Kosmoikos: The search for location in a networked age

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KOSMOIKOS: THE SEARCH FOR LOCATION IN A NETWORKED AGE

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The domestication of the global. *Source: Blomkamp 2013*

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

CHAPTER 1: MEDIATIZED LOCATION

1.1 Introduction: Dematerialization

Woe, when homesickness for the land overcomes you, as if there had been more freedom there—and there is no more "land"! (Nietzsche 2001, 124)

In 2012, the thirteenth edition of the documenta quinquennial contemporary art exhibition in Kassel Germany presented itself as taking "a spatial or, rather, 'locational turn', highlighting the significance of a physical place" (Christov-Bakagiev 2012, 2), implying that the concept of *place* had, somehow, diminished in significance—or perhaps even vanished altogether. Gathered under this theme a few exemplary projects included: the renovation of a derelict building using only reclaimed materials imbued with local history; a living sculpture located in a compost heap, its head constructed out of an active beehive; and a location-based video walk in which audience members used media players in order to follow a fictional narrative through a physical space laden with cultural meaning[1]—the latter piece bringing to mind another locational turn announced somewhat earlier in a small field of media art known as "locative media" (Tuters and Varnelis 2006).

While art history might trace this "locational turn" back to site-specific practices of 1960s and '70s (Kwon 2004), it could also be framed in terms of a critical response to a cultural diagnosis concerning the dematerializing effects of modernity on the very substance of place. In the field of media studies, the Canadian economic historian Harold Innis (1949), writing in the mid-twentieth century, may be thought to have inaugurated this diagnosis

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[1] The pieces mentioned here, in order, are Theaster Gates' *12 Ballads for the Huguenot House* (2012), Pierre Huyghe's *Untitled* (2012), and Janet Cardiff and George Bures Miller's *Alter Bahnhof Video Walk* (2012).

based on the argument that in order to understand a given culture one needed to study its dominant communication medium and its specific "bias of communication". Innis posited a deterministic relationship between the rise of empire and the destruction of local tradition in which innovations in durable communications media provided ruling elites with a technologically-enabled epistemological advantage, a "monopoly of knowledge" (1986, 22).

Though Innis himself wrote little on electronic media and focused primarily on cultural institutions, Marshall McLuhan applied Innis's insights to the effects of new media on human perception, arguing that media altered human "sense ratios" (McLuhan 1994, 18), so that "[t]he discarnate user of electric media bypasses all former spatial restrictions and is present in many places simultaneously as a disembodied intelligence" (1995, 362). Like Innis before him, McLuhan considered many of the significant changes wrought by media to be withdrawn from view, stating that "environments are invisible, their ground rules, pervasive structure and overall patterns elude easy perception" (McLuhan and Fiore 1967, 35). A literary theorist by training, McLuhan formulated aesthetics as a kind of remedy to his diagnosis, stating that "the task of art is to correct the bias of technological media" (1960, 22). In conceptualizing media in terms of autonomous forces with irreducible essences, this approach can be referred to as *substantivism*, a tradition in critical thought which perceives modernity as "an epistemological event that discloses the hidden secret of the essence of technology […] for increasing control and calculability" (Feenberg 1999, 3).

While Innis and McLuhan were politically conservative thinkers, whose primary contributions to the field also predated computation, postmodern theorists would go on to develop the radical consequence of substantivist media theory in relation to contemporary forms of networked media. Foremost amongst these thinkers is Paul Virilio, who, originally

in 1984, announced that with the arrival of the home computer, architecture's capacity in "defining a unity of time and place for activities now enters into open conflict with the structural capacities of mass communication" (Virilio 1991, 22). Virilio would go on to evoke the effect of networked technology as bringing about "an end of geography" (2005, 9), undermining the solidity of the built environment. As such, Virilio can be understood as offering an overarching critique of modernity that focuses on the effects of media on epistemology, typically framed through spatial and architectural metaphors.

Coming from a background of an avant-garde architectural practice in the 1960s (Armitage 2000, 32)—a subject to which I will return in subsequent chapters—the impact of Virilio's thought within the field of architecture theory has been characterized as diagnosing "a condition of 'post-architecture', whereby the way in which we engage with traditional constraints imposed by architectural elements such as walls has shifted as a result of advances in technology" (Leach 1999, 75), and in which "architectural regimes become computational" at a global scale (Bratton 2007, 8). In the mid-90s, Virilio heralded the innovation of a new consumer medium incorporating a Global Positioning System receiver, as the "event of the decade" (1995, 155), for its paradoxical ability to allow users to literally position themselves hyper-locally within a global-scale system. For Virilio, this curious device seemed to present itself, fallaciously, as resolving an age-old metaphysical dilemma— "you don't know where you are, but with this machine, you can know" (L. Wilson and Virilio 1994)—signifying the arrival of a new kind of epistemology, tied to changes in *the environment*, in which "media are at work replacing people with their addresses" (Kittler 1996, 724), in the words of another prominent substantivist at the time. But while substantivist media theory offers a useful starting point in diagnosing the locational turn, this problematic is, in fact, central to postmodern theory in general.

In the same year as Virilio first wrote about the dematerializing effects of networks on architecture, Fredric Jameson published his famous diagnosis of *late capitalism*, which he characterized as "the great global multinational and decentered communicational network in which we find ourselves caught as individual subjects" (1984b, 84). Jameson's influential text built on Guy Debord's claim that "the whole life of those societies in which modern conditions of production prevail presents itself as an immense accumulation of spectacles" (Debord 1995, 12), itself a naked allusion to Karl Marx's observation that "[t]he wealth of societies in which the capitalist mode of production prevails appears as an 'immense collection of commodities'" (Marx 1992, 125). Like Virilio, Jameson identified increased mediation with a kind of diminution in authentic embodied experience, seemingly leading inevitably towards a state of *derealisation*—to borrow a term from psychopathology, when the external world comes to seems unreal (American Psychiatric Association 2013, 291). Jameson however tied his diagnosis to a Marxist world systems meta-narrative which treated this derealization as symptomatic of the fact that the economic base of late capitalism had outstripped the normal phenomenological capacity for people to make sense of their place in its world of production.

Weaving together a complex argument from elements of cultural Marxist theory, Jameson argued that transformations in material culture had confounded the normative basis for the formation of class consciousness. One of the most famous aspects of his argument—in fact, "on the evidence of citation, the most memorable single exercise in all the literature on postmodernism" (Anderson 1998, 58)—involved an analysis of the confusing layout of a particular architectural space that he identified as a kind of spatial analogy to his epistemological diagnosis of derealisation. At the same period that Jameson developed his

theory, the concept of postmodernism was closely identified with a vernacular style of architecture that sought to divorce form from its underlying program, an approach which Jameson considered symptomatic of late capitalism in general. Jameson thus presented himself as a kind of diagnostician or detective investigating the ersatz aesthetics of postmodern culture in order to reveal a hidden world system with particular attention to the built environment—since he claimed that architecture was "closest constitutively to the economic" (1984b, 56).

Diagnosing a kind of epistemological impoverishment that severed the subject from an authentic relation to the underlying conditions of economic production leaving them stranded amongst commodities and lost in "hyperspace" (Jameson 1984b, 80), Jameson conceptualized a specific remedy that he described as "a whole new technology, which is itself a reflection, or way to deal with a whole new economic world" (ibid, 58), that he termed *cognitive mapping*. Frequently cited by subsequent scholars as a key moment in the so-called *spatial turn* in social theory (Soja 1989, 62-64; Dear 2000, 47-69; Kitchin and Dodge 2011, 66-71; Warf and Arias 2008, 1-6) Jameson's "spatial dialectic," as he has come to call it (2009, 66), and in particular his notion of cognitive mapping, provide a kind of anchor point in relation to which this dissertation will explore a number of concepts, over the course of five chapters, each in turn offering a different perspective on the locational turn. Before, however, providing a brief overview of these concepts and perspectives, I will first introduce my general approach, which might simply be understood as an intellectual history, or, to be more precise, "an element in a genealogy" (Foucault 1995, 29) of ideas and practices relating to the concept of what I call *mediatized location*.

1.2 Approach: Media Genealogy

Only that which has no history is definable (Nietzsche 1989, 80)

What seems natural to us is probably just something familiar in a long tradition that has forgotten the unfamiliar source from which it arose. And yet this unfamiliar source once struck man as strange and caused him to think and to wonder. (Heidegger 1993, 150)

As the most widely cited author in the humanities (Staff 2007), Michel Foucault's thinking is considered central to the spatial turn in social theory (Crampton and Elden 2012). Before proceeding to a discussion of aspects of Foucault's method and how they may be adapted to the field of media theory, let us begin briefly here by considering how his genealogical approach to the writing of history arguably problematizes the search for location in a networked age. In addition to his well-known discussion of the architectural plans of the panoptic prison (Foucault 1995, 200), Foucault identified Europe in the latter part of the eighteenth century with "the birth of a sort of thinking about space that […] extends far beyond the limits of urbanism and architecture" (2001, 353), in which "[i]t was not architects but engineers […] who thought out space" (ibid, 354). Together with innovation in new economic processes that would gradually come to spread throughout the world over the course of the next two centuries, Foucault also identifies this period with "one of the great discoveries of political thought […] the idea of society," whose effective governance "not only has to deal with a territory […] but […] with a complex and independent reality that has its own laws" (ibid, 352). Broadly speaking, Foucault's approach here sought to account for how, with the emergence of a new economic rationality, the target of governance underwent a historical shift from the medieval notion of territory, associated with the sovereign principality, towards a probabilistic concept of *populations*, which itself was made possible

through innovations in new techniques of calculation. Whereas location is traditionally conceptualized by architects as a bounded physical site, I will draw on Foucault's historical account of the emergence of liberal techniques of governance (2008) in order to identify a variety of historical precursors to the concept of mediatized location, and to address the latent question behind the locational turn: where are we and in relation to which scale?

While, in the field of media studies, the phrase mediatization is very generally used to refer to the process in which communications media are thought to shape society, by offering the term mediatized location as the title for this opening chapter, my intention is also to suggest a historical relationship between the concept of location and that of governance, in partial reference to an alternate usage of the term. In the history of European governance, mediatization is also a term of art used by scholars of the early nineteenth century in order to refer to the process through which formerly ecclesiastical German principalities were forcibly secularized and annexed into larger territorial agglomerations leaving the dispossessed sovereign in the role of symbolic figurehead—whose sovereignty thus stood in for, or mediatized, that of a higher secular authority (Cämmerer 1814). As will be explored in greater detail in Chapter 2, by drawing on Foucault's genealogy of governmentality we can thus arguably trace a transformation in the substance of location back to the very dawn of European modernity—a change that Foucault would argue was made possible through the invention of the economy as designating a new "level of reality" (1991, 93).

Foucault's thinking is frequently associated with the idea of the paradigm shift, according to which the dominant modes of thought in one historical period are definitively differentiated from those of another. In his earlier work, concerning how knowledge systems form invisible constraints on the capacity for human thought, Foucault introduced the concept

of the *episteme* (Foucault 2005, xxiii) as a conceptual device intended to unearth the particular historical framework that determined the limits of thought in a given era. In defining an episteme in terms of "the conditions of possibility of all knowledge, whether expressed in a theory or silently invested in a practice" (ibid, 183), Foucault may be understood to have historicized Immanuel Kant's concept of the *a priori* categories necessary for cognition (Kant 1855, 2)—though Foucault however sought to highlight their contingency, whereas Kant sought to establish the universality. Written in the same period, and in a manner somewhat comparable to McLuhan's notion of invisible media environments, the earlier Foucault sought to reveal the contours of knowledge in a given time and how they might be understood as conditioning what could justifiably be thought at all, so as—in the words of one commentator—to apprehend "the world as it might have existed before human consciousness appeared in it [… since] Foucault views the mind's capacity to order the data of experience as a hindrance to a proper appreciation of the way things really are" (White 1985, 233). In this regard, Foucault was not particularly concerned with the conscious knowledge of an individual, what in French is called *connaissance*, as he was with the underlying structures of knowledge, or *savoir* (Foucault 1998, 261). In attempting to uncover the underlying "sedimentary strata" (Foucault 1972, 3) of conceptual systems, Foucault referred to this approach as *archaeological*, and it can be understood as an essentially structural method primarily engaged with the task of describing systems of thought without much concern for the reasons regarding their transformation from one episteme into another.

Building on the concept of the epistemological rupture developed initially by French philosopher Gaston Bachelard, and later by Foucault's teacher Louis Althusser, archaeology posited the existence of unthought structures immanent to knowledge itself, episteme being

Plato's words for knowledge, although the pre-Socratics preferred the term *gnosis*—a concept to which I will return later in order to discuss the ways in which new media spaces and interface have sought to address the metaphysics of location. Referring to an episteme as a "fundamental network defining the implicit but inevitable unity of knowledge" (Foucault 2005, 83) Foucault argued that Western history has undergone a number of epistemological ruptures, which he successively demarcated into epistemes. While they were organized chronologically, what really distinguished one episteme from another for Foucault was the different networks of wording strategies through which they delimited the epistemological horizon, or what was in fact *knowable*. Drawing on Bachelard, Foucault developed a *longue durée* type of historicism, which saw individuals as epiphenomenal to particular arrangements of knowledge—claiming, for example, in a discussion of the seventeenth century so-called 'Classical' episteme, that is was, in fact, the "network that made possible the individuals we term Hobbes, Berkeley, Hume, or Condillac" (ibid, 70). For Foucault, a shift from one episteme to another thus constituted a transformation in the entire object of study at the centre of the human sciences, thus explaining his claim that "man – the study of whom is supposed by the naïve to be the oldest investigation since Socrates – is probably no more than a kind of rift in the order of things" (ibid, xxv). As opposed to an ahistorical fact of nature, Foucault thus considered *man* as a manufactured concept, one that had been developed within the past two centuries—prior to which there had, in fact, been no single object through which to unite the social sciences—and which he predicted might in the near future become "erased, like a face drawn in sand at the edge of the sea" (ibid, 422).

This approach of periodizing epistemological ruptures has become deeply identified with social theory—as implicitly implied, for instance, by the very phrase postmodern. By

de-privileging man as the core concern of the social sciences, Foucault's early structuralism

may also be seen to have had a significant and continuing impact on post-humanist thought in

media theory (Hayles 2008), as well as on a particular form of historicism known as *media*

archaeology, though this approach is itself subject to a number of interpretations (Parikka

2011, 52-56). Although having expressed some reservations concerning the term (Armitage

2006, 32), Friedrich Kittler is nevertheless frequently cited as a figure of particular

significance to media archaeology (Parikka 2013, 61-89). Combining substantivist media

theory with structuralist historicism, Kittler, for example, identifies Nietzsche's comment on

the typewriter, that "[o]ur writing materials contribute their part to our thinking" (Nietzsche

in Kittler 1992, 196), as signifying "a Foucauldian caesura or a break of huge magnitude"

(Kittler in Armitage 2006, 32). In contrast to Kittler's notorious pronouncement that "media

determine our situation" (Kittler 1999, xxxix), an alternate approach to media archaeology—

what might be called the 'soft' option, in which "[t]he effects of 'hard' technology are

considered secondary" (Huhtamo and Parikka 2011, 8)—focuses instead on how new media

temporarily manifest persisting cultural traditions (Huhtamo 2011, 27-47). While perhaps

lacking a single stable definition, the appeal of media archaeology may nevertheless be said

to lie in how it brings Foucauldian methods into conversation with the objects and concepts

of media theory, a field with which Foucault himself very rarely engaged. In relation to a

distinction however made by Foucault himself, as well as for reasons of terminological

clarity, in lieu of media archaeology I prefer to think of the approach that I take in this

dissertation in terms of *media genealogy*.

A number of methodological criticisms have been levelled at Foucault's

archaeological project, in its attempt to reveal the hidden structures that constrain thought in

ways of which people are unaware. It has, for example been noted that as a metaphor,

archaeology seems to misleadingly imply that one might actually be able to reach back into the past from the perspective of the present as opposed to merely observing its surface effects (Gutting 2005, 33). Moreover, as Foucault himself acknowledged, the approach does not really address the causes that give rise to epistemological ruptures, writing in a posthumous foreword to the book in which he first developed this method: "I left the problem of causes to one side; I chose instead to confine myself to describing the transformations themselves" (Foucault 2005, xiv). Having thus himself become dissatisfied with his earlier archaeological approach, Foucault went on to develop an alternative method that he referred to as *genealogy*, which has been described as "a historical causal explanation that is material, multiple and corporeal" (Gutting 2005, 47). As opposed to the conventional understanding of genealogy in terms of an ancestral evolutionary tree, the way that Foucault developed genealogy was explicitly concerned with following the descent of events in all their contingent complexity including "the accidents, the minute derivations—or conversely, the complete reversals" in order to portray an image of "the present as produced by a series of shifts, changes, traces" (Foucault 1984, 81). As such, Foucault's genealogical approach can be understood to problematize the extent to which the historical contingency surrounding a particular event could ever fully be summed-up by the concept of an episteme. With this caveat in mind, Foucault's earlier concept of an episteme nevertheless remains an essential tool for periodization, a technique that he continued to practice with his genealogical approach.

Foucault's genealogical approach is based on Nietzsche's original formulation of the concept in terms of a repudiation of the hunt for origins (Nietzsche 1989, 28), rejecting the totalizing perspective on history that tries to unify different historical events into a linear progression as methodologically flawed. In place of a belief in ahistorical absolutes, Foucault advocates for a contingent historiography that pays special attention to "divergence and

marginal elements" (Foucault 1984, 87). Describing genealogy as a "history of the present" (1995, 31), Foucault framed the objective of this approach as *problematization*, the latter of which he defined in terms of acquiring a kind of critical distance: "it is what allows one to step back from this way of acting or reacting, to present it to oneself as an object of thought and to question it as to its meaning, its conditions, and its goals" (1994, 117). Providing "startling, perspective-altering reversals and inversions of what passes as given and is unquestioned" (Prado 2000, 156), Foucault's genealogical historiography has been described in terms of "alternative accounts to epics" (ibid, 40) that "function to undermine the exclusivity of traditional essentialist" historical narrative (ibid, 47), thereby constituting a kind of "guerrilla history" (ibid, 166). Through tracing a genealogy's "complex course of descent" (Foucault 1984, 81), it is axiomatic that this method presumes neither to offer a definitive origin story, nor a complete alternative history. Furthermore, the alternative accounts offered by genealogy can not logically be seen as rivalling the established account, since Foucault has rejected the totalizing perspective on history upon which such a claim would be founded (Prado 2000, 167). Genealogy can thus be understood as a tactical form of knowledge intended to challenge dominant accounts as opposed to replacing them. Dispensing with the idea that ahistorical absolutes underpin human history, such a contingent approach to historiography may be understood as a forthright recognition that "events are *made* into a story by the suppression or subordination of certain of them and the highlighting of others" (White 1985, 84, emphasis original), that the narrative techniques that one might expect to find in fiction can also be found in historical accounts, and that these accounts can in fact be "emplotted in a number of different ways, so as to provide different interpretations of those events and to endow them with different meanings" (White 1985, 85). Foucault did not however see either the partiality or the quasi-fictional status as his genealogies as diminishing from their veracity, stating:

> I am well aware that I have never written anything but fictions. I do not mean to say, however, that truth is therefore absent. It seems to me that the possibility exists for fiction to function in truth, for a fictional discourse to induce effects of truth, and for bringing it about that a true discourse engenders or manufactures something that does not as yet exist, that is, fictions it. One fictions history on the basis of a political reality that makes it true, one fictions a politics not yet in existence on the basis of a historical truth (1980, 193).

In distinction to archaeology, genealogy allowed Foucault to explain why changes occurred from one episteme to another; how gradual accumulations of local practices could eventually contribute to the emergence of new modes of knowledge and of power. Whereas archaeology focused primarily, although not exclusively, on language, genealogy was particularly concerned with various practices and their impacts on the human body, with special attention given to architectural arrangement of spaces. In contrast to his earlier work in *Discipline and Punish: The Birth of the Prison* (1995), for example—a historical analysis concerning a variety of modern Western reform movements, originally published in 1975— Foucault developed an alternate approach to how social, economic and political *change* could be thought to occur at the level of small technical innovations taking place in totally independent physical locations, in spite of which they could retrospectively be understood collectively as the multiple causes of an epistemological rupture. By focusing in particular on how specific material *apparatuses* constrained and afforded actions as opposed to epistemic wording strategies, Foucault's genealogical approach could at once analyze how power was articulated at both an empirical as well as theoretical level, without presenting itself as a universal theory of power as such.[2]

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[2] While it has been claimed that *Discipline and Punish* is "the only clear and sustained use of the genealogical method in Foucault's writings" (Gutting 2005, 44), though they remained largely unpublished for many years, Foucault also frequently described the

But while Foucault scholarship has treated genealogy "almost exclusively as an intellectual event […] as the result of the methodological failure of archaeology," (Paras 2006, 69) it has been suggested that Foucault's genealogical turn might also be understood in the context of his biography, in particular "Foucault's concrete situation of being a practicing philosopher and social activist in post-'68 France" (ibid, 69). After the genealogical turn in Foucault's thought, the concept of power seems omnipresent in all social relations, even at the most intimate and egalitarian levels, a position that Foucault demonstrated, for example, in a famous debate with the linguist and political activist Noam Chomsky on the topic of human nature. Whereas Chomsky conceptualized political power as operating in a more-or-less top-down manner that he identified with the State, Foucault sought to distinguish his stance from that of his interlocutor by emphasizing that his approach sought to expose how:

> political power also exercises itself through the mediation of a certain number of institutions which look as if they have nothing in common with the political power, and as if they are independent of it, while they are not […] It seems to me that the real political task in a society such as ours is to criticize the workings of institutions, which appear to be both neutral and independent; to criticize and attack them in such a manner that the political violence which has always exercised itself obscurely through them will be unmasked, so that one can fight against them (Foucault and Chomsky 2006, 40-41).

From Foucault's perspective then, it seemed that one was, in fact, "never 'outside'" of power (Foucault 1980, 83). The seeming inescapable aspect of Foucault's description of power has led some of his critics to claim that following his genealogical turn, Foucault became preoccupied with "writing about the victory of power" (Saïd 2014, 208), and in so doing leaving little room for any meaningful conception of political resistance, with the objection

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approach that he took in his Collège de France lectures in terms of genealogy, aspects of which will be discussed in Chapter 2.

being: "what could conceivably protest against this condition, given that all subjectivity is merely the effect of power in the first place?" (Eagleton 1991, 47). It should, however, be noted, that, in contrast to his early archaeological approach, Foucault expressly considered his genealogies as possessing a kind of practical value for tactical means, responding to the question of what motivated their production by stating that "a genealogy should be seen as a kind of attempt to emancipate historical knowledges from that subjection, to render them, that is, capable of opposition and of struggle" (1980, 85).

If the archaeological method had sought to expose how systems of thought came to dominate individuals through their institutionalization, then genealogy sought to extend and politicize this approach in order to evaluate and discredit the unjustified claims by which those institutions claim authority over us. Conceptualizing power in terms of a network of relations, as opposed to something that necessarily oppresses from above, Foucault was instead concerned with "analyz[ing] power within the concrete and historical framework of its operation" (Foucault 1978, 90). For this reason, his approach has been described in terms of an "interpretive analytics of power" as opposed to a general theory (Dreyfus and Rabinow 1983, 104-125)—as is evident in his straightforward assertion that "the question 'What is power?' is obviously a theoretical question that would provide an answer to everything, which is just what I don't want to do" (Foucault 2003, 13). With all this emphasis on the local contingent conditions concerning the historical production of truth and subjectivity, it should therefore be clear that, as opposed to Marxist historicism, in Foucault's case "[t]he search for a general theory of history is not on his agenda" (Rabinow in Foucault 1984, 13).

While Foucault's own early strong intellectual attachment to Marxism—he was a member of the French Communist Party for a very brief period (Gutting 2005, 24)—was

arguably reinvigorated to some extent by his brief engagement, in the early 1970s, "with the French far left and its causes" (Paras 2006, 69), he nevertheless disparaged the universalism of Marxist historicism, ultimately attempting to position himself, in relation to the latter, as a kind of skeptical but intrigued onlooker (Foucault 1994, 115). Foucault's conceptualization of power in terms of a "capillary" network of relations (Foucault 1995, 209) has however been subject to criticism by staunch defenders of Marxism. Slavoj Žižek, for instance, attacks Foucault for his "abandoning of the problematic of ideology" (Žižek 1994, 13), as formulated by his former teacher Louis Althusser, and in so doing contributing to a "slick 'postmodern' solution," which replaces the former with a "plurality of discursive universes, never 'reality'" (ibid, 17). While there are a great many variants of Marxism, they all essentially share the same basic assumption that, as Althusser famously put it, paraphrasing Friedrich Engels: "the economy is determinant […] in the last instance" (2005, 112). Foucault was however unwilling to accept this diagnosis, on the grounds that it was simply too abstract. In its place, he sought to focus on how particular and contingent arrangements of ideas and material devices came together, often in a similar manner, but not as a general rule, in order to produce forms of subjectivity. In place of the concept of ideology then, the later Foucault developed the concept of apparatus (*dispositif*), his term for "the system of relations that can be established between […] a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions" (Foucault 1980, 194). The choice to deploy such a seemingly vague and general concept in place of the more definitive concept of ideology was a strategic move on Foucault's part, ironically intended to ground his approach more solidly in the material conditions of specific situations—as the Italian philosopher Giorgio Agamben writes "[a]pparatuses are, in point of fact, what take the place of the universals in the Foucauldian strategy" (Agamben 2009b, 7).

While this seeming turn towards abstraction can be understood from the perspective of a politics that sought, for example, to question the existence of any essential political identities such as class, it has been critiqued by those who remain more faithful to Marx's original analysis as contributing to a fragmentation of the left by advocating a kind of epistemological relativism (Gilbert 2008, 50-53). Although the Foucauldian and Marxist perspectives may appear to share common cause from the perspective of critics on the political right, it may be observed that a fault line nevertheless separates them into differing camps. Though the admixtures created by various strains of contemporary cultural theory may at times blur such distinctions, as I will explore in this thesis, what ultimately distinguishes these perspectives has to do with where they position themselves in relation to the concept of absolutes, and of totality. In relation to the problematics of Marxist critique, Foucault once claimed to be "neither an adversary nor a partisan" seeking rather to question the discourse in terms of how it theorized those "experiences that ask questions of it" (Foucault 1994, 115). Following Foucault, I envision my own approach in this dissertation as interrogating a number of different discourses—figured in terms of Foucault, Jameson and Latour—on how they respond to questions posed to them by the *search for location in a networked age*.

1.3 Overview: Following the Actors

[A]ll the philosophies that men have learned or devised are, in our opinion, so many plays produced and performed which have created false and fictitious worlds (Bacon 2000, 42).

Do I contradict myself?
Very well then I contradict myself,
(I am large, I contain multitudes)
(Whitman 2005, 103).

While my initial interest in the concept of mediatized location can be traced back a decade hence to a *locative media* art practice (Tuters and Kalnins 2002), this dissertation rethinks the concept of location at the base of that practice by staging an exchange across multiple disciplines, each with their own take on the search for location in a networked age. This is not, however, an empirically driven study, and I do not purport to offer new facts. My intention is rather to synthesize knowledge across a wide array of fields—including media studies, cultural geography, and science studies, as well as architectural, computational and countercultural history—in order to develop an intellectual history of how these fields conceptualize the search for location, and in the process to provide a few new concepts through which to discuss mediatized location. In researching this thesis my intention has thus been, in as much as possible, to allow the various perspectives to speak for themselves, and to diagram the ways in which they describe themselves and their own objects of study. To that end, I have attempted to preserve and convey the multiple contexts out of which these different perspectives emerge.

Interdisciplinarity has been described as "the borrowing of a question, a methodological perspective, an object or a particular field of study, from another discipline, and the integrating of this into your own work or subject area," as opposed to a foolhardy

"accumulation of the complete set of skills, procedures and competences of another discipline" (Bal 2002, 41). With this proviso in mind, my overall approach could perhaps be framed by the conventions of the film noir detective genre, in which I would be cast in the role of the detective whose job it is to solve the question of *what happened to place*? While it was locative media that initially drew me into the case, like some femme fatale in a film noir, in the course of my investigation I developed a hypothesis in which a mysterious entity appeared as the prime suspect: *the networked age*. According to the genre conventions, one approach to solving the mystery would of course be to pinpoint the moment at which the crime took place, when *place*, that is, first went missing. As we will see, while the key "informants" do have answers, their well developed theories often bring up more questions, and their stories are not, in any case, necessarily consistent with each other. In relation to this apparent dilemma, perhaps some perspective can be achieved by recalling a famous anecdote from the history of film noir itself. In shooting *The Big Sleep* (1946), based on a story by Raymond Chandler, the film's director Howard Hawks and its screenwriter William Faulkner contacted the original author concerning an apparent inconsistency in the plot (Capra and Schickel 1975, 114). Upon learning that Chandler had not in fact noticed the discrepancy when writing the story himself, Hawks and Faulkner decided to leave it unresolved, ultimately attributing the film's enduring success as having less to do with its fidelity to the objective facts than to how well the story composed the conventions of the genre.

If, as we have already seen, the genealogical approach to the writing of history repudiates the hunt for origins in favour of tracing a "complex course of descent" (Foucault 1984, 81), it arguably bears comparison with a technique employed in researching this dissertation that I will associate here with the work of Bruno Latour. Echoing Foucault's claim that "the possibility exists for fiction to function in truth" (Foucault 1980, 193), the

aforementioned anecdote from the history of film noir also resonates with Latour's concept of

compositionism, his term for an approach to social theory that "takes up the task of searching

for universality but without believing that this universality is already there, waiting to be

unveiled and discovered" (Latour 2010b, 474). Compositionism argues for a reorientation of

social theory away from the archaeological metaphor of discovery "toward the crucial

difference between what is well or badly constructed, well or badly composed" (ibid, 474).

Although this dissertation could not properly be called Latourian on the whole, my own

research process can be understood in relation with some of the methodological axioms of

actor-network theory, for example to "follow the actors" (Latour 2005b, 12), that "everything

is data" (ibid, 133), and a research method that Latour calls "the second notebook" used to

organize one's data in such a way that they can be moved around "in as many arrangements

as possible" (ibid, 134) without spoiling their original integrity. According to Latour's

programmatic statements concerning the implementation of the actor-network approach

"analysts are allowed to possess only some infra-language whose role is simply to help them

become attentive to the actors' own fully developed meta-language" (ibid, 49). I

accomplished this by collecting citations from my readings across a great number of fields all

into a single relational database which I then encoded with the actors' own *meta-language* as

it appeared in the texts themselves, and where necessary with my own *infra-language* in

order to create connections across the corpus as a whole—a methodology that Latour refers

to as creating "catwalks that allow [concepts] to go from one reference frame to another

while modifying their own viewpoints as little as possible" (1996a, 179). In total I collected

over a million words of citations that I annotated and cross referenced with over five

thousand unique descriptors. Latour refers to his approach in terms of *agnosticism*, in which

"[t]he rule is to reconstruct the perspectives and projects of one and all without taking sides"

(Akrich, Callon, and Latour 2002, 191). Not however religious in my own agnosticism, this

final written account of my research may be seen to deviate significantly from Latour's

program in terms of the lack of an empirical dataset at its the foundation (outside, that is, of

my second notebook), in terms of the relative significance that I have ultimately assigned to

my own infra-language in the process of composing this final written account, and insofar as

I remain intrigued by the claims and methods of *critique* while, as we will see, Latour himself

advocates for "an entirely different attitude than the critical one" (2004a, 246).

The term *critical* or critique typically designates a political position on the spectrum

of *theory*—the latter being the preferred nomenclature for the various forms of

interdisciplinary "studies" departments that have emerged in Anglo American academia since

the 1980s (Jameson 1984a, 193)—one in which it has been disparaged that, since about the

mid '90s, "the hard Left is the only respectable place to be found" (Harman 2014, 13). Within

leftist cultural theory there is however a long-standing tradition developed of self-criticism

concerning the tendency of economic determinist variants, so called "vulgar Marxism"

(Korsch 2008, 53), to diminish the significance of culture by fetishizing a form of materiality

associated exclusively with underlying economic matters (Williams 2005, 31-49).

Paradoxically, it has in fact been argued that this dualistic worldview enacts an idealistic

form of metaphysics (Harman 2009, 74)—ironic given the fact that *materialism* is often a

kind of code word for Marxism (Galloway 2010, 14)—as well as normally being considered

the gold standard of philosophical realism. Within contemporary discussions in continental

philosophy, it is perhaps Latour who is most closely associated with this line of criticism—

particularly as interpreted in philosopher Graham Harman's commentaries on Latour's

philosophy and political theory (2009; 2014)—although Latour himself acknowledges

"Marx's own definition of material explanation [as] being infinitely more subtle than what

his successors made of it" (Latour 2007c, 138). Latour, in dialogue with Harman, has argued

that the language of critique has passed its sell-by-date, that is has effectively "run out of steam" (Latour 2004a, 255). In what has come to be known as "the critique of critique" (Noys 2010, n.p.), Latour claims that the critical attitude typically implements one of two flawed epistemologies, either trying to "show that what the naive believers are doing with objects is simply a projection of their wishes onto a material entity that does nothing at all by itself" (Latour 2004a, 237), or else claiming that "behavior is entirely determined by the action of powerful causalities coming from objective reality they don't see" (ibid, 239). In either case, the fundamental flaw, as Latour sees it, is that critique fails to acknowledge the indeterminacy of the objects themselves. To this end, Latour rejects the conceptualization of objects and materials as dead entities, and settled *facts*, stating:

> [r]eality is not defined by matters of fact. Matters of fact are not all that is given in experience. Matters of fact are only very partial and, I would argue, very polemical, very political renderings of matters of concern (ibid, 232).

In order to address this problem, Latour envisions a variety of means by which mute objects might somehow be made expressive of their underlying metaphysical realities that he conceptualizes in terms of actor-networks, which perform their own interconnecting relations. One of the principle practical means by which to accomplish this normative end is through tracing actors' relative *proximity* to their particular sets of issues "without imposing on them an a priori definition of their world-building capacities" (Law and Hassard 1999, 20). To that end, digital mapping represents a major epistemological innovation in the social sciences for Latour, for the simple reason that it makes it possible to show the aggregate and the individual in a single synoptic view (Latour et al. 2012). A kind of scale-free approach to sociology, that aims to follow the spread of ideas back and forth between macro

anthropological and micro psychological levels—part of a project which can, in fact, be

traced back to the nineteenth century (Latour and Lépinay 2009)—as I will explore in

Chapter 4, Latour's thought has profound consequences on the search for place in a

networked age. While the critique of critique may be understood as an attempt to correct

metaphysical reductionism, one of the *critiques of the critique of critique*, so to speak, is that

the former effectively dismantles the grounds for normative standards of assessment, thereby

descending the enterprise of cultural theory into "a form of apolitical and amoral relativism,

leaving us able to describe heterogeneous technological outcomes, but unable to say anything

critical about them" (Barney 2013, 43)—even leading some to even identify Latour as a

dreaded neoliberal (Brassier 2011, 53). Furthermore, it is argued that in focusing "on that

which is constantly becoming […i]t is almost as if everything always starts anew" (Asdal

and Moser 2012, 295), thereby making it difficult to develop much in the way of a historical

perspective—insofar, however, as they are both concerned with describing how networks

form around actors, in the abstract, actor-network theory can nevertheless be understood as

methodologically consistent with the insights of the aforementioned genealogical approach.

Although self-described postmodernist theory has fallen out of fashion, its basic

periodization gambit—concerning an epistemological rupture in what Marx referred to as the

"capitalist mode of production" (1992, 125) as having taken place in the West in

approximately the late '60s—remains a favourite amongst cultural theorists today (Graeber

2008). As originally formulated by one of the foremost proponents of this periodization

narrative:

> [l]ate capitalism can therefore be described as the moment in which the last vestiges
> of Nature which survived on into classical capitalism are at length eliminated […]

The 60s will then have been the momentous transformational period in which this systemic restructuring takes place on a global scale (Jameson 1984a, 207).

In a discursive tradition that can be traced back to the Marxist philosopher Georg Lukács, Jameson offers a comprehensive critique of the phenomenon of "second nature" (ibid, 188), a concept described as "the point where [culture] has become virtually coextensive with the economy itself" (Anderson 1998, 55). While Latour's thought is far, both philosophically and politically, from this tradition, in regards to the pressing political issue of climate change, he actually seems to concur with Jameson's claim "that it is easier to imagine the end of the world than to imagine the end of capitalism" (Jameson 2005, 76), identifying second nature with "boundless possibilities coupled with a total indifference for their long-term consequences" (Latour 2014a, 3). In a manner similar to Foucault however, Latour warns against the universalism implicit in this type of discourse, claiming that Marxists tend "to replace some object pertaining to nature by another one pertaining to society" (Latour 2000, 109). For his part then, Latour consistently argues against what he thinks of as "the premature unification provided by 'nature'" (Latour 2005b, 117), or other a priori concepts that refer to the aggregate whole of reality, in favour of a process that he describes in terms of "the progressive composition of one common world" (ibid, 254). In the abstract, the objectives of this latter approach can be understood in tactical terms as seeking to bring critique down to earth through attention to local practice. While these different approaches provide quite differing perspectives, as will become clear in this thesis, they nevertheless serve to rethink place in terms of network topologies.

Proceeding through the work of Foucault, Jameson and Latour, the argumentation in this dissertation might be thought to move from skepticism through utopianism to pragmatism. Following this first introductory chapter, Chapter 2 begins by historicizing

mediatized location and the search for place, beginning with a discussion of how avant-garde

architecture from the early '70s addressed the impact of networks on space. From there I go

on to discuss how innovations in technology-enabled geo-epistemology can be understood as

bound-up with socio-political innovations, an argument that I then further develop through a

discussion of environmental governmentality, or *environmentality*, in relation to Foucault's

genealogy of economic liberalism. The remainder of the chapter proceeds as a genealogy of a

contemporary media object, Google Glass, discussed in relation to elements of computational

and countercultural history, in which concepts of environmental media both past and present

are seen as bound together with ideas concerning the production of new forms of subjectivity.

From Georg Lukács through the Situationists to contemporary practices of "critical and

dissident cartography" (Holmes 2009, 52), Chapter 3 presents a brief history of the

sometimes fraught relationship between aesthetics and Marxist metaphysics that culminates

in Jameson's call to develop an aesthetic by which to position the individual subject in what

he enigmatically describes as an "imperative to grow new organs, to expand our sensorium"

(Jameson 1984b, 80), which I refer to as *global positionality*. Chapter 4 changes metaphysics,

as it were, turning to Latour in order to question philosophical assumptions underpinning

epistemology and to rethink the search for place as methodologically flawed. Instead of

seeing mediation as antagonistic to authentic place and embodied experience, according to

this argument "[t]he more instruments proliferate, the more the arrangement is artificial, the

more capable we become of registering worlds" (Latour 2004d, 85). If global positionality

looks to cut away the obstructions of an underlying reality, then what I refer to here as *non-local proximity* looks instead to build up reality by tracing the contingent connections

between things. Returning to experimental architectural practices of the early '70s, the final

Chapter 5 discusses how global technological governance has been imagined as the solution

to the environmental crisis, why it is inadequate and how a form of post-environmentalism

might address these concerns by extending Latour's idea of representation—simultaneously in the aesthetic, political and scientific sense—into nature. The dissertation concludes by speculating on how the extension of *addressability* to all qualified forms of life might paradoxically constitute a kind of substrate out of which we might compose a global dwelling, a *kosmoikos*, a collective storyspace, at the scale of the planet, narrated through the grammar of mediatized location.

CHAPTER 2: ENVIRONMENTALITY

2.1 Introduction: Networked Space

[T]he artist seeks the fiction that reality will sooner or later imitate (Smithson 1996, 91).

The architectural species has survived by ignoring a century of intense discourse about networks (Wigley 2002, 114).

The 2008 Venice Architecture Biennale featured a peculiar installation comprising an open surface on which were arranged several naked bodies. Its designer, the Swiss architect Philippe Rahm, claimed that "following the arrival of new technologies such as mobile phones and the internet" (Stalder and Raum 2010, 88) the "design of the atmosphere is now the domain of architecture" (ibid, 89). Claiming to incorporate everything from the scale of the body's metabolism to the meteorological environment inside of architecture, Rahm's installation proposed to use the movement of air to replace the traditional role of walls in creating an enclosed space (Raum 2008). While the piece was presented in the context of contemporary climatic matters of concern, the idea of architecture as a form of environmental design was in fact a particularly pronounced preoccupation of architects and urbanists in the late '60s, a period in time when, it has been remarked, "the legibility of the city appeared near a threshold of oblivion […as] a function of networks and forces surpassing it" (Crary 1986, 159), and when the ambitious visions of certain outsiders were seen at once to represent both a trenchant critique of the architectural discipline, and its future in terms of "environmental management" (Banham 1969, 268). In this same period, the Florentine avant-garde architecture collective Superstudio produced a series of images in which they depicted the future of architecture in terms of a featureless rectilinear grid imposed over the landscape, capable of supporting the conditions of life anywhere at any time, regardless of the actual

physical conditions on the ground (Natalini et al 1972). These images evoke an imaginary

infrastructure, of sublime proportions, capable of providing all manner of services from

sustenance to shelter as the by-product of a new kind of technologically mediated

environment that is both local and global. Extending unaltered across both human and natural

landscapes, from the perspective of this alien reality, everything appears more-or-less

identical as one vast and endless interior, with the substance of local place seeming to have

dematerialized into a network, represented in architectural form as "spread[ing] its glacially

translucent grid structures throughout entire regions of the planet enveloping buildings and

entire cities, creating a monument to end all monuments" (Lang et al 2003, 13).

In their proposals for a visionary architecture that could never be built, Superstudio

sought to address the transformative impact of global economic and technological forces on

architecture's traditional conception of place, which they described as "the world rendered

uniform by technology, culture, and all the other inevitable forms of imperialism"

(Superstudio 1973, 54). While their work emerged out of a milieu of left-wing student

radicalism in Italy, Superstudio were also critiqued at the time for their apparently naïve

embrace of the networked communications technologies that were beginning to emerge in

this period (Scott 2007, 48). If early modernism imagined its project in terms of a "total

architecture" (Gropius 1962) concerned with ameliorating the conditions of human existence

through continually updating its program in keeping with the latest technological innovations,

then Superstudio's work appeared as both a tribute to modernism's early utopian ambitions as

well as an implicit, if satirical condemnation of what modernism had become, a paradox

which they referred to as "negative utopia" (Lang et al 2003, 69). Andrea Branzi, a colleague

of theirs in the Florentine architectural avant-garde, interpreted the new flexible post-

industrial system of production and consumption emerging from Italy at the time—to which I

will return to later in this chapter—as in fact announcing the arrival of a sort of new

metaphysical reality in which, as he put it, "no reality exists any longer outside of the

system" (2000, 59), an image that he and his colleagues represented by placing architectural

maquettes inside of mirrored boxes so that the same identical space appeared to recede into

infinity, or else simply by typing out the character "x" to form a grid across a single sheet of

paper (Branzi et al. 1970).

Evoking the regularity of the grid in line with an established critique of modern

spatial control systems (Jacobs 1961; Foucault 1995; J. Scott 1999), these images have also

been interpreted as in fact signifying a new concept in the architectural program from its

former modernist definition, concerned with "the description of the spatial dimensions,

spatial relationships, and other physical conditions" (Summerson 1957, 309), towards a more

probabilistic concept of space "not as a physical entity but as programming" (Varnelis 2003,

n.p.). Totally indifferent to topography, this latter conception of space seems to reduce the

solidity of the built environment to "a pure state of near nothingness" (Lang 2003, 47), in

what may be understood as a visual representation of the dematerializing tendencies of

capitalism—as expressed in the shibboleth "[a]ll that is solid melts into air" (Marx and

Engels 1948, 12). Indeed, the images produced by the Florentine architectural avant-garde in

the late '60s and early '70s have been interpreted as attempted visual representation of the

ineffable and ultimate triumph of "second nature" in which "globalization has spread the

market's reach to the furthest ends of the Earth" (Varnelis 2006, 89), leading in turn to "the

disappearance of any exterior to capital and with it the elimination of any place from which

to critique or observe capital" (Varnelis 2008, 148). According to this postmodernist line of

argumentation, these images stand as iconic representations of changes only then just

beginning to take place—changes in what McLuhan would refer to as the "media

environment"—and which would come to be periodized to this historical moment and interpreted as signifying the dawn of the contemporary *networked age* (Harvey 1989, 141-172; Hardt and Negri 2000, 237-239). Thus, from the perspective introduced in Chapter 1, of the detective attempting to trace the disappearance of place, we can construct a preliminary hypothesis pinning the crime on post-industrial capitalism, which arguably inaugurated a new epistemological field. While some "informants" identify the network age with the paradoxical return of a new type of location, as we will now go on to see through a very brief discussion of the emergence of GPS and the geolocative paradigm in media technology, the concept of mediatized location can be associated with innovations in global governance that arguably reached a new apex at the dawn of the twenty first century, but which may also be seen as extending back hundreds of years prior.

2.2 Geo-epistemology

All space is already occupied by the enemy, which has even reshaped its elementary laws, its geometry, to its own purposes (Kotányi and Vaneigem 1961)

In the popular literature that accompanied the Internet boom of the '90s, networks were figured metaphysically as a kind of immaterial force transcending the traditional concerns of nation states—"Governments of the Industrial World, you weary giants of flesh and steel […] You have no sovereignty where we gather" (Barlow 2001, 28)—and contributing to the ascendency of a new kind of soft power, in which "the principles governing the world of the soft—the world of intangibles, of media, of software, and of services—will soon command the world of the hard—the world of reality, of atoms, of objects, of steel and oil" (Kelly 1999, 2). In framing networks in terms reminiscent of philosophical idealism, these "techno-utopian visions" as they have been called (Turner 2006, 208), reiterated an antinomian premise of the '60s counterculture, that "the system of territorial government was broken and needed to be replaced" (Goldsmith and Wu 2006, 10). They did so based on an argument that technical aspects of the Internet's design, specifically its decentralized routing system, meant that "the Internet cannot be controlled" (Negroponte 1996, 234), since it "interprets censorship as damage and routes around it" (John Gilmore; quoted in Elmer-Dewitt et al 1993, 62). By the end of the next decade however, technological innovations had rendered the geographical identification of Internet users relatively trivial, so that the features of the very architecture that had been envisioned as supposedly defying territorial governance, paradoxically became the basis of a proverbial *return of geography*.[3]

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[3] While a computer's IP address revealed little of a user's location, by tracing the trajectory of a data packet, it had become possible to narrow in with increasing accuracy on

Indeed, whether announcing the end of geography or its return, innovations in network technology seem inevitably enmeshed with fantasies of governance and vice versa. While a technologically-enabled locational turn has been periodized to the turn of the millennium—in relation to a French court's precedent-setting ruling against a major Silicon Valley web portal based on evidence of the technical feasibility to identify Internet users' geographic locations (Goldsmith and Wu 2006, 1-10)—an equally significant simultaneous turning point came as the result of a US presidential executive order, which overnight improved the quality of the Global Positioning System signals on civilian receivers, leading, in short order, to the development of a popular geo-referenced treasure hunt game (Jennings 2012, 188), the emergence of "myriad forms of locative media projects" (Zeffiro 2012, 256-258), and over the course of the decade, as the technology became standardized into consumer devices, to the emergence of an entirely new paradigm so that it may now be claimed that "geography becomes *the* organizational logic of the web" (Gordon and de Souza e Silva 2011, 3, emphasis mine). In addition to affording a new type of personalized spatial experience extending from the scale of the individual to the globe, the Global Positioning System can, however, also be understood as being tied into spatial transformations at the scale of international relations amongst sovereign states. In considering the impact of networks on the concept of location, it is therefore worth briefly looking at the emergence of the Global Positioning System—along with a suite of related global mapping standards—in relation to socio-political developments concerning aspects of global governance in the post-War era.

The Global Positioning System (GPS) can be understood as part of a matrix of innovations in mapping technologies including the International Map of the World (IMW), a

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those nodes closest to a given computer. By cross-referencing these results across multiple databases, near perfect geographical location could thus be determined at the country level.

cartographic project to create a uniform and detailed atlas of the world, and the Universal

Transverse Mercator (UTM) system, a geodetic grid-based alternative to the spherical

longitude and latitude system—the mathematics of which gives every point on Earth a

calculable Cartesian coordinate point—which together contributed to an epochal

transformation in the conception of territory in the post-war period. While the mapping of

territory has historically been the domain of cartographers in the employ of sovereign states,

each using their own datum through a method of surveying the land from terrestrial

waypoints, it has been noted that "GPS satellites give a physical manifestation to a

mathematical model of the earth" without political or geographic discontinuities, and in

relation to which "[t]he actual, physical earth could disappear completely, and the

coordinates would not change" (Rankin 2011, 444). The historian and geographer Bill

Rankin presents a genealogical account of the development of GPS and associated

technological mapping innovations as realizations of the long-standing dream of cartography,

to create a single commonly recognized globe-spanning coordinate system (ibid, 443), which

helped to stabilize nation state boundaries, while at the same time, paradoxically, making

them much easier to ignore in the coordination and deployment of military intervention (ibid,

7). While the GPS system was initially deployed in '73—a date symbolically associated with

the dawn of the post-industrial era (Harvey 1989, 173)—it was not until '91 that public

attention was drawn to the technology and its decisive role in a new kind of warfare, with the

system's technical director describing the U.S. invasion of Iraq as a "boutique war to

demonstrate the effectiveness of GPS" (Parkinson 1996, 27), a war that military strategists at

the time described as representing space as a topological network of "targets and nontargets

[with] no need to occupy enemy territory" (Lambeth 1992, 78).[4] In spite of both the poor

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[4] Echoing the Situationist pronouncement that "[a]ll space is already occupied by the

historical track record of remote sensing as the basis for military intervention, stretching back

to the discredited "electronic battlefield" strategy of the war in Vietnam (Cockburn 2015, 17-

31); as well as official governmental assessments subsequent to the first war in Iraq that

questioned the efficacy of new GPS-guided precision techniques (GAO and Hinton 1997);

the illusion of access to a privileged perspective—to a "monopoly of knowledge" (Innis

1986, 22)—afforded by this superior technology nevertheless formed part of the basis of

what would become colloquially known as a "revolution in military affairs" (Rumsfeld 2002)

that radically re-conceptualized the field of battle on the model of a network (Alberts,

Garstka, and Stein 2000) in which population, as opposed to territory, was the target.

  If mapping had formerly been conceptualized primarily in terms of authoritative

representations, with the emergence of GPS it is said to have mutated into a kind of set of

"infrastructural tools […] installed as part of the landscape" (Rankin 2011, iii),

"transform[ing] spatial location into a commodity available in much the same way as

electricity or water—on demand, at the place of consumption" (ibid, 4). Rankin thus

considers transformations in mapping practice in the twentieth century as forming the basis

for a technologically-enabled *geo-epistemology* that conceptualizes territory and location as a

kind of universally available service, concerned more with questions of reliability than

veracity, a way of knowing place that assigns everything on the Earth a discrete location

through a matrix of international mapping standards, and military and consumer technologies.

Rankin claims that "the central political fact about GPS is that it substitutes a locally

available grid of geographic coordinates for other kinds of local knowledge and encourages

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enemy" (Kotanyi and Vaneigem 1961)—a precursor to the aforementioned Florentine
architectural avant-garde, to whom I will return in Chapter 3's discussion of *positionality*—
this observation seems a literal endorsement of their claim to being avant-garde, in the
original military sense of the term.

intervention without local commitment" (ibid, 456), a variation of the substantivist claim that "[t]echnique has become autonomous; it has fashioned an omnivorous world which obeys its own laws and which has renounced all tradition" (Ellul 1964, 14). Although Rankin's account is concerned with cartographic innovations, his concept of geo-epistemology can be understood more generally in relation to the aforementioned proverbial return of geography as a decisive factor in Internet governance, from which perspective GPS-enabled geo-location may be thought to exist on a broader continuum of what have been referred to as technologies for "addressing the world" (Thrift 2004, 178). As economic sociologists have noted, such address technologies can be understood in the context of a genealogy of how the market form of governance has had transformative effects on the concept of locality, so that GPS appears as merely the most literal example in a historical narrative concerning the "changing geopolitics of calculative powers" (Callon 2005, 1238)—*globalization on demand*. While Rankin demonstrates the importance of understanding the transformation of territory in the twentieth century in relation to innovations in techniques of governance, what I introduced in Chapter 1 as the concept of mediatized location requires an alternative approach that looks beyond geography and prior to the twentieth century in order to rethink the concept of location through a probabilistic conceptual framework that we can term environmentality.

2.3 Environmentality

[W]hat government has to do with is not territory but rather a sort of complex composed of men and things (Foucault 1991, 93).

Having briefly introduced the complex imbroglio of technology and governance in which the locational turn finds itself enmeshed, let us now look at the later work of Michel Foucault with the objective of tracing some elements in a genealogy of this contemporary phenomenon. In a series of lectures originally given in the late '70s but not translated and published in their entirety until the late '00s, Michel Foucault (2008) developed an account of the gradual emergence of a *liberal art of government*, extending from antiquity through the early modern period of European history right up to contemporary neoliberal economistic conceptions of social relations in terms of market mechanisms.[5] In contrast to a conventional conception of liberalism as the activity of an institution concerned with ideas of individual and market freedom, in these lectures Foucault focused on the way this mode of government had historically become thinkable and practicable, hence the notion of an "art". As discussed earlier, Foucault would refer to the genealogical approach that he developed in this period of his career in terms of a "history of the present" (1995, 31), whose tactical objective was the problematization of unjustified institutional claims of authority through tracing their descent from relatively contingent circumstances, or what he referred to as "the faulty calculations that give birth to those things that continue to exist and have value for us" (1984, 81).

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[5] Foucault's final lectures in this particular series focused on neoliberalism at a time when these economic policies were beginning to emerge onto the international stage after a long period of relative obscurity—originally initiated by ruling liberal governments to address the global economic instability of the '70s and subsequently championed by conservative politicians (Jones 2014, 241-253).

While Foucault develops many ideas across a large swath of time in these lectures, of particular significance for present purposes is his account of the development of the ideas of liberal political philosophers in the eighteenth century, notably Adam Smith's claim that the market is "led by an invisible hand to promote an end which was no part of his intention" (Smith 1981, 456), which, it has been observed, Foucault understands as an injunction "not to impede the course of things, but to ensure the play of natural and necessary modes of regulation" (Gordon 1991, 17); a recognition of the market form of governance as a quasi-natural domain with its own form of self-regulation standing above and beyond the power of politicians—that certain scholars actually interpret as a tacit endorsement on Foucault's part (Mirowski 2013, 93-106). What Foucault refers to as "[t]he process which isolates the economy as a specific sector of reality" (1991, 102) thus constitutes a historical innovation in governance, in which a networked concept of place—*economy* shares the linguistic root of *oikos*, meaning habitat, with the environmental science of *ecology*—mediates between the parochial and global scales, the latter made newly accessible as a consequence of trade.

While it is a contemporary truism that the economy constitutes a kind of hidden force through which all social action can ultimately be understood (Levitt and Dubner 2005), Foucault's genealogy can be viewed as tracing how this particular idea was gradually constructed over the course of time—as opposed to simply being discovered. This is not to debunk the veracity of the principles that economists claim to be at work in their analyses, merely to say that they are the product of historical circumstances, as well as ongoing intellectual labour without which they would no longer function.[6] Foucault's genealogical approach seeks to trace apparently incontestable truths back to various historical moments in

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[6] Some of the metaphysical consequences of this mode of reasoning, which can be called *epistemic relativism*, will be explored in Chapter 4; as expressed for example in Bruno Latour's assertion that before Louis Pasteur, microbes did not exist (1999, 145).

order to show how those things which may appear inevitable today might be understood to have emerged out of particular historical contexts in which they may have held quite different meanings, and how, in certain instances, contemporary norms can also be understood to have emerged from surprisingly minor, even accidental circumstances. While Foucault's genealogy of liberalism spans centuries and disciplines, a central theme concerns the birth or invention of the political economy as a kind of state of nature and its related effects on the composition of society and the conduct of behaviour, an approach that places central importance on the role of technical devices in formatting new realities, and most especially new forms of subjectivity. While these forms of subjectivity develop over time, so that the ideal subject of contemporary neoliberalism is not necessarily the same as the rational self calculating *homo œconomicus* of classical liberalism, Foucault's account emphasizes a continuous relationship in which calculative devices can be understood as attuning and aligning people's conduct with the needs of the economy in an increasingly predictable manner. Referencing the work of American economist Gary Becker, Foucault explores the idea that under American neoliberal economic theory, the object of economic analysis ultimately became "any conduct which is sensitive to modifications in the variables of the environment and which responds to this in a non-random way," in other words, that "[h]omo œconomicus is someone who accepts reality" (Foucault 2008, 269), and "the person who accepts reality or who responds systematically to modifications in the variables of the environment, appears precisely as someone manageable […] someone who is eminently governable" (ibid, 270).[7]

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[7] Although initially a quite diverse school of thought that emerged in part as a critique of unrestrained laissez-faire capitalism, under the American variant that gradually became hegemonic, neoliberalism has today become equated with Becker's theory that all entities, from people to governments, across all circumstances and in all societies can be understood as resources maximizing instances of homo œconomicus (Patel 2009, 27).

Of particular significance with regards to the search for place in a networked age is Foucault's discussion of the spatial metaphor of the *milieu* (Foucault 2009, 35-38) as a means by which to conceptualize the effect of the new economic freedom of circulation on traditional conceptions of space, in particular the urban space of the old European city (Terranova 2009, 240). In recounting a narrative of how eighteenth century French economic theory envisaged governance on the model of a wall-less city whose medieval defensive barriers had to be suppressed in order to encourage trade (Foucault 2009, 33), Foucault develops his concept of milieu as a material means for connecting together discrete realities, "what is needed to account for action at a distance of one body on another. It is therefore the medium of an action and the element in which it circulates" (ibid, 36)—what we might otherwise call networked space, or mediatized location. Through his genealogical approach, Foucault can be understood to have put forth the claim that, in the absence of any explicit strategy and in a completely diffuse manner, "tiny, everyday, physical mechanisms […] of micro-power" (Foucault 1995, 222) could accrete over time in order to form milieus capable of producing forms of subjectivity. Following this approach, Foucault treats the modern State as the product of various distributed milieus as opposed to the autochthonous source of governmental power, milieus which often operate in relative ignorance of each other but whose collective purpose nevertheless converges on the idea of normalizing the regularity of events that maintain the health of the population. Under a regime of governance that Foucault referred to in terms of "disciplinary power" (ibid, 153)—which he contrasted to the old monarchical law of the sovereign (ibid, 130)—the most effective means by which to secure such regularity of events was through the internalization of norms for which Foucault famously considered the architectural plans for the panoptic prison as a representation of a novel late eighteenth century "mechanism of power reduced to its ideal form" (ibid, 205). Designed by the utilitarian philosopher and social reformer Jeremy Bentham (1748-1832),

the panopticon was intended to make surveillance visible yet unverifiable so that each individual prisoner would never know for sure whether or not they were under observation. In Foucault's analysis then, the panopticon induced a sense of permanent visibility which in turn functioned as a kind "coercive link" (ibid, 153) connecting the body of the prisoner into its milieu, hence the dictum that "[v]isibility is a trap" (ibid, 200). While the panopticon was designed as a model for a physical space of confinement and reformation for criminals, its real significance for Foucault was in terms of how it functioned to inculcate a sense of self-monitoring in its occupants by which they would ideally come to internalize the norms of the institution. As such, the panopticon can be understood as a major innovation in governance—although Foucault was not using that concept at the time of writing this particular genealogy—in that it is positive, as opposed to preventative, and insofar as it operates in a decentralized manner, with the effect of making it more difficult to find an exterior position from which to resist.

Applied to the contemporary context, Foucault's concept of *governmentality*—notably defined as the "conduct of conduct" (Gordon 1991, 2)—has enabled media theorists to critique the much lauded participatory aspects of new media in terms of a history of innovations in "liberal government and techniques of the self" (Burchell 1996), with Foucault's lectures on the topic having attained a kind of visionary status amongst social theorists (Venn and Terranova 2009). One of the rare moment in his body of scholarship to address the contemporary period, in his governmentality lectures Foucault even speculated on the future, discussing the emergence of a new "theme-program of a society," in which contemporary innovations in governance—which he associated with "new techniques of environmental technology"—are "brought to bear on the rules of the game rather than on the players" (2008, 259–60). Foucault described this new environmental governance program as

"not a supermarket society, but an enterprise society" (ibid, 147), one "that is not orientated towards the commodity and the uniformity of the commodity, but towards the multiplicity and differentiation of enterprises" (ibid, 149)[8]—in which, in the words of one subsequent governmentality theorist, "[o]ne is always in continuous training, lifelong learning, perpetual assessment, continual incitement to buy, to improve oneself, constant monitoring of health and never-ending risk management" (Rose 2004, 234). Foucault's interpretive analytics have also been adapted within new media theory to discuss how automated, automatic, and autonomous computational systems in the built environment often function without our knowledge to actively monitor and reconfigure actions (Kitchin and Dodge 2011, 85) to deduce meaning by identifying correlations between data as well as to categorize knowledge in the general absence of human intervention —as for example in the case of the Google search algorithm—a concept that has been referred to as *algorithmic governmentality* (Rouvroy 2013, n.p.) or "a new diagram of control" (Rose 2004, 234).

Since it took decades for the majority of Foucault's thinking on governmentality to be transcribed, translated and published into English, within Anglo-American media theory the governmentality critique is often associated with the concept of *control* in reference to an extremely short text by Gilles Deleuze written as a postscript to his monograph on Foucault (1992). On evidence of citation (Thrift and French 2002; Andrejevic 2003; Crandall 2005; Galloway 2004; Best 2010; Leach 1999; Martin 2010), what these theorists seem to find particularly useful in Deleuze's brief text, is his evocative use of spatial imagery in order to periodize the emergence of a new "numerical language of control" (1992, 5), with one going so far as to suggest that the text might in fact represent "Deleuze's most lasting legacy"

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[8] Is would seem that Foucault intended this formulation as a direct critique on Guy Debord's society of the spectacle thesis (1995), discussed in Chapter 3.

(Galloway 2012, 513), as it supposedly forms the basis of an understanding of communications networks as *the* iconic "medium of contemporary power" (Galloway 2004, 5) "for achieving voluntary regulation within a contingent environment" (ibid, 7). In contrast to "the organization of vast spaces of enclosure" associated with "the analogical model*"* (Deleuze 1992, 1) of Foucault's panoptic milieu, Deleuze describes the emergence of a new algorithmic conception of space with the image of a serpent tunnelling through space "like a self-deforming cast that will continuously change from one moment to the other" (ibid, 4).[9] In a classically substantivist move, Deleuze thus paints an evocative picture of the dematerializing effects of media on the former integrity of analog reality, in which "what counts is not the barrier but the computer that tracks each person's position—and effects a universal modulation" (ibid, 7). Not only does this network digital logic of governance permeate and redefine space, but as Deleuze famously contends, "[i]ndividuals have become 'dividuals'" (ibid, 5). While Deleuze does not reference, and was perhaps even unaware of, Foucault's much earlier speculations on the emergence of a new "theme-program" of governance that he had associated with the emergence of "environmental technology" (2008, 259–60), they nevertheless outline similarly probabilistic visions of an environmental type of governance, laying the conceptual foundations for an *environmentality critique* upon which new media theorists have begun to build analyses of how governance may be thought to operate in the new milieus of geolocative media and urban ubiquitous computation (Barreneche 2012; Gabrys 2014).

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[9] While Foucault also used the term "control", he did so paradoxically in relation to a historical epoch immediately preceding the disciplinary society (1995, 198).

2.4 Through Glass, Darkly

For now we see through a glass, darkly; but then face to face [...] shall I know even as also I am known (St. Paul, Corinthians 13:12).

In his book *The Circle* (2013), the American novelist Dave Eggers writes about a fictional Silicon Valley corporation whose products and work environment blur distinctions between work and leisure, public and private, and who transform the human condition by quantifying, calculating and exposing every aspect of what was once personal, thereby eliminating any distinction between what is inside and what is outside. A pivotal moment in *The Circle* occurs at a kind of public show trial where the novel's protagonist, Mae Holland, is reprimanded for not "sharing" enough—the social media economy of *The Circle's* titular company being based on users' willingness to voluntarily publicize their every action. After confessing her sins before an audience of her fellow employees where she articulates the rectitude of sharing—"Knowledge is a basic human right. Equal access to all possible human experiences is a basic human right [...] If you care about your fellow human beings [... y]ou share what you have and what you see and what you know" (ibid, 301)—Mae agrees to wear a camera at all times and to ingest sensors inside her body in order that all aspects of her social life may be captured, thereby turning her into a model employee as well as a public celebrity. Insofar as the technology at the centre of Eggers's book strives to make every place and every human action visible, it evokes Foucault's panoptic milieu, which entraps everyone who participates in it. In contrast to the latter however, in *The Circle,* Mae's actions need not conform to any restrictive norms of conduct outside of the company's one essential tenet that

"ALL THAT HAPPENS MUST BE KNOWN" (ibid, 68, emphasis original).[10] What is

important is not the content of Mae's life, but simply the fact that it be lived in public and

that it be a medium for the circulation of information, making her into an aspirational

representation of the ideal of "going transparent" (ibid, 194). While Eggers's book amusingly

satirizes the scope and ambition of Silicon Valley visionaries, one need not however turn to

fiction in order to hyperbolize the ambitions of Silicon Valley.

In 2012, Google released a "teaser" video for a new wearable interface technology

simply called Glass (Google Project Glass 2012). The video does not in fact show the device

itself, rather it portrays the point of view of a wearer of a head-mounted display in which a

tiny screen is mounted into a pair of glasses, in order to convey the impression of what it

might be like to have personalized data overlaid onto one's field of vision. In addition to

featuring the expected smartphone style features, at one point in the video a weather report

icon appears in the field of view when looking towards the sky, the device seeming to have

magically recognized the wearer's informational needs without having had to request them.

Released nearly a year later, the subsequent official promotional video (Google Project Glass

2013) emphasizes the "hands free" experience of the device, with video of roller coaster

rides, skiing, skydiving and other aspects of "extreme" Californian lifestyle. There is a

noticeable shift in marketing strategy between the two videos, with the latter seeming to

downplay what was possibly perceived as the invasiveness of the technology depicted in the

former, as well as a shift in emphasis towards an idea of "immediate experience." After

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[10] Although Eggers's novel relies to a large extent on the surreptitious visual
metaphors of the surveillance model, in media theory literature a (non-exclusive) distinction
is made between the former and the so-called "capture model," in which "human activities
become intertwined with the mechanisms of computerized tracking" (Agre 2003, 743) and
governmentality comes to assimilate certain formal linguistic aspects of computational
grammars.

showing the latter video as part of a presentation at the lionized TED (Technology, Entertainment, Design) conference that year, Google co-founder Sergey Brin said of Glass that it had allowed him to "explore the world more" and to "do more crazy things like in the video," presenting Glass's interface in terms of "what you're meant to do with your body," as well as seeming to imply a gendering of the technology (Brin 2013, n.p.).[11] With a small screen just above the field of view built into a head-mounted display, Glass featured a number of sensors including GPS and transmitted audio directly through the skull, which Brin himself described as being "a little bit freaky at first, but you get used to it" (ibid).

The perceived invasiveness of Glass contributed to an atmosphere of controversy surrounding its release, framed in relation to concerns around privacy (Keen 2013). It might however be argued that most users of Google products understand their business model, and voluntarily give up a degree of privacy in exchange for free services that underwrite their digital lifestyles, a perspective that we could refer to as *privacy pragmatism*. This position has influential allies amongst Silicon Valley technology journalists (Jarvis 2011) and captains of industry, most notoriously Facebook's CEO Mark Zuckerberg who advocates the view that privacy is an evolving norm (B. Johnson 2010). We may however question the extent to which the necessary conditions exist for negotiating such a free exchange, when it is increasingly remarked in popular discussion that Google's ultimate ambition is not in fact to answer users' questions, but rather "to tell them what they should be doing next" (Jenkins 2010, n.p.) and "to automate the flow of information into the mind" (Carr 2014, 200). As a Google advertising executive has stated, the company's ambition is to "figure out where the

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[11] In his original presentation, Brin referred to the standard smartphone interface as "emasculating," although his use of the phrase was subsequently edited from the video and redacted from its transcript on the TED site in what amounts almost to a note-perfect rendition of the Orwellian company in *The Circle* (Eggers 2013).

next most useful information is [and] to anticipate what people might want […] depending on their location, search history and other data – before they actually know it" (Sielger 2010 n.p.; in Barreneche 2012, 339). Indeed, when introducing the technology Brin framed Glass as the realization of his founding vision for the company: "My vision when we started Google 15 years ago was that eventually you wouldn't have to have a search query at all. You'd just have information come to you as you needed it" (2013, n.p.). In order to comprehend Brin's vision, it will be useful to look back to the historical milieu out of which Glass may be understood to have emerged. In doing so, my objective is not to identify Glass's precise historical point of origins, nor to document a complete family tree of its technological evolution. In imagining history to be "a patient and continuous development […] dissolving the singular event into an ideal continuity" (1984, 88), Foucault would indeed reject such an approach as erroneous on methodological grounds. Consistent with the stated aim of Foucault's later historiography as contributing "an element in a genealogy of the modem 'soul'" (1995, 29), in what remains of this chapter I thus propose to consider Glass in relation to a number of seemingly unrelated historical phenomena—from historical innovations in marketing and in interface design, to the emergence of a certain emancipatory ideal of systems thinking in the '60s counterculture—as symptomatic of the epistemological, if not ontological, rupture of post-industrial capitalism that Brin's ambitious vision may be thought to represent. These changes require that the very concept of mediatized location as introduced in Chapter 1 be redefined in new terms, a challenge that each subsequent chapter of this dissertation takes up by developing a series of concepts related to different aspects of the same problematic, beginning here with a genealogy of envionmentality.

2.5 The Google Spirit of Capitalism

The 'Google model,' like the 'Toyota model' 30 years ago, will be properly understood as a new mode of producing goods and services [...] a model of company organization that [...] has been gradually asserted in all the sectors or economy (Marazzi 2011, 55).

From the perspective of political economy, it could be said that the eponymous company at the centre of *The Circle* derives its wealth and power from being parasitic on the labour of its users. If mid-twentieth century factory workers organized into unions to bargain for a bigger share of capital, because we find it hard to imagine the very activity that creates so much capital for the new media companies that dominate the post-industrial twenty-first century economy in terms of labour, it has likewise become difficult to imagine a collective relationship to this new form of capital (Kreiss et al. 2011, 250). In order to examine this argument, let us briefly consider the notion that a fundamental shift has taken place in the functioning of what Karl Marx referred to as "the capitalist mode of production" (1992, 125). While in the nineteenth century, economic competition occurred primarily through production, with the innovation of mass production and the explosion of consumer commodities, in the latter part of the twentieth century, profits came to rely increasingly on consumer demand, leading American sociologist Daniel Bell to pronounce the transformation of the American economy from a manufacturing-based to a service-based so-called "post-industrial" model—a term initially proposed by the French labour theorist Alain Touraine (1971)—whose defining technology was the computer (Bell 2008, 22-33).

While Bell argued, in 1973, that the hedonism of the '60s counterculture had driven the traditional protestant ethic of mainstream American society to a point of crisis, in

retrospect it has been suggested that it was, in fact, the business world that "in some cases actually anticipated the impulses and new values associated with the counterculture" (Frank 1997, 25-26). Also published in 1973, an article that appeared in the Journal of Advertising, entitled "Are Grace Slick and Tricia Nixon Cox the Same Person?" (O'Toole 1973, 32-34), demonstrates this point. In the article, an advertising executive argued that, while marketers in the past had considered the lead singer of the Jefferson Airplane and the daughter of then president Richard Nixon as virtually indistinct due to their similar upbringings, such class-based generalizations would be relegated to history as, henceforth, individual self-expression was to be the new and ultimate measure for marketers.

Indeed, at the beginning of that same year in his second inaugural address, Nixon (1973) had entreated "let each of us ask not just what will the government do for me, but what can I do for myself?", in what seemed like a rebuttal to the utopian spirit of the famous inaugural address at the beginning of the previous decade (Kennedy 1961). As opposed to the homogenous mass markets of the industrial era, in the new post-industrial era people would now be encouraged to think of themselves as being unique, a cultural shift arguably reflected in the difference between IBM's slogan "THINK" and Apple's slogan "Think Different" (Martin 2010, 1).

Drawing on Max Weber's basic formulation concerning the cultural motivations for participating in "the spirit of capitalism" in spite of established moral objections (Weber 2005, 104), the French sociologists Luc Boltanski and Eve Chiapello periodize a significant cultural shift as having emerged out of the late 60s that they characterize in terms of a logic of "recuperation" of what had previously been conceptualized as forms of dissent (Boltanski and Chiapello 2005, 326). In seeking an answer to the basic question of why so many people

seem to be so committed to capitalism when in reality their "prospects of profit are low" (ibid, 7), Boltanski and Chiapello argue that innovations in marketing that emerged from that period have served as a potent source of "legitimation" (ibid, 58) for what they call "the new spirit of capitalism".

As manufacturing employment decreased after 1973, some economic theorists have claimed that the rigidity of mass production gave way to an increasingly flexible production model identified with post-industrial innovations in northeast Italy at this period, in which the resilience of artisanal industries in the so-called Third Italy was distinguished from the large-scale mass production of the Northwest, and the economically under-developed South, both decimated by economic crisis.[12] Emerging out of this tumultuous period in Italy, the Autonomist school of post-Marxism would develop a theory proposing that, under post-industrial conditions, the capitalist mode of production was shifting from the extraction of surplus and the exploitation of workers towards a model based on the idea of capturing people's social know-how. As such, Autonomists tend to use the post-industrialization thesis as the basis for strong periodization claims, treating technological innovations as the effective embodiment of successive modes of production, according to which "[e]ach kind of society corresponds to a particular kind of machine" (Negri in Deleuze 1995, 175), echoing Marx's claim that "[t]he hand-mill gives you society with the feudal lord; the steam-mill with the industrial capitalist" (1956, 122).

An amalgam of Marxist and Foucauldian thought, this critique furthermore tends also to periodize human subjectivity as having historically been organized in accordance with

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[12] While celebrated by some (Kumar 2005, 66), others have criticized these innovations in the so-called "post-Fordist" mode of production, as succeeding only through the recuperation of worker dissent (Dyer-Witheford 1999, 224; Harvey 1989, 147).

these different modes (Hardt and Negri 2000, 195-198). What seems to make Foucault's approach appealing to Autonomists is how he formulated the double bind between machines and individuals in terms of biological production, and how his interpretive analytics of networked power—or what he sometimes called "capillary" relations of power (1995, 209)— identified these processes as dispersed throughout the social body. Where more traditional Marxist critiques emphasize the centrality of computers in the ascendency of new forms of capitalism—in terms, for example, of their ability to maximize the global reach and frequency of markets (Harvey 2005, 3)—Autonomists have sought, to some extent, to re-conceptualize the basic concept of labour at the heart of Marx's thought, often through the model of networked computation, leading to the claim that: "[n]ot only have computers been integrated into all kinds of production but more generally communication mechanisms, information, knowledges, and affect are transforming traditional productive practices" (Hardt and Negri 2005, 115).

For Autonomists then, the practice of work under post-industrial capitalism has undergone a fundamental transformation—what is referred to in terms of a process of "intellectualization" (Berardi 2009, 94)—in which networks serves as both a metaphor and a literal technique by which to theorize the dispersal of labour into society as a whole. Based on this claim, Autonomists can be understood to formulate labour as the source of a multitudinous new class politics, in which "class exploitation no longer functions directly through the exploitation of industrial labour-power, but through the imposition of command on this […] surplus or excess of power" (Noys 2010, 110). In contrast to the dramatic decline of class politics in the contemporary period, it has thus been observed that Autonomists "attempt to reinstate a sense of victory over the capitalist machine" (McRobbie 2011, 63).

Whereas Marx had conceptualized the industrial factory worker as "alienated" from their labour, having to exchange their own individual creativity for a subsistence minimum, the supposed shift from solid mass-produced objects towards immaterial services arguably renders the notion of the alienated labourer a less universal starting point for critique, from which perspective one might appreciate Foucault's claim that, as the product of nineteenth century thought, "like a fish in water [Marxism] is unable to breathe anywhere else" (2005, 285); indeed Foucault in fact argued that forms of critique targeting the "mythicized abstraction" (1991, 103) of the bureaucratic state as, for example, the source of alienation, fundamentally misunderstood the neoliberal enterprise schema that, already in 1979, he identified as "the program of most governments in capitalist countries" (2008, 149).

Autonomism can then be understood to argue that successive changes in the dominant mode of production necessitate rethinking the purchase of forms of critique that are based on an earlier understanding of the relationship between labour and capital, to which end they draw on the concept of *general intellect* from Marx's unfinished manuscripts known as *The Grundrisse* (1973, 690- 712)—described by one leading Autonomist in terms of "scientific capacity objectified within the system of machines [… which] becomes public when it joins together with Work" (Virno 2006, 193-194). While Marx is well known for having portrayed machines as "dead labour" (1992, 60) that had the effect of transforming a worker into its "appendage" (ibid, 481), he had a paradoxical view of machines as "gifted with the wonderful power of shortening and fructifying human labour" whilst at the same time "endowing material forces with intellectual life, and stultifying human life into a material force" (1856). As with the duck-rabbit illusion, an ambiguous image made famous by Wittgenstein that supports two exclusive yet inseparable readings depending on how you look at it (1986, 194), there is similarly a paradox at the heart of Autonomist-style

interpretations of the networked age—as for example in the contemporary media-theoretical evocation of "the network" as representing both "a dominant form describing the nature of control, as well as resistance to it" (Galloway and Thacker 2007, 4). With this ambiguity in mind, let us proceed now in tracing another dimension of this genealogy of environmentality to an idealistic tendency in Western culture that experienced a powerful resurgence in the Bay Area counterculture of the '60s, and which arguably informs Sergey Brin's vision that, with Google Glass, "[y]ou'd just have information come to you as you needed it" (2013, n.p.).

2.6 Cybergnosis

*[T]he world has long possessed in the form of a dream something of which it only has
to become conscious in order to possess it in reality (Marx and Ruge 1844; in Buck-
Morss 1991, 281).*

[T]he tree of knowledge awakened man to life (Schneemelcher and Wilson 2003, 200)

Following Foucault in presenting an account of "the present as produced by a series

of shifts, changes [and] traces" (1984, 81), I argue that no genealogy of environmentality, no

matter how partial, would be adequate if it did not attempt to account for the radically

transformative power that people associate with contemporary consumer technologies—a

cultural "shift" that has, perhaps ironically, been traced to elements of the counterculture. In

From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the

Rise of Digital Utopianism (2006), Stanford communications historian Fred Turner develops

an account of how the American counterculture of the late '60s pioneered a new way of life

that would lay the groundwork for the contemporary culture of Silicon Valley. Against

temptation to recall "the youth movements of the 1960s as a single antinomian uprising"

(2013a, 133), Turner's historical narrative distinguishes the New Left movement—with its

politics of refusal, for example, staging sit-ins to protest against the Vietnam war—from the

hippie counterculture's notion of social transformation through small-scale local actions, in

which the appropriation of various consumer technologies figured prominently. As

illustrative of this split, Turner (ibid, 134) offers an anecdote concerning Ken Kesey—whose

pioneering countercultural exploits were documented in the *Electric Kool Aid Acid Tes*t

(Wolfe 1968)—in which the author addressed a gathering of anti-war demonstrators at the

University of Berkeley campus in 1965 with the words: "You know, you're not going to stop

this war with this rally, by marching… That's what they do" (Wolfe 1968, 222). In what

countercultural historians at the time framed in terms of ideas of consciousness raising

(Roszak 1995, 51; Reich 1972, 184-221), Turner thus argues that the counterculture

approached politics as a primarily psychic task intended to nurture global forms of awareness

that were thought to transcend the narrowly political.

Focusing his account on the development of a series of publications and platforms

loosely identified with the *Whole Earth Catalog*—described by the late Steve Jobs as "one of

the bibles of my generation […] sort of like Google in paperback form" (2005)—Turner's

account is concerned with the role of this particular cultural movement in helping to identify

networked computing with the belief that "if class was no more, then individual lifestyle

choices became political acts" (2006, 38). Whereas computation had formerly been identified

as a tool of militarism (ibid, 11) and with a generalized threat of automation (Turner 2008, 7-

10), Turner argues that "the editors, writers, and entrepreneurs associated with the Whole

Earth publications completely reversed the political valence of information and information

technologies" (2006, 249) such that computation came to be identified with liberation if not

idealist transcendence.

In a study of the cultural environment of the Bay Area, the cultural anthropologist

Dorien Zandbergen uses the term *cyber-gnosticism* to refer to "a field of thought and practice

where the 'secular' interest in 'cybertechnology' converges with the gnostic quest for

immediate experience of ultimate reality" (2011, 4) thereby locating Silicon Valley

innovation culture within a lineage of Western esotericism. We can understand the concept of

gnosis here, from the Greek root for 'knowledge', as a revelatory form of epistemology,

described by the second century Christian theologian Clement of Alexandria as referring to

"the knowledge of who we were and what we became, of where we were and whereinto we

have been flung" (quoted in Voegelin 2000, 255). The idea that gnosis could transcend the material fallen world in order to create a sort of Heaven on Earth informed early mystical Christian heretical sects as illustrated, for example, in the interpretation of Eden—from the apocryphal Gospel of Philip—as a false paradise where man had been confined by a spiteful demiurge, and in which the Tree of Knowledge represented the revelation of divine knowledge as opposed to earthly temptation (Schneemelcher and Wilson 2003, 200). A gnostic type of metaphysics also informed the science fiction writer Philip K. Dick's evocation of post-industrial San Francisco in terms of what he referred to as "The Black Iron Prison which enclosed everyone […] on all sides" (2011, 48), in mordant reference to Max Weber's image of the "iron cage" (2005, 123), of scientific rationality that traps individuals into a teleological system. In contrast however, to Weber's argument that such rationality was in the process of "displacing the old religious relationship" (1961, 262), Zandbergen describes the Bay Area communities which she studied as, in fact, perceiving technology as an essential tool towards enlightenment.

Perhaps one of the most influential and outspoken exponents of Zandbergen's cyber-gnosticism might be the inventor and entrepreneur Ray Kurzweil—whom Google hired as the director of engineering for Glass. Building on an idea derived from cybernetics, to which I will return in a moment, Kurzweil claims that the human mind and computational systems will inevitably converge due to the exponential speed of technological innovation known as Moore's law (Kurzweil 2005, 67). Named for the co-founder of the Intel corporation Gordon Moore, who in 1965 claimed that the relationship between the falling size of silicon chips and their properties develop in a non-linear exponential fashion, Moore's Law has however been critiqued as less of a natural law than a production target for the computer industry, which has become propagated to the status of a modern myth thanks to its promotion by powerful

industrialists like Kurzweil (Sterne 2007, 20; Morozov 2013, 218). From its very origins however, experimental science was united with esotericism when in the seventeenth century, natural philosophers first conceptualized the objective of experimental science in terms of restoring epistemology to its prelapsarian state, in order to "see what Adam saw"—who, it was believed, could "sense all facts directly, including the earth's orbital motion and the circulation of his blood" (Schaffer 2002, 503). In this spirit, the birth of the networked personal computer may be seen to overlap with a renaissance of esotericism in the late '60s counterculture—an esotericism that, as Zandbergen notes, continues to find favour in the Bay Area today.

If we trace its birth back to the figure of Douglas Engelbart—based at Stanford University, where Google also started—then at its conception we find personal computing to be identified with the idea of epistemological enhancement or in Engelbart's language the "augmentation of human intellect" (1962, 91) . Famous for being the first, in 1968, to publicly demonstrate the functionality of the graphic user interface, the mouse, video conferencing, and word processing, since the early '60s Engelbart had been interested in how technology might be designed to "deal with the increasing complexities of the modern world" (Bardini 2000, 2). While interaction between humans and machines had previously been of a strictly clerical nature, in the words of a biographer, Engelbart envisioned "nothing less than the development […] of a new kind of person" (ibid, 1) as the result of a dialogue through which human beings would co-evolve together with machines, an idea that Engelbart referred to as "bootstrapping." Perceived by his colleagues as occupying a position on "the lunatic fringe" of the military-funded research establishment of the time (Markoff 2005, ix), Engelbart conceptualized bootstrapping as requiring mental, organizational as well as social

change. As such, the researchers in his lab experimented with LSD, and Engelbart became intrigued with Maoism as well as the Human Potential Movement (ibid, 209-211).

Aspects of this countercultural heritage continue to be evident within contemporary Silicon Valley, as for example signified by the centrality of the Burning Man arts festival to Google's corporate culture, whose co-founders Larry Page and Sergey Brin are said to have hired Google's former CEO Eric Schmidt in part because he had attended the yearly week-long event in the desert of Nevada (Turner 2009a, 75).[13] Engelbart's ideas concerning the co-evolution of humans together with their machines can however be traced back further still to an engineering idea from the '40s that purposeful action could be governed environmentally—that "teleogical behavior [is] synonymous with behavior controlled by negative feed-back" (Rosenblueth, Wiener, and Bigelow 1943, 24)—an idea which in short order led to a new kind of transdisciplinary way of thinking across the natural and human sciences known as cybernetics.

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[13] Based on a gift economy in which financial exchange is generally forbidden, the Burning Man festival has been referred to as "the holiday of choice for the digerati" (Kelly in Rothstein 1997, D4) providing "a kind of vocational ecstasy" (Turner 2009a, 86) for the hi-tech post-industrial workers of Silicon Valley.

2.7 Conclusion: Environmental Media

We are but whirlpools in a river of ever-flowing water. We are not stuff that abides, but patterns that perpetuate themselves (Wiener 1989, 96)

Emerging out of the WWII defence establishment, cybernetics was a kind of interdisciplinary meta-language through which "boundaries between scientific and engineering disciplines were routinely transgressed" (Edwards 1997, 47), allowing scientific workers to "gain rhetorical legitimacy by pointing to support from another field" (Bowker 1993, 116). At its core, cybernetics extended a disregard for internal psychological states, characteristic of mid-century behaviourism, into a universal principle (ibid, 187)—the basis of the concept of the black-box, to which I will return in Chapter 4, which is concerned exclusively with the relations between things as opposed to understanding their contents. From its initial origins as an engineering thought experiment intended to conceptualize self-correction in a mechanical system as a type of intentional behaviour (Rosenblueth, Wiener, and Bigelow 1943), cybernetics grew into a philosophy of nature, which claimed that "[t]he machine, like the living organism […] can produce around it a local zone of organization in a world whose general tendency is to run down" (Wiener 1989, 34). Defined by one of its practitioners, Gordon Pask, as "the field concerned with information flows *in all media*" (Hayles 2010, 145, emphasis original), at least in its early manifestations, the single most central innovation of cybernetics was perhaps the notion of feedback or control, which conceptualized all aspects of reality as probabilistic entities susceptible to modelling, leading to the "revolutionary […] idea that the boundaries of the human subject are constructed rather than given" (Hayles 2008, 84). In erasing distinctions—between biological and mechanical, inside and outside—cybernetics can thus be understood as having introduced an

"epistemological and ontological rupture" (Lafontaine 2007, 32) whose full impact, it has

been suggested, was only eventually fully grasped by "postmodern theory in the late

twentieth century" (Galison 1994, 233).[14]

In *The Democratic Surround: Multimedia and American Liberalism from World War*

II to the Psychedelic Sixties, a prequel to his previous monograph, Fred Turner agues that

cybernetics functioned as a common language to unite engineers and social scientists around

a common objective to develop a "scientific" response to influential mid-century social

science theories concerning the possibly anti-democratic nature of broadcast media, as well

as the idea that political systems were manifestations of individual psychological character

(Turner 2013b, 151-180). In place of instrumental, message-driven modes of communication

that they associated with fascist propaganda, cybernetics seemed to evoke the ideal of the

self-governing individual as a kind of base unit of democracy, which in turn informed

collaborations with multimedia artists in the design of a new interactive idiom, what Turner

refers to as a *surround* aesthetic, which "audiences could enter freely, act spontaneously

within, and leave at will" (ibid, 63). Crucially for Turner, the surround aesthetic "was not

only a way of organizing images and sounds; it was a way of thinking about organizing

society" (ibid, 9), in which a new concept of environmental media was tasked with producing

a new kind of subjectivity as the basis for a liberal politics where self-interest might form the

basis of a common good. Turner traces the development of this surround aesthetic from

World War II propaganda through to the trade shows and world fairs of the Cold War, right

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[14] Although sometimes "appropriated in support of the exact ideological message they were writing against" (Cusset 2008, 260), particularly in '90's cultural theory, postmodern theory, notably the ideas of Foucault and of Deleuze, became an "essential references for a futuristic, 'posthumanist,' and excessively technology-oriented world" (ibid, 255), prompting the speculative claim that "the philosophical roots of French theory and the techno-scientific foundations of cyberspace are born of the […] same matrix" (Lafontaine 2007, 27).

up through and including the psychedelic multimedia environments of the 1960s counterculture, in a media genealogy that helps to situate contemporary Silicon Valley innovation culture in general, and Google Glass in particular, in relation to a historical narrative of visionary theories and practices of governance, in which new media have long played a central role.

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Google's corporate mission statement, to "organize the world's information and make it universally accessible and useful," is so vast in scope as to make it distinct "from any company that has ever existed in any medium" (Vaidhyanathan 2012, 16), a real-world equivalent of the mind-altering company in Eggers's fictional *The Circle* (2013). While Glass could surely be understood from a number of perspectives, in this chapter I have sought to position it as an innovation in a historical trajectory involving the fields of marketing and of interface design, as seen from the perspective of Foucault's genealogy of liberal governance. While Silicon Valley thought leaders argue against the need for precautionary discussion concerning the potential impacts of new technologies as retarding innovation (Brand 2010, 163), from post-war experiments in surround aesthetics, through Douglas Engelbart's notion of human augmentation, and especially within post-Marxist theory, innovations in computation and in interface design have historically been understood as simultaneously being innovations in epistemology, if not in political subjectivity as well.

As the supposed culmination of Google's founding vision, to anticipate and provide for our informational needs, Glass, at least as it was initially introduced, evoked an idea of gnostic revelation as the basis for a new relationship to the world. Glass's introduction was

however met with widespread public consternation leading to its eventual cancellation, with the derogatory phrase 'Glasshole' used to refer to a perceived lack of situational awareness on the part of users of the device (R. Greenfield 2013), highlighting the gap between technologically-enabled knowledge and genuine understanding, what cultural geographers would frame in terms of the map/territory problem, where the map is always a reduction of complex "ground truth" (Pickles 1995). The public understanding and acceptance of technology can be thought of as a kind of conversation, either agonistically—traditionally the role of the avant-garde—or in some kind of dialogue between self-styled "disruptive innovation" (Christensen 1997, 8) and those concerned with the social and epistemological impacts on these changes. Setting aside the future of Glass as a saleable product, the role that will be played by social theory in the dialogue over "what information technology might and could be", over its "technological imaginary" (Dourish and Bell 2011, 161), is still very much in the process of being written.

By way of concluding this chapter, I propose that we might consider Google Glass as a material manifestation of changes to how we think about the environment, about subjectivity and about governance that can be seen to grow out of cybernetics, but which can also be traced back, if somewhat less obviously, to innovations in liberal economic rationality. So far, this dissertation has explored the impact of networks on space in terms of a theoretical argument that location underwent a transformation with the development of new liberal economic theories of governance. From this perspective, I have shown how the emergence of a new and probabilistic concept, that of population, may be thought to have displaced location as the exclusive target of this new art of governance. Foucault claims that "[i]f one wants to analyze the genealogy of the subject in Western civilization, one must take into account not only techniques of domination but also techniques of the self" (1994, 177).

To that end I have discussed how theorists, drawing on Marx and Foucault, have sought to periodize an epistemological rupture, in relation to which Google may be seen as the iconic embodiment of a new paradigm whose impact could be understood as fundamentally altering the status of knowledge, including a new way to think about location in terms of environmental governance. In Chapter 1 I introduced the concept of mediatization as a term used by historians of the Napoleonic era to refer to the process through which formerly ecclesiastical principalities were forcibly annexed into larger agglomerations leaving the dispossessed sovereign as symbolic figurehead—leading Foucault to observe that, after Napoleon, society in fact becomes less spatialized (Foucault 2001, 352). In spite of the purported return of *location* as announced in the arts (Tuters and Varnelis 2006; Christov-Bakagiev 2012) and internet governance (Goldsmith and Wu 2006, 49-64), periodized approximately to the turn of the new millennium, what I refer to as mediatized location can be thus understood as a new form of governance made possible through an incorporation of locality into the largest of all agglomeration, that of the globe, and traced back via different tributaries to the dawn of the post-industrial period, the mid-century period, or even to the late eighteenth century. In any case, the fantasy of mediatized location can be understood to depend on the creation of a milieu of ubiquitous and universal addressability capable of capturing every action in "attempt to make a society legible" (Scott 1999, 2) and the basis for a new politics at the scale of the Earth.

In an essay by Marx entitled *The Eighteenth Brumaire of Louis Napoleon* written on the occasion of the 1851 French coup d'état in which Napoleon's nephew assumed dictatorial control of France, Marx wrote that history repeats itself "the first time as tragedy, the second time as farce" (1972, 10). What I have called environmentality in this chapter can be conceived as empowering or manipulating, farcical or tragic, depending in large part on one's

relationship to those in control of its inevitable "monopoly of knowledge" (Innis 1986, 22);

one's position in the overall network or power relations. Following Foucault's assertion that

"there is, in fact, no such thing as a return" (2001, 359), instead of representing a nostalgic

return to a lost romantic idyll, we can perhaps understand the contemporary locational turn as

signifying a metaphysical search for positionality in relation to the epistemological rupture of

post-industrial capitalism, an argument developed by Fredric Jameson in his diagnosis of

postmodern culture, with which I will open the next chapter.

CHAPTER 3: POSITIONALITY

3.1 Introduction: Place as Panacea

[I]t has become a shibboleth in social theory that the essence of modernity is the demythification and disenchantment of the social world (Buck-Morss 1991, 251).

The political form of postmodernism, if there ever is any, will have as its vocation the invention and projection of a global cognitive mapping, on a social as well as a spatial scale (Jameson 1984b, 92).

A new genre has emerged in academic writing on new media in the '10s around the basic claim that "the new organizational logic of the web is based on physical location" (Gordon and de Souza e Silva 2011, 7). Often these *geolocation scholars* present this new technological paradigm as a kind of remedy to a diagnosis concerning the negative effects of mediation on place, in terms, for example, of distracting people from their physical surroundings (Frith 2014, 1). Within the field of media studies and media art in particular, the related concept of *locative media* has generated significant academic interest amongst such scholars, with a substantial and growing body of academic literature devoted to discussing the concept (Farman 2012; Farman 2013; Wilken and Goggin 2014; Hjorth and Richardson 2014; Buschauer and Willis 2014; de Souza e Silva and Sheller 2014; Frith 2015; Evans 2015). Typically identified with a field of artistic practice for networked mobile devices rendered location-aware (for example, via line of sight connectivity to the GPS satellites array), locative media art practices have been framed as "responding to a depiction or criticism of the built environment as disenchanted [… with the] aim to offer a re-enchantment […] through the overlaying of informational environments onto the landscape" (Crang and Graham 2007, 807). Whereas geolocation scholars often tend to frame locative media, in substantivist terms, as a kind of remedy to the de-contextualizing tendencies implicit in communications media, this chapter looks at how the concept of location has been

theorized—as well as practiced—as a critical response to explicitly metaphysical diagnoses concerning the dematerialization of topographical space in a networked age. As such, this chapter is concerned primarily with the dialectic relationship between a cultural critique concerning the loss of location and a remedy of epistemological renewal—the latter figured in terms of positioning the individual in relation to an objectively mappable and comprehensible external reality—to which end I will focus on how Fredric Jameson developed the concept of *cognitive mapping* in relation to his well known diagnosis of late capitalism as "the great global multinational and decentered communicational network in which we find ourselves caught as individual subjects" (1984b, 84).

While notions of "site-specificity" have been used to conceptualize locative media in terms of phenomenological problematics of embodiment and spatiality (Farman 2012, 56-75), in what follows, my approach departs instead from the grammatical definition of *locative*, corresponding to the prepositions "in," "on," "at," and "by," denoting the idea of *positionality*. In particular I will look at how the concept of positionality is developed within a tradition of philosophical critique associated with—though not identical to—Fredric Jameson's Marxist metaphysics. In distinction to geolocation scholarship, I will develop this concept of positionality as a primarily topological, as opposed to topographic technique for thinking about location in a networked age, concerned with positioning the individual in relation to the whole. Departing from a close reading of what has been referred to as "the most memorable single exercise in all the literature on postmodernism" (Anderson 1998, 58)—in which Jameson envisioned an aesthetic practice that sought to map totality—the chapter goes on to locate the concept of positionality in relation to a critical discourse that predates Jameson's contribution, as well as to look at how the concept has subsequently been taken up and critiqued within debates in the field of media theory. Whereas the concept of

positionality has been developed as a term of art by feminist theorists in reference to a

reflexive approach to the production of academic knowledge that is opposed to "the god-trick

of claiming to see the whole world while remaining distanced from it" (G. Rose 1999, 308;

see also Haraway 1988), with some minor reservations, Jameson's project is relatively

committed to the global perspective.

Already at the time of the initial publication of his famous postmodernism article,

Jameson was criticized as having, for instance, "homogenize[d] the details of the

contemporary landscape" into a single "dominative or hegemonic position" (Davis 1985,

107), and indeed, his concept of cognitive mapping has subsequently been subject to criticism

within the field of literary theory for overlooking marginal subject positions (Tally 1996,

406-409). Furthermore, in spite of his fame as a theorist of the postmodern, as we will see,

Jameson's cognitive mapping is avowedly normative in its ambitions, aimed at the creation

of "a new systemic cultural norm and its reproduction, in order to reflect more adequately on

the most effective forms of any radical cultural politics today" (1984b, 57). With these

criticisms in mind, it thus should be noted that, in contrast to its other valences, the concept

of positionality that I will be discussing in this chapter is expressly global in scope—an

arguably legitimate use of the term in light of how recent debates in literary theory seems to

have endorsed this particular interpretation.[15]

Recalling the detective genre as a means by which to frame the search for location in

a networked age, the perspective of the "informants" in this chapter suggests a slightly

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[15] "Global Positioning Systems" was, for example, the topic of a major international
literary theory conference in 2013, featuring a track entitled: "Fredric Jameson's Spatial
Dialectic as Global Positioning System," at which I presented an early version of this chapter
(American Comparative Literature Association 2013, 168).

alternative framing device concerned with examining a relationship of interdependence—between a certain idea of positionality and a particular tradition of critique. In what follows, I explore how a set of aesthetic theories and practices have sought to develop metaphorical remedies to a metaphysical diagnosis concerned with the problem of subjective disorientation in relation to the physical environment. Cultural theorists sometimes refer to the indeterminate and entangled relationship between critical diagnosis and normative remedy with the phrase *pharmakon*—defined as "a drug that may act as a poison or a remedy […] whose effect can mutate into its opposite, depending on the dose, the circumstances, or the context" (Stengers 2010, 29). In attempting to achieve emancipation from a state of disenchantment, the French sociologist Luc Boltanski argues that critique proceeds by "making a sharp (if not always clear) distinction between, on the one hand, critical judgments delivered by so-called 'ordinary' people […] and, on the other hand, critical judgments made by sociologists," a distinction that licenses the critic to pass judgment "backed up by the discourse of truth of the social sciences [which] endows critical theories of domination with a certain robustness in describing the reality called into question" (2013, 4). While it has been argued that aspects of critique in general, and Marxist metaphysics in particular, can in fact be traced back to the antiquarian esotericism of gnosticism (Voegelin 2000, 257-277), this chapter traces the role of positionality in relation to a (post)modernist lineage extending from Lukács's dialectic of reification and totality through Situationist avant-garde art practice to contemporary digital mapping practices. The chapter then concludes by questioning the extent to which the practice and theory of positionality remain valid in light of socio-technical innovations that have arguably altered its underlying problematic, thereby implying the need for an alternative diagnosis from that provided by the project of critique.

3.2 Lost in Postmodern Hyperspace

I'm all lost in the supermarket, I can no longer shop happily (Strummer and Jones 1979).

[L]ate capitalism is a pyramid racket on a global scale, the kind of pyramid you do human sacrifices up on top of, meantime getting the suckers to believe it's all gonna go on forever (Pynchon 2013, 163).

In *Postmodernism as the Cultural Logic of Late Capitalism*, initially published as an essay (Jameson 1984b) and subsequently expanded into a book of the same name (Jameson 1991), Fredric Jameson developed a reading of postmodern aesthetics through the lens of Marxist literary theory that would go on to frame decades of debate in cultural theory. Although the term *postmodernism* had already entered popular usage amongst avant-garde artists and critics of the '60's—who used the phrase to signify a rejection of 'exhausted' high modern aesthetics (Featherstone 2007, 7)—it has nevertheless been remarked that, with the publication of this article, Jameson "redrew the whole map of the postmodern at one stroke" (Anderson 1998, 54), at least within the then-thriving field of Anglo-American academic cultural theory.

Jameson's theory of postmodernism emerged from his attempt to intervene into cultural theory debates around the concept of postmodernism that were only beginning to take shape at the time, but which would eventually come to dominate the entire field for the next several decades. If the concept of postmodernism was at the time associated with a mood of skepticism towards the utopian plans and schemes of high modernism, expressed by French philosopher François Lyotard as an "incredulity towards meta-narratives" (Lyotard 1984, xxiv), then Jameson's antithetical move was in fact to treat postmodern culture as the by-product of a Marxist meta-narrative concerning global economic forces—indeed Jameson

would later identify his approach with the deterministic stance of "an older vulgar Marxism" (Jameson 1998, 137).

In periodizing postmodernism, Jameson identified a number of characteristic shifts away from modernism including a tendency towards depthlessness, a waning of affect, a weakening of historicity and a shift in tone towards an aesthetic of the sublime. Having opened his prior book—in which he definitively established his reputation as a literary theorist—with the imperative to "always historicize" (1983, ix), one of Jameson's more influential arguments was that postmodern culture contributed to a diminution of historical consciousness and its corresponding substitution by nostalgia—a critique of which continues to be reiterated in popular media criticism (Lanier 2010, 129, Reynolds 2011, x-xi). According to this line of argument, then, the weakening of historicity leads to "a society [that] has a hard time figuring out not only where it came from but where it might be or should be heading" (Fraser 2015, 315), thereby confounding attempts at positionality.

Jameson built on a particular tradition of Marxist literary theory, in an approach that literary theorist Perry Anderson has deemed "materialist symbolism" (Anderson 1998, 130), concerned with interpreting the latent symbolic meaning of material culture, in which he attempted to combine a rationalist theory of world economic development with a contextualist approach to cultural analysis indebted to Raymond Williams—the latter who had argued that no dominant mode of production was capable of exhausting "the extraordinary range of variations, both practiced and imagined, of which human beings are and have shown themselves to be capable" (Williams 2005, 43). For Jameson, postmodernism constituted a kind of symptom, a "cultural dominant" for the underlying pathology of "late capitalism," a concept he borrowed with minimal alteration from Ernest

Mandel's deterministic theory of economic and social change, which held that new technologies increased the rate of profit leading to a period of growth until their advantages were exhausted leading to a period of recession, followed eventually by a new cycle of growth.[16]

Jameson drew a direct relationship between historical transformations in the capitalist mode of production and aesthetic transformations in the sphere of culture. As introduced in Chapter 1, in Jameson's analysis, under late capitalism, culture had come to constitute a kind of second nature, which had expanded to incorporate everything "as the purest form of capital yet to have emerged [and] a prodigious expansion of capital into hitherto uncommodified areas" (1984b, 78). As such, Jameson saw the stakes of his project in terms of a grand world historical political struggle, in which popular culture constituted the ideological battleground. He thus developed a metaphysical, if not esoteric, argument that material reality and sensual experience had effectively bifurcated, and that the problem of critique could be reduced to a matter of positioning. Fundamental to this diagnosis was the idea that the built environment could be read as symptomatic of the general problematic of late capitalism. To this end, Jameson painted an elaborate picture of what he called "hyperspace" (ibid, 80), packed with stimuli but devoid of meaning, in which the *transcendental subject* of eighteenth century critique was lost, as it were, in a kind of 1980's American shopping mall.

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[16] In an attempt to explain the worldwide economic crisis of the early '70s, Mandel adapted Soviet economist Nikolai Kondratiev's long wave world system theory, shortening the intervals from approximately fifty to twenty years in duration, and periodizing the beginning of the late capitalist wave to approximately the postwar period—though Jameson would periodize its beginning to the late '60s (Jameson 1984a), consistent with the post-industrialism thesis discussed in Chapter 2.

In his analysis, Jameson singled out architecture as what he called late capitalism's "privileged aesthetic language" (1984b, 79), claiming that of all the arts it was the "closest constitutively to the economic, with which, in the form of commissions and land values, it has a virtually unmediated relationship" (ibid, 56). His interest in architecture seems to have arisen in part as a response to his own intellectual milieu, that of North American Ivy League academia, where the term postmodernism had become closely identified with a debate in architecture theory referred to as the "battle of the 'Grays' and the 'Whites'" (Scott 2001, 113), which pitted the champions of a new postmodern vernacular style of architecture—as most famously articulated by Robert Venturi (1972)—against advocates for a return to formalist modernism.[17] The interest, however, turned out to be mutual, with Jameson's diagnosis becoming a touchstone for architectural theorists, so that, over a quarter century later, his essay would still be identified with having articulated a "historical shift in the organization of power and knowledge into increasingly horizontal, pattern-based networks of control" (Martin 2010, 37). Indeed, on evidence of citation alone it has been observed that the essay is perhaps best remembered for "the great set-piece" at its centre (Anderson 1998, 58), Jameson's observations regarding the architectural interior of the Bonaventure Hotel in Los Angeles, which he presented as a kind of iconic representation of the "new spatial logic of the simulacrum" (1984b, 66). Constructed between 1974 and 1976 in the Bunker Hill district of downtown Los Angeles, the Bonaventure was designed by the American architect John Portman, who, while not considering himself a representative of the postmodern vernacular style of architecture, is nevertheless associated with the latter in the estimation of architecture critics (Scott 2001, 113). With its primary entrances connecting, via passageways, to other buildings rather than to the street, what seemed to fascinate Jameson about the hotel's design

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[17] When Jameson first started lecturing on postmodernism, he had just begun teaching at Yale where Venturi and other members of the postmodern Grays also taught (Anderson 1998, 52).

was the extent to which this building appeared to create an autonomous world within and yet somehow separate from the surrounding city in which it was located—in his analysis then, the Bonaventure "aspires to being a total space, a complete world, a kind of miniature city" (1984a, 81).[18] In the passage, Jameson offered an account of his own experience of getting lost in the hotel as a kind of culmination of his entire diagnosis of the epistemological rupture of late capitalism, in which his inability to make sense of the building's confusing spatial layout became a metaphor for the inability for what he repeatedly called "the subject" to position itself in relation to the complexities of late capitalism. The inability to navigate postmodern hyperspace was thus conceptualized as an obstacle to be overcome in order to manifest meaningful political action.

In spite however, of his prominent influence on subsequent theorists of the built environment (Soja 1989, 62-64; Dear 2000, 47-69), Jameson may himself be understood to have nurtured a somewhat idiosyncratic conception of space. Identifying what he esoterically referred to as "a mutation in the object, unaccompanied as yet by an equivalent mutation in the subject" (1984b, 80), Jameson's "spatial dialectic," as he would later come to refer to his approach (2009, 66), can be understood as relating here to a metaphysical strain of Marxist thought that extends the process by which capital comes to dominate economic exchange— what Marx referred to as "subsumption" (1992, 645)—to all aspects of reality. While Marx himself recognized many things as existing outside of capitalism (ibid, 131), this approach sees subsumption as a process of semiotic escalation, which ultimately results in a separation between the subject and the object, what the Marxist philosopher Guy Debord referred to as

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[18] Considering that one of Jameson's critics referred to his reading of the Bonaventure's interior as "a claustrophobic space colony [… that] reconstructs a nostalgic Southern California in aspic" (Davis 1985, 112), it is amusing that it features as a portal to outer space in Christopher Nolan's 2014 film *Interstellar* (2014).

"eliminat[ing] geographical distance only to reap distance internally in the form of spectacular separation" (1995, 120). As an avant-garde artist committed to implementing his critique in the form of practice, Debord sought to develop new aesthetic forms, often at the level of urban spatial practices, that were nevertheless addressed to the totality of society (Debord and Knabb 2003, 29-42), an idea that Jameson can be understood in turn to have adapted as the basis of his own claim that "a model of political culture appropriate to our own situation will necessarily have to raise spatial issues as its fundamental organizing concern" (1984b, 89).

At the conclusion of his original essay on postmodernism, Jameson evoked the work of the urban planner Kevin Lynch (1960) who coined the terms *wayfinding* as well as *imageability* in reference to the navigational habits of city dwellers—concepts that subsequently became central in interface design for environmental media. For reasons that Jameson has never made clear, in referring to Lynch's work, he chose however to use the term *cognitive mapping*. Although the idea that humans make use of mental representations of their everyday spatial environments in order to acquire, navigate and store information can be dated back to antiquity—the *memory palace* being a mnemonic device used by the ancient Greeks and Romans (O'Keefe and Nadel 1978, 201)—as a term of art cognitive mapping comes from a branch of psychology known as purposive behaviourism, where it refers to place learning behaviour (Tolman 1948). Jameson thus concluded his celebrated essay with a call for the development of a "new (and hypothetical) cultural form" (1984b, 89), a "representational shorthand for grasping a network of power and control even more difficult for our minds and imaginations to grasp" (ibid, 79-80) that would render the complexities at the economic base of late capitalism somehow conceivable in order for subjects to thereby meaningfully position themselves in relation to their environments, characterizing cognitive

mapping in esoteric terms as "an imperative to grow new organs, to expand our sensorium and our body to some new, as yet unimaginable, perhaps ultimately impossible, dimensions" (ibid, 80).

So while Jameson's evocative use of the term cognitive mapping certainly signifies that he was inspired by the idea of spatial apperception, his allegorical use of the term should not however be confused with the former experimental tradition, instead signifying a rather specific if not somewhat arcane offshoot of the term. Ultimately, for Jameson, the condition of postmodernism amounted to the feeling of being *lost in space.* He thus concluded his famous text with a programmatic call for the development of something that he called an "aesthetic of *cognitive mapping*" (1984b, 89), which he proposed as remedy to the diagnosis that "this latest mutation in space—postmodern hyperspace—has finally succeeded in transcending the capacities of the individual human body to locate itself, to organize its immediate surroundings perceptually, and cognitively to map its position in a mappable external world" (ibid, 83). In an attempt to treat this diagnosis, Jameson's project can arguably be understood in relation to Debord's interpretation of Marx—that an aesthetic representation of totality constitutes the antithesis to spectacular separation—which in turn can be traced back to the dialectic of reification and totality as developed in the field of Marxist metaphysics.

3.3 The Situational Sublime

From the ethical point of view, no one can escape responsibility with the excuse that he is only an individual, on whom the fate of the world does not depend (Lukács 1972, 8).

While Jameson's cognitive mapping has been described as "one of the most influential" concepts in postmodern cultural theory (Tally 1996, 399), it has also, however, been described as one of "the least articulated" of his concepts (MacCabe in Jameson 1992, viv). Defined by Jameson as an "extrapolation of Lynch's spatial analysis to the realm of social structure" (1988, 353), cognitive mapping has been said to speak directly to the central question in all of Jameson's work, namely: "[h]ow does the psychically enclosed, subjective individual relate to the socially dispersed, objective totality?" (Tally 1996, 405). As such, Jameson's cognitive mapping can be understood as essentially concerned with the problem of situating meaning within a universal interpretative framework in which Jameson claimed that "[o]nly Marxism can give us an adequate sense of the essential mystery of the cultural past" (1983, 3), as it alone offered a view onto history as "vital episodes in a single vast unfinished plot" (ibid, 4). Setting aside for a moment Jameson's steadfast devotion to the explanatory power of Marxist historiography, the concept of cognitive mapping may be understood as playing a similar structural role in Jameson's metaphysics as the concept of the sublime in Kant's metaphysics, positing an ideal relationship between the individual and the totality that is mediated by the "free play" of the faculty of imagining in the contemplation of the aesthetics of the sublime (Kant 2000, 102-103). In attempting to make sense out of an overwhelming aesthetic experience of seemingly infinite complexity, Kant associated the sublime with the imagination's movement from a state of confusion to one in which the mind reflected on its underlying moral rational framework, what he called its "supersensible

vocation" (ibid, 141). The momentary experience of self-abnegation induced by the sublime

thus paradoxically grounded Kant's "transcendental" subject within a universal moral order,

the latter of which Jameson, for his part, figured in terms of an awareness of one's position

within the true system of economic relations.[19]

Jameson's intellectual project is perhaps best understood in terms of a metaphysical

discourse concerned with identifying an underlying principle governing the relationship

between things' appearances and their true position in the big picture of economic relations, a

project associated with Western Marxism—of which Jameson is considered a foremost

contemporary exemplar (Anderson 1998, 74)—that he is understood to have adapted from

one of the principal initiators of the discourse, Georg Lukács (Kellner and Homer 2004, 29).

In *History and Class Consciousness* (1971), originally published in 1923, Lukács rejected a

doctrinaire interpretation of Marxism by combining aspects of Hegelian metaphysics and

Weberian anti-positivist sociology in order to develop the concepts of *reification* and of

totality.[20] Taken from the German word for objectification, reification was Lukács's term for

the process of subsumption through which objects are transformed into subjects and subjects

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[19] In *The Postmodern Condition*, a text which stands alongside Jameson's as amongst the most influential in the debates on postmodernism, François Lyotard also put forth an association between postmodernism and sublime aesthetics (1984, 81). However, since Lyotard rejected the presumed universality of meta-narratives, his concept of the sublime denied any notion of solace, or any appeal to universalism in favour of a plurality of language games—the latter which has been characterized as "a replacement of […] universalism by localism" (Featherstone 2007, 4).

[20] Prior even to having developed the concept of cognitive mapping, in a text originally published in 1977, Jameson would make clear the conceptual foundations of this idea in his description of Lukács's concept of reification—as "a process that affects our cognitive relationship with the social totality […] a disease of that mapping function whereby the individual subject projects and models his or her insertion into the collectivity" (2008, 447)—later going on to describe cognitive mapping as a remedy to this diagnosis, "stressing the gap between the local positioning of the individual subject and the totality of class structures in which he or she is situated, a gap between phenomenological perception and a reality that transcends all individual thinking or experience" (1988, 353).

are turned into objects, while he defined totality as "the system of production at a given moment in history and the resulting divisions of society into classes" (ibid, 50).

Following Engels's assertion that the proletariat was "prescribed, irrevocably and obviously, in its own situation in life as well as in the entire organization of contemporary civil society" (1956, 134–5), Lukács claimed that totality in fact lay dormant in those commodities that Marx had theorized as "external to man, and therefore alienable" (1992, 182)—Marx's *commodity fetish* entailing the separation of use value from exchange value, and "the abstraction of the product out of real conditions of production" (Carey 2008, 170). As such, for Lukács, in a Kantian turn, reification contained within it the roots of its own overcoming since it produced an epistemological standpoint from which perspective totality could be grasped. In extending the commodity form into a "universal category of society as a whole" (1971, 86), it has been claimed that Lukács articulated "the central problem" of critical theory (Staff 2013), and in so doing essentially inaugurated the entire Western Marxist critique (Anderson 1987, 24-48). According to this seemingly paradoxical view, adopted in turn by Jameson, it was out of the total subjugation to (and repurposing of) the commodity form that a truly universal class consciousness would emerge—in the original language of Marx and Engels, compelling man "to face with sober senses, his real conditions of life" (1948, 12).

Described by the noted art historian Peter Wollen as representing "the summation of Western Marxism" (1993, 124), the Situationists, led by Jameson's forebear Guy Debord, can be said to have updated Lukáks relatively static conception of the dialectic of reification and of totality as the foundation for an interventionist avant-garde practice—that has subsequent become the standard against which all critical art is now measured, a point to which I will

return in this chapter's conclusion. Though having begun as an extremely marginal and

highly elitist art movement (Sadler 1999, 20), Situationist ideas made an indelible mark on

their time, particularly in the May '68 movement in Paris, having formed part of a narrative

concerning a golden era of political radicalism of which Jameson is himself avowedly

nostalgic (Jameson 1984a). Exemplary of the idea of revolutionary praxis—as captured in

Marx's slogan from his famous eleventh thesis on Feuerbach that "philosophers have only

interpreted the world in various ways; the point is to change it" (1998, 571)—in their

founding manifesto, Guy Debord defined the objective of Situationism as "the concrete

construction of momentary ambiences of life and their transformation into a superior

passional quality" (Debord 1957), with the notion of the *situation* subsequently defined as "a

moment of life, concretely and deliberately constructed by the collective organisation of a

unitary ambiance and a game of events" (Anonymous 1958).

Perhaps surprisingly for an art movement, art as an end in itself was in fact of

relatively little interest to the Situationists. Instead, they considered that "[t]he artists' task

[was] to invent new techniques and to utilize light, sound, movement and any invention

whatsoever which might influence ambience" (Nieuwenhuys 1958), developing their own

applied vision of Lukács's totality, which they referred to as *unitary urbanism* and defined as

"the complex, ongoing activity that consciously recreates man's environment according to

the most advanced conceptions in every domain" (Debord and Nieuwenhuys 1958). Where

Marx had theorized capitalism as alienating workers by dividing their time, the Situationists

extended this diagnosis to space whilst envisioning its eventual overcoming in the creation of

new forms of space in which "separations such as work/leisure or public/private will finally

be dissolved" (Debord 1959). Taking as their basic subject "[t]he study of the specific effects

of the geographical environment, consciously organised or not, on the emotions and

behaviour of individuals" (Debord 1955), the Situationists may thus be understood to have prototyped the notion of positionality as a critical practice through their development of a variety of artistic tactics, most notably perhaps through their notion of the *dérive,* a practice of purposefully getting lost in urban space, for example by intentionally following the wrong map. But while cognitive mapping can be understood in relation to this romantic critique of alienation, in formulating the concept, Jameson also drew on the ideas of a somewhat different strain of Marxist thought influential in the period leading up to May '68, associated with the dour figure of Louis Althusser.

3.4 The Desire to *Really* Know

O man full of arts, to one is it given to create the things of art, and to another to judge what measure of harm and of profit they have for those that shall employ them (Plato 1972, 275).

Louis Althusser was opposed to what he saw as the romanticism of the Lukácsian mode of critique (2005, 221-231) in favour of what he framed as a scientific and "anti-humanist" approach to Marxism. Rejecting any sort of appeal to human nature, he argued that all entities at all scales were in fact merely the product of historical forces that could be understood to actively produce human subjectivity through a process that he referred to as *interpellation*. In what would become an influential proposition, Althusser rethought the basic Marxist concept of ideology in terms of an active system of representations, as opposed to a veil of illusion, that constituted a kind of interface to the actual conditions of existence, what he called "the imaginary relationship of individuals to their real conditions of existence" (1994, 123) without which, he argued, politics of any form would be impossible. According to Althusser, interpellation involved the subject's self-recognition as a certain type of person in responding to the address of an ideological authority whose objective was to reproduce itself, thereby reproducing existing social relations.[21] While there were bad ideologies and good ideologies, for Althusser there was however no utopian state of collective being somewhere beyond the reach of ideology—there was, as it were, *no outside*. In order to

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[21] It has been noted that there is a logical paradox in Althusser's concept of interpellation, as it implies a subject that somehow predates its own existence—otherwise "how does the individual human being recognize and respond to the 'hailing' which makes it a subject if it is not a subject already?" (Eagleton 1991, 143).

reveal these ideological authorities at work in culture, Althusser developed a hermeneutical method that he referred to as "symptomatic reading" (Althusser and Balibar 1970, 32).[22]

Concerned with revealing the hidden biases in texts through attention to their gaps and contradictions, with this technique Althusser argued that the idea of representing totality, so central to Lukács for example, was essentially impossible since it would not, in any case, be graspable by the human mind. Following Althusser, Jameson frequently acknowledged the impossibility of totality, referring at one point to cognitive mapping as "a situational representation on the part of the individual subject to that vaster and *properly un-representable* totality which is the ensemble of society's structures as a whole" (1991, 51, emphasis mine) and as an attempt at "systematizing something that is resolutely unsystematic" (ibid, 418). But while claiming to reject the idea of "some privileged bird's eye view of the whole" (ibid, 340), Jameson's project is nevertheless unthinkable without the idea of totality—indeed, it has been observed that Jameson's dialectical thought seems capable of absorbing and resolving all kinds of seemingly contradictory ideas (Tally 2011).

In line with his influential adaptation of Althusser's symptomatic reading—which set a pedagogical tone in literary theory for decades to come (Hayles 2012, 59)—Jameson would come to apply and develop the concept of cognitive mapping as a kind of hermeneutical method of textual analysis concerned primarily with metaphorical representations of space and positionality, intended "to figure out where we are and what landscapes and forces confront us in a late twentieth century" (1992, 3). As an illustration of how he developed the

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[22] Having demonstrated this technique in his reading of Marx's oeuvre, much later in life Althusser admitted to not, in fact, having read many of those same texts (see: Wheen 2008, 107-111).

concept, consider for a moment Jameson's description of a shot in the American political thriller film *All the President's Men* (Pakula 1976), in which the camera slowly zooms out from a close-up on two reporters attempting to unravel the Nixon Watergate burglary, while seated amongst countless other researchers under the vaulted dome of Washington's Library of Congress. In Jameson's analysis, the architectural space of the library, as gradually revealed in the shot, represents the totality of late capitalism, "a system so vast that it cannot be encompassed by the natural and historically developed categories of perception with which human beings normally orient themselves" (1992, 2), while the reporters' search for knowledge signifies "the desire called cognitive mapping—[w]herein lies the beginning of wisdom" (ibid, 3). But while Jameson offers this type of ideology critique as an exemplary application of the cognitive mapping method, it need be recalled that he also initially evoked the concept in terms of "*a whole new technology*, which is itself a reflection, or way to deal with a whole new economic world" (1984b, 58, emphasis mine). Given the enormous impact of Jameson's syncretic approach to postmodern theory, as well as the ambiguity of some of his concepts, it should therefore perhaps not come as a surprise that there exists another alternative interpretation in which the concept of cognitive mapping is literally identified with new technology, specifically innovations in mapping aesthetics and interface design for the representation of dynamic network topologies. Before moving on from the former allegorical approach to discuss the latter topological approach, we can briefly consider the American science fiction film *They Live* (Carpenter 1988)—a "self-consciously B-movie", set adjacent to the vicinity of the Bonaventure Hotel, that has attained cult status for its depiction of mid-80s America class politics (Lethem 2010, 55)—as allowing us to speak to both interpretations of Jameson's cognitive mapping. In one particularly celebrated sequence in *They Live*, the film's protagonist stumbles across a magical pair of glasses that, when worn, actually seem to position the wearer in relation to ideology; so that, with the glasses on,

the camera assumes the protagonist's point of view and images on advertising billboards

suddenly appear as bold-faced injunctions to "CONFORM, CONSUME, SUBMIT", and so

on. The Marxist philosopher Slavoj Žižek offers a reading of this sequence as a supposed

illustration of the Althusserian concept of ideology, where "[o]nce you put the glasses on and

see [ideology], it no longer determines you. Which means that before you see it through the

glasses, you also saw it, but you were not aware of it" (2013).[23] Anticipating the geolocative

interface design of Google Glass, in which the virtual and real become co-terminus—what

the media theorist Paul Virilio would refer to as "stereo-reality" (Oliveira and Virilio 1996)—

the glasses in *They Live* can be thought to provide the film's protagonist with esoteric

insight—they are, in fact, referred to as Hoffman lenses, perhaps in reference to Albert

Hoffman, the Swiss chemist who discovered the formula for LSD—while simultaneously

functioning to position him in relation to the totality of class relations, in Jameson's words

"endow[ing] the individual subject with some new heightened sense of its place in the global

system" (1984b, 92).

Drawing on Jameson's evocation of cognitive mapping as technology, the field of

new media theory can be understood to have developed an alternative interpretation of the

concept in order to frame critical art practices that attempt to answer Jameson's question of

"where we are" (1992, 3) through the creation of miniaturized topological diagrams of the

interconnecting relationships between the power brokers of late capitalism.[24] This topological

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[23] In what he referred to as a kind of "non-vision […] inside vision" (Althusser and Balibar 1970, 21), Althusser argued that looking and seeing were not the same, so that, without ideology critique, one might *look* without actually *seeing*.

[24] Jameson's concept has featured prominently in a recent media theoretical exchange between the media theorists Wendy Chun and Alex Galloway (Chun 2004; Galloway 2006a; Chun 2008), although their disagreement arguably stems, in part, from their different interpretations of Jameson's concept—with Galloway following an allegorical interpretation (Galloway 2013, 54; Galloway 2006b, 18:90), and Chun following a topological

interpretation of Jameson's concept has been developed by the media theorist Brian Holmes in his well-known promotion of the work of the French critical art collective Bureau d'Etudes, in whose extremely detailed, large-scale information diagrams he argues that "[t]hrough miniaturization, the aesthetics of cognitive mapping becomes a way for an individual subject to grasp the complexity of the networked world" (2009, 53), positioning their diagrams as representative of what he has referred to as "the major intellectual project of the worldwide Left in the 1990s […] to map out the political economy of neoliberal capitalism" (2000, n.p.).

While Holmes may not necessarily claim that Bureau d'Etudes's diagrams represent totality, the media scholar Richard Rogers identifies their approach with what he refers to as "an outlook that may be called a techno-epistemology, a way of coming to know and making particular claims only with a technological apparatus that desires to grow to satisfy its cravings for 'really knowing'" (2006, n.p.). Offering a methodological critique concerned with the difference between structure and action, he claims that "it is the format of the map that (dramatically) organizes these networks" (ibid), as opposed to the other way around—a critique echoed by media theorist Alex Galloway, in a direct rebuke to Holmes, with his claim that "the ideological content of the map is ultimately beholden to the affordances and prohibitions of its form" (Galloway 2013, 94). In critiquing this so-called techno-epistemology, Rogers also references a well-known new media critical art project discussed by Holmes, entitled *They Rule* (On 2004), that maps the overlapping relationships of board members of major multinational corporations, and which has been lauded by media theorists

interpretation (Chun 2011, 59-95). We can therefore say that not only is Jameson's cognitive mapping not cognitive mapping in the conventional sense of the term, as used by experimental psychology, but the new media (topological) interpretation of cognitive mapping is not even cognitive mapping in Jameson's conventional (allegorical) sense of the term.

as the embodiment of a "new rhetoric of interactivity" (Manovich 2006, 212) and even a new kind of "democratic art" (Sack 2007, 143).

If, as Rogers and Galloway posit, form and format organize and delimit the explanatory power in visual depictions of ideology critique, in looking at software implementations of cognitive maps, we may go further still in speculating on the extent to which our navigating these new topographic landscapes might also be understood as signifying "a process of internalizing and adopting [a] specific philosophical approach to the world" associated, for example, with the object orientated programming language with which many, if not most forms of software are today written, in which "[o]ne conceives of object orientation in spatially embodied terms because the language itself demands it" (Alt 2011, 288). Given the relative ease with which social networking software, for example, allows for an awareness of one's positionality within a vast networks of relations, the media theorist Wendy Chun claims that the cultural context may therefore be understood to have shifted so dramatically since Jameson initially proposed his concept that, "instead of a situation in which the production of cognitive maps is impossible, we are locked in a situation in which we produce them—or at the very least approximations of them—all the time" (2011, 71).

Chun claims that a certain idea of cognitive mapping has paradoxically become *the* paradigmatic tool of neoliberal self-governance. Tracing software's "promise of transparent technologically mediated contact" (2011, 87) back to Douglas Engelbart's concept of the "augmentation of human intellect" (1962, 91), discussed in Chapter 2, Chun considers Engelbart as having inaugurated a new kind of political subject based on the idea "of users who act and through their actions believe" (2011, 86), leading to "certain expectations about cause and effect […] a way to navigate our neoliberal world […] as an economic game that

follows certain rules" (ibid, 92). Whereas the tradition of liberalism had compelled the individual to act blindly—in which man was supposedly "led by an invisible hand to promote an end which was no part of his intention" (Smith 1981, 456)—Chun claims the situation has reversed today, so that "each individual must 'know thyself' and others: he or she is constantly driven to make connections and to relate his or her actions to the totality" (2011, 75). In an apparent attempt to address what is seen by some as the tendency for this Foucauldian type of critique of liberalism to foreclose on the possibility of resistance (McNay 2009, 56; Saïd 2014, 208), in conclusion Chun turns to Situationist-inspired critical art practices as developed by contemporary locative media artists (2011, 95)—thereby repeating an association between locative media and Situationism that has been made as often as it has been criticized (Sant 2006; Tuters and Varnelis 2006; A. Greenfield and Shepard 2007; Mitew 2008; Bleecker and Nova 2009; Flanagan 2009; McGarrigle 2009). From a critique of capitalism to a description of capitalism, debates around cognitive mapping thus provide an object lesson in the valences of critique and its complicated relationship with the idea of critical art practice.

3.5 Conclusion: The Valences of Critique

The trajectory of Situationist discourse—stemming from an avant-garde artistic movement in the post-war period, developing into a radical critique of politics in the 1960s, and absorbed today into the routine of the disenchanted discourse that acts as the critical stand-in for the existing order—is undoubtedly symptomatic of the contemporary ebb and flow of aesthetics and politics, and of the transformations of avant-garde thinking into nostalgia (Rancière 2004, 9).

Considering themselves to be "the last avant-garde, overturning current practices of history, theory, politics, art, architecture and everyday life" (Sadler 1999, 1), a commitment to critique drove the Situationists to gradually abandon their earlier utopian ideas of interventions in favour of a completely conceptual practice (Tuters and Varnelis 2006, 359), anticipating a turn towards the "dematerialization of the art work" (Kwon 2004, 24) that came to characterize much contemporary art in the early '70s. Whereas, in the late '50s, the Situationists had imagined the creation of re-enchanted types of urban environments, by the early '60s they claimed to offer no more than "a critique of urbanism" (Anonyomous 1961), a position that, by the end of the decade, became systematized into a kind of party line amongst Marxist architecture critics, in the assertion "there can never be an aesthetics, art or architecture of class, but only a class critique of aesthetics" (Tafuri 2000, 32). What seemed to contribute to this radicalization of critique was an awareness of the inevitability of critique's recuperation by increasingly dynamic forms of capitalism.

While the Situationists had theorized their practices as fundamentally oppositional, they did so in relation to a type of capitalism that, as discussed in Chapter 2, arguably underwent a fundamental transformation, having supposedly developed the capacity to integrate, reify and normalize forms of dissent and critique, thereby constituting what Autonomist theorists came to refer to as a "new enemy [that] not only is resistant to the old

weapons but actually thrives on them" (Hardt and Negri 2000, 138). This narrative tends to locate a symbolic defeat of the left as having occurred in the late '60s or early '70s, after which point an epistemological rupture took place such that advocates of the strong version of this postmodern periodization narrative are said to believe that "the world changed completely" (Graeber 2008, n.p.)—Jameson indeed pessimistically reads postmodernism as a kind of by-product of the political defeats of that era (1991, 117), an assessment echoed by other prominent contemporary philosophers in the Western Marxist tradition as well (Anderson 1998, 9). Out of this morass of decline and recuperation, Marxism emerges as "the untouched master (of) theory – a tool of diagnosis and analysis that presumes to judge theory and finds it wanting" (Noys 2010, 3).

As typified by Jameson's project, the legend of the unfulfilled promise of May '68 was nurtured within Anglo-American humanities departments throughout the '80s, where it is said to have acquired a quasi-religious tone "written in the demiurgic language of words ending in -ism" (Cusset 2008, 215). Having failed to change the world when it briefly had its chance to do so, within the subsequent "political radicalization of academic discourse" (ibid, 8), Situationism has become canonized as a kind of high-water mark for both critical art and left-wing politics. Its memory is carefully curated, as signifying "the overcoming of separate and specialized knowledge, and *has to be recalled in that spirit*" (Wark 2011, 3, emphasis mine), as opposed to its misuse and recuperation by a subsequent generation, which "silences, ignores, and forgets (in a sort of pre-meditated amnesia) the profound theoretical and political insights that underpinned these excursions into new forms of urban practice and living" (Swyngedouw 2002, 154). In defending the ongoing radical potential of Situationism against contemporary usurpers, it could be argued that these critics are engaging in what

analytic philosophers refer to as a genetic fallacy, a form of argument based on an appeal to origins, which overlooks how ideas change over the course of time.

Recalling the discussion in Chapter 2 of how the innovation military strategy reiterated pronouncements made by Situationism some thirty years prior, or else the notorious case in which Situationist tactics were purportedly adapted in the development of counterinsurgency tactics to advance troops through urban space by breaking through the interior walls between residential units (Weizman 2006, 56), it might plausibly be argued that, over the course of time, we have learned that there is in fact nothing inherently emancipatory in the tactics and techniques of Situationism. If, as Foucault suggests, "one should totally and absolutely suspect anything that claims to be a return" (2001, 359), then perhaps the defenders of this unsullied exemplar of baby-boom era radicalism might consider that the truest measure of political philosophy's success—at least from the perspective of realism in statecraft—may lie in its capacity to develop multiple, competing and mutually incompatible valences. While the idea of positionality as a critical practice may once have represented a radical political promise, as no less a figure than Guy Debord himself acknowledges: "[a]vant-gardes have only one time; and the best thing that can happen to them is to have enlivened their time without outliving it" (Debord and Knabb 2003, 182).

In what the French philosopher Jacques Rancière refers to as the contemporary "left wing melancholy discourse" (2011, 40), '68 is generally looked upon as a failed revolution. The Italian avant-garde architect Andrea Branzi claims that "[i]t was a failed revolution because the political avant-gardes were pitched against the cultural avant-gardes," adding that, if "[t]he former lost their revolution; the latter (perhaps) won theirs" (2006, 142). While the art critic Benjamin Buchloh has defined avant-garde practice as "the development of new

strategies to counteract and develop resistance against the tendency of the ideological apparatuses of the culture industry to occupy and to control all practices and all spaces of representation" (1984, 21), Branzi identifies a conflict between the goals of avant-garde critique. In the previous chapter, I introduced Boltanski and Chiapello's theory of a "new spirit of capitalism," that they periodize as having emerged out of the 1960s and claim co-opted what they call the "artistic critique" of capitalism as a source of inequality (2005, 38). Boltanski and Chiapello's argument is based on the premise that while there are a number of distinct critiques of capitalism—as a source of disenchantment; as a source of oppression; as a source of inequality; and as a source of opportunism—it is "virtually impossible to combine these different grounds for indignation and integrate them into a coherent framework" (ibid, 38). In what amounts to an analysis of the tendency for leftist critique to be recuperated by its own object of indignation, Boltanski and Chiapello observe that the critique of capitalism as a source of oppression can "gently lead […] towards acceptance at least tacitly of liberalism" (ibid, 39), an argument they illustrate with reference to how the management literature from the '60s onwards developed a critique of bureaucracy that drew on this particular critique in order to promote a creative and hedonistic new model of work and consumption.

In his critique of critical art, Rancière views the Situationists as the ultimate exemplars of a patronizing pedagogical attitude whose objective is "to build awareness of the mechanisms of domination to turn the spectator into a conscious agent of world transformation" (2009, 45). As a former student of Althusser's, Rancière's aesthetic theory posits that political regimes duplicate themselves far beyond the normal purview of politics, effectively pre-formatting reality on an aesthetic and experiential level. According to Rancière, then, political regimes rely on a certain aesthetic organization of the world which avant-garde practices—which he prefers to refer to as "the aesthetic regime of art" (ibid,

36)—are capable of disrupting without necessarily appealing to "critical" frameworks. In contrast to the idea of compelling a passive spectator to act against their domination, Rancière proposes an alternative aesthetic theory as a way out of this endless narrative of defeat and recuperation, that posits the innate capacity of active spectators to interpret and therefore transform the world themselves. For Rancière, the real promise of the avant-garde rests in their capacity to reveal the fundamental contingency in how the sensible world is arranged.[25] Based on this premise, Rancière's approach to aesthetic theory rejects any foundational divisions between the realm of politics and the realm of aesthetics, in order to claim that even the most self-secluding of arts can harbour an innate political promise. Rancière, however, critiques Situationism specifically and "critical art" in general as reproducing a misanthropic model of explication. "There is," for Rancière, "no straightforward road from the fact of looking at a spectacle to the fact of understanding the state of the world" (2011, 75), from which perspective, it could be said, that *the desire to really know* may ironically diminish the difficult work of translating intellectual awareness into political action. Foregrounding the centrality of translation, conceiving politics as an aesthetic activity concerned with the arranging and assembling of spaces, and opposing itself to the supposedly dualistic metaphysics of the critical project, Rancière's aesthetic theory thus shares a number of *post-critical* positions with the philosophy of Bruno Latour.[26]

Following a pattern, then, laid down by Situationism, contemporary art theorists often treat "the search for place-bound identity […] as both a compensatory symptom and critical

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[25] In developing this alternative aesthetic theory, Rancière draws on Friedrich Schiller's argument to extend Kant's idea of the "free play" of the imagination in the contemplation of the sublime into what he referred to as a "play impulse", which Schiller imagined would liberate humankind from intellectual servitude (Schiller 2012, 76).

[26] Within debates in art criticism, Rancière and Latour have indeed been identified with a new *post-critical turn* in response to "the fatigue that many feel with critique today" (Foster 2012, 6).

resistance" (Kwon 2004, 8) to cultural symptoms of fragmentation and disenchantment, framed—in terms often indebted to Jameson—as manifestations of the underlying pathology of late capitalism. What if, at this point, we were however to look for a second opinion concerning the search for location in a networked age? As with any treatment, no remedy is appropriate for all cases. If in this chapter we have explored a kind of holistic type of remedy, a radical alternative would be to focus attention to the peculiar specificity of the symptoms themselves. What if we were to abandon the search for a global cure, along with its related concepts of late capitalism, postmodernism, dialectical thinking and the spatial turn? Would there in fact be anything at all left in the apothecary? To answer these questions requires a change of cultural diagnostician from Fredric Jameson to Bruno Latour, accompanied by a shift in treatments from what this chapter framed in terms of global positionality to what the next chapter will explore in the framework of *non-local proximity*.

CHAPTER 4: PROXIMITY

4.1 Introduction: Is It Local?

Consider the following routine taken from a sketch comedy program on American cable television in which a waitress attempts to answer questions posed to her by two diners concerned with the provenance of an item on the menu:

> Diner 1: "I guess I have a question about the chicken, if you could just tell us a little bit more about it."
> Waitress: "The chicken is a heritage breed, woodland-raised chicken that's been fed a diet of sheep's milk, soy, and hazelnuts..."
> Diner 2: "... and this is local?"
> Waitress: "It is."
> Diner 1: "... is that USDA organic, or Oregon organic, or Portland organic?"
> Waitress: "Its just all across the board organic."
> Diner 2: "... the hazelnuts? Are they local?"
> Diner 1: "How big is the area where the chickens are able to roam free?" (Armisen et al. 2011, n.p.)

The waitress leaves for a moment returning with a dossier on this particular chicken for the diners to peruse before making their menu selection. Unsatisfied with the information in the dossier the two diners choose instead to visit the farm upon which the chicken was raised, where, charmed by the romantic rural lifestyle, the sketch ends with the two diners deciding to take up a new life as chicken farmers. The sketch is of course taking aim at the trend to "eat local" as promoted by food activists in the *Slow Food* or *locavore* movement (Pollan 2006, 255; Andrews 2008; Flammang 2009, 173-212) who seek to reduce people's dependency upon and complicity with industrialized food networks.

Following Marshall McLuhan, it can be revealing to consider jokes as "grievance stories" (1995, 208). With the caveat in mind that explaining a joke tends to diminish its impact, we might consider the diners' search for the provenance of their meal as a kind of

protest against the abstracting effects wrought by networks on the phenomenological integrity of human experience. We may indeed draw comparisons between the locavores' search for *"*the local*"* and the previous chapter's discussion of positionality as a response to "our inability at present to map the great global multinational and decentered communicational network in which we find ourselves caught as individual subjects" (Jameson 1984b, 84). By radically shortening the logistical supply chain, the idea of "the local" seems to represent a protest against the unknowability of global capitalism, an ethical response to the famous Marxist slogan that "[t]here is no document of civilization which is not at the same time a document of barbarism" (Benjamin 2007, 256). As a guarantor of ethical action, it has however been argued that instead of opposing the cultural logic of late capitalism, the "construction of 'the local'" may in fact be understood to reproduce an ideal of neoliberal self-management, thereby risking the de-politicization of the leftist politics supposedly at the core of such movements (Harris 2009, 55). In conflating political activism with self-care, it has furthermore been alleged that such stylized food practices constitute the recuperation and de-politicization of the vocabulary of '60s radicalism in the service a new "boutique biopolitics" for a young urban elite (Lerner 2014, 46), a politics that is relatively disengaged with the traditional class-based holistic concerns of the left. Furthermore, as the sketch satirizes, upon arriving at the actual site of "the local," something important appears to be missing—or to put it in fashionably ontological terms, something seems *withheld* from the "possibility of human access" (Harman 2005, 15).

We can think of the locavore anecdote concerning the provenance of the chicken as both a satirical comment on the increasingly politicized relationship between people and commodities—an idea that is often referred to in terms of ethical consumerism, discussed later in this chapter—but also, and perhaps more interestingly, as a rather insightful comment

on the failure of standard notions of politics to adequately reflect the subtleties of what the philosopher Bruno Latour refers to as *Dingpolitik*, a form of politics that "turns around questions, issues, stakes [and] things—in the sense of *res publica*, the public *thing*" (2013c, 337). Latour is known for having developed a type of metaphysics that sees everything in terms of networks, from which perspective substances appear as merely temporarily stabilized aggregates, whose parts have become so taken for granted as to disappear from being counted—a relationship which must nevertheless be continually reproduced in order to maintain this stability. With each entity or "actor" in a "network" of relations thought to perform their own ontologically distinct contexts, this approach tends to undermine the value of many predetermined explanatory frameworks. For Latour then, any appeal to context or to *location*, as the ultimate social explanation, is not really an option. Latour's approach is rather to identify an actor's particular language, imposing the least possible interpretations on those actions. According to this perspective, "the local" is better understood as the endpoint of a complex set of networked processes occurring across multiple geographic scales, than as some kind of deontological ground for ethics. In the words of Latour's colleagues Michel Callon and John Law, together with whom he developed the field of actor-network theory: "the local is an achievement in which a place is localised by other places and accepts 'localisation' itself […] The local is never local. A site is a place where something happens and actions unfold because it mobilises distant actants that are both absent and present" (Callon and Law 2004, 6). By creating and maintaining connection with each other, actors are thus thought to perform multiple overlapping contexts and localities.

As this chapter will discuss, Latour provides an alternative approach to think about the search for place in a networked age and a different response to the locavores' concerns regarding the provenance of their meal. Recalling the image of the private investigator from

Chapter 1, according to this particular "informant" then, neither the concept of "the local" nor that of "the global" will be of much help in our investigation, since for Latour, "no place dominates enough to be global and no place is self-contained enough to be local" (2005b, 204). In their romantic return to a lost idyll of nature, the locavores seem to imagine the world in terms of one giant mimetic map, on which an actor's location can literally be pinpointed—a critique that was also frequently levelled against "locative" artists (Holmes 2004; A. M. Galloway and Ward 2006; Cubitt 2007; Tarkka in Crow, Sawchuk, and Longford 2010, 131; Sack 2007, 142). As opposed to an idea of space as an empty container for social relations, Latour conceptualizes space in relational terms that do not especially privilege geography over other forms of connection—as he puts the distinction himself: "In the first tradition, if you empty the space of all entities there is something left: space. In the second, since entities engender their space (or rather their spaces) as they trudge along, if you take the entities out, nothing is left, especially space" (2009 142). Beyond merely tracking down the precise geographical coordinates of the chicken's origins, Latour's answer to the locavores' concerns would be to trace all connections performed by or pertaining to the chicken wherever they may lead. Latour would in fact probably say that the locavores were not so much hungry for chicken as they were *hungry for data* with the humour then seeming to arise from the inappropriateness of their measurement technique (Tuters and Kera 2014, 245).

Since Latour claims that "actors incessantly engage in the most abstruse metaphysical constructions by redefining all the elements of the world," (2005b, 51) in place of the idea that one can ever ultimately identify the exact location of anything, in the game of

epistemological chicken[27] Latour's strategy could be defined in terms of what I will call *non-local proximity*, which leaves open the possibility that, beyond the idea of provenance, there might be something more interesting that the chicken in fact has to say for itself. This is not to say that the idea of location does not exist, or that it does not perform some kind of useful work in the world, but rather that, from Latour's perspective, its explanatory value should not be exaggerated nor should its objective existence be taken for granted, since ultimately it can never completely be pinned down on the map. From the perspective of our detective story then, if the concept of location is of limited empirical use, our search now shifts toward investigating the concept of the network age.

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[27] In light of the chicken anecdote, it is amusing to note here that the title of a key text in a famous debate concerning the role of nonhumans within the field of science studies, and which Latour has called "a tiny landmark for our little field" (2005b, 75), is in fact "Epistemological Chicken" (Collins and Yearley in Pickering 1992, 301-326).

4.2 Network Metaphysics

New innovations in philosophy do not so much refute their opponents as simply cease being preoccupied by certain questions and problems (Bryant 2011, 29).

We do not start from human beings, those latecomers, nor from language, a more recent arrival still. The world of meaning and the world of being are one and the same (Latour 1993b, 129).

In contrast to the humanities tradition of critique discussed in the previous chapter, Latour sees himself as a social scientist (or perhaps even as a kind of natural scientist) commited to a systematic metaphysical inquiry into "different ways of producing truth" (2010c, 599). While delving into metaphysical philosophy is not uncommon in the humanities, it is however comaparatively rare in the social sciences. In this respect however, Latour considers himself, as well as his actor-network theory colleagues, as being exceptional. The reason for this interest in metaphysics stems from the simple assertion that "[a]ctors fill the world with agencies" (Latour 2005b, 52). As already alluded to above, Latour alleges that social scientists and humanists alike often subscribe to a flawed epistemology, in which attempts at social explanations paradoxically tend in fact to reduce or overlook the questions raised by entities themselves in the ordinary course of events. Informed by his original training as an anthropologist, Latour claims by contrast to have developed an approach that is capable of registering this multiplicity by simply *tracing* or describing the connections that entities themselves make between each other. This approach arguably differs quite substantially from that discussed in the previous chapter, insofar as it claims to refuse any overarching theoretical framework, social explanation or grand historical meta-narrative. This is not to say that Latour considers that all established social explanations must therefore be dissolved forever into some acid bath of cultural relativism; but rather, as he puts it, to reject their "premature unification into matters of fact" (2005b, 115).

The philosopher Graham Harman characterizes Latour's metaphysics in terms of what

he calls *local occasionalism* (Harman 2009, 82), in which two actors rely on a third local

mediator that provides "occasions [for] different entities to enter into contact" (Latour 1999,

141). This concept of mediation is indeed fundamental to Latour's metaphysics, whose

foremost axiom may thus be said to be that "there is no *transportation without translation*"

(Latour 1996a, 119). If the theological concept of occasionalism relied on God in order to

connect between two actors, in what Harman identifies as an important metaphysical

"breakthrough," Latour replaces God with "a democratic metaphysics of actors […] each

serving as a mediator or translator that leaves no message untransformed" (Harman 2009,

77).

Whereas the idea of substance, the thing-in-itself as the bearer of properties, is one of

the most fundamental concepts in metaphysics, Latour's approach could be said to be based

on the idea of the *thing-as-gathering*, a concept he developed in relation to the metaphor of

the "black box" (Latour 1987, 3), borrowed from cybernetics (see: Hilgers 2011). Based on

his own early anthropological studies regarding the production of scientific knowledge,

Latour initially developed this approach in order to describe the process by which networks

become stabilized and rendered invisible, so that "each stage is matter for what follows and

form for what precedes it" (1999, 74). Together with Steve Woolgar, Latour studied

experimental scientists in the laboratory as anthropologists would study other cultures in the

field, characterizing their reliance on specific experimental apparatuses, and their use of

academic citations as processes of building networks of association between humans and

non-humans, arguing that science was best understood in terms of a process, constantly in the

making, and always open to new data—as opposed to the old concept of scientific

"discovery" (Latour and Woolgar 1979). This work became foundational in the sociology of scientific knowledge, and more specifically helped to establish the approach that came to be known as actor-network theory. In developing a career for himself in the sociology of science, Latour sought subsequently however to distinguish his own approach from that of some of his colleagues, in arguing that the field of sociology had been hamstrung, since its inception, by the methodologically misguided problem of whether to treat the individual or the aggregate as the fundamental unit of analysis (a critique to which I will return shortly), in favour of studying the thing-as-gathering in all its local contingent complexity.

For Latour then, the metaphor of the network can be said to represent a performative dimension in the makeup of the world in which elements can always be redistributed. Latour's network metaphysics may thus be thought to advance a performative understanding of matter, that Harman notes "cuts against the grain of common sense, which affirms a world of unchanging physical solids occasionally shoved around by transient human whim" (2009, 81), but which nevertheless places him in an established metaphysical tradition extending from Lucretius (Greenblatt 2011) to contemporary debates in the humanities around "new materialisms" (Coole and Frost 2010). Latour rejects metaphysical philosophies that posit matter as "a foolproof appeal to a type of agency and a set of entities and forces that allowed analysts to explain, dismiss, or see through other types of agencies" (2007c, 138), an approach which appeals to an antiquarian idea of irreducible substance that he refers to as "idealized materialism" (ibid, 139).[28] In light of this critique of idealized materialism, Latour

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[28] In a commentary on Latour's metaphysics, Harman describes this *idealized materialism* as the "default commonsense philosophy of our time" (2009, 108), and one he dismisses as "deeply unphilosophical" (ibid, 110). But while Harman means to defend philosophy against philistinism, insofar as substance dualism may be thought of as the product of Western philosophy, perhaps the tradition of idealized materialism might alternatively be dismissed as *deeply philosophical*.

might claim that the locavores in the aforementioned anecdote are labouring under the naturalist view of the world as ultimately reducible to material elements—as symbolized by Samuel Johnson striking his foot against a rock in objection to Bishop George Berkeley's theory of empiricism, while announcing "I refute it thus" (Patey 1986, 139). Against the idealized materialist's appeal to cold hard facts, Latour simply points out that "[a]ccurate facts are hard to come by, and the harder they are, the more they entail some costly equipment, a longer set of mediations, more delicate proofs" (2005c, 11).[29] This ultimately means that no foundational ontological distinctions can be made between the world of matter and the world of ideas, between nature and culture, between fact and fiction, leading Latour to claim that "[t]hose who look for foundations are reductionist by definition and proud of it" (1993a, 188), for which reason he characterizes his own approach as *irreductionist*.

In contrast to idealized materialism then, Latour's metaphysics conceives of actor-networks as "composed of particular places, aligned by a series of branchings that cross other places and require other branchings in order to spread" (1993b, 117), their shape being determined by the strength of connections or what I am calling their non-local proximity to other actors—a concept to which I will return momentarily. Latour conceptually conjoins materialism and semiotics in order to create a kind of applied metaphysics for social scientists, whose task then simply becomes one of *empirically re-describing* the local complexity of the material world—though he is quick to add that such an approach inevitably leads away from "the local" as such. In tracing the ways that objects are composed, the social

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[29] In order to demonstrate the dangerous political consequences of a fetishistic belief in *matters of fact* Latour offers the infamous example of the speech given at the United Nations general assembly by former U.S. Secretary of State Colin Powell in the run-up to the US's second war in Iraq, in which Powell used a PowerPoint presentation with blurry aerial photographs and computer generated imagery that he claimed presented indisputable evidence of Saddam Hussein's WMD program (2005c, 4).

scientist reveals the complex entanglements in which people and things are intermingled. In spite of its philosophical ramifications, in practice actor-network theory is quite modest—though it should be noted that Latour's own project, particularly his more recent work (2013c), should not be too closely identified with the former—seeking only to describe actions without necessarily imposing social explanations or attributing discernible intentions, thereby leading away from a disciplinarily bounded object of study, not to mention a bounded concept of space, into unexpected and trans-disciplinary configurations.

4.3 Proximity to Things

When we look into the ambiguous essence of technology, we behold the constellation, the stellar source of the mystery [...] We look into the danger and see the growth of the saving power (Heidegger 1977, 33).

One of the simplest illustrations of how Latour's approach blurs the distinction between objects and people comes from a well-known thought experiment of Latour's concerning a weighted hotel key (1991). In this scenario, the hotel manager wants guests to return the key, the intention of which Latour refers to as the *program*. Crucially however, the force of the manager's statement are assumed not to be enough to counteract the tendency for guests to forget to return the key, the latter of which Latour refers to as the *antiprogram*. In order to address this problem, the manager chooses to attach a weight to the hotel key in the hope that the guests' actions will be more likely to correspond to his intention. While one would conventionally think of this weight as a purely physical matter—set apart from the emotional or financial matter of the manager's own attachment to the hotel keys—for Latour such distinctions are at best irrelevant. Latour's approach here is to be indifferent regarding the proportions of humans or non-humans in a given assemblage, a principle that he refers to as *symmetry*. Instead, he is concerned with how given assemblages form and perish in a constant struggle between program and antiprogram. Latour thus frequently conceives of the composition of material reality in semiotic terms as the articulation and translation of *propositions*—where "[p]ropositions do not have the fixed boundaries of objects" (1999, 143), which licenses him to cross the boundary between human and nonhuman, thereby overcoming what he considers to be the fallacious dualism lurking at the core of the modernist epistemology. Against the common sense notion that agency is an exclusive purview of humans, Latour sees actions as distributed across heterogeneous networks,

arguing that place-based interactions should be seen as the endpoint as opposed to the source of action. For Latour, "[t]he choice of a figuration is a bad predictor of which theory of action will be invoked. What counts is not the type of figures but the range of mediators one is able to deploy" (2005b, 58). Latour thus seeks to focus attention away from humans as the source of "primordial autochthony" (ibid, 196) towards an account of humans interacting with their tools to form networks, which in turn allow for actions to travel. As such, the "actor" in an actor-network is "not the source of an action but the moving target of a vast array of entities swarming toward it" (ibid, 46). Accordingly, if a given action does not have a medium, then as Latour puts it: "it won't move an inch, it will leave no trace" (ibid, 53).

This problematization of the distinction between human and nonhuman can be understood in relation to what Steve Woolgar has called the *ontological turn* in the sociology of science, which seeks to emphasize "the local, contingent, particular and specific" relations between interconnecting entities (Woolgar et al. 2008). In the estimation of the actor-network theorist John Law, Latour and Woolgar's work has been quintessential in helping to dispel the common sense notions that "external reality comes before us, that it *precedes us*" that it "has or, is composed of, a set of *definite forms or relations*" and "that the world is shared, common, the *same everywhere*" (Law 2004, 24-25, emphasis original). This turn towards ontology can be traced back within continental philosophy to Heidegger's attempt to replace the disinterested status of the knower—especially the systematic epistemology of science—with the idea of Being situated in a particular location in time and space—the latter of which he referred to as *Dasein*. For Heidegger, knowledge was only one relation amongst many that Dasein may take up with things in the world. In spite of claiming Heidegger's *Being and Time* (1962) to be the single greatest work of twentieth century philosophy (Harman 2007, 14), Graham Harman argues that Heidegger's ontology remains restricted to human-world

correlationism—illustrated for example by Heidegger's claim that "[w]hen Dasein does not exist […] even entities within-the-world can neither be discovered nor lie hidden" (1962, 255)—an anthropocentric flaw that Harman seeks to overcome by appealing to Latour's network metaphysics. Out of this amalgam, Harman interprets the ontological consequences of Heidegger's discussion of the role of tools and mediation in practice—from the opening sections of Heidegger's *Being and Time,* which, it has been claimed, had previously been taken up only "half-heartedly" by pragmatists (Morton 2013, 23), notably within the field of human computer interaction design (Dourish 2004, 99-126)—as implying the existence of a world of withdrawn or withheld entities that never directly interact with one another, and which occupy a *flat ontology* universe where humans and nonhumans bear no essential differences (Harman 2009, 207).

This idea of flat ontology evokes a proliferation of actor-network assemblages in which one is never faced with merely dead objects or inert environments that frame our actions, but instead by processes of being in performance. This in turn implies a different way of thinking about location and positionality, from which perspective, as Harman argues, "[d]istance and nearness are not objective physical terms, but refer to how close or far we are from the essence of things" (2007, 135). Indeed Heidegger had rejected the concept of space as a container within which objects are located, stating: "a three dimensional multiplicity of possible positions which gets filled up with Things present-at-hand is never proximally given" (1962, 136). Where the locavores imagined "the local" a means by which to ground an ethics, Heidegger may be understood to have developed the idea of *proximity* (Heidegger 1993, 152) or "a true nearness to things" (Heidegger 1969, 131). While Heidegger defended the philosophical status of things against a Kantian legacy of anthropocentrism (Heidegger 2012, 5-22), he also developed a substantivist critique of "the essence of modern technology"

(Heidegger 1977, 22), which he considered to be ambiguous, on the one hand encouraging a dangerous instrumentality while on the other representing a promise of stewardship.[30] Drawing on a selective combination of Latour and Heidegger, Harman's object-oriented metaphysics can be understood to undermine common sense understandings of scale through which we tend to organize reality, leading him to conclude that "a mosquito is just as real as Napoleon, and plastic in a garbage dump is no less an actant than a nuclear warhead" (2009, 34)—and others to draw bizarre comparisons between things at vastly different scales, for example, "from atoms to alpacas, bits to blinis" (Bogost 2010), referred to as "Latour litanies" (Bogost 2012, 38). Developing the consequences of this line of thought on the concept of place, another contemporary voice in this discussion, Timothy Morton, argues that "locality is always a false immediacy" (2013, 48), an artefact of the error of modern epistemology that he traces back to the unthinking adoption by seventeenth century experimental science of the thirteenth century theological concept of the infinite void (ibid, 43). Instead of "negating the specificity of things, evaporating them into the abstract mist of the general or the larger or the less local," Morton thus proposes the concept of *nonlocality* as an acknowledgment of the quantum field theory principle that "the general itself is compromised by the particular" (ibid, 54).

Since for Latour "[m]ost of the difficulties we have in understanding science and technology proceed from our belief that space and time exist independently" (1987 p.228), the idea of non-local proximity thus provides an alternative approach to the search for place

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[30] Latour, it should be noted, sees his own engagement with the objects of techno-science, as being somewhat at odds with "Heidegger and his followers" whom he claims "loved to hate […] science, technology, commerce, industry and popular culture" (2005c, 22), arguing that Heidegger's fetishization of the handmade jug—instead of, for example, an "industrially made can of Coke" (2004a, 233)—shows that "Heidegger was not a very good anthropologist of science and technology" (2004a, 235).

in a networked age, though in a different manner from the concept of global positionality as discussed in the previous chapter. Whereas Jameson's Marxist metaphysics envisioned the latter in terms of "the local positioning of the individual subject and the totality of class structures in which he or she is situated" (1988, 353), Latour's network metaphysics would accept neither the individual nor the totality as analytic categories or autochthonous entities, seeing them instead as the product of processes. If Jameson's approach may be said to conceptualize space as a series of Russian Matryoshka dolls in which "the local" is enclosed within "the global," Latour by contrast characterizes his approach in terms of attachment, where "the global" is attached and "the local" is not (Latour 2005b, 180). Since "networks have no inside, only radiating connectors" (Latour 2011b, n.p.), Latour furthermore considers this approach to, in fact, dissolve the very micro–macro distinction that he claims to have "plagued social theory from its inception" (Latour 1996b, 376). Similarly, John Law considers the scalar view of space as a by-product of a particular type of scientific epistemology that he contrasts to non-modern knowledge systems, from which perspective he claims that "[t]here is no global, no empty space, against which to measure and within which to locate the local" (Law 2004, 131). If the objective of Jameson's project may be understood in quasi-gnostic terms—where the soul seeks to "disentangle itself through knowledge of its true life and its condition of alienness in this world" (Voegelin 2000, 256)—then this alternative approach may, by contrast, be characterized in terms of an entanglement with the world of objects in all their multiplicity.

4.4 Post-Critical Digital Positivism

[N]ot only does no concept of context-in-general exist, but every use of "context" without exception is itself essentially indexical (Garfinkel 1967, 11).

When sociologists of the social pronounce the words "society," "power," "structure," and "context," they often jump straight ahead to connect vast arrays of life and history, to mobilize gigantic forces, to detect dramatic patterns emerging out of confusing interactions, to see everywhere in the cases at hand yet more examples of well-known types, to reveal behind the scenes some dark powers pulling the strings (Latour 2005b, 22).

Since, for Latour, as for Heidegger, the social world is not a collection of objects outside of us, but rather a medium that we inhabit—"the social does not designate a thing among other things, like a black sheep among other white sheep, but a type of connection between things that are not themselves social" (Latour 2005b, 5)—he considers the interpretive purchase of much social theory as limited at best. Without much hyperbole it can thus be said that one of the outcomes of Latour's approach is to render problematic the very idea of *critical distance*, with Latour rejecting any explanations that imagine "some hidden actor at work […] behind the scene [as] conspiracy theory, not social theory" (2005b, 53). In place of global explanations, he advocates for an approach that is sensitive to the world itself in all its contingency and heterogeneity, from which perspective, as one commentator notes, "social scientists (or humanists for that matter) [a]re not seen as competent to judge other people's actions on the basis of knowledge of a social structure the actors themselves would not necessarily acknowledge" (Asdal 2012, 384). As such, Latour seeks to challenge the explanatory categories of the social sciences—as well as the macro-micro distinctions upon which the separation of its disciplines are based—as being reductionist, arguing that "the presence of the social has to be demonstrated each time anew; it can never be simply postulated" (2005b, 53). Drawing on the insights of ethnomethodology, a sociological

perspective concerned with how social relations are performed locally at the level of everyday activities (Garfinkel 1967, 35-75), Latour emphasizes the primacy of practice, claiming that seemingly global entities should be understood as reliant on the performance of innumerable local actors in order to sustain their existence (and vice versa), an assertion which leads him to make the provocative claim that:

> Like God, capitalism does not exist. There are no equivalents; these have to be made, and they are expensive, do not lead far, and do not last for very long. We can, at best, make extended networks. Capitalism is still marginal even today. Soon people will realize that it is universal only in the imagination of its enemies and advocates (1993a, 173).

It has been remarked that Latour advocates a sort of "new division of labour for professionals […] in which each is expected to make an equal if distinct contribution" (Martin 2010, 89), with the social scientist's proper role being "to make sure that the multiplicity of voices […] is heard" (Latour in Barron 2003, 93), but "*not* to put some order into the world" (ibid, 81, emphasis mine). According to this view, it is only through the social scientist's tracing of networks that one arrives at a picture of reality in all its local complexity—which in turn provides the basis for politicians and moralists to proceed with their work. For Latour, any appeal to a pre-existing context, whether it be capitalism, or the concept of the Whole Earth for example (2013a, 75-97), is simply not up to the task of representing the stakes of truly intractable issues. For these reasons then, Latour is critical of many of the central concepts in social theory, such as the idea of 'power', stating that:

> To raise a political question often means to reveal a state of affairs whose presence was hitherto hidden. But then you risk falling into the same trap of providing social explanations […] You use the same old repertoire of already-gathered social ties to 'explain' the new associations. Although you seem to speak about politics you don't speak politically […] You yourself partake in the expansion of power not the re-

composition of its content […] "Be sober with power." In other words, abstain as much as possible from using the notion of power (2005c, 29).

Furthermore, Latour argues that "[m]oney per se is certainly not the universal standard looked for by Marx and other economists," suggesting instead the centrality of standardized calculative practices, or what he refers to as *inscription devices*, as the basic unit of analysis (1986, 45). From Latour's perspective, relations between entities can be understood as being mediated through standardized types of devices, leading him to describe his approach as "the summing up of interactions through various kinds of devices, inscriptions, forms and formulae, into a very local, very practical, very tiny locus […] without imposing on them an a priori definition of their world-building capacities" (Law and Hassard 1999, 17, 20).

Identifying social science with natural science through the claim that quantification is "after all, the foundation of all sciences," Latour sees the work of the social theorist as "try[ing] to find all the available types of quantum" (Latour and Lépinay 2009, 19)—an axiom that brings to mind the nineteenth century positivism of the Scottish physicist William Thompson, often referred to as Lord Kelvin, according to whom "when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind" (Thompson 2005, 1093). In seeking to quantify and trace everything from the micro to macro scales, Latour presents his approach as a resumption of the project of the nineteenth century French sociologist Gabriel Tarde, who believed that the difference between natural and social science was merely reducible to "a difference in capture and not in nature between the objects called material and the subjects of society" (Latour and Lépinay 2009, 28). Envisioning an approach to sociology that might "grasp as closely as possible the genesis of inventions and the laws of imitation" (Tarde quoted in Latour and Lépinay 2009, 35), Latour

interprets Tarde as licensing a kind of disciplinary trespassing that ignores the distinction between the symbolic and material worlds, which helps to explain how, in his lay writing, he can appear to frame the infiltration of networked media into every scale of reality as a relatively propitious development—since it helps to reveal that "[t]he ancient divide between the social on the one hand and the psychological on the other was largely an artifact of an asymmetry between the traceability of various types of carriers", a distinction he claims is erased by the range of traces left behind when, for example, shopping online (Latour 2007a, n.p.). If he were in fact alive today, Latour suggests: "[i]t is easy to imagine how interested [Tarde] would have been in the current era, in which we see growing numbers of new ways of 'obtaining data' in the form of audience ratings, polls, marketing surveys, shows like American Idol, competitions, rankings, auctions, spying, clicks on the mouse" (Latour and Lépinay 2009, 16).[31] According to Latour, all this mediation provides vehicles by which to trace Tarde's theory of imitation across scales and disciplines—indeed, as the process of social research is today beginning to shift towards the information industries (Marres 2012c), Latour's approach has been adapted by some social researchers as a method by which to "diagnose cultural change and societal conditions using the Internet" (Rogers 2009, 8).[32] Thanks, in part, to the infiltration of technological networks everywhere, from this perspective, everything can thus be understood in terms of the network metaphysics in which it was always already participating.

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[31] Latour's speculation here has the feel of a genetic fallacy in how he imagines transposing the past into the present without necessarily acknowledging the changed context.

[32] While Fredric Jameson had sought to critique what he diagnosed as a shift in postmodern culture away from "the depth model"—for example, contrasting Van Gogh's painting of peasant shoes, read by Heidegger as an iconic representation of a kind of proximity to the truth to metaphysical being (Heidegger 1993, 145), with an Andy Warhol screen print of shoes as symptomatic of reification—Latour has been interpreted as licensing the view that "surface is the new depth" (Manovich 2012, 461), since "[f]or the first time, we can follow imagination, opinions, ideas, and feelings of hundreds of millions of people […] and follow their trajectories in physical space. And we don't need to ask their permission to do this" (ibid, 472).

4.5 Learning to be Affected

[R]eality has many hues [...] and entirely depends on the number of elements tied to the claim (Latour 1987, 105).

[E]ither knowledge is truly beyond us [...] or else there is access—by a new method, a new instrument, a new calculus (Latour 2013c, 84).

Since innovations in the experimental apparatus provide new data, Latour makes the positivist claim that they necessitate new types of social theory, so that "[i]f you change this datascape, you have to change the social theory" (2011a, 802), or "[c]hange the instruments, and you will change the entire social theory" (2010a, 155).[34] Illustrative of this claim is his suggestion, in a co-authored 2010 text, that from the perspective of a new datascape, it is possible to look upon the entire postmodern hyperspace problematic—in which "[t]he territory no longer precedes the map" (Baudrillard 1994, 1)—as "an artifact [...] of a wrong philosophy applied to the cartographic enterprise" (November, Camacho-Hübner, and Latour 2010, 585), "a by-product of the imagination" (ibid, 595) generated by "a powerful set of intellectual technologies" (ibid, 591). Latour's extremely bold claim here is that mapping technologies of the past were in fact responsible for creating the illusion of an "'outside material' world" (ibid, 591), an illusion that is only retroactively revealed from the perspective opened up by a new datascape. According to his argument, contemporary digital mapping technologies herald the possibility of an entirely new conception of space and of location, which "bears almost no resemblance with what was called 'territory' before" (ibid,

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[34] Although the Weberian epistemology that Boltanski identifies with the project of critique (Boltanski 2013, 3) was formulated in opposition to the positivist assertion that society could be studied through the same empirical methods as the natural world, it should be noted that positivism was initially developed in an attempt at demarcating science from the influence of Christian metaphysics (Fuller and Collier 2003, 3).

585), under the conditions of translation established by a prior regime of cartographic inscription devices. Having much earlier in his career developed an analysis of the way that mapping technologies had historically been used as a technology of domination (Latour 1986, 32), in this text, Latour argues that these new devices signify a shift from the notion of mapping as "a phenomenon of correspondence between two different worlds that would mysteriously 'resemble' one another" (2010, 591) towards a conception of mapping as a process of renegotiation between multiple agents and the material world, in order "to help navigators find their way through their trajectories" (ibid, 593). As such, Latour seems to envision digital mapping devices as assistants to a media-centric form of epistemology, or post-epistemology, combining the concept of *distributed cognition* developed within contemporary cognitive science (Hutchins 1995, 49-116) and the concept of *radical empiricism* as developed within American pragmatist philosophy (James 1912, 39-91)—the latter considered by certain philosophers and commentators of American culture to have developed a contingent theory of knowledge a century before postmodernism (Rorty 2009).

While Latour notoriously rejects the periodization premise of postmodernism (Latour 1993b, 46), his approach may nevertheless be compared to that of Jameson, as discussed in the previous chapter, in that it develops a remedy to a cultural diagnosis whose objective is to minimize the gap between an outmoded epistemology and a metaphysical situation of increasing complexity. Insofar as their intellectual projects engage with the idea of mapping, Jameson's and Latour's approach have been respectively referred to in terms of a *cartography of unveiling* and a *cartography of attaching* (Mitew 2008, n.p.), in which the former envisions mapping as a technique through which to cut away all relationships of dominance in order to expose the underlying space of late capitalism, while the latter conceives of mapping more in terms of tools for amplifying one's sensitivity to issues

immanent to the environment, without necessarily prescribing what they may be or how it is that they should be framed. In contrast to the anti-realist stance embraced by postmodern philosophy, Latour has thus been associated with a new philosophical school of so-called speculative realism (Bryant, Srnicek, and Harman 2011, 2), from which perspective, as Graham Harman notes "things are not real by being less connected with others, but become more real the more they are linked with allies" (2009, 79).

Whereas Jameson's diagnosis proceeds from a political economic critique, Latour by contrast asks how maps might be able to address a core concern of sociologists of science, namely the assessment and representation of risk associated with technological and scientific invention. It is in fact through contemplating the problem of navigating risk in the built environment with new kinds of digital mapping technologies, that Latour concludes that there is "nothing especially spatial about cartography" (November, Camacho-Hübner, and Latour 2010, 593). Here, he critiques the entrenched distinctions between physical and human geography as another instance of what he sees as modernity's constant drive towards bifurcation and purification endlessly repeated in how we divide the world so as to ignore the essential hybridity of things (Latour 1993b, 10-12). Suggesting that "the mapping impulse is infinitely more […] variegated than topography" (November, Camacho-Hübner, and Latour 2010, 594), Latour envisions the emergence of a topological mapping aesthetic by which to represent the risks associated with objects in the environment, what he refers to as a "risk cartography" (ibid, 587). Returning to the opening anecdote, such a mapping aesthetic would not only allow the locavores to trace the provenance of their chicken, but moreover to map fluctuating levels of risks in the environment.

Similar to Jameson's evocation of cognitive mapping as "an imperative to grow new organs, to expand our sensorium and our body to some new, as yet unimaginable, perhaps ultimately impossible, dimensions" (1984b, 80), Latour can be understood to invoke the metaphor of mapping in the spirit of a kind of epistemological or phenomenological renewal. Having earlier positioned Latour's thought in relation to Heidegger's critique of epistemology, Latour's project can also however be understood to bear a somewhat problematic relationship with phenomenology, the latter of which he criticizes for its "excessive stress [on] the human sources of agency" (2005b, 61). By focusing exclusively on the human subject at the expense of an account of agency as distributed across networks of human and nonhuman actors, Latour claims that phenomenology "will never be able to escape from the narrow focus of human intentionality," thereby only serving to reinforce modernity's epistemological divide between "a world of science left entirely to itself, entirely cold, absolutely inhuman; and a rich lived world of intentional stances entirely limited to humans, absolutely divorced from what things are in and of themselves" (1999, 9). While the notion of positionality, which I identified with Jameson in the previous chapter, was arguably premised on reclaiming a strong subject position from which to cognitively map, for his part Latour rejects a model in which "there is a body, meaning a subject; there is a world, meaning objects; and there is an intermediary, meaning language that establishes connections between the world and the subject" (2004c, 208) as simply the mirror image of an idealized materialism which posits a world of pure essences that only science can access. Latour's media-centric post-epistemology can thus be understood to highlight the role of inscription devices in a kind of progressive acquisition of physical body as "an interface that becomes more and more describable when it learns to be affected by many more elements" (2004c, 206), so that *more mediation increases as opposed to diminishes the reality of the world*.

In this sense, his position can be contrasted with Guy Debord's lament that "[a]ll that once was directly lived has become mere representation" (Debord 1995, 12). Thus, if the project of critique, as represented by Debord, sought to problematize representation and minimize mediation, Latour wants just the opposite, claiming that "[t]he more instruments proliferate, the more the arrangement is artificial, the more capable we become of registering worlds" (2004d, 85). As an illustration of this idea, Latour discusses the use by professional perfumers of an odour kit, a so-called "perfume organ," through which they are taught to be "affected, that is effected by the influence of the chemicals which, before the session, bombarded their nostrils to no avail" (2004c, 207). Although he does not write much on the topic of food, another example of what Latour refers to as "learning to be affected" (Latour ibid, 206) could be found in the "taste workshops" organized by the *Slow Food* movement (Andrews 2008, 117), in which participants are exposed to heritage foods in order to awaken senses which it is claimed have become desensitized through constant exposure to flavourless industrial food commodities, an idea of *political attunement through an appeal to olfaction*, as opposed to through communicative reason.

The British philosopher Alfred North Whitehead once remarked that "[c]ivilization advances by extending the number of important operations which we can perform without thinking about them" (Whitehead 2011, 62). To this, Latour might add that the technologies through which we act also "*oblige us to oblige them*" (Latour and Venn 2002, 258, emphasis original), subtly mediating our actions until we begin "to wish something quite else from what we at first desired" (ibid 2002, 252). Since physical objects can be designed to afford a certain type of behaviour, as in the earlier example of the weighted hotel key, an entire literature within the sociology of science is dedicated to the normative capacity of design to forge moral bonds between people and desired actions, so that technological objects can be

analyzed in terms of roles in certain political scenarios or "scripts" (Akrich in Bijker and Law 1992, 208). It has, however, been argued that within this literature the dominant approach to studying the moral and political valences of technologies has tended to focus on the production of human subjectivity at the expense of attending to "how objects, devices, settings and materials […] acquire explicit political capacities, capacities that are themselves the object of public struggle and contestation" (Marres and Lezaun 2011, 489).

In an attempt to address this discrepancy, the sociologist of science Noortje Marres has, for example, developed the concept of *augmented objects*—that she identifies with a range of innovations in address technologies "from the labelling of consumer products to the spatial tracing of waste with the aid of GPS technologies" (Marres 2012a, 232)—as an alternative to the political analysis of objects as being embedded within broader "scripts," in order to suggest how they might also be possessed of the capacity to influence people's behaviour on their own terms, in a sense making objects into political actors in their own rights. While it is somewhat strange to speak of epistemology when discussing nonhumans, as opposed to an anthropocentric concept, Latour's post-epistemology may be understood as media-centric, in his arguement that "it is as if *the more filters there were the clearer the gaze*" (Latour 1999, 137, emphasis original). From this perspective, the more we augment and mediate the world and our experience of it, the realer it becomes, provided that those mediations are well—as opposed to poorly—articulated. If, as we have seen, location has relatively little significance from within Latour's metaphysics, it is through his idea of *learning to be affected* that we can understand the normative aim of his political philosophy, which turns around the idea of representing objects as gatherings of issues.

4.6 Dingpolitik & Ethical Traceability

I now stood reading the label. It was as if the social relations that produced the object in my hand […] stirred inside their packaging, lending it a certain aura—the majesty and murderous stupidity of that organization of time and space and fuel and labor becoming visible in the commodity itself […] what normally felt like the only possible world became one among many, its meaning everywhere up for grabs (Lerner 2014, 19).

'Things' are controversial assemblages of entangled issues, and not simply objects sitting apart from our political passions. The entanglements of things and politics engage activists, artists, politicians, and intellectuals. To assemble this parliament, rhetoric is not enough and nor is eloquence; it requires the use of all the technologies—especially information technology—and the possibility for the arts to re-present anew what are the common stakes (Latour 2005a, n.p.).

Recalling the locavore anecdote with which I opened the chapter; when the diners are informed about the provenance of their chicken, they immediately ask about the origins of the chicken feed. As ridiculous as this line of questioning may seem, perhaps we can interpret its intent in Latourian terms as a satirical attempt "to detect how many participants are gathered in a thing" (Latour 2004a, 246). From this perspective, we might then interpret the locavores' frustrated attempts to get to the bottom of location in terms of an effort to transform a mute object into a voluble gathering—as an anchor to a kind of politics centred on things. In advocating an idea of a politics that "turns around questions, issues, stakes [and] things" (Latour 2013c, 337) as a remedy to the "emancipatory tasks that blinded [critique] to the interest of the object" (Latour in Gane 2004, 82), what has remained most characteristic in Latour's political thought over the course of his entire career, as Graham Harman notes, is "the unusually significant role he grants to objects or things" (2014, 163)—though, as we will also see in the next chapter, Harman finds this to be particularly pronounced in Latour's mature political philosophy (ibid, 83). In a move to systematize this insight, starting in the mid '00s, Latour turned towards debates from within the tradition of American pragmatist philosophy that sought to rethink the foundations of democratic political theory in relation to

technologically sophisticated societies, where he claimed to have pinpointed "a Copernican Revolution of radical proportions: to finally make publics turn around topics that generate a public around them instead of trying to define politics in the absence of any issue" (2007b, 815). This development in Latour's thought, towards understanding politics as particularly centered on issues, was inspired by a debate between the American political philosophers John Dewey and Walter Lippmann—brought to light by Latour's former student Noortje Marres—in which Lippmann proposed to replace the expectation that democratic citizens should necessarily be informed of every single issue (as part of a monolithic public), with the idea that clusters of discrete *publics* were in a constant process of forming and dissolving around particular issues, often centred on and embodied by specific material objects (Lippmann 2011; Harman 2014, 161-178).

Latour's politics of things, or *Dingpoltik* as he refers to it (2005c, 14-43), can be understood in terms of a tradition in Western culture dating as far back as the tenth century Þingvellir or "parliament plains," where Icelandic chieftains gathered in a natural amphitheater in order to elect leaders, argue cases and settle disputes, signifying the idea that "the *Ding* or Thing has for many centuries meant the issue that brings people together *because* it divides them" (ibid, 23). In formulating this political theory, Latour's objective is to attempt to invent a form representation (political, scientific and aesthetic), through which all forms of agency—that he claims to have been silenced by modernism (1993b, 10-12)—might be gathered together to form a type of political assembly in which scientific debate would be incorporated into the sphere of deliberative democracy. Whereas the liberal tradition of thought is critiqued for its tendency to replace politics with governance (Foucault 2008), Latour considers objects as capable of revitalizing the democratic process due precisely to their ungovernability, so long as they are well (as opposed to poorly) articulated.

In *Making Things Public: Atmospheres of Democracy* (Weibel and Latour 2005) an

exhibition at the ZKM Center for Art and Media in Karlsruhe in 2005, co-curated together

with Peter Weibel, Latour envisioned a politics based on the problematizing of things (the

Greek word for thing being *pragma*), drawing on a pragmatist ideal that envisions publics as

emergent by-products of self-critical communities of inquiry, which organize themselves

around various socio-technical entanglements (Dewey 1954, 3-36). The exhibition could be

understood to have had the normative aim of demonstrating how, in a networked age,

material things can ground politics. By using information technologies in order to represent

things in terms of issues, a number of the projects in the exhibition can thus be seen as

illustrating the idea of non-local proximity as an alternative methodology to the locavores'

hunt for origins.[35]

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> With the further diffusion of ICTs, mainly mobile Internet and RFID tagging and their
> integration in an internet of things [… t]he economic strength of the ethical economy
> might force capitalism to become ethical in new and radical ways. Indeed, such an
> influence of the ethical economy on the logic of capital might be as important as that
> exercised by the labor movement on industrial capital in the early decades of the past
> century. It might very well spur a global "new deal," organized around social
> responsibility and environmental sustainability (Arvidsson 2008, 336).

Over the course of the '00s, the ideal of *ethical consumerism* has grown in

prominence (Clark 2007, 17-66), particularly in the U.K., as demonstrated in the adoption by

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[35] As an illustration of Latour's Dingpolitik and as an illustration of his claim that new technologies call for the development of new social and political theories, one particular work featured in the exhibition was the *MILK Project* (Polak et al. 2005), that portrayed the provenance of a Dutch cheese from a cow in Latvia via a German transport company, for which the artists created a data visualization of the object's GPS track-log, presenting the work as a meditation on the idea of landscape and of location in a networked age (Tuters and Varnelis 2006, 362).

major supermarket chains of various carbon labelling schema (Featherstone 2007, xviii), as well as by the international popularity of the *Fairtrade* label, which guarantees a minimum price for producers, as well as monitoring product quality, environmental sustainability and continuous progress in labour conditions (Singer and Mason 2006, 157). It is particularly in the area of food production that certification schemata as well as a variety of innovations in information technologies have been developed, in response to what has been called "the horrors of the slaughterhouse, the miseries of the onion fields, and the absurdities contained in a can of soda or a bag of chips" (Paumgarten 2010). As signified by the tremendous popularity of a number of bestselling books on the topic of food politics in the '00s (Schlosser 2001; Pollan 2006; Foer 2010), from the perspective of Latour's Dingpolitik, it might be observed that publics seem increasingly to focus on questions raised by their food. In relation to this phenomenon, the term of *ethical traceability* has been used to describe efforts at "keeping track of the ethical aspects of food production practices and the conditions under which the food is produced [via] capturing and mapping values and processes in the food production chain" (Coff et al. 2008, 15:9). While such transparency is frequently mandated on the industrial side of the logistical supply chain, consistent with the growing interest in the provenance of food, efforts are also being made to ethically trace and map industrial logistical supply chain networks from a consumer perspective—as, for example, can be seen in *PIG 05049* (Meindertsma, Rosmalen, and Lewis 2007), a design project that sets out to represent all the products derived from a single pig after its being shipped throughout the world, from chewing gum to ammunition.

In an account that both fascinated and terrified G.W.F. Hegel and in turn Karl Marx, Adam Smith had famously described how the division of labour in a late eighteenth century pin factory contributed at once to the deskilling of labourers as well as to the increased

interdependence of society in general (Buck-Morss 2009, 5). Updating Smith's narrative to reflect mid-twentieth century neoliberal economic theories concerning markets as decentralized and self-organizing systems (Hayek 2012, 77-91), Leonard Read, the founder of one of the first free market advocacy think tanks in the United States, wrote an essay entitled "I, Pencil" (1958)—which has since attained a kind of mythical status amongst advocates of the free market (Ridley 2011, 28). Read argued that since it was impossible for any one person to name all the antecedent component parts that go into making a single pencil, this was proof that that invisible hand of the market should be left alone to do its work. In a counterargument related to the aforementioned concept of ethical traceability, it has however been alleged that "with enough informational power, the 'invisible hand of the market' becomes visible" (Sterling 2005, 23), thereby potentially undermining a fundamental tenet of liberal economic theory.

As opposed, then, to the aforementioned neoliberal orthodoxy, which decried planning as being incapable of representing systemic complexities in markets (Hayek 2006, 45-58), following Latour it could conceivably be argued that economic theories should adapt to reflect changes in measurement techniques, such as those that seem to help ethical consumers navigate an environment characterized by fluctuating levels of risk by "mak[ing] transparent the full extent of food production [through] granular tracing that aims to follow livestock from conception (that is, recording both parents and over time the lineage of all animals and how they were reared) to the consumer's home (through farms, slaughterhouses, logistics chains, and supermarkets)" (Kitchin and Dodge 2011, 229). We might then consider the development of web-based and context aware mobile applications that assign ethical ratings to individual products as operationalization of Latour's concept of risk cartography. One such initiative, for example, applies a process referred to as a *product ontology*, using a

thousand indicators to analyze the makeup of a quarter million consumer objects in order to allow consumers "to define 'what matters' when assessing the health, environmental or social performance of a product or company" (GoodGuide 2014, n.p.), and to do so on their mobile devices as they move, for example, through the physical space of a grocery store or shopping mall. A noted science journalist has speculated enthusiastically on the potential socio-political impact of this particular ethical traceability schema, in terms of making "each of us an agent for small, gradual changes that, when multiplied by millions, will ripple through the industrial enterprise" (Goleman 2009, 174). To those in the political tradition of public sphere theory who do not, however, consider the market to be a legitimate venue for political discourse, such visions of ethical consumerism are often seen as little more than an ineffective salve for a guilty liberal conscience (Coff et al. 2008, 15:207), and "a weak proxy for real political action" (Vaidhyanathan 2012, 43).

While consumers make the ultimate decisions about what to buy and what not to buy, Michel Callon, who together with Latour has been one of the leading proponents of actor-network theory, writes about how they are "helped by a host of 'assistants'" (2008, 35) as he puts it, from labelling schemata to data on the composition and origins of products, so that "the ability to calculate is therefore distributed among (human and nonhuman) assisting entities" (ibid, 36). Instead of rejecting this milieu as being somehow illegitimate for real political action, Callon focuses on how the environments within which consumers make their choices are designed, in order to suggest that they could also be designed differently. Callon aims to critique how these technologies are complicit in what he considers the fantasy of a "common anthropological base" (ibid, 42), by producing a model of subjectivity that he

refers to as *homo economicus 2.0* (ibid, 31).[36] In what seems a response to Foucault's

characterization of the normative aim of neoliberalism as being the creation of an enterprise

society as opposed to a supermarket society— "not a society subject to the commodity-effect,

but a society subject to the dynamic of competition" (Foucault 2008, 147)—Callon argues

that it is not that people are themselves adopting a competitive mindset, but rather that their

environments are designed in such a way as to afford this type of behaviour, a concept that he

refers to as an *interactive diagram* or *agencement* claiming:

> [t]hrough the extension of network economies it is not individualism that is spreading
> but interactive *agencements* which multiply […] to produce a society which seems to
> be inhabited by active and enterprising individuals but which, in reality, consists of a
> multitude of closely connected interactive socio-technical *agencements* (2008, 41).

In what can be read in terms of a response to Callon's argument that "the network

economy tends to mobilize the interactive diagram on a massive scale" (2008, 39), the

computer scientist Paul Dourish (2010) has speculated on alternative models for interaction

designers, which would supposedly avoid reproducing neoliberal subjectivity by focusing on

the idea of representing objects as disputative gatherings of issues, such that they might form

the basis for communities of inquiry. While there has been an increasing tendency amongst

interaction designers in recent years to design ethical traceability interfaces through which to

reflect on the impact of individual actions (Blevis 2007; DiSalvo, Sengers, and Bynjarsdottir

2010), Dourish envisions the design of a kind of anti-social social media platform that could,

for example, inform its user that "the action you are about to take aligns you with X but

against Y" (2010, 7, emphasis mine). While a branch of the Coca-Cola corporation in fact

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[36] Callon's observations reiterate a point, made in Chapter 3 by Wendy Chun, who
considers that "[o]ur interactions with software [represent] a way to navigate our neoliberal
world—that we believe should be transferable elsewhere" (Chun 2011, 92).

offers an online service through which consumers can trace the carbon footprint of their products (Coca-Cola 2010), Dourish's idea can be understood as foregrounding the agonistic dimension of Dingpolitik, which, as we will see in the subsequent chapter, liberal political philosophy has generally been unwilling to acknowledge.

4.7 Conclusion: The Antinomy of Location

[I]rrespective of political and intellectual differences, theorists have posited maps and networks—however defined—as key to empowering agents by making visible the invisible (Chun 2014, 21).

If this chapter, and indeed this thesis as a whole, began by conceptualizing the search for location as a topographical problematic—resolved, for example, by tracing the geographic provenance of a chicken—both Jameson and Latour may be understood to redefine the problematic in topological terms; but it is arguably only Latour who works out its full metaphysical consequences. For Latour, context is not a location but a condition of possibility for a new network to appear, or as he puts it, "context is what actors constantly do" (2005b, 186). We have thus seen how Latour rejects the concept of a discrete location or context in favour of tracing how an actor performs its own reality; its own network metaphysics. In the case of the locavore anecdote, we can imagine how such an approach would inevitably lead away from the parochialism of "the local" by treating the question of geographic provenance as merely one amongst many types of consideration relevant to a pragmatist "object-centred theory of normativity" (Marres 2012a, 231), where the relative strength of connection between a given actor and their issues, or "matters of concern" (Latour 2004a, 232), take precedence.

Since the emergence of locative media, the notion of location-awareness has acquired an increasingly finer granularity, moving from the global scale of GPS satellites, to the hyper local scale of objects, in what has been referred to as the "double articulation of locative media, a logic of finding and being found" (Elmer 2010, 20). As networked technologies make it increasingly possible for the mundane objects that populate our surroundings to leave

traces, and location awareness becomes increasingly standardized into mobile devices, a more relational notion of location thus seems to emerge that I have referred to as non-local proximity. As address technologies, from RFID to GPS, extend the reach of communications networks from the hyper-local to the scale of the globe without regard for distinctions between humans and things—it is, for example, claimed that "there are at least two additional things connected to the Internet for every human being's personal device" (Townsend 2013, 3)—we can imagine how a locative-type of interface might alter fundamental concepts of location and agency, towards an understanding of humans interacting with environments to form networks through which actions can travel. Given these innovations, it seems that the locavores' obsession with determining the exact provenance of their food and every quanta of carbon that goes into its production might be better served by mapping fluctuating levels of risk than by the concept of "the local." If the Latourian solution to the locavores' dilemma is that they are hungry for data, then we might say that the Jamesonian solution, by contrast, is that they are hungry for meaning. Perhaps then, the crucial difference between Latour's risk mapping and Jameson cognitive mapping may be understood as having to do with the role of narrative. While Jameson develops his notion of cognitive mapping in relation to a universal meta-narrative, Latour rejects the general in order to focus on the particular. Where the concept of global positionality (associated with the former) is concerned with providing a perspective onto a global topology, the idea of non-local proximity (associated with the latter) seeks to trace and register the complexity of objects in terms of their own unique manifolds.

For Jameson, drawing on Guy Debord, increased mediation leads to disenchantment, which he seeks to counteract through positioning the individual in relation to the "totality of class relations" (Jameson 1988, 353), an emancipatory project which debates in new media

have identified with "aesthetics of critical and dissident cartography," including locative media (Holmes 2009, 52). While Latour also envisions digital mapping in terms that can be understood as a remedy to the search for location in a networked age, he considers, however, that the critical tradition's ideal of emancipation has paradoxically blinded social theory to "the interest of the object" (Latour in Gane 2004, 82). Whereas the former approach tends to treat mediation with suspicion if not outright hostility, the latter by contrast conceptualizes an entire metaphysics and political philosophy based on the idea that mediation "can *stabilize* social relations" (Latour 1994, 803). As opposed to leading us away from an idealized stable state of nature towards a disenchanted society, in this view mediation tends to stabilize social relations by grounding them in durable nonhuman entities. But whereas the former approach posits a type of mapping based on the concept of absolute positionality as a remedy to the perceived loss of place, the latter offers a much more modest and relativistic type of mapping based on the notion of proximity. Where the former seeks to position a universal individual in relation to a singular political meta-narrative, the latter imagines proliferating agencies in relation to a multitude of "issue-networks" (Marres and Rogers 2005, 922-933).

Prohibited from appealing to social explanations—perceived of as a "counter-productive way to interrupt the movement of associations instead of resuming it" (Latour 2005b, 8)—Latourian social theory sets itself the task of designing new instruments through which to describe the relative proximity of a multiplicity of heterogeneous realities, and perhaps, as we will see in the subsequent chapter, to speculate on their arrangement; but it remains a question as to whether this approach alone leaves much ground upon which for individuals to position themselves, and in so doing to make sense of *the big picture*. For the locavores, getting to the bottom of location did not ultimately address their concerns, but neither might an exhaustive list of every ingredient rated on an ethical scorecard. Although

proximity, understood in terms fidelity to *the interest of the object*, sets out to avoid the potential pitfalls of the global perspective of positionality—conceptualized as "a new systemic cultural norm [of] radical cultural politics" (Jameson 1984b, 57)—it also rejects, on methodological grounds, the Lukácsian epistemological standpoint from which perspective totality could be grasped. Deprived of an all-encompassing narrative framework by which to make sense of things, such an approach may thus leave the proverbial locavores unable to transcend their own parochial interests. As such, the idea of non-local proximity might arguably create a new set of problems for the locavores, in which their niche politics either become so subtle as to be practically invisible to anyone but themselves, or else they become so specific as to completely isolate them from others, as captured in the image of a potluck dinner party "where the guests have so many dietary restrictions, that everyone can only eat what they brought" (Fong et al. 2013, 19). How, then, to balance a politics grounded in the representation of difference with Lukács's ethical challenge, presented in Chapter 3, concerning the individual's ethical obligation to "fate of the world" (Lukács 1972, 8)? To address this question requires looking at the dialectical relationship of the local and the global, its history in relation to the environmental movement, and how these ideas may help inform a new way of thinking about location appropriate to the challenges of the current period of global environmental crisis.

CHAPTER 5: ADDRESSABILITY

5.1 Introduction: The Domestication of the Global

*[T]he history of the Modern Age [...] is initially nothing other than the history of a
spatial 'revolution' into the homogeneous outside. It carries out the explication
of the earth [...] This history brings about the catastrophe of local ontologies by
doing away with the old poetry of domesticity [...] Every empirical place on
the earth's surface becomes a potential address of capital, which regards all points in
space in terms of their accessibility for technical and economical measures (Sloterdijk
2014, 31).*

A 1972 image by the architectural collective Superstudio, from a project entitled

Supersurface: An Alternative Model of Life on Earth, pictures a hippie couple strolling

together, hand-in-hand, along what appears to be a beach or desert landscape, over which has

been imposed the image of geometric grid infinitely receding into the distance (Natalini et al.

1972). As introduced in Chapter 2, Superstudio's use of the grid evokes the idea of a

technological infrastructure capable of satisfying people's needs, eliminating the necessity for

material possessions and thereby facilitating a nomadic existence—a "negative utopia" (Lang

et al. 2003, 69), at once celebrating and critiquing a technologically determined condition of

dematerialization. The image suggests that, by staying close to the ground, away from the

corrupting and vertical influences of the industrial city, an authentic horizontal life can be

built from the bottom-up, a life without objects or architecture, free of vulgar materialism.

Whereas the demonstrators of '68 famously announced the Situationist slogan "sous les

pavés, la plage" (beneath the street, the beach), in this world it is as though beneath the

beach, in turn, lies some kind of invisible network, supporting a new relationship with the

environment that effectively transforms the outside into the inside. As a famous architecture

critic once quipped, "Superstudio seems to envisage the future 'city' as a continuous

Woodstock festival for the benefit of 'all' (meaning a highly restricted elite)" (Rowe and

Koetter 1983, 47). In retrospect, perhaps Superstudio's negative utopias may be regarded as an avant-garde for what counterculture historian Fred Turner refers to as a "networked cultural style" (2006, 238), signifying a new kind of epistemology with a strange provenance, combining information science with holistic esotericism, that would in time—thanks in large part to innovations in environmental media—migrate into the culture at large, fostering a return to "the local" premised on the installation of a system of global governance; the grid as global operating system. As such, we might consider *Supersurface* as a pictorial representation of a historical turning point—one with particular significance in relation to the current locational turn—when it was first realized that "that no human action could count on an outside environment any more" (Latour 2009, 144). If, as Bruno Latour claims, this "*disappearance of the outside* is certainly the defining trait of our epoch." (Latour 2009, 144, emphasis mine), then it is arguably in relation to this very idea that the multiple, sometimes otherwise irreconcilable perspectives in this dissertation, may be understood to converge; or as the Autonomist philosophers Michael Hardt and Antonio Negri state "for better or worse we all share a world that has no outside" (Hardt and Negri 2009, xvii).

I began this dissertation with an introduction to the locational turn (Christov-Bakagiev 2012; Manovich 2006; Tuters and Varnelis 2006), framed as a response to media theoretical discourses concerning the dematerializing effects of networks on location and "the end of geography" (Virilio 2005, 9). While so-called *cyberculture* theorists of the '90s tended to conceptualize a dualistic relationship between the real and the virtual that was blind to physical location (Bell 2006, 15-46), by the '00s an ethnographic approach to new media scholarship came to challenge this binary distinction (Miller and Slater 2001) through approaches referred to in terms of the "'grounded Web,' and its associated geo-locative research practice" (Rogers 2009, 8). Although initially associated with notions of critique

developed by artistic communities' practice in the early '00s (Zeffiro 2012), "locative" thus

came to be identified more broadly with "the end of cyberspace and its placeless-ness, and

the end of the virtual as a realm apart" (Rogers 2009, 28), corresponding to a methodological

shift in new media scholarship towards the idea of "online groundedness" (ibid, 8).[37] At the

same time, and relatedly, "locative" also became associated with technological innovations

concerning the return of geography as a significant factor in internet governance, as discussed

in Chapter 2, leading in the course of time to the emergence of an entire new field of

geolocative scholarship as discussed in Chapter 3. In using the concept of "locative" to mark

a break with cybertheory, once fashionable postmodern theoretical frameworks have in many

cases been abandoned, as relics of armchair philosophy, in place of empirically grounded

research methods sensitive to how technologies *actually* work in the world. While there is

much to be gained from this latter approach, there is also arguably something to be gained

from re-entering into discussion with earlier postmodern media scholarship, hence my

decision to place the work of Bruno Latour alongside that of Fredric Jameson in an attempt to

stage a dialogue between these normally divergent approaches. The ascendency of

empirically driven methods in new media studies should not eclipse insights derived from

more hermeneutical approaches, or else risk a kind of disciplinary segregation of the field

from broader theoretical discussions taking place in the humanities.

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[37] To illustrate his claim regarding o*nline groundedness*, media scholar Richard Rogers offers the example of *Google Flu Trends* (2009, 8), in which Google, at the time of the H1N1 crisis in 2009, developed a computer model based on the correlation of the frequency of search queries in the location of past flu outbreaks, as identified by the United States' Centers for Disease Control and Prevention (CDC), with which they were able to locate the spread of the flu much faster than the CDC (see also: Mayer and Schonberger 2013, 28-29)—though it should be noted that recent scientific research has also contested Google's claims here (Lazer 2014, vx).

With such a critique in mind, this dissertation can thus be understood as, in some sense, a problematization of the locational turn in relation to theories of governance, epistemology and ontology—via theories developed by Michel Foucault, Fredric Jameson and Bruno Latour respectively. Given that these different philosophical approaches are not always compatible—indeed sometimes seemingly in outright contradiction—my object of study therefore appears differently in the dissertation depending on the perspective I assume; however, at a sufficient level of abstraction, something like a cubist portrait, comes into view. In order to arrive at this perspective, we need first to loop back to earlier in this dissertation, where I sought to situate the locative-turn through an approach that I referred to as media genealogy, weaving together lineages concerned with how new technologies may be thought to inaugurate new rationalities, in order to account for how technological fantasies concerning "the global" and "the local" may, in fact, be understood critically in relation to a history of governance. In Chapter 2 we saw how, in his genealogy of European economic globalization, Foucault claimed that a new art of government shifted the locus of power away from location—in terms of a sovereign's control over his subjects and his fiefdom—towards what can be understood in terms of a networked form of power based on the management of probabilistic processes, initially introduced through the innovation of statistical population models. Foucault's narrative can be seen as having truly come to full fruition with the innovation of environmental media, as envisioned by cybernetics (cybernetics coming the Greek *kybernetike* meaning 'governance'); prototypedby avant-garde artists such as Superstudio, if only in the spirit of critique; and implemented today by Silicon Valley technologists—an argument also explored in current media art theoretical discourse (Diederichsen and Franke, 2013). It is in relation to this narrative, and by way of conclusion, that I will close this chapter, and indeed the dissertation as a whole, by offering the concept of *kosmoikos*—a neologism combining the Greek words for "world" (*cosmos*) and "habitat"

(*oikos*)—as a term of art for the notion of ubiquitous technological *addressability* that

underpins the contemporary locational turn, whose outline and genealogy I will trace through

a series of evocative images and concepts imagining the world as one vast domestic

interior.[38]

In Chapter 2, I introduced an anecdote concerning how, in the first public presentation

of Glass, Google co-founder Sergey Brin presented the wearable computing device as the

culmination of his idea "that eventually you wouldn't have to have a search query at all"

(2013). Given the ubiquity and centrality of Google search, I likened the scope of Brin's

ambition to a transformation in the fundamental discursive framework underlying knowledge

itself, the creation of a milieu of ubiquitous and universal addressability capable of capturing

every action. Under this new paradigm, addressability extends to incorporate nonhuman

things as well, as "[o]ur cameras, our microphones, are becoming the eyes and ears of the

Web, our motion sensors, proximity sensors its proprioception, GPS its sense of location"

(O'Reilly and Battelle 2009, 8), thereby blurring distinctions between foreground and

background, inside and outside, nature and culture. In a canonical text concerning the

introduction of new technologies into the nineteenth century American landscape, historian

Leo Marx identified the implicitly religious characterization of technology as "a transcendent

symbol: a physical object invested with political and metaphysical ideality" (L. Marx 2000,

206); a narrative that he referred to as "the machine in the garden". Arguably today, however,

with the phenomenon of ubiquitous addressability, no longer does nature provide a backdrop

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[38] Whereas the philosopher Peter Sloterdijk evokes the famous large-scale glass and iron enclosure of The Crystal Palace from the 1851 Great Exhibition in London as a kind of prototypical space of globalization, a "world interior of capital […] that has drawn inwards everything that was once on the outside" (Sloterdijk 2014, 13), the notion of kosmoikos differs from the former insofar as the metaphor is explicitly post-architectural and implies a particular political genealogy.

for technology, but rather technology creates instead another world within which nature — "second nature" in the Western Marxist jargon (Lukács 1971, 128)—is encapsulated; *the garden in the machine*. It would be ironic, were it not so tragic, that this all-encompassing state of second nature has arrived at the very moment that "first nature", as it were, seems to be disappearing—as Latour remarks: "Just at the time when first Nature had begun to loosen its grip, the second Nature of The Economy imposes its iron laws more tightly than ever" (2013a, 126).

As an illustration of this metaphysical inversion, let us briefly consider the 2013 American science fiction film *Elysium* (Blomkamp 2013). Set in the year 2154, the film takes place in two locations, an impoverished and environmentally degraded slum on Earth, and a Torus-shaped space station, named "Elysium", in which the rich live. Following action-movie genre conventions, the plot is driven forward by the protagonist's (Max Da Costa's) attempt to access the medical technology within the space station, for which he has to overcome adversity in order to cure a child's life-threatening condition. If Max is a morally righteous character from the film's outset, the character of Spider, a computer hacker who gets Max onto Elysium for a price and who makes a living by smuggling desperate refugees into the space station, is by contrast morally repellent. Since Elysium provides access to its medical technologies to all who are considered to be its citizens, at the decisive moment of the film's conclusion, Spider reveals to Max that he can hack into the space station's operating system, thereby saving not only the life of the child, but distributing needed medicine to the all the inhabitants of Earth as well, simply by making everyone a citizen of Elysium. However, in order to do so, Max must sacrifice himself by becoming a kind of avatar through whose body Spider surprisingly redeems himself—a revolutionary act that

Walter Benjamin might have framed in terms of a secular form of divine justice (Benjamin 1996).

Commenting on the film's supposed political message, the director Neill Blomkamp claimed "This isn't science fiction. This is today. This is now" (Hiscock 2013, n.p.), endorsing an interpretation of his film as a critique of inequality. A symptomatic reading in the style of Fredric Jameson (1983), however, might focus on the fact that the truly heroic act that effectively institutes the reign of Heaven on Earth is not the protagonist Max's act of self-sacrifice, but rather the hacker Spider's act of changing the root-level permissions on the operating system. In other words, in *Elysium* the ultimate solution to the world's problems comes down to an open-access systems philosophy. As an allegory for the contemporary idea that all problems are amenable to "design solutions," *Elysium* speaks to a contemporary form of belief propagated by Silicon Valley—as expressed, for example by Google Chief Executive Eric Schmidt's claim that "connectivity can revolutionize every aspect of society – politically, socially, economically [… and] fix all the world's most pressing problems" (2012, n.p.)—a phenomenon that technology critics have referred to as *solutionism* (Paquet 2005, 315; Morozov 2013, 5), which can arguably be traced back to a secularized form of providence that curiously emerged out of the environmental movement of the '60's American counterculture.

5.2 Cabin Ecology & Total Design

Suppose that you were suddenly told: "In the pursuit of economies of scale, you have been put in charge of the whole Earth" (Beer 1983, 797).

In 1965, at a gathering of the United Nations, the American politician and diplomat Adlai Stevenson II remarked that "[w]e travel together, passengers on a little space ship, dependent on its vulnerable reserves of air and soil" (Gaither and Cavazos-Gaither 2012, 596), a metaphor that the American visionary designer Buckminster Fuller subsequently popularized with his bestselling publication *Operating Manual for Spaceship Earth*, which proposed a "world-engulfing" response to the environmental problems of the day, such as the "debilitating exploitation of fossil fuels" (Fuller 2008a, 128-129). In 1971, the American ecologist Howard Odum made a scientific case for the Spaceship Earth concept in which he argued that "[t]he biosphere is really an overgrown space capsule" whose "carrying capacity" was a function of its food production to population rate (H. T. Odum 1971, 125). Both Fuller's and Odum's thoughts frequently appeared in the *Co-Evolution Quarterly*, the successor publication to Stewart Brand's the *Whole Earth Catalog* (introduced in Chapter 2), along with the writings of Odum's brother Eugene, who cultivated a teleological vision of the natural world as "an orderly process of community development […] directed toward achieving as large and diverse an organic structure as is possible within the limits set by the available energy input" (E. P. Odum 1969, 164).[39] In the pages of the *Co-Evolution Quarterly,* the Earth was frequently imagined as a single governable system in which optimal

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[39] In the early '90s the Odums would go on to form part of the scientific committee of the *Biosphere II* project (Reider 2009, 200), a closed ecosystem constructed in the Arizona desert—enclosing 1.3 hectares of biomes including ocean, rainforest, wetlands, desert, grassland and agriculture—promoted in the media as a scientific experiment in space colonization, though in point of fact staffed and operated by members of a fabled '60's back-to-the-land commune and theatre troupe.

equilibrium could be achieved via intentional human interventions given sufficiently powerful technologies. In this way of thinking, which has been referred to as "cabin ecology" (Anker 2010, 84), nature appears as a great chain of nested homeostatic systems, moving from the scale of genes, through ecological niches, to the whole of the Earth, with a cybernetic governor steering the course. This influential idea spurred a debate, published in the *Co-Evolution Quarterly*, concerning the proper role of technology in relation to social, economic and ecological problems culminating in a serious discussion of space colonization, which included the likes of such popular scientific and intellectual figures of the time as Fuller, the Odums, Lynn Margulis, Carl Sagan, Jacques Cousteau, Lewis Mumford, and Ernst Schumacher (ibid, 113-6).

As the editor of the *Whole Earth Catalog* and the *Co-Evolution Quarterly* and a figurehead of the emerging environmental movement, over the course of the next several decades, Stewart Brand and his colleagues formed a thought collective that would go on to develop a series of highly influential public forums including WIRED magazine, the premier platform for technology journalism. In the estimation of historian Fred Turner, their work helped "realigned the cultural meanings of computing" (2006, 249) through promoting the idea—also central to cabin ecology—that social, technological, biological and economic systems mirrored each other and behaved according to common principles, following a rhetorical model initially pioneered by cyberneticians, who saw themselves as "breaking down the false dichotomies between mind and matter, human and non-human" (Bowker 1993, 117). Turner thus argues for the vital ideological function of the *Whole Earth* thought collective*,* in fostering "the central faith of the military research world: that experimentation and the proper deployment of the right technologies could save the world" (2006, 244), and

in paradoxically amalgamating this faith together with countercultural notions of consciousness modification and ecological awareness.

There is a scene towards the beginning of *Elysium* (2013) when, as an orphaned child growing up in poverty, Max (the film's protagonist), is given a locket by a nun. In place of an icon of Christ, however, the symbol of their faith is an image of the Earth from space; the same image, in fact, that historically helped galvanize public support for the environmental movement in the early '70s and which appeared on the cover of the *Whole Earth Catalog*. As an aggregator of reviews for small-scale, so-called "appropriate technologies" (Winner 1992, 20), the *Whole Earth Catalog*, served as a kind of bible for the back-to-the-land movement, in which, between the years of '68 and '73, the largest rural migration in US history took place, with some 750,000 Americans moving to live in over 10,000 communes (Turner 2013a, 134). In addition to being a kind of social laboratory for new ways of living together, the back-to-the-land communes of this period also became places of architectural experimentation in which the geodesic dome, associated with Buckminster Fuller, was envisioned as an alternative to dominant architectural forms. Consistent with the predominant esoteric strain of thought in the '60s counterculture, rectilinearity in architecture was associated with "squares," jargon for conventional thought and lifestyle, while the dome was conceptualized in terms of a "countertechnology" (Scott 2007, 211), in opposition to the mainstream. Indeed, the dome seemed the perfect metaphor for the commune as a future utopian society in miniature, modelled on the idea of a distributed network, where each node was weak, but which together formed something virtually indestructible (Curtis 2011); as Fred Turner puts it: "[i]f the ministrations of hierarchically organized governments and corporations had thrown the earth's energies out of balance, the dome's ferociously efficient management of surface tension modelled a world restored to energetic homeostasis" (2006,

94). Marrying esoteric ideas and a nomadic relationship to territory with a growing global environmental awareness, Fuller's domes thus acquired an iconic status amongst many of the back-to-the-landers (Turner 2006, 94-97; Sadler 2006; Scott 2007, 180), despite the fact that they were difficult to build, and poorly suited for habitation.[40]

Fuller believed design innovation, as opposed to politics, to be the real force driving historical progress; at one, point for example, arguing that peace activists should "shift their effort from mere political agitation to participation in *the design revolution*" (Fuller, Walker, and Killian 1970, 110, emphasis mine). An unlikely hero of the counterculture, Fuller held strong ties to the military-academic establishment, having licensed the geodesic dome technology—for which he held a patent though he was not in fact the inventor—to different branches of the US government for a variety of uses, including as the official national pavilion typology at world expositions during the height of the Cold War period and for the sheltering of radar equipment in the construction of the Distant Early Warning line along the Arctic circle, in order to detect the flight of Soviet intercontinental bombers (Scott 2007, 155). Accordingly, as the flip side to his utopianism, Fuller also nurtured an apocalyptic vision regarding the ultimate utility of his domes, marketing them as a second line of defence against thermonuclear war (Fuller 1965, 40). Like the notion of the pharmakon then—introduced in Chapter 3—Fuller's domes can thus be understood in some sense as both the illness and its cure; "an image of defense against an increasingly hostile environment, from which it was simultaneously derived" (Scott 2007, 232).

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[40] Already in 1955, the renowned American architect Philip Johnson had noted that the walls and doors necessary to divide a habitable living space would effectively negate the integrity of the geodesic structure (P. Johnson 1955, 43).

Fuller's ultimate vision for "the design revolution" can be understood in terms of *total design*, of "transform[ing] the planet into a single art work" (Wigley 1998, 5), a project that he believed could only be managed by a figure that he referred to as *the comprehensive designer*, whom he described as "an emerging synthesis of artist, inventor, mechanic, objective economist and evolutionary strategist" (Fuller 1969b, 176). Perhaps Fuller's most fully realized implementation of his utopian modernist ambition was a project entitled *World Game* (also known as *Geoscope*), initially intended as a 100 foot diameter scale representation of the Earth, on which would be displayed various types of data, and which he proposed for the interior of the geodesic dome that he had designed for the Unites States pavilion at the '67 world exposition in Montreal. Fuller imagined *World Game* as a "great world logistics game" (2001, 473), whose objective he contrasted to the zero-sum logic of Cold War game theory in that the game's end state would be one in which "[e]verybody must win" (1969a, 114). Proposed as a kind of prototype cybernetic command centre for Spaceship Earth, *World Game* seemed to suggest the "immediate dissolution of all sovereign nation-state boundaries" (Youngblood 1970, 35) so that everyone would be "able to become a world citizen and [be] able to *enjoy the whole earth*, going wherever he wants at any time" (Fuller 2008b, 158, emphasis mine).

In the same way that the slogan "make love, not war" had served to unite elements of the youth movement against the Vietnam war in the mid-to-late '60s, by the early '70s the slogan "think globally, act locally" functioned as a rallying cry for the new environmental movement, begining with the founding of Earth Day in 1970 and the signing into law of the National Environmental Policy Act by President Nixon, who stated in an address to the nation on January 22, '70: "The great question of the seventies is, shall we surrender to our surroundings, or shall we make our peace with nature and begin to make reparations for the

damage we have done to our air, to our land, and to our water?" (Nixon 1970). Amongst the

most vociferous voices of the new environmentalism at this period was the Stanford zoologist

Paul R. Ehrlich, who stated, on the occasion of the first Earth Day, that: "[i]n ten years all

important animal life in the sea will be extinct" (Bailey 2010).[41] On that same day, a San

Francisco avant-garde architecture collective by the name of Ant Farm also staged an

environmental media performance in Sproul Plaza at the heart of the UC Berkeley campus—

the site, a decade earlier, of the first student sit-ins—in which they deployed an inflatable

vinyl shelter in response to an "air failure," in reference to the use of tear gas in the square

against demonstrators a year prior, when Governor Ronald Reagan had declared a state of

emergency and called in the National Guard to combat civil unrest (see: Scott 2007, 209-

215).[42] Later in that same year, Ant Farm were invited to the annual International Design

Conference, a renowned event for industry professionals which continues to this day. Having

taken "environmental design" as its theme that year, the conference would witness a dramatic

clash between a new generation of radical architects and the industrial design establishment

over the nature of the environmental problem (Twemlow 2012, 110-135). Amongst the

agitators was a young Jean Baudrillard who, critiqued both the event's theme and the

discourse of environmental alarmism in the culture at large, as evoking a "mythic enemy who

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[41] A teacher and mentor to Stewart Brand (Brand 2010, 56), Ehrlich's ideas also gained widespread legitimacy through the mainstream media during this time (Gardner 2012, 160-162) though his Malthusian thesis has since been discredited (Sen 1997, 26-28).

[42] Beyond its activist component, Ant Farm's broader conceptual project from this period was to construct what they referred to as a "cybernetic society of media pneumads" (Cougar 1970, p.5), a concept that they developed in the pages of the *Whole Earth Catalog* (Turner 2006, 88). The architecture historian Felicity Scott considers Ant Farm, alongside Superstudio, as part of an avant-garde movement that "destabilized the very 'medium' of architecture" in the early '70's by engaging with the consequences of the new cybernetic paradigm (Scott 2007, 240); whose significance has, however, been largely obscured within the dominant architecture historical narratives of this period (Scott 2001).

is in us and all around" when, in fact, he argued that "the real issue is not the survival of the

human species but the survival of political power" (French Group 1974, 208).[43]

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[43] Before going on to establish himself as a postmodern theorist, Baudrillard, like Paul Virilio, began in architecture, as part of a collective focused on the design of pneumatic environments (Dessauce 1999, 21; Baudrillard 2006).

5.3 Post-Environmentalism

In the sphere of the political, one cannot abstract out what is political, leaving only universal human equality (Schmitt 1988, 11).

[I]t is our Globe, our ideal idea of the Globe that should be destroyed for any work of art, any aesthetic to emerge (Latour 2013a, 96).

In 2002, the Dutch Nobel prize winning chemist Paul Crutzen published a short piece in Nature in which he offered the term *Anthropocene* for a global condition in which humans had become a geological force, having transformed up to half of the planet's land surface, dammed or diverted most of the world's major rivers, removed over a quarter of the primary production of the oceans, used more than half of the world's readily accessible fresh water and produced more nitrogen than terrestrial ecosystems can naturally fix, thus dramatically altering the carbon composition of the Earth's atmosphere. Soon after, the idea began to make the rounds through scientific journals, and by 2008, the Stratigraphy Commission of the Geological Society of London—the internationally recognized association responsible for maintaining the official timetable of the earth's history—affirmed that the stable interglacial period that saw the emergence of human civilization had come to an end with the planet now entering a new period without parallel in the stratigraphic record. The Anthropocene has thus understandably been treated as an epistemological rupture—a proverbial *end of nature*—in which, in the words of Steward Brand, "humanity's role has expanded to the point that the entire Earth is our niche" (2010, 275) or in the words of Bruno Latour "none of the elements necessary to support life can be taken for granted" (2008, 9). But whereas Brand interprets the Anthropocene as an imperative to finally engage in total design (now referred to as "geo-engineering")—adapting the original *Whole Earth Catalog* slogan "We are as gods and might as well get good at it" to read "We are as gods and HAVE to get good at it" (Brand 2010,

1)—for his part, Latour is deeply skeptical of any type of environmental action at the global scale as a potentially "premature totalization of nature" (Latour 2004d, 124).

Recalling the image of the Earth from space as framed in Max's locket—an image indelibly associated with the figure of Steward Brand[44]—Latour notes that, as *the* icon of environmentalism, this image not only masks both the fundamental role of science in its composition, but also erases the vestiges of a Christian theology that are moreover to be found at its core (Latour 2013a, 93). As contemporary biology increasingly draws a relatively chaotic picture of nature as being continually in flux, debunking the so-called "balance of nature" as a illusory (Drury 1998, 142), it is argued, for example, that the cybernetic concept of nested homeostatic ecosystems, as championed by cabin ecology, can in fact be traced back to eighteenth century Deism (Sagoff 2011), with its belief in a providential order united under the auspices of a divine sovereign authority.

In contrast to both Jameson's project of "global cognitive mapping" (1984b, 92), as discussed in Chapter 3, and the cabin ecologists' holistic environmentalism, for Latour, "the global, the universal and the natural, act as so many dangerous poisons, that obscure the difficulty and the cost of laying down the networks of equipment that render the consequences of action visible (Latour 2013a, 95). As discussed in Chapter 4, Latour has developed a notion of aesthetics that calls on artists, scientists and moralists to render these issues proximate without necessarily prescribing courses of action. For Latour, to take action

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[44] During the 1968 Apollo 8 mission, the first manned spaceflight to the moon, astronaut William Anders was only scheduled to take pictures of the moon's surface. Two years prior, however, Stewart Brand had famously distributed buttons asking the question "Why Haven't We Seen a Photograph of the Whole Earth Yet?" (Markoff 2005, 154; Turner 2006, 69). When Anders himself decided to take a photograph of the Earth rising over the moon, it went on to become "the most influential environmental photograph ever taken" (Brooks 2011, 17).

in response to the crisis of the Anthropocene requires amplifying sensitivity to issues immanent to the environment; it requires "learning to be affected" (Latour 2004c, 206). Following Latour, then, we could say that the search for location in a networked age brings us in the end to contemplate the Anthropocene as the ultimate problem of aesthetic representation.

What would it take, asks Latour, in order "to feel that you are really responsible for something so far away-as the chemical composition of the atmosphere?" (2013a, 93). While the answer to such an ambitious question is not necessarily obvious, for Latour it is clear that the total design fantasies of cabin ecology can not work for the simple reason that they imagine nature as kind of monolithic ahistorical machine. In spite of the powerful illusion of *location* as so many addresses rendered accessible from the gods-eye-view perspective—suggested, for example by "the intoxicating manipulation of Google Earth" (ibid, 93)—for Latour, there is no universal background against which anything may be said to act; instead, locations must always be composed through processes that are disputative by nature. What I am calling kosmoikos, then, may be understood as referring to a history of collective efforts at reimagining relationships with a natural environment that does not, however, pre-exist the political relations of its inhabitants. To explore the consequences of this agonistic type of post-environmentalist thought on the concept of location at the core of this dissertation first requires a brief recapitulation of Latour's own political philosophy before returning, in closing, to sketch the political double bind that it represents.

Though Latour claims to have pursued "the same research project for twenty-five years" (2013b, 2), in discussing Latour's political philosophy, Graham Harman has sought to periodize Latour's development into three stages. In what he identifies as Latour's early

period, Latour tended to extend the concept of citation from the field of bibliometrics into a

general ontological principal—stating that "[n]o matter what a paper did to the former

literature, if no one else does anything with it, then it is as if it never existed at all" (1987,

40)—so that an entity's relative significance was understood to be a function of its

popularity, which in turn led to the charge that Latour was unable to distinguish between a

thing and its representation and that he harboured a "Machiavellian view" (Amsterdamska

1990, 496). In what Harman identifies as Latour's middle period, which he claims began with

the publication of *We Have Never Been Modern* (1993b)—though he considers Latour's

Politics of Nature (2004d) as being the most emblematic work of this period—Harman

suggests that Latour began to modify his earlier "might makes right" position; applying

notions of democratic due process to the "imbroglios of science, politics, economy, law,

religion, technology, fiction" (Latour 1993b, 2); gradually turning his attention towards

environmentalism; and developing his influential concept of the *parliament of things* (Latour

1993b, 142-145). Harman connects the late Latour to the publication of *An Inquiry Into*

Modes of Existence (2013c)—a book in which, as Harman puts it, "his former actor-network

approach is repositioned and subjected to strict limits" (2014, xi), as merely one of fifteen

different ontological modes, each with their own incommensurable criteria of truth—

claiming that, in this period, Latour treats politics "as a specific *manner* of dealing with

things" (ibid, 83, emphasis original), a notion explored in Chapter 4 . While Latour's

opponents on the left have criticized him for his "political gradualism" (Noys 2010, 80),

Harman remarks that, in his late period, "Latour's politics are becoming more vociferous in

connection with climate change and his critique of the capitalist homo œconomicus" (2014,

114). As already remarked in Chapter 1, Latour has, for example, opened a dialogue with

Fredric Jameson (Latour 2013a, 127; Latour 2014a) in response to Jameson's claim—itself

an variation of Baudrillard's statement at the 1970 International Design Conference in

Aspen—that "it is easier to imagine the end of the world than to imagine the end of capitalism" (Jameson 2005, 76), a sentiment with which Latour is in agreement; though, somewhat surprisingly, in light of their philosophical differences.

In order to guard against the Anthropocene's immanent threat of total planetary disintegration—a situation that Latour refers to as *kakosmos* (2004d, 99; 2014b)—as an environmentalist, Latour calls for the construction of new tools, "equipment, instruments, skills, and knowledge that will allow experimental metaphysics to start up again, in order to decide collectively on its habitat, its *oikos*, its familiar dwelling" (2004d, 136). The type of environmentalism for which he advocates, however, "has nothing to do with nature" (ibid, 3), but is concerned rather with notions of diplomacy—what he calls "the requirements of discussion and due process in building the common world" (ibid, 131)—based on the contention that meaningful and lasting solutions to the environmental crisis will only ever come about once attempts have been made to account for the radically differing perspectives on the constitution of nature itself. Latour has come to refer to this approach as *cosmopolitics*, drawing on the original double meaning of the word cosmos as referring both to the "world" as well as to "arrangement" and "harmony" (ibid, 239), a concept that he considers to protect against "the premature closure of politics" (2004b, 454)—the latter tendency which he associates with liberal governance.

In what can be understood as a rebuke to all forms of holistic thought, including the humanistic discourse of liberal political theory, Latour thinks of the cosmos as the negotiated by-product of agonistic politics—as opposed to simply being a silent background for human action. While Latour borrows the term cosmopolitics from the Belgian philosopher Isabel Stengers—who describes the former as "a speculative concept [intended to] affect the way in

which we understand ourselves and understand others in contrast to ourselves" (Stengers

2011, 356)—he develops the concept himself in contradistinction to the late German

sociologist of science Ulrich Beck's call for a new cosmopolitanism as "the project of a new

world ethics" (Beck 2011, 1357), which seeks to overcome "methodological nationalism"

through an appeal to "otherness". Whereas Latour reads Beck's cosmopolitanism as

envisioning a single ontological world occupied by humans "each endowed with the same

psychology, each knowing a language translatable into every other language, and each

possessed of only slightly contradictory representations of what-there-is" (Latour 2004b,

454), Latour argues that while different entities may appear to occupy the same world, their

epistemologies may in fact be so radically different that they should really be understood as

existing in distinct worlds from one another.[45]

Since, for Latour, "the ability to imagine a political order is always directly predicated

on a certain definition of science" (2004b, 454), the notion of *public experiment*—with its

capacity to "forge relations between new knowledge, things, locations and persons that did

not exist before" (Born and Barry 2010, 116)—can be understood as central to his

cosmopolitics. In recognizing nature to be the product of various conflicting public

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[45] To illustrate this point he offers the example of the notorious Valladolid controversy, from sixteenth century Catholic theology, concerning an encounter between Spanish Christian conquistadors and Amerindian animists, over whether the Indians had souls susceptible to salvation. While Catholic theological debate only considered the former question, Latour emphasizes how the Amerindians conducted their experiments according to a different set of protocols. For the Amerindians the question was not whether the conquistadors had souls, as every living thing did from their perspective. Rather, the question was whether the conquistadors were perhaps purely spiritual entities without bodies. Echoing Foucault's contention that different epistemes parse the world differently, Latour thus argues that the inquiries of the Amerindians were no less objective than those of the Europeans. Although the antagonists could not agree on what counted as human, Latour alleges "[a]t no point were the Amerindians asked what issue they took to be in dispute, nor is Beck asking now. But asking that question is only the first step en route to adequate complexity" (2004b, 452).

experiments, cosmopolitics thus appears as a fundamentally *agonistic* concept, "an analytics committed to ongoing, publicly visible, and democratic experimentation on the proper role of nonhumans […] across major conflicts of nature-cultural attachments in a globalizing world" (Blok 2010, 22). According to Latour then, Beck's principle mistake was to have prematurely unified the cosmos through assuming the existence of a single, pre-existing "mononaturalism" (Latour 2004b, 453), functioning as a container for, as opposed to a bi-product of political action. In so doing, Latour criticizes Beck for transforming politics into an operation of economic governance under the auspices of a single sovereign authority, as opposed to acknowledging the ineradicable dimension of conflict, which Latour believes must necessarily precede the establishment of any legitimate political order. If, as Latour argues, the '70s idea of "[t]he ecosystem integrated everything," then it did so "too quickly and too cheaply" (2004d, 131) without accounting for the full range of actors; and therefore, at its essence, he perceives of it too as a form of governance as opposed to a properly political concept. Insofar as it seeks to address global problems such as climate change, Latour's cosmopolitics can thus be understood—at least in spirit—as contrasting to the "design solution" model in which, with the flick of a switch, a hacker-cum-comprehensive designer can simply reallocate resources in orded to "fix all the world's most pressing problems" (Schmidt 2012). With the return of the environment to the forefront of concerns, in order to effectuate this vision Latour envisions a dramatically expanded role for public experiment in the representation—in terms at once scientific, political and aesthetic—of issues as part of a democratic deliberation process.

In the *Making Things Public: Atmospheres of Democracy* exhibition (Weibel and Latour 2005), Latour assembled a vision for his idea of public experiments in order, as he expressed it at the time, "to re-present anew what are the common stakes" (2005a, n.p.)—as

illustrated, for example by the *MILK Project* (Polak et al. 2005) that used GPS to tell a "geostory" about the globe-spanning network gathered inside a commodity. As the politics of climate change have come to occupy a greater part of his concern, Latour has framed the normative objective for such public experiments in terms of "converg[ing] towards a common geostory" (2014b, 14)—the prefix "geo" deriving from Gaia of Ge, the name given by the Greeks to the primordial Mother Goddess. Against both its apparent religious and totalizing connotation, Latour, however, defines Gaia as: "[c]onnectivity without holism" (ibid, 15); a term for humankind's realization that "the destiny of all the cosmos –or rather kosmoi—is fully interconnected" (2010b, 480); and "the most secular figure of the Earth ever explored by political theory" (2013a, 8).

When he initially began developing the concept in the early '70s, the chemist James Lovelock wrote that "the Gaia hypothesis implies that the stable state of our planet includes man as a part of, or partner in, a very democratic entity" (Lovelock 2000, 137). Revising the theory however in the late '00s Lovelock suggested that the Earth now looked set to revert to a "hot state with a stable climate, one that it has visited many times before [in which] Gaia can still self-regulate and survive with a diminished biosphere" (2009, 180). While Lovelock has referred to Gaia in cybernetic terms (2000, 23), at the same time he has also railed against the cabin ecology image of the Earth "as a demented spaceship" (ibid, 11). Unlike the Whole Earth environmentalism of the cabin ecologists, Gaia's nature—at least in Latour's interpretation—is multiple, alive with nonhuman agencies, open to scientific dispute and characterized as a vast shared interior, a vision therefore of *particularity in the aggregate* as opposed to one of holism, leading Latour to insist that "because Gaia has a history […] it cannot be compared to a machine and […] cannot be reengineered either (Latour 2013a, 66). For Latour, "[t]here is no way to think of Gaia globally" (ibid, 81)—and since, elsewhere, he

also contends that "the notion of a local interaction has just as little reality as global structure" (2005b, 202)—what matters, then, are not the "mythical sites of the local and global," but rather the "direction of the movements […] of what is being transported: information, traces, plans, formats, templates" (ibid, 205); traces which depend however on vehicles for their transport. But, because an actor's reality is related to the connectivity of its network, the only way for Gaia to make itself felt is therefore for the Earth itself to become "fully equipped with enough sensors" (Latour 2013a, 96); therein lies the paradox of kosmoikos.

Latour claims that *oikos*, the old word for household and the common root of both ecology and of economics "is no longer able to unify or to pacify"—instead "[people] decide for themselves where, with whom and with which agencies they wish to live, which oikos they are ready to defend against which other oikos" (2013a, 129). Latour seems, however, to imply that as a prerequisite to cosmopolitics—in order for us to feel Gaia through the medium of public experiments, like the *MILK Project* for example—we will first need a fully interconnected cosmos in which every scale, from "the local" to "the global," can have its own unique address and serve as a vehicle through which actions could travel. In light of the practically inconceivable number of unique addresses made possible by the so-called *Internet of Things* (2^{128} unique addresses for routing Internet traffic and 2^{96} unique addresses for inventorying physical objects), the medieval scholastic philosopher Duns Scotus's concept of *haecceity*, denoting the particularity of a thing, has been proposed as an appropriate metaphysics for ubiquitous addressability at the scale of Gaia (Bratton 2014). If the slogan of the '70s environmental movement was "think globally, act locally, " it may be argued that, today, our mediated actions are increasingly global—insofar as they may be seen as no more than "a thin membrane on top of a vast machine [an] interface layer within a larger global

computing stack" (Bratton 2013)—while, at the same time, with the locational turn and locative media, our thoughts turn evermore towards "the local." But whereas the cabin ecologists envisioned the construction of an ark-like dwelling as a rapturous refuge through which to transcend the fallen material world, post-environmentalism seeks to compose of a common dwelling here on Earth, a *kosmoikos*. The key distinction between these forms of environmentalism hinges on recognizing the essential difference between politics and governance—a distinction that the dominant discourse of liberalism, arguably, works to efface.

5.4 Conclusion: Kosmoikos

[A]ll significant concepts of the modern theory of the state are secularized theological concepts (Schmitt 2005, 36).

Throughout this dissertation I have used Foucault's concepts of the apparatus and the milieu in order to discuss "the system of relations that can be established between […] discourses, institutions, architectural forms" etc. (Foucault 1980, 194). Defining an apparatus as "anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings" (Agamben 2009b, 14), the Italian political philosopher Giorgio Agamben traces a genealogy of its origins back to the second century Christian church's notion of *oikoniomia* as "an apparatus through which the Trinitarian dogma and the idea of a divine providential governance of the world were introduced into the Christian faith"—for which reason, he points out, that certain Gnostic sects referred to Christ as "the man of economy" (ibid, 10). While he claims that his aim in proposing this particular account is merely to render intelligible the kinship between a disparate series of elusive phenomena (Agamben 2009a, 31), Agamben nevertheless seem to be suggesting a theological pedigree to the idea, explored in different forms throughout this thesis, that intertwined notions of location and economics have been used to mediate between—as well as to govern across—scales, from the individual and the global. Indeed, in the fourth century, in what Foucault considers to be "one of the fundamental elements introduced into Western society" (Foucault 2009, 258), Christian theologians developed this concept into what they referred to as *oikonomia psuchōn,* or the conduct of souls—a concept which, discussed in Chapter 2, Foucault went on to trace in relation to his genealogy of liberal governance.

In classical Greece, the word oikos, at the root of the word "economy," originally referred to the private home as distinct from the public realm, a spatial arrangement that the philosopher Hanna Arendt refers to as a "gulf that the ancients had to cross daily to transcend the narrow realm of the household and 'rise' into the realm of politics" (Arendt 2013, 33). Seen as both the natural centre of animal life and the proper domain of economic management, the oikos was understood to be pre-political and despotic as opposed to the democratic life of the *polis*, founded on the destruction of kinship ties, which freed one from obligations to necessity in order to participate in the free life of political citizenship (*bios),* in which an ideal of equality was enacted through action (*praxis*) and speech (*logos*). Based on this foundational distinction, in a well-known, though relatively brief formulation (ibid, 22-78), Arendt argued that, from the perspective of foundations of democratic theory, the modern notion of political economy could in fact be understood as a contradictory concept.

Out of her return to antiquity, Arendt fashioned a critique of how *society*—which Foucault describes as "one of the great discoveries of political thought at the end of the eighteenth century" (Foucault 2001, 352)—came to conquer the democratic ideals of the polis through changing the concept of privacy. Whereas in antiquity, politics had been opposed to necessity, in modernity the social was opposed to the intimate, making the expression of difference a private as opposed to public matter. Arendt therefore treated spatial division as a basic unit of political analysis where "to have no private place of one's own (like a slave) meant to be no longer human" (Arendt 2013, 64) and in which a clear distinction between the interior private realm and the exterior public realm was seen as a fundamental condition for the democratic social contract, concluding that in modernity, the public realm had effectively lost power to gather people together (ibid, 53). Arendt argued that, from the perspective of modern statistical techniques of governance, the democratic idea

of action, as manifested through "rare deeds" (ibid, 42), had therefore lost meaning and significance, "appear[ing] only as deviations or fluctuations" (ibid, 42).[46]

According to Foucault, it was indeed with the development of new statistical management techniques in late eighteenth century Europe that the economy became understood as a kind of force of nature with the magical capacity to remotely govern the social body, and to produce new forms of subjectivity, a period that also witnessed "the birth of a sort of thinking about space that [...] extends far beyond the limits of urbanism and architecture" (Foucault 2001, 353). While Foucault rarely used the term media himself, his rather idiosyncratic take on governance may arguably be understood as a kind of media theory insofar as his genealogies were concerned with how small independent technical innovations constrain and afford action. While locative media, for example, transform our personal relationships with our physical environments to an almost revelatory extent, they do so as the latest innovations in governmental rationality (Barreneche 2012; Gabrys 2014). In contrast to the established narrative framing geolocation as a remedy to demateralization, media genealogy thus apprehends the contemporary locational turn as, in some sense, its paradoxical culmination. As such, kosmoikos may be understood as having a double valence referring at once to a spatial concept of domestication and to a governmental concept of economization.

While Agamben identifies the concept of oikonomia with a notion from antiquity concerning "a pure activity of government that aims at nothing other than its own replication"

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[46] In another aspect of the relationship between the inside and the outside dating back to antiquity, in Greek mythology Hestia (sister to Zeus, goddess of domesticity and of architecture), had a relationship with Hermes (messenger to the gods, known for his ability to moves freely between ontologically distinct realms); which, it has been suggested, Arendt's binary account fails to take into consideration (Cameron 2008, 123).

(Agamben 2009b, 22), he claims that "modern apparatuses differ from their traditional predecessors" in the sense that, in case of the latter, it was possible to profane the traditional apparatus and thereby "to restore the thing to the free use of men" (ibid, 18); in other words, Agamben posits the idea of *profanation* as the liberation of an otherwise captured form of life and the possibility to acquire an alternative form of subjectivity. Offering the mobile telephone as a contemporary example of a modern apparatus, Agamben claims that one "cannot acquire a new subjectivity, but only a number through which [one] can, eventually, be controlled" (ibid, 21), in effect echoing a claim made by Friedrich Kittler that "media are at work replacing people with their addresses" (Kittler 1996, 724). As Peter Sloterdijk, a frequent interlocutor with Bruno Latour, imagines it, the history of European modernity may furthermore be thought to have brought about a new metaphysical condition, a "spatial 'revolution'" in terms of how we conceptualize the outside, from which perspective "[e]very empirical place on the earth's surface becomes a potential address of capital" (Sloterdijk 2014, 31). The conquest and appropriation of location indeed constitutes a foundational act in European law, according to the German political philosopher Carl Schmitt, through which the law was constituted both internally, as "a kind of supreme ownership of the community" (Schmitt 2006, 45) and externally, in the confrontation with other competing claimants. According to Schmitt, any state based on the rule of law necessarily requires that a sovereign authority exist prior to the law in order to establish a "homogenous medium" (2005, 13), within which legal jurisdiction could function in all cases, including exceptional emergency-type situations outside of the law. For this reason, Schmitt equated true political power with the sovereign's right to decide on the state of exception.

For Schmitt, politics properly referred only to the actions of a sovereign authority on the stage of international relations, as well as to the internal struggle to acquire that authority,

from which position it was possible to decide on the fundamental constitution of the body politic. Schmitt considered democracy as an existential struggle between the polis and its enemies to decide upon what exactly constituted an exceptional situation beyond the reach of the law; a distinction that he claimed could "neither be decided by a previously determined general norm nor by the judgment of a disinterested and therefore neutral third party" (2008, 27). Whilst Schmitt conceptualized politics pluralistically at the scale of international relations (Schmitt 2008, 53), he assumed the polis of a given nation to be singular, leading Latour to identify "Schmitt's error [with] his belief that it is only on high, among the powerful and on rare occasions, that the political mode has to look for exceptions" (Latour 2013c, 347). Similarly, the Belgian political philosopher Chantal Mouffe argues for a rethinking of Schmitt's concept of a singular demos so that "[t]he moment of rule is indissociable from the very struggle about the definition of the people, about the constitution of its identity" (Mouffe 2000, 56).[47] In spite of Schmitt's extreme conservatism—like Heidegger he was even, for a brief period, a member of the Nazi party—Mouffe claims that "Schmitt highlights the fact that democracy always entails relations of inclusion/exclusion […] a vital insight that democrats would be ill-advised to dismiss because they dislike its author" (Mouffe 1997, 25), while Latour, for his part, argues that "[t]he great virtue of dangerous and reactionary thinkers like Schmitt is to force us to make a choice much starker than that of so many wishy-washy ecologists" (Latour 2013a, 105).

Agamben posits that this fundamental insight of Schmitt's—that at a foundational level, democracy entails relations of inclusion and exclusion—implies that one of the main functions of Western political systems has historically been to qualify forms of life for their

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[47] Graham Harman indeed identifies Mouffe and Latour as *intellectual neighbours,* with the difference between the two stemming from the greater significance that Latour's theory places in the role of nonhuman entities (Harman 2014, 160).

inclusion within their territorial boundaries. In a method that he refers to as genealogical, Agamben traces the dialectic of inclusion and exclusion back to antiquity, positing an ontological split between political citizenship (bios) and the indistinct vital force shared by man, gods and animals (zoe), out of which noumenous substance of the body politic is fashioned. If, for Schmitt, sovereign authority exists above the law, then Agamben's insight is that zoe also exists outside of the law, but at the opposite end of the spectrum, where it is invisible to those within the polis. With this notion in mind, then, what I call *kosmoikos* may be understood in terms of the process by which oikonomia—whether in the antiquarian or contemporary sense—seeks to qualify forms of life for entry into a polis envisioned at the scale of the Earth; a kind of omega point in the Western political theological imaginary, satirized by Julian Barnes's story of Noah's Arc (2010, 1-31), as told from the point of view of a woodworm who perceived Noah as a kind of tyrannical prison warden, for whom nothing was permitted inside the body politic that had not first been qualified and accounted for entry. Kosmoikos may thus be read as both diagnosis and remedy in which technology at once represents both the promise of inclusion and the immanent threat of ontological exclusion.

Another consequence of Schmitt's insight was that it led him to argue that, in postulating every person as inherently equal to every other person, liberalism had a tendency to reframe the concept of the enemy as a moral as opposed to political opponent—as for example in the use of categories such as 'good' and 'evil' to designate the enemies in the US-led war on terror (Mouffe 2005, 246)—invoking the concept of humanity as a kind of ideological weapon and vehicle of economic imperialism. As such, Schmitt argued that liberal humanism posited an "empty equality," often masking more profound and disturbing forms of inequality—the latter which he claimed were merely displaced into "another sphere,

perhaps separated from the political and concentrated in the economic, leaving this area to take on a new, disproportionately decisive importance" (Schmitt 1988, 12). Amplifying Latour's criticism of Beck, Mouffe draws on Schmitt in order to critique cosmopolitanism as a "an empty name disguising the actual disappearance of democratic forms of government and indicating the triumph of the liberal form of governmental rationality that Foucault called 'governmentality'" (Mouffe 1997, 24).

As an alternative to cosmopolitanism, Latour's cosmopolitics seems to depart from Schmitt's assertion that if "[t]he political enemy need not be morally evil or aesthetically ugly […] he is […] existentially something different and alien, so that in the extreme case conflicts with him are possible" (Schmitt 2008, 27; quoted in Latour 2013a, 101), in order to suggest that, in introducing "unexpected non-human agencies into the disputes […] the question of enmity is vastly expanded" (Latour 2013a, 102). Thus, without necessarily lowering the exclusionary status of the polis, cosmopolitics may nevertheless be understood as expanding the criteria of bios, by seeking to extend logos to the proverbial woodworm of zoe. Latour refers to the process of capturing and representing this proliferation of disputative agencies in order to "make us sensitive to Gaia's sensitivity," as the "post-natural, *post-epistemological situation*" of the natural sciences (ibid, 102, emphasis mine)—a fundamental renegotiation in our relationship with the concept of oikos, "in the very definition of having, holding or occupying a space" (ibid, 130); the representation of which he claims, as we have seen in Chapter 4, "requires the use of all the technologies—especially information technology" (2005a, n.p.). With "no frame, no goal, no direction," Latour likens this post-epistemological situation to a genealogical understanding of history as "the process by which varying contingent occasions have been offered a chance to render later events more probable" (2013a, 72).

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It has been remarked that Latour's approach is almost exclusively "forward-oriented,"

insofar as it focuses "on that which is constantly becoming […] always in the making," from

which perspective "[i]t is almost as if everything always starts anew," posing the potential

danger that the past is "lost or forgotten" (Asdal and Moser 2012, 295). While this criticism

may have some validity, Latour's approach can nevertheless in part be understood as an

operationalization of methodological insights gleaned from Foucauldian historicism, and

genealogy in particular. While Foucault developed a number of very broad concepts, Latour

agues against interpreting him as a general theorist of power—a misreading arguably

produced by the reception of Foucault's work in Anglo-American academia (Cusset 2008)—

claiming that "no one was more critical of social explanations" (Latour 2005b, 86). Drawing

on the Foucauldian genealogical approach introduced at the beginning of this dissertation, in

this chapter I have sought to place Latour's notion of a "post-epistemological situation" into a

broadly historical perspective, first by juxtaposing the current climate crisis in relation to '70s

environmentalism, and then by exploring the political theology of cosmopolitics.

As we have seen, Foucault's approach to genealogy made tactical use of the past in

order to highlight the relative contingency of prevailing norms. Agamben's approach, by

contrast, seems to identify overarching metaphysical dynamics as determining history,

arguing that the aforementioned dialectic of inclusion and exclusion is "the hidden matrix of

the politics in which we are still living […] that we must learn to recognize in all its

metamorphoses into the *zones d'attentes* of our airports and certain outskirts of our cities"

(Agamben 1997, 114). Insofar as Agamben's genealogical method has been described as

"rendering the structures of the present inoperative by tracing their features through to an originary point" (Murray 2010, 7), it may be argued that, rather than genealogy, Agamben's approach corresponds more to Jameson's conception of history as, for example, "the sequence of modes of production and the succession and destiny of the various human social formations, from prehistoric life to whatever far future history has in store for us" (Jameson 1983, 60). After Jameson's famous pronouncement that "it is easier to imagine the end of the world than to imagine the end of capitalism," he goes on to state that "[t]he problem to be solved is that of breaking out of the windless present of the postmodern back into real historical time, and a history made by human beings" (Jameson 2003, 76). As in esoteric traditions of theology, this type of historicism may be understood as an attempt to awaken to the truth of history in order to free the present from an enslavement to the past, so that humans might become the subject, as opposed to the object of history.[48]

For his part, Bruno Latour argues that, in order to formulate a response to the environmental catastrophe of the Anthropocene, we need "to encounter again the beings proper to religion" (2013a, 36) for their power to convert, a relationship that he in fact characterizes with the concept of "proximity" (ibid, 46). To nurture such a relationship with an animated environment need not, however, be understood as some kind of return to animistic religion—especially if, as Foucault has told us, "there is, in fact, no such thing as a return" (2001, 359). While the common root of cosmos in both cosmopolitics and

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[48] Kabbalists, for example, saw truth as revealed indirectly through the multiple and fragmentary parts of material nature, with the human's task being the "reestablishment of the harmonious condition of the world"—although, crucially, not in terms of a return, but rather "as something new" (Scholem 2011, 13). Indeed, Jameson's periodization of late capitalism in relation to a tripartite, or trinitarian framework of past and coming ages, corresponds to an eschatology narrative in both the Talmud and the Bible—a tripartite periodization approach that is also fashionable in certain media theoretical interpretations of Foucault (Galloway 2004, 27).

kosmoikos evokes the ideal of a harmonious arrangement; in contrast to religious beings, the existence of the entities they summon are imagined as always remaining open to dispute. Whereas we normally think of religion as concerned with the invisible and the far away and science as concerned with the near, the idea of proximity corresponds to an influential framing within the field of religious studies that contrasts the unbounded and transcendent to the particular and the immanent—the latter referred to as *locative space* in which "there is an ideological insistence on a democracy of responsibility for maintaining the proper *loci*" (Smith 1990, 121)—an expression of faith in an ontological arrangement, arrived at through a democratization of the means of representation, where everything has its right place and no point on the surface of the Earth can ultimately escape the fate of addressability inside of the world as interior.

The search for location in a networked age. *Source: Natalini et al 1972*

SUMMARY

Kosmoikos: The Search for Location in a Networked Age

The dissertation begins by theorizing the locational turn in contemporary art in terms of a response to the dematerialization of place, according to a substantivist tradition in media theory, which claims that "media determine our situation" (Kittler 1999, xxxix) and which posits an inverse relationship between networked media and local culture. In this tradition, Marshall McLuhan saw media as enveloping us in environments, whose invisible biases art rendered visible. Describing himself as an "art critic of technology" (Virilio in Armitage 2001, 25), Paul Virilio reads the introduction of GPS location-aware consumer technology— which made locative media possible—as providing a technological solution to the age-old metaphysical dilemma of determining one's correct position in the scheme of things. Virilio's perspective compares with Fredric Jameson's cognitive mapping proposal as a means by which to negotiate a situation in which the economic base of late capitalism is thought to have outstripped phenomenological comprehension of place, thereby confounding the normative basis for Marxist politics. As with McLuhan, his approach—considered "the most memorable single exercise in all the literature on postmodernism" (Anderson 1998, 58)— seeks to reveal latent content hidden in the media environment, in particular through metaphors of networks and of maps, calling for the development of "a whole new technology, which is itself a reflection, or way to deal with a whole new economic world" (Jameson 1984b, 58).

Opening, then, with Jameson's programmatic ambition to develop a mapping aesthetic by which to render relations of production visible, the dissertation proceeds as a history of ideas concerned with the search for location in a networked age. Drawing on

Michel Foucault's later historicism, and in recognition of Martin Heidegger's observation that "[w]hat seems natural to us […] once struck man as strange" (1993, 150), I refer to my overall approach as a media genealogy. The narrative proceeds as a detective story, seeking to solve the question of " what happened to place?" While my prior work in the field of locative media initially drew me into the case (Tuters and Varnelis 2006), over the course of the dissertation I trace the disappearance of location back, for instance, to the birth of a new sort of thinking about space that Foucault claims to have emerged from innovations in liberal economic thought in eighteenth century Europe, in which new calculative techniques helped contribute to the relative deterritorialization of governance—repurposing a term of art used by historians of the Napoleonic period, in reference to the process through which sovereign principalities were forcibly annexed leaving the dispossessed sovereigns in the role of symbolic figureheads—a concept I refer to as mediatized location.

In addition to providing an overview of the dissertation, Chapter 1 offers an introduction to Foucault's genealogical approach to the writing of history, concerned with how small, independent technical innovations may be thought to constrain epistemology and thereby to afford forms of subjectivity. Not to be confused with genealogy in the sense of tracing the origins of ancestry, what has been called Foucault's "interpretive analytics of power, truth and the body" (Dreyfus and Rabinow 1983, 104-125) rejects the premise that ahistorical absolutes underpin human history, such as, for example, in the Marxist assertion that the economy is determinant in the last instance. Following Foucault, then, the objective of a media genealogy is to problematize the resigned attitude of inevitability that greets media innovation, by rendering historical knowledge capable of opposition in order to discredit the unjustified claims of authority that ideas, innovations and institutions seem to hold over us. My approach does not purport to offer new facts based on primary sources, but

instead seeks to stage an exchange across disciplines allowing each perspective to speak for itself, in terms of how it theorizes those "experiences that ask questions of it" (Foucault 1994, 115), and furthermore to speculate on how, as Francis Bacon quipped, in some cases "the philosophies that men have learned or devised" may, in fact, appear as "so many plays produced and performed which have created false and fictitious worlds" (Bacon 2000, 42). A central concept through which I place the different perspectives in this dissertation into a dialogue comes from Bruno Latour's pragmatist critique of critical theory discourse, which he condemns as having become "blinded […] to the interest of the object" (Latour in Gane 2004, 82) as a result of its moral commitment to a politics of emancipation. Contiguous, then, with my search for location in a networked age, this thesis also concerns the proper role, scope and scale of critical social thought according to the perspectives associated with Foucault, Jameson and Latour—and though I strive to represent each perspective in its own particular context, I do not, however, always remain religious in my own intellectual agnosticism.

Starting from Robert Smithson's provocative observation that "the artist seeks the fiction that reality will sooner or later imitate" (Smithson 1996, 91), Chapter 2 opens with a brief discussion of the architectural avant-gardes of the 1960's whose work is read in terms of an attempt at representing the effects of dematerialization through the rethinking of space "not as a physical entity but as programming" (Varnelis 2003, n.p.). In particular, I look at the ambiguous images produced by Superstudio in terms both of a critique of the totalizing ambitions of modernist architecture and as visual expressions of an epistemological rupture of post-industrial capitalism (explored in detail by Jameson in Chapter 3), that arguably inaugurated a new metaphysical relationship to the concept of "the outside"—as one of their

Florentine peers stated at the time, "no reality exists any longer outside of the system" (Branzi 2000 [1970], 59).

Next, I go on to discuss the relationship between technological networks and territorial sovereignty, with particular attention to GPS. While geolocation scholars tend to focus on how such technology affords new relationships to locality, I discuss the innovation of a single globe-spanning coordinate system in which every point on earth becomes calculable, in relation both to the stabilization of nation state boundaries in the post-War period, and as an element of a military strategy that re-conceptualizes the field of battle on the model of a network, where population as opposed to territory becomes the target. This, in turn, leads to a brief historical discussion of the emergence of networked space discussed by Foucault in his genealogy of liberal economic governance with the example of how medieval defensive barriers in European cities in the eighteenth century were suppressed in order to encourage trade and to normalize the regularity of the population. As opposed to the autochthonous source of governmental power, Foucault actually treats the modern liberal state as the product of these milieus, as he calls them, which he defines as the material means for connecting together discrete realities in order "to account for action at a distance of one body on another" (Foucault 2009, 36). Exemplary, here, is his well-known analysis of the panoptic milieu as a "mechanism of power reduced to its ideal form" (Foucault 1995, 205) in which visible yet unverifiable surveillance functioned as a kind "coercive link" (Foucault 1995, 153) between the body and the milieu that served to inculcate and internalize norms of behaviour. Less well-known until their recent posthumous publication are Foucault's thoughts on the emergence of a new milieu which he associated with "new techniques of environmental technology" in which governance is "brought to bear on the rules of the game rather than on the players" (Foucault 2008, 259–60)—a notion more famously explored by

Gilles Deleuze in terms of a shift from a disciplinary society toward a society of control

(Deleuze 1992).

I illustrate Chapter 2's theme of environmentality—in which actions need not

conform to restrictive norms of conduct so long as they are captured—through the example

of Google Glass, presented by the company as the culmination of its founding vision "that

eventually you wouldn't have to have a search query at all" (Brin 2013). Consistent with

Foucault's stated objective to contribute "an element in a genealogy of the modem 'soul'"

(Foucault 1995, 29), I treat Google's ambition to model and predict human behaviour as an

epistemological innovation, arguably capable of producing a new kind of subjectivity by

altering the underlying conditions of knowledge. I consider how a fashionable amalgam of

ideas from Marx and Foucault—that emerged from the same radical Italian student

movement as did Superstudio—might, for example, consider Glass as symptomatic of how

the capitalist mode of production in the post-industrial period has become increasingly

parasitic on capturing the social know-how of labour; the latter often conceptualized on the

model of networked computation as the source of a multitudinous new class politics, in which

"class exploitation no longer functions directly through the exploitation of industrial labour-

power, but through the imposition of command on this […] surplus or excess of power"

(Noys 2010, 110).

The result of this type of analysis is that "the network" is evoked as simultaneously

representing "a dominant form describing the nature of control, as well as resistance to it"

(Galloway and Thacker 2007, 4), from which perspective there is no outside position whence

to develop a critique of "the system". Indeed, Luc Boltanski and Eve Chiapello argue that

aspects of the traditional critique of capitalism as, for example, the source of alienation, may

be understood as having been recuperated to some extent by innovations in marketing culture that emerged together with the counterculture as a means of perpetuating the very system that they claimed to oppose.

Against the conventional account of 1960's youth movements as a single antinomian uprising on the political left, Fred Turner focusses on how the period's hippie counterculture may be understood as having pioneered a type of libertarian politics—one that would deeply inform Silicon Valley "cyberculture" 30 years later—which saw social transformation as a psychic task focused on nurturing global forms of consciousness through returning "back-to-the-land" and embracing small-scale "local" technologies. It is with this particular historical context in mind, that I frame the "technological imaginary" (Dourish and Bell 2011, 161) surrounding Google Glass as a sort of tool of transcendence—an ideal that arguably connects the roots of cyberculture with a gnostic tradition of revelation. Another strand of this story however traces Glass, as the latest innovation in environmental media, back to an "epistemological and ontological rupture" (Lafontaine 2007, 32) introduced by the field of cybernetics—its notion that purposeful action could be governed environmentally through self-correction in a bio-mechanical system, which in turn led to the "revolutionary […] idea that the boundaries of the human subject are constructed rather than given" (Hayles 2008, 84). In Turner's account, cybernetics formed a key ideological component in the early history of multimedia environments that actively sought to nurture the ideal of the self-governing individual as the base unit of American liberal democracy. Returning to the idea that technologies such as Glass afford a new relationship to location, Chapter 2 concludes by proposing to frame the contemporary locational turn as, in some sense, replaying aspects of the counterculture's attempt to transcend "the system" by turning to the local and small scale,

only to paradoxically lay the foundation for the new network milieu of the so-called society of control; in relation to which *there is no outside*.

Within the growing body of literature on locative media, the notion of "site-specificity" is often theorized in terms of a kind of remedy to a diagnosis of technological-driven dematerialization. Departing from the grammatical definition of locative as denoting an essentially topological as opposed to topographical conception of space or of site, Chapter 3 explores a parallel relationship of diagnosis and remedy, as developed in a tradition of Western Marxist thought that I refer to in terms of positionality. In particular, I identify this problematic with Fredric Jameson's programmatic vision for "the invention and projection of a global cognitive mapping, on a social as well as a spatial scale" (1984b, 92) as a remedy to his famed diagnosis of postmodernism as the cultural logic of late capitalism—the latter of which he describes as "the great global multinational and decentered communicational network in which we find ourselves caught as individual subjects" (ibid, 84). Normative in its aim, universal in its scope and global in its scale—he views history as "vital episodes in a single vast unfinished plot" (1983, 4)—Jameson's project differs notably, for example, from that of his contemporary François Lyotard, who famously associated the postmodern condition with an "incredulity towards meta-narratives" (Lyotard 1984, xxiv). Both theorists may, however, be understood as identifying postmodernism with the aesthetics of the sublime—in whose contemplation Kant famously argued that the critical individual positions itself in relation to a notion of totality—with Jameson's approach building on a Western Marxist interpretation indebted to Georg Lukács (who held that the all-consuming nature of the capitalist mode of production paradoxically produced a universal subject position). Jameson's thought may furthermore be understood in relation to a metaphysical strain of Marxism that extends the process by which capital comes to dominate economic exchange to

all aspects of reality, what another of Jameson's philosophical forerunners in this discourse, Guy Debord, would refer to as "eliminat[ing] geographical distance only to reap distance internally in the form of spectacular separation" (Debord 1995, 120). As a founding member of the Situationist avant-garde art movement, committed to implementing the Western Marxist critique in the form of practice, Debord and his colleagues sought to develop new aesthetic forms, often at the level of urban spatial practices, that were nevertheless addressed to the totality of society (Debord 2003, 29-42).

Coming to refer to his own approach in terms of a "spatial dialectic," (2009, 66) Jameson held architecture as the privileged aesthetic language of late capitalism—for its "virtually unmediated relationship" (1984b, 56) with the latter. While his approach would be cited as a substantial influence on the subsequent "spatial turn" in social theory (Soja 1989, 62-64; Dear 2000, 47-69; Kitchin and Dodge 2011, 66-71; Warf and Arias 2008, 1-6), Jameson himself may be said to have developed a somewhat idiosyncratic conception of space. Whereas cognitive mapping originally refers to place-learning behaviour in a branch of experimental psychology, Jameson associates the term with the navigational habits of city dwellers as studied by the famous urban planner Kevin Lynch (1960)—whose work subsequently became influential on interface design for environmental media—coming to define his version of the concept as an "extrapolation of Lynch's spatial analysis to the realm of social structure" (Jameson 1988, 353). And while there also exist different interpretations of Jameson own version of the concept, I look in particular at how new media theorists have positioned the "aesthetics of critical and dissident cartography" (Holmes 2009, 52) as a means by which to visually represent positionality in a networked age as contiguous with "the major intellectual project of the worldwide Left in the 1990s […] to map out the political economy of neoliberal capitalism" (Holmes 2000, n.p.).

Given the relative ease with which contemporary software allows users to position themselves in networks of social relations, I go on to consider whether the cultural context today may have changed so dramatically from when Jameson initially proposed his version of the concept that, "instead of a situation in which the production of cognitive maps is impossible, we are locked in a situation in which we produce them—or at the very least approximations of them—all the time" (Chun 2011, 71). I conclude the chapter by reflecting critically on the philosophical project of positionality, in particular on its aesthetic evocations of unsullied forms of Marxism such as Situationism, as "symptomatic of the contemporary ebb and flow of aesthetics and politics, and of the transformations of avant-garde thinking into nostalgia" (Rancière 2004, 9).

Opening with an anecdote concerning the dissertation's titular *search for location in a networked age*, in which two locavores try to determine the precise geographical provenance of their chicken dinner, Chapter 4 considers how the political and aesthetic philosophy of Bruno Latour may be thought to problematize the locational turn. Latour's initially rather modest objective, as a trained anthropologist, is to merely trace the connections performed locally, as it were, between discrete entities in the formation of so-called actor-networks. Notoriously, Latour is indifferent to the proportions of humans and non-humans that make up these actor-network assemblages, conceptualizing material reality in semiotic terms of articulation and translation of propositions without fixed boundaries, thus always redistributable, thereby problematizing the naturalist view of the world as ultimately reducible to material elements. In place of substance, the notion of the network describes the process by which relations become stabilized, and rendered invisible, so that "each stage is matter for what follows and form for what precedes it" (Latour 1999, 74), and both substance

as well as space are conceptualized in terms of "radiating connectors" (Latour 2011b, n.p.), leading to the conclusion that "no place dominates enough to be global and no place is self-contained enough to be local" (Latour 2005b, 204). A fundamental axiom in this system of thought is that "there is no transportation without translation" (Latour 1996a, 119), meaning that, in order for an action to travel, it must have a medium that will in turn transform the action—an innovation in the history of metaphysics that been referred to as local occasionalism (Harman 2009, 82).

With this in mind, the task of the social scientist is to try and represent the series of connections and synchronous transformations that occur in the performance of a particular actor-network. While, in the ordinary course of events, "actors incessantly engage in the most abstruse metaphysical constructions by redefining all the elements of the world" (Latour 2005b, 51), from Latour's perspective, social theories tend to reduce the questions raised by these entities in favour of methodologically misguided concepts that seek "to reveal behind the scenes some dark powers pulling the strings" (ibid, 22)—a criticism that allows Latour to argue, for example, that "capitalism does not exist" (1993a, 173), at least not in the all-engulfing sense that Jameson evokes, for the simple reason that it relies on the performance of innumerable local actors in order to sustain is existence. In any case, Latour believes that the role of the social scientist is "to make sure that the multiplicity of voices […] is heard" (Latour in Barron 2003, 93), and "*not* to put some order into the world" (ibid, 81, emphasis mine), as is the case in the critical tradition associated with Jameson in the previous chapter.

Whilst Latour is known for articulating a *critique of critique*—which itself has been subject to critique (Noys 2010, 80-105)—it is less the case that Latour advocates an apolitical approach to social theory than that he holds a somewhat esoteric view on what counts as

politics. Consistent with his de-privileging of the human, Latour emphasizes the role of tools

and experiments in both rendering individuals sensitive to their environments, and in holding

together forms of public assembly. To this end, Latour's political philosophy places great

significance on aesthetics, in the original sense of the term as pertaining to sensation, as well

as on material things, also in the original sense of referring to a gathering or matters of

concern. Following on from a discussion in Chapter 3 regarding a new so-called "techno-

epistemology" (Rogers 2006, n.p.), Latour places great significance on the role of digital

topological maps in "learning to be affected" (Latour 2004c, 206) by issues immanent in the

environment. Consistent with Heidegger's attempt to replace the disinterested status of

scientific knowledge with a situated relationship to things in the world—whilst at the same

time embracing the objects of techno-science, in distinctly a un-Heideggerian manner—in

what Latour refers to as the "post-epistemological situation" (2013a, 102), "[f]ar from

opposing filters to an unmediated gaze, it is as if the more filters there were the clearer the

gaze was" (1999, 137); mediation thus increases as opposed to diminishes the stable reality of

the world.

While the dominant approach to studying the moral and political valences of

technologies following Foucault has tended to focus on the production of human subjectivity

(Marres and Lezaun 2011), Latour's approach has been influential on a so-called "object

turn" in recent cultural theory, which considers how material things and physical locations

acquire political capacities that are subject to public contestation (Marres 2012b). Based on a

theory of representation in the political, scientific and aesthetic sense of the word, Latour

proposes a pragmatist vision here for how crucial scientific debates might get taken up by

self-critical communities of inquiry, for example, by using maps and interfaces to trace the

logistical supply chain of consumer objects. While some have claimed that such new media

traceability "might force capitalism to become ethical" (Arvidsson 2008, 336), others consider such ethical consumerism as merely another depoliticizing instance of neoliberal environmentality. In different ways, then, Jameson and Latour both conceptualize a solution to the search for location in cartographic terms, the former in terms of absolute positionality within a global topology and the latter in terms of relative proximity to a unique manifold. While Latour's methodological critique of Jameson is compelling, a question however remains as to whether Latour's approach alone might leave the proverbial locavores, with which I began the chapter, unable to transcend their own parochial interests. In the final chapter, I attempt to address the question of how to balance a politics of difference with Lukács's challenge of totalization—that "[f]rom the ethical point of view, no one can escape responsibility with the excuse that he is only an individual, on whom the fate of the world does not depend" (Lukács 1972, 8)—by brining together the relationship between the local and the global through the defining issue of the present era; anthropogenic climate change.

While drawing together ideas and approaches concerning the search for location from throughout the dissertation as a whole, the concluding chapter opens by returning to an image by Superstudio that envisions the world as one vast domestic interior, as an entry point into a discussion concerning past and present visions of global environmental governance. In light of the concept of the Anthropocene—that treats humans as a geological force transforming the planet's land surface and atmosphere (Crutzen 2002) and which has been met with calls to "geoengineer" the planet (Brand 2010, 275-302)—I look at how the early '70s rehearsed aspects of the contemporary debate over climate change and how the holistic thinking of this period—as signified by the slogan "think globally, act locally"—arguably masks the role of science as well as that of theology in the politics of nature (Latour 2004d).

In this chapter, I explore Bruno Latour's post-environmentalism, which calls for the construction of new tools, "equipment, instruments, skills, and knowledge that will allow experimental metaphysics to start up again, in order to decide collectively on its habitat, its *oikos*, its familiar dwelling" (Latour 2004d, 136). In contrast to the so-called "cabin ecology" approach of early-'70s-era environmentalism, with its image of Spaceship Earth, Latour offers an image of planet-scale connectivity without holism, of Gaia (the root of the "geo" prefix) as a living system, composed of particularity in the aggregate. To this end, he contends that the planet needs to be rendered "fully equipped with enough sensors" (Latour 2013a, 96) so that we, its inhabitants, will be able to feel the consequences of our individual actions in bringing about climate change. But while Silicon Valley visionaries champion the vision that "connectivity can revolutionize every aspect of society – politically, socially, economically [… and] fix all the world's most pressing problems" (Schmidt 2012, n.p.), Latour distinguishes his project from the liberal governance tradition through his idea of *cosmopolitics*, which claims to do away with the flawed modernist epistemology of cosmopolitanism by radically expanding the concept of representation (in the political, scientific and aesthetic senses) as the basis of a much more diverse polity—in the antiquarian language of democratic theory, expanding bios by extending logos to zoe. While Latour claims that oikos, the old word for household and the common root of both ecology and of economics "is no longer able to unify or to pacify" (Latour 2013a, 129), practically speaking, from the perspective of the concept of environmentality as discussed in Chapter 2, it nevertheless appears that a planet-wide infrastructure—a kosmoikos as I call it—would need to be in place as the condition of possibility for his cosmopolitics.

Following Foucault's assertion that oikoniomia, or the divine providential governance of human souls, constitutes "one of the fundamental elements introduced into Western

society" (Foucault 2009, 258), Giorgio Agamben claims the concept as basis of the contemporary phenomenon of addressabilty through which, according to the substantivist critique, "media are replacing people with their addresses" (Kittler 1996, 724). In contrast to Agamben's and Jameson's attempts to identify the metaphysical dynamics underpinning human history, the media genealogy approach developed in this dissertation is ultimately more modest in its scope, identifying the often unexpected resonances between seemingly quite disparate projects, from which perspective the concept of kosmoikos can be understood as a map of the world as a network without any outside, as seen from multiple points of view.

SAMENVATTING

<u>Kosmoikos: de zoektocht naar locatie in een genetwerkt tijdperk</u>

Deze dissertatie begint met een beschouwing over de *locationele omslag* in moderne kunst als antwoord op de dematerialisatie van plaats volgens een substantivistische traditie in mediatheorie, die claimt dat "media onze situatie bepalen" (Kittler 1999 xxxix) en een tegengestelde relatie tussen genetwerkte media en lokale cultuur veronderstelt. Marshall McLuhan zag media in deze traditie als iets dat ons in omgevingen hult, waarvan onzichtbare vooronderstellingen door kunst zichtbaar werden gemaakt. Paul Virilio, die zichzelf omschreef als een "kunstcriticus van de technologie" (Virilio in Aritage 2001, 25), leest de introductie van consumententechnologie met GPS locatiebewustzijn–die *locatieve media* mogelijk maakte–als een fenomeen dat een technologische oplossing biedt voor het eeuwenoude metafysische dilemma van het bepalen van je juiste positie in het grote geheel. Virilio's perspectief is vergelijkbaar met Fredric Jamesons idee over cognitieve cartografie, namelijk als middel om met een situatie om te gaan waarin geloofd wordt dat de economische basis van het laat-kapitalisme het fenomenologische begrip van plaats heeft voorbijgestreefd, waarmee het de normatieve basis voor Marxistische politiek in duigen doet vallen. Net als Marshall McLuhan streeft hij met zijn benadering–die wordt gezien als "de meest gedenkwaardige oefening in alle literatuur over het postmodernisme" (Anderson 1998, 58)– ernaar de latente content, die verborgen is in de mediaomgeving, te onthullen, met name door middel van metaforen van netwerken en kaarten, waarmee hij oproept tot de ontwikkeling van een "geheel nieuwe technologie, die op zichzelf een reflectie of een manier is om met een geheel nieuwe economische wereld om te gaan" (Jameson 1984b, 58).

Openend met Jamesons programmatische ambitie om een cartografische esthetiek te

ontwikkelen die de relaties van productie zichtbaar maakt, verloopt deze dissertatie als een geschiedenis van de ideeën die zich bezighouden met de zoektocht naar locatie in een genetwerkt tijdperk. Voortbouwend op Michel Foucaults latere historicisme en in erkenning van Martin Heideggers observatie dat "[w]at voor ons natuurlijk lijkt [...] de mens eens vreemd was" (1993, 150), verwijs ik naar mijn gehele benadering als een mediagenealogie. Het narratief verloopt als een detectiveverhaal, op zoek naar het antwoord op de vraag wat er is gebeurd met plaats? Terwijl ik mij in mijn eerdere werk in het veld van locatieve media initieel verdiepte in de casus (Tuters en Varnelis 2006), herleid ik in mijn dissertatie de verdwijning van plaats tot, bijvoorbeeld, het ontstaan van een nieuw soort denken over ruimte, waarvan Foucault claimt dat het ontstaan is uit vernieuwingen in 18e-eeuws Europees liberaal-economisch gedachtegoed, waar nieuwe calculerende technieken bijdroegen aan de relatieve deterritorialisatie van bestuur–daarmee een term hergebruikend die door historici gebruikt werd om in de Napoleontische tijd te verwijzen naar het proces waarmee soevereine vorstendommen onder dwang werden geannexeerd en de onteigende soevereinen enkel nog de rol van symbolisch boegbeeld bezaten, om teneinde mijn eerste hoofdstuk de titel gemediatiseerde locatie te geven.

Naast het geven van een overzicht van de dissertatie, voorziet hoofdstuk 1 in een introductie in Foucaults genealogische benadering van geschiedschrijving, met betrekking op de manier waarop kleine onafhankelijke technische vernieuwingen gezien kunnen worden als veranderingen die de epistemologie beperken en daardoor vormen van subjectiviteit toestaan. Dit dient niet te worden verward met genealogie in de zin van het herleiden van afkomst, ook wel Foucaults "interpretatieve analyse van macht, waarheid en het lichaam" (Dreyfus en Rabinow 1983, 104-125) genoemd, die de premisse verwerpt dat ahistorische gegevenheden de menselijke geschiedenis onderbouwen, zoals bijvoorbeeld in de Marxistische bewering dat

de economie uiteindelijk bepalend is. In navolging van Foucault, vervolgens, is het de doelstelling van een mediagenealogie om de gelaten houding van onvermijdelijkheid, waarmee vernieuwingen in media doorgaans begroet worden, te problematiseren door historische kennis die mogelijk weerstand biedt weer te geven, om zo de ongerechtvaardigde autoritaire claims die ideeën, vernieuwingen en instanties over ons lijken te hebben in diskrediet te brengen. Mijn benadering pretendeert geen nieuwe feiten over primaire bronnen te geven, maar streeft er in plaats daarvan naar om een uitwisseling tussen disciplines ten tonele te brengen waarin ieder discipline voor zichzelf spreekt over hoe het de "belevingen die hierover vragen stellen" (Foucault 1994, 115) theoretiseert en bovendien speculeert over hoe, zoals Francis Bacon ooit beroemd grapte, in sommige gevallen "de filosofieën die men heeft geleerd of bedacht" in feite op "zoveel geproduceerde en opgevoerde toneelspelen die valse en fictieve werelden hebben gecreëerd" (Bacon 2000, 42) lijken. Een centraal begrip, bijvoorbeeld, waarmee ik de verschillende perspectieven in deze dissertatie in dialoog breng, komt van Bruno Latours pragmatische kritiek op het discours van de kritische theorie, dat hij veroordeelt "blind te zijn [...] voor het belang van het object" (Latour in Gane 2004, 82) als resultaat van haar morele verplichting aan een politiek van emancipatie. Aaneensluitend aan mijn zoektocht naar locatie in een genetwerkt tijdperk betreft deze thesis ook de gepaste rol, omvang en schaal van kritisch-sociaal gedachtegoed volgens de perspectieven geassocieerd met Foucault, Jameson en Latour–en ondanks dat ik ernaar streef om elk perspectief in zijn eigen bijzondere context te representeren, blijf ik niet altijd religieus in mijn eigen intellectuele agnosticisme.

Beginnend bij Robert Smithsons provocatieve observatie dat "de artiest de fictie zoekt die de werkelijkheid vroeg of laat zal imiteren" (Smithson 1996, 91), opent hoofdstuk 2 met een korte discussie van de architectonische avant-gardes uit de jaren zestig, wier werk

gelezen is in een poging om de effecten van dematerialisatie door het herdenken van ruimte "niet als fysieke entiteit maar als programmeren" (Varnelis 2003, n.p.) te representeren. In het bijzonder bekijk ik de ambigue afbeeldingen geproduceerd door Superstudio in termen van zowel een kritiek op de totaliserende ambities van modernistische architectuur als een visuele expressie van een epistemologische breuk van postindustrieel kapitalisme (in detail verkend door Jameson in hoofdstuk 3) dat wellicht een nieuwe metafysische relatie tot het begrip van "het buiten" heeft ingeluid–zoals één van hun Florentijnse tijdsgenoten destijds verklaarde, "geen enkele realiteit bestaat nog langer buiten het systeem" (Branzi 2000 [1970], 59).

Vervolgens bespreek ik de relatie tussen technologische netwerken en territoriale soevereiniteit, met bijzondere aandacht voor GPS. Terwijl geolocatiewetenschappers doorgaans de focus leggen op de manier waarop dit soort technologie nieuwe relaties tot lokaliteit verschaft, bespreek ik de introductie van een enkel wereldomspannend coördinatensysteem, waarin elk punt op aarde berekenbaar wordt, in relatie tot de stabilisatie van de grenzen van de natiestaat in de naoorlogse periode en als een element van militaire strategie die het slagveld opnieuw conceptualiseert op basis van het model van een netwerk, waar populatie in tegenstelling tot territorium het doel wordt. Dit leidt vervolgens tot een korte historische beschouwing van de opkomst van genetwerkte ruimte zoals beschreven door Foucault in zijn genealogie van liberaal-economisch bestuur, met als voorbeeld hoe in Europese steden in de 18e eeuw Middeleeuwse verdedigingsbarrières werden onderdrukt om de handel te bemoedigen en de regulatie van de bevolking te normaliseren. In tegenstelling tot de autochtone bron van bestuurlijke macht, behandelt Foucault de moderne liberale staat in feite als een product van deze *milieus*, zoals hij ze noemt, die hij definieert als de materiële middelen die afzonderlijke realiteiten verbinden om "actie op afstand van het ene lichaam op

een andere te beredeneren" (Foucault 2009, 36), zoals in zijn welbekende analyse van het panoptische milieu als een "machtsmechanisme gereduceerd tot zijn ideale vorm" (Foucault 1995, 205) waarin surveillance, die zichtbaar is maar niet geverifieerd kan worden, als een soort "dwangmatige link" (Foucault 1995, 153) fungeert tussen het lichaam en het milieu en ertoe dient om gedragsnormen in te prenten en te internaliseren. Minder bekend tot hun recente postume publicatie, daarentegen, zijn Foucaults gedachten over het ontstaan van een nieuw milieu, dat hij associeerde met "nieuwe technieken van milieutechnologie" (Foucault 2008, 259-60)–een begrip beter bekend van Gilles Deleuze, die het verkende in termen van een verschuiving van een gedisciplineerde maatschappij naar een maatschappij van controle (Deleuze 1992).

Ik illustreer het thema van hoofdstuk 2, environmentaliteit–waarin acties niet conform hoeven te zijn aan de restrictieve normen van gedrag zolang ze vastgelegd worden–aan de hand van Google Glass, door het bedrijf gepresenteerd als het resultaat van de initiële visie "dat je uiteindelijk helemaal geen zoekopdracht meer nodig zal hebben" (Brin 2013). In overeenstemming met Foucaults doelstelling om "een element aan de genealogie van de moderne 'ziel'" (Foucault 1995, 29) bij te dragen, behandel ik Googles ambitie om menselijk gedrag te modelleren en te voorspellen als een epistemologische vernieuwing, die wellicht in staat is om een nieuwe soort subjectiviteit te produceren door de voorwaarden die ten grondslag liggen aan kennis te wijzigen. Ik overweeg hoe een modieus amalgaam van ideeën van Marx en Foucault–dat voortkwam uit dezelfde radicale Italiaanse studentenbeweging als Superstudio–mogelijk, bijvoorbeeld, Glass als symptomatisch kan beschouwen van hoe de kapitalistische productiewijze in de postindustriële periode in toenemende mate parasitair is geworden op het vastleggen van de sociale knowhow van arbeid; het laatstgenoemde is vaak geconceptualiseerd op basis van het model van genetwerkte berekening als de bron van een

veelsoortige nieuwe klassenpolitiek waarin "klasse-exploitatie niet langer direct door middel van de exploitatie van de industriële arbeidsmacht functioneert, maar door het opleggen van een bevel op dit [...] surplus of overvloed aan macht" (Noys 2010, 110).

Het resultaat van zo een analyse is vervolgens dat "het netwerk" wordt opgeroepen zowel als "een dominante vorm van het beschrijven van de aard van controle, alsook als verzet ertegen" (Galloway en Thacker 2007, 4), vanuit welk perspectief er geen outsider positie is vanwaar een kritiek op "het systeem" ontwikkeld kan worden. Zo beargumenteren Luc Boltanski en Eve Chiapello dat aspecten van de traditionele kritiek op het kapitalisme, als bijvoorbeeld de bron van vervreemding, begrepen kunnen worden als zijnde tot op zekere hoogte toegeëigend door vernieuwingen in marketingcultuur, die tezamen met de tegencultuur zijn ontstaan als een manier om hetzelfde systeem waar zij claimen tegen te zijn in stand te houden.

Tegengesteld aan de formele weergave van jeugdbewegingen uit 1960 als een enkele antinomistische opstand links op het politieke spectrum, focust Fred Turner op de wijze waarop de hippiecultuur uit deze periode begrepen kan worden als baanbrekend voor een soort libertijnse politiek–één die 30 jaar later diep zou doordringen in de "cybercultuur" van Silicon Valley–die sociale transformatie als een geestelijke taak zag met als doel globale vormen van bewustzijn te koesteren door "terug-naar-het-land" te keren en kleinschalige "lokale" technologieën te omarmen. Het is met deze specifieke historische context in gedachte dat ik het "technologisch imaginaire" (Dourish en Bell 2011, 161) rondom Google Glass als een soort instrument van transcendentie neerzet–een ideaal dat wellicht de wortels van de cybercultuur met een gnostische traditie van openbaring verbindt. Een andere draad van dit verhaal, daarentegen, herleidt Google Glass, als de nieuwste innovatie in

omgevingsmedia, naar een "epistemologische en ontologische breuk" (Lafontaine 2007, 32) geïntroduceerd door het veld van cybernetica–de opvatting dat doelgerichte actie door de omgeving bestuurd zou kunnen worden door middel van zelfcorrectie in een biomechanisch systeem, die leidde tot het "revolutionaire [...] idee dat de grenzen van het menselijke subject geconstrueerd zijn in plaats van gegeven" (Hayles 2008, 84). Volgens Turner vormde cybernetica een ideologische sleutelcomponent in de vroege geschiedenis van multimedia-omgevingen die het ideaal van het zelfbesturende individu als basis van de Amerikaanse liberale democratie actief trachtten te koesteren. Terugkerend naar het idee dat technologieën zoals Glass een nieuwe relatie tot locatie verschaffen, besluit hoofdstuk 2 met het voorstel om de moderne locationele omslag in zekere zin te neer te zetten als een fenomeen dat aspecten van de pogingen van de tegencultuur om "het systeem" te overstijgen, door zich te keren naar de lokale en kleine schaal, herhaalt, alleen maar om paradoxaal genoeg de grondslag te leggen voor het nieuwe netwerkmilieu van de zogenoemde maatschappij van controle, in verhouding tot welke *er geen buiten is*.

In de groeiende hoeveelheid literatuur over locatieve media wordt het begrip van "plaats-specificiteit" vaak getheoretiseerd in termen van een soort remedie tegen een diagnose van een technologisch gedreven dematerialisatie. Vertrekkend van de grammaticale definitie van locatief als duidend op een essentieel topologische in plaats van topografische opvatting van ruimte of plaats, onderzoekt hoofdstuk 3 een parallelle relatie tussen diagnose en remedie, zoals ontwikkeld in een traditie van Westers-Marxistisch gedachtegoed waarnaar ik verwijs in termen van positionaliteit. Ik identificeer deze problematiek met name in Fredric Jamesons programmatische visie op "de uitvinding en projectie van een globale cognitieve cartografie, op zowel een sociale als ruimtelijke schaal" (1984b, 92) als remedie voor zijn beroemde diagnose van het postmodernisme als de culturele logica van laat-kapitalisme–dat

hij beschrijft als "het grote globale multinationale en gedecentreerde communicatieve netwerk waarin wij onszelf als individuele subjecten gevangen vinden" (ibid, 84). Normatief in zijn doel, universeel in zijn bereik en globaal in zijn schaal–hij ziet geschiedenis als "cruciale afleveringen in een enkel en groots onvoltooid plot" (1983, 4)–is Jamesons project wezenlijk anders dan, bijvoorbeeld, dat van zijn tijdgenoot François Lyotard, die zoals bekend de postmoderne conditie aan een "ongeloof ten opzichte van meta-verhalen" (Lyotard 1984 xxiv) verbond. Beide theoretici, daarentegen, kunnen begrepen worden in die zin dat zij het postmodernisme identificeren met de esthetiek van het sublieme–waarvan Kant in zijn overpeinzingen beroemd beargumenteerde dat de kritische individu zichzelf in relatie tot een begrip van totaliteit positioneert–waarbij Jamesons benadering voortbouwt op een Westers-Marxistische interpretatie verschuldigd aan George Lukács, waarvan de laatstgenoemde stelde dat de allesverterende natuur van de kapitalistische productiewijze paradoxaal genoeg een universele positie van het subject produceerde. Jamesons gedachtegoed kan verder begrepen worden in relatie tot een metafysische variatie op het Marxisme, dat het proces waarbij kapitaal de economische uitwisseling dominant maakt over alle aspecten van realiteit, uitbreidt, waaraan een andere filosofische voorloper van Jameson in dit discours, Guy Debord, zou refereren als iets dat "geografische afstand elimineert alleen maar om intern de afstand in de vorm van een spectaculaire scheiding te oogsten" (Debord 1995, 120). Als mede-oprichter van de Situationistische avant-garde kunstbeweging, toegewijd aan het in de praktijk brengen van de Westers-Marxistische kritiek, trachtten Debord en zijn collega's nieuwe esthetische vormen te ontwikkelen, vaak op het niveau van stedelijke ruimtelijke praktijken, die desondanks de gehele maatschappij adresseerden (Debord 2003, 29-42).

Ertoe komend naar zijn eigen benadering te verwijzen in termen van een "ruimtelijke dialectiek" (2009, 66) beschouwde Jameson architectuur als de geprivilegieerde esthetische

taal van het laat-kapitalisme–vanwege haar "virtuele onbemiddelde relatie" (1984b, 56) met

het laatstgenoemde. Terwijl zijn benadering geciteerd zou worden als een substantiële

invloed op de volgende "ruimtelijke omslag" in sociale theorie (Soja 1989, 62-64; Dear 2000,

47-69, Kitchin en Dodge 2011, 66-71; Warf en Arias 2008, 1-6), kan van Jameson gezegd

worden dat hij een enigszins eigenaardige opvatting van ruimte had. Terwijl *cognitieve*

cartografie oorspronkelijk verwijst naar het plaatsen van leergedrag in een aftakking van het

veld van experimentele psychologie, associeert Jameson de term met de navigerende

gewoonten van stadsbewoners zoals bestudeerd door de beroemde stedelijk planner Kevin

Lynch (1960)–wiens werk vervolgens invloedrijk werd in interface design voor

omgevingsmedia–waardoor hij zijn versie van het concept als een "extrapolatie van de

ruimtelijke analyse van Lynch op het gebied van sociale structuur" (Jameson 1988, 353)

definieerde. En terwijl er ook verschillende interpretaties van Jamesons eigen versie van het

begrip bestaan, bekijk ik met name hoe nieuwe mediatheoretici de "esthetiek van kritische en

dissidente cartografie" (Holmes 2009, 52) als manier hebben aangevoerd om de positionering

in het genetwerkte tijdperk visueel te representeren aansluitend aan "de belangrijkste

intellectuele projecten van het wereldwijde Linkse in de jaren 1990 [...] om de politieke

economie van het neoliberale kapitalisme in kaart te brengen" (Holmes 2000).

Gegeven het relatieve gemak waarmee moderne software gebruikers toestaat om

zichzelf in een netwerk van sociale relaties te positioneren, vervolg ik met de overweging of

de hedendaagse culturele context wellicht dramatisch is veranderd ten opzichte van het

moment waarop Jameson zijn versie van het concept dat "in plaats van een situatie waarin de

productie van cognitieve kaarten onmogelijk is, we opgesloten zijn in een situatie waarin we

ze continu produceren–of ten minste benaderingen ervan" (Chun 2011, 71) initieel

voorstelde. Ik besluit vervolgens het hoofdstuk door kritisch te reflecteren op het filosofische

project van positionaliteit, met name op de esthetische oproepen van onbezoedelde vormen van Marxisme, zoals het Situationisme, als "symptomatisch van de hedendaagse eb en vloed van esthetica en politiek en de hervormingen van avant-garde gedachtegoed tot nostalgie" (Rancière 2004, 9).

Openend met een anekdote aangaande de titulair van deze dissertatie, *zoektocht naar locatie in een genetwerkt tijdperk,* waarin twee locavoren de precieze geografische herkomst van hun diner met kip proberen te bepalen, overweegt hoofdstuk 4 hoe de politieke en esthetische filosofie van Bruno Latour gezien kan worden als een problematisering van de locationele omslag. Oorspronkelijk opgeleid als antropoloog is het initiële doel van Latour tamelijk bescheiden, namelijk om de verbindingen die lokaal uitgevoerd worden, als het ware, slechts tussen discrete entiteiten in de formatie van zogenaamde actor-netwerken te traceren. Latour is notoir onverschillig over de verhoudingen van mensen en niet-mensen waaruit deze actor-netwerkassemblages bestaan als hij de materiële realiteit in semiotische termen van articulatie en vertaling van proposities zonder vastgestelde grenzen, die dus altijd herdistribueerbaar zijn, conceptualiseert–waarmee hij de naturalistische blik op de wereld, als uiteindelijk te reduceren tot materiële elementen, problematiseert. In plaats van materie beschrijft de notie van het netwerk vervolgens het proces waarmee relaties gestabiliseerd en zichtbaar gemaakt worden, waarmee "elk stadium stof is voor wat erna komt en vorm is voor wat ervoor komt" (Latour 1999, 74), zodat zowel materie als ruimte geconceptualiseerd zijn in termen van "uitstralende connectors" (Latour 2011b, n.p.), leidend tot de conclusie dat "geen plaats genoeg domineert om globaal te zijn en geen plaats afgesloten genoeg is om lokaal te zijn" (Latour 2005b, 204). Een fundamenteel axioma in dit denksysteem is dat "er geen verplaatsing is zonder vertaling" (Latour 1996a, 119), hetgeen betekent dat als een actie zich verplaatst het een medium moet hebben dat de actie omvormt–een vernieuwing in de

geschiedenis van metafysica waarnaar gerefereerd is als lokaal gebeurtenisme (Harman 2009, 82).

Met dit gegeven in het achterhoofd is het vervolgens de taak van de sociale wetenschapper om te proberen de series van verbindingen en synchrone veranderingen, die voorkomen in de performance van een specifiek actor-netwerk, te representeren. Terwijl gedurende de normale gang van zaken "actoren onophoudelijk deelnemen aan de meest diepzinnige metafysische constructies door alle elementen uit de wereld te herdefiniëren" (Latour 2005b, 51), hebben sociale theorieën vanuit Latours perspectief de neiging de vragen opgeroepen door deze entiteiten te reduceren in het belang van methodologisch misplaatste concepten die trachten "achter de schermen wat donkere krachten, die de touwtjes in handen hebben, te onthullen" (ibid, 22)–een kritiek die Latour toestaat om te beargumenteren dat, bijvoorbeeld, "kapitalisme niet bestaat" (1993, 173), althans niet in de alomvattende manier die Jameson oproept, om de eenvoudige reden dat het rekent op de performance van talloze lokale actoren om zijn bestaan te ondersteunen. In ieder geval gelooft Latour dat de rol van de sociale wetenschapper eruit bestaat "om ervoor te zorgen dat de veelheid aan stemmen [...] wordt gehoord" (Latour in Barron 2003, 93) en "*niet* om wat orde in de wereld te plaatsen" (ibid 2003, 81 nadruk van mij) zoals het geval is in de kritische traditie geassocieerd met Jameson in het vorige hoofdstuk.

Terwijl Latour dus bekend is vanwege het vormen van een *kritiek van een kritiek*–die zelf onderwerp van kritiek is geweest (Noys 2010, 80-105)–bepleit Latour wellicht niet zozeer een apolitieke benadering van sociale theorie, maar heeft hij eerder een enigszins esoterische blik op wat als politiek geldt. In overeenstemming met zijn de-bevoorrechting van de mens, benadrukt Latour de rol van nieuwe instrumenten en experimenten voor zowel het

gevoelig maken van individuen voor hun omgevingen als in voor het samenhouden van vormen van publieke samenkomst. Hiertoe geeft Latours politieke filosofie grote betekenis aan zowel esthetiek, in de oorspronkelijke zin betreffende sensatie, als aan materiële zaken, ook in de oorspronkelijke zin als verwijzend naar een verzameling of kwesties van zorg. Een discussie uit hoofdstuk 3 volgend, betreffende een zogenaamde "techno-epistemologie" (Rogers 2006, n.p.), hecht Latour veel waarde aan de rol van digitale topologische kaarten in "leren dat beïnvloed zal worden door" (Latour 2004c, 206) kwesties besloten in de omgeving. In overeenstemming met Heideggers poging om de gedesinteresseerde status van wetenschappelijke kennis te vervangen door een gesitueerde relatie tot dingen in de wereld– tegelijkertijd de objecten van techno-wetenschap omarmend, op een uitgesproken on-Heideggeriaanse manier–in de "postepistemologische situatie" (2013a, 102), zoals Latour identificeerde, "[v]er van tegengestelde filters tot een ongemedieerde blik, is het alsof hoe meer filters er waren, hoe helderder de blik" (1999, 137); mediatie verhoogt dus in tegenstelling tot vermindert de stabiele realiteit van de wereld.

Terwijl de dominante benadering voor het bestuderen van de morele en politieke valenties van technologieën die Foucault volgen zich neigen te focussen op de productiviteit van menselijke subjectiviteit (Marres en Lezaun 2011) is Latours benadering invloedrijk geweest in een recente zogenaamde "object omslag" in recente culturele theorie die overweegt hoe materiële dingen en fysieke locaties politieke capaciteiten verkrijgen die onderwerp zijn van publiek debat (Marres 2012). Gebaseerd op een theorie van representatie in de politieke, wetenschappelijke en esthetische zin van het woord, stelt Latour hier een pragmatische visie voor die een voorstelling maakt van hoe cruciale wetenschappelijke debatten opgenomen kunnen worden door zelfkritische onderzoeksgemeenschappen, door bijvoorbeeld kaarten en interfaces te gebruiken om de logistieke leveringsketen van

consumentenobjecten te herleiden. Terwijl sommigen hebben geclaimd dat deze nieuwe

mediatraceerbaarheid "kapitalisme wellicht dwingt om ethisch te worden" (Arvidsson 2008,

336), beschouwen anderen zo een ethisch consumentisme slechts als een zoveelste

depolitiserende instantie van neoliberale environmentaliteit. Op verschillende manieren

conceptualiseren zowel Jameson als Latour vervolgens een oplossing voor de zoektocht naar

locatie in cartografische termen, de eerstgenoemde in termen van absolute positionaliteit in

een globale topologie en de laatstgenoemde in termen van relatieve nabijheid tot een unieke

veelvoud. Terwijl Latours methodologische kritiek van Jameson overtuigend is, blijft het de

vraag of Latours benadering op zich de spreekwoordelijke locavoren, waarmee ik dit

hoofdstuk begon, in staat stelt om hun eigen parochiale interesses te overstijgen. In het laatste

hoofdstuk doe ik daarom een poging om de vraag te adresseren hoe een politiek van verschil

te balanceren is met Lukács' uitdaging van totalisatie–dat "vanuit een ethisch gezichtspunt,

niemand aan de verantwoordelijkheid kan ontsnappen met het excuus dat hij slechts een

individu is op wie het lot van de wereld niet rust" (Lukács 1972, 8)–door de relatie tussen het

locale en het globale samen te brengen door middel van de definiërende kwestie van deze

eeuw, de antropogene klimaatverandering.

Terwijl het afsluitende hoofdstuk de ideeën en benaderingen met betrekking tot de

zoektocht naar locatie uit de dissertatie als geheel samenbrengt, opent het met een terugkeer

naar een afbeelding door Superstudio, die de wereld voorstelt als één wijds huiselijk interieur,

als ingang tot een discussie met betrekking op vroegere en tegenwoordige visioenen van

globaal omgevingsbestuur. In het licht van het concept van het Anthropocene–dat de mens

behandelt als een geologische kracht die het land aan de oppervlakte van de aarde en haar

atmosfeer transformeert (Crutzen 2002) en welke ontvangen is met oproepen om de planeet

te "geoengineeren" (Brand 2010, 275-302)–kijk ik naar hoe de vroege jaren '70 aspecten van

het moderne debat over klimaatverandering instuderen en hoe het holistische denken uit deze periode–aangeduid door de slogan "denk globaal, handel lokaal"–wellicht de rol van zowel wetenschap als theologie in de politiek van natuur maskeert (Latour 2004d).

In dit hoofdstuk onderzoek ik Bruno Latours postenvironmentalisme dat om de constructie van nieuwe instrumenten vraagt, "uitrusting, instrumenten, vaardigheden en kennis die een nieuw begin van experimentele metafysica zullen toestaan, om collectief te beslissen over zijn habitat, zijn *oikos*, zijn vertrouwde verblijfsplaats" (Latour 2004d, 136). In tegenstelling tot de zogenaamde "hut-ecologie"-benadering van het environmentalisme uit de vroege zeventig met zijn afbeelding van het Ruimteschip Aarde, biedt Latour een beeld van verbinding op planeet-schaal zonder holisme, van Gaia (de oorsprong van het "geo"-voorvoegsel) als een levend systeem, samengesteld uit eigenheid in het aggregaat. Hiertoe beweert hij dat de planeet "volledig uitgerust met genoeg sensors" (Latour 2013, 96) gerenderd moet worden zodat wij, de bewoners, in staat zullen zijn om de consequenties van onze individuele acties die leiden tot klimaatverandering te voelen. Maar terwijl visionairs uit Silicon Valley van mening zijn dat "verbinding elk aspect van de maatschappij kan revolutioneren - politiek, sociaal, economisch [... en] alle meest dringende problemen van de wereld kan repareren" (Schmidt 2012), onderscheidt Latour zijn project van de liberale bestuurstraditie door middel van zijn idee van *cosmopolitiek*, dat claimt de gebrekkige modernistische epistemologie van het kosmopolitisme af te schaffen door het concept van representatie (in de politieke, wetenschappelijke en esthetische zin) radicaal uit te breiden als basis van een veel meer diverse staatsinrichting–in de antieke taal van democratische theorie, door *bios* uit te breiden door *logos* uit te verlengen tot *zoe.* Terwijl Latour claimt dat *oikos,* het oude woord voor huishouden en de gemeenschappelijke wortel van zowel ecologie als economie "niet langer in staat is te unificeren of pacificeren" (Latour 2013, 129), lijkt het,

praktisch gesproken, vanuit het perspectief van het concept van environmentaliteit zoals

besproken in hoofdstuk 2, desondanks alsof een planeetbrede infrastructuur–een *kosmoikos*

zoals ik dat noem–op zijn plaats zou moeten zijn als voorwaarde voor zijn cosmopolitiek.

      Foucaults bewering volgend dat *oikoniomia*, of het goddelijke providentiële bestuur

van menselijke zielen, "één van de fundamentele elementen in Westerse cultuur

geïntroduceerd" (Foucault 2009, 258) is, claimt Giorgio Agamben het begrip als basis van het

gelijktijdige fenomeen van *adresseerbaarheid,* waardoor volgens de substantivistische kritiek

"media mensen vervangen door hun adres" (Kittler 1996, 724). In tegenstelling tot Agambens

en Jamesons pogingen om de metafysische dynamiek die aan de menselijke geschiedenis ten

grondslag ligt te identificeren, is de benadering van mediagenealogie ontwikkeld in deze

dissertatie uiteindelijk bescheidener in zijn poging tot omvang, enkel de vaak onverwachte

echo tussen schijnbaar zeer uiteenlopende projecten identificerend, vanuit welk perspectief

het concept van kosmoikos begrepen kan worden als een kaart van de wereld als een netwerk

zonder buiten, gezien vanuit meerdere gezichtspunten.

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