spontaneous palpation of the front of one's own head. In the meantime, the suppression of that impulse requires a sustained—and for me decidedly nerve-grinding—effort of the will.

Until recently, touching played an especially significant role in the social rituals marking rites of passage in which the historical destiny of the tribe momentarily intersected the biographical destiny of the individual, and it is on the occasion of such rituals that the oppressiveness of the current ban on touching together seems to be experienced most acutely, leaving us feeling that we are precluded from bearing witness to and being present at events whose transpiration demanded the exercise of our capacity for touching together, and whose occasion has now irrevocably passed.

The announcement of birthdays, weddings, anniversaries, and most especially funerals have always been summonses disguised as invitations. In response to such a summons, one knows, or rather knew, not to text or email congratulations or condolences. One knew that the communities that these summonses called on you to partially embody demand, for their consummate expression, that you physically join 'your people' at a common time in a common place. One knew this with a knowledge that is older than politics itself. Such times and places predate the forms of co-appearance associated with the agora. They have their origin in the intimate but nevertheless collective forms of self-disclosure characteristic of life in the *oikos*, and, by extension, in the quasi-familial forms of religio-tribal congregation that predate city-states and their market-squares. Up until a couple of months ago, it was in these familial and para-familial settings of co-appearance (but also, and for present purposes more importantly, of physical tangency and respiratory co-introjection) that the compacts and rituals associated with birth and death and all the individual/collective landmarks in between transpired. The familial oaths and filiations forged by handshakes limned with spit or blood, the warm hugs and moist kisses, the tears shed and tenderly wiped away by another, the food shared from the same plate, or passed from mother's hand to infant's mouth: these were the viscous sealers that stuck skin of kin to skin of kin, the media through which was pledged a fealty to those we hold to be our own, pledged not with words but on and across and between the muculent surfaces that we offered to one another as we kept touching together: eating, dancing, praying, mourning. What would christenings and weddings and wakes have been like without them? Today we're finding out.

The absence of a physical rite in which we touch together seems especially cruel in the case of funerals. At any time and under any circumstance, the unceremonious heaping up of human corpses in container trucks with no clear plan for how symbolic rites are to be performed should give us pause. Let us not forget that in choosing to imagine and represent for a fifth-century B.C. Athenian audience the spectacle of a young woman, Antigone by name, faced with the State-sponsored prospect of just such an unceremonious disposal of her brother, Sophocles irrevocably transformed the Western imagination of that place where

oikos and *polis* originally touch together. A contagion if ever there was one. After we're all done re-reading *Death in Venice*, *The Plague*, and *Love in the Time of Cholera*, perhaps it will be time to reopen *Antigone*. Perhaps that's where we should have begun.

Meditation VII: Sabbat (06/06/20)

If, as Agamben suggests, contemporary geopolitics is a permanent state of emergency, then perhaps lockdown is, or at least admits of being taken up as, the suspension of this chronic state, a messianic sabbat of sorts. At least, that is the thought that is dared by a few thinkers deeply sympathetic to Agamben's explorations of the threshold linking aesthetics and politics but more positively disposed than he to the voluntary adoption of temporary measures of sheltering in place. In my neck of the woods, John Paul Ricco and Victor Li come to mind. These thinkers see in the protocols of sheltering in place an opportunity to step back from the anomic connectivity that fuels sovereign glory 2.0 and to scrutinize the ways in which 24/7 capitalism inflects the ethical and aesthetic practices by which we undertake to care for ourselves and others. For some, the suspension of their regularly dis-regulated routines has opened a space for questioning their own investment in these routines; it has given them leave to flex the muscles of their own inoperativity. They perceive in the uninflected succession of Sundays that is life under lockdown a reminder that the tabulation of what Marx called abstract labor power is nothing but a mechanism for putting a price on that vocation for nothing in particular that is the defining feature of humanity.

For now, labour is on hold, or, when undertaken, perilous. For now, all pay is danger pay. But for those of us whose economic utility has been placed in limbo, our *otium*, the hidden pith of our humanity, finds a narrow temporal niche in which to thrive. For some of us, being 'shelved' has afforded a brief glimpse of that primal profligacy inhabiting our human core. But while occupying this niche, be it in circumstances of financial destitution or salaried sabbat, we do well to remember that others are plotting how much of the productive potential encrypted in our inoperativity is to be called up and cashed out as labour today, versus how much is to be held in reserve so as to guarantee the very possibility of a labour-force tomorrow. For the moment, workers and owners share a vital stake in conserving the conditions of the former's future exploitation. Both sides have skin in the game. It is according to the rules of that game that our sabbat was declared and it is according to those rules that it will be revoked and the current interregnum itself interrupted.

Meditation VIII: Disabilito (09/06/20)



The city is a great desert.

--Strabo

Observe the mineral sadness evinced by avenues abandoned by the bodies that once gave them the shape of human yearning. Buildings boarded up, their grounds festooned with last month's debris, so many collective adventures abruptly aborted, so many broken promises between us and the world of things.

There is a melancholy that befalls one when passing through a deserted precinct, a feeling of vacancy that is the exact internal image of the empty streets and squares you traverse. How is it that vacancy, lacking mass or weight, can land so heavily on the scales of a human heart? Tonight as I walk I feel a sense of desolation, but also a kind of solemn peace, a hush not unlike that imposed by a first falling of snow, although it is a night in early June.

Meditation X: Security, Risk, Dividuation (10/09/20)

Some rough notes toward an entry to come

Tonight I would like to return to one of the issues that arose in my third meditation, which is the role that technology has in the co-articulation of life and politics. If, as I have observed, the question of technology marks the major point of difference between Nancy and Agamben, it also marks a difference between

Foucault and Agamben. In Foucault, the technologies associated with both disciplinary and security apparatuses are seen as being double-edged in their political implications, serving at once to thwart and to enable the autonomous individuation of citizen-subjects. (It was in fact an appreciation of this political ambivalence of the biopolitical *dispositif* that led Foucault to transition from his genealogy of disciplinary techniques as techniques of domination to his final work in which these same techniques are thought to have a role in “the care of the self.”) For his part, Agamben insists on the freedom thwarting and de-individuating aspects of such technologies, especially in the contemporary context. On his argument, what is characteristic of the current, informational phase of technologization is the setting in motion of processes of de-subjectivation that are never cashed out in processes of re-subjectivation:

What defines the apparatuses that we have to deal with in the current phase of capitalism is that they no longer act as much through the production of a subject, as through the processes of what can be called desubjectification. A desubjectifying moment is certainly implicit in every process of subjectification. As we have seen, the penitential self is constituted only through its own negation. But what we are now witnessing is that processes of subjectification and processes of desubjectification seem to become reciprocally indifferent, and so they do not give rise to the recomposition of a new subject, except in a larval or, as it were, spectral form. In the non-truth of the subject, its own truth is no longer a stake. He who lets himself be captured by the “cellular telephone” apparatus—whatever the intensity of the desire that has driven him—cannot acquire a new subjectivity, but only a number through which he can be controlled.

Channeling the thinking of technology as ambivalent *pharmakon* (poison/cure) promulgated by his deconstructive mentors (the aforementioned Jacques Derrida and Jean-Luc Nancy), the media philosopher Bernard Stiegler, focusing on the mnemo-technics built into contemporary ‘real-time’ digital technologies, observes that in depriving these technologies of any potential for subjectivation, Agamben’s approach to their political consequences leaves “the poison without a remedy.” In response to this pessimism, and following Foucault’s own appraisal of the double-edged nature of the *dispositifs* of modern disciplinarity, he argues on behalf of what he imagines to be the largely unrealized potential for re-subjectivation of de-subjectivated elements in the digital image. While acknowledging the “de-individuating” effects of the currently hegemonic employment of digital technology, he nevertheless argues that by exploiting the potential for “discretization” that is built into the digital image, that is, by intervening critically in its co-articulation of memory and perception so as to reshuffle the arrangement of its micro-elements, our interactions with these new bio-psycho-prostheses can give rise to new forms of subjectivation, novel modalities of both individual and collective knowledge and experience. In my more pessimistic moments, I find myself wondering if Stiegler’s faith in ‘discretization’ does not gloss over that dimension of these new technologies which seems most recalcitrantly opposed to our powers of subjectivation, to wit, the fact of

their being embedded in a global control apparatus whose logic of cyber-governance is inimical to the logic of politics to the extent that the latter presumes human individuals to be the *arche* and *telos* of its operations. Global cyber-governance acts not on the individual but on the dividual (as fundamental module of the population). From this perspective, which is that of a sort of *mise en abyme* of the event of organic individuation, human beings are provisional populations of micro-organisms that are themselves ultimately reducible to even more primary informational sequences whose algorithmic expressions are indiscernable from those that program intelligently inanimate machines. This carries an implication that political persons are merely epiphenomena of more fundamental material-informational arrangements governed by mechanisms that are other than those of political deliberation and consensus-building. Since the 1990s, but ever more robustly since the events of 9-11, this dividualization of the body politic has grown in significance owing to the development of algorithmic strategies of risk assessment in response to the closely linked threats of terrorism and pandemic. No account of COVID-19 as a geopolitical event can afford to ignore this confluence of new modalities of risk-assessment and the attendant disaggregation of the human individual as both agent and destination of political action. A particularly significant feature of these algorithmic modalities is a tendency not merely to treat the logic of viral contagion as isomorphic with the logic of digital-informational transfer, but to take the feedback loops that reciprocally influence their respective unfoldings as the ultimate object of epidemiological inquiry. As the political-geographer, Robert Peckham observes, biological research and disease emergence are now conceived as co-produced processes.

In 2002, the leading mathematicians in the United States met at the National Research Council in Washington D.C. to discuss what role the mathematical sciences might play in homeland security in the wake of 9-11. It was in that context that the National Medal of Technology and Innovation Laureate, Rakesh Agrawal averred that the most significant contribution to this effort might consist not in the invention of new surveillance technologies or new methods of analysis, but rather in transferring to the sphere of national security the algorithmic data-mining techniques that had already been in commercial use for nearly a decade. In his view, the data at stake in national security analyses, though unique in terms of the gravity of the stakes they implied, were not different analytically from consumer data. According to Agrawal, what is unique to these commercial techniques is their indifference to data culled from past archives. As he observes: “history does not repeat, it changes abruptly, that is exactly what happened with 9/11.” The void opened by this act of willed amnesia is on his account then filled with the data culled from transverse movement across a wide spectrum of real-time or recent past data-bases, which link consumer transaction data to, for instance, data relating to website or chat-room activity. A key propaedeutic to this practice of mining transversally across multiple present and recent past databases is the atomization of data into component elements that can then be recombined . . .

In the wake of 9-11, the confluence of global terrorism (real or perceived), the normalized threat of pandemic, and the emergence of computational media serving as so many conduits for the viral spread of social memes has produced a new chapter in the ongoing intrication of epidemiological and psycho-social contagion, one dominated by the emergence of a medical-military apparatus operating in a permanent state of emergency according to a logic of preemptive response. This logic increasingly eschews the probabilistic calculations characteristic of risk assessment in Foucault's security paradigm in favour of new strategies of Agency-Based-Model (ABM) algorithmic simulations that privilege "high risk/low probability" scenarios. The origins of ABM algorithmic simulation dates to the 1990s, as does the pervasive use of disease alert and response systems employing information networks. At that time, the US Center of Disease Control and Prevention launched a significant number of alert and response initiatives, as did the World Health Organization (WHO) at a transnational scale. The perceived threat of "bioterrorism" made "biodefense" a priority for both public health and national security institutions, and it was from their nexus that the aforementioned medical-military apparatus emerged. The extensive use of information networks to monitor and prevent epidemics through "biosurveillance" dates from this same period. The events of September 11 lent significant impetus to these initiatives, as did two events following in its near wake. The first of these is the ANTHRAX attacks in US cities days after 9-11. The second is the SARS epidemic that spread from several Chinese cities to Canada in 2003. The theorist of bio-technical culture, Eugene Thacker has suggested that what is especially noteworthy about the reinforcement of the medical-military apparatus that emerged in response to these events is the way in which, as per discussion above, the difference between biological contagion and informational transfer seems to collapse into a "single 'artifactual system,'" a bio-informatic *dispositif* composed of, among other things, "the genetic code of a virus, the rate of epidemic growth, its demographic distribution, health insurance policies, and sale of pharmaceutical vaccines [where such exist]." In a similar vein, the political geographer Louise Amoore observes that we now live in an era of epidemic simulation in which prediction has been supplanted by pre-mediation, and in which biological contagion, the algorithmic simulation of future scenarios, and the behavior patterns of human populations are recursively connected through a complex constellation of feedback mechanisms. The effects of these mechanisms are what the developers of the agent-based epidemic simulation engine, Episims, call the "PIN problem," which is that "people adapt their contact patterns when they perceive a potential threat. . . [and] this will likely result in substantial changes in the social network that will in turn alter epidemic dynamics."

At the instigation of the virologist Nathan Wolfe, the Global Viral Forecasting Initiative (GVFI) was established as a non-profit organization in 2008. Its purpose was to monitor viral activity on sites where

highly contagious viruses, such as HIV and Ebola, had “spilled over” from their natural reservoirs to human populations with a view to developing an early warning system for pandemics . . .