

## From Surveillance to Dataveillance: Disappearing Bodies and the End of Optics

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The advances in contemporary surveillance techniques have, for the past three decades, been bound with the development of cheap and efficient computational machines. These rapid changes in new media have made the task of theorising surveillance pertinent once again. Michel Foucault's *Discipline and Punish* (1995) is a seminal work in this respect. Although Foucault himself focuses on the development of disciplinary techniques in the 18th and 19th centuries, which has led some scholars to declare his model of identity formation to be outdated, his work is nevertheless more relevant than ever. A distinction must be made between Foucault's historically contingent examples and the generalisable theoretical apparatus he builds on their basis. Both the panoptic principle and disciplinary methods espoused by Foucault can be located at the heart of digitally augmented surveillance (dataveillance) and they have been, moreover, significantly amplified. This does not mean that nothing has changed in the actual practices of surveillance. The panoptic principle no longer depends on architectural enclosures, and has proliferated outwards into public spaces and homes. Disciplinary techniques, too, are far from gone, but there has occurred a shift from the body, as their primary locus of application, to the individual's 'digital double', inhabiting virtual spaces. Moreover, computer databases make possible a new procedure of normalisation by way of forecasting: the individual is not disciplined in real time but is predicted in advance, based on the digital trace left by his activities.

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Surveillance, understood broadly as a strategic gathering of information, is by no means new. An oft-cited example of the earliest written record describing this activity is the Book of Numbers, where Moses sends his spies to explore the promised land of Canaan. Another is the Domesday Book, which itself was part of a surveillance apparatus; a massive register of the Englishmen and their property, it was instituted in 1086 by the Norman administration to consolidate the latter's power through land transfers and a new taxation system. Yet, despite the historical precedent, there seems today to be a special sense of urgency surrounding the topic of surveillance, both in academia and beyond. There is a feeling that something has changed, that something new is under way. Perhaps rightfully so. The past few decades have seen rapid developments in personal computing and digital networking, the vast repercussions of which—social, political, economic—are overshadowed only by the extent to which they are not yet fully understood. Practices of surveillance are not an exception, and, although there has been no lack of theories of surveillance in academic literature, they too must be updated and subjected to this new 'digital' corrective.

As a field of study, however, surveillance is relatively young. A number of early attempts to make sense of institutionalised surveillance, interestingly enough, looked to George Orwell's *1984* for inspiration. This quickly changed, though, with the publication (or, rather, translation into English) of Michel Foucault's *Discipline and Punish*, a genealogy of the penal system in France and, to some extent, Europe in general. The work went far beyond the prison thematic and offered a trove of theoretical tools for conceptualising surveillance, all predicated on an account of power that, unlike Orwell's 'Big Brother', was dispersive rather than rigidly centralised. Foucault's main contribution in this area is his elaboration of Jeremy Bentham's 'Panopticon' into a generalisable principle.

The Panopticon, or 'inspection-house', is an architectural arrangement that creates a specific power dynamic within (and with) its walls. The building is circular, with a watchtower in the centre and cells occupying the circumference.<sup>1</sup> Each cell is equipped with a small window, overlooking the outside, to let in light, and an iron grating

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<sup>1</sup> Jeremy Bentham, *The Works of Jeremy Bentham*, Vol 4 (William Tait 1843) 40.

on the other side, to make the inmate visible from the watchtower.<sup>2</sup> The immediate advantage of such an arrangement is that it minimises the number of personnel required to effectively run the Panopticon, all the while maximising the possible number of inmates. One sees all. There is, however, a more peculiar benefit, which Bentham terms ‘the apparent omnipresence of the inspector’.<sup>3</sup> The windows of the central tower are so designed that the inmate can never know whether he is under supervision. One sees all, *without being seen*. The tower, as it were, effects a virtual proliferation of the inspector’s gaze. As a result, obedience is procured not by means of kinetic violence but through the ‘soft’ power of observation. In a very real sense, an effective Panopticon makes its own architectural implementation redundant. To foster the paranoid awareness that one is being constantly watched—to reach for the ‘soul’, rather than punish the body—is to transform every inmate into his own warden. Thereby ‘[a] real subjection is born mechanically from a fictitious relation’.<sup>4</sup>

Bentham understood the wide applicability of the Panopticon. Not merely a prison, it could be repurposed for ‘guarding the insane, reforming the vicious, confining the suspected, employing the idle, maintaining the helpless, curing the sick, instructing the willing’ and so forth.<sup>5</sup> Nevertheless, for Bentham, it remained a ‘dream building’, rather than the ‘diagram of a mechanism of power reduced to its ideal form’.<sup>6</sup> This is where Foucault proves helpful. As Greg Elmer points out, Bentham’s Panopticon is physically and conceptually centred on the figure of the inspector and his tower; whereas, for Foucault, it is the inmate that becomes the conceptual centre.<sup>7</sup> Such a move is crucial. Bentham’s Panopticon is, in many ways, a re-enactment of the patriarchal regime found outside its walls: a big daddy (or, shall we say, brother?), watching over the unruly. By shifting the focus to the inmate, on the other hand, Foucault’s

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<sup>2</sup> *ibid* 40-41.

<sup>3</sup> *ibid* 45.

<sup>4</sup> Michel Foucault, *Discipline and Punish* (Alan Sheridan tr, Vintage Books 1995) 202.

<sup>5</sup> Bentham (n 1) 45.

<sup>6</sup> Foucault (n 4).

<sup>7</sup> Greg Elmer, ‘Panopticon—Discipline—Control’ in David Lyon, Kevin Haggerty and Kirstie Ball (eds), *Handbook of Surveillance Studies* (Routledge 2012).

panopticism better captures the process of subjection and identity formation that is enacted by means of surveillance. Furthermore, Foucault developed a detailed account of the normative apparatus that puts the panoptic machine to use. It is not enough merely to generate an awareness of being watched, in order to make someone 'behave'. As a principle of permanent, if illusory, visibility, panopticism does not answer the question 'behave how?' This then, is the function of discipline.

Panopticism and discipline are intricately connected in Foucault's work. The former deals with maintaining a grasp on the subject; the latter seeks to make this power structure useful, by increasing both 'docility' and utility of the body.<sup>8</sup> Discipline can work in a variety of ways, and be applied in a number of situations, but the result is always a certain stable 'mould', or a particular kind of 'self'. From the disciplinary perspective, a soldier, for example, is something that can be made: establish a routine and a hierarchy; correct the posture; instil precision in handling tools and weapons; and, most importantly, turn all of the above into habit. By design, discipline is extra-judicial; it operates on a level too microscopic for law. Nevertheless, it is a court of its own, in which the smallest infraction must be penalised precisely because, for discipline, no offence is too small or insignificant. Be it school, work, or the army, one can always find an array of norms and, if one falls short of them, corresponding 'micropenalties' duly follow.<sup>9</sup> Do not be late; do it faster; pay attention; try harder; wash your hands; be decent; and so forth. But, like the panoptic principle, discipline's end game is not to punish, but rather to ensure the sustainability and automaticity of a power relation—by making its subject internalise the function of the policeman.

The relationship between discipline and panopticism should now become clear. To oversee the minutest infraction, a disciplinary apparatus must be able to 'keep tabs' on its subjects at all times. It depends, in other words, on a regime of permanent visibility: 'The perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly'.<sup>10</sup> Thus, although panopticism and

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<sup>8</sup> Foucault (n 4) 138.

<sup>9</sup> *ibid* 178.

<sup>10</sup> *ibid* 173.

discipline remain two separate concepts in Foucault's work, they depend upon each other and work together—historically, at least. Or, to put it differently, they can be taken as two distinct analytic plains, pertaining to an actual institutionalised panoptic-disciplinary machine.

This, in turn, poses a number of problems for applying Foucault's model to contemporary modes of surveillance. While variations on these issues can still be found in more recent surveillance literature,<sup>11</sup> arguably two of the biggest concerns remain those raised by Foucault's contemporaries, Gilles Deleuze and Jean Baudrillard.

The first focuses upon the issue of enclosure, as raised by Deleuze in his 'Postscript on the Societies of Control', a rather impressionistic yet highly influential essay.<sup>12</sup> Deleuze maintains that Foucauldian 'disciplinary societies' are in the process of being supplanted by 'societies of control'.<sup>13</sup> If the former, to have an effect, relies on the quite literal containment of individuals within the walls of the prison, barracks or school, the latter dispenses with any such need. Disciplinary apparatuses 'are moulds, distinct castings, but controls are a modulation, like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point'.<sup>14</sup> What this means, in practice, is that individuals are no longer *contained* by a series of disparate disciplinary institutions throughout their lives, but rather are *controlled*, without a break, from life to death, in a much less conspicuous fashion. Our example of the soldier is more or less a finished 'product' after completing his training; but a global consumer, for the lack of a better term, is always a work in progress. Indeed, the new disciplinarian for Deleuze is global capitalism, which need not confine in order to have a hold: 'Man is no longer man enclosed, but man in debt'.<sup>15</sup>

But Deleuze does not maintain that the transition is complete; only that it is on the way. The panoptic principle is still widely used to

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<sup>11</sup> See, for example, Mark Poster and David Savat (eds), *Deleuze and New Technology* (Edinburgh University Press 2009).

<sup>12</sup> Gilles Deleuze, 'Postscript on the Societies of Control' (1992) 59 October 3.

<sup>13</sup> *ibid* 4.

<sup>14</sup> *ibid* 2.

<sup>15</sup> *ibid* 6.

this day, and there is evidence that creating an awareness of being watched still produces results.<sup>16</sup> So much so, in fact, that installing cheap fake surveillance cameras has become a widespread practice.<sup>17</sup> Nevertheless, the movement towards ‘unenclosure’ of individuals must be acknowledged as a contemporary reality: consider visa-free regimes; online education; and criminals wearing electronic ankle tags, instead of spending time in prison. There is consequently less pressure both to be immobilised architecturally and to remain forever the same as an individual.

Baudrillard’s criticism of Foucault is more vitriolic, and more general, but it is also more pertinent for our present question of the digitalisation of surveillance. In *Forget Foucault*, Baudrillard labels the *Discipline and Punish* project, among others, a ‘magistral but obsolete theory’.<sup>18</sup> Foucault’s main offence, according to Baudrillard, is that his work is wedded to the ‘reality principle’; observation is carried out in the name of transparency of the real object (body) for the gaze.<sup>19</sup> Power, no matter how dispersed, remains an objective reality, whose traces are recoverable by genealogical analysis; that which is done, as it were, ‘on the ground’ is still distinguishable from what is said about it. In other words, Foucault’s theoretical apparatus, for Baudrillard, is too materialist, whereas we have long since been living in the world of the symbolic. There is no *objective* link between a sports car and a semi-naked model presenting it, for instance; but neither does it matter, because, in a world where signs only relate to other signs, they constitute an objectivity of their own. Guy Debord, a great influence on Baudrillard, made this point previously: ‘When the real world is transformed into mere images, mere images become real beings—dynamic figments that provide the direct motivations for a hypnotic behaviour’.<sup>20</sup> But, if Debord still believed in the potential power of the medium to de-alienate and turn back on the spectacle, Baudrillard would go a step further, and

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<sup>16</sup> Lynsey Dubbeld, ‘Observing Bodies. Camera Surveillance and the Significance of the Body’ (2003) 5 *Ethics and Information Technology* 151, 157.

<sup>17</sup> Anthony Caputo, *Digital Video Surveillance and Security* (Butterworth-Heinemann 2010) 3.

<sup>18</sup> Jean Baudrillard, *Forget Foucault* (Phil Beitchman, Nicole Dufresne, Lee Hildreth, and Mark Polizzotti trs, Semiotext(e) 2007) 34.

<sup>19</sup> *ibid* 31.

<sup>20</sup> Guy Debord, *Society of the Spectacle* (Ken Knabb tr, Rebel Press 1995) 11.

say, after Marshall McLuhan, that ‘the medium is the message’;<sup>21</sup> that the symbolic and the real have blended to the point of indiscernibility: ‘dissolution of TV in life, dissolution of life in TV’.<sup>22</sup> If so, then Foucault’s talk of material bodies maintained under the gaze of optical arrangements seems insufficient. Bodies disappear under a thick crust of signifiers, as does the need for optics. Our Panopticons no longer require walls, because our disciplinary arrangements are losing interest in our bodies. Today, when much of work, play, and communication is carried out not in ‘the real’, but digitally and virtually, the insights of Debord and Baudrillard only gain salience. What this means, for surveillance in particular, is that digital representations of the individual are taken for the individual as such, where even the body itself becomes indistinguishable from its digital double within social media and intelligence reports, or on the screen of a drone operator. If Foucault’s panoptic-disciplinary model is to endure, it must account for these changes.

Such, then, are the two related problems: the disappearance of enclosures, and the disappearance of bodies. But one must separate Foucault’s theoretical apparatus from his historically contingent examples. We might wish to look for new examples, but Foucault’s model of panoptic-disciplinary identity formation remains useful.

Indeed, Foucault anticipates the proliferation of disciplinary techniques beyond places of enclosure and into a generalised mode of surveillance. A panoptic-disciplinary apparatus may rely on walls and optical trickery, but these are not its outstanding features: ‘The principle of “enclosure” is neither constant, nor indispensable, nor sufficient in disciplinary machinery’.<sup>23</sup> The space upon which discipline operates is not primarily physical, but rather analytical. If the elements of a system (bodies, our ‘digital doubles’, or equipment) can be tracked, distributed, and controlled, in ways other than confining them to a specific place, so much the better. For discipline is first and foremost an ‘art of rank’; not so much a way of fixing the individual’s location, nor even fixing, once and for all, some individual qualities, but rather a technique for the classification and distrib-

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<sup>21</sup> Marshall McLuhan, *Understanding Media: The Extensions of Man* (MIT Press 1994) 7.

<sup>22</sup> *ibid* 30.

<sup>23</sup> Foucault (n 4) 143.

ution of individuals in relation to others and themselves.<sup>24</sup> Here is Lieutenant Jones, and here is Major Smith; they are ranked relative to each other, but each, individually, has their own opportunities for promotion and demotion also. Likewise, one is both ‘fixed’ in one place by their school grade, or illness history, and has some leeway to move about along the spectrum of categories.

The striking feature of a disciplinary apparatus, therefore, is not so much that it acts on bodies, but that it is in the business of isolating, arranging and sorting the elements under its control. If so, then it is not just the bodily motility that can be subjected to disciplinary procedures. Classification, and hence normalisation, can proceed on any level, be it one’s credit rating, citizenship or online purchase history. There is no need to lock anyone up in order to assign or determine those. In all likelihood, this information is already (or soon will be) contained somewhere in a database; it is retrievable, at will, in a matter of seconds. Is she worthy of a loan? Can he enter this country? What other purchases should Amazon recommend? The role of the database in this sense becomes central. It dispenses with the need for enclosure, because, whenever the individual comes into contact with the world—by logging in, swiping a card, producing identification, or simply showing one’s face in a public space, monitored by CCTV—his identity can immediately be established: in order to track, punish, advertise to, and so on.

Such increased mobility of the body can be seen as the corollary of the increased mobility of disciplinary apparatuses. The latter no longer need be confined to material sites, providing they can ensure ‘visibility’ in some other way. And, inasmuch as this visibility is maintained digitally, which allows for easy accumulation, access, consolidation, transfer or trade of information, this creates the opportunity for all kinds of decentralised disciplinary hybrids. One’s geolocation data collected by a smartphone, for instance, can serve a multitude of purposes (for a multitude of third parties) at once: personal fitness statistics; an alibi for the police, or the jealous partner; real-time delivery of location-appropriate sponsored messages; establishing a possible list of associates, when collated with other individuals’ geolocation data; and so on. Kevin Haggerty and Richard Ericson capture this mobile and decentralised nature of

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<sup>24</sup> *ibid* 146.

dataveillance in their conception of ‘surveillant assemblage’, which ‘is not so much immediately concerned with the direct physical relocation of the human body ... but with transforming the body into pure information, such that it can be rendered more mobile and comparable’.<sup>25</sup> Liberated from the body, information flows can then be put to use in a range of ‘scattered hosts of circulation’—such as police stations, statistical or economic institutions, corporations or states—and thereby be employed simultaneously for a whole host of coalescing or conflicting purposes: security, control, profit, entertainment.<sup>26</sup> Visibility, on this account, has little to do with transparency of the objective body to the surveillant gaze. Rather, the relationship is reversed; information itself becomes the condition of that which may be visible, and therefore objective. Such a state of affairs does not weaken Foucault’s disciplinary model; it merely relocates its functioning from the materialist ‘mode of production’ of the classical age to the ‘mode of information’, to borrow Mark Poster’s phrase.<sup>27</sup> In fact, if discipline is ‘an art of rank’, whose locus of application and manipulation is ‘the place one occupies in a classification, the point at which a line and a column intersect, the interval in a series of intervals that one may traverse after the other’,<sup>28</sup> then we could even say that its functioning has never been anything but symbolic.

Baudrillard’s criticism, then, is not so grave after all. In order to witness the panoptic-disciplinary mechanism still at work, it is only necessary to examine its functioning on the *symbolic*, rather than *material*, level. It is not the body that becomes the site of disciplinary manipulation but, as it were, its ‘digital double’: its data-image, stored in a remote database. The two, of course, remain connected, but each also has a life of its own. David Lyon provides a bizarre, but apt, example.<sup>29</sup> A number of individuals who claimed free sundaes on their birthdays at Farrell’s Ice Cream Parlour in the United States soon found draft registration warnings in their mail.

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<sup>25</sup> Kevin Haggerty and Richard Ericson, ‘The Surveillant Assemblage’ (2000) 51(4) *British Journal of Sociology* 605, 613.

<sup>26</sup> *ibid* 609-613.

<sup>27</sup> Mark Poster, *The Mode of Information: Poststructuralism and Social Context* (University of Chicago Press 1990).

<sup>28</sup> Foucault (n 4) 145-146.

<sup>29</sup> David Lyon, *The Electronic Eye: The Rise of Surveillance Society* (University of Minnesota Press 1994) 10.

The company, it transpired, had sold the lists of the claimants' names to a marketing firm that, in turn, sold the data to the Selective Service System. It was then bought by the Department of Defense. This story illustrates two things. First, that panopticism can be substituted by self-reporting; the element of permanent visibility remains, but it no longer requires an exclusively optical or coercive solution. The populace, as Poster puts it, has already been 'disciplined to surveillance and to participating in the process'.<sup>30</sup> Second, the digital, rather than the physical, becomes the site where the disciplinary process takes place. In contrast with surveillance, which relies on a material apparatus (a spy, a camera, a warden, a wall), dataveillance dispenses with extension: it is the site of observation itself.<sup>31</sup> Every click is potentially an act of self-reporting, and a disciplinary corrective, all at once. Thus discipline no longer acts, in the first instance, on the body, nor requires enclosure or interrogation, for there is a faster and cheaper way to record, store and retrieve information by means of the database and a user interface. Yet the database preserves its function of a 'mould'; only 'relevant' information is recorded—name, age, location, purchase history, political views and so forth—and this, in effect, will constitute the new individual.

The database, however, proves more flexible also, creating conditions of possibility for a mode of surveillance that goes beyond Foucault's panoptic-disciplinary model. The database allows for the accumulation and analysis of enormous amounts of information, and the results of these analyses often pertain to events *yet to occur*. Profiling of individuals and populations, forecasting of climates and economies, epidemiological analyses—all of these, and more, are today simulated, rather than directly observed. This kind of dataveillance is not so much focused on establishing the *nature* of the individual or event, but rather on the tracking of *outward manifestations* that can then be collated into patterns or compared against already existing templates.<sup>32</sup> Potential 'terrorists' can be predicted (and eliminated) in advance, based on their phone call history; an unreliable debtor can be denied a loan, based on his credit rating;

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<sup>30</sup> Poster (n 27) 93.

<sup>31</sup> See, for example, David Savat, 'Deleuze's Objectile: From Discipline to Modulation' in Savat and Poster (n 11).

<sup>32</sup> *ibid.*

and anyone can be shown a tailored advertisement, based on their browsing history.

Not so long ago, Target took the media by the storm by ascertaining that a teenage girl was pregnant before her father did.<sup>33</sup> Based on the girl's purchasing history, the store's algorithm conjectured her pregnancy and the appropriate coupons were promptly dispatched to the family. What is most troublesome in this, and hordes of similar examples, is not so much the invasion of privacy as the trend of constituting individuals in advance. Target did not make the girl pregnant, but the unborn child's future can already be overdetermined by purchases the store might suggest. Buy a blue 'onesie' and an algorithm speculates that you might have a boy, and suggests the next gender stereotypical item you might desire. This is where panoptic observation, conjoined with disciplinary normalisation, rears its head once again. The individual is no longer simply 'known' but is constructed, as it were, in real time and for time to come. Indeed, dataveillance of consumption seems to have become the new frontier for contemporary surveillance technologies. It was once the case that the worker could leave the capitalist enterprise behind the factory gate—but today it awaits him at home, under the guise of a web browser.

Bentham's Panopticon was a humanist idea: the replacement of the power of violent coercion with a softer and lighter power of observation. In Foucault's hands, however, the picture quickly becomes sinister. The potency of his analysis lies precisely in that he shows that invisible does not mean less real, and that soft power can be more effective than violence. And, although Foucault's panoptic-disciplinary model, as we have shown, does require a corrective to account for the advent of the digital, it is still more than capable of encompassing and helping to understand a great number of surveillance sites, from the workplace to the web. It is also a general reminder that we are never quite as free as we might like to think; that claiming a free ice cream, or buying shoes online, can be an event less transparent and more life-changing than one could ever imagine.

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<sup>33</sup> Kashmir Hill, 'How Target figured out a teen girl was pregnant before her father did' (*Forbes*, 16 February 2012)

<<http://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did>> accessed 3 April 2015.

And Foucault's model is useful, too, as a background against which new surveillance practices become more visible. The body disappears because it is infinitely cheaper, and more efficient, to maintain and enforce identities digitally: no optical arrangement or prison cell can compete, after all, with cloud computing. Recently, the omnipresence and somewhat menacing character of dataveillance have been brought into the public consciousness by Edward Snowden. The ensuing debate, however, has to date overemphasised the issue of personal privacy, predicated on the idea of an identity that is formed freely and independently. If, on the other hand, we recognise the power of dataveillance to mould and shape individuals, then the question of privacy becomes secondary; if not irrelevant. An interesting effect of Snowden's revelations, moreover, is that they have created a panoptic effect of their own. Not by means of cell and watchtower, but via mass media, the populace has learned that they are, indeed, under constant observation. But, whereas the Panopticon maintained an *illusion* of one being watched at all times, dataveillance makes possible an *actual* uninterrupted observation of every individual of interest. Simultaneously, as Foucault never tired to point out, 'where there is power, there is resistance'.<sup>34</sup> The issues of digital security (and lack thereof) have taken centre stage in the past few years, and initiated a wealth of anti-surveillance projects as well as popularised several established ones. The new arms race, occurring in the digital space, is no longer dialectical. States—but also corporations, military and paramilitary organisations, digital mercenary groups and skilled individuals—form heterogeneous, and sometimes contradictory, 'surveillant assemblages', in which they both survey and have to fend off surveillance from others. Unburdened from physical constraints, dataveillance techniques are increasingly mobile, decentred, numerous and ever-evolving. They are, therefore, never 'bad' per se, inasmuch as they can be put to different uses. But it is also true that the potential victors in this arms race are those parties who can procure better technology professionals, and sustain bigger data centres—making dataveillance subservient to capital; introducing the possibility of its relative re-centralisation; and producing individuals disciplined to consume.

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<sup>34</sup> Michel Foucault, *The History of Sexuality Volume 1: An Introduction* (Robert Hurley tr, Pantheon Books 1978) 95.