GUNPOWDER PARK: A CASE STUDY OF POST-INDUSTRIAL REINHABITATION

by

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As urbanization increases, there is growing pressure upon derelict and contaminated sites (i.e. brownfields) for new development. Creatively (re)considering these post-industrial spaces is essential to ecological health. Ecology, as philosopher Félix Guattari has observed, is not a simple equation but a complex of relations. As the landscape plays a critical role in mediating the human-nature relationship, the recomposition of our landscapes may enable a new quality of (postmodern, urban) life. Just outside of Greater London, Gunpowder Park provides an example of a munitions testing site that is now a park for arts, science, and nature. The new alliances developing on this site stress an artistic perspective and thus gesture toward dwelling differently. Synthesized from bioregionalism and Guattari's ethico-aesthetic paradigm, reinhabitation is developed as a place-engaged, politically-active, ethically-attentive, and aesthetically-inspired lifestyle through which to take responsibility for our landscapes and seek new relationships with ourselves and the world around us.

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CHAPTER I
INTRODUCTION: SITUATING REINHABITATION

It's sometimes necessary to jump at the opportunity, to approve, to run the risk of being wrong, to give it a go, to say, 'yes, perhaps this experience is important.'

Félix Guattari[1]

Human use of land has, arguably, been the single greatest violence wrought upon the natural world. In one way or another, our current tenuous ecological position is founded upon our (mis)use of this valuable and non-renewable resource. Land, though, is more than simply a resource. In fact, it is a borderline insult to describe it as such; land is the foundation of both spaces and places. In conjunction with air, warmth, and water, it is the cornerstone of life, the basis of agriculture, and the foundation of our homes. The human relationship to land is thus one of utmost importance as we enter the increasingly urban Age of Global Warming and the 'greening' of consumption.

Decommissioned military sites, abandoned inner-city factories, and former steel mills have left in their wake the post-industrial landscape, a "surreal spectacle of abandonment and decay."[2] These sites play an important role in the greater spatial configuration of metropolises because, among other reasons, they are the new building sites of the Western world in response to increasing pressure to build on brownfield rather than greenfield land. As Warwick Fox astutely observes, "The fate of the 'green bits' of the planet is now inextricably bound up with—indeed effectively at the mercy

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[1] Félix Guattari. *Chaosmosis: An Ethico-Aesthetic Paradigm*, trans. Paul Bains and Julie Pefanis (Bloomington: Indiana University Press, 1995), 18. For the remainder of this document, *Chaosmosis* will be referred to as CS.

[2] Grahame Shane, "The Emergence of Landscape Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (New York: Princeton Architectural Press, 2006), 57.

of—the future of the 'brown bits.'"[3] These brown sites are also temporally significant as the result of historical-geographical processes and can be both environmentally toxic and ecologically diverse.

My thesis is about the conceptual framework that underlies the sustainable renewal of post-industrial land. I specifically explore post-industrial land as an opportunity to redefine human dwelling from an ecological perspective. I ask, how can thoughtful (re)use of post-industrial land reflect a more ecologically-sound way of living?

My argument here is that you cannot simply remediate polluted land, move soil around and, voila! I use 'reinhabitation' to describe a methodology with which to approach the post-industrial landscape that is ethically and aesthetically aware. Reinhabitation means radically reconceive our lifestyles, defined as material and immaterial relations, to accommodate new materials that are not toxic to ecosystem health and new social attitudes that are democratic and non-hierarchical. As Niall Kirkwood observes, "The challenge we're facing as we move into the twenty-first century is not only to remediate contamination, but to create thoughtfully designed healthy communities that overcome the environmental ravages of our history."[4]

The sociologist Galen Cranz suggests that parks can be "a perfect world in miniature, one that provides norms for the larger world to live up to."[5] Michael Hough, Professor of Environmental Studies at York University and a landscape architect, has called post-industrial land "the parks of the twenty-first century."[6] Therefore, I have chosen a post-industrial site that is now a park to focus my discussion. My site,

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[3] Warwick Fox, "Introduction," in *Ethics and the Built Environment*, ed. Warwick Fox (New York: Routledge, 2000), 3.

[4] Niall Kirkwood, "Response: Living Laboratories; Studies in Infrastructure and Industrial Land," in *Manufactured Sites: Rethinking the Post-industrial Landscape*, ed. Niall Kirkwood (New York: Spon Press, 2001), 70.

[5] From *The Politics of Park Design: A History of Urban Parks in America* as quoted in Julia Czerniak, "Introduction/Speculating on Size," in *Large Parks*, ed. Julia Czerniak & George Hargreaves (New York: Princeton Architectural Press, 2007), 29.

[6] Michael Hough, "Foreword," in *Manufactured Sites: Rethinking the Post-industrial Landscape* (New York: Spon Press, 2001), xiii.

Gunpowder Park (GP), is not portrayed as an ideal, but rather as a test case for reinhabitory work complete with innovations, successes, and failures.

METHODOLOGY

To approach this topic I have drawn from a methodology increasingly used in landscape architecture: the case study.

> A case study is a well-documented and systematic examination of the process, decision-making and outcomes of a project, which is undertaken for the purpose of informing future practice, policy, theory, and/or education.[7]

Case studies variously describe and evaluate sites. They aid in teaching by example and theory building. Mark Francis, professor and former chair of the landscape architecture department at the University of California, Davis, summarizing information from a research project conducted by the Landscape Architecture Foundation (LAF), concludes that "As [landscape architecture] develops more of its own theory and knowledge base and communicates this more broadly, the case study method promises to be an effective way to advance the profession."[8] He notes that "There is a critical need for case studies of more modest, everyday landscapes such as urban gardens, greenways, etc."[9]

Geographer Don Mitchell observes the need for sustained landscape analysis. He argues that landscapes "are actively produced and struggled over and it is the politics of production and struggle that ought to engage landscape studies."[10] He notes that there has not been significant research conducted as to the way that 'ordinary people' receive, understand, and use landscapes.[11]

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[7] Mark Francis, "A Case Study Method for Landscape Architecture," *Landscape Journal* 20, no. 1 (2001):16.

[8] Ibid, 15.

[9] Ibid, 18.

[10] Don Mitchell, "The lure of the local: landscape studies at the end of a troubled century," *Progress in Human Geography* 25, no. 2 (2001): 271.

[11] Ibid, 276.

In this project, I used a multi-method approach, including contextual and specialized material and interviews, to perform an in-depth case study of a park on post-industrial land. I read the landscape of my case study site as a text that is the result of cultural, historical, political, and economic influences. This involved extensive research into theoretical and contextual background material. I also examined texts, both political and experimental, official and narrative, *about* the landscape of my site. The texts I examined included historical documents, information from the park management, nonfiction narratives, news articles, and even blog opinions. I was able to travel to the site myself, which provided personal familiarity with the landscape, an opportunity to interview the people working with the park, and the chance to document the park through maps and photographs. Alas, shortly after my travels, my computer crashed and I lost all but ten or so of my photographs. Thankfully, I was able to find images, both amateur and professional, on-line to supplement the few of my own that remained.

I chose Gunpowder Park, located just outside of London, England, as my case study site because it specifically incorporates art, science, and nature into its reclamation process. Gunpowder Park is not portrayed as an ideal, but serves as a test site for my model of post-industrial reinhabitation. Gunpowder Park is 90 hectares (approximately 225 acres) of reclaimed green space described as a "country park for the benefit of wildlife, people and the arts."[12] The site can variously be typified as (metropolitan) open space, greenway/parkway, historic landscape, and restored/reclaimed land. The Park takes its name from its former use as a Royal Ordnance Munitions Testing Facility that was closed to the public for 100 years. Awkwardly located between a pivotal commuter autoroute, the M25, mixed occupancy dwellings, and an industrial warehouse, this public space challenges definitions of urban and rural.

Gunpowder Park is a (post)modern commons in an age of increasing privatization. It is open 24 hours a day, 7 days a week with no perimeter fences but CCTV monitoring in the parking lot and around the Field Station. The programming is managed by a non-profit landscape architecture firm, Landscape+Arts Network Services

[12] Gunpowder Park, www.gunpowderpark.org.

(LANS), a registered UK charity, in partnership with Lee Valley Regional Park Authority (LVRPA). The Park claims to "effect social change through policy development and facilitate creatively led capital development through informed joined-up decision making between artists and local authorities."[13] In concept and in application, Gunpowder Park has an embedded element of dialogue.

The Park was created when 100,000 m^3 of new soil was brought to the site to cover clay-capped toxic soil with a thin, 3 meter-deep shell. Hence, Gunpowder Park is by no means an idyllic landscape where the interests of art, science and nature coincide, rather it is a highly managed public green space on a formerly State-run weapons testing and disposal grounds. It is very much a work in progress and could provide an example of open-ended reuse of post-industrial land. To successfully fulfill its own expectations Gunpowder Park has to create more than a pretty meadow complete with larks; it must push the boundaries of traditional ecological paradigms and enable the evolution of ecological relationships between the environment, the community and the individuals that visit.

A number of limitations to case studies have been identified, and my project is no exception. A specific limitation of my case study is that Gunpowder Park is very new. It opened in 2004 and so was only just over three years old when I visited. It has been observed that some projects are best evaluated after ten or so years.[14] The newness of the Park made it an exciting place to explore, both physically and conceptually, but it would be advisable to revisit the Park in another five or so years to reevalutate.

Another limitation to the case study methodology is that it is difficult to compare different case studies because of the variety of research methods used. In addition, a lack of objectivity has been observed within the case study method. But, it is a mistake to assume a site can be approached from anything other than a subjective standpoint. For

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[13] Gunpowder Park, www.gunpowderpark.org.

[14] Mark Francis, "A Case Study Method for Landscape Architecture," *Landscape Journal* 20, no. 1 (2001):18.

"Who speaks the truth?"[15] Sites are managed, constructed, and designed. A landscape architect herself, Anne Spirn remarks, "Designers are storytellers."[16] And "Storytelling," writes Walter Benjamin,

> does not aim to convey the pure essence of a thing, like information or a report. It sinks the things into the life of the storyteller, in order to bring it out of him again. Thus traces of the storyteller cling to the story the way the handprints of the potter cling to the clay vessel.[17]

Designing, storytelling, and case studying are all subjective experiences. Differences in approach and perspective serve to enrich and strengthen theoretical engagement with the landscape.

While I believe it is a witch-hunt to seek any sense of objectivity when telling the story of a landscape or a place (or for that matter, at any time), I also see the need for continuity between case studies that would allow for comparison. There is potential for a flexible case study structure that would welcome subjective engagement while providing essential information enabling comparative analyses. I strive to use the case-study method in this mutually satisfying way. Therefore, I investigated published landscape architecture case studies for commonalities. I identified essential components of a landscape architecture case study including design, construction, process, technique, concept, temporality, meaning, fixed form, function, and management. I use these components to guide the story of my site.

Not only does this work study an "everyday landscape" but it satisfies another requirement for case studies identified by Mark Francis; it is a case study that engages "effective design practices, aesthetics, landscape perception, what constitutes a successful project, and design theory."[18] This work contributes to a growing body of criticism and critical theory not only in landscape architecture, but eco-criticism, environmental studies, urban planning, and geography.

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[15] CS, 86.

[16] Anne Whiston Spirn, *The Language of Landscape* (New Haven: Yale University Press, 1998), 267.

[17] As quoted in Félix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton (New Brunswick, NJ: Athlone Press), 67. For the remainder of this document, *The Three Ecologies* will be referred to as 3E.

[18] Mark Francis, "A Case Study Method for Landscape Architecture," *Landscape Journal* 20, no. 1 (2001): 27.

PHILOSOPHICAL FOUNDATIONS

The theoretical underpinnings of my work lie with the French experimental psychoanalyst and radical philosopher Félix Guattari. Referencing primarily *The Three Ecologies* and his last book, *Chasomosis*, I apply Guattari's ecosophy to reinhabitation. Guattari presents a triadic or three-pronged set of interrelationships for us to consider. He identifies the social, environmental, and mental as (ecological) lenses through which to understand the transversal interface of natureculture, that is the multi-directional relation between humans, self, and other.[19] He means not to divide ecology irreparably, but, by complicating ecological understandings, he means to engage us more fully in the reality of our lives-in-relation.

I chose to embed my discussion of post-industrial reihabitation in Guattari's ecosophy for three reasons. First, Guattari is down to earth in his recognition of the environmental disasters that surround us. Second, because he was a psychoanalyst (he died in 1992) who worked with crazy people, he recognizes that the way we behave towards ourselves and others impacts the way we behave towards our environments (and all the other ways around). Finally, he makes it clear that ecology is all about material and immaterial relations, and, therefore, about the way we relate. In my thesis, I use the word lifestyle to describe the relations that make up our daily lives, both material, with the things we use and the architectonics of our surroundings, and the immaterial, the way we greet our neighbors human and non-human.

La Borde

Not only does Félix Guattari's triadic ecosophy, under the aegis of his ethico-aesthetic paradigm, offer a revolutionary lens through which to view the post-industrial landscape, Guattari's own work at the La Borde clinic in France provides an example of the reinhabitory approach. This psychiatric clinic or 'mad house' as it is more

[19] Donna Haraway uses this term to express the inextricable 'nature' of the natural and the human.

colloquially known, was the "first experiment in 'Institutional Psychotherapy' in the context of a private establishment."[20] Upon request, Guattari aided in establishing an intra-hospital committee called the Patients' Club. This group was involved in "multiple collective proceedings: general assemblies, joint commissions between patients and personnel, and 'workshops' of all kinds: newspaper, drawing, sewing, raising chickens, gardening, etc."[21] Not only were unique group activities embarked upon, but the traditional hierarchy of the clinic was overthrown. Guattari began by asking, "How did one avoid creating a rift between the presumably 'noble' tasks of the medical staff and the thankless, material tasks of the service personnel?"[22]

> And[...] in a few months time, the clinic's institutional landscape would change radically. An old washerwoman proved very capable of running the print workshop and editorial committee of the newspaper; another excelled in sporting activities, a former metallurgist showed great talent in leading mime shows...[23]

At La Borde, Guattari observed, "one can count about forty activities for a population consisting of just a hundred patients and seventy staff members."[24] Importantly, these activities are not necessarily those that one might expect in the landscape of a psychiatric hospital. Inherent to the process is the "constant activity of calling things into question [...which institutes] individual and collective assumptions of responsibility."[25] Activities are organized around the principle of continuous reinvention and non-traditional roles which in turn engender a sense of responsibility for events one is 'in charge of.' Through this "general desegregation"[26], the patients are exposed to new

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[20] Félix Guattari, "La Borde: A Clinic Unlike Any Other," in *Chaosophy*, ed. Sylvére Lotringer, trans. David L. Sweet (New York: Semiotext(e), 1995), 187.

[21] Ibid, 189.

[22] Ibid.

[23] Ibid, 190.

[24] Ibid, 193.

[25] Ibid, 191.

[26] Ibid, 200.

ways of living, the doctors are inspired to try new 'treatments,' and the employees of the clinic given the opportunity to learn new skills and discover new talents.

For Guattari, "this is the essential thing, this change of relation with the world."[27] The greatest concerns at La Borde were for authentic engagement in all relations and the continuous fostering of subjectivities. "Treatment is not a work of art, yet it must proceed from the same sort of creativity."[28] There is no permanent 'treatment' at La Borde. Rather there is a process of creating treatments. "Thus, the ideal situation would be one in which no two institutions were alike and no individual institution ever ceased evolving in the course of time."[29]

No work occurs in a vacuum, and the work at La Borde proves to be no exception. "By working day to day with its hundred or so patients, La Borde gradually found itself involved in wider, global issues of health, pedagogy, prison conditions, femininity, architecture, urbanism."[30] The manner in which those at La Borde engaged with each other, changed the landscape of the clinic and, in turn, the relations between those at the clinic and the vaster landscapes of the external world also changed. Creating a space where one might act differently and imaginatively, a place for playing, can change one's entire ecological orientation. Guattari's work in theory and application inspires and informs my discussion of reinhabiting the post-industrial landscape.

CHAPTER OVERVIEW

In Chapter II, I define the post-industrial landscape. Current literature on the topic of the post-industrial landscape is not confined to a particular discipline, but rather can be found in a wide array of project proposals, theoretical work, and empirical studies by academics, architects, landscape architects, urban planners, geographers, city

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[27] Félix Guattari, "La Borde: A Clinic Unlike Any Other," in *Chaosophy*, ed. Sylvére Lotringer, trans. David L. Sweet, (New York: Semiotext(e), 1995), 192.

[28] Ibid, 205.

[29] Ibid, 208.

[30] Ibid, 195.

governments, and artists. Policy makers and lawyers are faced with deciphering complex regulations and environmental justice imperatives surrounding redevelopment, remediation procedures, and (re)use. I explore this literature in Chapter II, extracting threads of particular interest to my case study site and development of the term reinhabitation.

Chapter III is the story of Gunpowder Park. I trace its relation to the surrounding region, its history and that of the area, and its contemporary role as regenerated parkland.

Guattari's ecosophy is engaged in Chapter IV as a means of conceiving of a future for such reinhabitation projects. His ethico-aesthetic paradigm is one of liberation from the homogeneity often associated with the scientific paradigm's search to define an objectivity. Underlying this paradigm is the suggestion that how a landscape looks and feels affects how we might act within it. Examples from Gunpowder Park are used as tangible examples of reinhabitory work.

Michael Hough writes that his primary concern is how the environmental and social health of the city might be improved; health, he says, concerns "life systems as a whole."[31] In answer to Hough's concern for holism and with the help of Guattari's sense of ecology, I am writing to offer alternatives to dichotomous relationships and the traditional dualisms of nature/culture, urban/rural, historic/contemporary, toxicity/health, ecology/technology, city/wild, artificial/natural, pure/impure. I ask, what would an ecological relationship between humans and post-industrial land look like? How might the landscape and the management of our parks define and/or contribute to this relationship? I am exploring new ways of using, experiencing, and representing space. This thesis is a journey of discovery in search of an ecological methodology of reinhabitation and the tools that we might make use of along the way.

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[31] Michael Hough, *Cities and Natural Process: A Basis for Sustainability*, (New York: Routledge, 2004), 24.

CHAPTER II
THE POST-INDUSTRIAL LANDSCAPE

I do not separate humans from the rest of the ecosystem.

Gilles Clément[1]

How we see things and places is…primary.

Robert Smithson[2]

It is my project in this chapter to adopt an ecological stance on the topic of the post-industrial landscape. I argue that landscapes are dynamic entities that reflect lifestyles. Public, post-industrial space has potential to provide opportunities for new lifestyles and to inspire play. I begin by explaining what I mean by the post-industrial landscape and why it is essential to approach this space.

(A NOTE ON) POST-INDUSTRIAL SOCIETY

In 1973 the sociologist Daniel Bell published *The Coming of Post-Industrial Society: A Venture in Social Forecasting* in which he describes the transition from pre-industrial society ("dependent on raw labor power and the extraction of primary resources from nature") to industrial society ("organized around the axis of production and machinery, for the fabrication of goods").[3] He proceeds throughout the series of essays

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[1] Gilles Clement, "Working with (and never against) Nature," in *Environ(ne)ment: Approaches for Tomorrow*, ed. Giovanni Borasi, (Milano, Italy: Skira; Montréal, Quebec: CCA, 2007), 90.

[2] From *The Writings of Robert Smithson* (1979), 221. In Linda Pollack, ""Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York : Princeton Architectural Press, 2007), 98.

[3] Daniel Bell, *The Coming of Post-Industrial Society* (New York: Basic Books, 1973), x.

that compose the book to prophesize the coming of post-industrial society, "a view," he writes, "from the twenty-first century."[4]

After the industrial glory of World War II died down, the 1960s were a time of unease, revolution, and transition. Bell was by no means the only theorist engaging with the concept of a societal transition from one defined by industry toward something new. The French sociologist Alain Touraine had written a book in 1971 entitled *The Post-Industrial Society* where he is generally credited with 'coining' the term as it is now commonly used. Seven years later, in 1978, sociologist Krishan Kumar expanded upon Touraine and Bell's work in *Prophecy and Progress*. Other disciplines took up the concept of a society in transition as well. Murray Bookchin, the 'father' of social ecology used the term 'post-scarcity' most famously in his essay "Listen, Marxist!" published in the collection *Post-scarcity Anarchism* (1971). Kevin Lynch, an academic city planner, was thinking about the spatial implications of change in 1972 as he wrote *What Time Is This Place?*. Psychology was contemplating the affects of these changes on the human psyche and day-to-day existence (see for instance Theodore Roszak's *Where the Wasteland Ends: Politics and Transcendence in Postindustrial Society*, 1972, and Don Mankin's *Toward a Post-industrial Psychology*, 1978).

Daniel Bell's ideas, though, are most commonly used to describe the concept of the post-industrial society and remain useful today. He defines five categorical characteristics of such a society:

1. Economic sector: the change from a goods-producing to a service economy;
2. Occupational distribution: the pre-eminence of the professional and technical class;
3. Axial principle: the centrality of theoretical knowledge as the source of innovation and of policy formulation for the society;
4. Future orientation: the control of technology and technological assessment;
5. Decision-making: the creation of a new "intellectual technology."[5]

I explicitly add to this list, as does *A Dictionary of Geography*, high levels of urbanization.

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[4] Daniel Bell, *The Coming of Post-Industrial Society* (New York: Basic Books, 1973), xi.

[5] Ibid, 14.

(A NOTE ON) TERMINOLOGY

The term 'post-industrial' is a complicated one that tangos with post-modernism and harkens dark science fiction images of Big Brother, suits and ties, and a genetically-controlled information society. Thirty years after Bell's seminal book, geographer Susan Mayhew writes, "the development of a post-industrial society is linked only with very advanced economies, if it exists at all."[6] Post-industrial is not a structural object, but a concept.

In her book *The Post-modern and the Post-industrial: A Critical Analysis*, Margaret A. Rose observes that Bell was concerned with "the widening gap between the economy, the polity and culture."[7] This gap between, very basically, society and its values does not represent a clear break from industrial society or, for that matter, pre-industrial society, but a continuation. The argument is that we are post-modern societies living amidst the dregs and slag heaps of industrialism.

The academic landscape architect Alan Berger warns against the dangerous spatial-temporal implications of the term 'post-industrial' because, he argues, it "reifies the site as essentially static and defines it in terms of the past rather than as part of ongoing industrial processes that form other parts of the city."[8] Geographer Edward Soja describes the post-industrial 'movement' as "a naïve and simplistic 'rush to the post'—to a postindustrialism…that insists on a finalizing end to an era, as if the past can be peeled away and discarded."[9] Berger suggests that the term deindustrialization be used in lieu of 'post-industrial.'

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[6] Susan Mayhew, "Post-industrial society," *A Dictionary of Geography* (Oxford Reference Online: Oxford University Press, 2004), http://www.encyclopedia.com/A+Dictionary+of+Geography/publications.aspx.

[7] Margaret A. Rose, *The Post-modern and the Post-industrial: A Critical Analysis* (New York: Cambridge University Press, 1991), 30.

[8] Alan Berger, "Drosscape," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (New York: Princeton Architectural Press, 2006), 200.

[9] Edward Soja, *Postmodern Geographies* (London: Verso, 1989), 170. As quoted in Richard Heyman, "Postindustrial park or bourgeois playground? Preservation and urban restructuring at Seattle's Gas Works Park," in *The Nature of Cities: Ecocriticism and Urban Environments*, ed. Michael Bennett and David W. Teague (Tucson: University of Arizona Press, 1999), 114.

A critique of *What Time Is This Place?* by urban planner and theorist Kevin Lynch is particularly relevant here. In his call for an identifiable future for which people may prepare, Lynch prescribes, to use French philosopher Jacques Derrida's terminology, *le futur* rather than *l'avenir*. *Le futur* is the prescribed future. It is the future that the past has already defined and the present strives for. *L'avenir* is the open future. It is the future of the other; it is unimaginable from our current position, our current perspective. For Kevin Lynch, 'acceptable change' is "legible and fairly rapid, concentrated in time or space to make a noticeable difference, yet made up of moderate increments that can be deferred without disrupting the entire process."[10] The future for Lynch cannot extend beyond the expectable. "While attempting to keep the future open," he argues, "there is no need to keep it *wide* open, able to change into anything else imaginable…No one can choose among infinite possibilities."[11] It is just this width, though, which might accommodate multiplicitous trajectories.

The work of Bell and many others at the time was future-oriented; its work was to predict what might be next, hence the term *post*-industrial. The future became something for which to plan, if not to create. Listening to Soja and Berger's warning with a desire to remain open to *l'avenir*, I am not superimposing a particular "post-industrial subjectivity" here.[12] I recognize that in the West we remain an industrially-dependent society with a growing 'service' industry and globalized production pathways. We are surrounded by post-industrial landscapes and grocery stores with shelves loaded high with industrial products. I cringe at the imposition of a word that veils material human involvement with the things of our lives. I also recognize that as modes of production change, so too do social relations. Yet there is a fine line between allowing ourselves to more on and denying the past. Rather than attempt to describe an unclear and polemically-charged post-industrial society, then, I am explicitly discussing the post-industrial *landscape*.

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[10] Kevin Lynch, *What Time Is This Place?* (Cambridge, MA: MIT Press, 1972), 205.

[11] Emphasis in original. Ibid, 114.

[12] 3E, 63.

FROM A LANDSCAPE PERSPECTIVE

Landscape is a *Mise-en-scéne*[13] of politics, aesthetics, ethics, history, and identity; landscapes are relationally revealing. How we see the landscape is a reflection of our own understanding of self and our place in the world. For example, in the United States, from a specifically ethnocentric perspective, wilderness is a landscape apart from the human whereas the urban skyline is 'ours.' Art critic and scholar Lucy Lippard quotes geographer Denis Cosgrove who describes landscape as "the external world mediated through human subjective experience."[14] From a phenomenological standpoint, "Landscape is our body's space of perception."[15] Landscape is a horizon and a way of looking. Yet the landscape is not structured; it is open-ended and vast.

"Landscape traditionally concerns the temporal, change, transformation, indeterminacy, and succession."[16] Change in the landscape is at once inevitable and disguised, depending on the management by the inhabitants and geological, hydrological, meteorological, and other earth-shaking events. Landscape is therefore always a reflection of ecologies. Landscape architect James Corner explains, "the discipline of ecology suggests that individual agents acting across a broad field of operation produce incremental and cumulative effects that continually evolve the shape of an environment over time."[17]

Massimo Venturi Ferriolo observes,

> Landscape thinking is not striving for a concept, but to penetrate the place and interrogate each of the individual entities belonging to it about their location. Interest

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[13] Henri Lefebvre uses this phrase to describe 'even' landscapes, both urban and rural. *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, MA: Blackwell, 1991), 62.

[14] Lucy Lippard, *The Lure of the Local: Sense of Place in a Multicentered Society* (New York: New Press, 1997), 7.

[15] Herman Prigann, "Art and Science—perspectives and ways of an ecological aesthetic," in *Ecological Aesthetics—Art in Environmental Design: Theory and Practice*, ed. Heike Strelow (Boston: Birkhäuser, 2004), 182.

[16] Peter Reed, "Beyond Before and After: Designing Contemporary Landscape," in *Groundswell: Constructing the Contemporary Landscape*, ed. Peter Reed (New York: Museum of Modern Art, 2005), 30.

[17] James Corner, "Terra Fluxus," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (Princeton, NJ: Princeton Architectural Press, 2006), 29.

> is not in the thing, but in its content and *all the relations associated with it*—which became known through Heidegger's literally and symbolically intended image of the bridge.[18]

To talk about the implications of dwelling on the landscape and vice versa is to 'not separate humans from the rest of the ecosystem,' but to understand the landscape as a reflection of human lifestyle. By lifestyle, I mean Bourdieu's *habitus*: a loose system of behaviors that are not fated or innate, but learned and embedded in our daily lives; "habitus must not be considered in isolation."[19] Lifestyle, as I use it, refers to the relations that make up our daily lives, both material, with the things we use and the architectonics of our surroundings, and the immaterial, the way we greet our neighbors, human and non-human. To approach the post-industrial from a landscape perspective is indeed to delve into the temporal and spatial relations, individual and collective meanings, and function of the landscape. It is to engage what Geographer Don Mitchell calls 'the politics of production and struggle' which interrogates the actions, thought patterns, and power relations underlying the creation of the landscape and simultaneously unveils multiple spatial and temporal scales.[20] As a reflection of lifestyle, the post-industrial landscape is, ironically, both the problem and the site of possible solutions.

THE POST-INDUSTRIAL LANDSCAPE

Echoing the plight of countries across the (especially western) world, the Department for Environment, Food and Rural Affairs (DEFRA) in the United Kingdom begins their webpage on contaminated land with this line: "Our long industrial history has resulted in a substantial legacy of land contamination."[21] This legacy began with the

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[18] Emphasis mine. Massimo Venturi Ferriolo, "Landscape ethics," in *Ecological Aesthetics—Art in Environmental Design: Theory and Practice*, ed. Heike Strelow (Boston: Birkhäuser, 2004), 18.

[19] Pierre Bourdieu, "Habitus," in *Habitus: A Sense of Place*, ed. Jean Hillier and Emma Rooksby (Burlington, VT: Ashgate, 2002), 43-49.

[20] As Mitchell notes, both Lucy Lippard in *The Lure of the Local* (1997) and Doreen Massey with her concept of a 'progressive sense of place' in *Space, Place and Gender* (1994) contribute nuanced arguments to the discussion of scale. Don Mitchell, "The lure of the local: landscape studies at the end of a troubled century," *Progress in Human Geography* 25, no. 2 (2001), 269-281.

[21] DEFRA, http://www.defra.gov.uk/environment/land/contaminated/index.htm.

industrial revolution of the eighteenth century and continues to have a lasting impact on daily life. The modern capitalist economy, as argued by such influential thinkers as Karl Marx and Friedrich Engels, began with the introduction of new modes of production and expectations of efficiency. The repercussions of associated mass-mechanized production, increased transportation, and more sophisticated metallurgy are especially poignant in the plethora of *post*-industrial sites that litter the landscape of the twenty-first century. Such sites are 'second' rather than 'first' nature. They have variously been covered in concrete, steeped in heavy metals, and gutted for their raw materials. They often house rusting infrastructure, lasting toxic remnants, and irreversible scars.

Post-industrial sites are commonly called 'brownfields.' Brownfields are defined by the U.S. Environmental Protection Agency (EPA) as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant."[22] The underlying implication is that there is an extra cost associated with brownfield property, whether social, economic, or ecologic. As the U.K. Environment Agency points out, "It is important to be aware that brownfield land is not necessarily contaminated."[23] In fact, the German understanding of brownfields assumes that the area is not contaminated.[24] These sites are garnering a considerable amount of attention in the western world in both theory and practice. As was observed in a *New York Times* article about guerrilla gardening in London, "Orphaned land is an abundant, underutilized resource in the

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[22] Environmental Protection Agency, "Brownfields and Land Revitalization." http://www.epa.gov/swerosps/bf/index.html. In the United States the Environmental Protection Agency (EPA) estimates that there are more than 450,000 brownfield sites.

[23] Environment Agency, "Land affected by contamination," http://www.environment-agency.gov.uk/business/444304/502508/1506471/1506565/1508003/. In the United Kingdom the term most frequently used to describe post-industrial sites is PDL or "previously developed land," while the term 'contaminated land' specifies the presence of pollutants such as oils and tars, heavy metals, organic compounds and soluble salts and mining materials. See the Department for the Environment and Rural Affairs (DEFRA), http://www.defra.gov.uk/environment/land/contaminated/outline.htm.

[24] See for example Martin Franz, Orhan Güles, and Gisela Prey, "Place-making and 'Green' Reuses of Brownfields in the Ruhr," *Tijdishrift voor Economishe en Sociale Geografie* 99, no. 3 (2008): 316-328.

postindustrial city."[25] For example, after the publication of two influential studies, *Towards an urban renaissance* published by London's Urban Task Force in June 1999 and *Urban White Paper, Our Towns and Cities: the future* published by the British government in November 2000, policy in England now requires that 60 per cent of new housing be constructed on brownfield sites.[26]

Landscape architect Gilles Clément develops the term *tier paysage*, or third landscape, to describe "wasted space that awaits future use."[27] The *tier paysage* takes as its premise that "in a fissure in a wall, one finds many things growing."[28] Specifically relevant here is the category of the *tier paysage* he calls *délaissé*, or abandoned sites formerly exploited as agricultural, industrial, or touristic space. These spaces are untended, generally urban, and, because they often harbor diversity, "the genetic patrimony of humankind."[29]

"Drossscape" is a term used by landscape architect Alan Berger to describe a natural component of urban growth and deindustrialization that is intentional and may be ugly or beautiful. Of his six categories of wastescapes, "Waste Landscapes of Contamination (LOCOs)" are the most relevant to this discussion and "include such public and federal installations as airports, military bases, ammunition depots and training grounds, and sites used for mining and petroleum and chemical operations."[30]

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[25] Jon Mooallem. "Guerrilla Gardening: Reclaiming green space one anarchic, get-your-hands-dirty, grab-a-flat-of-perennials-and-a-trowel act at a time," *New York Times Magazine* (June 8, 2008), http://www.nytimes.com/2008/06/08/magazine/08guerrilla-t.html?scp=1&sq=guerrilla%20gardening&st=cse.

[26] Joseph Rowntree Foundation, "Brownfield Land: Obstacles to the release of brownfield sites for redevelopment" (May 2001), http://www.eais.net/brownfield/.

[27] Gilles Clement, "Working with (and never against) Nature," in *Environ(ne)ment: Approaches for Tomorrow*, ed. Giovanni Borasi, (Milano, Italy: Skira; Montréal, Quebec: CCA, 2007), 92.

[28] Ibid, 90.

[29] Ibid, 92.

[30] Alan Berger, *Drosscape: Wasting Land in Urban America* (New York: Princeton Architectural Press, 2006), 33.

These abandoned and possibly contaminated sites create a staccato urban fabric with business pockets, neighborhood pockets, and 'dirty,' post-industrial pockets. These urban landscapes with unused areas are well-described by Lars Lerup as the "holey plane," "more a wilderness than a datum of a [hu]man-made city."[31] Virtually every city in the western world is grappling with the challenges of unused and often polluted post-industrial sites. Simultaneously, land available for wildlife decreases and homogenous suburban developments prevail. Ironically, as Clément's *tier paysage* suggests, it is post-industrial landscapes that are most readily available to meet the ecological needs of human and non-human communities. The regeneration of such land can serve to reinvigorate the landscape of the built environment as well as connect existing corridors of open space and provide public access to land. The post-industrial landscape is so important to ecology because it is both evidence of the violence of our lifestyles and the site of *l'avenir*.

THE POST-INDUSTRIAL CITYSCAPE

As of 2008, more people live in metropolitan areas than ever before.[32] This means that, proportionally, over half of the human population now resides within city limits. *Homo Sapiens* has spent thousands of years transforming landscapes into cityscapes. Human and non-human entities inhabit these urban habitats. The forces at work in their construction, design, and management are just as ecologically important as the uncontrollable power of 'Mother Nature.'

In the 1990s Charles Waldheim coined the term 'landscape urbanism' to describe the primacy of the landscape in determining a new urban form. This idea has gained considerable attention from scholars of landscape architecture and provides a literal-ecological point of view from which to understand the metropolis. Acknowledgement of

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[31] As quoted in Alan Berger, "Drosscape," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (New York: Princeton Architectural Press, 2006), 201.

[32] Worldwatch Institute, *State of the World 2007: Our Urban Future* (New York: W.W. Norton, 2007).

change and process gesture toward a city-becoming rather than a city-static. Observe the historic metamorphosis of the urban landscape in the photos in Figure 2.1 below.

FIGURE 2.1 *Left to right*: The pre-modern urban landscape (19th & early 20th Century), modern urban landscape (50s, 60s, & 70s), and the post-modern urban landscape (80s-Contemporary). (Aspa Gospondi, "Portraying, classifying, and understanding the emerging landscapes in the post-industrial city," *Cities* 23, no. 5 (2006), 313.)

The landscape of the post-industrial metropolis has been called self-referential, fragmented, and exclusive.[33] According to *A Dictionary of Geography*, the post-industrial city is:

> A city exhibiting the characteristics of a post-industrial society. Service industries dominate with a strongly developed quaternary [or business] sector and footloose industries abound, often on pleasant open space at the edge of the city. Post-industrial cities are also characterized by large areas of office blocks and buildings for local government administration. These cities often exhibit marked inequality of income distribution because of the contrasts between those who are appropriately skilled-professionals, managers, administrators, and those in high technology service industries-and the poorly paid service workers who look after their needs, together with the unemployed. The former can afford high house prices, and, in fact, contribute to them; the latter cannot.[34]

It is the city of the entrepreneur, Wall Street, and the Stock Market. New York, Paris and London are the quintessential examples. These cities have a gaze which, as geographer Doreen Massey points out, "sweeps the planet."[35] The post-modern cityscape

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[33] Taken from a review of post-industrial public space literature by Müge Z. Ercan, "Public Spaces of Post-Industrial Cities and their changing roles," *METU JFA* 24, no. 1 (2007), 115-137.

[34] Susan Mayhew, "Post-industrial city," *A Dictionary of Geography*. (Oxford Reference Online: Oxford University Press, 2004), http://www.encyclopedia.com/A+Dictionary+of+Geography/publications.aspx.

[35] Doreen Massey, *For Space* (Thousand Oaks, CA: Sage, 2005),155.

reflects as much. "The biggest physical export from New York City is now waste paper."[36] There is typically a concentration of financial and information-based institutions in the metropolitan center with smaller scattered city-centers throughout the metropolitan region. The countryside around the city itself is simultaneously urbanizing. Knowledge, especially what might be termed "e-knowledge," has become spatially prioritized thus creating what geographer Doreen Massey terms the "science park" icon of the twenty-first century that encloses knowledge in "constructed places, coherent, [and] planned."[37] Industrial products are produced somewhere and designed somewhere else.

If the post-industrial city is characterized by the spatial centering of powerful financial, technological, and knowledge-based institutions, its landscape also reflects a de-emphasis on industry, Berger's drosscape. A glance at the three images above of the cityscape through time reveals the spatial implications of historic moments but also hints at the possibilities for different spatial foci through the reinvention of post-industrial landscapes.

As Clément's *tier paysage* suggests, fringe space, the transition zone between the dense built-up space of the city center and the surrounding rural space, is part and parcel of the post-industrial metropolis. The Greek urban planning scholar Aspa Gospodini describes the fringe landscape of the post-industrial metropolis as "heterogeneous and unruly, characterised by rubbish tips and warehouses, superstores and derelict industrial plants, office parks and sports courts, allotments and farmland."[38] She continues,

> it often accommodates agricultural areas, scattered small communities with less than 10,000 population, essential but un-neighbourly functions such as waste disposal, sewage treatment and cemeteries; space-demanding functions such as sports facilities, educational institutions, warehouses and suburban uses such as commerce and services.[39]

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[36] David Harvey, *The Condition of Post-Modernity* (Cambridge, MA: Blackwell,1990), 331-332.

[37] Ibid,143.

[38] Aspa Gospondi, "Portraying, classifying, and understanding the emerging landscapes in the post-industrial city," *Cities* 23, no. 5 (2006), 321.

[39] Ibid, 321.

The post-industrial cityscape is ripe with ecological opportunity. Wasted, derelict, toxic, and barren sites are scattered within it, around it, and as a result of the lifestyles of its inhabitants. Landfills such as Fresh Kills in NYC are full, the landscape stuffed to capacity, bulging at the seams. Yet years of neglect have been the natural impetus for diversity as well. Opportunistic species of plants have created often the last vestiges of urban habitat within cities and on the edges of metropolises. Landscape architect Michael Hough notes the increasing diversity in abandonment and quotes Chris Baines: "Ironically, the post-industrial inner city is far greener than it was when I was young. Nature has healed the scars of heavy industry and much of the derelict land is wild and wooded once again."[40] This may be an overly optimistic outlook, but as Alan Berger notes, "Contamination and abandonment may also bring favorable ecological surprises."[41] If we extend our definition of ecology to include registers beyond the common realm of "nature" toward an inclusion of the immaterial—culture, the virtual, etc.—these ecological surprises are diverse indeed. It is this fringe and these in-between pockets, the *tier paysage*, that present opportunities for new stories, new ways of living, new subjectivities.

Public Landscapes in Post-Industrial Cities

Public space is not a new phenomenon, nor is its importance unique to the post-industrial city. Sidewalks, streets, parks, and plazas all fulfill the definition of public space. Such interstices and landscapes perform a variety of physical, aesthetic, ecological, economic, symbolic, and psychological functions. Perhaps most importantly, public spaces serve to enable social interaction; the expectation then, as Don Mitchell points out, is "to encounter and hear from those who are different, whose social

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[40] Michael Hough, *Cities and Natural Process: A Basis for Sustainability* (New York: Routledge, 1995), 227.

[41] Alan Berger, "Drosscape," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (New York: Princeton Architectural Press, 2006), 209.

perspectives, experience and affiliations are different."[42] By providing places for interaction and open dispute, public spaces provide the opportunity to encounter self, other, and environment.[43] To approach the concept of 'public' requires engagement with ownership, community, identity, and (bio)diversity.

Culture of a particular gentrified and redundant species, just the sort Félix Guattari warns against, has thrived in the wake of industry. Aspa Gospodini, among many others, has observed that intense competition to attract capital is shaping contemporary post-industrial cities around the world. One of the responses to this competition, she notes, has been in the form of soft infrastructural improvements predominately in the form of "creative culture and leisure amenities and the enhancement of the city's image through landscape transformation."[44] In post-modern society, the goal of such enhancements is to heighten place identity and market the city as a commodity to the "flaneur"' and the "urban voyeur."[45] These spaces are frequently run by the private sector with no concern for ecology. Islands or, in Gospodini's vocabulary, 'clusters' of cultural amusement with bars, shopping districts, and museums are popping up amidst the post-modern metropolis. The edges of the city are devoted to 'open-space' and 'green lungs'[46] designed for leisure shopping or leisure sport. These parks, plazas, and malls are

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[42] Mitchell 1995 as quoted in Müge Z. Ercan, "Public Spaces of Post-Industrial Cities and their changing roles," *METU JFA* 24, no. 1 (2007), 131.

[43] Müge Z. Ercan, "Public Spaces of Post-Industrial Cities and their changing roles," *METU JFA* 24, no. 1 (2007), 117.

[44] Aspa Gospondi, "Portraying, classifying, and understanding the emerging landscapes in the post-industrial city," *Cities* 23, no. 5 (2006), 311–330.

[45] Gospondi notes that in post-modern cities the 'urban voyeur' refers to both residents and visitors. Iain Sinclair provides an excellent example of such a character. His observational books of urban non-fiction offer insight into this role of resident visitor; see *London Orbital* and *Lights Out for the Territory*.

[46] Landscape architect Michael Hough points out the inaccuracy of this term in *Cities and Natural Process*. He writes on page 207-208, "Jane Jacobs has observed that the term 'green lung' is applicable only to the park spaces themselves and has little effect on the overall quality of the air in the city. There have been claims that the oxygen produced by vegetation can affect the balance of oxygen in the air. These have evolved from the fact that much more oxygen is produced by photosynthesis than is used up in respiration. There is, however, as much oxygen used up in plant decay and the metabolism of animals that feed on plants as there is released by photosynthesis. The concept of 'green lung' may be inaccurate in describing the effect of parks on the oxygen content of the city overall, but research has established definite connections between forest vegetation cover, open space distribution and urban climate control."

often more physically than publicly open. One must ask what sort of public these projects are for if they are open from dusk to dawn and prohibit daytime naps. "In fact," writes geographers Don Mitchell and Richard Van Deusen, "much contemporary open space design stands opposed to public space."[47]

Mitchell and Van Deusen usefully identify two antipodal views of public space.

> One argument asserts that public spaces can flourish only if they are open to their own subversion, and activists and others seek to transform their use as a means of advancing political agendas. The counterargument claims that public culture can thrive only to the degree that orderly, leisurely pursuits are carefully planned for, tended, pruned, and fertilized.[48]

It is seldom that public landscapes successfully respond to the ecological needs of the entire "public" and even more unlikely that these spaces are designed for a public that includes the non-human.

The Dangers and Joys of Public Space: Art, Leisure, Heritage

Public art has been commonly used to beautify wastelands and restore an economic and symbolic function to brownfields. Regenerative projects in Britain, for example, commonly feature an artistic element. Famous historical figures are memorialized in fountains and abstract sculpture parks make for a nice day outing. To simply install an art piece does not make art public, though. Most public art sculptures, for example, are not to be touched or climbed. While public art has much potential, it can easily become just another benign element of the landscape. David Harvey quotes Charles Newman, speaking of England, who observes "an unprecedented non-judgmental receptivity to Art, a tolerance which amounts to indifference."[49]

Using the function of leisure to design public space is even more publicly alienating. Henri Lefebvre terms space for leisure 'non-work spaces.' He says these spaces are a result of 'neo-colonization' because the resulting landscapes are "given over

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[47] Don Mitchell and Richard Van Deusen, "Downsview Park: Open Space or Public Space?" in *Downsview Park Toronto*, ed. Julia Czerniak (London: Prestel, 2001), 103.

[48] Ibid, 105.

[49] David Harvey, *The Condition of Postmodernity* (Cambridge, MA: Blackwell, 1989), 62.

completely to unproductive expense, to a vast wastefulness."[50] One look at sprinklers watering a golf course in the early morning is proof enough. The imperative to create spaces for leisure, like art, is not always open the landscape to new public interaction as well. Creating grassy place to play sports, for instance, invites friendly neighborhood rivalry. Play can be cultivated in spaces of leisure to counter structured concepts of 'leisure.' Play is acting imaginatively and, if encouraged, has the potential to realign subjectivities.

Heritage is another landscape use category with contradictory results. It can serve to erase memory and reform it with a particular story and a particular public in mind. With the help of Hewison, David Harvey argues that 'heritage' veils history by defining it as a contemporary creation.[51] As is characteristic of postmodernity, Harvey argues that heritage jumbles histories and identities into a collage of sorts.[52] Heritage, though, is also an environmental value.[53] If the heritage industry plays a vital role in defining memory, history, and identity, is heritage by definition exclusive? Dave Pritchard instructively suggests that 'temporal context' may serve as a "paradigm for heritage value."[54] Temporally situating landscapes rather than defining a structured history can help ensure continued engagement from a variety of publics.

It is a particularly post-modern (and western) dilemma to want to preserve place through heritage and simultaneously make place through pioneering design (art and leisure). Aspa Gospondini of the Department of Planning and Regional Development at the University of Thessaly, Volos, Greece developed the term "'glocalised' landscape" to describe "an emerging urban landscape-collage dominated by two extremities: (a) that of

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[50] Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, MA: Blackwell, 1991), 58.

[51] David Harvey, *The Condition of Postmodernity* (Cambridge, MA: Blackwell, 1989), 62-63.

[52] Ibid, 85.

[53] This is noted by David Harvey (1989) and Aspa Gospondi (2005) as well as others.

[54] Dave Pritchard, "Art and Environment: Relating the creative arts to environmental conservation," *LANDSCAPE & ARTS NETWORK online JOURNAL*, No. 38 (August 2006), 10.

tradition, with rather local spatial references and (b) that of innovation, having more universal or global spatial references."[55] These glocal landscapes, if public, provide a physical place for new social relationships and behaviors. They are opportunities to accommodate human and non-human ecologies not addressed by private, money-driven projects.

A truly public space, according to geographers Don Mitchell and Richard Van Deusen, is public "only to the degree that agitating publics continue to go," a place where people throw "off their limited roles as consumers (of culture, of commodities, of 'democracy') and [become] producers of their own contentious cultures, their own public spaces."[56] Just as subjectivity is "in fact plural and polyphonic…recognizes no dominant or determinant instance guiding all other forms according to univocal causality,"[57] the public cannot be characterized as an identifiable character with homogenous needs. Rather, the public is a varied entity composed of diverse subjectivities. It is to such a human and non-human public that I suggest reinhabited post-industrial spaces must attend.

TOTAL WAR

"Every epoch has its landscape…"[58] In the Occident, the landscape of the twenty-first century is the post-industrial. This landscape is a result of the lifestyles we have chosen to adopt that are founded in warring, colonial nation-states, industrially-produced goods, and the capitalist dream of personal wealth. Together these elements construct Total War, explained below by geographer Don Mitchell.

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[55] Aspa Gospondi, "Portraying, classifying, and understanding the emerging landscapes in the post-industrial city," *Cities* 23, no. 5 (2006), 312.

[56] Don Mitchell and Richard Van Deusen, "Downsview Park: Open Space or Public Space?" in *Downsview Park Toronto*, ed. Julia Czerniak (London: Prestel, 2001), 105 and 113 respectively.

[57] CS, 1.

[58] Massimo Venturi Ferriolo, "Landscape ethics," in *Ecological Aesthetics—Art in Environmental Design: Theory and Practice*, ed. Heike Strelow (Boston: Birkhäuser, 2004),16.

> The twentieth was a century, for all its technological advances, of constant and frequently *total war*; a century that saw direct colonial administration over the majority of the land surface and peoples give way to a neocolonialist imperialism, now advanced under the title 'globalization,' that (all these wars notwithstanding) was just as ruthless in its deployment of the 'dull compulsion of economic necessity' as was the old order in its deployment of troops; and a century of frequent, and frequently betrayed , revolutions, struggles large and small to forge a different way of living than that dictated by global capitalism and its attendant geopolitics.[59]

War is everywhere and, as such, possibly even natural. Félix Guattari observes "From time immemorial [even] 'nature' has been at war with life!"[60] Post-industrial landscapes, though, are specifically the result of Total War, a term found in the works of theorists as diverse as sociologist Theodore Roszak (1972), respective philosopher and alternative-psychoanalyst Gilles Deleuze and Félix Guattari (1980), philosopher-urbanist-architect Paul Virilio (1983), and human geographer Don Mitchell (2001). They argue that globalization, capitalism, colonialism, production, and consumerism haunt our future and past horizons. Guattari warns of the New Industrial Powers that market unnecessary products to us for billions of dollars a day. Powerful forces including the Military Industrial Complex and Integrated World Capitalism wages Total War on each of the three ecologies, homogenizing subjectivities, depleting natural resources, and destroying communities. The result is fundamentally toxic to a healthy global ecology.

Landscapes shamelessly reveal military might in the form of Boeing factories, army bases, and steel mines. The choice to drive personal automobiles has transformed the landscape into a network of crisscrossing highways and Henry Ford assembly-line factories. We pave over life-giving soil for housing developments and shopping malls, and then lament the lack of fresh local produce for the new residents. Alan Berger's bird's-eye view of these landscapes in the United States are an awesome demonstration of their predominance and power.[61] Edward Burtynsky's photographs of the industrial landscapes of Canada and, more recently, China are simultaneously eerie and beautiful.

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[59] Emphasis mine. Don Mitchell, "The lure of the local: landscape studies at the end of a troubled century," *Progress in Human Geography* 25, no. 2 (2001), 270.

[60] 3E, 66.

[61] See *Drosscape: Wasting Land in Urban America.*

These landscapes are everywhere, often in the interstitial spaces that are paid little heed in our daily lives. Figure 2.2 is my own photograph of such a landscape. But they are part and parcel of our lifestyles; each one of us is a soldier in this total war.

As we consider the future of these brownfield sites, there are myriad opportunities, as much to continue along the industrial path of sterile development toward *le future* as there is to create an avenue of escape open to *l'avenir*. If it is of importance to us to reconsider the behaviors, the choices, the lifestyles that produced these now abandoned, often contaminated sites—and this thesis takes as its premise that it is—we must challenge ourselves to see these landscapes as *ecological* opportunities rather than solely economic investments. These sites are often beautiful, as Berger's drosscape suggests and the image below is witness to. We cannot allow this land to be re-dirtied, re-polluted, re-abandoned; we need not repeat past mistakes. There is beauty in the potential to discover a new way of living by seeing our landscapes as a part of our ecological health, treating them with respect, and nurturing them as the harbingers of life, especially on those of the post-industrial variety.

FIGURE 2.2. Turcot Yards, Montréal. This site, formerly a rail yard, lies vacant beneath major highway overpasses on the western edge of the city. It claims to be the largest post-industrial site in North America. In the winter it is used to store snow collected from the city streets. In the summer it is used by graffiti artists, amateur urban archeologists, walkers, and cyclists, though technically there is 'no trespassing.' (Photo by author.)

"The large, the park, the city, and the future are intimately related," observes landscape architect Julia Czerniak.[62] Reinhabitation is founded on the ecology of these relations. It questions how we experience the significance of our environments. In the next chapter, Gunpowder Park, just outside of Greater London, is established as my research site. It is from there that I am able to illustrate reinhabitation and ask: how do we design for (politicized) play without venturing toward the neo-colonialism of leisure?

[62] Julia Czerniak, "Legibility and Resilience," in *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York : Princeton Architectural Press, 2007), 244.

CHAPTER III

GUNPOWDER PARK: A PARK UNLIKE ANY OTHER

Every place that can call itself a place is a story of its own becoming.

Newton Harrison[1]

Essex, England. Munitions factories. Official Secrets Act. Parkland cleaned up by the Lee Valley Authority.[2] ***Site clearance (leisure, commerce, heritage) pushes the horizon back. [...] This sounds like an uncomfortable procedure. Not just 'soil ameliorating' and 'imaginative and sensitive landscape design' but the effort of will to rebrand a balding and sullen interzone, the motorway's sandtrap, as a wildlife habitat, 'a vibrant waterside park'.***

Iain Sinclair[3]

POST-INDUSTRIAL CITY: LONDON, ENGLAND IN THE TWENTY-FIRST CENTURY

A global city with a rich history of colonization and trade, London is one of the world's oldest Western cities. Once upon a time a Roman stronghold, London's more contemporary history recalls Charles Dickens' dark descriptions of working class poverty and sooty industry. London is, in fact, considered the 'home' of the industrial revolution, endowing it with an odiferous grit, history of class struggle, and myriad working landscapes.

Rising from the ashes of its industrial heritage, London is now an active world financial center and post-industrial megalopolis. As noted in Chapter II, London is an example *par excellence* of the post-industrial city. Within its square mile downtown financial center, skyscrapers loom over brick facades. The high-density tentacles of the city extend much farther and are 'naturally' bordered[4] by the M25 commuter highway

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[1] Newton Harrison, telephone conversation with author, 27 August 2007.

[2] Iain Sinclair, *London Orbital: A Walk Around the M25* (New York: Granta Books, 2002), 20-21.

[3] Ibid, 62.

[4] A 2004 survey revealed that 2 out of 3 people living within the M25 thought it to be the natural boundary of London. London Assembly. Press Release, "Poll says M25 is London's 'natural boundary'" (February 24, 2004), http://www.london.gov.uk/view_press_release_a.jsp?releaseid=3002.

completed in 1986. The 117-mile stretch of orbital motorway encloses the 1,572 square miles of Greater London, 1.2% of the country's total land area, and its diverse population of approximately 7.5 million inhabitants.[5]

FIGURE 3.1 Note the importance of the waterways in creating spatial definition. The orange star denotes Gunpowder Park. (Map courtesy of OpenStreetMap.org, with place markings added by author.)

Figure 3.1 highlights not only the definitive path of the M25 motorway, but also the striking importance of the waterways in this urban landscape. The presence of the tidal River Thames, which runs horizontally across the cityscape, undoubtedly provided the impetus for the initial choice of now-London for human occupation and has continuously served to enable a vast trade network and colonial success. Running through the heart of the city, the Thames has crucially shaped London's environmental and social ecologies as well as provided a geographic identity for the city through the ages. The presence of the river is increasingly an environmental concern as global warming becomes a real phenomenon. As sea level rises, it is inevitable that the ocean-fed Thames will also rise, possibly surpassing its urban banks and flooding homes and

[5] Government Office of London, "London: Introduction," http://www.gos.gov.uk/gol/factgol/London/?a=42496.

skyscrapers along its riparian zone. If valuable real estate and heavily populated areas are flooded, this island nation will be forced to make efficient use of its remaining dry land. Helen and Newton Harrison, eco-artists, have been given a grant to consider how this might be done. Their work will be discussed in greater detail below.

The rivers that feed the Thames create a network of relations to the city center; their landscapes are the fringe spaces, defined above as the transition zone, to put it crudely, between city and country that define the watershed of London. Human settlements have historically followed these geographical guides, situating agriculture and industrial production centers along the banks. The place of this discussion, Gunpowder Park, is housed along one of these tributary rivers, the River Lee. The banks of this river, just north of London's center, have played a primary role in the military-industrial complex of Britian's Royal Army and thus recall the warring and colonial past of England.

LEA VALLEY: HISTORY AND CONTEXT

Historically, this particular river and its tertiary landscapes have been variously spelled Lea, Lee, and, most anachronistically, Ley.[6] Following in the footsteps of Jim Lewis, who is the rather enamored 'authority' in the history of the area, and the British author Iain Sinclair, the following differentiations will be made within this work: the valley will be referred to with the spelling 'Lea' whereas references to associated political bodies and constructed waterways will be spelled Lee.[7]

The River Lee has provided the Lea Valley with transportation and waterpower to support industry for hundreds of years. As a result, the Valley has hosted a flourmill as well as various elements of the electrical industry, and locomotive production and

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[6] Dr. Keith Fairclough has provided the original research on this area as quoted in Jim Lewis, *London's Lea Valley: Britain's Best Kept Secret* (London: Phillimore & Co Ltd, 1999), 1

[7] Thus, the original waterway is the River Lea. The canalized Lee Navigation that runs from Ware down through the outskirts of London straight into the Thames and mirrors the path of the original River Lea has adopted the more modern spelling of Lee. The Lea Valley, a resultant bioregion of the River Lea, will be referred to with the same spelling. The Lee Valley Park Authority, the public entity that manages much of the land along the Navigation throughout the Valley, has appropriately chosen 'Lee.'

development. In 1936, the Lea Valley was the location of the world's first high-frequency public television broadcast. Charles Babbage, Lucasian Professor of Mathematics at Cambridge and author of *On the Economy of Machinery and Manufactures*, developed nascent computer technology along the banks of the Lea River, and though he was not to see his work realized, his "Analytical Machine" is said to be the prototype for the modern computer.[8] The area eventually housed early IBM manufacturing. The world's first diode valve and an early version of a document copier were also produced in the Lea Valley, paving the way for the information-dependent society to come and earning the Lea Valley the title of "the birthplace of the post-industrial revolution."[9]

In addition, the Lea Valley is considered "most important to the history of explosives manufacture in Europe."[10] Writer and walker Iain Sinclair writes, "[b]y the turn of the century, alliances between shifting trade associations who would be given favoured status by government, lavished with defense contracts, were in place. And that place was the Lea Valley."[11] The Royal Gunpowder Mills, the Royal Small Arms Factory at Enfield Lock, and the Government Research Establishment upon which Gunpowder Park now sits together form a triangular military-supported infrastructure. While the site had a private history of gunpowder production for many years previous, the British Government operated the Royal Gunpowder Mill Factory from 1787 to 1991.[12] The Royal Ordnance Site that is now Gunpowder Park was developed in 1885 as

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[8] Margaret A. Rose, *The Post-Modern and the Post-Industrial: a critical analysis* (Cambridge, MA: Cambridge University Press, 1991), 35.

[9] In the foreward to Jim Lewis' *London's Lea Valley: Britain's Best Kept Secret*, Mike Nixon, Chief Executive of North London Training & Enterprise Council and Business Link, writes, "This book recognizes for the first time, the uniqueness of the Lea Valley as the birthplace of the post-industrial revolution," ix.

[10] From English Heritage as quoted by Jim Lewis, *London's Lea Valley*, 18.

[11] Iain Sinclair, *London Orbital*, 35.

[12] Jim Lewis, *London's Lea Valley*, 18-19.

an extension of the Factory.[13] Particularly during the World Wars, chemical propellants and explosives, specifically tetry and RDX, were manufactured and tested on each respective site.

The third element of this tri-part scheme, The Royal Small Arms Factory in Enfield, was spurred by the Napoleonic Wars and the resulting concern for sufficient weapons to supply the British Army and Navy. Built in 1816, the factory manufactured rifles using the near-by forests of walnut whose wood is particularly well-suited for rifle stocks. Forests of alder wood provided charcoal to fuel the factories.[14] The factory closed in the 1980s but its legacy lives on in the Lee Enfield Rifle, which is still in use today.

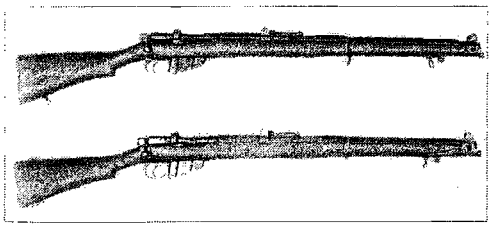

FIGURE 3.2. The famous Lee-Enfield Rifle, which can still be found in use today. (Jim Lewis, *London's Lea Valley*, 53.)

The Royal Small Arms Factory, producer of the Lee-Enfield (see Figure 3.2) rifle known as "the soldier's friend' during WWI, has been transformed into Enfield Island Village—"a stylish residential village".[15] The 100-acre site was sold by the Ministry of Defense to British Aerospace in 1984 who then proposed a housing development with Trafalgar House Developments Ltd in a joint venture called Lee Valley Developments Ltd. (see Figure 3.3 for a photo of the housing development). This post-industrial housing development has raised public concern for health and environmental reasons.

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[13] Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.

[14] Eileen Woods (Artistic Director at Gunpowder Park), in discussion with the author, 4 September 2007.

[15] Iain Sinclair, *London Orbital*, 57.

FIGURE 3.3. Enfield Island Village, Enfield Lock. (Photo reproduced by permission from Peter Marshall, http://river-lea.co.uk/2000s/enfield/enfield08.html.)

The land is protected under Crown Immunity as defined by the Official Secrets Act. As a result there are almost no records available after 1910 and so it is difficult to determine what industrial by-products may or may not have been dumped on site. Evidence suggests, though, that little to no toxins were removed.[16] Among other toxic chemicals, high levels of Polyaromatic Hydrocarbons, Lead, Cadmium, Arsenic, Copper, Nickel, and Zinc were found in the soil on site. In response to health and noise concerns voiced by neighbors during the construction of the development and subsequent complaints by new residents, Friends of the Earth joined with a group of concerned citizens in an attempt to make transparent the politics underlying the construction approval process and the possible ecological dangers of the development in order to ensure safety for both the residents of the new development and the surrounding community. Unfortunately, they were largely unable to affect a significant change of policy but did manage to put together a comprehensive document that detailed their struggles and may aid community action in the future.

It is instructive to compare the politics and repercussions of a privately run project to that of a publicly-funded initiative such as Gunpowder Park. One of the outstanding problems at Enfield Island Village is responsibility. As problems arise due to inadequacies during construction, low income residents who are renting can move with government assistance, but private home owners are liable for the consequences. For

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[16] Andrew Hibberd, "Pollution alert for homes on arms site," *The Independent* (March 6, 2000), http://findarticles.com/p/articles/mi_qn4158/is_20000306/ai_n14294524.

instance, one of the greatest concerns of Friends of the Earth was the possibility of puncturing the clay cap used to cover toxic soil. This same 'capping' technique was used at Gunpowder Park, but lay-people are not attempting to create gardens or landscape on the land so it is not a significant concern. Whereas private land owners at Enfield Island Village must beware landscaping with trees that have any root depth or wielding a shovel with too much enthusiasm. These issues will be revisited below, but it is key to situate the Lea Valley Regional Park and Gunpowder Park within both the private and public realm as well as to understand the history of the landscape and its past and current uses.

Contemporary Landscape

Walking down the Lea Valley today reveals a landscape that reflects its complex industrial history as well as the contemporary post-industrial impetus to reclaim (see Figure 3.4).

> The Lea Valley Walk touches the Meridian Line in several places along the way and passes through a post-industrial landscape fast being reclaimed by [hu]man[17] and nature. It generally follows the towpath of the Lee Navigation, which was canalised in 1767. The canal towpath can also be used by cyclists. Sections of the old river meander alongside, where it has been by-passed or diverted, and tributaries of the River Lea add to the complexity of this valley landscape. The towpath is managed by British Waterways and the open land either side is part of the Lee Valley Regional Park, established by an Act of Parliament in 1967 [sic]. Much of it is reclaimed land: once marsh then used for gravel extraction and landfill and now being returned to nature. Remnants of the original marsh remain in places, notably half way at Hackney Marsh where there is a convenient pub to gaze out from. Several old sewage works have become a haven for wildlife and are managed as nature reserves. The northern section is dominated by the high embankments of a series of reservoirs holding much of London's drinking water.[18]

Though not in the heart of London, the Lea Valley is ecologically, economically, and culturally inextricable from the metropolitan center. This post-industrial fringe landscape thus feeds and is fed by the Thames northward of the docks of notorious East

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[17] As Lefebvre put it in 1974, "why do we persist in saying 'man'?" *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, MA: Blackwell, 1991), 132.

[18] Walk London, "Route Overview: Lea Valley Walk," http://walklondon.org.uk/route.asp?R=4.

London, a run-down, low-income area of the city. As Sinclair observes, "[w]ithout the Lea Valley, East London would be unendurable."[19]

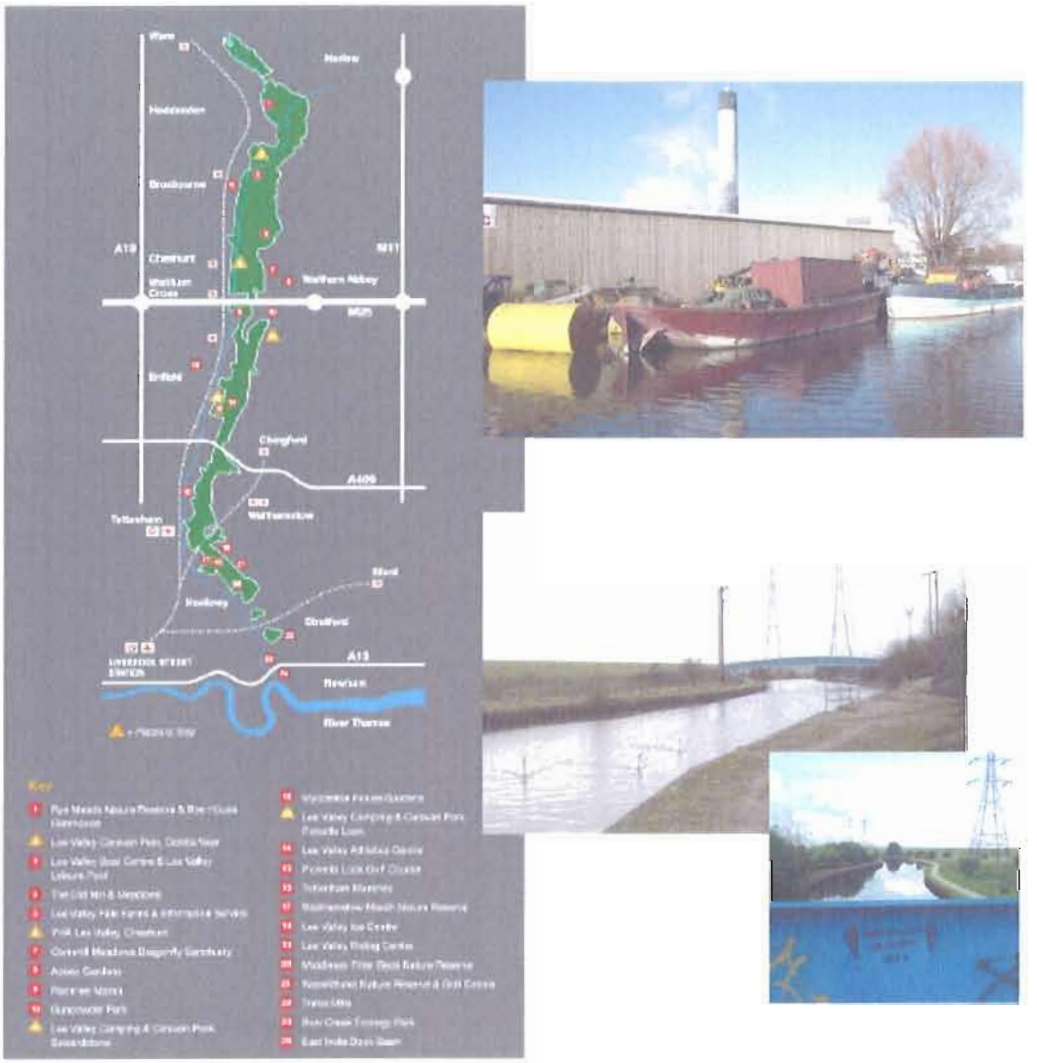

FIGURE 3.4 *Clockwise from left* Map of the Lee Valley Regional Park. (Lee Valley Park, Gunpowder Park Leaflet, www.gunpowderpark.org. Also available in print, 7.) The Lee Navigation. (Photo reproduced with permission from Peter Marshall, http://river-lea.co.uk/2000s/enfield/enfield01.html.) The Lee Navigation. (Photo reproduced with permission from Peter Marshall, http://river-lea.co.uk/2000s/enfield/enfield05.html.) The River Lea flood relief channel. (Oobrien, http://www.flickr.com/photos/oobrien/).

[19] Iain Sinclair, *London Orbital*, 35.

LEE VALLEY REGIONAL PARK AUTHORITY

"If a stricken industry or place of manufacture has an interesting historic past, then there is the possibility of developing a long-term strategy based on aspects of heritage," argues historian Jim Lewis. [20] The Lee Valley Regional Park Authority (LVRPA) has adopted just such a strategy. They are developing the Valley into an economically successful tourist industry and providing jobs for local residents. In fact, Jim Lewis writes in his book *London's Lea Valley: Britain's Best Kept Secret*, that the presence of the Lee Valley Regional Park is one of eight reasons that the Valley will "have a bright, exciting and prosperous future."[21] The presence of the LVRP has led to this land being referred to as the 'green lung' of London.[22] And it does provide valuable ecological services for the city's population such as water-cleansing and cultural resources.

The Lee Valley Park is a result of the Lee Valley Regional Park Act of 1966. The Park Act defines the main purpose of the park "to counter pressure from the metropolis [of London] for the 'development of land for housing, industrial and other urban purposes' so as to provide 'opportunities for recreation, sport, entertainment and the enjoyment of leisure.'"[23] The Park is the 'biggest open space' in London, occupying 10,000 acres (4,000 hectares) of land along 'the leafy banks of the River Lea,' directly north of London. It runs 26 miles (42 kilometers) from the Thames in East London to Ware in Hertfordshire. In accordance with the motto of the Lee Valley Park, 'open spaces and sporting places', the Park's landscape is a patchwork of sports centers—golf courses, horseback riding stables, and ice skating rinks—urban green spaces—for cycling,

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[20] Jim Lewis, *London's Lea Valley*, 18.

[21] Ibid, 119.

[22] The Lee Valley Park Authority's website describes the Lea Valley as such. Also see Jim Lewis, *London's Lea Valley*, 1-2.

[23] Lee Valley Regional Park Authority,"Development Options," *Park Plan Review* (Middlesex, Eng., March 1984), 14.

camping, fishing, and exploring—and heritage sites.[24] The lands that underlie the Park are almost entirely brownfields. Former gravel pits are now fishing holes and the former Gunpowder Mill is a weekend tourist attraction with extensive grounds, a museum, and military relics.

The majority of funding for the LVRP comes from taxes paid by the residents of London. Much of the parkland, though, does not lie within the official city limits and, as can be seen in the diagram above, a significant portion does not even lie within the 'natural boundary' of the M25. A pertinent question that is beyond the scope of the work is: are the people who are using the parkland paying for it? I touch upon this question in my interviews with park users at Gunpowder Park but by no means come to a concrete conclusion on the matter. Iain Sinclair has critiqued this state of funding affairs in the LVRP as "Public funds for private projects, hobbyism running amok."[25] The site of the 2012 Olympics where the Lea River meets the Thames provides a very contemporary example of a large public investment in a project that may benefit an elite image rather than the local inhabitants.

The 1984 Park Plan Review admits that the Authority has not been able to achieve "a coherent landscape character" as suggested should be done in 1969, and suggests that "[a] landscape strategy for the whole Park is required, but the approach to implementation must take account of the fact that the character of the Park is not homogenous."[26] Rather, the various needs and landscapes of the park require a management attitude approaching that that Ling, Handley, and Rodwell term 'multi-functional'. In their research, Ling, Handley, and Rodwell define multifuncitonality as "an integration of different functions within the same or overlapping land unit, at the same or overlapping in time".[27] Within England's policy towards brownfields they

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[24] Lee Valley Regional Park, http://www.leevalleypark.org.uk/.

[25] Iain Sinclair, *London Orbital*, 28.

[26] Lee Valley Regional Park Authority, "Development Options," *Park Plan Review* (Middlesex, Eng., March 1984), 18.

[27] Charles Ling, John Handley & John Rodwell. "Restructuring the post-industrial landscape: A multifunctional approach." *Landscape Research* 32, no. 3 (2007), 286.

identify a "definite bias toward socio-economic goals" at the expense of potentially vital environmental services.[28] The goal of Ling et al. to contextualize smaller regenerative projects within the greater landscape is an essential one. They identify five categories of functionality: historical, ecological, communitarian, economic, and aesthetic. These categories are not necessarily mutually exclusive but provide a basis from which to discuss a site's use and purpose, form and function. Considered alongside Guattarian ecologies, these categories provide a useful basis from which to evaluate the 'landscape character' of a site. In addition, functionality must be considered at various scales. Thus, it is essential to note not only the specific role of Gunpowder Park as a place for Art, Science, and Nature, but the role of GP in relation to various sites along the LVRP. In fact, the uniqueness of the site is to a large extent a result of the surrounding land uses. There were already plenty of golf courses in the Lea Valley and just up the road in Waltham Abbey is the now historic tourist site of the Royal Gunpowder Mills. As the website reads, "Set in 175 acres of natural parkland and boasting 21 buildings of major historic importance, the site mixes fascinating history, exciting science and beautiful surroundings to produce a magical day out for all."[29]

One of the challenges of GP was and is to create a place that avoids redundancy. If Gunpowder Park, the Royal Gunpowder Mills, and other surrounding LVRP lands are each able to adopt individual personalities, Ling et al's requirements for a multi-functional landscape might be collectively met; here also the landscape might gesture toward places of heterogenesis rather than homogeneity. The danger is to simplify regenerative projects into opaque landscapes that do not allow for transparent processes and do not admit of a past.

That said, heritage is a pivotal theme of the LVRP. The military history of the Lea Valley thus plays an important role in the identity of the Lee Valley Regional Park. 'Gunpowder', specifically, was considered a 'heritage' theme at the time of the 1984

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[28] Ibid.

[29] Royal Gunpowder Mills, "Welcome to the Royal Gunpowder Mills," http://www.royalgunpowdermills.com/about.htm.

draft report of the Park Plan Review, almost 10 years before the Royal Gunpowder Mills closed and handed the land over to the LVRPA, and provides some element of thematic consistency. As described by Sinclair, "A spectacular burst [of the new year fireworks], sequential and increasing in noise and circumference, has some of the old-timers believing that the munitions factory has exploded. But it's no longer there; like everything with a dark industrial history, the Royal Gunpowder Mills are in the process of being turned into a visitor centre, a heritage attraction."[30]

The dangers and delights of heritage-scapes in the post-industrial city were discussed in Chapter II and are exemplified at Gunpowder Park below. The land set aside for large scale events such as the Olympics require extensive infrastructure that then temporally homogenizes the landscape as momentarily 'new' and purposeful. Landscapes such as the LVRP along the Lea Valley are an example of what Aspa Gospondi has termed "cultural clustering" and provide both opportunity and historical erasure.[31] As can be seen from the LVRP diagram above, there are numerous small recreation centers located up and down the Lee Valley Parkland. This land has been transformed by its history of mechanical production and now is a leisure-oriented regional cluster. Having visited this area myself, I was able to observe the beauty of the canal, the presence of a wide-variety of bird species, and scattered industrial remains often decorated with graffiti. I observed visitors jogging, cycling, and picnicking. There was also a sense of the same, a rural stagnancy full of a potential that seemed not yet realized. How might the latent place-ness be unearthed?

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[30] Iain Sinclair, *London Orbital*, 21.

[31] Aspa Gospondi, "Portraying, classifying, and understanding the emerging landscapes in the post-industrial city," *Cities* 23, no. 5 (2006), 317.

GUNPOWDER PARK

After over 100 years closed to the public, this 90 hectare (225 acre) site opened in June of 2004 as Gunpowder Park, a new country park for arts, science, and nature. Formerly a Royal Ordnance munitions testing facility run by the Ministry of Defense, this land was to find a new life as a Lee Valley Regional Park. Figure 3.5 offers a view of the entrance to the Park.

FIGURE 3.5 Main entrance to Gunpowder Park off Sewardstone Road. (Photo by author.)

This landscape has been almost entirely reinvented in the past ten or so years. In his book *London Orbital*, Iain Sinclair walks the M25 and observes the surrounding landscape. Detailing his millennial new year celebrations, he offers this description of the Gunpowder Park site at the turn of the twenty-first century, "...Waltham Abbey is one of the few places where they take notice of zero longitude, mark it with decorated pillars and a straight walk. Enough to let you feel that you're getting somewhere, before it all comes to an abrupt end: perimeter fence, strategic planting and 'Government Research Establishment' on the map."[32]

[32] Iain Sinclair, *London Orbital*, 19.

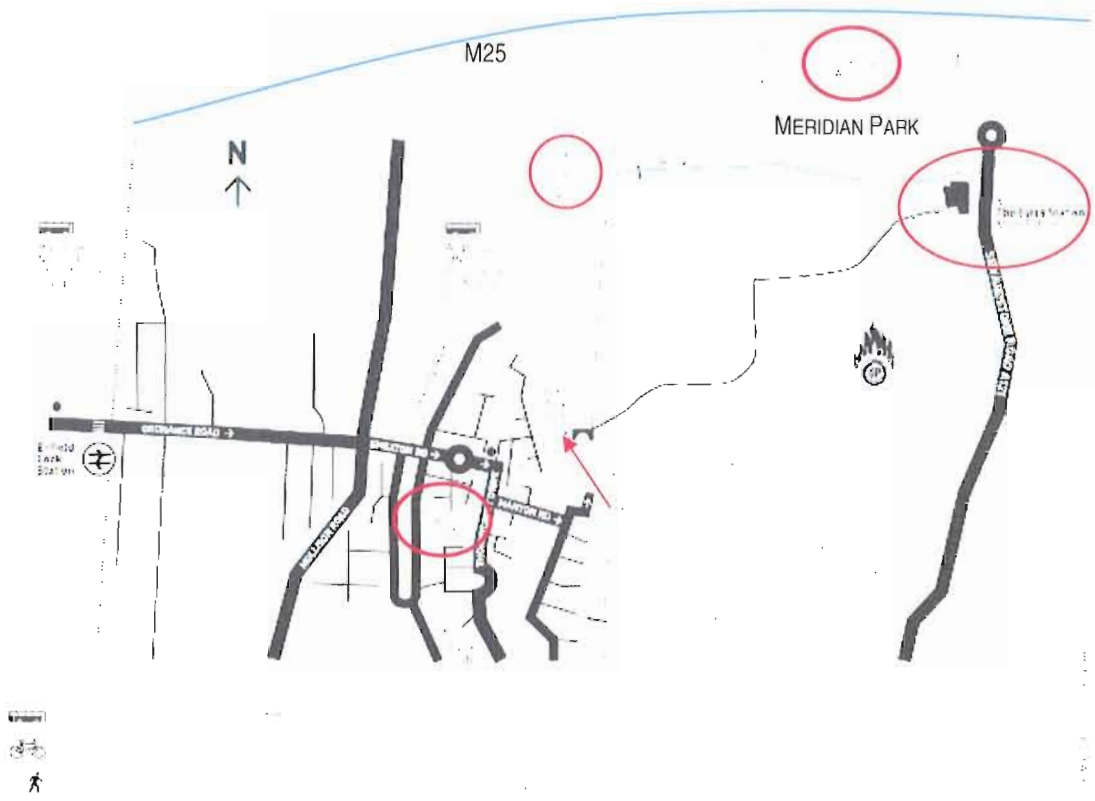

FIGURE 3.6 Gunpowder Park and immediate area. Note both the clearly marked entrances and the multiple pathways that, though not marked as entrances, create a sense of continuous flow through the space. Also note the importance of water in providing shape to the landscape, Black Ditch to the North, and the Flood Relief Channel and River Lee to the left. (Gunpowder Park, www.gunpowderpark.org, with highlights added by author.)

Figure 3.6 offers a closer image of the context of Gunpowder Park with highlighted points of interest. The Park is located about halfway up the Lea Valley between the Thames in East London and Ware, which lies beyond the city limits. As the maps show, the Park is bordered on the north by the infamous M25 commuter route, a formidable motorscape that provides "traffic noise [that] plays against pastoral tedium."[33] At the time the land was being designed, a housing development of approximately 500 dwellings, Meridian Park, was approved just to the north of the park and south of the

[33] Iain Sinclair, *London Orbital*, 49.

M25. On the western border of the site is Enfield Island Village, discussed above, with approximately 1500 dwellings. Both of these housing estates are separated from the Park by bodies of water, Black Ditch and the human-made Cattlegate Flood Relief Channel of the River Lea respectively. Pedestrian and bike friendly bridges offer uninhibited access. In addition, the strip of land bordering the housing development to the north was zoned for light industrial use. The result is that the northern horizon of the Park is dominated by the largest storage warehouse in Europe, owned by the grocery chain Sainsbury.

FIGURE 3.7 Notice the warehouse across the northern horizon. (Photo by author.)

"Dollhouses"[34] are accented against the dull grey of the warehouse that blocks the noise from the commuter highway and any chance of a northern view. Benign presence though it is, the warehouse is a reminder of the area's industrial past and continuing industrial dependence, especially for the food its inhabitants depend upon. The footpath that followed the Meridian Line from the nearby town center of Waltham Abbey to the fence of the Government Research Establishment is blocked by the warehouse.[35] Yet the Park is now open space and one can walk along hedgerows amidst winter grains where once the public was not permitted. From the Blast Mound (see Figure 3. 7 below), the M-25 is

[34] From a recording by David Chapman of the Art as Common Space project at Gunpowder Park and posted on the website, www.gunpowderpark.org.

visible and, in my experience, never quite empty. The sound of passing trucks and suburban commuters is an omnipresent reminder that Gunpowder Park is not quite rural and not quite urban, but certainly defined by and dependent upon both.

Landscape, Design, and Construction

The design of Gunpowder Park was necessarily a response to the history of the site. The layout of the land is thus simultaneously responding directly to the former use of the site as a munitions testing ground and to its future potential as a wildlife refuge and place for human use and inspiration. The photograph labeled Figure 3.8 below, though not of the same sight, is a close approximation of the original landscape of Gunpowder Park. The sculpted earthen banks surround small blast houses to deflect explosions upwards.[36] This 'original' landscape was mimicked in the design for the reclaimed park including the pathways which roughly follow older walkways.[37]

FIGURE 3.8 A WWII ammunitions dump. This landscape probably looks much like that of the Royal Ordnance site before it was reclaimed as GP. (Leslie Banks and Christopher Stanley, *The Thames: A History from the Air*, (New York: Oxford University Press, 1990) 81.)

Four distinct ecological areas or bioregions were consequently developed as Gunpowder Park: Cob Fields (Shock Waves Galleries), Cob Meadow (Blast Mound Plateau), Osier Marsh (The Salix), and Cob Field (The Energy Fields). Figure 3.9 maps

[36] Gunpowder Park, "About the Park," www.gunpowderpark.org.

[37] Eileen Woods, in discussion with the author, 4 September 2007.

these areas and Figure 3.10 offers photographs to understand the aesthetics of the site. In total the Park is composed of 14 hectares of grassland, 21 hectares of new meadow that affords a breathtaking 360° panoramic view planted with blocks of trees and wildflowers, 27 hectares of wildlife refuge including a wet woodland with a boardwalk and bird-watching hides, and over 28 hectares of working arable farmland. On the diagram of the park below, each area is labeled. Only one small area, directly to the west of the Field Station, is planted as amenity grass for frisbee or football. The management of such a space requires a significant amount of upkeep. The arable farmlands, for instance, are cared for by the LVRP's farmer and the crop is used to feed nearby livestock while the rest of the land is under the management of a LVRP Ranger who often brings in assistance for time consuming work such as mowing.[38] The Appendix has three maps from the *LVRPA Site Mangagement Plan 2006-2011* that detail the maintenance regime. Of particular interest is the annual wildflower seed planting along the Meridian Line (Figure 3, Appendix), the old and new hedgerows (Figure 1, Appendix), and the mowing regime (Figure 3, Appendix) that enables both pathways for humans and grassy areas for wildlife activity.

Each of these bioregions composes a very different landscape. As can be seen in Figure 3.10, not only is the environmental ecology of each conducive to different wildlife, each area has a unique aesthetic. Borders between regions are emphasized with natural features such as waterways and with landscape design using hedgerows, allées, and landform. As evidenced by the boardwalk and the bird hides in Figure 3.11, the Park is designed to be conducive to human/nature interaction. These hides, in fact, served as inspiration for one of the Bright Sparks (discussed in further detail below) funded artists, Theresa Smith, who completed a research report entitled "Urban viewpoints—City life meets Wildlife."[39]

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[38] Helen Lamarque (LVRP Ranger, Gunpowder Park Manager), in discussion with the author, 6 September 2007.

[39] Theresa Smith, "Urban viewpoints—City life meets Wildlife," Bright Sparks Urban Viewpoints Research Report. Available to download from: www.gunpowerpark.com.

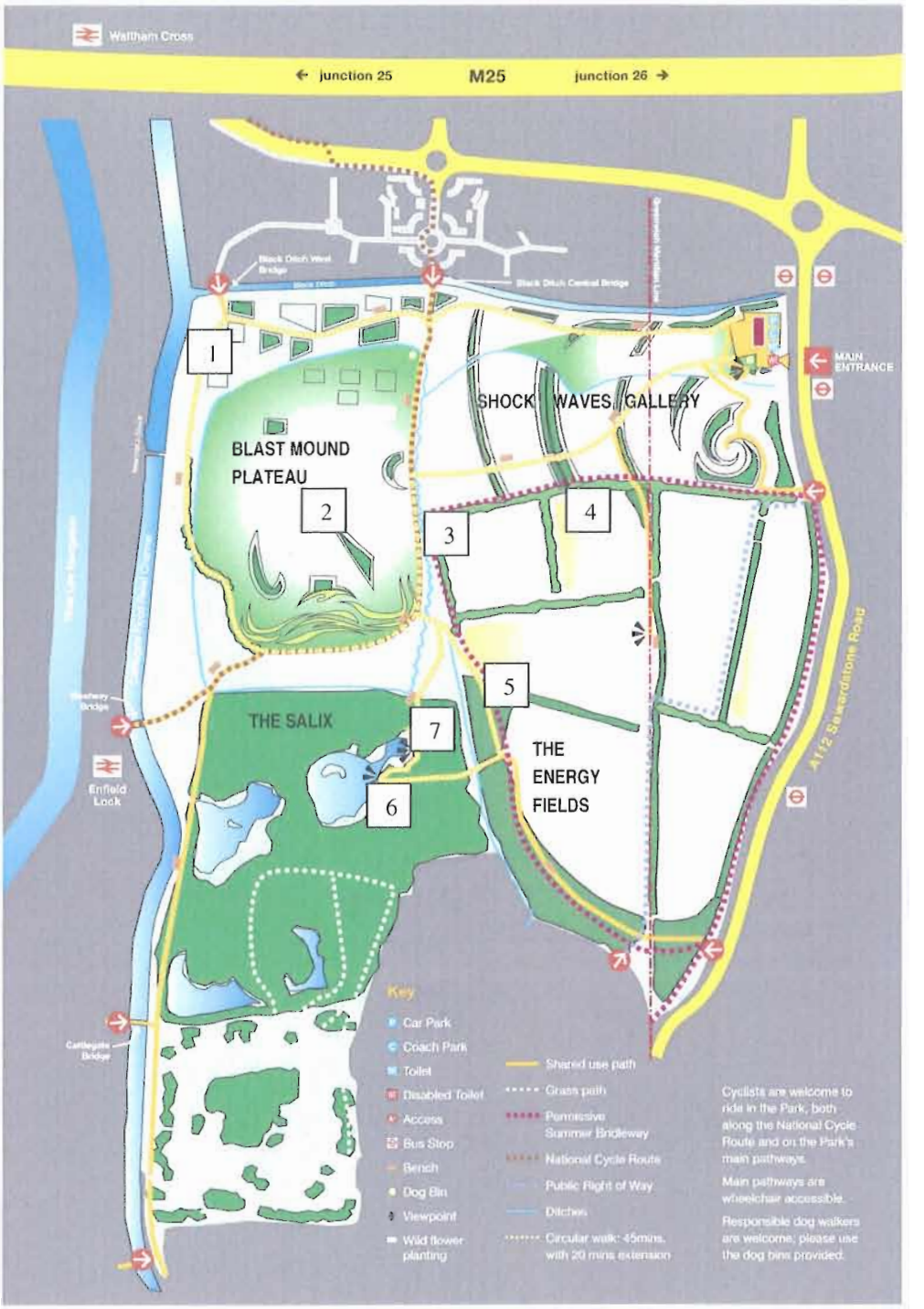

FIGURE 3.9 Map of Gunpowder Park. (Gunpowder Park and Lee Valley Park, www.gunpowderpark.org. Also available in print version, 4.)

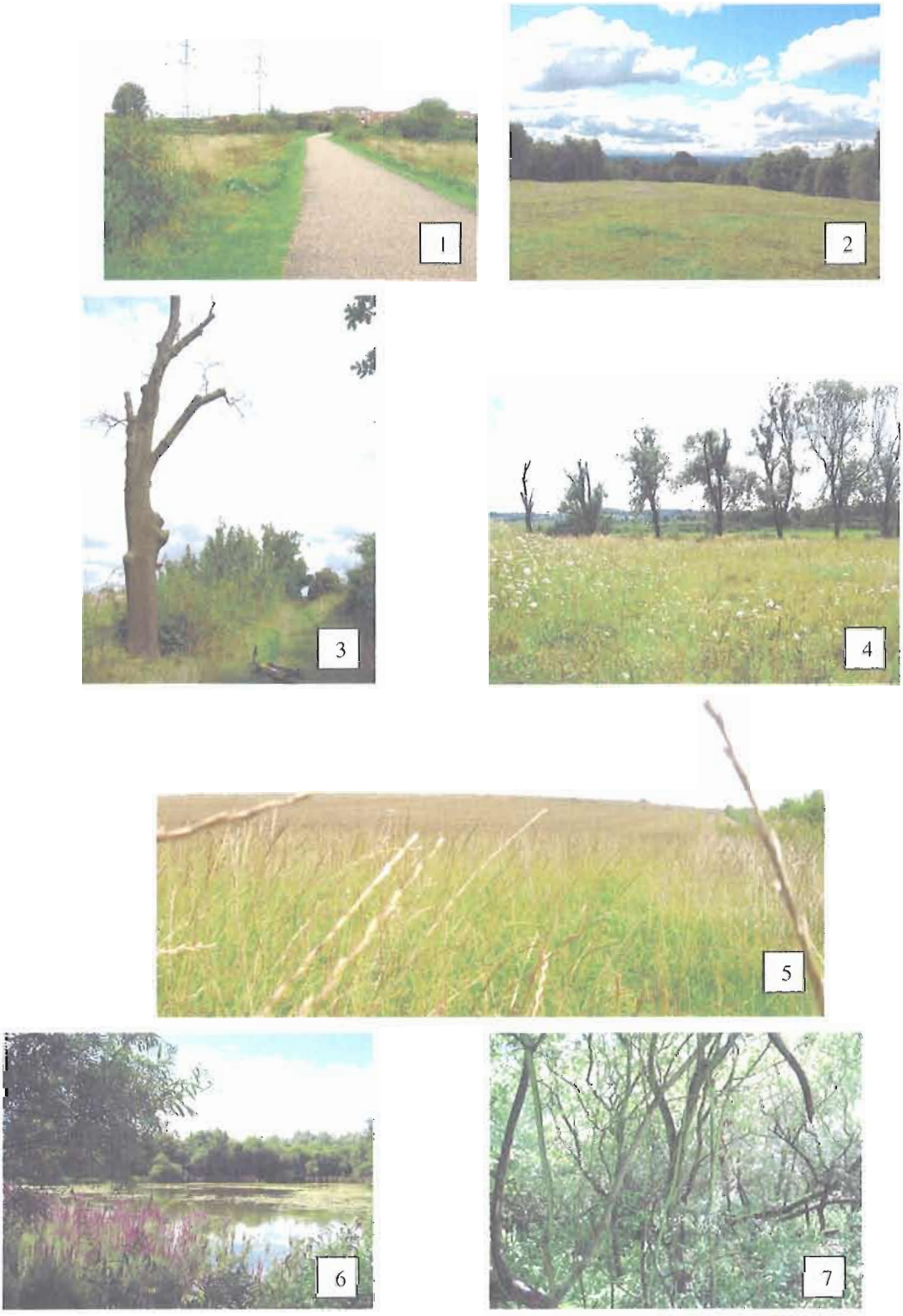

FIGURE 3.10 Gunpowder Park in photos. (Photographs 1, 3, & 5 by author. Others from Edwin S, http://www.flickr.com/photos/edwin_s .)

FIGURE 3.11 *Left to right* Bird hides in The Salix to enable 'stress-free' bird watching. (Oobrien, http://www.flickr.com/photos/oobrien) Wooden bridge through the marsh. (Edwin S, http://www.flickr.com/photos/edwin_s)

The greatest and most pressing concern facing the Park designers and engineers was that of contamination. Crown immunity, as with the Enfield Island Village, complicates the matter of transparency and responsibility. Those working with the program management team, Landscape + Arts Network Services (LANS), did not have specific information on the toxins in the soil nor was I able to get a clear response from LVRPA officials, but contaminants found on the nearby site of Enfield Island Village provide clues as to what may have been on this site as well. Acetone, arsenic, zinc, unexploded explosives, oils, tars, mercury, lead, nickel, cadmium, chrome, copper, PCBs, asbestos, and phenols all make the list.[40] Regardless of what exact toxins they were, their presence was reason enough to require off-site disposal of some contaminated soil. Had this remediation process occurred now, it is unlikely that the soil would have been moved off-site[41]. Brownfield remediation technology is progressing quickly, and the latest trend has been to recycle materials on-site as was done at Stockley Park, a more recently reclaimed site near Heathrow Airport. This trend represents a more honest engagement

[40] Zylva, Paul de, Beth Pedder, and Denise Vallance. *Unsafe as houses: urban renaissance or toxic timebomb? exposing the methods and means of building Britain's homes on contaminated land.* London: Friends of the Earth, 2000.

[41] Eileen Woods, in discussion with the author, 4 September 2007.This trend has been well documented in the literature of remediation. See, for instance, *Manufactured Sites*.

with the remediation process itself. If the remediation of a site creates more waste to be disposed of elsewhere, has a remedy really been found?

Other of the contaminated soil on the GP site was buried, interestingly, below what is now arable farmland and also beneath a variously 3-6 foot (1-2 meter) clay cap on the Blast Mound.[42] Figure 1 in the Appendix diagrams the little area that is bare soil left to naturally regenerate. Clay caps are used to seal egregiously contaminated soil so as to avoid harmful exposure. A concern associated with clay caps is the threat of puncture by roots or human activity. In this case, 100,000m^3 of 'new' soil was brought in to top the cap. The height of the Blast Mound Plateau is a designed response to the clay-capped contaminated soil that is hidden below. The mounds allow for the planting of trees that, due to their extensive roots, could not be planted in more shallow soil for fear they would breach the cap. New broadleaf planting is labeled on Figure 1 of the Appendix. The Tree Block Management Prescription (Figure 2 of the Appendix) diagrams the tree plantings throughout the Park. Strips imitating sonic blast waves were built up to safely accommodate the plantings of predominately birch and aspen in a historically revealing manner.

One might argue that simply capping contamination is not a remedy any more so than shuffling dirty soil to a landfill where we are no longer encouraged to consider its existence. It can be assumed that at GP this particular remediation choice was a response to either a lack of technology or a prohibitive investment of time or money. Ultimately, the ecological impact of the remediation process is lessened by seeking viable remedies for *all* materials on site. In addition, transparency throughout the process is essential to ensure the problem is not, almost literally, swept under the rug.

The design of the Park does incorporate many of the site's original materials and its historical and even geographical significance. The Greenwich Meridian Line, for instance, runs through the Energy Fields and is acknowledged with annual wildflower plantings and a pathway with a place for contemplation on the highest point in the Park (Figure 3.9, and Figure 3 of the Appendix).

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[42] Eileen Woods, in discussion with the author, 4 September 2007.

The Gabion Wall, the western wall of the Field Station, is constructed of crushed concrete littered with casts of found objects as can be seen in Figure 3.12. And a concrete wall at the main entrance to the Park is littered with words and phrases suggestive of the site history. Small brick storage sheds were left in tact and serve as bat roosts.

FIGURE 3.12 Memory set in stone. Words engraved in a wall near the Main Entrance and casts that recall the past use of the site. (Photos by author.)

The Field Station on site houses LANS and serves as one of the offices of the LVRPA rangers. It has publicly accessible restrooms. The water that runs from the car park is recycled through the restroom toilets. Maps of the Park are available outside the building. The structure itself is not large but serves as a significant area landmark. It also offers a very distinct entrance from the east, especially in comparison with the other non-descript pathways that enter the Park from the north, south, and west (see the above map for each of the Park entrances and exits, only two of which are well-marked for users). The building is designed to be energy efficient as it has west-facing windows with a sloping green roof and is enclosed on either side by earth ramparts. Over 6,000 trees have been planted on-site with tree guards made of biodegradable plastic.[43]

Environmental Ecology

As a part of the larger green belt that is Lee Valley Regional Park, Gunpowder Park plays an important ecological role. The Park is a very interesting study in local wildlife and may serve an increasingly important role as a wildlife sanctuary as synergistic communities establish themselves. Foxes, muntjack deer, water vole, and

[43] Helen Lamarque, in discussion with the author, 6 September 2008.

pesky mink are frequent visitors.[44] Osier Marsh is of particular interest as it has regenerated naturally on pulverized ash originally dumped in sand and gravel extraction pits. It is home to a variety of willows and birches, owls, Woodcocks, and thrushes as well as a colony of orchids that are particularly fond of the ash. The eastern edge of the marsh was planted with 26,000 native trees to form a deciduous forest.[45] The Musk Beetle (*Aromia moschata*) and Black Poplar (*Populous nigra ssp betulifolia*) are among other rare native species that have found a home here.

Certain distinct bioregions of the Park are differentiated by a total of 4 new km of hedgerows joined with already extant hedgerows (see Appendix A, Figure 1). A 'sacrificial strip' is sown with wild bird seed mix every year along the edge of the arable farmland (Figure 1, Appendix A). A large variety of birds feed off the hedgerows, grains, namely winter wheat, and seed mix, providing fodder for eager birds and bird-watchers alike. Many of the species are ground nesting birds and find the grassy expanse of the Blast Meadow an ideal place to do so. Grey Partridges, Skylark, and Lapwings are the most prevalent species.[46] The bat roosts have proved successful as a 2005 Bat survey revealed six species of bats. The rare *Nathusius pipistrelle* is reported to visit the site, thus rendering it perhaps one of the most important bat refuges in the country.[47] As Figure 3.13 shows, GP is a diverse place.

"The nice thing about no-go, Official Secrets Act government establishments," Iain Sinclair observes a bit sarcastically,

> is that they are very good for wildlife…It's gratifying to learn that, at a period when sheep and pigs and cows, all the nursery favorites, are being taken out by snipers and bulldozed into a trench on a Cumbrian airfield, the threatened Musk Beetle is thriving and multiplying in the Lea Valley wetlands. Twenty-one species of dragonfly on a good day. The regional park is a safe haven for grass snake and common toad.[48]

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[44] Ibid.

[45] Gunpowder Park, "About the Park," www.gunpowderpark.org.

[46] Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.

[47] Helen Lamarque, in discussion with the author, 6 September 2008. Also see Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.

[48] Iain Sinclair, *London Orbital*, 34.

FIGURE 3.13 Diverse flora and fauna thrive at GP. Not only is this diversity environmentally necessary, but also aesthetically pleasing. (Photo by author.)

Operations Ecology[49]

The impetus for a different kind of park on the now-Gunpowder-Park site stemmed from the presence of so many other Lee Valley Parks in the area (see LVRP map above), the unique history of the site, and an increasing regional interest in (cultural) regenerative endeavors. When given a remit to provide a place for 'arts, science, and nature,' Gunpowder Park was not envisioned as a typical 'art' park with permanent outdoor sculpture, though such a park may have been more palatable to the bureaucratic audience, but a collaborative endeavor that would continually reinvent itself through projects, activities, and workshops. The art of Gunpowder Park is never complete, so to speak. In response to the plan for a park of ephemeral arts, a non-profit landscape architecture firm, Landscape+Arts Network Services (LANS) was hired by the Lee Valley Regional Park Authority to run Gunpowder Park. One of the more powerful elements of the Park is its role as a focal point for unique, transdisciplinary

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[49] I borrow this term from James Corner and Stan Allen who use the term 'operations ecology' to describe an administration plan for Downsview Park in Toronto. This plan specifically engages in multiple publics including neighbors, community groups, and diverse park users. As quoted in Don Mitchell and Richard Van Deusen, "Downsview Park: Open Space or Public Space?" in *Downsview Park Toronto*, ed. Julia Czerniak (London: Prestel, 2001), 112.

workshopping. Through the programming developed and run by LANS, "Gunpowder Park functions as a physical and *virtual* focal point for exploration, innovation, communication and collaboration."[50]

The motto of the Lee Valley Regional Park, "open spaces and sporting places", seems a bit shallow here, where arts, science, and nature are attempting to happily cohabitate. In its programming, Gunpowder Park supports the development of the Lee Valley as a cultural extension of the city of London; exemplifying again Gospondini's observation of the post-industrial transition from manufacturing to information to culture and the creation of cultural clustering.

LANS facilitates a variety of arts-focused projects including the Green Heart Partnership, an initiative between Arts Council England East and the eleven local authorities of Hertfordshire that aims to "effect social change through policy development and facilitate creatively led capital development through informed joined-up decision making between artists and local authorities."[51] Green Heart projects range from work on a local community center and the surrounding open space, development of a multi-functional pocket park using eco-materials, and even developing a planning guidance document for open space design. These projects focus on creatively engaging local government entities in spatial, human and non-human community friendly design.

Bright Sparks is another unique program run through Gunpowder Park by LANS and partners. It provides opportunities for art(ists) and design(ers) to explore ecological intersections with open space. "The primary interest of this ideas incubator scheme is in research which is conceptually challenging, rather than developing a completed product or physical outcome."[52] Again there is no product per se, but intellectual freedom and physical space for collaboration.

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[50] Emphasis mine. Gunpowder Park, "What We Do," www.gunpowderpark.org.

[51] Gunpowder Park, "What We Do," www.gunpowderpark.org.

[52] *Bright Sparks: R&D Projects*, Pamphlet (Gunpowder Park, Landscape+Arts Network Services and Lee Valley Park), available in hard-copy and at www.gunpowderpark.org.

"Through our unique resources of public land, the Field Station and the support of the Lee Valley Regional Park, Landscape+Arts Network Services (LANS) provides new opportunities where arts led initiatives can make *a positive and dramatic impact on the quality of life and the sustainable future of our environment.*"[53] The emphasized last part of this sentence directly engages reinhabitation. Reinhabitation addresses not only the conditions of the site, the landscape, but also the interaction between how we live, where we live, and the ecological assemblages that compose our spatio-temporal realities. Below two of the five strands of Gunpowder Park's programming, The Art of Common Space and Bright Sparks, will be examined in detail to provide an example of a tangible narrative weaving together arts, science, and the non-human. This is the heart of place-based reinhabitation.

Bright Sparks, Rising Waters

One of the most recent projects funded by Bright Sparks is called Rising Waters, a collaboration led by activist eco-artists Newton and Helen Mayer Harrison. The Harrison Studio and Associates Ltd created a work entitled *The 30 Year NOW, a Future for the Lee Valley.* A related work by the Harrisons was completed on March 28, 2006 in collaboration with Gunpowder Park whose product was a lecture addressing art and climate change given to an interdisciplinary audience and a touring triptych; both were entitled *Greenhouse Britian: Losing Ground, Gaining Wisdom.* The guiding concept behind this work was 'elegant retreat' in the face of global warming and subsequent rising waters.[54] One of the design elements of the work recommended planting trees along the Lea Valley. Both of these projects have special resonance at a time when

[53]Emphasis mine. Gunpowder Park, "What we Do," www.gunpowderpark.org.

[54] *Science* recently published research conducted by Taiwanese scientists that the satellite measured 1.8mm/year rise in sea level is an underestimation. Dams, they argue, have enclosed enough fresh water that sea levels have been significantly reduced. They estimate that sea-levels have actually risen 2.4mm/year since 1961. "Sea-level rise: dam and blast," *The Ecologist* 38, no. 4 (May 2008), 11.

islands around the world are disappearing due to flooding and global climate collapse is exhibiting an increasingly noticeable impact.[55]

In their Rising Waters project, the Lea Valley is considered a form that is surrounded, almost literally, in ideas about defense and withdrawal. It is a geographically strategic area for the population of London as waters continue to rise, threatening the banks of the tidal Thames. It provides no less than ten percent of London's drinking water and houses fertile farmland and ecologically valuable wetlands.[56] This project is not simply a design nor is it simply art; "It is the intention of *Greenhouse Britain* to begin generating the thinking, the design, perhaps the new belief structure, perhaps even indicating the new economic structures that may be required for democratic dispersal of support for an upward-moving population within the context of a gradually shrinking landmass."[57]

Before heading to Gunpowder Park to conduct research on the site myself, I had the privilege of conversing with Newton Harrison. Among other questions, I asked him how he approached a landscape he was to work with. My question was aimed at articulating a methodology with which to express my own research to others, and I communicated as much to Newton. He, somewhat less politely, told me to disregard the seemingly ubiquitous need for a coherent methodology. Instead, he told me, "I consider it an advantage that I don't have a methodology—I want to be surprised."[58]

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[55] In the same issue of The Ecologist that features an article about the Harrisons' work for DEFRA, the cover article is "Stemming the Tide: The disappearance of Lohachara beneath the waters of the Bay of Bengal created the world's first environmental refugees." Dan McDougall, *The Ecologist* 37, no. 10 (Dec/Jan 2008), 26-30. It is also interesting and somewhat disturbing to contrast the loss of land in India and other Asian nations while in Dubai, as is mentioned in Chapter IV, new multi-million dollar islands are being created.

[56] David Haley, in discussion with the author, 5 September 2007.

[57] Newton Harrison quoted in Jon Hughes, "What if life imitated art?" *The Ecologist* 37, no. 10 (Dec/Jan 2008), 33.

[58] Newton Harrison, in a telephone conversation with the author, 27 August 2007.

Newton Harrison's anti-methodology is, according to professor and artist David Haley, "post-disciplinary."[59] For the Harrisons, "Our work begins when we perceive an anomaly in the environment that is the result of opposing beliefs or contradictory metaphors. Moments when reality no longer appears seamless and the cost of belief has become outrageous offer the opportunity to create new spaces - first in the mind and thereafter in everyday life."[60]

The deputy editor of the UK journal *The Ecologist*, Jon Hughes, writes of the Harrisons' Greenhouse Britian project, they "have articulated the problem with the timeless precision of poets…theirs is a perfect response."[61] The Harrisons believe that "a vision has to offer a choice."[62] This 'anything-goes' philosophy of the Harrisons has methodological resonance as it exemplifies the power of artistic vision to infect lifestyles.

The Art of Common Space

The focal question of the Gunpowder Park project *The Art of Common Space* is: "What is 'common space' in our 21st century multicultural society?"[63] At a time when "built environments increasingly dominate our communities," this project explores "the social and physical implications of redefining what is urban, what is rural, and what is the true value of public open space."[64]

The on-going series of events that compose this project position Gunpowder Park as 'the central hub' and the 'catalyst' of a local, national, and international dialogue that,

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[59] David Haley, in discussion with the author, 5 September 2007.

[50] Helen and Newton Harrison quoted by Gunpowder Park, "Projects," www.gunpowderpark.org.

[51] Jon Hughes, "What if life imitated art?" *The Ecologist* 37, no. 10 (Dec/Jan 2008), 32.

[52] Newton Harrison as quoted in Jon Hughes, "What if life imitated art?" *The Ecologist* 37, no. 10 (Dec/Jan 2008), 36.

[53] Gunpowder Park, *The Art of Common Space*, Pamphlet.

[54] Gunpowder Park, *The Art of Common Space*, Pamphlet.

in essence, attempts to rethink "space and the relationship between [hu]man and nature from a cultural perspective."[65]

Dr. Benjamin Barber, an international political theorist, describes the 'challenge' of Gunpowder Park as "nothing less than the challenge of the new millennium: can we still constitute ourselves as a public?"[66] By providing a public space with programming that asks such questions, Gunpowder Park is not only physically, but also conceptually open to public inclusion.

Park Use

During my visit to Gunpowder Park, in early September of 2007, fences surrounded much of the interior open space of the parkland (see Figure 3.7 , a fence can be seen mid-ground, and Figure 3.14 below).

FIGURE 3.14 Warning signs posted at Gunpowder Park. (Photo by author.)

Signs were placed along the fences to inform park-goers of their purpose and the website now has a statement from the Lee Valley Regional Park Authority:

> Since January 2007, sections of Gunpowder Park have been fenced off from public access. This action has been taken as a precautionary measure in the interest of public safety following recent routine ground inspections which revealed potential subsidence caused by old utility shafts. The fences will remain in place until an

[65] Ida Nicolaisen, cultural anthropologist, as quoted in Gunpowder Park, *The Art of Common Space*, Pamphlet.

[66] Gunpowder Park, *The Art of Common Space*, Pamphlet.

> appropriate solution is identified, the works are carried out and we are satisfied that ground conditions are safe for public access. In the meantime we would like to apologise for any inconvenience caused by these temporary restrictions.[67]

I interviewed park users on site in between my formal meetings with LANS staff in hopes of determining what relationship they had with this particular landscape. Table 1 summarizes the results of my interviews.

The results of my informal interviews should not be taken as a definitive measure of the activity at Gunpowder Park but are meant to provide a snapshot of park use. A number of factors must be kept in mind. The first day of my interviews the weather was not ideal; it was overcast and in the mid-60s. The first two interviews were from that day and I observed very little traffic in the Park. The second day of interviews the weather was much nicer, sunny and almost 80. I observed much more use of the Park on this day including many people casually passing through. My interviews all took place on weekdays which may limit the number of users traveling from a significant distance. Also, there was no specific public art event going on during the time I was visiting.

With these considerations in mind, it is still possible to draw tentative conclusions from my interviews. On an ordinary, non-event day, this landscape appears to be for locals or for those seeking something different. Though I did not ask the nationality of the interviewees, where it is noted they volunteered the information (in all cases to ask me to speak more slowly or to clarify why they did not understand my questions). It appears that there might be pockets of cultural diversity whose interests could be explored and possibly met by future projects on site. Though the multiple train stops are in easy walking or cycling distance, no one I interviewed used public transportation to reach the Park. Most important to consider, though, is the lack of awareness on the part of park users regarding the programming at Gunpowder Park.

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[67] Gunpowder Park, "What We Do," www.gunpowderpark.org.

TABLE 3. 1 Gunpowder Park Visitor Interview Responses

GENDER/ AGE	DISTANCE TRA-VELED	MEANS OF TRANSPOR-TATION	FREQUENCY OF VISITS	REACTION TO HISTORY OF SITE	INTEREST IN ARTS AND/OR WILDLIFE PROGRAM-MING	OTHER
M/30-40 Polish	10 miles	Walks or cycles	Often	Aware but uncon-cerned	No interest	GP simply a green space
F/30-40 Jamaican	From Enfield; less than 1 mile	Walks (accom-panied by young son on bicycle)	Often	Aware but uncon-cerned	Unaware	
F&M/60-70	Under 10 miles	Drives	Fourth visit	Aware but uncon-cerned	Unaware of pro-grams but interested	Would like more benches; brought lunch
2F&1M/50-70	4 miles	Drives	Often	Aware but uncon-cerned	No interest	Likes park because no is "ever here"; would like to see a concession stand on site to buy coffee, etc.; one woman in wheelchair
F/20-30 Polish	Less than 1 mile	Walks	Once a week	No, lan-guage barrier	Unaware	Sees many people on her visits
M/30-40	Less than 1 mile	Cycles	Almost every day	Unaware, uncon-cerned	No interest	Would like someplace to fish
M/20-30	10 miles	Drives	Second visit	Aware and interested but not concerned with safety	Unaware	Came for internet-based treasure hunt from www.geocaching.com
M&F/60-70	10 miles	Drives	First time	Excited by history, not concerned with safety	Mostly unaware but interested	Great space for dogs!

At Gunpowder Park, I realized after recording one interviewee request for "even a machine" that sells coffee on site, no one is a consumer. There is nowhere to spend money. Parks often serve this important role in metropolitan areas: they are islands of land not "governed primarily by the principles of a profit economy."[68] In a society where consumption plays an increasing role in identity-making, these places are increasingly important to collective identity development.

One young lad visiting the Park was there to play an internet-based treasure hunt game. Though British, he was at the Park because a United States-based internet site was hosting an on-going treasure hunt event.

The LVRPA *Site Management Plan 2006-2011* lists 4 site objectives. The first three are 1) to increase public understanding of Gunpowder Park through effective interpretation, 2) establish and develop a representative and effective community consultation process, 3) encourage public access in a controlled manner.

It is difficult to determine what level of public understanding about the Park exists or even exactly how the LVRPA describes 'public understanding.' As the Park is just finding its footing, it may take some time for it to be able to describe its niche well enough to articulate a coherent identity to the public. It could be that the Park will remain somewhat difficult to understand because of its very mission. The second objective has been difficult to meet because the community itself is disjointed.

At a time when "It is increasingly difficult to find a large park anywhere in the world that is fully public—that is, entirely free and accessible in all places at all times and fully supported by public funds,"[69] Gunpowder Park is special. It has been extremely lucky to have multi-million dollar public investments lavished upon it. Especially amidst a predominately private landscape (specifically Meridian Place and Enfield Island) Gunpowder Park is a much needed open and public space. There are no perimeter fences and no opening or closing times at Gunpowder Park. Importantly, though, as geographer

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[68] 3E, 42.

[69] John Beardsley, "Conflict and Erosion: the contemporary public life of large parks," in *Large Parks* ed. Julia Czerniak and George Hargreaves (New York : Princeton Architectural Press, 2007), 199.

Don Mitchell has noted "It is not in design per se that publicness can be encouraged (though design can be important in discouraging it), but in how that design is implemented and administered."[70] As Guattari argues of his own term 'machinic production of subjectivity,' "everything depends on its articulation."[71] Graffiti on much of the educational signage throughout the Park proves that at least some people treat is as a continuously contested public space. But, as the third objective for Gunpowder Park makes clear, public does not mean entirely free.

In landscape architecture terminology, proxemic space is space that is shared by homogenous groups with highly consistent social behavior. Distemic space is space that is shared by people who are culturally diverse and who hold different values, codes of conduct, myths, symbols, and cognitive attitudes.[72] To its credit, Gunpowder Park appears to be a distemic space.

If I were given the opportunity to return to Gunpowder Park, I would ask users only one open-ended question: why are you here? Perhaps, as the Management Plan suggests, locals of various scales are using GP simply as a "'breathing space' or escape from a dense urban environment."[73]

Traversing the internet, I came across this remark on a London-area walker's blog, "Don't bother making the effort to visit if you're a confirmed townie or seek only some genuine countryside. But if you enjoy the experimentally rural, Gunpowder Park might well be worth a few hours exploration."[74]

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[70] Don Mitchell and Richard Van Deusen, "Downsview Park: Open Space or Public Space?" in *Downsview Park Toronto*, ed. Julia Czerniak (London: Prestel, 2001), 103.

[71] CS, 5.

[72] Michael D. Murphy, *Landscape Architecture Theory*, (Long Grove, IL: Waveland Press, Inc., 2005), 230, 228 & 117 respectively.

[73] Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*, 1.

[74] Diamond Geezer. http://diamondgeezer.blogspot.com/2007_08_01_diamondgeezer_archive.html.

Arts, Leisure, Heritage

The fourth objective of Gunpowder Park, according to the LVRPA Management Plan, is to develop Gunpowder Park's identity as a location for arts, science, and nature.

In my interview with Eileen Woods, she made it clear that the decision to make Gunpowder Park an experimental landscape for arts, science, and nature was not a response to local community need. Nor does GP quite succeed in smoothly connecting its triad of interests: arts, science, and nature. Rather, it is a well-funded collaborative project that, to my observation, is not entirely understood by the Lee Valley Park Authority. LANS is challenging itself in its attempt at cohesively integrating such diverse cultures as art, science, and nature in a single landscape.

Though Sinclair is self-admittedly "always uneasy when covert research, generously funded, starts to cosy up to subversive art,"[75] he usefully observes this question asked at a Jochen Gertz lecture in the Lea Valley entitled "Works in Public Spaces": What would a monument for "other life forms, for animals" look like?[76] Herein lies one of the most challenging aspects of the vision of Gunpowder Park. Not only does the mission of the Park strive to achieve a sense of place, an identity locally and internationally, it also aims to define community beyond the non-human. The Park ranger who is responsible for Gunpowder Park, Helen Lamarque, told me in an interview that she has faced much environmental management frustration at the hands of artists. For instance, one fall she had cut down a few trees on site and left the logs out in order to attract 'eastie-beasties' for a school group coming for a visit a few months later. She pulled up to the Park one day only to see her insect homes strewn about in imitation of the bunkers that had formerly occupied the Royal Ordnance site.[77] This story is a perfect example of the disconnect between artistic vision and environmental imperative. It seems that eco-art might need a bit of site specific information to truly interact with the reality of relations that are embedded in a landscape.

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[75] Iain Sinclair, *London Orbital*, 85.

[76] Ibid, 96.

[77] Helen Lamarque, in discussion with the author, 6 September 2007.

Making Place, Creating Identity

What is the meaning of all this derelict land that is now in the hands of public funding? The contemporary landscape narrative of the surrounding geography speaks to this question with just as much precision as historical excavations. 'Open spaces and sporting places' replace the military-industrial complex. The workforce has shifted from factories and greenhouses[78] to information-based jobs located in "Dilbert cubicle"[79] offices in the center of the metropolis. The Lee Valley Regional Park is offered up as an alternative, an anecdote. In its attempt to create place, though, the Park must beware the modern urge to homogenize and the postmodern urge to devalue cohesiveness. Identity of place is a major challenge of post-industrial reinhabitation. The intent of Gunpowder Park is not to "disguise its true identity, deflect attention from its hot core," but to create a landscape that engages everyday ecologies creatively in an attempt to open the future of post-industrial space.[80]

Paths for walking and cycling, blinders for bird watching, houses for historical appreciation, rinks for skating, trails for horseback riding. These are destinations for activity without reference to history or future. They lure and distract commuters from the chaos of the city with the quite calm of (re)constructed countryside. Is Gunpowder Park part of a heritage-leisure cluster? An exurban get-away for urban families? Or does GP break from the dominant leisure-norm of heritage in its inclusion of innovative design and innovative collaboration?

Gunpowder Park may best be described as a "glocalized landscape," per Gospodini's definition of "urban landscapes exhibiting a mixture of built heritage and

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[78] The Lea Valley at one point claimed the world's highest concentration 'glasshouses', as they are termed in Britain. Jim Lewis, *London's Lea Valley*, 6.

[79] The 'beyond organic' farmer Joel Salatin is quoted using this term specifically referring to the shift of 'intelligence' from the farm to Wall Street in the post-industrial age. Michael Pollan, *Omnivore's Dilemma:A Natural History of Four Meals*, (New York: The Penguin Press, 2006), 130.

[80] Iain Sinclair, *London Orbital*, 56.

innovative design of space" (see Chapter II).[81] The landscape references at Gunpowder Park are of two distinct scales, the spatially local and the conceptually international. LANS argues that,

> Through the partnership with Lee Valley Regional Park Authority we have developed the identity of Gunpowder Park as an important regional resource for arts and environment, with regional and international links. By generating new partnerships across the public and private sectors, LANS has attracted UK and international creative professionals, artists, academics, businesses, funders and media to support the development of new and significant work. Our work also relies on international partnerships to provide global perspectives to local, regional and national initiatives.[82]

Iain Sinclair is bitingly critical of the Lee Valley Park, but embedded in his critique is a complimentary moment. "The land is too anonymous, no major blight, a steady stream of I-Spy water fowl."[83] He continues,

> It hurts place. The point of this area is to be obscure, a discovery any urban wanderer can make. Overgrown paths, turf islands. The imagination can reach out towards ambiguity.[84]

The programming and landscape of Gunpowder Park are instructive *because* they create an opening onto a continuously reconceived unknown rather than a prescriptive future.

If we cannot predict, we can envisage. Gunpowder Park is a landscape designed for conceptual growth and exploration. By providing funding schemes and a physical point of reference for inspiration, contemplation, and gathering, Gunpowder Park *is* a methodology of reinhabitation. This gesture towards ambiguity is explored in Chapter IV as a possible methodology of post-industrial reinhabitation.

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[81] Aspa Gospondini, 317.

[82] Gunpowder Park. "What We Do," www.gunpowderpark.org.

[83] Iain Sinclair, *London Orbital*, 51.

[84] Ibid, 43.

THE FUTURE OF THE LEA VALLEY: THE OLYMPICS & BEYOND

The official website of the Mayor of London suggests, unabashedly, that the "London 2012 Olympic Games and Paralympic Games will be the 'greenest' games in history."[85] The event is slated to occur on a vast brownfield site in the Lower Lea Valley as shown in Figure 3.15 and provide a template for environmentally-friendly policies such as being car-free. After the event, the Lee Valley Park Authority will manage the land, of which the greenfields will be purportedly left undisturbed.

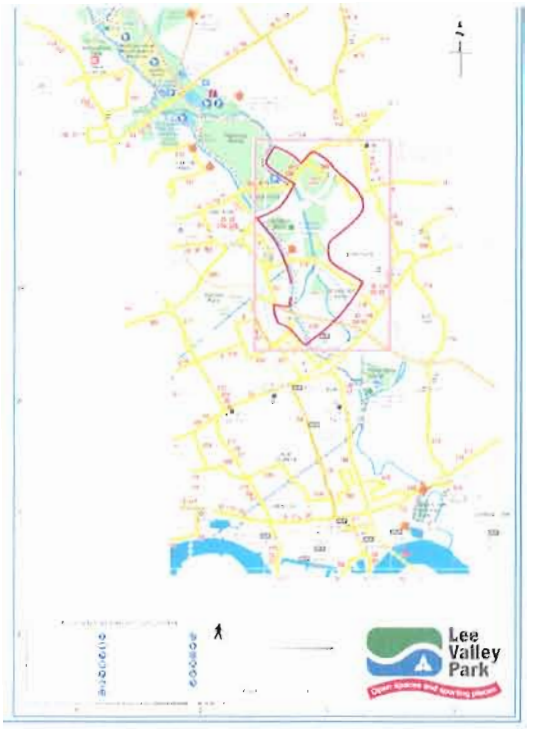

FIGURE 3.15 Map of the lower Lea Valley Olympic Zone, site of the 2012 Olympics. (Lee Valley Regional Park, Leaflet.)

It is too early to judge this landscape, but the remediation techniques at work seem to gesture toward what Iain Sinclair has termed alternately "The Sainsbury Effect" and "Best Value:" "the introduction of US mall-viruses, landscape consumerism, retail

[85] City of London, http://www.london.gov.uk/mayor/olympics/benefits-environment.jsp.

landfill"[86] and "wide aisles, every product showcased in its own area, cheap and cheerful."[87]

> Government-sponsored brochures are got up to look like supermarket giveaways. Strap headlines in green. Articles flagged in blue. Colour photos. Designed not composed. That's how the planners (the strategists, the salaried soothsayers) see the Lea Valley. As an open plan supermarket with a river running through it. The valley is a natural extension of the off-highway retail parks springing up around Waltham Abbey; exploiting the ever-so-slightly-poisoned territory yielded by ordnance factories, gunpowder mills, chemical and electrical industries.[88]

It is to be seen what will become of these sites along the Lea Valley and other post-industrial brownfields worldwide, but there is no inevitability here. What is at stake is our ability to create places that enable a different kind of dwelling that is not as violently destructive as the Total War mentality that has created these sites in the first place. In *The Production of Space*, Henri Lefebvre posed a question that demands urgent attention by regenerative projects: "Are the same means of production to be used to produce the same products?"[89]

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[86] Iain Sinclair, *London Orbital*, 4.

[87] Ibid, 36.

[88] Ibid, 33.

[89] Henri Lefebvre, *The Production of Space*, 56.

CHAPTER IV
A METHODOLOGY OF REINHABITATION

Towns and Citties were not reinhabited but lay ruin'd and wast.

John Milton, 1670[1]

The process involved...quickly revealed ethical issues and ecological contradictions; the interconnectedness of things and causal relationships.

Helen Mayer Harrison[2]

In this chapter I use Guattari's ethico-aesthetic paradigm, developed from his ecosophy, to articulate a praxis-based methodology of reinhabitation. As I define it, reinhabitation is living ecologically within the post-industrial landscape. I liberate reinhabitation from a strictly bioregionalist perspective to accommodate the 'glocal' landscape of post-industrial cities. Gunpowder Park offers an example of a landscape that serves as inspiration for reinhabitation projects and programming that is conceptually inviting. In the name of heterogeneity, there is certainly no band-aid prescription for post-industrial landscapes to be extracted from the example of Gunpowder Park. Gunpowder Park is one place. No two places are the same. While I seek to discuss reinhabitation both in the order of knowing and in the order of doing, we must avoid, as Michael Hough terms it, "the temptation to create cookie-pattern solutions for every urban situation." Each city, each park, each landscape has its own ecological imperatives. Reinhabitation is not a design intervention, from any disciplinary perspective. It is an approach. Below I set out a framework for such an approach. From

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[1] *History of England III*, 130. From Oxford English Dictionary (Oxford English Dictionary On-line: Oxford University Press, 2008), http://www.oed.com/.

[2] From Jon Hughes, "What if life imitated art?" *The Ecologist* 37, no. 10 (Dec/Jan 2008): 32.

Guattari's theoretical framework and the work at Gunpowder Park, future application of reinhabitation is encouraged.

GUATTARI'S ECOSOPHY

In 1989 Félix Guattari wrote a book-length essay entitled *Les Trois Ecologies* (*The Three Ecologies*); this essay was published in English in 2000 but has received little sustained attention among English readers.

In *The Three Ecologies*, Guattari lays out a pragmatic ecosophy, or ecological philosophy, that defines ecology as relationships. Using information scientist Gregory Bateson's fundamental unit of the organism + environment, Guattari stresses the relationship between interiority and exteriority. We might rephrase this relationship in more traditional ecological terms: species + habitat. Or, as Donna Haraway does, simply define "'the relation' as the smallest possible unit of analysis."[3] Guattari complicates the simple dialectic commonly associated with relating by suggesting that neither dualisms nor dichotomies suffice to explain the complex relationships at work in our world.

Guattari was not the first to recognize a triad of relations. French philosopher and urban sociologist Henri Lefebvre's theory of the production of space echoes Guattari's three ecologies. Lefebvre extensively theorizes space as social interaction and processes, in other words, relations. He writes, "The fields we are concerned with are, first, the *physical*—nature, the Cosmos; secondly, the *mental*, including logical and formal abstractions; and thirdly, the *social*."[4] Space is theorized in a triadic dialogue of the perceived, conceived, and lived. Space, for Lefebvre, is active. It both produces and is produced. Lefebvre's lively space is, as geographer Tim Cresswell suggests, a groundwork for "thinking about a politics of place based on place as lived, practiced, and inhabited."[5]

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[3] Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago: Prickly Paradigm Press, 2003), 20.

[4] Emphasis in original. Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, MA: Blackwell, 1991), 11.

[5] Tim Cresswell, *Place: A Short Introduction* (Malden, MA: Blackwell Publishers, 2004), 38.

In *The Three Ecologies*, Guattari develops his ecosophy through a triad consisting of nascent subjectivity, a constantly mutating socius, and an environment in the process of being reinvented.[6] These three registers are not the only ecologies at play in the ecosphere. This he makes clear in his last book, *Chaosmosis: An Ethico-Aesthetic Paradigm*. What is most important here is to recognize the ecological dimensions of our lives that are often ignored as aesthetic and ethical issues.

Similarly, Guattari's overt employment of often-ignored relations, which in his last book, *Chaosmosis,* extend beyond the three he so clearly outlines in *The Three Ecologies*, sets the groundwork for thinking about an ecological politics that is lived, practiced, and inhabited. I must stress this component of the *lived* for it implicates lifestyles and thus landscapes (Chapter II). The consequence is that our everyday lives are indistinguishable from our surroundings. There exist, in Brian McGrath's words, "nested circuits of relationships between urban ecosystems and human consciousness."[7] Here is one of the reasons why I am interested in Guattari's thought as a basis for reinhabitation: his theoretical musings have very real manifestations within the post-industrial cityscape.

Guattari warns of Integrated World Capitalism and the New Industrial Powers that are flattening, homogenizing, and, literally, destroying the world. In response he proclaims, "Ecology in my sense questions the whole of subjectivity and capitalist power formations."[8] Ecology here is more than an ecosystem science. It is a political understanding of material and immaterial relationships. In the face of Total War, according to Guattarian ecosophy, we must do no less than change the way we live. And because speaking of lifestyles, in the Bourdieuian sense of *habitus*, implicates geographical space and even existential territories, I argue that we must alter our habitats, our landscapes, and our cityscapes, simultaneously with our ways of thinking, acting, and

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[6] 3E, 68.

[7] Brian McGrath, "Bangkok: The Architecture of Three Ecologies," *Re_Urbanism: Transforming Capitals, Perspecta* 39: The Yale Architectural Journal, eds. Kanu Agrawal, Melanie Domino, Edward Richardson, Brad M Walters (Cambridge, Mass.: The MIT Press, 2007): 19.

[8] 3E, 52.

being. Seeking new relations and new means of relating across all ecological registers frees us from our commonplace roles as 'consumers' and enables participation in creat*ing*. The operations ecology of Gunpowder Park provides a tangible example of what a landscape of creation looks like, literally and metaphorically. Aesthetically, it challenges the traditional concept of 'art park' with no permanent pieces. Its mission to create a virtual place that generates concepts integrates the active psyche. Parks as a spatial category are stereotypically understood as social environments with passive psychological benefits. By asking participants to think *about* space, rather than thoughtlessly existing in space that is presumed unchangeable and unchanging, park users are invited to change space and, importantly, their relation(s) to it. The horizon now opens to new perspectives. Creating, then, is interaction between ecologies. Space is understood as an abiotic actor comparable to the neighbors and, to a lesser extent, the frogs that we are more easily able to understand as co-inhabitants. Creating is active and thoughtful relating, and, as such, is essential to reinhabitation.

Guattari seeks new ways of relating that are transversal. He intentionally navigates new lines of flight that escape cliché, that cut across traditional concepts to form new arrangements, new assemblages. So at the clinic La Borde he helped institute programs that removed people from their traditional 'jobs' to help with tasks outside their comfort zone. The result was the discovery of unpredictable talents and new configurations of roles within the clinic (Chapter I). One of the things about Guattari that is so intriguing is that he is able to translate his 'practical' work to 'theory' and vice versa. With philosopher Gilles Deleuze, he previously theorized the rhizome, a useful thought-tool of non-hierarchical analysis (cf. his work at La Borde that undermined established hierarchies among the staff). Rather than the more traditional imagery of subordinate tree roots feeding the central trunk and upper-story branches in a bottom-up and therefore hierarchical manner, the rhizome extends out horizontally with "no beginning or end."[9] Through rhizomatic analysis, we realize inextricable evolutionary

[9] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 25.

links. After all, "we are our viruses."[10] "We form a rhizome with our viruses, or rather our viruses cause us to form a rhizome with other animals."[11] Guattarian ecology, beyond recognizing 'the other,' ecological or not, is atomically inclusive: *we are all implicated in this story.*

Disciplinary divisions are antithetical to transversal relations because disciplines are divisive. Guattari explains,

> If you ask ecologists what they intend to do to help the homeless in their suburb, they generally reply that it's not their responsibility. If you ask them how they intend to free themselves from a certain dogmatism and the practices of small groups, many of them will recognize that the question is well-founded, but are quite unable to suggest any solutions![12]

In order to change lifestyles, we will need to reforge the violent separations that categorize responsibilities. Guattari's ecosophy liberates ecology from the professional hands of 'ecologists,' allowing a broader public to take managerial responsibility for the landscape. In practice, this is difficult to realize, hence the problem achieving a fully integrated landscape of arts, science, and nature at Gunpowder Park. This does not mean that cross-disciplinary work is not vital to the continuation of life on this planet, but it does mean that a great deal of experimentation will be necessary to configure relations in a post-disciplinary world.

For Guattari subjectivities are key, a 'leitmotiv.'[13] His most self-admittedly encompassing definition of the term is:

> The ensemble of conditions which render possible the emergence of individual and/or collective instances as self-referential existential Territories, adjacent or in a delimiting relation, to an alterity that is itself subjective.[14]

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[10] Lynn Margulis, *Symbiotic Planet: A New Look At Evolution* (New York: Basic Books, 1998), 64.

[11] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 10.

[12] CS, 128.

[13] CS, 135.

[14] CS, 9.

He describes subjective bodies *in relation* to other subjective bodies bumping into each other and others as forming-subjectivities. Subjectivity does not form and remain stagnant. Subjectivity is always a form*ing* relational activity. By stressing the cultivation of subjectivities, Guattari does not seek greater individualism, but multiplicitous engagement with others, self and one's surroundings. He writes, "I is an other, a multiplicity of others."[15] Even the seemingly solitary 'I' exists in relation.

Guattari's is a social ecology, a mental ecology and an environmental ecology simultaneously; it is a self-proclaimed ecosophy grounded in living, personal experiences and actions. It is politically engaged such that it addresses Doreen Massey's call to negotiate 'throwntogetherness' and Donna Harraway's use of the term *autre-mondialisation* to describe an alternative to neoliberal globalization found in "retying some of the knots of ordinary multispecies living on earth."[16]

Ecology has always been about relationships. What Guattari's perspective offers is a new understanding of who and what is interacting, importantly the abiotic, including the virtual arts, e.g. the cinematic, as influentially as the biotic. Following from Guattari's ecosophy, I suggest that an ecological engagement with the post-industrial landscape which surrounds us requires new alliances between people and land, laws and regulations surrounding brownfield redevelopment, landscape architects and engineers; publics, academics, urban planners, and artists. The premise of my use of reinhabitation, then, taken from Guattari, is that we must creatively engage our lived, material spaces transversally, as part and parcel of our immaterial experiences, or we will continue to suffer from the same old homogenous flattening of capitalist subjectivities and dwindling ecologies.

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[15] CS, 53. As far as I am aware, there are only two self-proclaimed ecosphere, Norwegian philosopher Arne Naess and French psychoanalyst Félix Guattari. Each has a unique ecosophic perspective with one very important similarity. For both Ness and Guattari, "I is an other, a multiplicity of others,"[15] a "being-for-the-other" (CS, 52). Elsewhere Guattari writes, "The play of intensity of the ontological constellation is, in a way, a choice of being not only for self, but for the whole alterity of the cosmos and for the infinity of times" (CS, 53).

[16] Doreen Massey, *For Space* (Thousand Oaks, CA: Sage Publications, 2005) & Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 3.

REINHABITATION

When faced with a landscape such as Gunpowder Park that was formerly used by the military for testing explosives and other weapons of war, how are we to act in a way that fosters the development of healthy ecologies? By developing a solid basis for defining reinhabitation, I provide guidelines for landscape creation.

Bioregionalists have traditionally used reinhabitation in the context of being-in-place. I don't disagree that it is necessary to know (more) about our places, but in the face of the irreversible *local* repercussions of *Global* Climate Collapse, place as a normative category is anachronistic. Therefore, I reclaim reinhabitation from a place-based philosophy and re-house it in Guattari's relation-based ecosophy.

Specifically as regards the post-industrial landscape, I use the term reinhabitation to define a means of forming new relationships with the landscape. Reinhabitation is political; it asks 'whose streets and whose world.'[17] Furthermore, it is more-than-phenomenological in that it is founded upon experience, of the bodily, social, and psychological variety. It ultimately explores how we live in this world together and so is fundamentally ecological.

Politics is about power relations just as ecology is founded in living relationships. A political stance admits that landscape is a view from a human perspective. It confronts the fact that experiences are different and defining a 'public' is an inherently exclusionary practice. My position, articulated as reinhabitation, invites an openness to human and non-human difference that is not equivalent, but just.

Allow me to restate. I argue that to reinhabit is a more-than-human public creating new landscapes from waste, contamination, and dereliction. Ecological relations are at the heart of the reinhabitating process. I borrow a question from Guattari that is essential to reinhabitation:

> how do we change mentalities, how do we reinvent social practices that would give back to humanity—if it ever had it—a sense of responsibility, not only for its own survival, but equally for the future of all life on the planet, for animal and vegetable species, likewise for incorporeal species such as music, the arts, cinema, the relation

[17] I borrow this phrase from Don Mitchell and Richard Van Deusen (2001).

with time, love and compassion for others, the feeling of fusion at the heart of the cosmos?[18]

Dwelling

"To dwell again" is the definition of 'reinhabit' offered by the *Oxford English Dictionary*. Reinhabitation is dwelling-in-relation-to-the-(post-industrial, urban)-landscape. Thus any understanding of reinhabitation must begin with a discussion of dwelling.

The philosopher Martin Heidegger famously asked, "What is it to dwell?"[19] He responds, "To be a human means to be on the earth as a mortal. It means to dwell."[20] But, "dwelling is never thought of as the basic character of human being."[21]

Heidegger, in the words of Adam Sharr, "felt that his thought and writing drew from the taproot of situation."[22] Though one of the most influential philosophers of the twentieth century, Heidegger had not experienced the vast emptiness, the sordid rustiness, or the self-generative renewal that is the reality of the *post*-industrial landscape. His vision is thus nostalgic, reminiscent of another, earlier time and a less toxic place. As geographer Tim Cresswell notes "How [Heidegger's work] might apply to a modern place in an urban environment is a little harder to imagine."[23] In complete agreement, I explore Heidegger's concept of the relation between building and dwelling and complicate them in a contemporary context. Building here should be considered synonymous with landscape construction. Post-industrial landscapes have been built (upon) and are now being reconstructed. How then might we build-dwell (with)in post-industrial landscapes?

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[18] CS, 119-120.

[19] Martin Heidegger, "Building Dwelling Thinking," *Poetry, Language, Thought*, trans. Albert Hofstadter (San Francisco: Harper Colophon Books, 1971), 145.

[20] Ibid, 147.

[21] Ibid, 148.

[22] Adam Sharr, *Heidegger's Hut* (Cambridge, MA: MIT Press, 2006), 65.

[23] Tim Cresswell, *Place: A Short Introduction* (Malden, MA: Blackwell Publishers, 2004), 22.

For Heidegger, "Building and dwelling are related as ends and means."[24]

1. Building is really dwelling.
2. Dwelling is the manner in which mortals are on the earth.
3. Building as dwelling unfolds into the building that cultivates growing things and the building that erects buildings.[25]

To dwell is to stay in one place in the sense of being mortal on earth. "Mortals dwell in that they save the earth [...] To save the earth is more than the earth and does not subjugate it, which is merely one step form spoliation."[26]

"Rather, dwelling itself is always a staying with things."[27] So we cannot dwell-amidst if we are throwing-away. To dwell is to take responsibility for the things with which we surround ourselves. This is the imperative of responsible dwelling: awareness of dwelling-with. For Heidegger, we build what does not grow so that we may dwell with the earth.

Cresswell's critique of an inappropriate nostalgia holds strong when Heidegger meets concrete. Let's look more closely at a passage. "The bridge gathers the earth as landscape around the stream. Thus it guides and attends the stream through the meadows."[28] The bridge allows the stream to remain a 'natural' stream, unhindered by the flow of human traffic. This is the quintessential example of building as dwelling. It is as philosopher Ralph Acampora describes it, "dwelling-without-dominating by letting be (*Gelassenheit*)."[29]

In the increasingly complex ecology of today's world, though, a bridge cannot be so simply praised. Consider the oil spill of November 7, 2007 that occurred as a result of a cargo ship ramming into San Francisco's Bay Bridge. Along the city's shores, 16

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[24] Martin Heidegger, "Building Dwelling Thinking," 146.

[25] Ibid, 148.

[26] Ibid, 150.

[27] Ibid, 151.

[28] Ibid, 152.

[29] Ralph Acampora. "Oikos and Domus: On Constructive Co-Habitation with Other Creatures." *Philosophy & Geography* 7, No. 2 (August 2004), 219.

beaches were closed and over 1600 birds were killed.[30] Dwelling in the 21st century is qualitatively different and subsequently requires building that is aware of such differences. Was the accident caused by 'the thing', the bridge? Perhaps it was the manner in which the ship was driven, a navigational error. It may have been a miscalculation of height, a bad mathematical conversion. The clean up was stalled as the American coast guard struggled to communicate with the Chinese captain. Language, a bad translation, may have been at the root of the problem, the foundation of the initial error and the resulting slow start on the oil-removal operation. As a gathering, to use Heidegger's term, the bridge certainly represents a rich intersection of cultures, commerce, technology, communication, and nature. Heidegger's argument that "only something *that is itself a location* can make space for a site" is proven by this accident.[31] The bridge is the site of the accident much more so than 'the cause'. "[A] location comes into existence only by virtue of the bridge."[32] Or the accident, as the case may be. Increasingly, land has become a 'site' of pollution, of contamination. The post-industrial landscape is defined as such by the transformation of its chemistry, its abiotic composition, and, necessarily, its aesthetic.

Ralph Acampora's response to Heideggerian dwelling, specifically in the context of interspecies co-habitation, is instructive here. He considers the possibility of 'engagement-without-exploitation' through an investigation of Nietzschean 'training without taming.' Ultimately, his is a vision of 'Mitsein,' or being-with, reminiscent of geographer Doreen Massey's throwntogetherness. Acampora acknowledges that 'spatial institutions' will require attention just as Massey situates throwntogetherness in place-politics. She writes, "what is special about place is precisely that throwntogetherness, the unavoidable challenge of negotiating a here-and-now (itself drawing a history and a

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[30] U.S. Department of Homeland Security United States Coast Guard. *M/V* Cosco Busan *Oil Spill in San Francisco Bay: Report on Initial Response Phase* (January 11, 2008), www.sfgate.com/ZCGL.

[31] Martin Heidegger, "Building Dwelling Thinking," *Poetry, Language, Thought*, trans. Albert Hofstadter (Harper Colophon Books: San Francisco, 1971), 154.

[32] Ibid.

geography of thens and theres); and a negotiation which must take place within and between both human and nonhuman."[33]

Reinhabitation is never Being. As Guattari notes, "Being is like an imprisonment which blinds us to the richness and multivalence of Universes of value."[34] It is always being-in-relation. Landscape serves as context, but *active* context. The identity of the landscape is in flux as well as the identity of the human and nonhuman environments and actors. In this sense there is not a singular moment whereupon reinhabitation takes place, but rather, the process of becoming molded. Dwelling is praxis that may be made ecological by remaining "precarious, finite, finitized, singular, singularized, capable of bifurcating into stratified and deathly repetitions or of opening up processually."[35]

I suggest that reinhabitation extends through ecologies transversally. It implies that the landscape has been made uninhabitable, in Milton's words "ruin'd and wast", and now is finding new life through engagement. From nowhere, it becomes somewhere, manywheres. To reinhabit implies the contemplate of the processes of waste that have created landscapes in need of reinhabitation. It also means to physically be there with others, human and non. To creatively adopt Acampora's and Massey's terms, reinhabitation is throwntogetherness-without-exploitation. To dwell again, with(in) the post-industrial landscape, will mean to dwell differently than before. Dwelling is a thoughtful act, and so it is not lightly that the word reinhabitation is used to describe a new paradigm for regenerative projects with(in) the post-industrial landscape.

Beyond Bioregionalism: The Dangers of Militant Particularism

The term 'reinhabitation' has a history, which as eco-critic Lawrence Buell notes, is founded in the bioregionalism movement of the 1970s. Bioregionalism is well defined by Buell as

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[33] Doreen Massey, *For Space* (Thousand Oaks, CA: Sage Publications, 2005), 140.

[34] CS, 29.

[35] 3E, 53.

> ...an ethos and set of life practices directed toward achieving an ecologically sustainable coevolutionary symbiosis of human and nonhuman communities within a territory of limited magnitude whose borders may not be precisely specifiable but are conceived in terms of "natural" rather then jurisdictional units, often in terms of a watershed or constellation of watersheds. Bioregionalism seeks to make human community more self-consciously ecocentric than it has been in modern times but in such a way as to incorporate, not disallow, anthropocentric concerns.[36]

Buell also offers a succinct definition of the term as one that "presupposes long-term reciprocal engagement with a place's human and nonhuman environments and welcomes the prospect of one's identity being molded in this encounter."[37] In counter-culturalist Peter Berg and ecologist Ray Dasmann's configuration reinhabitation is "learning to live-in-place in an area that has been disrupted and injured through past exploitation."[38]

There are very attractive elements to the bioregionalism movement and it has left traces on my use of the word reinhabitation. The synergistic relationship between human and non-human that still admits awareness of the human perspective is worthy of praise and imitation. Where my Guattarian use of the word parts from its bioregionalist roots is the physical limitations of the territory. Neither Guattarian ecologies nor today's global economy of products, culture, and politics is constrained by borders. The clay-capped soil at Gunpowder Park is a material reminder of the inextricable border-crossing relations between power struggle, weapons production, and toxic landscapes: Total War.

Geographer David Harvey's critique of Raymond Williams' term 'militant particularism' explains why a place-based philosophy can both deny chains of causation and compromise *l'avenir*. Militant particularlism is extreme love and devotion to particulars, to a particular place. In *Nature, Justice and the Geography of Difference*, Harvey warns in response, "*Theoretical practice* must be constructed as a continuous dialectic between the militant particularism of lived lives and a struggle to achieve

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[36] Lawrence Buell, *Writing for an Endangered World: literature, culture, and environment in the US and beyond* (Cambridge, MA: Belknap Press of Harvard University Press, 2001), 297, note 1.

[37] Ibid, note 2.

[38] Ibid.

sufficient critical distance and detachment to formulate global ambitions."[39] He calls for the inclusion of a "critical materialist and thoroughly grounded (in the literal sense) understanding of place, space, and environment into cultural and social theory."[40] Here are two points of interest to us. First, we notice again this call for material and lived engagement that Guattari and Lefebvre expressed and that lead to the pivotal centering of the view of the landscape within this paper. The second point, and most urgently relevant, is the importance of addressing multiple scales simultaneously. Just as Guattari introduces three ecologies that are to be used as lenses that never exist completely independently, but always in relation to, the particular is only always in relation. It is dangerous to assume that all knowledge is situated in the local *or* in the global.

Urban ecology offers a helpful insight. The director one of New York City's native plant nurseries recently held a symposium on locality to address what plants should or should not be planted in various areas of the city. He concluded,

> First, the issues are complex and best addressed by individual projects. Second, a great deal more needs to be learned, and answers to the simple question, "What is local?" are likely to continue to evolve through time. Third, knowledge and experience should be shared as widely and among as many people as possible to address the issue.[41]

The complicated nature of local and global calls for thoughtful creation of landscapes that are not exclusively localist, but open to othering. They must operate on multiple scales that engage materiality and identity. There must be many centers, many foci. Don Mitchell writes, "A multicentered world, as Lippard makes clear, must be one that is *not* localist, but fully reciprocal."[42] After all, the landscape always reflects the social, mental, and environmental ecologies of the world. Post-industrial landscapes are

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[39] David Harvey, "The geography of Capitalist Accumulation," *Human geography: An Essential Anthology*, eds. John Agnew, David N. Livingstone & Alisdair Rogers (Cambridge, MA: Blackwell Publishers, 1996), 44.

[40] Ibid, 44.

[41] Edward Roth, "Introduction: What Is Local? Genetics and Plant Selection in the Urban Contexts," *Urban Habitats: an electronic journal on the biology of urban areas around the world.* http://www.urbanhabitats.org/v05n01/introduction.html.

[42] Emphasis mine. Don Mitchell, "The lure of the local: landscape studies at the end of a troubled century," *Progress in Human Geography* 25, no. 2 (2001), 279.

those that have been ravaged by industry. This spatial category (post-industrial) and these places (i.e. post-industrial parks) are new and so require new understandings of spatial institutions. These sites, like Gunpowder Park, are often located on the fringes of the metropolis, not quite urban, rural, or suburban. Bioregionalism has historically been focused on the land in a rural, wild, or pastoral context, hence creating spatial dichotomies by its very place of reference. Heideggerian dwelling is founded in the human enabling 'nature' to simply be. Now, as the human population on earth finds over half of its population in cities with abandoned factories, waste dumps, and brownfields, 'nature' must re-envisioned "*under today's conditions.*"[43] As land is remolded from the ruins of industrial uses, 'building' repositions itself as an activity atop and within the landscape to an activity *of the landscape.*

By introducing Guattari's ecosophy as a new paradigm for reinhabitation, I am suggesting that place carries with it a lingering romance that is ill suited to respond to the current environmental circumstances. I invoke the singularity of experiences, the ability to ask unfamiliar and perhaps seemingly irrelevant questions, and the post-disciplinary practice of contributing to knowledge by sharing new ways to know. As Guattari argues,

> The only true response to the ecological crisis is on a global scale, provided that it brings about an authentic political, social and cultural revolution, reshaping the objectives of the production of both material and immaterial assets…the molecular domains of sensibility, intelligence and desire.[44]

Why Reinhabitation?

At a time when it is not unfamiliar to hear that *il n'y a pas de hors-texte*,[45] language should attempt to be as precise as is (im)possible. It is with specific intent that I have chosen to use the term reinhabitation in relation to post-industrial sites like Gunpowder Park that once were something and now await the chance to be something else. Other terms come to mind that may be considered more or less synonymous with

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[43] Emphasis in original. 3E, 42.

[44] 3E, 28.

[45] "There is nothing outside of the text." Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: John Hopkins University Press, 1976), 158.

reinhabitation including but not exclusively: reclamation, remediation, restoration, (urban) regeneration, and redevelopment. Each implies a return to health of some sort or another, but general equivalency is unbearable.[46] As brownfield restoration, remediation, reclamation, redevelopment, or regeneration can all variously mean bulldozing, scraping away soil, and building condos or preserving land for wildlife, it is imperative to interrogate our terminology. Much of the interest in brownfields is on the part of government and corporate entities that respond with large pocketbooks and extravagantly elite dreams. Below I offer an illustrative example of the deceptive nature of "regenerative" language, specifically reclamation.

Though I am attracted to the first definition of reclamation in the Oxford English Dictionary—"the action of protesting; a protest"—I hesitate to use this word in relation to the landscape. *Land* reclamation refers to "the making (of land) fit for cultivation." There are utilitarian schemes written all over the colloquial use of the word. I offer an example. Along the shoreline of Dubai, United Arab Emirates, in the Persian Gulf, lie a series of human-constructed islands in the shape of the world. Aptly named, The World's construction process, according to the website, "included land reclamation requiring 320 million cubic meters of sand dredged from the sea and the creation of the breakwater that surrounds the 9km wide and 7kms long island destination."[47] The islands will be sold for somewhere around 5 million dollars each to developers and private investors alike. The creators of The World have not forgotten to address the ecology of their project as well. "In its current state, near the completion of the land reclamation, The World exists harmoniously with the diverse, surrounding marine life that inhabits its waters, and this is the basis for its future standard towards the environment.[...] There exist today at least 31 different types of flora and fauna."[48] The completion of this 'land reclamation' is a 'historic moment' that has 'reclaimed' reclamation to mean the creation of private

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[46] Guattari agrees that "What condemns the capitalist value system is that it is characterized by general equivalence." 3E, 65.

[47] The World. "The World Completed: Nakheel places last rock on breakwater to finalize first phase of development. January 10, 2008, Dubai, United Arab Emirates." http://www.theworld.ae/index.html.

[48] The World, "Environment: flourishing sea life," http://www.theworld.ae/ev_takingcare.html.

property where once no human could build a home. Figure 4.1 illustrates the "reclamation process."

FIGURE 4.1. *Left to right* "Terraforming" to create the 'reclaimed' islands of the world. (The World, "Terraforming: unlimited series of options for developments," http://www.theworld.ae/index.html.) The World from above. (Homesdubai, http://www.homesdubai.com/images/dubai-project-the-world.jpg.)

In Chapter II, I used Derrida's terms *le futur* and *l'avenir* to distinguish between a prescribed future and an unforeseeable one. Post-industrial landscapes have taught us that projects like The World have foreseeable consequences. The sand being used to create these islands must be coming from somewhere. What are the consequences of this construction on other landscapes? We may choose to ignore these consequences now but will someday be short on sand or face a receding coastline. Who will be responsible for the costs of remediation then? Will we call the same company to clean up the very same mess they made? Will the government be held financially responsible? As the example in Chapter II of the reclamation process at Enfield Island Village exhibited, the party that initially profits off of the exploitation of the land does not necessarily have to suffer the consequences, economic or otherwise, of the exploitation. As Guattari's ecosophy makes clear, ecologies do not occur in isolation so we cannot assume that this style of reclamation is happening thousands of miles away and so will not impact us. Ecologies might be infinite, but environmental resources are not, and land is precious. In contrast to projects that refuse to confront consequences head-on, reinhabitation implies an engagement with the material-environmental conditions of the landscape, and a political relation to the human and non-human other.

(A NOTE ON) METHODOLOGY

As I attempt to articulate a methodology for reinhabitation, it is important to say a few words relating to the concept of a methodology. The most relevant definition offered by the Oxford English Dictionary defines a method as "a set of rules and procedures

proper to a particular practical art."[49] Methodology follows as, generally, "a method or body of methods used in a particular field of study or activity."[50] Note the strong disciplinary tendencies. Methodology has been most commonly associated with the large field demarcated by science, most specifically the scientific method. I support philosopher of science Paul Feyerabend's suggestion that

> the history of science will be as complex, chaotic, full of mistakes, and entertaining as the ideas it contains, and these ideas in turn will be as complex, chaotic, full of mistakes, and entertaining as are the minds of those who invented them.[51]

The first violent disciplinary divide observed by Feyerabend is a break from history, which he finds occurs with the definition of the research project. From this historical perspective, Feyerabend argues, "given any rule, however 'fundamental' or 'rational', there are always circumstances when it is advisable not only to ignore the rule, but to adopt its opposite."[52] He concludes, "The only principle that does not inhibit progress is: *anything goes*."[53] There is, of course, an inherent danger here of oscillating aimlessly with no direction.[54] This may, though, be the quickest route to discovery; an instructive *dérive*.[55]

I use the term "anything goes methodology" to describe reinhabitory action. I do not mean that literally "anything goes," but I do mean to honestly confront the reality that reinhabitation as I have defined it is difficult to precisely pinpoint. Guattari's ethico-aesthetic paradigm as a conceptual framework is attractively open-ended while also

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[49] OED online, "Method," http://www.oed.com/.

[50] OED online, "Methodology," http://www.oed.com/.

[51] Paul Feyerabend, *Against Method* (New York: Verso, 1988), 11.

[52] Ibid, 14.

[53] Ibid.

[54] This dilemma may be compared to that of the architect seeking to 'design' an un-designed building.

[55] The *dérive*, or the drift, describes the Situationist (urban) practice of walking without destination. Jean-François Lyotard's work *Driftworks* is an example of drifting thought and Guattari develops the 'schizo stroll' in his work on nomadology with the philosopher Gilles Deleuze. To drift is to openly experience toward no particular end. Such learning can enable unexpected clarity.

founded on his own life's work in a psychiatric clinic. But how do we know when interactions on post-industrial landscapes succeed in achieving Guattarian goals? The work at Gunpowder Park offers a concrete example by which to begin articulating transdisciplinary work, yet because of its youth, it is impossible to venture a well-founded pronouncement of its success or failure. The challenge here is that post-industrial landscapes are "novel ecosystems" as defined by Seastedt, Hobbes, and Suding.[56] They argue that significant changes in ecosystem structure around the world call for management tactics that reflect these changes. Such techniques would facilitate resilience rather than maintain a historical equilibrium. Though they specifically argue that they are *not* promoting "anything goes," their suggestions are similar to my own and they divulge that "A search for general rules that can be used to manage novel ecosystems is likely to be a long and possibly unproductive exercise."[57] Importantly, they identify the need to maximize diversity and state that the key is to monitor responses to action or inaction along the way. My case study of Gunpowder Park aids in cataloguing a small-scale project that could have long-term and far-reaching consequences. Future study of the Park might build upon this initial investigation to reveal elements that promoted diversity and resilience most successfully.

To be clear, reinhabitation is not a doing away with methodology, but it is a radical reconstruction of hierarchical methodologies and a reconsideration of praxis based on three principles: responsible aesthetics, ethical relations, and thinking like an artist. Guattari reminds us, "There is a principle specific to environmental ecology: it states that anything is possible—the worst disasters or the most flexible evolutions (*evolutions en souplesse*)."[58] Reinhabitation must be prepared to respond to either.

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[56] "Management of Novel Ecosystems: are novel approaches required?" Frontiers in Ecology and the Environment, no. 6 (The Ecological Society of America, 2008), www.frontiersinecology.org.

[57] Ibid, 7.

[58] 3E, 66.

Responsible Aesthetics

Throughout *The Three Ecologies* Guattari makes references to the changes that might be made to improve urban space and thus the aesthetic of human habitat. He critiques homogenous and "self-congratulatory urban planning."[59] And he notes that, "As Paul Virilio has suggested, the increased speed of transportation and communications and the interdependence of urban centers are equally irreversible."[60]

Along the same lines, David Harvey argues that under late capitalism, and, though Harvey doesn't specifically use the term, in the midst of Total War, we are experiencing time-space compression. Our relations to the temporal and spatial dimensions of our lives and our landscapes have been reduced and conflated. This has altered our understanding of environments, others, and even ourselves. As Michel Foucault has astutely observed, this is the age of simultaneity; undoubtedly, though at the same time, time-space compression is a phenomenon experienced differently by different people in different places. Ironically, rather than provide openings onto other viewpoints, different ways of seeing, and new worlds, this phenomenon predominately homogenizes as it reduces the conceptual size of the planet.

"Time-space compression always enacts its toll on our capacity to grapple with the realities unfolding around us."[61] In order to engage in reinhabitation, we must overcome the time-space compression that allows industry to muck up rural, inner-city, far-away and near-by landscapes. The irony is that the closer we bring the rest of the world, the more difficult it is to see the landscapes we ourselves inhabit.

In response, Harvey argues, "we can expect the turn to aesthetics and to the forces of culture as both explanations and *loci* of active struggle to be particularly acute."[62] But, he continues,

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[59] 3E, 34.

[60] 3E, 42.

[61] David Harvey, *The Condition of Postmodernity* (Cambridge, MA: Blackwell, 1989), 306.

[62] Emphasis in original. David Harvey, *The Condition of Postmodernity* (Cambridge, MA: Blackwell, 1989), 327.

> aesthetics has triumphed over ethics as a prime focus of social and intellectual concern, images dominate narratives, ephemerality and fragmentation take precedence over eternal truths and unified politics, and explanations have shifted from the realm of material and political-economic groundings towards a consideration of autonomous cultural and political practices.[63]

Harvey's response is fueled by the omnipresent 'mediatization' of information. He writes, "Reality, it seems, is being shaped to mimic media images."[64] Félix Guattari is a rampant critic of the 'world-flattening' force of mass media himself. Yet, as Guattari notes, rock and rap music are also a forum for youth to explore their identification with and differentiation from a larger world; it is a way to form an impression of self-in-relation.[65] Harvey explains, "Aesthetic and cultural practices are peculiarly susceptible to the changing experience of space and time precisely because they entail the construction of spatial representations and artifacts out of the flow of human experience. They always broker between Being and Becoming."[66]

Guattari and Harvey have very different views of the role of aesthetics and it is not my project here to analyze this difference. I note Harvey's observations of the contemporary role of aesthetics as it mirrors Guattari's remark that,

> The aesthetic power of feeling, although equal in principle with the other powers of thinking philosophically, knowing scientifically, acting politically, seems on the verge of occupying a privileged position within the collective Assemblages of enunciation of our era.[67]

In addition, the landscape of Gunpowder Park reflects the history of the site rather than permanent art pieces, and the operations ecology intentionally encourages conceptual work with(in) the Park. What we learn from Harvey and Guattari, and see at work at GP, is that aesthetics is important but, in the face of corporate commoditization of cultural

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[63] Ibid, 328.

[64] Ibid, 85.

[65] Throughout both 3E and CS, Guattari references the possibilities exemplified in reactions to and participation with music.

[66] David Harvey, *The Condition of Postmodernity* (Cambridge, MA: Blackwell, 1989), 327.

[67] CS, 101.

interests and spatio-temporal homogenization, the *process* of art-making rather than art-as-product must be emphasized (cf. becoming rather than Being).

The philosopher Jean-Francois Lyotard, whose work was influential on Guattari's thought, has written "Aesthetics = workshop for the forging of the most discriminative critical concepts."[68] This harkens towards what in design has been termed 'eco-revelatory,' that is, an aesthetic that reveals (environmental) process such as the 'shock waves' of GP that are meant to recall the daily explosions on site. We inhabit landscapes, but the term landscape has an implication of viewing. We view landscapes and so the aesthetics of our landscapes matter; the aesthetics of our landscapes mediate our relations with space and place. At GP, the landscape does not, for the most part, look like a traditional park so encourages different behavior. Thus, aesthetics matter and can be an agent of change. Guattari remarks, "One can only dream of what life could become in urban areas, in schools, hospitals, prisons, etc., if instead of conceiving them in a mode of empty repetition, one tried to redirect their purpose in the sense of permanent, internal re-creation."[69]

Ethical Relations

To adopt an ecological ethic is to take responsibility for our environments and all their embedded relations. Guattari writes, "It is intolerable that one should turn away from the very essence and existence of humanity, its sense of freedom and responsibility."[70] In response, reinhabitation requires that relations be considered as throwntogetherness-without-exploitation.

The environment, as defined by the environmental justice movement, is where we live, work, and play. This environment differs from the environment that, for example, the Sierra Club is interested in protecting. The environment of the environmental justice

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[68] Jean-François Lyotard, *Driftworks*, ed. & trans. Roger McKeon (s.l.: Semiotext(e), 1984), 16.

[69] Félix Guattari, "La Borde: A Clinic Unlike Any Other," *Chaosophy*, ed. Sylvére Lotringer, trans. David L. Sweet (New York: Semiotext(e), 1995), 193-4.

[70] Ibid, 203.

movement includes the built or domesticated environment, human habitat, cities. Importantly implicated are the post-industrial landscapes that have been the focus of this work.

Philosophers Andrew Light and Roger King, among others, argue for ethical engagement with the landscapes of our cities. The geo-philosopher Andrew Light argues that urban environmentalism is an urgent concern because denser human populations leave a smaller ecological footprint[71] and urban environmentalism offers the possibility of a communal and civic environmentalism. His concept of urban citizenship is grounded in diverse scales, civic environmental responsibility and participation, and the relationship between healthy ecosystems and healthy (human) communities.[72] Roger King argues that citizens must take responsibility for the built as well as the natural environment. The way we build our world, according to King, determines the level of integration between humans and (wild) nature.[73] King argues that there is an ethics of seeing and that therefore we must take responsibility for what we see and how we look in order to "combat the objective obstacles to ethically responsible and intelligent perception."[74] He suggests that living is an art and that through design we have the opportunity to encourage "an ecologically responsible and literate culture."[75]

Both of these philosophers highlight the urgency of adopting an ethical stance with regard to landscape. Our landscapes, specifically our urban landscapes, are aesthetic creations. As Guattari argues, "To speak of creation is to speak of the responsibility of the creative instance with regard to the thing created, inflection of the state of things,

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[71] This concept has been developed to measure the environmental impact of lifestyles. Canadians Rees and Wackernagel have thoroughly defined the concept in their book of the same title, *Our Ecological Footprint: Reducing Human Impact on the Earth* (1996).

[72] Andrew Light, "Urban Ecological Citizenship," *Journal of Social Philosophy* 34, no. 1 (Spring 2003).

[73] Roger J.H. King, "Environmental Ethics and the Built Environment," *Environmental Ethics* 22, no. 2 (Summer 2000).

[74] Roger J.H. King, "Toward an ethics of the domesticated environment," *Philosophy & Geography* 6, no. 1 (2003), 4.

[75] Ibid, 13.

bifurcation beyond pre-established schemas, once again taking into account the fate of alterity in its extreme modalities."[76] And that responsibility is essentially ethical. When we build, we must consider who we are building for and who our constructions exclude. We must cultivate relationships rather than erect walls. Awareness of scales is essential so that we remain simultaneously responsive to the needs of soil and (human) entertainment.

Ethically engaging with aesthetics, we learn from Light, King, and Guattari, boils right back down to the smallest possible unit of analysis: the relation. In land use, we can *see* human and non-human political struggles. Ethico-aesthetics requires that when we look at our post-industrial landscapes, we see more than meets the eye. We are asked to acknowledge the embedded scales, the glocal repercussions, the warring and colonial histories. An ethical aesthetic is not a far cry from Heike Strelow's definition of ecological aesthetics. He writes, "ecological aesthetics links the integrated experience of the world with ethical criteria defined in terms of the humanistic tradition. Hence, in its understanding of aesthetics, ecological aesthetics combines perception theory with the search for criteria of judgment and action."[77] An ethico-aesthetic stance transversally unites perception, response, and action. It is multi-dimensional. Contaminated sites, from an ethico-aesthetic perspective, cannot simply be adjectively described as statically 'disturbed,' but must be considered as places whereupon (human-initiated) historical processes occurred. "Every landscape reveals itself as an ethical reality" when considered in relation.[78]

At Gunpowder Park, an interesting reversal of priorities seems to have occurred. The needs of wildlife seem to be most effectively met, but not because there is public awareness of either the existence of the wildlife or the need to relate ethically with others. Ling, et al observe a bias toward social regenerative programs in England with a resulting

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[76] CS, 107.

[77] Heike Strelow, "A dialogue with ongoing processes," *Ecological Aesthetics—Art in Environmental Design: Theory and Practice*, ed. Heike Strelow (Boston: Birkhäuser, 2004), 10-11.

[78] Massimo Venturi Ferriolo, "Landscape Ethics," *Ecological Aesthetics: art in environmental design: theory and practice*, ed. Heike Strelow (Boston : Birkhäuser, 2004), 16.

deficiency in attention paid to environmental ecology (Chapter III). I noticed at Gunpowder Park that there was managerial attention paid to the well being of non-human life on site, but that this intentional attempt to create a place that was attractive and amenable to all sorts of biotic creatures went unnoticed by most users of the Park. One of the artists working on site noticed this lack of awareness and, in response, created a mixed-media representation of the wildlife in the Park to give people who would not otherwise know to look, the knowledge to know what they were looking at. This leads directly to my next guideline.

Thinking Like An Artist

What does it mean to 'think like an artist,' especially in an ecological context? Though there are many definitions of ecological art floating around these days, Guattari defines it as a:

> praxic opening-out...It subsumes all existing ways of domesticating existential Territories and is concerned with intimate modes of being, the body, the environment or large contextual ensembles relating to ethnic groups, the nation, or even the general rights of humanity.[79]

Again, within ethico-aesthetic reinhabitation, the creation is not as important as the creat*ing*. "What is important is to know if a work leads effectively to a mutant production of enunciation."[80] In other words, the artwork itself is less important than the consequences of the artwork. The repercussions of the work, the elocutions, can recoup the desire to consume, capitalist divisions of labor, and lifestyles that lead to landscape destruction *or* they may open to new opportunities and mutant enunciations. This resonates with the programming at Gunpowder Park, which encourages artistic response to toxicity without confirmation that one particular work represents a correct response to particular relations on site.

There are any number of brownfield revitalization projects recently undertaken on post-industrial land that are creative and involve ecological art as much as landscape

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[79] 3E, 3.

[80] CS, 131.

architecture. Gasworks Park in Seattle (1972), one of the first of such projects to recycle industrial land for recreational space, still houses bits and pieces of the original facility that manufactured gas from coal. Formerly Thyssen Steelworks, Duisburg-Nord Landschaft Park (1999) in the Ruhr Valley of Germany, perhaps the most famous of such projects, is a vast landscape of concrete and inventive landscape interventions to remediate the soil and water and provide a multifunctional space for concerts, rock climbing and a Sunday stroll. Crissy Field (1994), a former US Army airfield sight outside of San Francisco with a rich social history embedded in the landscape, has been absorbed by the Golden Gate National Recreation Area. *The Nine Mile Run Project* (1989) at the Studio for Creative Inquiry at Carnegie Mellon University in Pittsburgh, Pennsylvania is an example of a process-oriented interdisciplinary team working to shift values through their reclamation work. Downsview Park (2006) in Toronto, a former Canadian Forces Base, has sparked debate surrounding urban ecology and open, public space. These sites all offer unique perspectives and are worth comparative research, but none have programming that engages multiple publics as exceptionally as Gunpowder Park. By inviting international, local, regional, governmental, academic, professional, and artistic individuals, the Park has created its own public. It is a challenge to identify the needs of such a broad and constantly changing body, but it is an admirable project and a worthwhile one. There is no strong sense of 'a public' in the immediate area surrounding the Park so GP's work aids in encouraging the production of such an identity. Simply in being a public space, it enables 'thinking-like-an-artist' by asking individuals to think of themselves as a public and what it means to 'be' as a public entity.

There are a variety of eco-art interventions that incorporate 'scientific' methodologies and/or ecosystem knowledge that fall under the heading 'thinking like an artist.' In *Hudson River Purge* (1991), Buster Simpson dropped limestone tablets into the headwaters of the Hudson River, New York, in an artistic performance that changed the pH of polluted water. Agnes Denes' *Wheatfield, Battery Park City: A Confrontation* (1982) juxtaposed the slow growth and need-satisfying production of wheat with the fast-paced world of Wall Street in lower Manhattan. In *Time Landscape: Greenwich Village, New York* (1978), Alan Sonfist landscaped an abandoned lot as it may have looked

hundreds of years ago and thus expanded the list of sidewalk trees approved by the NYC Parks Department. Mel Chin's *Revival Field* (1990) outside of St. Paul, Minnesota is an experiment in 'green' remediation. In *Garden Cities: Turtle Mound* (1969), Patricia Johanson made the first proposal by a contemporary artist to reclaim a landfill. What is unique at GP is that it is a site for post-industrial experimentation that directly involves the landscape in modeling recuperation that may then be used elsewhere. It is setting itself up to be a sort of library of techniques and concepts with which to approach the post-industrial landscape.

There is also a strong theoretical grounding for a relationship between science and art, 'the two cultures' famously identified by C.P Snow.[81] The division of these disciplines into two worlds is as violent a dichotomy as that between 'nature' and culture. At Gunpowder Park this struggle was also clear. One of the first things that Eileen Woods, the artistic director of LANS, shared with me was that they had not successfully been able to make all the connections between art, science, and nature. As Stephen Wilson, professor of conceptual/information arts, writes,

> Artists should be hungry to know what researchers are doing and thinking, and scientists and technologists should be zealous to know of artistic experimentation. The future will be enriched if this expansion of zones of interest becomes a part of the definition of art and science.[82]

But, this is an ideal and ideals are difficult to achieve. Wilson proposes that science and technology be thought of as creative cultural acts. Art must, in exchange, be considered a science. Wilson asks, "What is art that is influenced by science? What is science that is influenced by art?"[83] Philosopher Paul Feyerabend observes,

> The arts, as I see them today, are not a domain separated from abstract thought, but complementary to it and needed to fully realize its potential. Examining this function of the arts and trying to establish a mode of research that unites their power with that

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[81] From a lecture given in 1959 and then published as C.P. Snow, *The Two Cultures* (New York: Cambridge University Press, 1998).

[82] Stephen Wilson, "Art and Science as Cultural Acts," *Biomediale: contemporary society and genomic culture*, ed. Dmitry Bulatov (Kaliningrad, Russia: The National Center for Contemporary Arts, 2004), 178.

[83] Ibid, 181.

of science and religion seems to be a fascinating enterprise.[84]

Post-industrial sites not only have the potential to house this enterprise but are in desperate need of the new perspective such an enterprise might bring to their reuse. Rather than confirm capitalist divisions and homogeneity, the science of art may aid in forming new landscapes of new relations.

It is worth stressing that I am not suggesting that only artists and designers can reinhabit, but that thinking like an artist and adopting an artistic methodology is at the heart of ethico-aesthetic-based reinhabitation. Thinking-and-acting-like-an-artist is a tool in the reinhabitation toolbox.[85] Guattari also makes this amply clear.

> This is not about making artists the new heroes of the revolution, the new levers of History! Art is not just the activity of established artists but of a whole subjective creativity which traverses the generations and oppressed peoples, ghettoes, minorities…I simply want to stress that the aesthetic paradigm—the creation and composition of mutant percepts and affects—has become the paradigm for every possible form of liberation, expropriating the old scientific paradigms.[86]

Nor am I, in my conceptualization of reinhabitation, demonizing science. Landscape architect Nina-Marie Lister argues that "Ecological science is an essential tool, but when employed without contextual knowledge or social values, science is an insufficient basis for park design."[87] The differences in perspective between landscape architects, engineers, ecologists, and property owners (including government and private corporations) are well known and, in turn, well discussed.[88] Both the perspective and the methodology of artists are of a different nature than that of both the former and the latter.

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[84] Paul Feyerabend, *Against Method* (New York: Verso, 1988), 288.

[85] Guattari also finds the description of artistic and intellectual work as a tool useful. He writes, "[intellectuals and artists] produce toolkits composed of concepts, percepts and affects, which diverse publics will use at their convenience" (CS, 129).

[86] CS, 91.

[87] Nina Marie Lister, *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York: Princeton Architectural Press, 2007), 51.

[88] Throughout *Manufactured Sites: Rethinking the Post-industrial Landscape* (New York: Spon Press, 2001) the differences of perspective between the various parties involved in post-industrial landscape projects is discussed. See specifically Chapter 5 by Steve Rock "Phytoremediation: integrating art and engineering through planting."

To argue for thinking and acting like artists is not to argue that one perspective or another is qualitatively better. It is to integrate values, responsibilities, collectivities, and subjectivities in the work of creating space. By displacing the expert, the work that happens at both Gunpowder Park answers Guattari's cry that, "Ecology must stop being associated with the image of a small nature-loving minority or with qualified subjects."[89] This is what thinking-and-acting-like-an-artist entails: reconfiguring knowledge to suit the situation in a manner that responds to all ecological registers.

THE ETHICO-AESTHETIC POLITICS OF REINHABITATION: A NEW ART OF LIVING

> Once a landscape loses its former diversity, because the soil got poisoned and over-fertilized, the surface water turned sour and the groundwater was polluted with heavy metal, it has lost its long-term ability to preserve biological diversity. This, too, has an impact on the natural ability of self-regulation. [c.f. autopoiesis] In the end, concrete surfaces and polluted fields only allow for a very limited variety of use; their ability to generate healthy food or drinking water has been stolen for a sustainable amount of time. The degradation of soil continues on and causes further disturbances in the scenic appearance. [...] The aesthetic value of a landscape is also considerably effected [sic].[90]

Reinhabitation, in response, is a return to health through responsibility and materiality. It is taking back the power to define space, and continuously reasserting that power. Reinhabitation requires that earth's human inhabitants not only take ethical responsibility for their relationships with others, human and non-human, but also the material appearance of our post-industrial landscapes and the quotidian behaviors that have created them. This can be done most effectively not simply by scientifically quantifying loss of biodiversity, chemical imbalance, or chronic illnesses—for such has been recorded to no avail—but by considering the power we hold over our own choices and initiating political changes through creative public participation. This is not simple. Nor is it easy. Rather, reinhabitation requires that we continuously reconsider our

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[89] 3E, 52.

[90] Gottfried Langer & Christian Ludwig Krause, "The Alteration of Landscape Over the Centuries," *Natural Reality: Artistic Positions Between Nature and Culture*, Curator Heike Strelow (Stuttgart, Germany: DACO, 1999), 144.

theories and reinvent our methods in an autopoietic fashion. Reinhabitation requires an 'anything goes' methodology guided by responsible aesthetics, ethical relations, and 'thinking like an artist' with the goal of aesthetically transforming our post-industrial landscapes to create healthy (urban) ecologies.

As Laurence Buell observes, urban reinhabitiation is

> all the more important for creative artists and intellectuals at large as well as design and planning professionals, insofar as 'the true test in reinhabiting place is our personal and shared abilities to unwrap and tap the inner expressions, experiences and senses that collectively make up our cognitive maps of place.'[91]

Landscape architect Meyer agrees and writes, "We need design strategies that make visible the past connections between individual human behavior, collective identity, and these larger industrial and ecological processes."[92] Meyer continues to speculate that such approaches might help us "re-imagine a society of consumers who are aware of their impact on our habitat, not simply out of self-interestedness but arising from a sense of extended, interconnected community" through awareness of scale, the impact of lifestyle choices, and, ultimately, help connect values and behaviors towards environmental-citizenship.[93]

Underlying Felix Guattari's ecosophy, in theory and practice, is the everlasting importance of subjective experience and the need to question our way of life. The approach he exhibited at La Borde (Chapter I) is a rigorous 'anything-goes' methodology because everything, traditional roles, proper activities, were called into question, which in turn suggests continuous evolutionary adaptation of activities to ethical limits. What his ecosophy offers is a guiding vision to enable the interrogation of priorities and ability to confront uncomfortable realities (thinking-and-acting-like-an-artist).

The landscape of Gunpowder Park feeds birds, encourages scholarship, houses bats, inspires artists, and invites play. As a site of former (ab)use with (re)new(ed)

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[91] Lawrence Buell, *Writing for an Endangered World: Literature, Culture, and Environment in the U.S. and Beyond* (Cambridge, MA: Belknap Press of Harvard University Press, 2001), 86.

[92] Elizabeth K. Meyer, "Uncertain Parks: Disturbed Sites, Citizens, and Risk Society," *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York: Princeton Architectural Press, 2007), 64.

[93] Ibid, 64.

purpose, it is a cartographic reference point for thinking-and-acting-like-an-artist. Place-based encouragement of ecological art, as is occurring at Gunpowder Park, performs the ethico-aesthetic paradigm by encouraging unpredictable inquiries into ecologies inspired by the landscape.

The overt struggle happening currently at the Park to create a multi-functional place that responds to complex and constantly changing needs mirrors the challenge of identifying appropriate treatment at La Borde. Inviting artists like Brandon Ballengee whose work can be considered both artistic and scientific to work on site displaces traditional concepts that each person has only one role: artist or scientist, patient or doctor.

As a reincarnation of the old British commons, Gunpowder Park is for publics at multiple-scales. It is a park for an international audience who are striving to reinhabit post-industrial spaces near them. It is for the residents of the badly reclaimed Enfield Island Village. It is for art patrons and London residents who are looking for a day out or a fresh perspective. Just as at La Borde, the issues dealt with at Gunpowder Park are bigger than the immediate horizon. They create lasting impressions in the form of interdisciplinary teams, new management schemes, and multi-media records of innovative art.

Félix Guattari's work and the innovations of Gunpowder Park should not define, but inform post-industrial reinhabitation. The challenge is to continue the work in our daily lives, in the way we see our everyday landscapes, and interact with others.

CHAPTER V

CONCLUSION: MUTANT ECOLOGIES AND METAMORPHOSES

Our survival on this planet is not only threatened by environmental damage but by a degradation in the fabric of social solidarity and in the modes of psychical life, which must literally be reinvented. The refoundation of politics will have to pass through the aesthetic and the analytical dimensions implied in the three ecologies—the environment, the socius, and the psyche. We cannot conceive of solutions to the poisoning of the atmosphere and to global warming due to the greenhouse effect, or to the problem of population control, without a mutation of mentality, without promoting a new art of living in society.

Félix Guattari[1]

In the face of this present morass, we are standing on the edge of an ecotone, looking in: as many before me have noted, we either continue on this murderous path of Total War or we don't. Serious and imminent changes are taking place and have taken place in the ecology of this earth and we must be prepared to respond to these metamorphoses.

NEW UNIVERSES OF REFERENCE

To conclude concretely, Felix Guattari's ecosophy and Gunpowder Park offer a framework for concrete reinhabitory actions in the world. They provide nodes from which to approach and enact eco-logical praxis. It is no longer enough to confront Total War from the outside; "It is equally imperative to confront capitalism's effects in the domain of mental ecology in everyday life: individual, domestic, material, neighbourly, creative or one's personal ethics."[2]

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[1] CS, 20.

[2] Elizabeth K. Meyer, "Uncertain Parks: Disturbed Sites, Citizens, and Risk Society," *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York: Princeton Architectural Press, 2007), 50.

In this thesis I argue that Total War (industry, military-industrial complexes, suburbanization, mediatization, etc.) has devastated and continues to devastate landscapes. Furthermore, I argue, landscapes are a barometer of ecological health. Our landscapes register the impacts of our lifestyles and, as such, are indicators of the sustainability of our relations, material and immaterial. Our post-industrial landscapes are not only in dire need of attention but are an opportunity to adapt creatively to mutant ecologies and metamorphoses. By reinhabiting post-industrial landscapes we have the opportunity to reconstitute our relations with the materials in our lives and the immaterial relations with others (human and non-human) and self.

I have accomplished at least three things with this thesis. First, I unearth a conceptual and physical space of interest and struggle that has occupied and occupies eco-critics, geographers, landscape architects, psychoanalysts, architects, philosophers, and artists: the post-industrial. I suggest that designing post-industrial landscapes is an opening, an opportunity for reinhabitation. These post-industrial spaces in our cities and around our cities that are the result of consumption and production (Total War) must be approached ecologically for they are the new frontier, the next ecological frontier. They are not the great Western landscapes of the United States which were seen as ripe for conquering; post-industrial landscapes are a visible gallery of the results of our lifestyles, human and non-human, virtual and environmental. Again, these landscapes provide a rare and valuable chance to rethink and redefine our material and immaterial relations.

Second, I narrate a landscape and so shine light upon a particular place whose story is so many other stories while also being only its own. Gunpowder Park is a single landscape that integrates the extremities embedded in the 'glocal.'[3] It is a local place with global references and reverberations. Gunpowder Park is literally in dialogue with publics at various scales from regional to international, human and non-human. As Carlo Petrini, leader of the Slow Food movement, has said, "We can't change the world just by

[3] Defined in Chapter II by Gospondi as an "emerging urban landscape-collage dominated by two extremities: (a) that of tradition, with rather local spatial references and (b) that of innovation, having more universal or global spatial references."

preaching boring messages."[4] There are exciting things happening at Gunpowder Park that provide tangible inspiration for other reinhabitation projects.

Finally, I reclaim a term post-disciplinarily: reinhabitation. First and foremost, reinhabitation implicates all and demands no isolation! Ecologies cannot be divided. Reinhabitation simultaneously bridges and entangles the technological, biological, informatic, social, theoretical, and aesthetic; that is, reinhabitation is transversal. Reinhabitation inextricably entangles ecologies and human settlement. Reinhabitation, understood through an ethico-aesthetic lens, invites post-industrial landscapes into a multi-valenced ecological conversation. Reinhabition is about creating places to be that make us aware of our relations to others and change our way of living when we are elsewhere. Reinhabitation is thrown-togetherness-without-exploitation.

Reinhabitation implies a new way of seeing: seeing something out-of-place. Artist Andy Goldsworthy's snowballs are a perfect example. He created a series of giant snowballs with various objects such as barbed wire, rusty metallic odds and ends, and red clay and positioned them around London. When the solidified water melts, the public is left contemplating the remains. We are left contemplating the remains of our lifestyles in the post-industrial landscapes that surround us. What we make of them depends on how we see what we are looking at. Are they money making resources, simply cheap building sites? Ugly? Beautiful? Reinhabitation asks that we see through these simple judgments so as to transversally connect the constituent relations.

We must nurture unexpected possibilities, or rather, nurture the unexpected as a possibility. It is necessary to repeat Henri Lefebvre's question, "Are the same means of production to be used to produce the same products?" If we take seriously the challenge to reinhabit as an ethico-aesthetic imperative, the answer will be no. If we continue to carelessly 'reclaim,' toxins will continue to make humans and non-humans sick and need to be disposed of, and abandoned land will either continue to serve as resource for the same industries that abandoned it or remain ignored, thus encouraging further concrete

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[4] As quoted in Sandor Ellix Katz, *The Revolution Will Not Be Microwaved: Inside America's Underground Food Movements* (Vermont: Chelsea Green Publisher, 2006), 132.

expansion from the city center. What is clear is that Integrated World Capitalism cannot continue to be the only imperative deciding the fate of our landscapes. Instead, wholesome ecological health is at the heart of reinhabitation.

This has not been an exploration of the post-industrial landscape in search of techniques through which we might build proxemic places. There is much opportunity to explore new ecologies within the post-industrial landscape, but it must be distemic, political, a dialogue-together. If we do not reinhabit the spaces we previously almost destroyed, we are participating in the same means of production which will only produce the same product: abandoned and often contaminated areas of disuse in a socio-economically stratified society where difference is frowned upon and shopping malls prevail.

Guattari uses the term heterogenesis to describe processes of continuous resingularization which in turn opens to multiple subjectivities. Speaking against 'monolithic identity', landscape architect Linda Pollak argues for socially and ecologically resilient landscapes through difference. She writes, "The folding of a multiplicity of social and natural concerns—from multiple ecologies to multiple constituencies—into a landscape is a way of affirming its heterogeneity."[5] This involves constant reconsideration of the relations embedded in the landscape. It means paying attention to relations that are often overlooked and organizing space to promote new relational configurations. Reinhabitation continuously draws on a heterogeneous urge to diversify with the understanding that diversity is inherently necessary to evolutionary survival.

We are surrounded by diverse mutant ecologies and strange metamorphoses; to these we must pay attention. It is dangerous to smoothly incorporate post-industrial landscapes into the fabric of our cities. To do so is to encourage the production of more such landscapes. It is to deny responsibility for the lifestyles that created them in the first

[5] Linda Pollack, "Matrix Landscape: construction of identity in the large park," *Large Parks*, ed. Julia Czerniak and George Hargreaves (New York: Princeton Architectural Press, 2007), 87.

place. It is to think and act redundantly. Post-industrial landscapes must be reinhabited: adapted to house difference, incongruity, and change.

Fish in Seattle are evolving backwards to protect from predators.[6] Some octopi prefer polluted water to clean.[7] We must learn from these post-industrial ecologies how to interact creatively with our world. Recognition of mutant ecologies as something worth caring about and living-with may disable lifestyles that divide and conquer. As Smithson suggests in the opening epigraph to Chapter II, the way we interact with each other, ourselves, and the physical world around us is, to a large extent, the result of what we see when we look around. The challenge is to see differently and therefore act innovatively.

Felix Guattari has suggested that in a post-industrial age, we must move beyond a simplistic scientific paradigm and instead embrace "culture, creation, development, the reinvention of the environment and the enrichment of modes of life and sensibility."[8] I echo this sentiment.

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[6] A fish called stickleback has begun to evolve backwards in response to the clean-up of pollution in Lake Washington outside of Seattle. The murky, polluted water had hidden them from predators, but as the lake become cleaner and clearer, the fish were unprotected. They now have armored plates reminiscent of their ancestors to defend themselves. Anne Minnard, "'Reverse Evolution' discovered in Seattle fish," *National Geographic News* (May 20, 2008) http://news.nationalgeographic.com/news/2008/05/080520-fish-evolution.html.

[7] Guattari provides an example of a healthy, thriving octopus in cloudy, dirty water that then dies when put into clean water. 3E, 60.

[8] 3E, 28.

APPENDIX:

GUNPOWDER PARK MANAGEMENT MAPS

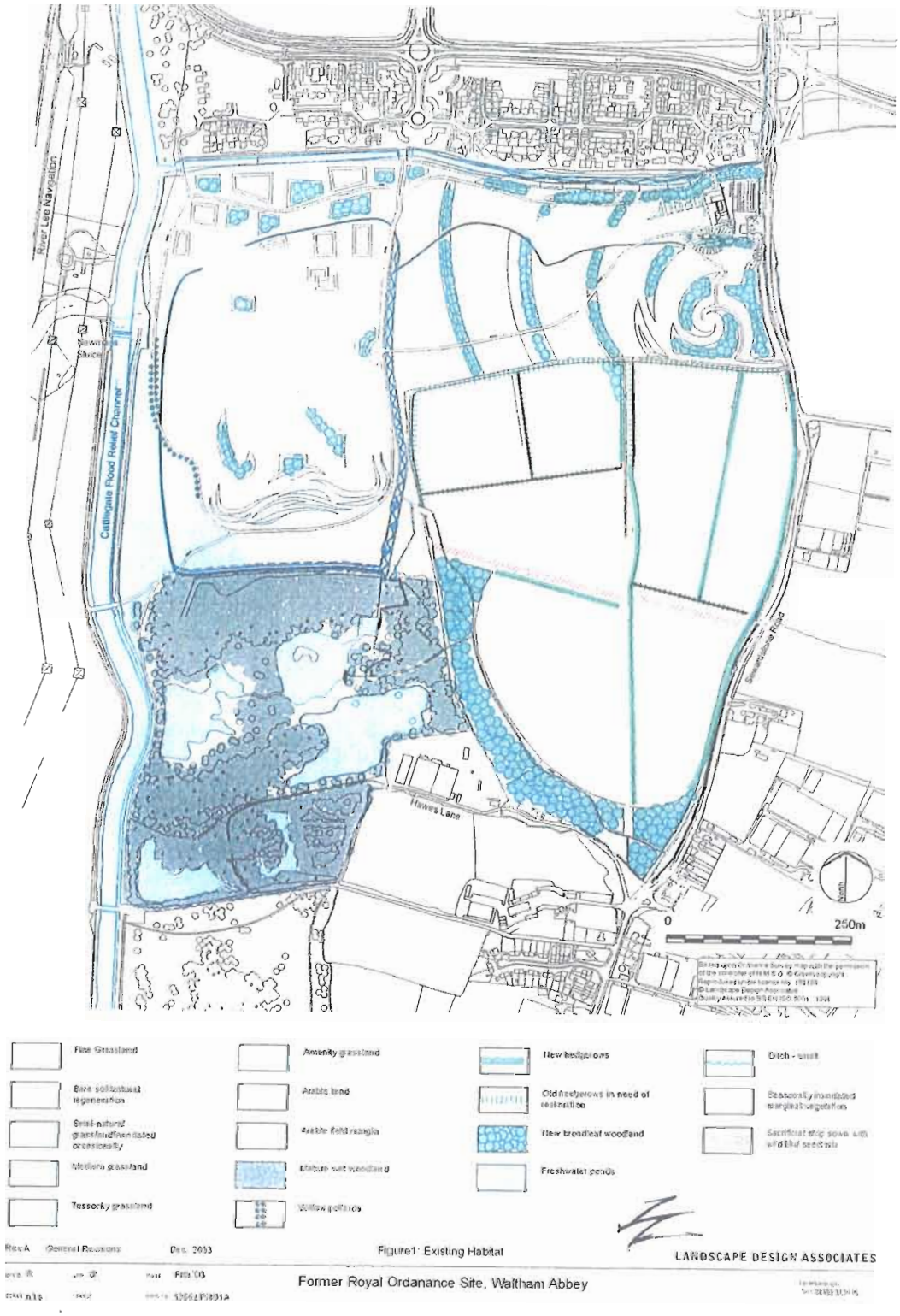

FIGURE 1: Existing Habitat (Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.)

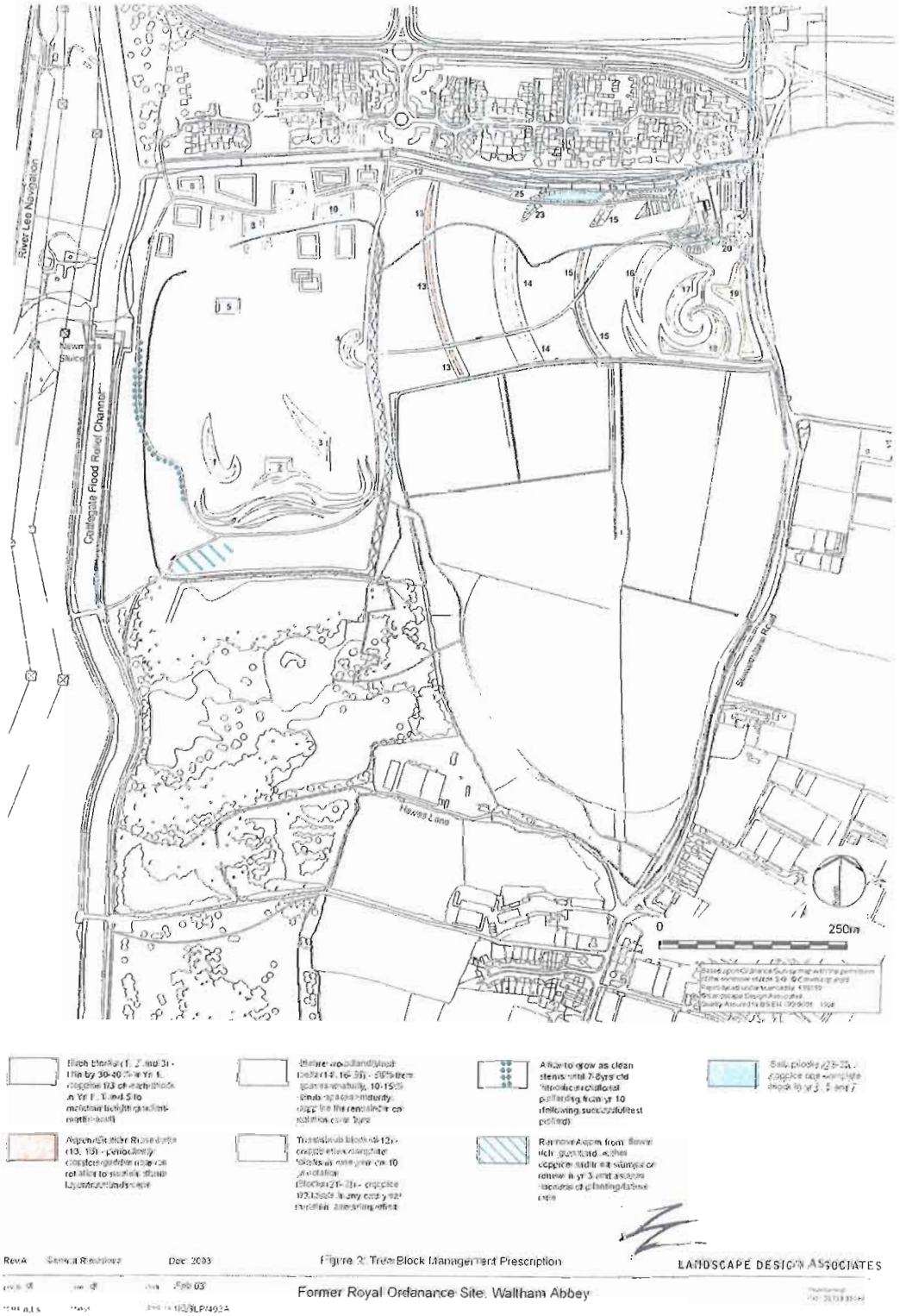

FIGURE 2: Tree Block Management Prescription (Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.)

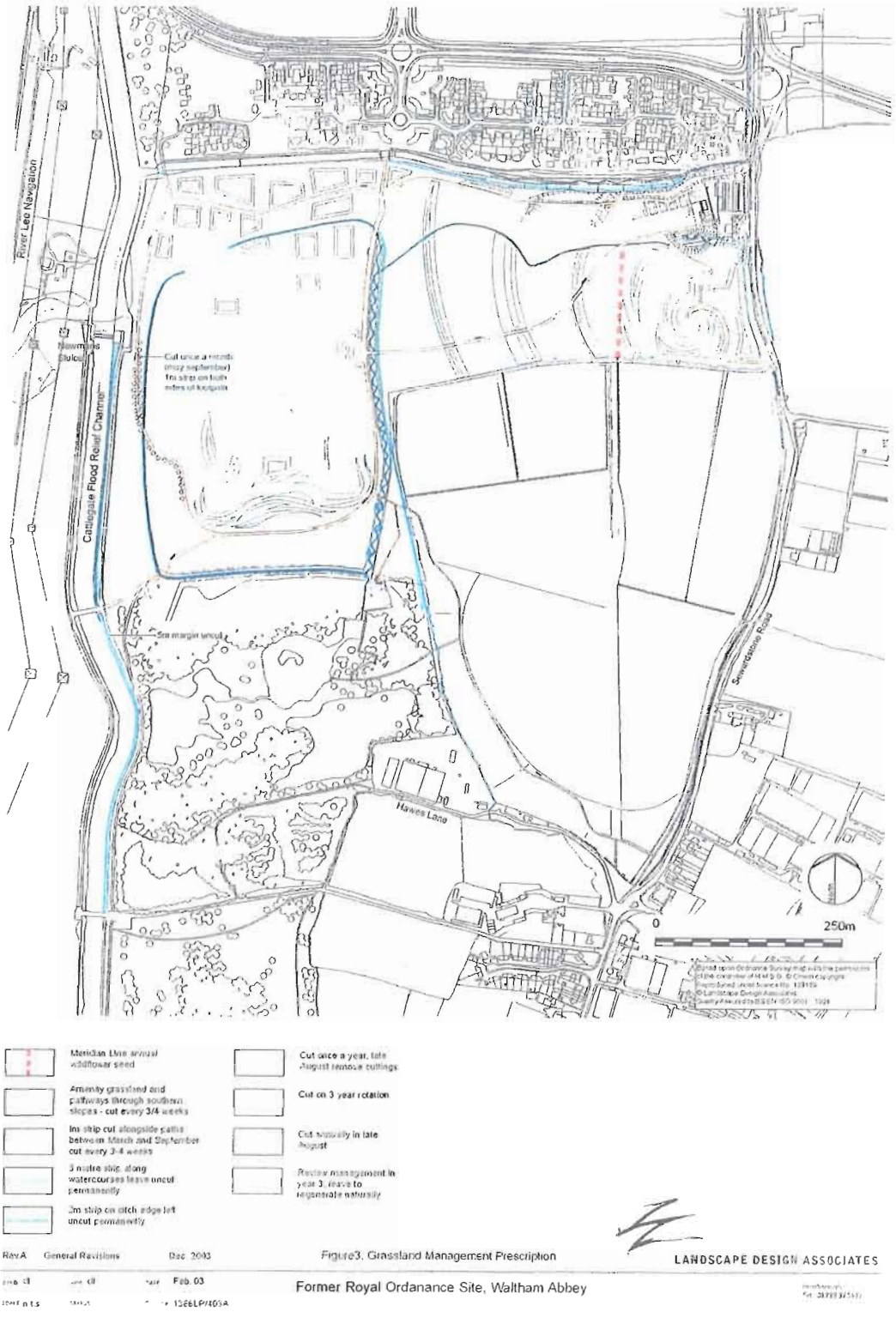

FIGURE 3: Grassland Management Protection (Lee Valley Regional Park Authority, *Site Management Plan 2006-2011*.)

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