Going Viral: cartographies of panic and precaution in an age of precarity

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> Everybody knows that pestilences have a way of recurring in the world; yet somehow we find it hard to believe in ones that crash down on our heads from a blue sky. There have been as many plagues as wars in history yet always plagues and wars take people equally by surprise.
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> Albert Camus *The Plague* (1947)

> Enviral: to treat someone or something as a virus, or a carrier of a virus - 'I found myself enviralled every time I coughed in public.'

> Enviralment: the state or condition of being enviralled. - 'The enviralment of our town was finally achieved with the establishment of police road blocks' orig : 2020
>
> See also 'Corona Virus' *The Dystopian Dictionary*

Mapping the crisis: Cartesian Cartography and the 'Other Scene'

One of the most important moments in the development of Western cartography occurred when an obscure doctor, John Snow, produced his so-called ghost map of the cholera outbreak in London's Soho in 1854 (figure 1). By pinpointing the location of cases, and showing where they clustered, the doctor was able to identify the water pumps that were responsible for the outbreak and consign the air-borne *miasma* model of transmission to the dustbin of medical history. Ever since, map making has played a significant role in epidemiology, with ever more sophisticated cartographical techniques being used to capture and represent the big data of disease.

Because the cholera bacterium is transmitted through infected water (and food), and not directly from person to person, it is relatively easy to trace its sources and take appropriate remedial action. Not so, of course, with other infectious diseases from colds, flu, measles and mumps to Smallpox, Ebola, and now, of course, Covid-19. It is the fact that it is almost impossible to track the movements of its human carriers, who may initially be symptom-free, that generates such pervasive contagion anxiety around this new virus. If it may not always be possible to map the 'known unknown' (i.e. the full extent and rate of transmission, the process, treatment and outcome of the disease itself and potential vaccines), how much more difficult to represent what the psychoanalyst, Christopher Bollas has called the 'unthought known', the deeper more unconscious responses to the pandemic, sometimes repressed, sometimes emerging in coded forms. We are dealing here with what Freud called

the 'other scene' of everyday life, where rational calculations of self-interest and limited altruism give way to structures of feeling and belief dominated by often disavowed fears and fantasies of 'the other' (other class, other gender, other ethnicity). This is fertile ground for the popular imagination of disease. These denizens of our inner world inhabit a country of the mind which often remains foreign to us, making us strangers to ourselves, but which nevertheless we can still own and, after a fashion, assemble cognitively into some kind of map.

Figure 1 John Snow's map of cholera cases in Soho, 1854.

This task is usually left to poets, novelists, visual artists, choreographers and psychoanalysts. In particular, there has been an explosion of interest amongst artists and writers in creating imaginary maps, maps which represent other possible worlds, or support fictional narratives. Literary cartography has been established as a distinctive field of study. However such mappings remain confined to the imaginative worlds created by their authors, they rarely venture into the field of ethnocartography, to investigate how the cognitive maps of different social groups are shaped by their cultural formation.

At the same time, Cartesian cartography with its strong commitment to the adequation of map to territory has developed ever more precise and high powered digital technologies for representing the real via spatial metrics. From this standpoint, any mapping of 'the other scene' carries with it a strong health warning: 'there be monsters'. Certainly this is why the mapping of epidemics has largely been confined to the physical geography of its spread, not its emotional impact. This latter is supposedly the field of medical anthropology or social psychology, yet, paradoxically, the approach to *cultural* epidemiology has not so far drawn on the creative resources or methods of critical cartography.

One of the most frequently re-iterated phrases in official pronouncements about Covid-19 is that 'we are entering uncharted territory'. So what would it take to map this *terra incognita* properly? Clearly, at one level, it requires a major, international, initiative in forensic cartography to correlate the epidemiology of the virus with its patterns of dissemination in different societies across the world, comparing where it has taken hold in a major way with evidence from countries where the impact has been less. This would involve the commitment and co-ordination of technical and organisational resources on an unprecedented scale and is unlikely to happen. But what kind of conceptual and methodological apparatus could be mobilised for such an enterprise?

If the actual chains of physical transmission are impossible to map accurately once a disease reaches epidemic proportions, its social, cultural, economic and political impacts are much more easily subjected to cartographic reason. So, for example, it is possible to show not only the spatial distribution and density of recorded cases at different points in time, but associated changes in levels and patterns of economic and social activity, geographical mobility, local travel, and public behaviour. Anyone familiar with GIS will be able to plot the links between disease hot spots, panic shopping, school closures and loss of public amenity.

However despite some claims that the cartographical applications of AI can map the spread of Covid-19 in real time, mapping spatial contiguities and even statistical correlations does not, in itself, amount to an adequate explanation of such a complex phenomenon as an epidemic. Indeed, it may make it easier to mistake effects for causes. Although mathematical modelling can yield elegant diagrams showing the sensitive dependence of complex non-linear systems (like the weather) on their initial conditions, and how small changes in local circumstances can produce sudden and large scale changes elsewhere in the system (the so-called butterfly effect), the attempt to apply chaos or catastrophe theory to understand tipping points in the climate of *public opinion* have so far failed to produce plausible accounts.

The reason is that although attitudes and behaviour can to some extent be measured through social surveys or direct observation, they are transacted by cultural value orientations and narratives that are much more difficult to pin down, let alone quantify. Equally in the case of an epidemic we are dealing with a constantly changing assemblage of different indicators   entangled with a whole lot of outliers whose impact is difficult to predict or control. These often delayed knock-on effects, for example the impact of Covid-19 on levels and forms of heterosexual intimacy, and hence indirectly on the birth rate, with couples being reluctant to bring a new baby into the world under these circumstances, such complicating factors are beyond the range of impact studies and are in many cases only analysable in retrospect.

Should we then fall back on capturing locally situated knowledge, and focus our mapping on finding out what meanings different groups attach to the situation, how this shapes/is shaped by their mental maps and how they navigate the city? As an urban ethnographer who uses participatory mapping as part of my research toolkit, I am obviously in favour of this approach. But here I need to issue another health warning. It is one thing to use such autobiographical material to document and analyse the life historical significance of an epidemic event. Quite another to credit it as providing a 'true account' without supplementary information and analysis.

Yet we still urgently need to find ways of exploring and charting this *terror* incognita if we are to develop a coherent response to the threat of a pandemic. One reason for the incipient panic around Covid-19 is that however mild and localised the illness, it evokes a phantasm of the *lethal*, the association of what is hidden and unmappable with a boundless mortal threat. In other words, the invisible replication of the virus comes unconsciously to represent that human compulsion to repeat which Freud saw as part of the death drive. As such it gives rise to a variety of psychological defences, from outright denial (as in Trump's initial refusal to give credence to the risk posed by Covid-19) to depressive withdrawal from the world (the rich hunkering down to self-isolate in remote luxury quarantine retreats) to manic panic (shops emptied of necessities).

If epidemiological maps do not directly represent the deep patterns of associative feeling and belief which constitute the mass psychology of an epidemic, they can unwittingly serve as their support. Maps are mobile interfaces with the world, which geolocate spatial trajectories

within fixed co-ordinates – and this is indeed why they are mobilised as part of precautionary modelling strategies to contain, delay, or mitigate the spread of a disease. Yet in many cases the dissemination of such maps through public media only serves to communicate that the situation is NOT under control and thus undermines the very messages of public reassurance they are designed to convey. For example, many newspapers have carried maps in which a whole continent (e.g. Australia) is painted red, signifying that it is host to Covid-19, even though only a tiny proportion of the population have so far tested positive (figure 2). So we have a cartographic totalisation, which covertly assumes a worst case scenario, while claiming to simply present a current statistical fact. Such maps can be and certainly are used by public health authorities to frighten people into taking precautions and we need to be aware that this is their purpose. If critical cartography has taught us anything it is that maps are not to be taken at face value as objective statements of fact; what they omit and render invisible through their design parameters is often just as significant as what they show.

Figure 2 Countries with Covod-19 cases.

Allegories of neo-liberalism

Panic is deeply corrosive of civil society, it unites people only in negative reciprocities, where   each of us is other to and one too many for the other as a potential carrier and everyone just looks out for themselves and their families. In a pre-digital age, panics were relayed primarily by word of mouth, in other words through rumour. The best, and certainly funniest account of how panics spread in face- to- face communities is James Thurber's short story 'The Day the Dam broke', in which a mis-overheard comment on the Main Street of a small town in middle America coincides with someone breaking into a trot and soon has the entire population heading for the hills. If you are in need of a good laugh right now, this is recommended reading.

Today digital on-line culture, and in particular social media, have given a whole new meaning to 'going viral'. Not only because we now have a powerful model of unregulated and virtually uncontrollable communication, but because there is a whole architecture built up as a system of defence against rogue pathogens, malevolent 'bugs' which are continually trying to introduce 'viruses' to infiltrate, attack and destroy our operating systems.

The advent of Covid-19 has also encouraged phishing expeditions by online hackers offering to sell you phony prophylactics in exchange for your personal details so they can raid your bank account. If the medical virus doesn't get you the computer virus will! This doubling up makes virology an all too ready source of symbolism for vilifying any populations which might be at risk of getting portrayed as carriers of bad news. Perhaps we are seeing the first truly cyborg pandemic.

So what makes a disease communicable is not just its mode of physical transmission, but its mode of media transmission. Covid-19 is in one sense news from nowhere –its arrival was not predictable, and its sudden advent, of course, made it instantly newsworthy. Yet in another sense an epidemic is always the same, however new the actual bug, the actual unfolding of the epidemic plot line follows a familiar course, thus combining disruption with repetition. It is always and already 'bad news'. That is its paradoxical time signature as Camus was quick to note.

As such the pandemic has been a central element in religious eschatology, fuelling popular fascination with end times - the apocalypse to come - since at least the Black Death in the Middle Ages. But it takes on a particular resonance within the framework of digital capitalism and its mode of circulation . A story that always leaves us in suspense in fearful or excited anticipation of what comes next – is the disease terminable or interminable? In other words a narrative that has the structure of a TV soap opera serializes the pandemic in a way that integrates it closely with the constant revolution of commodity production and consumption, the quest for permanent novelty that keeps the wheels of industry turning. Globally, the news of the virus travels faster via social media than the virus itself, but its serialization in both space and time ensure that local public responses are invariably behind the curve of events .

So we need to be aware of how the real relations of viral transmission become doubled over in a set of imaginary relations. A virus uses the human body as its host, and in a sense lives off it in order to reproduce itself. If the virus is stupid, it kills its host quickly so that the chain of transmission is broken and the epidemic, though it has a high initial mortality rate, sooner or later becomes self-limiting. Ebola was like that, Covid-19 is an altogether smarter machine. The real trouble starts when this model of host/parasite relations is translated from the physical to the social body to compose what we might call the moral anatomy of a disease. Quite simply the carriers get defined as parasites who are rewarding their hosts with the gift of a lethal illness. The cure is therefor to exclude or eliminate the parasite at source before it can take up residence in the host society. We have seen this transposition manifested all too clearly in recent xenophobic attacks against Chinese students in London. Covid-19 becomes the new yellow peril.

The mechanisms that have come into play in this transposition are hardly new. We are in the midst of what sociologists call a moral panic, involving the creation of folk devils whose presence in society comes to be seen a threat to its moral health, and even political integrity; this is, because they are perceived to transgress the boundaries or normative behaviour, traditionally policed by church and state, but also upheld by communities as marking their internal borders. In situations where these boundaries are becoming more porous, and civil society threatens to becomes anomic, the population of folk devils multiplies – immigrants, paedophiles, and drug gangs currently head the list – in an attempt to draw the line between respectable citizens and outlaw denizens. .

Perhaps then we need to go even further back in time and be mindful of the original definition and meaning of the *parasite*. It is a compound of two Greek words *para* (alongside) and *sitos (* food) and it literally means to eat alongside someone, to share a meal. In the classical Greek *polis*, those who were strangers, either because they lived beyond the city

limits or spoke a foreign tongue, were admitted to its precincts and protected against abuse, exploitation, harassment or being taken hostage, provided they answered to their name, declared who they were, whence they had come, and for what purpose they were now in the city. The foreigner, or *xenos*, thus defined, transformed the citizen into a *host* - someone who, because they were masters of their own house, and had the power to issue invitations, was both willing and able to invite foreigners into their midst and to share their food and dwelling place with them. In return the host transformed the stranger into a parasite in the original, non-pejorative sense of the word - someone who has a right to a place at the table, and whose need for nurturance and assistance is recognised without the need to reciprocate. Interestingly the term was also used for places at the table reserved for public officers who served the *polis.* It is only in 16th century Europe that the term took on its current negative connotations, especially in times and places affected by the plague. Perhaps then it is time to stop giving hostages to misfortune and return to the original Greek sense of hospitality - and incidentally to the deeper sense of hospital as a place where strangers who suffer come to be treated and made well. We certainly need to mobilise and strengthen all possible forms off human solidarity and mutual aid if we are to get through this health crisis. But the signs are not propitious.

In addition to the danger of creating pariah populations, Covid-19 strengthens the hand of those who want to create a new Fortress Britain, who saw Brexit as an opportunity to reinvent it as once again an island nation, surrounded by a 'moat defensive' against the invasion of foreign bodies. Ironically, it took a virus to bring home to everyone, albeit in a wholly negative way, just how globally interconnected our societies are through trade and tourism, and just how much magical thinking is involved in evoking national sovereignty and 'taking back control' of our borders as a cure for all our ills. The precautionary strategy of personal and social distancing scales up frictionlessly into policies of national isolationism, with a little help from nativist rhetoric. Unfortunately the worst case scenarios currently being spelt out by some epidemiologists and inflated into fully fledged genocidal nightmares by the popular press, provide an all too convincing rationale for the autochthonous dreams of the populist alt-right.

 We also need to question the 'Don't Panic- Keep Calm and Carry On, Britain can take it' message headlined by sections of the right-wing press, especially the DailyTelegraph, which as always is keen to re-animate sentimental memoryscapes of wartime Britain, when everyone tightened their belts and pulled together. Courtesy of such imaginaries, we are being sleep walked into a vision of sunlit uplands where the bug has finally melted away and we all live happily ever after in Tory Brexitland. Do we need reminding that the reason why 'Don't Panic' as uttered by the elderly Lance Corporal Jones in Dad's Army was so funny is that it was uttered in such a panic-stricken voice? One reason the a video clip of this has gone viral again is that it perfectly captures the ambiguity of many of the public pronouncements about Covid-19, albeit in an inverse way - the voice of calm authority issuing statements maximally calculated to induce panic. Perhaps it is as well then that stiff upper lips are hard to sustain in these days of touchy feely politics, and definitely not possible while wearing a face mask. No doubt we will be encouraged to display resilience, that weasel word which the evangelists of neoliberal individualism use to describe and celebrate passive adaptation to their austerity regime. Please note that fortitude and courage have a quite different genealogy, in the psycho-social resources generated through emotional attachment to others, and to the common good.

In more general terms, the key strategy of do-it- yourself quarantining at home uncannily reproduces the 'alone together' culture of online community on a vastly enlarged scale, yielding a world in which face to face contact is no longer required for going about one's

business. Although much direct communication is today digitally mediated, physical co-presence still seems essential whenever major decisions have to be taken. Skype is no substitute for being there and democratic governance cannot be delivered if there is no-one in the room. The root meaning of Parliament is to parley and that means to negotiate face to face, not just screen to screen. As Plato was the first to tell us in his *Symposium*, human dialogue and debate is best pursued in the context of conviviality. The shutting down of occasions of public congregation, deliberation and pleasure, however temporary, must have a profound impact on the quality of social and political life. Moreover a policy of minimalizing physical contact by virtualising everything from House of Commons business to medical appointments, lectures and school exams will also further marginalise those who find themselves on the wrong side of the digital divide.

An epidemic inevitably exposes the fault lines in society, especially those of class. A society whose dominant values maximise competitive individualism, but whose political economy creates conditions of widespread precarity for large sections of its population is not best equipped to counter the negative bias hard wired into our brain chemistry, and which make us such gluttons for punishment and so addicted to bad news. The neurological propensity to catastrophism is greatly intensified when and wherever chronic insecurity, both ontological and material, puts minds and bodies on constant red alert. If people literally do not know where or when their next payment, or next job is coming from then their level of epistemic trust in the world as a safe haven for their hopes and aspirations tends to fall to zero. So too does their trust in politicians who promise them a cornucopia of good things and deliver at best a few crumbs from the rich man's table. As for epidemic researchers, including scientists and medical authorities who attempt to re-assure people that things are not as bad as they might seem on social media and that the solution lies in their own hands, (provided they wash them often enough), they are lumped in the same category - Danger! Experts at work! As a result, some of the most vulnerable groups are least likely to heed public health advice.

There is also a generational, dynamic in some of the more off- the- wall responses. The fact that Covid-19 is most dangerous to senior citizens, especially those with underlying medical conditions, has not been lost on closet eugenicists who welcome the 'culling' of this 'surplus population' as stabilising a demographic equilibrium that has been distorted by life prolonging advances in medical science. Social Darwinists are also crawling out the woodwork to re-assert the pseudo-evolutionary principle of the survival of the fittest. A quasi-oedipal dimension is added by those who see an opportunity here to challenge and undermine the power of the gerontocracy who are hoarding assets (like houses) and opportunities (like jobs by refusing to retire) at the expense of the young. The bitter sweet revenge of Generation Rent who will be able to come into their inheritance rather sooner than later. Many of these responses belong to the rich psychopathology of mass epidemics. But one of the savage ironies of the current public health crisis is that some of these constructs are mirrored in the precautionary strategies advocated by certain epidemiologists. Those who early on stressed the importance of attaining what they call 'herd immunity' as quickly as possible, in lieu of any vaccination, were demanding the radical separation of the generations. The young and healthy were to be herded into spaces of maximum contact (like clubs and pubs) where they could cross infect one another and get mild versions of the illness which would give them the necessary antibodies to prevent onward transmission. In contrast the elderly and infirm should be quarantined in spaces of maximum social isolation to ensure their safety. In this way the epidemic of isolation and loneliness already suffered by many senior citizens, who have little or no contact with family or neighbours, is magically transformed into a life saver. In the process the social atomisation endemic to neoliberal capitalism Is massively validated. It also serves to seal the

trauma of debility or loss inside the individual, where it will germinate a subsequent epidemic of post-traumatic stress with which our impoverished mental health services will struggle to cope. There is no vaccination against the mass emotional fall out of Covid-19.

Fortunately the herd immunity strategy was met with a wave of popular protest and a vigorous reassertion of inter-generational solidarity. But this episode shows that we cannot separate out responses to a national health crisis from the broader culture and body politic in which it is embedded. A prevention strategy built around the notion of self-isolation, both for victims and the vulnerable, is a way of privatising illness in a situation where public services, especially the NHS have been so run down that they clearly cannot cope with even 'normal' epidemics like seasonal flu. Moreover an approach which makes everyone individually responsible for their own safety, gives a therapeutic gloss to the neoliberal agenda. The overall impact of austerity has been to drastically weaken the collective capacity of communities to respond proactively and rationally to crisis situations. Ironically, just at the moment when neoliberalism has lost traction, even amongst the business classes, it is given a new lease of life as a pragmatic response to the health emergency in a way which allows its political evangelists to wash their hands of any responsibility for the state of our public services. Boris Johnson declares that his government is on a war footing, but this is wartime neoliberalism, not wartime socialism, although it is also clear that new forms of citizen solidarity and mutual aid are emerging in response to the failure of both State and market to respond adequately to the crisis.

The Tory New Right is essentially libertarian, which is perhaps why they originally opted for the laissez-faire approach of herd immunity. But they have been forced by events to move in the opposite direction. Solitary confinement, not as a punishment for bad behaviour but as a protective device may initially be voluntary, but it relies for its enforcement on the State's assumption of emergency powers which suspend many hard fought-for civil liberties. Although public consent may well be engineered for a time, there is some risk that some aspects of this state of exception may become the new normal or at least have a long term ratchet effect on democratic rights. We are aleady seeing this in Hungary where Victor Orban has used the health crisis as a smoke screen for introducing draconian new powers which abolish any kind of democratic accountability for his actions.

The health crisis also potentially empowers technocratic visions of a surveillance and control society in which at-risk groups (those profiled as a special epidemiological threat) are electronically tagged so their movements are traceable and mappable at all times. The utopia of smart cities, or urban governance by algorithm, all too easily morphs into an Orwellian nightmare. In fact we are seeing the materialisation of a new geography of risk which mirrors the dystopias portrayed in films like *Blade Runner* with exclusion zones, evacuation zones, red lock down zones. These are so many lines drawn in shifting sands. Public places are suddenly depopulated, ghost neighbourhoods and even whole cities are patrolled by zombies in space suits. The familiar rhythms of everyday life are disrupted or rendered strange. The urban uncanny rules OK.

More immediately important is that the implementation of emergency measures comes up against some harsh economic realities. A new spatial division of labour is emerging between *homies'*(those who can work at home) and those who cannot. The former are mostly concentrated in back-office managerial or administrative functions or in the knowledge economy, the latter in manual work and the delivery of front-line personal services. Many of the at-risk groups are on low incomes and working in the gig economy on zero hour contracts where they cannot afford to take time off. The demographic of the illness is likely to reflect these hard facts.

Disease as Metaphor and Metonym

Figure 3 Poster for *Contagion* (2011)

These developments on the ground find their counterpart in fictional scenarios with which we have become familiar through popular culture. There is a whole sub-genre of science fiction, disaster and horror movies which explore what happens when a deadly and hitherto unknown virus wipes out whole populations and destroys the infrastructure of civil society. Escapist movies may well have an appeal to those who cannot escape but I would guess that films like *Outbreak* (1995), *Virus* (1999) Steven Soderbergh's *Contagion* (2011), Danny Boyle's *28 Days Later (2002)* and its sequel *28 Weeks Later (2011)* are due for a big boost in streaming sales, even if the major cinema chains forebear to show them for fear of lowering public morale (figure 3). Meanwhile in the bookshops Stephen King's *The Stand* with its graphic depiction of total societal breakdown after an influenza virus being developed for biochemical warfare is accidentally released, is flying off the shelf. My local Waterstones sold out. Along similar plotlines, Dean Koonz' *The Eyes of Darkness,* another page turner first published in 1981 about a bio-weapon developed by the Chinese in Wuhan and designed to produce 100 % mortality rates in targeted populations within 24 hours. It has become a best seller overnight. Having your worst fears fictionalized is maybe a cathartic, if magical way of preventing them being realized.

Video games, which we are being encouraged to play during lockdown, are another major source of popular pandemic scenario construction, much of it based on conspiracy theories about the disease's provenance. For example, *Bloodborne* follows the player's character through a Gothic, Victorian city whose inhabitants have been afflicted with an abnormal blood-borne disease. The player moves around the city to find the source of the plague while killing various monsters, human and animal *en route*. Tom Clancy's *The Division* is set prophetically in 2020 New York City in the aftermath of a viral pandemic. The player, a Special Agent of the Strategic Homeland Division, is tasked with helping the group rebuild its operations in Manhattan, investigate the nature of the outbreak, and combat criminal activity in its wake. *Infected* is also set n New York City, where the entire city is being infected with a virus that turns people into bloodthirsty zombies. In an individualistic

riff on herd immunity the player's blood contains the cure, which less than 1% of the population possesses, the aim of the game being to destroy the infected while trying to reach someone who can make a cure from the blood.

I do not think we should underestimate the extent to which this kind of material is actively shaping public responses to Covid-19 and the measures taken to mitigate it. Fortunately there is also an important literature which focuses on he epidemic as a way to study the human condition and how people behave under stress. Philip Roth's *Nemesis* examines the impact of a polio outbreak on a neighbourhood in Newark in the 1940s in graphic emotional detail. Other writers stress the allegorical dimensions. For Camus, writing just after World War 2, *La Peste,* although drawing on his experience of an actual epidemic in Oran (Algeria's second city), was essentially a metaphor for the corrosive effect of fascism and the German occupation on everyday life in occupied France. He talks of a 'crazy world, in which men were killed off like flies' and 'a reign of terror, that precise savagery and calculating frenzy, experienced by a populace part of which was fed daily into a furnace and went up in oily flames, while the rest, in shackled impotence, awaited their turn'.

This double reference takes on even more pertinence in the present context when responses on the European Left have tended to polarize between those, like Giorgio Agembem who see the pandemic as essentially an ideological construct designed to legitimate the creation of a neo-fascist State, and those like Slavov Zizek who welcome the advent of Covid-!9 as creating the conditions for a rapid transition to a radical form of democratic socialism or even communism. Camus rejected both these positions, but reserved his polemic for those he calls 'human-ists' who deny the virus any material efficacy:

> our townsfolk were like everybody else, wrapped up in themselves; in other words they were human-ists; they disbelieved in pestilences. A pestilence isn't a thing made to human measure'; therefore we tell ourselves that pestilence is a mere bogey of the mind , a bad dream that will always pass away. But it doesn't always pass away and from one bad dream to another, it is humans who pass away, and the human-ists first of all because they haven't taken their precautions. Our townsfolk were not more to blame than others, they forgot to be modest that was all and thought that everything was still possible for them; which presupposed that pestilences were impossible. They went on doing business, arranged for journeys, formed views. How should they have given a thought to anything like plague which rules out the future, cancels journeys, silences the exchange of views. They fancied themselves free and no-one will ever be free as long as there are pestilences. '

This brings to mind the attitude of Michel Foucault, paradoxically an arch anti-humanist but who saw AIDS as a purely discursive formation prompted by homophobia. He ignored the health warnings about how the virus was transmitted, continued to frequent the gay saunas and bathhouses in New York, caught the disease and subsequently died.

In contrast, in Thomas Mann's *Death in Venice* the plague is at once a material and symbolic presence associated with a paralyzing miasma emanating from the city's canals and swamps. This in turn is associated with the state of mind of a middle-aged writer who is transfixed by his infatuation for an adolescent boy visiting the Lido with his family. Aschenbach has a perverse attachment to this strange conjuncture of Eros and Thanatos which he feels is destroying him but is powerless to escape:

> His heart filled with satisfaction about what the outside world was about to go through. Because passion, like crime, does not like everyday order and well-being and every slight undoing of the bourgeois system, every confusion and infestation of

the world is welcome to it, because it can unconditionally expect to find its advantage in it. So Aschenbach felt a sombre contentment about the terrible happenings in the grimy streets of the city that merged with his own innermost secret.

As Susan Sontag argues in her book about AIDS, the so called gay plague, one of the disavowed seductions of an epidemic, its capacity to both fascinate and horrify, derives from the fact that it functions as both metaphor and metonym for the catastrophic state of the body politic. For the Left the epidemic stands for the diseased state of the nation which requires radical socialist measures to create a new regime of public well-being. For the Right it symbolises the malign presence of enemies within whose purging alone will restore the body politic to health.

It could also be argued that the epidemic has a more directly material meaning and effect. In *The Shock Doctrine* Naomi Klein shows that catastrophes, whether in the form of natural disasters, like earthquakes, tsunamis and other extreme weather events, stock market crashes and terrorist attacks, all these apparent shocks to the capitalist system can be turned to its corporate advantage, as so many opportunities to make enormous profits out of remedial and reconstruction projects. Pandemics are definitely not business as usual, and Covid-19 may indeed prove a tipping point for a global recession.

These are not, in my view, mutually exclusive standpoints, but they do locate the issue on rather different terrains, one constituted by the social imaginary of disease and disaster, the other focusing on its direct social impact and economic consequences. Each requires a specific kind of road map, but neither on its own is adequate.

A plague in both your houses

It is salutary in this respect to compare the accounts of the Great Plague of London (1665/6) given by a contemporary who lived through it, the diarist Samuel Pepys, and a reconstruction of the events published nearly sixty years later by Daniel Defoe in *A Journal of the Plague Year*. Pepys's diary entries are concise, sometimes to the point of terseness. They notate the onset of the epidemic, its growth, citing some not very reliable figures of death rates, and various meetings with people directly affected, including, in one entry, a close encounter with a corpse in the street. He records mounting anxiety, including his own, and increasing efforts to escape the city but overall the reader is left with the impression that the plague was a nuisance, in so far as it inhibited Pepys going about his daily business, but not much more.

Defoe's text tells a very different story. It may be based on a journal written by his uncle at the time, but this is supplemented by Defoe's subsequent research, and also by his sociological imagination. There is a fictional narrator H, a saddler, whose identity is only revealed at the end, and through whose eyes the drama unfolds. The realism of his account is sustained through the introduction of statistics and other hard data, charts, and government documents which pepper the text. This armature of facticity is fleshed out with dramatic stories, purporting to be true life accounts of grieving fathers, crazed men running through the streets, people throwing themselves into burial pits from pain or grief, people blaspheming the name of God, houses being looted, and so on.

It would be an interesting exercise to compare the epidemiological geographies constructed by each text, and plot the locations mentioned by each writer against the evidence we have of the spatial distribution of the disease. Pepys, after all, had some motivation to avoid

plague hotspots in his daily journeying around the city; his pattern of avoidance is itself significant evidence of the plague's symbolic *and* material impact. Defoe had no such problem and could let his fictional narrator, and his authorial imagination roam where he will. He has a definite political agenda: to demonstrate how well the city authorities behaved to maintain public order, but also to argue against the shutting up of houses and enforced quarantine on the grounds that it drives people to flee the city and carry the plague elsewhere. These are the primary 'actants' of the narrative and its network of associations.

There is no doubt which of these two accounts gives the more vivid picture of what it is like to live through a deadly epidemic. Defoe's graphic realism trumps Pepys's terse notations on every page. But while the study of such anecdotal texts might contribute to a literary cartography of epidemics it does not offer much in the way of cultural epidemiology. For this we would need to combine a material analysis of the virus and its multiplier effects with a realist analysis of how it shaped structures of popular feeling and storytelling. Is there a methodology capable to doing both at the same time which is also fit for cartographic purpose?

ANT: Opening the black box

Actor Network theory (ANT) was first developed in the 1970s by sociologists concerned to understand practices of science and technology without reducing them either to *sui generis* explanations or to a purely social construction. For this purpose Bruno Latour and his colleagues drew on narratology, and the notion of an actant, as whatever makes a difference, in terms of unfolding the story and moves it on. This could be an object (a brick, a painting, buried treasure), an environment (a trap door, an island, a mountain), a piece of technology (a computer, steering wheel, 3D printer), a human (the narrator and other protagonists) or a non-human (an animal. a plant or a virus). What interested Latour was how to make the analysis a level playing field for all these different kinds of actor, so as to trace their associations, the relays that linked them and formed them into a network *without* assigning them any preferential causality or presuming to know in advance what their ultimate importance might be. So instead of ordering the actants into macro or micro, and inscribing them in a hierarchy of determinations, the aim of ANT research is to follow them as closely as possible in their interactions on the ground. Latour describes its mission like this:

> ANT is best treated as a methodological sensibility, as a craft or set of practices working slowly on and in the world, to establish its uncertainty principles, as empirically complicated, as situated and as passionate as the world itself because it stays with the trouble. ANT describes the heterogeneity of the world, its relationality and unfoldingness, its uncertainty principles, the entanglements of the human and non-human'.

Epidemiology is nothing if not about those entanglements, and how to trace and disentangle them. In the case of Covid 19 the key actants include the behaviour of bats, customary practices of animal husbandry amongst Chinese peasants. Dr Li Wenliang in Wuhan who tried to warn the authorities about the virus but who was gagged, and subsequently died from it, the People's Liberation Army who imposed the total lockdown on this and other cities, and facial recognition technology which enforced the wearing of masks. In such a network the human and non-human components are continually exchanging their

properties, engaging in mutual translations to form hybrids, and in the process real relations of transmission get translated into imaginary ones. We have already seen how this happens in the discussion of moral panics.

One of the key tasks of ANT policy analysis is to calibrate the scale of the problem with the scope of the intervention, and vice versa. For example in moving from strategies of epidemic containment, to delay and then mitigation, the actants change size and shape, and so does the scope and scale of the networks in which they are enmeshed. If this calibration or its phasing is faulty then the consequences can be disastrous. A study using this approach into the management of the Foot and Mouth Disease outbreak in the UK in 2001 found that the resources released in initial preventative measures were not only inadequate to the scale of the problem and failed to contain the virus but impacted on the rural economy in ways which undermined the capacity of farming communities to cope with the scope of its impact on their everyday lives. This is where mapping can help. Scaling and scoping is precisely what cartography is about. An ANT generated map would not be t*opographic* (e.g. geolocating statistical clusterings), but *topological,* showing the patterns of dis/continuity in epidemiological networks as these unfold, stretch and contract over time, and *tropological*, illustrating the changing tropes that are applied to give the virus a local habitation and a home in different cultures.

Are we that mask?

Let's take a simple example of how the entanglements of the human and non-human occurs to produces hybrids, the role of the mask in communicable disease. The association dates back to the Black Death and is embodied in the figure of the plague doctor. As a result of frequent outbreaks in Europe in the 15th and 16th centuries with very high mortality rates, many towns and cities appointed special plague doctors whose role was both to monitor and record the progress of the disease and treat the victims. In addition, they often counselled the families of the stricken and bereaved and helped victims make their wills. They were not trained doctors, and often carried out other trades during normal times. Nevertheless these early paramedics had high status and were well rewarded. They wore a protective costume consisting of a light, waxed fabric overcoat and a distinctive mask with a single glass eye and a beak-shaped nose, which served to prevent them making intimate face to face contact with their patients (figure 4). The beak was typically stuffed with herbs, straw, and spices to guard against inhaling the pestilential 'atmosphere', or at least protect their noses from the smell of putrefying corpses. The mask was thus a key actant, operating in between medical and ritual discourses. Thence its function was translated into popular cultures of masquerade, especially in the Venice Carnival, where the beak mask continues to this day to play a dramatic role as a reminder of the fragility of human existence. It is possible that the descriptor, through not the mask itself, travelled subliminally across the channel, where it came to characterise the judgemental role of the magistrate in the argot of the 'criminal and perishing classes' who often found themselves 'up before the beak.'

Figure 4 Paul Fürst, engraving, c. 1721, of a plague doctor of Marseilles. Source:

Fast forward to 2020 and medical authorities disagree about the effectiveness of wearing masks to prevent viral transmission. The extent of the public take up of hygienic masks is, of course, partly determined by the type and effectiveness of the advice issued by public health authorities in different countries. In China it is an official policy enforced by law. But take up is also overdetermined by highly specific cultural factors linked to normative strategies of social intimacy and distancing, definitions of bodily space, and, not least, the ritual role of masks.

I was recently in Japan whose public culture is centred on an elaborate social etiquette of civility. This includes the practice of mutual bowing in greeting and farewell. The body is regarded as a medium of social communication, through the eyes, gestures and posture, but not through hugging, kissing, hand shaking or other kinds of physical contact. During my visit, the most visible aspect of public civility was the wearing of hygienic masks. Masks are an important feature of traditional Japanese folk culture, especially in Kabuki and Noh plays, where they serve a purely symbolic function in identifying a character's social status and dramatic role. The everyday wearing of medical masks is a relatively new phenomenon and dates from the SARS epidemic of 2003. This serious and sometimes lethal respiratory illness was mainly concentrated in Hong Kong and mainland China but also provoked panic and emergency measures in Japan. However when the emergency subsided, many people went on wearing the masks. Today the practice is quite widespread, and many people, both young and old, mask up whenever colds and flu are prevalent. During my visit it was hay fever season, (which in Japan is caused by pollen from the omnipresent cedar trees) and it

was rather disconcerting to converse with people whose replies were so muffled for someone from a culture with very different attitudes to facial masks..

A Japanese anthropologist I met suggested that there was a hidden agenda behind the practice. In her view, wearers of masks are not so much trying to protect themselves from other people's germs (which the masks are anyway not good for) as to protect other people from their own (for which they are more effective). However, this is limited altruism. Wearing a mask is an implicit injunction for other people to do the same, and if they do not – and many still do not – then they can be regarded as selfish or anti-social, breaking the code of public civility. In this culture, pollution, whether from natural causes or from social interaction is regarded as an unwarranted intrusion into personal space. Just as ritual greeting avoids physical contact so this *double masking* may indirectly serve to reduce the chances of infection even though in and of themselves the masks offer very limited protection. It is because the mask functions as part of an actor-network that this is possible.

In Britain, face masking is traditionally associated with aristocratic/bohemian excess as exemplified in the masked ball, with the balaclava and criminal banditry, and more recently with the kitsch guising of children at Halloween. in other words it represents some form of transgression or deviance from dominant cultural norms. Moreover, there is no etiquette of public civility anchored to personal body space to support the practice of wearing hygienic masks. As a result there is likely to be much more public resistance to adopting its use than in Japan. One exception might be urban cyclists who already often wear masks to reduce the respiratory impact of traffic pollution, and for whom it has become something of a fashion accessory along with lycra shorts.

At the moment of writing (early March 2020) anyone wearing a face mask in public in the UK might perhaps be seen as carrier of Covid-19 and to be subject to social avoidance or worse. The mask is a signifier of the virus presence, the public face of the epidemic. This may, of course change, as and when the number of cases grows exponentially. It may be difficult to predict the exact tipping point but there could come a time when those *not* wearing a mask come to be seen as a threat to public health and in turn become subject to social ostracism. So now wearing a mask becomes an exercise in virtue signalling in a regime of moral hygiene which creates a whole new category of social outcasts. In the theoretical language of ANT, the mask is a hybrid which has translated the virus as a key intermediary or relay in the association of human and non-human actors which compose the epidemiological network. We have all become caught up in this network. Irrespective of actual our hygienic practices, we have become the mask the virus wears.

The psycho-social geography of risk

Covid-19 is transforming our mental maps of the environment as well as the way we navigate it. A new tactile geography of risk is emerging in which hitherto safe public spaces like parks, playgrounds, squares, schools, libraries and university campuses, cinemas and theatres, parking lots become no-go areas. Areas associated with dangerous people or risky practices such as street gang territories and shoot-up alleys used by drug addicts are suddenly emptied and become safe for dog walkers. There is also a new sensuous phenomenology in play, in which flat surfaces, doorways, letter boxes, and handles of any kind are suddenly seen to be potential virus hotspots and require special precautionary measures to interact with them.

How people respond to these changes depends to a large extent on their emotional dispositions and forms of attatchment to place. One relevant model of comportment in relation to the material and psycho-social environment is to be found in the work of the psycho-analysts, Michael and Edna Balint. In their book *Thrills and Regression*, the Balints characterise two modes of emotional and spatial orientation to objects and the environment. Their starting point is Freud's insight that the mother's body is the first landscape we learn to explore. In particular, Freud stresses in *The Uncanny that* the ambivalence that arises from the fact that it is both a site of intense delight and an object of deep anxiety. The maternal body is both the infant's first home and a medium for making sense of what is strange and unfamiliar about the wider environment. The mother's (or subsitute carer's) arms and lap are our first prospect on the world, from whence we launch ourselves experimentally in search of our first adventures in life. If all goes well, these same arms and lap are our nearest and most reliable refuge from the hazards, disappointments and terrors we encounter *en route*. Later, as we grow up, the mother's body will provide a model or analogue of the dens, turfs, territories, niches, and other devices through which we give a local habitation and name to our larger ambitions, rivalries and fears.

The Balints argue that there are two complimentary but different ways of holding the mother's body unconsciously in mind. In the first mode (which they call *philobatic*) people enjoy exploring the wide open spaces, are always on the look-out for new experiences and dares, like courting danger and the unknown, and see obstacles as challenges to their resourcefulness. They travel hopefully because their psychogeography consists of warm, friendly expanses which are felt to be safe and encompassing, a supportive stage for exciting performance; the child has the whole wide world in its arms, the world is your oyster and you are its pearl! At the same time this landscape is dotted more or less densely with dangerous and unpredictable objects, threatening in their independence, thrilling in their challenge, representing hazards that have to be overcome. There is an underlying confidence that when things get risky or the going gets rough the wider world will click in and will provide resources to enable you to anticipate or head off potential disaster.

The philobat goes to war as to a remote but exciting spectacle in which s/he will play a heroic part, on the front line, or possibly acting at a distance from their back yard. In this idiom which many commentators misrecognise by calling it resilience, scenes of death may be turned into something awesome rather than awful. War - or a pandemic - is a world turned upside down, but one which yields exciting new possibilities. When danger comes, philobats feel safer out in the open, under the sheltering sky, where they can command a view of what is going on.

In contrast, the second orientation (which the Balints call *ocnophil)* people only feel safe when they stay close to home, when they are surrounded by familiar objects, signs and landmarks, where they feel literally in touch with their surroundings; they cannot bear the thought of exposing themselves to danger. It is the inn, not the road that attracts them, and they do not travel hopefully, if at all. They are always making little dens for themselves and looking for potential bolt holes in and against a wider world that is experienced as hostile or threatening. The ocnophil universe thus consists of safe familiar objects separated by vast abysmal empty spaces, unconsciously representing maternal abandonment, there is no good mother there, only a bad, persecuting and at the limit emotionally dead one. This is associated with a pervasive fear of being dropped, let down, losing or being torn away from objects. That is why there is so much clinging to the object, such intense attachment to place, in the belief that it will somehow click in and shield you from external danger. Behind this lies the desire for a totally benign and protective environment, a world in which all risk

and anxiety has been eliminated and one is held forever in the warm embrace of a protective family or state, guaranteeing permanent ontological security.

This model deals in two ideal types of environmental orientation, which may correlate with certain kind of personality, those who are risk takers or risk averse, or phobias (claustrophobia and agoraphobia) but empirically they are found in a variety of weak and strong combination, and people may shift between one mode and another according to context and conjuncture in which they find themselves.

I hope however that the reader will by now be aware of how relevant this model is to understanding different emotional responses to the risk represented by the virus and the measures that have been introduced to combat its spread. The advent of the pandemic is an ocnophil charter, it dramatically endorses this view of the external world as an overwhelmingly threatening space with home as the only safe place. From this standpoint, the lockdown feels very comfortable but people may take some persuading that it is safe to go out for a walk! In contrast those of a philobatic tendency will feel deeply resentful of the constraints on their freedom of movement, will feel claustrophobic being cooped up indoors , are very likely to engage in risky behaviour and hence a more likely to catch the virus. We thus have the basis for undertaking an emotional cartography of Covid-19 linking psycho-social dispositions to spatial metrics.

The cartographic challenge

I have argued that the Covid-19 epidemic offers us a powerful allegory of neo-liberalism and also that the tools required to map its real, imaginary and symbolic dimensions are hampered by their confinement to different cartographic cultures. Nevertheless open source software, facilitating the digital capture of analogue material and participatory community mapping projects using multi-media formats are both beginning to make headway . Radical cartography finds itself on many front lines of intervention at the present time, in projects designed to protect the environment and civil society, public health and wellbeing, the rights of indigenous and minority communities.

One problem with combining qualitative approaches to narrative or life story mapping with cartograms using algorithms to depict big quantitative data sets is that they operate at quite different levels of granularity, and require radically different skill sets to make and use. In addition, mapping that involves direct community participation takes time to establish trust, something that is in short supply right now, along with time itself. The challenge then is to find ways of locating people's stories, their fears and fantasies in a cartographic format that also contextualises these locally situated perceptions in relation to wider spatial metrics. The model for this approach – and the inspiration for much of Livingmaps work – is William Bunge's *expeditionary geography* as exemplified in his book *Fitzgerald: Diary of a Revolution.* Here we have a rich mix of oral testimony, ethnographic observation, photographic documentation and metric maps, meshing in the quantitative and the qualitative, not in some whimsical or chaotic assemblage as in Defoe's *Journal of the Plague Year* but in a strategic cartography of racism and how the American Dream failed Detroit's black communities. We surely need a similar approach for an Atlas of this pandemic.

It seems to me that the current world disorder, of which the corona pandemic is only one aspect, poses new challenges for cartographers concerned to map injustices and to identify emergent resources and sites of progressive resistance to inequality, oppression

and exploitation. Some of the challenges, as I have indicated, are technical. The intensified flow of people, information, goods and services generates ever larger data sets whose visual representation via algorithmic cartograms poses special problems of legibility for non-specialist readers. Equally, space/time compression created by digital communications technologies means that do-it-yourself cognitive maps which people use to find their way about and make immediate sense of the world cannot represent the global network of connections and power that underpins these everyday navigations.

Today whole populations find themselves living in, and fleeing from, war zones of various kinds - civil wars, drug wars, gang wars, wars against crime, wars against poverty which target the poor, and now public health wars against viral epidemics which lock down whole cities. Meanwhile global climate heating is destroying homes and livelihoods through fire, floods, and famine on an epic scale. It is a supreme irony that people whose homes have been flooded, or who have been made homeless by economic pressures are now being told to stay home to prevent the spread of Covid-19.

Happily ever after?

The urgency of taking up this challenge is underlined by monitoring the current infodemic on social media around Covid-19, where it is either portrayed as fake news, or the end of the world. On Facebook and Twitter, Britain is rapidly becoming a nation of germophobes. Conspiracy theories abound across the ideological spectrum. We learn that the virus is nature's revenge for refusing to take vegetarianism seriously. Or it is God's punishment for failing to observe His Laws. Or it is down to Boris Johnson because he wants to be able to blame the coming recession on a providential act of God, not on his government's policies, or the impact of Brexit. Or it is a dastardly plot to delay Brexit. Professional conspiracy theorists are much in evidence - Covid-19 has been engineered by Big Pharma to make a killing out of producing a new vaccine. And of course we know who is behind Big Pharma, don't we? That's right, Jewish finance capital. According to the eco-fascists the virus is to be welcomed because the world is overpopulated and it will kill off those who would die anyway and are a drain on energy resources. So three cheers for the epidemic because it puts the planet on course for a sustainable green future.

The lowest common denominator in all these phantasmagorical constructs is a refusal to recognise the existence of actor-networks in which human and non-human are always and already equally enmeshed. Instead an alternative and entirely imaginary epidemiological structure is created in which the role of non-human actors (i.e the virus) is denied any autonomy, and instead becomes an instrument subordinated to and controlled by malignant human or divine actors. People who espouse conspiracy theories do so because they feel powerless. Through the strenuous exercise of magical thinking an attempt is made to take back control of the situation, to reduce the apparent arbitrariness of effect (due in this case to the opportunistic way the virus reproduces itself) to a single mono-causal principle of explanation, and then lodge that principle in an agency that replicates all the features of the virus itself: a hidden hand manipulating the outcome, deciding our destinies behind our backs.

The only redeeming feature of social media is the presence of a certain gallows humour, much of it predictably related to sex. Although the virus is not sexually transmitted as such, the new taboo on social intimacy, especially kissing and hugging, has inevitably triggered much caustic comment, especially from young people. So we have seen a spate of memes

along the lines of 'Carry on wanking - its good for your health.' Predictably, racist imagery is flourishing. A photograph on Facebook of a young couple in Hong Kong embracing wearing face masks provoked the comment which duly went viral: 'Ever tried a Chinese kiss ? No, it's the kiss of death, mate'.

Faced with the widespread dissemination of this kind of nonsense, often mischievously offering what are essentially counsels of despair masquerading as principles of hope, it is tempting to think that a programme of public information and enlightenment will do the trick. Just give people the scientific facts and they will exercise common sense. Unfortunately on its own that kind of rationalist strategy is condemned to fail because it lacks any purchase on the social imaginary of contagious disease. We might do better to address this 'other scene' more directly to make sure that devil does not have all the best tunes.

This caveat brings to mind the nursery rhyme 'ring-a-ring of roses' which is a salutary counterpoint to 'Happy Birthday' which we are being encouraged to sing silently to ourselves while we 'religiously' wash our hands and hope we do not catch OCD. Readers may recall the words of the nursery rhyme from their childhood :

> Ring-a-ring-a-rosies
> A pocket full of posies
> Atishoo, atishoo
> We all fall down

The lyrics actually refer to the London plague of 1665 which, as we've seen, Samuel Pepys and Daniel Defoe chronicled to such different effect. It killed over a fifth of the city's population. Its key symptom was a red rash and many Londoners carried a posy of flowers to ward off the germs. The plague was no respecter of persons as the next verse tells us:

> The king has sent his daughter
> To fetch a pail of water
> Atishoo, atishoo
> We all fall down

Nature has the final cautionary word in the third and usually omitted last verse:

> The robin on the steeple
> Is singing to the people
> Atishoo, atishoo
> We all fall down

Today children only learn the first verse as part of a playground game and this is often followed by an entirely apocryphal additional stanza to provide an upbeat ending :

> Feel the lovely sunshine
> Going all around
> Lets all have fun
> Jumping off the ground.

(See YouTube for a contemporary version.)

If we substitute 'a tissue' for the onomatopoeic 'Atishoo' we get a slightly different and more useful health message but the moral of this cautionary tale of 'translation' remains the same, at least from the vantage point of counter-mappers. You cannot extract the rational

kernel from the mystical shell of popular belief unless you also recognise that it contains something real which is also unrepresentable, something that remains unthought and inarticulate in that idiom. It is that unknown relation and its possible cognitive assemblage in a cartographic format that should be the experimental focus of our map making.

If there is not going to be any fairytale ending, are there any rational grounds for hope that some good things may still come of it? Schools who abandon SATS may discover that they can do without them altogether and that there are other, more useful and creative ways of' evaluating educational performance. People who don't have cars but feel that travelling on public transport is too risky may take to walking or cycling instead and find to their amazement that this is a far more enjoyable, efficient and cheaper way of getting about. The crisis will emphasise the central importance of public services, not only the NHS, but social care and welfare systems, the youth service, the arts and parks, in maintaining the moral fabric of civil society. Finally we may also discover the limits of state intervention and relearn the capacity for collective self-organisation and mutual aid that is the foundation of any participatory democracy. Certainly plans for dealing with the emergency, if they are to be effective, need to be built up from locally situated knowledge and sensitively adapted to the specific circumstances of particular communities, not imposed by legislative fiat as a one size fits all top- down model. For example, hygienic practices that might be acceptable to one faith community might seem bizarre or abhorrent to another. Local initiatives may yet prove game changers and certainly something worth putting on a map of possible outcomes. From a Left perspective, we need to be sure that as and when such positive actions take place they are not hijacked by a triumphalist one-nation Toryism, but joined up into a vision of what it might be like to create a polity and economy that works for the many and not the few.

Acknowledgements

Works consulted or cited

Giorgio Agemben *State of Exception* University of Chicago Press 2002

Michael and Edna Balint *Thrills and Regression* Tavistock 1987

Christopher Bollas *The Shadow of the Object : psychoanalysis of the Unthought Known* Routledge 2018

William Bunge *Fitzgerald: diary of a revolution* University of Georgia Press 1976

Albert Camus *The Plague* Penguin 1972

Phil Cohen *Waypoints: towards an ecology of political mindfulness* eyeglass books 2019

Stan Cohen *Folk Devils and Moral Panics* Taylor and Francis 2011

Daniel Defoe *A Journal of the Plague Year* Penguin 1991

Andrew Donaldson et al 'Virus-Crisis-Institutional change: The foot and mouth actor network and the governance of rural affairs in the UK' *Sociologica Ruralis* Vol 42 2002

Paul Elliott et al *Spatial Epidemiology* Oxford Scholarship 2001

Kai T Erikson *A New Species of Trouble: the human experience of modern disaster* Norton 1995

N Katherine Hayles *Unthought :the power of the cognitive non-conscious* Chicago UP 2017

Susan Di Graciano Can there be a cultural epidemiology*? Medical Anthropology Quarterly* 13 41 1999

Steven Johns *The Ghost map* Penguin 2007

Naomi Klein *The shock doctrine* Penguin 2014

Julia Kristeva *Strangers to ourselves* Columbia University Press 1991

Bruno Latour *Science in action: how to follow scientists and engineers through society* Harvard UP 1987

Bruno Latour *Reassembling the Social* Oxford UP 2007

Thomas Mann *Death in Venice* Penguin 2007

John Pickles *A History of spaces: cartographic reason, mapping and the geocoded world* Routledge 2004

Thomas Piketty *Capital and Ideology* Harvard UP 2020

Guy Rosolato *La Relation D 'Inconnu* Gallimard 1978

Philip Roth *Nemesis* Penguin 2011

Michel Serres *The Parasite* Minnesota University Press 2007

Elaine Showalter *Hystories: hysterical epidemics and modern culture* Columbia University Press 1997

Rebecca Solnit *AParadise built in hell* Penguin2010

Susan Sontag *Illness as metaphor* Frarah,Strauss and Giroux 1978

James Thurber 'The Day the Damn Broke' in *My Life and Hard Times* Penguin 1998

James Trostl *Epidemiology and culture* Cambridge University Press 2005

Sherry Turkle *Alone Together: why we expect more from technology than from each other* Basic Books 2011

S.D. Wallis   'Disease mapping: a historical perspective' chapter in Elliott et al

Slavov Zizek *Pandemic* OR Books 2020

Shoshana Zuboff *The age of surveillance capitalism* Profile Books 2019