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DIFFRACTING REPRESENTATION: TOWARDS A SITUATED AESTHETICS OF TECHNOSPACES

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**DIFFRACTING REPRESENTATION: TOWARDS A SITUATED
AESTHETICS OF TECHNOSPACES**

By

FEDERICA TIMETO

A thesis submitted to the University of Plymouth

in partial fulfillment for the degree of

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Diffracting Representation: Towards a Situated Aesthetics of Technospaces

Federica Timeto

My research for this thesis focusses on the concepts of representation and space in order to demonstrate their theoretical and practical co-implications. Discussing various theorists of space in the first part and analyzing a number of artists and artworks as case studies in the second part, I elaborate a critique of the representational imaginary in order to articulate an alternative notion of representation by means of which a relational, qualitative and performative spatiality can emerge. I specifically focus on technospaces, which I consider a privileged field for observing the intersections of representation and spatiality; it is a field in which the use of spatial metaphors abounds, very often relying on a series of dichotomies (such as location and mobility, the real and the virtual) that have employed and, in most cases, reinforced the traditional idiom of representational. Drawing on the lessons of feminist theory, particularly on approaches to the politics of location, from Adrienne Rich's initial formulation to the situated knowledge theorized by Donna Haraway, I elaborate a situated aesthetics of technospaces in which the observer's engagement with representational practices replaces the view from a distance of traditional representation, so that her/his position is accounted for together with the history of the production of space and its multiple representations. For this reason, I also formulate an articulatory turn in representation based on Haraway's semiotics in order to propose a non-reflexive notion of representation in which invention and factuality eventually meet.

Keywords: Representation; Spatiality; Technospaces; Feminist Epistemology; Situated Knowledge.

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Author's declaration

During the period of the registration for the degree of Doctor of Philosophy at Plymouth University the author registered for a Dottorato in Sociologia della Comunicazione e Scienze dello Spettacolo at University of Urbino (Italy) in December 2010. No research conducted whilst registered with Plymouth University will be used for any degree at University of Urbino and no research conducted at University of Urbino has been used for the Plymouth University degree.

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Relevant Publications:

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Net Locality. Review of the book by Gordon & de Souza e Silva, *Sociologia della comunicazione*, XII(42–43), 231–234.

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2010

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2009

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(Ed.) *Cultura della differenza. Femminismo, visualità e studi postcoloniali*. Turin: Utet Università.

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An elsewhere within here. In M. Gržinić & T. Velagic (Eds.), *New-Media technology. Science and politics. The video art of Marina Gržinić and Aina Šmid* (pp. 273–289). Vienna: Löcker.

2006

Il video-saggio e le tecnologie del confine. Dialogo con la videoartista svizzera Ursula Biemann. *Duellanti*, (28), 70–71.

Presentations and Conferences Attended:

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Dispersed webs. Consciousness raising in the digital age. Paper presented at the Museums, migration, memory and citizenship. MeLA Workshop, Palazzo delle Arti di Napoli (PAN), Naples, 14 March.

Liquid women. Donne che attraversano il mare. Paper presented at the Immagini di donne per l'Europa, 4° convegno CIRSD De Donne per l'Europa, Turin, March 7.

In the middles of urban space. The case of Critical City Upload. Paper presented at the Media & The City, ECREA Temporary Working Group Workshop, Milan, February 10.
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2011

Location and Mediation in a Networked Space. Paper presented at the Consciousness Reframed 12. Presence in the Mindfield. Art, Identity and Technology of Transformation, Centro Cultural de Belém, Lisbon, November 30–December 2.

Articulating Representation: Haraway's semiotics and the politics of diffraction. Paper presented at the Contested Truths. Re-shaping and Positioning the Politics of Knowledge conference, Humboldt Universität, Berlin, June 16–18.

2009

Performative Technologies for Performed Territories. Reconceiving Locative Media Art. Paper presented at the Borderscapes II. Another brick in the wall? Conferencem Trapani, September 13–16.

Aesth/Ethic Technotopias: Feminist Situated Practices inside a Connected World. Paper presented at the 7th European Feminist Research Conference, Utrecht, June 4–7.

2008

Genere e tecnologia. Fra arte e nuovi media. Talk given at the Qualcosa del genere seminar series, Dipartimento di sociologia e ricerca sociale, Centro Interdisciplinare di Studi di Genere, Università degli studi di Trento, Trento, December 1st.

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Metodologia e critica situata delle nuove tecnologie. Talk given at the Stati generali Interculturali dei Media Seminar - New Media Education and Research, PhD Program M-Node, Scuola di Media Design e Arti Multimediali Naba, Centro Internazionale di Fotografia Forma, Milan, April 14.

2007

An elsewhere within here: Eastern Europe as cyberfeminist (according to Marina Gržinić).

Paper presented at the Researching the Future. Aspects of Art and Technoethics Conference, Centro per l'arte Contemporanea Luigi Pecci, Prato, December 7–9.

Ursula Biemann's Video-Cartographies. A feminist approach to new media art and technologies of mobility. Paper delivered at the Cosmopolitan Network Conference: Mobilities, Space, Inequalities, Institute of Sociology, Basel, September 7–9.

2006

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Date: April 16th 2013

For Titto (1997-2012)

My first cat, forever.

Introduction

This research focusses on space and place. It discusses gender and technology. It also talks about science and art. Above all, it proposes a way of reconceiving representation, of understanding what unites these classical oppositions, and whether the idea of such dualities can, indeed, be maintained. Ultimately, the aim of my research is to elaborate a situated “aesth/et(h)ics” of technospaces in which ethical accountability meets the transformative power of creative imagination. The research and discussion of my arguments are presented in four chapters.

In the first chapter, entitled “Space, Place, Representation,” I discuss the distinction between space and place, and the related dichotomies that they evoke, in order to outline a relational notion of spatiality in which space and time are coimplicated, and space and mimetic representation are delinked. The dichotomy between space and place that has permeated many debates within different theoretical fields, from geography to technology studies, is generally seen to depend on a bifurcation between a conception of space as a measurable, extended entity and another that, on the contrary, approaches space as always lived and embodied—that is, as place. A detailed review of these two conceptions and of their historical variants can be found in Edward Casey’s (1997) survey. Here, Casey retraces the history of this opposition in the form of a progressive disappearance of local places in the placelessness of the global village where, although we seem to find a supremacy of temporality, we can, at the same time, find a renewed opportunity to rediscover place as a heterogeneous multilocality.

It is not difficult to agree with Casey’s fundamental premise, outlined against Newtonian physics, that “nothing we do is unplaced” (p. ix), which means that place is never a given but always a performative implacement; equally convincing are his conclusions regarding place, based primarily on Gilles Deleuze and Felix Guattari’s (1980/1987) nomadology, and his idea of a possible return to place as an experience of constant becoming,

encompassing forms of embodiment and dwelling which contemplate mobility and directionality. It is less easy, however, to agree with the arguments he employs to sustain his thesis: *in primis*, the opposition he maintains between space and place, which in turn supports a whole chain of other binaries, such as unity and multiplicity, interiority and exteriority and the universal and the particular.

Revelatory, in this respect, is the critique that Casey directs against the “heterotopanalysis” of Michel Foucault (1984/1986), drawing on the latter’s use of the term “site.” Casey disputes the idea that we live in a spatial epoch and argues that Foucault’s use of the term “site” empties place of its “placial” quality and reduces position to a set of points on a calculable grid. However, if we examine Foucault’s position in detail (1980/2007), we can see how he never considers space as mere exteriority, as a passive extension or surface of inscription, but rather as a heterogeneity where the unfolding of different spatiotemporal relations performs different arrangements. Accordingly, site is, for Foucault (1984/1986), a dynamic term expressing the performative character of situatedness, the same that he indicates in the notion of “heterotopia.” In “Of Other Spaces” (1984/1986), Foucault defines heterotopias as sites that “suspect, neutralise or invert the set of relations that they happen to designate, mirror or reflect” (p. 24). This statement, as detailed in my analysis Foucault’s heterotopias, is of the utmost importance since it suspends the representational tradition of analogical correspondence upon which the above-mentioned series of oppositions—and many more—rests, shifting our attention to the logic of interrelations that enfolds space and place, as well as space and time.

For the feminist geographer Doreen Massey (2005), who analyzes the ways in which the association between spatiality and representation considered as a mirror of nature has equated space with stasis and closure, all sites have an element of heterotopia, which she considers “the instability and the potential of the spatial” (p. 116). Space is the sphere of heterogeneity, negotiation, and coevalness (Massey, 2005, p. 99), aspects which are repeatedly foregrounded in this thesis either in relation to the practices of space or its

representations. In fact, only a complete delinking of space from traditional representation can lead to a disclosure of the continuous articulations of space and, as we will see, to the possibility of articulating representation as well. If representation is reworked, without necessarily being refused, as “an element in a continuous production” rather than “a process of fixing” (Massey, 2005, p. 28), the gap between the subject and the object—which confirms the equation between representation and spatialisation—is reduced to a point of implosion that reveals their coimplication.

This realignment has important consequences both for the process of knowledge production in the sciences (Massey, 2005, p. 75)—as second order cybernetics (see Hayles, 1993/1997, 1995; Hayles, Luhmann, Rasch, Knodt, & Wolfe, 1995; Maturana & Varela, 1980) and standpoint epistemology (see Harding, 2004a) demonstrate—and for the process of image production in the arts. As the case studies discussed in Chapter Four show, my analysis of the articulation of space and representation specifically focusses on the way technospaces, as those realms of “spatial praxis” where humans and machines intersect (Munt, 2001, p. 11), are defined and performed by way of alternative representational practices in which description and engagement ceaselessly merge.

Drawing on an article by Valérie November, Eduardo Camacho-Hübner and Bruno Latour (2010), the second part of the first chapter centres on the practice of mapping as an example of a representational practice that pertains to both traditional art and the digital realm. Bypassing the copy/model approach, along with the question of whether a map is accurate in describing reality or if there is, indeed, an accurately representable reality outside, the authors propose a navigational interpretation of maps that highlights the chain of sign production that instates both the map and the territory at the same time.

Based on these premises, I take Fredric Jameson’s (1991) notion of “cognitive mapping” as one of the most poignant examples of a critique of technospaces which is conducted from only one side of the gap. What Jameson actually laments is the loss of critical distance that alone, in his opinion, could allow for an “aesthetics of cognitive mapping” which is able to

“hold the truth” of our epoch (p. 54). But the search for this distance is, in fact, a form of nostalgia for an invisible, yet mastering, “view from nowhere” which coincides with the totalising project of the Subject of traditional representation. However, the promise of a totalising vision is a fiction because only situated perspectives “from somewhere” guarantee the possibility of “a larger vision” (Haraway, 1991a, p. 196).

Among the several critiques advanced against Jameson, it is again Massey (2005) who outlines the weaker aspects of his spatial imagination, particularly evident in his devaluation of space set against the progressive force of history. Space, as Massey contends, is always historical and in the making, so that there are multiple spaces for multiple temporal trajectories, just as there are, to use an expression of bell hooks (as cited in Grewal & Kaplan, 1994), “multiple manifestations of positioning” (p. 19). In this framework, connectivity does not appear as the omnicomprehensive and inevitable tendency of contemporary technospaces but as a “contingent articulation” (Hand & Sandiwell, 2002, p. 213) of different—sometimes converging, sometimes diverging—contextual practices. Engagement with such spatialities *in the making* also implies an active confrontation with differences that can always be engaged with, if only partially, rather than perceived as incommensurably distant.

For all these reasons, a profitable alternative to the impossibility of Jameson’s idea of cognitive mapping, particularly when discussing new technologies and technospaces, can be an interfacial approach based on Foucault’s (1984/1986) notion of heterotopia. Firstly, it is suitable for a cartography of contemporary spatial forms in which time cannot be confused with evolution anymore, but appears as the same—inherently processual—modality of spatial differentiation (see Foucault, 1980/2007, p. 178). Secondly, it shows how representations working as heterotopias alter both the experience of the viewer’s belonging to the place that is represented and the place upon which the representation’s “counteraction” is exerted. Once we look at the reciprocal counteractions of space and

representation, we are ready to “desanctify” both, says Foucault (1984/1986, p. 23), because what we see are rather the hybridising and mediating processes of mixed realities. In the second chapter, entitled “Location, Mobility, Perspective,” I focus on the concept of location because this more-than-spatial term, which has become paramount in feminist theory of the last three decades, appeals to a representational dimension that prioritises relationality. Actually, what feminist theories of location foreground are alternative representations in the form of transformative cartographies that encompass an epistemological and political gesture of accountability and responsibility for one’s location, and a creative drive towards transformation.

The chapter begins with a review of the literature regarding the most common geographical accounts used to describe cyberspace in order to show how they belong to a tradition which opposes mobility and location, just as space and place were shown to be conceptualised as antithetical in Chapter One. On the contrary, drawing on the analysis of Stephen Graham (1998), I show how location and mobility can be seen as intertwined when a recombinant perspective on technology and society—like, for example, that of Science and Technology Studies (see Wajcman, 1991, 2004), Actor-Network Theory (see Latour, 2005) or Situated Knowledge (see Haraway, 1991a)—is assumed. Such a relational conception underlines the mediating operation of networked space, avoiding those dualisms that still haunt many accounts of the real and the virtual. Above all, it dissolves the dichotomy between location and mobility because the connections that make and relate places now appear not only to be the result of specific operations, rather than given, but neither determinant nor definitive—thus, they are contingent and intrinsically historical. A “commitment to mobile positioning” (Haraway, 1991a, p. 192) is what the spatialisation of feminism—starting from the mid-1980s thanks to a series of confluent conditions analysed in detail by Susan Friedman (2000)—widely spotlights. Thus, I focus on Adrienne Rich’s (1986) politics of location, Sandra Harding’s (2004a) standpoint epistemology and Donna Haraway’s (1991a) situated knowledge in order to highlight the

similarities as well as the differences around the anti-essentialist, relational concept of location upon which all these theories revolve, although with different aims.

In “Notes Towards a Politics of Location” (1986), Rich’s search for location and for the possibility of giving voice to the commonality of women’s experience is accompanied by the constant fear of speaking in an overly-categorical way. If finding one’s own location means dismissing the perspectives of the other, she argues, it is time to unlearn the privilege of this space while learning that other spaces and histories also exist.

Notwithstanding all the historical and theoretical limits listed by her critics (and which are detailed in this chapter), Rich’s reclamation of the ground of politics is based on the awareness that locations are not fixed, but relational. Her thoughts delineate a spatialised politics (Smith & Katz, 1993) which will be further elaborated upon by the theory of standpoint epistemology on the one hand, and by the theory of situated knowledge on the other.

Standpoint epistemology, particularly in its third way formulations (see Harding 2004a), deconstructs the notion of epistemic privilege and shows how locations—in the above-mentioned sense—and social practices imply epistemic differences. This evaluation of difference in the epistemological and political process of knowledge acquisition and the reconsideration of the technologies of science draws standpoint epistemology very near to the position of science and technology studies (STS), as well as to some formulations of constructivism. Standpoint epistemology is interested in the ways different regimes of truth work, as well as where and why. It is possible to give “less false accounts” (Harding, 1997/2004b, p. 260) of the world that are equally true and partial because they do not demand absolute truth, while declaring their situatedness. Scientific knowledge always comes *from somewhere*: what Harding (1993/2004c) calls “strong objectivity” can also be thought of in terms of “strong reflexivity” (p. 136) or, with an even subtler distinction, “responsible reflexivity,” as Maria Lohan (2000) puts it, a reflexivity encompassing the

awareness of one's own location and the way this translates into a partial and relational practice of knowledge-making.

The seminal implications of these “partial understandings” (Barad, 2007) are at the core of standpoint epistemology. I introduce the main points of standpoint epistemology through the description that Karen Barad (2007) makes of it, as well as the critiques that she advances against it. Regarding the latter, what Barad refuses in particular is the way the concept and practice of mediation are formulated in Haraway's theory. Assuming a radically anti-representational position, Barad believes that mediation in Haraway's (1991a, 1997) works still relates the subject and the object of knowledge as if they were distinct entities whereas, on the contrary, Barad's (2007) notion of “agential realism” is based on practices of “intra-action” in which subjects and objects come to be enacted by the material-semiotic apparatuses that perform the boundaries between them each time. As a matter of fact, as I show in the last part of this chapter and in the subsequent one, Haraway (1992) does not want to discard either mediation or representation, but rather considers a coemergence of the subject and the object of representation on a shared ground where “boundaries take place in provisional, neverfinished articulatory practices” (p. 313). Thus, in the third chapter, entitled “Reconceiving Representation,” I investigate the possibility of an articulatory turn in representation based on Haraway's (1997) political semiotics of representation. I introduce the chapter by examining the ideological implications of the notions of field and visual field, taking as an example of such totalising organisations of the world the one found in the dialogue between Derek Gregory's book *Geographical Imaginations* (1994) and Timothy Mitchell's essay “Geography and the World as Exhibition” (1989). This analysis underlines how the existence of a comprehensive representational imaginary, such as that which hegemonically arose in Western Modernity, conceals the differences among diverse spatial imaginations and the power relations upon which they are grounded.

On the contrary, signification processes always require the articulation of differences, affirms Haraway (1992), whose semiotics (1997) comprises four branches, “syntactics, semantics, pragmatics and diffraction” (2000, p. 14). Before considering the fourth, optical branch in detail and what she intends by a diffractive methodology, I outline the aspects of what I define as the articulatory turn in representation, mostly derived from the initially constructivist and later non-representational turn that, in recent decades, has shifted the issue of the representation and representability of the Real from the search for an analogical correspondence between signs and things to an awareness of both representation and matter as dynamic and generative (see Peschl & Riegler, 1999; Thrift, 2008; Whatmore, 2006). Whereas in these theoretical perspectives, however, vision and representation have commonly been dismissed for being too representational in the traditional sense, the diffractive methodology that Haraway (1997) proposes succeeds in delinking representation from the “representational idiom” (Pickering, 1994), while nonetheless maintaining a radically materialist, anti-subjective and performative position which aligns it with the assumptions of non-representational theory, biological philosophy and contemporary biosciences.

Haraway understands that struggling against representation in the name of the world *matter*¹ (see Barad, 2007; Thrift, 2008)—as if we opposed sign and reality—is risky because such a position can disguise an implicit dualism between representation and matter in favour of the latter—just as defending place against space was an implicit recognition of their conceptual/ontological opposition. It is better, for Haraway (1997), to keep the semiotic framework open to representation and visibility too, so as to inhabit the transformative power of “figurations.”

Of the same opinion is Katherine Hayles (1993/1997), whose notion of “constrained constructivism” and the model of representation upon which it is built I discuss in this chapter because it demonstrates how representations can still be practicable, provided that

¹ A term that Barad (2007) uses to underline the processuality and “ongoing historicity” of matter (p. 150 ff.).

they are consistent, rather than congruent, with reality. As Hayles explains at the end of her essay, commenting on Haraway's notion of partial perspective, it is not that we only partially see the truth; rather, partiality is all that we can see, as the result of contextual and specific interactions with the "flux." Constrained representations are adequate figurations of the world. Figuration is the term used by Haraway (1997) to name the possibility that we have of mapping the articulations taking place at the boundaries of our realities.

Drawing on the Christian and Aristotelian traditions, Haraway focusses on the retrieval of the spatial—as well as temporal—aspect of figurations, putting into relief their strong link with location, to which they relate as constructive and transformative cartographies. They not only map the world, but they also highlight what changes in what they map at the same time that they are changing what they map.

The most powerful figuration that Haraway (1997) uses to show the entangled performativity of reality and representation and the generative power of visual practices is diffraction, an optical phenomenon that she uses to interrogate the relations of light and matter in the context of her semiotics. In physical optics, diffraction records the patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen. It describes the behaviour of waves and at the same time also interrogates the nature of light. Contrary to traditional representational practices, diffraction does not establish correspondences between two separate systems of reality; instead, it exposes where the effects of differences appear and how material-semiotic apparatuses, as intertwined assemblages, change accordingly.

A diffractive methodology makes us aware of the entanglements that involve the observer/knower in the process of reality-making, underlining the observer/knower's responsibility in the process as well. Adopting a diffractive methodology to map the material-semiotic dimension of technospaces offers the opportunity to elaborate a "different *kind* of theory of mediations" (Haraway, 1992/2008, p. 174) that does without the representational idiom while still believing in the viability and efficacy of

representations. It serves to displace fixed identities and put boundaries in constructive tension, requiring engagement rather than distancing.

In the last part of my thesis, comprising the final section of the third chapter and the fourth chapter, I discuss how this diffractive methodology and the awareness of the location of knowledge and representation translates into a situated aesthetics which, at the same time, is a situated ethics, which I for this reason define as “aesth/et(h)ics.” In fact, I think that if we follow the epistemological turn of the politics of location in the diverse formulations considered here, and if we privilege the practical over the representationalist idea of knowledge, we can accordingly hypothesise an anti-contemplative practice of imagination in which invention and factuality meet. Thus, I conclude the third chapter by discussing Haraway’s approach to Guattari’s (1992/1995) ethico-aesthetic paradigm: in fact, his “ontological pragmatics” always implies a “creative practice” (Guattari, 1992/1995, p. 94) and an engagement with the virtuality of the real that, at the same time, requires an ethical responsibility for one’s creativity (see Munster, 2006). And, in the fourth and last chapter, I discuss five case studies that I consider examples of aesth/et(h)ic practices which combine invention and factuality, and whose theoretical approaches are never detached from their practical consequences and the intention to make a difference in the spaces to which they relate.

In most cases, I have had the opportunity to speak with the artists either in person or via written communication. I have had a number of personal interactions with Ursula Biemann, whom I also interviewed in 2006 during an exhibition of her work at the Fondazione Olivetti in Rome (Timeto, 2006), and we remain in contact. I have corresponded with Ricardo Dominguez via a couple of email exchanges during the Summer of 2009—these have, unfortunately, got lost, but their record can be found in my conference paper *Performative Technologies for Performed Territories* (Timeto, 2009a). I sent my text “An Elsewhere Within Here” (Timeto, 2008a), which is included here in Chapter Four in a slightly altered form, to Marina Gržinić who decided to include it in a

reader (Gržinić & Velagić, 2008) about her video art works; I was invited by the artist to participate as a speaker at the book's presentation in Ljubljana in 2008, but I was unable to attend. I have also had a number of contacts with subRosa, who sent me most of its written and video documentation material for my study (first published as Timeto, 2010).

Marina Gržinić, whose work is the subject of my first case study, describes the condition of alterity in post-1989 Eastern Europe in relation to Western Europe (Gržinić, 1999, 2000, 2004; Gržinić & Minh-ha, 1998), adopting a cyberfeminist paradigm: for her, the space of Eastern Europe can be thought of as an “elsewhere within here,” whose boundaries shift and change but do not disappear, just as cyberspace is not the other outside of real space but rather constitutes the differential power, the potential of its perpetual incompleteness. For Gržinić (2000), the fact that the elsewhere always lies inside the here means that every account of it must be a situated one: one based on a situated perspective from within that recognises its partiality and can, thus, elaborate “a new economy of seeing” (p. 208). Like Gržinić, Ursula Biemann also proposes another economy of seeing in her video essays. She employs new video-technologies, in particular the same ones used by Geographical Information Systems (GIS), to account for the multiple locations of women's lives in transnational scenarios. Here, in my second case study, I focus in particular on her trilogy regarding these themes: *Performing the Border* (1999), *Writing Desire* (2000), and *Remote Sensing* (2001). Biemann (2003a) conceives of her artistic practice in navigational terms. She believes that the video essay practices dislocation because it adopts a situated perspective—in which the author's position is always put into play—that also moves across borders to document the lives of contemporary travelling subjects. But Biemann's video essays do not simply document this, they also work at creating connections so as to let all the complexity of contemporary globalscapes emerge (see Appadurai, 1996).

My third case study is an analysis of the online board game *Turista Fronterizo* (2005) created by Coco Fusco and Ricardo Dominguez, which represents and calls into question the ideology of the border. The game presents itself as a map that retraces the reality of an

existing border town; it offers the participant the possibility of embodying four different typologies of traveller—different by sex, class and ethnicity—so that the activation of different routes in the same territory unmask the different power geometries that traverse it (see Massey, 1994, 2005). The interactive topology that Fusco and Dominguez outline shows how the representation of space cannot be delinked from its performances, and how the latter vary according to what kind of person activates certain sociospatial relations more than others.

Dominguez is also among the authors of my fourth case study, the *Transborder Immigrant Tool* (TBT, 2007-), created with the Electronic Disturbance Theater (EDT) and which is still in a phase of beta-testing. The TBT is a cheap Motorola mobile phone equipped with a GPS receiver and a specifically conceived piece of software designed to help people that are excluded from what the group calls the “emerging grid of hyper-geo-mapping-power” (EDT, 2009) to safely trespass the U.S.-Mexican border. I consider the TBT as an example of an ethico-political art project based on a location-aware device that wittingly foregrounds its situated perspective, and I contextualise this example within the wider discussion of the ambiguous embeddedness of locative media and their multiple legacies and implications (see Hemment, 2006; Townsend, 2006; Tuters & Varnelis, 2006).

Finally, my fifth case study regards the U.S.-based feminist collective subRosa which addresses the condition of the “distributed body” (subRosa, 2011) inside the transnational networks of technobiopower, employing biotechnologies as the content and medium of their artistic practice. Involving local audiences by means of participatory workshops, lectures, and an actualised version of feminist consciousness-raising, subRosa engages in online and offline practices of networking against (and within) the strategies of the “integrated circuit” (Haraway, 1991a, p. 170)—an expression that Haraway employs to name the web of medical, military, labour and informational power forces in which women and other subaltern subjects, as well as animal and plants, are valued and exchanged as commodities. The collective continually pushes the boundaries of institutional and closed

fields of action so as to create a common interstitial zone where theory and practice cannot be easily disjoined. It blurs the boundaries between the subject and the object of technoscience and evidences, firstly, how bodies are materially, as well as symbolically, in the making and, secondly, how science, rather than being the approximation or uncovering of an essential truth, is also a set of performative practices that change through time and space.

My overall intention in this research is to show why it is so important that we reformulate a notion of representation that is not separate from reality but enmeshed with it, especially when we talk about technospaces that, due to a series of sociotechnological and historical transformations, appear as fluid places whose various boundaries are continuously reworked rather than erased and that cannot be adequately represented according to classical representationalism anymore. Once we dismiss the epistemological mechanisms of traditional representation based on analogical correspondence and a series of dichotomies, such as that between the subject and object of representation or that between true and false, we do not need to rely on false binaries anymore nor choose only one side of the oppositions we are confronted with; instead, we can shift to a performative approach that considers a hybrid sociotechnical environment. Here, matter is continuously mattering, so that representations are dynamically generated from within such matterings, being part of a continuous enfolding of reality according to heterogenous processes of realisation that happen creatively across “limitless interfaces” (Guattari, 1992/1995, p. 92).

If we recognise that technospaces are mobile and processual formations, then an adequate representation of technospaces must necessarily be part of these processes, not outside of them. Only in this way can we have the opportunity to map the practices of technospaces at the same moment that we practice technospaces, reconciling theory and practice. We do not need to get out of our locations to represent them; once we employ cartographic methods that are navigational rather than analogical (see November et al., 2010), we are

ready to confront the partiality of our perspectives as an opportunity to account for our contexts of observation and our situated behaviours.

The traditional link between representation and spatialisation that I examine in detail in this thesis can be dynamically reworked when representation is situated inside technospaces and when it is seen as part of the creative dimension that is a constitutive part of our technosociality. The implications of this, as I hope to have shown, are not only of the methodological and epistemological order, but also of the ethical and political order. For this reason, I adopt a situated methodology which tries to translate into practice what Chela Sandoval (2000) explains and criticizes when talking about the modernist mode of enacting oppositional dualisms. In fact, if we agree that subject positions are contingently assumed and that, on the contrary, any oppositionality based on rigid dichotomies leads to self-enclosure and precludes the crossing of boundaries which alone allows for relationality, then a differential, performative methodology is required in order to mobilize or even make possible the dialogue between different and even distant subjectivities, as well as between subjects and objects of discourse and practice.

Thus, when dealing with my case studies, I have always tried to confront my ideas with those of the artists', including their observations and suggestions when revising my analyses of their works, whereas in the first part of the thesis I have purposefully created a dialogue among different theoretical positions that may seem very distant from each other, combining authors who, although belonging to very different theoretical traditions, I wanted to confront and revise so that my "differential" situated position as a researcher could also emerge.

As Sandoval (2000) explains in her critique of Roland Barthes's (1957/2012) semiotics, it is possible to situate oneself inside the language of ideology provided that a bridge with the "outside" is offered. Otherwise, we again fall into the trap of representationalism in which a reality without words stands against a set of written signs which can only represent such reality, but never *engage* with it—which, in relation to texts, is more or less what Haraway

(1997) affirms when talking about vision and the diffractive methodology. Engaging, then, requires that we, as researchers and thus practitioners of meaning, relate to specific historical, situated positions that each time differentially define the way we connect to precise forms of domination and subordination. Just as there is no absolute position from which we can speak the truth (see Haraway, 1991; Harding, 2004a), neither is there a text that aprioristically contains an absolute truth and that cannot always be engaged with and opened up by means of a differential approach. In fact, a continuous practice of re-vision and self-re-vision allows the dialectics among different positions to be kept open, and is the condition of the possibility of *engaging* with our present without just describing it from the outside (Timeto, 2008b). So, combining the harawaian appeal for partiality and connection, Sandoval (2000) proposes a semiotics of articulation which is also a politics of articulation, since it interprets and traverses the boundaries that an oppositional and not-yet-differential consciousness still keeps separate, while “parasitically” (p. 181) inhabiting the networks of power at all levels.

Although I rarely declare my voice as a researcher in an explicit manner in this study, I hope that my situated position here clearly emerges from my re-vision of these other people’s words and positions. This was intended to activate a differential “semiological chain” (Sandoval, 1991, p. 184) by way of a differential assemblage that reveals the construction of the subjects’ meanings as ideology and, conversely, the construction of the objects’ functions as objects. Mobilizing both the positions of the speaking subjects and of the represented objects, I have thus tried to position myself within a terrain of constant dialogue with both the discourse of the dominant and the discourse of the oppressed, perfectly aware that these categories need to be grounded and historically related so as to avoid being reduced to abstract generalizations. A tactics of displacing accepted meanings, an “inappropriated” intervention in the order of representations, so to speak, is what I have pursued in my research. After all, working as a feminist scholar in a very feminist-phobic scenario such as the Italian one, I consider this my attempt to situate myself differentially

in the academy, to make a difference in words which, engaging with the existing hierarchy of powers that I live in first person, can hopefully be used to make a difference in practice as well.

Chapter 1: Space, Place, Representation

1.1 Space and Place: an Issue of Radical Coevalness

In this chapter, I discuss the distinction between space and place, and the related dichotomies that they evoke, focussing in particular on the way they are conceived in digital narratives about technospaces in order to outline a relational notion of spatiality in which space and time are coimplicated, and space and mimetic representation are delinked. I show how this move mobilises not only space, but representation as well. Thus, I critique Jameson's (1991) notion of cognitive mapping, to which I oppose an interfacial approach based on Foucault's (1984/1986) notion of heterotopia, which offers a more suitable account of the relational and performative qualities of technospaces.

There has been a theoretical "efflorescence" (Agnew, 2005, p. 82) around the concepts of space and place in recent decades. The polarisation between these two concepts has permeated many debates within geography as well as other theoretical fields in both the natural and human sciences,² revealing many similarities in and exchanges between the metaphors used and the philosophical references employed, although for different aims. This conceptual opposition frequently underlies theorisations that treat space and place separately, as if the characteristics of space could not also be attributed to place, and vice versa, and often appears to be conducted on the basis of a more or less explicit antinomy with the excluded term, showing the utility of a separate consideration to be ambiguous, at best.

The privilege accorded to space or place in these theories seems to depend on, and in turn to generate, a series of other dichotomies that reflect the adoption of precise theoretical stances. So, for example, whereas place is usually associated with the conceptual chain of originality, authenticity, concreteness, belonging, particularity and delimitation, space is

² To what extent such a distinction is still valid remains an open question, and it is often around spatial issues that commonalities between them are discovered.

considered a more abstract concept and is aligned with a different set of ideas, including deterritorialisation, universality, boundlessness, emptiness and the absolute (Grossberg, 1996; Massey, 2005). This tendency to favour place to the detriment of space, which is ultimately based on a fetishist and exclusionary notion of place, has its roots in the legacy of Heideggerian philosophy on human geography of the 1970s, against which several critiques have already been advanced (see Cresswell, 2002; Lemos, 2008; Massey, 1994, 2005; Merrifield, 1993).

Generally speaking, the way space and place are commonly conceptualised today originates from two philosophical traditions: the first one, drawing on Newton, can be termed absolutist; the second one, taking Leibniz as its point of departure, is relational (Agnew, 2005, pp. 84–85). Whereas for the Newtonian tradition space is an entity in itself, independently from what occupies it and thus absolute, the Leibnizian tradition pays attention to the forces and objects that populate space and thus activate it. Emblematic, in this respect, is Casey's (1997) historical survey of the destiny of place in Western philosophy, from ancient cosmogonies to the contemporary period. He notes a progressive decline in the importance of the concept of place due to an obsession with universalisation, running from Christianity to Structuralism via the age of exploration, and, above all, in the prominence accorded to a quantitative concept of space. This trend was followed by a dominant temporocentrism in the eighteenth and nineteenth centuries and, later, by its intensification in the form of today's dromocentrism (or the dominance of time as velocity—see the argument of space-time compression in Harvey, 1989). According to Casey, this latter development is rooted in the technological changes of the global village (which he also equates with a diffused placelessness) as well as in historical events such as wars and forced migrations which have recast the world as a scene of perpetual displacement—an idea that resonates closely with postmodern arguments regarding dislocation and the loss of orientation in the contemporary world. Unfortunately, as Massey (2005) notes, Casey's theory is haunted by the dichotomy between place and

space, which in turn evokes that between locality and globality and supports the opposition of concreteness and abstraction. Thus, even when he insists on the processual character of place, a relational perspective is ultimately precluded.

Even though he does not discuss Casey's texts directly, Coyne (1999) identifies the "logic of transformation" at work in these kinds of theoretical assumptions, in which the subject goes from the particularity of the physical world to the universality of cyberspace, and back again, where s/he finds an altered/enhanced experience of the particular after being "transformed, renewed, informed, and enlightened" (p. 267 ff.). This is a logic that underlies the dialectics of unity and multiplicity quite common in digital narratives and which Casey (2001) reformulates through the counterposition of universal, eventually virtual, space and particular, actual places. What is thinner, today, according to Casey, who adopts the terminology of Pierre Bourdieu (1972/1977), is the *habitus* that mediates the relation between selves and places, a sort of middle term that brings together the "placality" of an ongoing situatedness and the temporality of a continuous reenactment (p. 686). The *habitus* is intended as a processual engagement with place that allows the subject to move between internalising and externalising different norms and customs, made possible through the body as a vehicle, which is precisely what transforms places *into* and *as* lived places. Casey always assumes a phenomenological coimplication between place and the (embodied) self, an intimate relation that he links, for example, to Alfred North Whitehead's (1929/1979) use of the word *region* instead of the word place to describe the body's active *withness* in place (Casey, 1997, p. 214), or to Martin Heidegger's (1927/1962) concept of *Werkwelt*, which defines an enacted world of practices (Casey, 2001, p. 684). But Casey's assumptions also resonate with other socio-geographical formulations, such as Henri Lefebvre's (1974/1991) *trialectics* or Edward Soja's *Thirdspace* (1989), to which we could add the several oxymoronic definitions of place in Deleuze and Guattari nomadology (1980/1987) (for example, that of "local absolute," as cited in Casey, 1997, p. 335).

Casey's (1997) pro-place polemics focus especially on two concepts, universe and site. The universe is the contrary of the cosmos: whereas the cosmos generates *topoi*, and the cosmic creation cannot but be at the same time *of* and *from* place because cosmogenesis coincides with "topogenesis" (p. 21), the universe, which makes its first appearance with the Atomists, poses an infinitely extended space—or *diastēma*—which expels any individuation and thus any subjective or bodily experience of it (it is worth noting here the dichotomy maintained between the objective and the subjective). In addition, whereas the cosmos possesses a horizon and clear, though movable, boundaries outlining its visibility and availability as well as the possibility of a relation with their beyond, such as in a landscape (Casey, 2001, p. 690), a universe is a boundless, totally "out of reach," space. This is the space we also find in Newtonian physics, a quantifiable and absolute, immutable and intelligible space:

"Uni-verse," *universum* in its original Latin form, means turning around *one* totalized whole. The universe is the passionate single aim of Roman conquest, Christian conversion, early modern physics, and Kantian epistemology. In contrast, "cosmos" implies the particularity of place; taken as a collective term, it signifies the ingrency of places in discrete place-worlds (the Greek language has no word for universe; instead, it speaks of *to pan*, "all that is," "the All"). In its aesthetic being—"cosmetic" and "cosmos" are second cousins linguistically via the sharing of *aisthēsis*, that is bodily sensing—cosmos brings with it an essential reference to the experiencing body that is in close touch with it, takes it in, and comes to know it. The limit of a place is specified by what a body can do in that place, that is, by its sensory activity, its legwork, its history there. The universe is mapped in physics and projected in theology: it is the transcendent geography of infinite space. The cosmos is sensed in concrete landscape as lived, remembered, or painted: it is the immanent scene of finite place as felt by an equally finite body.

Where the universe calls for objective knowledge in the manner of a unified physics or theology, the cosmos calls for the experience of the individuated subject in its midst—with all of the limitations and foreclosures this experience brings with it. To have substituted the spatial infinity of the universe for the placial finitude of the cosmos is to have effected the fateful transition from ancient to modern thinking in the West. (Casey, 1997, p. 78)

On the other hand, there is site: if the universe subsumes and cancels place, site is a more subtle form of erasure. Whereas the universe dissolves place, we could say that site diminishes it, until it is stripped of its experientiality and reduced to a point, a "leveled-

down, emptied-out, planiform residuum [where] place and space [are] eviscerated of their actual and virtual powers and forced to fit the requirements of institutions that demand certain very particular forms of building” (Casey, 1997, p. 183).

Although Leibniz (1956, 1973) is the philosopher who, against Descartes, reconceives extension in qualitative terms, no longer as a divisive concept but a connective, relational one, Casey (1997) nonetheless criticises Leibniz for what he sees as an interchangeability of space and place in his thought, one in which place is ultimately reduced to a position, to the point of being devoid of its “placial” quality (p. 174). Leibniz uses the notions of “interval” and “situation” instead of measurable distance to conceptualise both place and space, talking instead about situation as a set of possible relations and of relations among different situations. In Leibniz’s philosophy, place and space cohere since space is a diffused locality and extension regards quality, not quantity; thus, there are neither *partes extra partes* nor a divisive conception of extension: “extension, when it is an attribute of space, is the diffusion or continuation of situation or locality” (and here lies his anti-Cartesianism. Leibniz as cited in Casey, 1997, p. 170).

But still, Casey (1997) continues to locate a supremacy of space to the detriment of place in Leibniz’s “sea of relations,” where place *qua* position, “the locus of no other locus” (Leibniz as cited in Casey, p. 179) remains “extero-centric to the situated subject,” providing only site rather than place (p. 178). Now, for Casey, place intended as *site* is a placement that remains extrinsic to what is emplaced; it is what Deleuze and Guattari (1980/1987), according to Casey, identify as “the relative global” type of striated space (p. 183; see below), a point in a grid that can be calculated and represented before being occupied, as locations of cartographic visualisations are (p. 201). “Yet, site does not situate,” (p. 201) says Casey, only place does. But what if we read Leibniz’s statement that place is “that which has no extension, or whose parts lack distance, whose size may be neglected or is unassignable” (as cited in Casey, p. 179) as an event-based interpretation of

place and space—seen only as different levels of connections—rather than an erasure of the qualitative matrix of place, eventually overcoming their geometric quantification? Deleuze (1988/1993), in fact, is of a different opinion than Casey and does not perceive any essential contradiction in Leibniz’s conceptualisation; instead, he considers these distinctions according to a theory of modulation of forces, a differential distribution of intensities that give way to either actualisations or realisations, so that, instead of two (or more) substantial orders of monads existing, there are simply different expressions of the same world. Each monad expresses the world through selection and closure but, at the same time, only in a particular place so that each state is always a differential condition maintaining closure as an always incomplete openness elsewhere. So, for instance, a Moebius strip, whose outside and inside cannot be distinguished, nonetheless “at any specific location [...] does have a top and bottom or inside and outside. Locally, then, there are spatial distinctions, within a global space without inside and outside” (Harris, 2005, p. 59). As Claire Colebrook (2005) also notes, saying that space is relational means considering that territorialisation and deterritorialisation cannot be thought of as absolute spatial conditions but as plays of forces inextricably and always differently related. It is not that relations emerge from a process of differentiation as its effects; rather, “the power to differ expresses itself differently in each of its produced relations,” so that the processes of spatialisation cannot be properly thought after the event, but *as* events, and thus “a field is not a distribution of points so much as the striving of powers to become and that become *as this or that quality* depending upon, but never exhausted, by, their encounters” (p. 198). Following his argument against site, however, Casey (1997) also criticises Foucault’s “heterotopanalysis” in “Of Other Spaces” (1984/1986). This brief and extremely dense text, published as an article in the French journal *Architecture /Mouvement/ Continuité* in 1984, was initially a lecture given in 1967. Here, Foucault discusses the seminal notion of heterotopia, upon which we will focus below. First, though, let us consider the points of Casey’s critique. First, Casey finds the periodisation that Foucault makes, with his

distinction among the three epochs of medieval localisation, Galilean extension and contemporary situational relationality, oversimplified and inaccurate. He also strongly disagrees with Foucault's assertion that we now live in a spatial epoch in which space takes the form of "relations among sites" (Foucault as cited in Casey, p. 299).³ On the contrary, Casey believes that ours is definitely a dromocentric epoch. Casey's presupposition of the negativity of the term *site*, then, makes him equate Foucault's reflection with Leibniz's "mistake" of a "purely positional or relation model of space or place construed as site" (p. 299). According to Casey, had Leibniz pushed the consequences of his philosophy of relational space further, he could have qualified place as the intermediary between the external order of space and the internal order of monads, thus establishing an intimate correlation between the somewhere and the everywhere and anticipating what quantum theory today postulates, id est, that

to be *somewhere* in the universe—to be at a particular *place in it*—is to be *everywhere through* the same universe: efficacious throughout and thus omni-located [...]. Or let us say, every place is everywhere—everywhere thanks to the unforecloseable causal efficacy, and thanks to the fact that a single place is capable of reflecting the whole universe of space. (p. 336)

Unfortunately, Casey (1997) laments, site as quantifiable location has become "the dominant spatial module of the modern age" (p. 334), preparing the terrain for the subsequent hegemony of time. But again, what Casey seems to miss is the fact that, in Leibniz, the difference between the internal and the external order is not a substantial one; to use Deleuze's (1968/1994) definition, "not only is the differential relation the pure element of potentiality, but the limit is the power of the continuous as continuity is the power of these limits themselves" (p. 47). The fundamental point is that, in Casey's phenomenological perspective, emplacement needs human embodiment and vice versa. Thus, a place cannot be a mere content of representation since representation only

³ Incidentally, it must be noted that Manuel Castells (1996), a sociologist of technospaces, believes that the space of flows, being networked, multifaceted and dynamic, "organizes time in network society"—perhaps supporting yet another kind of dualism (p. 376).

expresses the *where* and the *what* of place but not its virtual dimension, which he links with the phenomenal character of place (p. 231).

Casey's (1997) delinking of place and representation is noteworthy. Notwithstanding his insistence on the *evenmental*, non-*entitative* character of place (p. 336)—belonging to the order of events rather than to the order of measurable quantities—his defense of place against absolute space on the one hand, and the idea of a current predominance of time on the other, still appears to be conducted on the basis of an ontological distinction, be it that between place and space, or between place and time. Casey ends up falling into the same trap that he sees in Leibniz, since he insists on the existence of qualitative place, but nevertheless continues to essentialise place as distinct from either space or time, alternatively (or, better, he appears to need this set of oppositions to specify the qualities of place). It comes as no surprise, then, that Casey criticises Foucault's supposed terminological confusion among terms like "place," "space" "site" and "location" (p. 300). However, do Foucault's heterotopias, which Casey incidentally appreciates as arenas of resistance and differentiation, expanding the function of place beyond mere dimensionality (p. 335), belong to the notion of space or to that of place?

If we read carefully, we can notice that Foucault (1984/1986), after initially defining site as a "relation of proximity between points," continues by saying that we cannot stop at the geometrical *whereness* of sites but need to consider the way sites are living spaces and "what relations of propinquity, what type of storage, circulation, marking and classification" they, therefore, imply (p. 23). Foucault's claim for spatialisation is made on the basis of an analysis of the relations, even better, the power relations, of space.

Foucault's intention is particularly evident in his final reply in an interview with Jeremy W. Crampton and Stuart Elden (1980). After discussing the not so clearly outspoken role of geography in his archaeology of knowledge, he admits:

The longer I continue, the more it seems to me that the formation of discourses and the genealogy of knowledge need to be analyzed, not in terms of types of consciousness, modes of perception and forms of ideology, but in terms of tactics

and strategies of power. Tactics and strategies deployed through implantations, distributions, demarcations, control of territories and organizations of domains which could well make up a sort of geopolitics where my preoccupations would link up with your methods. (p. 182)

If phenomenologists have usually centred their analysis of the heterogeneity of space on internal space, Foucault intends to study this same heterogeneity in that which is commonly referred to as external space. At first glance, this appears to be a re-proposition of the dichotomy between space and place in the form of an antithesis between exteriority and interiority. But, as Foucault very clearly asserts when writing about Bachelard's work (1958/1994) he means to extend the possibilities of qualitative analysis further. According to Foucault, space is by no means a void. If we stop considering space as a fixed and un-dialectical passive extension, he continues, we can also do without a conception of temporality as a phenomenon which is either intrinsic to consciousness or coincident with linear progression and organic growth. Seen in this light, then, space does not stand for the opposite of history and time, but is imbued with histories and different spatio-temporal arrangements of power relations (Foucault, 1980/2007, pp. 177–178)—what Massey (1994) has called *power-geometries*.⁴

This is particularly evident in his notion of “other space,” or space as heterotopia, expressed in “Of Other Spaces” (1984/1986): heterotopias, Foucault writes, are in fact sites that “suspect, neutralize or invert the set of relations that they happen to designate, mirror or reflect” (p. 24). Indeed, heterotopias work dynamically at relating differences among sites considered in their reciprocal counteractions, rather than as discrete entities. This is, for instance, what brings a geographer of relational space like Massey (2005) to affirm that

⁴ It must be admitted that this sharp anti-phenomenological character of Foucault's spatial imaginary excludes from the analysis of socio-spatial processes a series of more “Deleuzian” terms, such as affect and desire. As Nigel Thrift critically points out (2008; see also Colebrook, 2005), if these terms were employed, they would allow for a more positive politics of openness and responsibility towards the alterity of subjects and objects in space, one which seems to be lacking in Foucault's theoretical horizon. Thrift's argument directly resonates with some feminist critiques advanced against Foucault, such as that of Braidotti (2002a). However, it is unquestionable that Foucault has offered some suggestions for an anti-representationalist—thus radically anti-quantitative—idea of space, dismantling the dichotomy between material and lived place that is still operative in Casey's (1997) survey.

all spaces contain an element of heterotopia (p. 116); that is, all spaces are the product of undetermined but actualisable interrelations, which implies that they are open and accidental *within* and *in between*.

Analogously, Deleuze and Guattari (1980/1987) insist that a distinction between striated space and smooth space, which should correspond to a basic space/place dichotomy, between dimension and direction, the intensive and the extended, can only be made in the abstract. As a matter of fact, what relates the smooth and the striated are “dissymmetrical and concrete mixes” (p. 480): “the two spaces in fact exist only in mixture: smooth space is constantly being translated, transversed into a striated space; striated space is constantly being reversed, returned to a smooth space” (p. 474). What cannot be properly situated is their line of demarcation: “as simple as this opposition is, it is not easy to place it” (p. 481). The differences between a smooth and a striated space cannot be objectively identified, but depend on the way space (or place, it does not seem to matter anymore here) is crossed. Thus, although, the sea is considered by Deleuze and Guattari as the example of the smooth space *par excellence*, and the city appears as the always-already striated, the first one meets the necessities of dimensionality very readily, whereas the city appears to be intersected by smooth spaces all over.

Here is where exteriority and interiority are overtly enmeshed: “in short, what distinguishes the two kinds of voyages is neither a measurable quantity of movement, nor something that would be only in the mind,” that is neither space as pure extension, as the objectively given, nor space as subjective perception, “but the mode of spatialization, the manner of being in space, of being for space” (Deleuze & Guattari, 1980/1987, p. 482). This seems to be an affirmation which Casey would subscribe to if his analysis did not continue to set space against place in the form of distinct spatial *entities*, rather than spatial modalities, as in the case of Deleuze and Guattari. Actually, for Casey, the qualitative possibility can only pertain to place absolutely (thus quantitatively!) considered. But a “pure imagination” of place and space, one in which quality and quantity, as well as

mobility and containment are kept distinct, is, if not impossible, at least dangerous, since it excludes any possibility of negotiating with the spatialities in which the politics of space resides (Massey, 2005, p. 86).

Afterward, when talking about the mathematical model of space, Deleuze and Guattari (1980/1987) distinguish between a way of intending multiplicity either as a predicate or as a noun, the latter sounding the death knell for dialectics and the “beginning of a typology and topology of multiplicities” (p. 483). The opposition between unity and multiplicity is yet another way of reframing the dichotomy between place and space, and a failure to conceive the becoming of multiplicity (Massey, 2005, pp. 99, 173) as itself an engagement with the implications and negotiations of spatiality. Multiplicity, in fact, can be intended in two very different ways, Massey (2005) argues, drawing on Boundas’s (1996) discussion of Deleuzian-Bergsonian philosophy: the first is when multiplicity is conceived as an ensemble of discrete entities, or as a “dimension of separation”; the second is when multiplicity is seen as a “continuum, a multiplicity of fusion” of intensities (p. 21). That is why, for Massey, we should rather speak of a radical *coevalness* of space: space intended not as the coexistence of unity and multiplicity, but rather in co-formation with multiplicity, where locations constitute the minimum order of differentiation (which brings us back to Leibniz’s position). “Coevalness,” in Massey’s words, “concerns a stance of recognition and respect in situations of mutual implication. It is an imaginative space of engagement [...]. It is a political act” (pp. 69–70).

1.2 Technodualisms: Space and Representation

In his book about the influence of the arguments of romantic philosophy on digital narratives, Coyne (1999) examines the legacy of both platonic and neoplatonic philosophy and the empiricist tradition in conceptualising the real in discourses about new technologies—including how these two traditions sometimes overlap, as in George Berkeley’s (1710/1962, 1744/1901) idealism. As Coyne points out, both the theme of the

unity of the real in Plato (trans. 1941, trans. 1965)—with all its corollaries, such as transcendence and dematerialisation—and the theme of the multiplicity of the real in empiricism equally animate debates on technology. Coyne links the idea of space as unitary and homogeneous with the Cartesian view, and the idea of space as multiple and heterogenous with the Leibnizian one (p. 101). Empiricism, with its recourse to a multiform reality, is seen by Coyne as providing the conditions for the rooting of (techno) romanticism in discussions of new technologies rather than offering an alternative to romanticism and its aspiration to a transcendent unity (p. 73). Very similarly, Massey (2005) contends that neither the narratives of totally closed space nor those of absolute spatial openness address the issue of a negotiation between spatial imaginations that she, on the contrary, considers the necessary ground for a politics of space (p. 175).

Coyne (1999) expounds upon the encounter between romantic and empiricist perspectives by reviewing the different spatial narratives of empiricism and focussing in particular on their crucial relation with the issue of representation. In the empiricist tradition, which comprises various forms of empiricism, from common-sense empiricism to pragmatic realism, space appears to be “represented, resisted, reduced and divided” (p. 73 ff.). Specifically, when space is represented, a *correspondence* is usually sought between the representing sign and the represented object (Coyne employs many linguistic analogies to illustrate this point). This is, for example, the case of the use of CAD/CAM techniques or any other mapping technology (at least at an immediate level). But in information technology, a *resistance* to the constraints of the real is also at issue when computer representations and cyberspace are thought to offer an alternative to the limitations of the “real world”—to its fundamental physical and spatio-temporal limitations. A sharp contrast of cyberspace and real space follows from this, in which the former is imagined as the realm of boundlessness and total freedom from the constraints of the real.

As a corollary, (real) space can also be *reduced* to its computational representation: the premises of spatial reductionism can be fulfilled via recourse to mathematical and

geometrical models taken as a point of departure. And finally, there is the fundamental question of *division*, which actually sustains the same theoretical possibility as the previous approaches that look for a correspondence, a resistance and a reduction of real space in cyberspace. It is as if recognising a substantial division between objective space as such and the subjective space of individual experience could solve the questions posed to this point, questions which, as we can see, are already flawed because of their need for the abstract assumption of an essential division of space:

Space is thereby divided into the objective and the subjective, which is a distinction of some long standing. Architects and geographers commonly distinguish between space and place. A space is reducible, can be described mathematically and on drawings such as plans and maps. On the other hand, place is memory qualified and imbued with value. [...] The information technology characterization of this dualism affirms that there is real space to which cyberspace is set in opposition. (Coyne, 1999, pp. 78–79)

Of course there exist other digital, as well as socio-geographical, narratives too, which Coyne (1999) discusses in detail in the second part of his book, relying on a pragmatic approach to language and on Heidegger's phenomenology.⁵ However, the chain of binary distinctions originating in the debates over unity and multiplicity turns out to be of the utmost importance in theorising both information technologies and space via the problematic linkage of *representability* (p. 106). No matter how computers are altering our conception of space and reality, whether restoring, transgressing or transcending it, the belief in representational realism haunts empiricism and techno-idealism as well. For Coyne (1999), the idea that the world contains patterns of chaos and order, as if it were a repository, and that these can be variously recreated in an electronic unity, obfuscates the contextual emergence of these patterns and their subordination to the contingencies of their use (p. 120). It is no coincidence, here, that Coyne quotes the same passage that Casey cites from Foucault (1984/1986), this time in order to reinforce, rather than set into opposition, his own phenomenological argument. For Coyne, space—intended as a set of

⁵ Coyne speaks about space as involvement rather than containment—although the notion of dwelling in Heidegger is ambiguous in this respect.

lived relations—requires a form of practical engagement; thus cyberspace, he argues, does not work by disclosing a supposed real reality, but by exposing the way we engage with our (already practical) realities, so that “computer models are efficacious by virtue of what they enable you to do, the interpretive practices they support and disclose” (p. 116).

Combining Heidegger and linguistic pragmatism, Coyne appeals to the function of metaphor (p. 161 ff.)—or, rather, to *metaphoricity* as a perceptual act that precedes any linguistic assertion of metaphor—as a more proper approach to the issue of space (and cyberspace), by means of which to replace the issue of the representability of space. The way metaphors are worked out, he affirms, primarily depends on their context of application (p. 166). Metaphors do not fix ambiguities, but set tensions in motion. They invoke what they exclude and engage in negotiations among oppositions. Accordingly, Foucault shows how heterotopias, among other characteristics, are made of systems of openings and closures that delineate their space while rendering it porous at the same time (see also Stephenson, 1992).

Coyne (1999) too, like Foucault, uses the example of the mirror, an object normally associated with the realist attitude towards representation and often employed to describe the mirroring structure of cyberspace (p. 221 ff.). In the words of Foucault (1984/1986), the mirror can function as a utopia, inasmuch as it is a placeless place which has a direct or inverted analogy with “real place,” but also as a heterotopia, since it forces the gaze to a return from the virtual space behind the “looking glass” back again to the position that the viewer occupies:

the mirror functions as a heterotopia in this respect: it makes the place that I occupy at the moment when I look at myself in the glass at once absolutely real, connected with all the space that surrounds it, and absolutely unreal, since in order to be perceived it has to pass through this virtual point which is over there. (p. 24)

The virtuality of the mirror renders my position real, connected to the space that surrounds me, and at the same time unreal, since this recognition can happen only retrospectively.

But the logic of transformation that Coyne locates in the dialectics between real and virtual

places works only apparently here: in actuality, Foucault's example serves to stress the interdependence, the zone of mutual exchange between the spaces that the mirror splits while relating them at the same time. Casey's idea that real and virtual places are, respectively, thick and thin places that people can traverse back and forth turns out to be false: what remains intact, in Casey's perspective, is a spatial division based on discrete quantities, rather than the differentiation of a continuum that changes with the position of the mirror's viewer.

On the contrary Coyne (1999), illustrating the role of the mirror in Lacanian psychoanalysis and combining it with the hermeneutics of Hans-Georg Gadamer (1960/1975) and his notion of *re-presentation*, stresses the dual working of the mirror. On the one hand, it tries to capture and reproduce reality, and on the other it is entrapped in reflection precisely as a failure to grasp the reality "out there," which causes an experience of splitting—the recognition of an "otherness within" that the subject firstly experiences through its mirrored image—and distantiation—since reality always resists symbolisation in this theoretical system. Now, without needing to fully subscribe to the view offered by Lacan (2007a), which can be very problematic with regard to his theorisation of desire in negative terms, we can find fruitful cues for an anti-representationalist theory of space, and of cyberspace in his emphasis on the *resistance of the real*, with its dialectics of proximity and distance—which is very different from the argument of a *resistance to the real* that we find in some empiricist accounts.

In her analysis of the false dichotomy of space and time, Massey (2005), too, retraces the main reason for the equation of space with stasis and closure, along with its theoretical devaluation, to the association between spatiality and representation considered as a mirror of nature. Not only has representation been equated with spatialisation (through, for example, the written text), but space has also been accused of being anti-temporal because of its representational character. The lack of the recognition of dynamism in space passes, to cite some of Massey's examples, from the Henri Bergson of *Matter and Memory*

(1896/1911), who blames the quantitative divisibility of space,⁶ through the metaphor of the blank page as that which inaugurates the “proper” place of inscription in Michel de Certeau (1980/1984; see also Augé, 1992/1995, p. 85), to the political analysis of Ernesto Laclau (1990), in which space represents ideological closure, thus political non-viability, in that it precludes change.⁷ So intended, though, representation is not only a fixation of space, but also of time. It is not that space is impossible to represent, although Massey, too, sometimes indulges in this thought (p. 48); it is rather that space cannot be mimetically represented (p. 28). And this does not exclusively depend on our postmodern epoch, as Jameson’s (1991) anguish for an “ungraspability” of space would have it (p. 78). Perhaps we should reconceive representation so as not to conflate it with immobility in the same way that we have tried to reconceive space as not opposed to time.

A disengagement of space from mimetic representation comes, arguably, from today’s scientific practice which reveals science as a continuous engagement toward reducing the gap between the knower and the known, that same gap which is responsible for the equation of representation and spatialisation (Massey, 2005, pp. 28, 75). It is the gap that is postulated between the act of representing and the objects to be represented that, in fact, automatically generates the problem of the “accuracy of representations” (Barad, 2003, p. 804).

Wolfgang Zierhofer (2002), conceptualising the issue of space for geography through a pragmatist linguistic approach similar to Coyne’s, while also subscribing to some aspects of actor-network theory, particularly when it comes to the issue of interactions, distinguishes between first and second order space for the purpose of his analysis.

Agreeing with Richard Rorty (1979) that certain contrasting assumptions pertain to different semantics rather than being incommensurable ontological distinctions, Zierhofer poses the following question: “what concept of space is consistent with a language-

⁶ But for a different interpretation of Bergson, see Deleuze & Canguilhem (2006).

⁷ Massey (2005, p. 45), in fact, asks whether the fact that Laclau also affirms the impossibility of closure might imply the necessity of a different imagination of space and its relation to radical politics.

pragmatic action theory” (p. 1359). One in which space is as contingent and performative as speech acts are, thus excluding any spatial aprioristic framework? Drawing on Werlen’s (1995) assumption that, in Western philosophy, space has alternatively been seen either as a thing or as an interpretative scheme, he opts for space as a frame of reference which is non-transcendent but contingently considered. In addition, he also proposes that we speak of observers rather than human actors when thinking about who uses these contingent spatial frames of reference.

Thus, Zierhofer (2002) defines first order space as the same possibility of drawing distinctions resulting from the application of a certain code: this space is composed of several dimensions that are initially un-determined and require further application—consider, Zierhofer suggests, the O/I system of computer science as a prototypical example (p. 1369). Typically, we find this scheme of interpreting space to be dominant in Western Modernity, causing several dichotomies such as mind/matter or body/soul, to name but a few. Even though postmodern epistemologies seem to pluralise these rigid frameworks, they nonetheless tend to introduce, as Zierhofer notes, another dichotomy—between space and place—that is incompatible with the non-essentialising stance according to which a space prior to observation cannot exist. The several social, historical and cultural applications of this pre-experiential abstraction are all modalities of what Zierhofer defines as second order space, whose definition entails both the contingent and contextual evaluation of specific conceptions of space and the same self-reflexive possibility to distinguish between first and second order space (p. 1370).

According to Zierhofer (2002), however, geographers often fall into the trap of mistaking their interpretive frames, the abstractions of first order space, for the observed objects, essentialising space in the end (p. 1370). This is why, he argues, defining geography as a spatial discipline is not without consequences. At work here is a mistake very similar to that which traditionally relates science and truth. And the linkage is, again, representation. As a matter of fact, Zierhofer asserts,

the dominance of schemes of interpretation for the physical world, and their strict separation from nonphysical dimensions, is characteristic for modernity and its “disenchanted” view of the world. Distinctions between matter and mind, between nature and culture, between body and soul, and between earth and heaven do not constitute a problem per se. But taken as epistemological transcendentals they are problematical, because, then, they tend to deny other possibilities, and by this they become instruments of cultural hegemony. (p. 1369)

This argument resonates with Hayles’s description of what she defines as the “Platonic backhand:”

The Platonic backhand works by inferring from the world’s noisy multiplicity a simplified abstraction. So far so good: this is what theorizing should do. The problem comes when the move circles around to constitute the abstraction as the originary form from which the world’s multiplicities derives. (Hayles as cited in Massey, 2005, p. 74)

This is why November et al. (2010) can assert that “there is nothing especially spatial about geography” (p. 593)—at least, not when space is assumed to be an inert dimensionality. While discussing the relation between mapping and the geography of risks, they in fact focus on the experience of digital navigation which they analyze in order to outline a non-mimetic theory of mapping. The intention of the authors is not to indulge in a celebration of the novelty of digital mapping and digital navigation, but to re-read not only AC (after-computers) mapping but also BC (before-computers) mapping in navigational terms. They want to draw our attention, in particular, to the materiality of the production and consumption networks that resurfaces through the only apparent dematerialisation of the experience of digital navigation (p. 584). So, the authors wonder, “if maps have always been part of this chain, why have they been interpreted as having a correspondence with a physical territory” (p. 585).

The idea that we have entered a whole new territory because of digital flows, as well as the attempt to delineate its new spatial features, is, indeed, very common, and is part of a longstanding belief in the autonomous existence of the *res extensa*. This is what November et al. call the “*res extensa* effect,” which could also be considered as a “*res imaginans* effect” (p. 591): nothing more than an imaginary construction relying on all the virtual

images obtained from a mimetic interpretation of mapping techniques that, projected outside, create space as the most comprehensive virtual image which results in a complete erasure of material networks and of the technologies of representation.

In what, then, does the difference between a mimetic and a navigational interpretation of maps consist? To explain it, November et al. (2010) resort to the image of the navigator, who, inside the cabin of a sailing ship, tries to combine both the signs on the paper map and the instruction of the team members that arrive from the cockpit above him. Of course, the navigator never thinks that s/he inhabits a geometrical space, and that the team members in the cockpit belong to the outside world. What s/he tries to understand is not some form of correspondence between the image of the world on the map and the real world outside, but the necessary cues that allow the team “to go through a heterogeneous set of datapoints from one signpost to the next” (p. 585). There exist many signposts that work at establishing a correspondence between the map and the territory, but at least two very different meanings can be attributed to the notion of correspondence at stake here:

the first seems to rely on a *resemblance* between *two* elements (signs on the map and territory, or more philosophically words and worlds), while the second emphasizes the establishment of some *relevance* that allows a *navigator to align several successive signposts along a trajectory*. While the first meaning implies what [William] James called a *salto mortale* (deadly jump) between two, and *only two*, endpoints through a huge gap, the second defines what James called a *deambulation* between *many* successive stepping stones in order to achieve the miracle of reference by making sure that there is *as little a gap* as possible between two successive links [...]. Both are depending on correspondence, but one engages the mapping impulse into an impasse (ironically recorded by Borges’s fable: is the map similar to the territory?) while the other allows one to move away from it and deploy the whole chain of production that has always been associated with map making—as we recognized above. To clarify the difference between the two meanings, we are going to call the first one the *mimetic* interpretation and the second the *navigational* interpretation of maps. (p. 586)

Further, November et al. (2010) continue, it must be noted that even if there are several possible forms of correspondence both in a mimetically-interpreted world and in a navigationally-interpreted one, what may vary is their distribution. While in the mimetic

dimension they are used to “divide in two, so as to form a real analogical ‘outside’ and a mapping representational one ‘inside’” (p. 586), in the navigational dimension this does not happen. Descartes, after all, has not so much objectified space as divided it in two (Coyne, 1999, p. 89). So, what guarantees the objectivity of science is not the correspondence between the scientist’s statement and the reality outside, that is the correspondence between a certain representation and its model (November et al., 2010, p. 588), but the chain of correspondences along an interrupted series; in contrast, what the authors call “a spurious referent” can only be produced out of a representation which becomes “mimetic” as soon as it is isolated from the chain to which it belongs. The aesthetisation of maps, for example, contrary to what we could assume, does not concern the consideration of the artistic value of the map taken as an artefact, but the assimilation of maps to paintings and the belief that they work according to the “one copy one model mode” (p. 590), despite the fact that the practical employment of maps continuously contradicts such a presupposition.

Thus, the issue posed by November et al. (2010) is not how accurate a map can be in representing space, nor if there is a reality outside representation, because both these issues depend on a mimetic understanding of mapping, and more generally, of representation. Rather, they want to understand whether, from a navigational interpretation of maps, another idea of space, one which is de-linked from mimetic representation, can emerge.

And here is where the authors deploy the example of the mirror:

If you think about it, it is about as odd as to wonder how come there are two strikingly similar images of ourselves when we face a mirror. In effect, we have never been gazing at a world and *then* at its representation, but rather been engaging with a powerful set of intellectual technologies, so powerful that, *when viewed under a certain angle*, they project outside a virtual image of the same world with a few odd discrepancies. In other words, there exist representational techniques, and each of them produce a ‘what’ outside of itself that is being represented. (p. 591)

As we have seen, when Foucault compares heterotopias to the way mirrors work, he is affirming exactly the same thing: if, on the one hand, mirrors can be taken as surfaces that

return the reality out there, considered as the source of the mimetic representations that they create through reflection (James's "deadly jump" of the point-to-point correspondence), mirrors can also function as heterotopias inasmuch as they highlight the position from which, at once, representation and reality are created. Heterotopias disturb the syntax that holds words and things together (Foucault, 1966/1994, p. xviii). The acknowledgement of such a position is also the acknowledgement of the necessity to go through the looking glass in order to understand the correspondences that are navigational and not mimetic (in the sense discussed above) between the two sides of the mirror, namely real and virtual space.

"*Everything is on the move*," November et al. (2010) write, "the navigator in the yacht, the yacht itself, the pencil on the map, the tide, the current, the Nautical Service in charge of sinking the buoys, in brief the whole damned multiverse" (p. 596). It makes perfect sense, then, in the context of a discussion of mobile communications and locative media revolving around a critique of the idea that globalisation is causing the dissolution of old places, that, given that places are emplacements of processes⁸ that endlessly take *place*, Foucault's heterotopias should be intended as *functions* of places rather than as *forms* of places, as André Lemos (2008) has put it. According to him, information technologies create new heterotopias, id est, "new functions for places and a redefinition of social and communication practices" (p. 95; see also S. Young, 1998), which he calls "informational territories" (p. 96). All territories are made of information, but informational territories are characterised by their digital flows which come to create more complex tangles among different territorialities, be they institutional, cultural, personal or political ones. This is not to say, however, that the informational layer of a territory is superimposed over the physical layer any more than virtual space is added to real space from the outside. Actually, given that all territories are informational in one sense or another (see Easterling, 2012), just like all mapping, not only digital mapping, can be navigationally employed;

⁸ See also Soja (1989) on Foucault's heterotopias.

thus, as previously discussed, not only informational territories, but all spaces, as Massey (2005) notes, can be considered heterotopic spaces in this respect. Indeed, she writes, “it is in the happenstance juxtaposition, in the unforeseen tearing apart, in the internal interruption, in the impossibility of closure, in the finding of yourself nextdoor to alterity” that the heterotopic quality of space resides (p. 116).

It is worth considering, then, the features of heterotopias according to Foucault (1984/1986). Nowadays, Foucault notes, the formal appropriation of space through instruments of calculation and codification does not correspond to a “desanctificatory” move. With this expression, Foucault indicates that a series of binary oppositions, such as private and public space, internal and external space, is still at work. In order to distance his theoretical position from that of phenomenology, which has shown the heterogeneity of internal space, Foucault focusses on what is normally defined as external space (a terminological distinction that he, however, very soon dismisses), which is by no means a void, but rather a heterogeneity traversed by networks of relations.

As we have already seen when considering Casey’s (1997) critique, according to Foucault (1984/1986), “our epoch is one in which space takes for us the form of relations among sites” (p. 23). Among these sites, he chooses utopias and heterotopias for his analysis, explaining their different functions through the example of the mirror. Whereas utopias have an *inverted correspondence* to real sites that is still based on *analogy*, heterotopias do not need to become unreal to work differently from real space: actually, they remain located in reality, although “outside of all places” (p. 24). Paraphrasing what Foucault (1973/1983) says about Magritte’s pipe, heterotopias in fact dissociate similitude from resemblance. Whereas resemblance makes representation correspond to a referential model outside, “similitude circulates the simulacrum as an indefinite and reversible relation of the similar to the similar,” escaping the “simultaneously real and ideal monarchy” (pp. 44–

45).⁹ Let us examine some further examples that fit Foucault's discourse, such as Magritte's paintings *La reproduction interdite* (1937), in which we see a man from the back whose reflected image is in fact his back once again, and *Les liaisons dangereuses* (1936), in which we see a female nude partially screened by a mirror that, in fact, reflects her missing body part, but from behind. Reading them through what Foucault writes about Magritte's art, we can say that "through all these scenes glide similitudes that no reference point can situate: translations with neither point of departure nor support" (p. 54). Finally, what are the principles governing the functioning of Foucault's (1984/1986) heterotopias? First, every culture has its own, although different, heterotopias. Here, he distinguishes between heterotopias of crisis and heterotopias of deviation, but this is not very relevant for the sake of our argument. Second, the same heterotopia can work in a different manner in different times, according to different cultures—the example used by Foucault is that of the cemetery. Third, heterotopias juxtapose different and also contradictory—not strictly territorial—sites in a single "real" place. This is the case of cinema, for instance, where on a bidimensional screen many tridimensional spaces unfold: an aspect of heterotopias which is now paramount, in an era of 3-D movies, augmented environments and urban screens. Fourth, heterotopias are linked with heterochronies, which are to traditional time what heterotopias are to traditional space; heterochronies can, in fact, either accumulate time, as in libraries and museums, or dissipate it, as in festivals. Fifth, they are porous, since their defining borders, their openings and closures, are penetrable, but nonetheless work to demarcate and isolate them. Sixth, they can function as either illusory or compensatory places, having "a function in relation to all the space that remains" (p. 27). In the first case, they create an illusory space that exposes the already illusory character of real space (brothels are the example Foucault uses). When they work to compensate, in a certain sense they duplicate real space, creating another perfectly

⁹ For Foucault, the simulacrum is not what is not real, but what is neither real nor unreal—the virtual, perhaps?

regulated space devoid of all its original mess. This is the case of colonies, which apparently could be equated with utopias if it were not for their unavoidable relation with the motherland. It is worth reading how the quotation continues here:

Brothels and colonies are two extreme types of heterotopia, and if we think, after all, that the boat is a floating piece of space, a place without a place, that exists by itself, that is closed on itself and at the same time is given over to the infinity of the sea and that, from port to port, from tack to tack, from brothel to brothel, it goes as far as the colonies in search of the most precious treasures they conceal in their gardens, you will understand why the boat has not only been for our civilization, from the sixteenth century until the present, the great instrument of economic development [...] but has been simultaneously the greatest reserve of imagination. The ship is the heterotopia *par excellence*. In civilizations without boats, dreams dry up, espionage takes the place of adventure, and the police take the place of pirates. (p. 27)

It has been noted that this link of heterotopias with boats, compared to the conceptually similar navigational metaphor employed by November et al. (2010), sounds somehow unproblematic and celebratory in Foucault's formulation, since it evokes "an uncritically colonialist and gendered discourse" which fails to take into account the "heterotopias of loss, death and mourning" of such subjects as asylum-seekers and maritime refugees (Pugliese, 2009, pp. 675–677). Nonetheless, however indirectly, it undoubtedly foregrounds the ambiguous role of heterotopias and the different forces that make them work (the second principle of heterotopias).

Space as heterotopia does not stand still. It is not a surface that can be traversed without consequences. If everything is on the move (November et al., 2010), the sea, the ship, the experience of navigation as well as the heterotopia and heterochrony of what moves change with the trajectory covered. As a matter of fact, navigation, too, is ambiguous: it can be used to divide space and erase history—as in colonial expeditions—as well as to meet *other spaces* and *other histories* (see also Deleuze & Guattari, 1980/1987). This mostly depends on the relationality of space. Relational space is not a void that can be filled with different functions, but rather a function of different encounters and the result of differential "mixed" and "joint" experiences (Foucault, 1984/1986, p. 24). That is why

What you *can* do is meet up with others, catch up with where another's history has got to "now," but where that "now" (more rigorously, that "here and now" that *hic et nunc*) is itself constituted by nothing more than—precisely—that meeting up (again). (Massey, 2005, p. 125)

1.3 Cognitive Mapping and Situational Representation

Has space been erased today by the hegemony of time, as Casey laments, or can we still maintain that we live in a spatial epoch, as Foucault contends? In the words of Lawrence Grossberg (1996), "if cultural theory has thus far privileged time, does the demand of globalisation mean that we must now privilege space, if only as a politico-philosophical strategy" (p. 172). And yet, for the sake of our argument, which coordinates, temporal or spatial, are more suitable for interpretation and practice within the networked society of new information and communication technologies?

Surely, as Akhil Gupta and James Ferguson (1992) contend, "in the pulverized space of postmodernity, space has not become irrelevant: it has been reterritorialized in a way that does not conform to the experience of space that characterized the era of high modernity" (p. 9). The "overwhelming sense of compression" that we deal with in the global village (Harvey, 1989, p. 240) seems to shrink time into a perpetual present. In this respect, the research of Joshua Meyrowitz (1985) is groundbreaking as he investigates the way electronic media destroy the "natural insulation" of places (considered solely as physical dimensions which the social overwrites) that were once completely "saturated" by space and time, so that "what is happening almost anywhere can be happening wherever we are. Yet when we are everywhere, we are also no place in particular" (p. 125). It is worth noticing, however, that the perspective from which Meyrowitz realises such loss of place—one that again reifies space as passive surface, as the stage where events unfold (see Soja, 1989)—is far distant from the search for partiality of authors such as Haraway (1991a). She, in fact, appeals to a "view from somewhere" as the only way to counter the disengagement of the "everywhere," being anyway perfectly aware that this somewhere is

not an isolated place, but a location made out of openings and connections (p. 196). For the sake of completeness, however, it must be added that Meyrowitz (2005) has recently widened his initial positions, considering the way our local experience in the globalscape acquires an expanded sense that cannot be exclusively considered according to a local perspective. It is not that places disappear, he argues, but that contemporary mediaspaces are characterised by what he defines as “the generalized elsewhere,” which brings to the fore the relational quality of space. It is not a coincidence, then, that the definition of the way this diffuse “elsewhere” works links to Foucault’s idea of heterotopia: actually, “the generalized elsewhere,” writes Meyrowitz, “serves as a *mirror* in which to view and judge our localities” (p. 23, emphasis added).

The hybridity and partiality that differentiate cyborg subjectivities can be said to characterise postmodern places as well. Thus, when Haraway (1991a) delineates her cartography of contemporary circuits, she is very distant from Jameson’s (1991) attempt to map the space of postmodernity; as we will see in what follows, whereas Jameson equates his (cognitive) mapping with a unitary (classed and gendered) consciousness looking for a space in which the modern subject can still mirror *himself*, Haraway intends mapping as a disturbing interference in the chain of representational correspondences, on both the side of the mapping subject and the mapped object (see Deutsche, 1995, p. 172; Gregory, 1994, p. 160 ff.). Only inasmuch as location, in feminist theory, marks all spaces as already impure, as in Haraway’s “ontology of impurity” (Gedalof, 2000, p. 347), positionality can become a starting point for feminist politics. But first, let us examine what “cognitive mapping” means for Jameson.

Jameson (1991) is situated among those who believe that the synchronicity of the postmodern translates into a dominance of space over time, although his assumptions about space are surely very far from those of Foucault (see Soja, 1989, p. 16 ff.). Synchronicity, for Jameson, is what marks the end of history and, thus, of praxis as the possibility of intervening in our present time or projecting ourselves into the past as well or the future—

although, in fact, what really ends, as Mike Featherstone (1993) emphasises, is not history, but our idea of it as a “unitary process” (p. 171). Technology, in this context, is considered by Jameson as “the *other* of our society:” although it is not an independent causal force in itself, but rather depends on the modes of production of capitalism, technology stands as “the massive dystopian horizon of our collective as well as our individual praxis” (p. 35). Depthlessness, a return to the sublime, the massive spread of technologies and a weakening of historicity, according to Jameson, are the distinctive traits of the postmodern epoch. In what Jameson (1991) calls the “Third Machine Age,” technologies pose a fundamental problem regarding aesthetic representation since they do not work as machines of production anymore, but of reproduction (pp. 36–37). This is a situation which requires “a different *practice* of signs” altogether (p. 123, emphasis added), apart from an entirely different set of images used for representation (such as, for instance, the simulacrum). As a matter of fact, Jameson notes, the impossibility of delineating clear boundaries around places and spatial artefacts in order to distinguish between interiority and exteriority in space, makes many interpretive frames based on the disclosure and expression of truth collapse. The distinctions between essence and appearance (proper to dialectics), manifestation and repression (Freud), authenticity and inauthenticity (Existentialism), the signifier and the signified (Semiotics), all cease to be useful for orienting oneself in the depthlessness of the present (p. 12).

Postmodern space is exemplified, for Jameson (1991), in the architecture of John Portman’s Bonaventure Hotel in downtown Los Angeles. This building cannot be conceived as a volume anymore since it lacks a proper interior, incorporating the *en-plein-air promenade* inside itself by means of its elevators and escalators. It also lacks an identifiable exterior, its surface being covered all over with glass reflecting the surroundings, to which the hotel remains, nonetheless, contextually unrelated. In Jameson’s view, the impossibility of distancing in postmodern space is caused by the collapse of our spatial and cognitive coordinates. This marks the end of distance as well as

of “critical distance” (p. 48)—a concept which resembles Walter Benjamin’s (1936/1968) theorisation of aura (Jameson, 1991, p. 412; see also Grusin, 2000, p. 51)—rendering the possibility of abstraction, or to use a very Jamesonian term, of “totalization,” extremely difficult (p. 401 ff.). As Jameson so often states, totalisation must not be confused with totality, nor must it be pursued for its “truth content”; rather, it is the very possibility of establishing connections among various phenomena in history—namely between different “modes of production” (p. 402). Nonetheless Jameson still believes in the possibility of looking for such totalising stances in the spatially extended and mostly ungraspable connections of the postmodern age.

Why then, if Jameson insists that we must not confuse the recourse to a totalising framework, or “mode of production model,” with the totality of the system, so as to be attentive to its heterogeneous articulations and agencies (p. 406), does he continue to appeal to an “aesthetics of cognitive mapping” as the only way to “hold the truth of postmodernism, that is to say, to its fundamental object—the world space of multinational capital” (p. 54)? Jameson’s complete statement reads as follows:

The new political art (if it is possible at all) will have to *hold the truth of postmodernism*, that is to say its fundamental object—the world space of multinational capital—at the same time at which it achieves a breakthrough to some as yet unimaginable new mode of representing this last, in which we may again begin to grasp our positioning as individual and collective subjects and regain a capacity to act and struggle which is at present neutralized by our spatial as well as our social confusion. The political form of postmodernism, if there ever is any, will have as its vocation the invention and projection of *a global cognitive mapping*, on a social as well as spatial scale. (p. 54, emphasis added)

That the new representational faculty for mapping the space of postmodernity invoked by Jameson cannot be mimetic anymore, and that his use of the concept of representation does not follow a new kind of unifying realistic project, is repeatedly made clear (1988, p. 348, 1991, p. 51). He also detects the necessity of dealing differently with postmodern space on a theoretical and on a practical level. His appeal to mapping does not imply, in principle, recourse to the presumed truth function of traditional maps. Following Kevin Lynch’s

analysis (1960), and somehow also echoing Lefebvre's trialectics (1974/1991), Jameson (1991) rather invokes a "situational representation" (p. 51) that correlates "existential data (the empirical position of the subject) with unlived, abstract conceptions of the geographical totality," in the search for a "new intermediate space" which is liveable and generates a "new Utopian spatial language" (p. 128). Even so, he seems to be continuously alternating between the acknowledgement of a different tension between the multiple axes of global networks, which do require a different perceptual attitude, and the regret for the loss of historical continuity; the latter, he writes, has been substituted with what he sees as a "game board" of isolated units, whose spatio-temporal discontinuities remain, in the end, unrelated, although he pointlessly tries to catch or compensate for them with, again, recourse to the unifying faculty of vision (p. 373; see also Bhabha, 1994; Ciccoricco, 2004; Holmes, 2003).

Unfortunately, what Jameson fails to understand, and which makes him go around in circles, is that it is not so much postmodern space that is in motion, but rather the postmodern "subject" (Buchanan, 2005, p. 19). Whereas, in most cases, the crisis of representation occurs among the sites to be represented, rarely is the site "from which that representation emanates," in fact, taken into consideration (J. S. Duncan, 1993, p. 39). However, both sites are, literally speaking, sites of representation. It makes perfect sense, then, that Ian Buchanan (2005) compares Jameson's spatial survey to Flaubert's orientalism, or that Gregory (1994) calls Jameson a "surveyor within the hyperspaces of its new technoculture" (p. 161). In fact, Jameson employs all the representational tropes of modern explorers and ethnographers who, entrusting vision as the most reliable sense, engaged in a vast array of fieldwork practices to detect, name and classify otherness, without really relating to it. As James Duncan (1993) writes, "difference, rather than being acknowledged as relational, is seen from an unacknowledged site [...] a phantom space, denied but present. It is not seen in its own historical and cultural specificity" (pp. 43–44).

The recognised necessity of a different spatial attitude is dictated, in Jameson (1991), by the current vanishing of phenomenological places, lost in the abstraction of the information and communication networks of global capital (p. 127). Jameson illustrates how different spaces are generated at different stages of the expansion of capital—which presupposes space as a structure existing separately from the relations of production, contrary to what Graham (1998) describes as the “perspective of co-evolution” (see also Soja, 1989, p. 78). Extensive, taxonomically organised space corresponds to Taylorism and the market economy. A detachment between spatial structure and lived experience dominates during the stage of Imperialism, so that not only does someone’s lived space progressively shrink, but what is experienced no longer coincides with the place in which it takes place, given the increasing dislocation perceived by subjects inside the “global colonial network” (p. 412). Finally, with late capitalism, comes a sense of disorientation which is what Jameson’s theory focusses on, “a perceptual barrage of immediacy” (p. 413) due to a process of void saturation and “the suppression of distance” (that is, the “time-space compression” examined by Harvey, 1989).

Many critiques have been advanced against Jameson’s theorisation of cognitive mapping, particularly against his universalisation of the predominantly European and North-American phenomena of postmodernism and late capitalism and the bourgeois-humanist assumptions of his arguments (Bhabha, 1994; Carr, 2004; Massey, 1994, 2005; Mirrlees, 2005; Spivak, 1985, 1999). According to Gayatri Chakravorty Spivak (1999), for example, the universal assumptions behind Jameson’s cultural description repress heterogeneity because they do not account for the position from which they are made (p. 314). Jameson, she argues, not only passes off the economic logic of microelectronic capitalism as universal, but its cultural logic, too (p. 334), while at the same time establishing an isomorphism between modes of production and cultural expressions, which, again, follows the Marxian distinction between base and superstructure. Moreover, the differences that Jameson’s totalising framework takes into consideration (Spivak, 1999, p. 406) are

interpreted as being merely class realities, with class being the only category of analysis (Spivak, 1999, p. 52; see also Bhabha, 1994, p. 219). And while some read the theorisation of cognitive mapping as a way to recentre the political subject of late capitalism (Mirrlees, 2005), others (Carr, 2004) read in Jameson's appeal to universality a devaluation of the heterogeneity of postmodernity, a regretful nostalgia for the centred subject of Western Modernity (Spivak, 1985, 1999).

Massey's (2005) critique of Jameson's totalising vision, which resonates with that of Homi Bhabha (1994), is particularly relevant here. She identifies the dominant imagination of globalisation with a "depthless horizontality of immediate connections" that usually reflects a "totally integrated world" (p. 76), although it must be noted that, in Jameson's view, this instantaneous simultaneity is perceived as a sign of disintegration. The priority accorded to space as immediacy in postmodern analyses, while not necessarily leading to a positive evaluation of the spatial category, is very often accompanied by its subordination to time (Massey, 1994, 2005), along with the entire constellation of the gendered, sexist distinctions associated with this binary and which are still operative today (Massey, 1992). Space is either reduced to a structure upon which power exerts its forces, or it is chronologised inside a timeline which privileges (and laments the loss of) Western history as the only locus of agency (Grossberg, 1996, p. 177). What is more, as Massey (2005) drawing on Grossberg, further comments, history is intended as a singular, unified trajectory—a theoretical fiction, as postcolonial and subaltern studies contend (Bhabha, 1994; M. Featherstone, 1993).

By reflex, spatiality too is conflated with unity and singularity: if the space of the present is the space of immediacy, and for this reason it is very difficult to temporalise according to such an idea of linear and progressive time, this immediacy is thought to bring together static objects which already lack any dynamism *per se*. Spatial differences are reinscribed in the sequentiality of a hegemonic time as if they were stages of the same evolutionary process (Massey, 2005, p. 68), and thus left behind (or before) rather than being seen as

coeval differences (see J. S. Duncan, 1993, pp. 46–47). And even though twentieth-century cultural approaches, such as anthropological and geographical ones, have abandoned evolutionary narratives, they nonetheless continue to conflate the place of the other in a perpetual present lacking historical dynamism. However, as Gupta and Ferguson perfectly synthesise, “the presumption that spaces are autonomous has enabled the power of topography to conceal successfully the topography of power” (as cited in Massey, 2005, p. 67).

Jameson (1991) theorises about the postmodern sense of a global immediacy while at the same time recognising “a perceptual barrage” that is the impossibility of grasping it with theoretical and practical means. But if such an assumption surely challenges traditional historical thinking, as Jameson understands it, so that time cannot be intended as a singular force exerting its effects differently on space (Grossberg, 1996, p. 179), nor should the history of Modernity be retrospectively conceived as a unified trajectory anymore; it must necessarily challenge spatial thinking too (Massey, 2005, p. 76). Space is neither traversed by nor congealed in time; it is itself temporal and historical. As Massey (2005) puts it,

to read interconnectivity as the instantaneity of a closed surface (the prison house of synchrony) is precisely to ignore the possibility of a multiplicity of trajectories/temporalities. [...] a claustrophobic holism in which everything everywhere is already connected to everywhere else. And once again it leaves no opening for active politics. (p. 77)

This is a particularly important observation if we want to take into consideration the different ways in which techno-connectivity is engaged with through different boundaries. Such boundaries do not disappear at all in techno-spaces, but are constantly re-articulated (Gržinić & Minh-ha, 1998; Haraway, 1992; Sandoval, 2000) so as to account for the powers that sustain networks either as oppositional or as dominant forces, as well as the “multiple manifestations of positionings,” to use hooks’s expression (as cited in Grewal & Kaplan, 1994, p. 19), that work (through) them (see Munster & Lovink, 2005; Robins, 1996).

As an alternative, Massey (2005) proposes that we read space as the sphere of radical heterogeneity where multiplicity and space are co-formed, but also where multiple spatialities are not conceived as isolated units, but come into relation with each other along multiple lines of power that create connections as well as disconnections (p. 99 ff.). For Massey, only the consideration of such negotiations opens up a space which is truly political in its quest for active engagement, a space *in the making*. Drawing on Johannes Fabian (1983), she proposes that we speak of “coevalness,” rather than of immediacy or connectivity, when talking about space, so as to give back to space its spatio-temporal openness (p. 99). Whereas immediacy and connectivity can evoke a unifying dimension ruled by a singular time, in which everything must converge or otherwise absolutely diverge, coevalness, on the contrary, suggests a co-existence of spatio-temporal realities in which difference is not measured in terms of distance, as incommensurability, but in terms of contemporaneity, as confrontation. Considering the chain of production that sustains the materiality of different networks even in digital space (Munster & Lovink, 2005) foregrounds the wetware¹⁰ dimension of connections that contrasts the tendency of theorisation towards imagining holistic and omni-comprehensive homogenous totalities (Haraway, 1991a, p. 192). As Hand and Sandywell (2002) put it, “to counter this we commend a more serious engagement with the contingent, non-synchronic and discontinuous dimensions of technologies as power-mediated processes,” in order to see the “technical as (*con*)textual and *cultural*,” as that which is located in social practices and as “the contingent articulation” of them (p. 213).

As a matter of fact, feminist theory and feminist critiques of technoscience have, over time, taught us that any search for commonalities must always be accompanied by the recognition and articulation of differences within and without, rather than their inclusion. Feminist incorporation is based on the acknowledgement of the “power and the legacy of

¹⁰ Here, wetware is used to denote the living, human and non-human, components of technosocial assemblages.

embodied practices,” not on overcoming them (Fernandez, 2002, p. 68). On the contrary, telematic articulation, deterministically intended as the power to connect *per se* that technological devices inherently would possess, paradoxically manifests the impossibility of remaining articulate, given that it is impossible to be in a full position. Only partial connections are possible (Haraway, 1991b).

It is now worth going back to Foucault (1980/2007) for a moment, so as to reformulate our critique of Jameson through his words. First, it must be remembered that Foucault includes temporality among the main characteristics of heterotopia. Being fundamentally social, heterotopias are linked with heterochronies, hence are subject to changes in time. Let us then read what he asserts, in a different context, to clarify what it means when he says that we live in a spatial epoch:

for all those who confuse history with the old schemas of evolution, living continuity, organic development, the progress of consciousness or the project of existence, the use of spatial terms seems to have the air of an anti-history. If one started to talk in terms of space that meant one was hostile to time. It meant, as the fools say, that one “denied history,” that one was a “technocrat.” They didn’t understand that to trace the forms of implantation, delimitation and demarcation of objects, the modes of tabulation, the organization of domains meant the throwing into relief of processes—historical ones, needless to say—of power. The spatializing decription [*sic*] of discursive realities gives on to the analysis of related effects of power. (p. 178)

On the contrary, the image of “totalised globality” that Jameson outlines appears, as the exact counterpart of the “absolute locality” model (Grossberg, 1996, p. 172). Its logic of immediacy does not leave space for that “historical *intermediacy*” (Bhabha, 1994, p. 219) in which the performative nature of differences, rather than their autonomous and bounded existence, can emerge. Analyses such as that of Arjun Appadurai (1996) regarding the various “-scapes” of postmodernity allow for a consideration of the unpredictable connections and disjunctions of global flows in a manner which suggest that “what we need is less a theory of rhizomatic world order than a rhizomatic theory of the changing world order” (Grossberg, 1996, p. 175). Space, then, cannot be comprised in the totalising

representation that is still invoked by Jameson in that same moment—and notwithstanding—that he recognises it as impossible.

Such impossibility, however, does not put an end to representation *tout court*, but challenges a specific kind of representation: mimetic representation, to be precise. As a matter of fact, contrary to what Edward Relph believes (1992), heterotopias do not *represent* postmodern space more than places represented modern space, precisely because heterotopias do not rely on mimetic representation. Actually, as we have already seen, the latter does not only work at identifying and fixing space (as well as time): it also presupposes that space stands somewhere (or, which is the same thing, everywhere) as a static object ready to be reflected in representation. Learning from heterotopology, it is perhaps time to turn to a different representational functioning, one which sees representation not as a reflecting mirror, working as a perpetually deferred Utopia, as in Jameson, but as a heterotopic mirror, that is, a “looking glass,” which engages with the place it relates to and can, in turn, be actively engaged with. This would also resolve the issue of the loss of distance that Jameson laments: why, in fact, mourn the loss of distance as the loss of the very possibility of representing space, as Jameson does, rather than take it as an opportunity to understand the impossibility of the very existence of space as the distant object?

1.4 The Double Illusion and the Heterotopic Interface

Richard Bolter and David Grusin (1999) have analysed these same issues in relation to technospaces and digital technologies. In fact, their study of the “remediation” of cyberspace has very much in common with the socio-geographical reflections on space made by Lefebvre (1974/1991) and Soja (1989), although their names do not appear in the references of Bolter and Grusin’s study. Adopting a similar terminology, Lefebvre and Soja take into consideration the two illusions governing the misconceptions about space which prevent us from thinking about its transformative, relational qualities.

Lefebvre (1974/1991, p. 27 ff.) speaks of “the illusion of transparency” and “the illusion of opacity.” The former presupposes that mental space is distinct from social space, with comprehension deciphering space in order to render it perfectly legible (through the use of texts; see also de Certeau, 1980/1984). The known coincides with the transparent, and obscurity of sense and space cannot legitimately exist. This ideology rests on a transcendent assumption (see Coyne, 1999; Grusin, 2000; Wertheim, 1999), one which “identifies knowledge, information and communication. It was on the basis of this ideology that people believed for quite a time that a revolutionary social transformation could be brought about by means of communication alone” (Lefebvre, 1974/1991, p. 29). On the other hand, “the illusion of opacity,” which manifests a materialistic attitude, imagines space as a “substantial reality” that resists representation until it is eventually overwhelmed. However, “each illusion,” Lefebvre continues, “embodies and nourishes the other,” so that they never exist as such, but continuously support and recall each other (p. 30).¹¹

Soja (1989), like Lefebvre, counterposes “opaqueness” and “transparency” as the main causes of the misrecognition of the social production and reproduction of spatiality (p. 122 ff.). An “empiricist myopia” and a “hypermetropic illusion” (let us note the use of visual metaphors once again) are, for Soja, the major causes of a persistent dualism in the theorisation of space, seen alternatively as a measurable substance, according to a “short-sighted approach” governed by an objectivist presumption, and as an “over-distancing vision” guided by the subjectivity of cognition (the lost critical distance of Jameson).

Bolter and Grusin (1999) date the faith in an “‘interfaceless’ interface” of digital media back to Renaissance (but see also Bolter & Gromala, 2003, p. 34 ff., who date this illusion to Pliny the Elder’s story of Zeuxi), in which they locate the origin of the “aesthetic value of transparency” manifest in the metaphor of the window used to describe monolinear perspective, which also accompanies the initial applications of the graphical user interface

¹¹ Let us once again consider, for a moment, what Coyne (1999) affirmed regarding the conjoined role of the empiricist and the romantic traditions in digital narratives.

(or GUI, pp. 23–24, 31). They quote the example that Norman Bryson (1983) makes about oil paint in this respect: in the tradition of Western art, oil paint is actually used as an “erasive medium” (Bryson as cited in Bolter & Grusin, 1999, p. 25) in order to conceal the artist’s brushstrokes and give the impression of a continuity between the space of the painting and the space of the viewer.

Postulating a correspondence between the medium and what it represents, rather than, more naively, between representation and the thing represented, the illusion of immediacy belongs today, according to Bolter and Grusin (1999), to those who assert that we now live in an unprecedented moment in the history of technologies, given that new technologies will eventually do without mediation (p. 30). The historical counterpart of this desire for immediacy is the logic of hypermediacy that, rather than seeing representation as a window open toward the world, sees representation as itself “windowed” (p. 34), or as a coexistence of multiple points of view. The logic of hypermediacy is not only aware of, but also extremely fascinated by mediation, with which it plays, as we can see from Medieval manuscripts, Baroque cabinets of curiosities, trompe-l’oeil paintings and the collages and photomontages of the twentieth century, among the various artistic expressions of hypermediacy in the Western tradition (p. 34).

Apparently, whereas Jameson (1991) recognises the opacity of the mediated space of postmodernity, while nonetheless still appealing to the possibility of deciphering it through “cognitive mapping” so as to render it transparent to the knower/viewer, a philosopher of space like de Certeau (1980/1984) seems to defend opacity as a set of practices of intereference that “slip into” coded space, thus adopting a logic of hypermediacy, as we can read in the following statement:

These practices of space refer to a specific form of operations (“ways of operating”), to “another spatiality” (an “anthropological,” poetic and mythic experience of space), and to an opaque and blind mobility characteristic of the bustling city. A migrational, or metaphorical, city thus *slips into* the clear text of the planned and readable city. (p. 93, emphasis added)

But things are not quite so neat, and we will return to this “slippage” below.

Most importantly, Bolter and Grusin (1999), like Lefebvre and Soja before, point to the interdependence between immediacy and hypermediacy: “just as hypermedia strive for immediacy, transparent digital technologies always end up being remediations, even as, indeed precisely because, they appear to deny mediation” (p. 54). Bolter and Grusin elaborate the concept of “remediation” to show how reality and mediation cannot be separately conceived or practiced and how digital technologies do not change the *status quo* of reality as much as they remediate its previous mediations. Effectively, neither the medium nor the real exist in a pure form independently from their reciprocal mediation. Interestingly, they talk about Jameson as a theorist who is aware of the “mediatization” of the space of postmodern art (p. 56), and, in fact, his terminology has been variously adopted to define hypertexts as well as graphical interfaces (Ciccoricco, 2004). However, the notion of interface can be extremely problematic too. As Anna Munster (2006) notes, the usual way this term is employed evokes a residual opposition between mind and matter, human and machine, which in turn presupposes an instrumental conception of technology as tool (p. 47). The issue is not so much the disappearance of the digital interface, since this can also lead to a reinforcement of anthropomorphism (p. 125), but the acknowledgement of the interpenetration, the topological enfolding of both sides of the interface, and the creation of an active field of negotiation between them and in-between the interface, too. This is why, for example, talking about the relational architecture of Rafael Lozano-Hemmer, Munster underlines how the artist prefers speaking of *situations* rather than of interfaces, notwithstanding the digital sophistication of his installations (p. 148).

According to Richard Lanham (1993), the difference between hypermediacy and immediacy resembles the difference between *looking at* the surface of representation and *looking through* it in order to reach a presumed space beyond (as cited in Bolter & Grusin, 1999, p. 41). He stresses two different points of view regarding mediation, those of

distantiation and immersion. Note that the vocabulary employed here is again a visual one: the important point, however, is that we should be able to “enjoy the illusion of the [digital] interface” as such as well as be able to “step back.” This is what Bolter and Gromala (2003) define as “the importance of oscillation” (pp. 27, 68).

Actually, the interface is neither a simple transparent interface (a window) that we overcome nor a simple opaque interface (a mirror) that we bump into; instead, borrowing from Foucault, we can say that it is a heterotopic mirror which allows us a continuous alternation. Regarding the myth of the transparency of digital interfaces, and, more specifically, about digital art, Bolter and Gromala (2003) argue that:

When we look in a mirror, we see ourselves, and we see the room behind and around us—that is, ourselves in context. [...] The most compelling interfaces will make the user aware of her contexts and, in the process, redefine the contexts in which she and the interface together operate. This is where digital art can make a special contribution, because digital art is precisely the kind of interface that both reflects and redefines contexts. (p. 27)

It is useless to say that this is a mirror that works heterotopically, given that it stands in different contexts as a tangible interface, where it also “exerts a counteraction,” and at the same time gives back to the user the mediated character of her/his context, so that the context too appears as both absolutely real and as indefinitely virtual (Foucault, 1984/1986, p. 24). As an example of this paradoxical aspect of mirrors, or of interfaces, Bolter and Gromala (2003, p. 32 ff.) analyse *Wooden Mirror* by David Razin (2000), an octagonal picture frame comprising many little wooden tiles that are activated by the movements of light caused by those passing by. These movements are captured by a concealed videocamera and then digitised by a computer and transformed into the passer-by’s portrait. *Wooden Mirror* is paradoxical, that is heterotopic, because it combines the analogical and the digital, transparency and opacity, the window and the mirror, involving the participant at both the perceptual and spatial level.

Without mentioning Jameson, but instead questioning Martin Jay’s (2000) assertion that the logic of immersion of postmodern aesthetics puts critical distance at risk, René van de

Vall (2003) examines some works, including David Cronenberg's movie *eXistenZ* (1999), as examples of the possibility of a critical distance reached "from within," rather than from an external, transcendent point of view (p. 141). In Cronenberg's movie, the plot revolves around the protagonists' participation in an immersive computer game in which the anti-game intruders end up being part of the game too. As van de Vall puts it, "the increasing interpenetration of reality and simulation" (p. 142) makes the distinction between what is real and what is virtual impossible. At stake, however, is not the substitution of distancing with an immersive logic, as van de Vall hypothesises, but rather the recognition of their final interplay through the remediation proposed by Bolter and Grusin (1999) (see also Grusin, 2000; Keith & Pile, 1993).

Bolter and Grusin (1999) also refer to Marc Augé's (1992/1995) definition of non-places to explain their view of cyberspace:

To Augé's list of nonplaces [*sic*] we would add cyberspace itself: the Internet and other manifestations of networked digital media. Cyberspace is not, as some assert, a parallel universe. It is not a place of escape from contemporary society, or indeed from the physical world. It is rather a nonplace, with many of the same characteristics as other highly mediated nonplaces. (p. 179)

Calling cyberspace a non-place in this regard, they are not subscribing to the popular view that counterposes real and virtual spaces, or places and non-places, as two distinct spheres; instead, they are attributing to cyberspace a character which, if relying on the mirror metaphor, is adopting the heterotopic functioning of Foucault's mirror: one which highlights the articulation and reciprocity of mediated spatial processes.

Contrary to Jameson, Augé (1992/1995) does not lament the contemporary loss of distance, but rather sees distance, or better a sense of detachment, as regulating our relation with the non-places of "supermodernity," even retracing some anticipations of the current situation in the tropes employed by philosophers of Western Modernity such as Baudelaire and Benjamin (p. 94). Nonetheless, like Jameson, Augé thinks that non-places lack identity, relationality and history (pp. 77–78), being fundamentally a-social—if for society

we intend an organic, totalising whole. Further, non-places are experienced through contractual relations which, on the other hand, guarantees access to what Augé calls a “duty-free space” whose character is provisional, customised and definitely mediated (pp. 94, 101). Just as the spatiality of non-places is one of transit, then their temporality is either ephemeral or measured in units of time that organise a perpetual “actuality”—which is in turn spatialised according to a negative conception of spatiality deprived of any duration (p. 104). Moreover, Augé notes a contemporary fascination with the vocabulary of mobility which usually pertains to non-places, even though the relation between location and mobility, like that between places and non-places, is much more complicated than the common use of the mobility-words would have us believe. Even so, Augé recognises that places and non-places are deeply imbricated, so that the former are never completely erased nor are the latter ever finally completed (p. 78)—which is why Bolter and Grusin talk about cyberspace as a non-place.

Here is what Augé (1992/1995) writes about the “remediation” between places and non-places:

In the concrete reality of today’s world, places and spaces, places and non-places intertwine and tangle together. The possibility of non-place is never absent from any place. Place becomes refuge to the habitué of non-places [...]. Places and non-places are opposed (or attracted) like the words and notions that enable us to describe them. (pp. 107–108)

This assertion does not sound very different from Foucault’s (1984/1986) claim that heterotopias are “places outside of all places” while at the same time being “located in reality” (p. 24). Augé claims to have derived his distinction between places and non-places from de Certeau’s (1980/1984) distinction between place and space, even if a symmetrical parallel between these couples of binaries (de Certeau’s space/place and Augé’s non-place/place) cannot be exactly drawn (Augé, 1992/1995, p. 79 ff.). Indeed, just as Augé’s place *is not* place as de Certeau intends it, so Augé’s non-places do not correspond to de Certeau’s definition of non-places. Similarly, though, the two couples do not pose an

ontological distinction between spatial forms as much as they pose two different *senses* of the representation and practice of space, to use a term, incidentally, also employed by de Certeau (pp. 103–104) and that efficaciously combines “direction” and “meaning.”¹² To put it briefly, de Certeau (1980/1984) distinguishes, on a *pragmatic* and not on a morphological level (p. 126), between the geometrical and anthropological quality of spaces, seeming to rest on a dichotomy which he nonetheless turns upside down, given that extension is commonly attributed to space, but not in this case. Places, for de Certeau, comprise stable identifications of territories and subjectivities which coexist in a coherent unity (p. 117). Spaces are, instead, practiced places, traversed in any direction by heterogeneous trajectories in which identity continuously passes into alterity and vice versa, breaking the consistency and simultaneity of homogenous time and space (p. 102). If places are “determined” through “objects,” spaces are instead determined through “operations” (p. 118). “Between these two determinations,” by the way, “there are passages back and forth” (p. 118).

So, even though “tours” are generally associated with the representation of space, *acted* and going through different itineraries, and “maps” with the representation of place, *seen* and depicted on a plane of projection (p. 119), the daily practice of space comprises, in the end, a continuous interlacing of the two. Or, even better, the itinerary, rather than being an alternative to the map, is, for de Certeau, the very condition of possibility from which it has progressively disengaged, disguising its relation with heterogeneity. Thus, all the icons on modern Western maps, such as “the sailing ship painted on the sea”—a figuration which bring us back to that of November et al. (2010)—rather than being considered as simple illustrations, should be interpreted as signs “concealing the historical operations from which [the map] resulted” (de Certeau, 1980/1984, p. 121) as well concealing all the “slippages” between differently determined places (see above). It is not accidental, then,

¹² De Certeau sometimes indulges in periodising his distinction more than Augé does, presupposing a structural dichotomy between place and space, and a substitution of the one with the other (see Massey, 2005). See also the notion of *addressable media* proposed by W. J. T. Mitchell (2008).

that de Certeau's analysis continues with a discussion of how boundaries demarcate and articulate spaces, so that spaces are determined by frontiers which are always new, which not only delimit but also perform them.

In the contemporary period, de Certeau (1980/1984) notes, in combination with the expansion of a "technocratic rationality" (p. 40), the practices of space, that is their tactical uses (p. xix), seem to have grown exponentially, superseding the boundaries of the stable local units they were initially contained in: "Cut loose from the traditional communities that circumscribed their functioning, they have begun to wander everywhere in a space which is becoming at once more homogeneous and more extensive" (p. 40). Conversely, the transformation of space into a homogenous whole without an elsewhere implies some important consequences for the strategic spatial model too:

It could be that, little by little, it [the strategic model] will exhaust its capacity to transform itself and constitute only the space [...] in which a cybernetic society will arise, the scene of the Brownian movements of invisible and innumerable tactics. One would thus have a proliferation of aleatory and indeterminable manipulations within an immense framework of socioeconomic constraints and securities: myriads of almost invisible movements, playing on the more and more refined texture of a place that is even, continuous, and constitutes a proper place for all people. Is this already the present or the future of the great city? (pp. 40–41)

So, do strategies and tactics, homogeneity and heterogeneity, equally articulate contemporary space, or have the former substituted the latter in this apparently seamless scenario? The ambiguity is not fully resolved by de Certeau (1980/1984), in the end (see Massey, 2005). It is worth noting, however, that he, just like Foucault, also uses the metaphor of the mirror to explain what practising spaces means. As it is for the child, who in front of the mirror experiences its duplicity, being at the same time the one and the other of reflection, "to practice space is [...] in a place, to be other and to move toward the other" (p. 110). This otherness of space is what renders space radically heterogeneous from the very beginning.

Actually, Foucault (1984/1986) writes, when mirrors work as utopias, they establish an analogy, be it of correspondence or of subversion, with the place that they reflect,

nevertheless maintaining real and virtual space perfectly separate so that the latter appears as a “placeless place” which only speaks about the viewer’s, as well as its own, absence. When, on the other hand, mirrors work as heterotopias, they not only disclose a realm of absences, but make the viewer go back and forth through the “looking glass”; this profoundly alters the experience of the viewer’s belonging to the place that is mirrored, to which the viewer always goes back, as well as the place on which the mirror’s “counteraction” is exerted (p. 24). A mirror, after all, continues Foucault, “does exist in reality” and, to switch to Bolter and Grusin (1999) for a moment, it is its mediation that remediates the reality we live in.

It is perhaps for this reason that Foucault (1984/1986) laments that we have not yet “reached the point of a practical desanctification of space,” our space still being constituted by and organised around a series of oppositions “nurtured by the hidden presence of the sacred” (p. 23). And it is for this same reason that, on a different terrain, Bolter and Grusin (1999) confess their agnosticism about the “theology of cyberspace,” given that cyberspace is “constituted through a series of remediations” rather than constituting the opposite of, from time to time, material space, social space, representational space and so on (p. 182). It sounds perfectly reasonable, then, that Augé (1992/1995) affirms that non-places are the opposite of utopias (p. 111). Differently from utopias, not only do non-places not welcome any organic society (Jameson’s lost myth), they also exist *in actuality*. One of the reasons why, for example, non-places such as airports, airplanes and stations are among the favourite targets of terrorist attacks, according to Augé, is precisely because they negate the ideal of a unified, perfectly enclosed territory that must be either defended or conquered. Like heterotopias, non-places are, indeed, heterogeneous sites (see also Foucault, 1984/1986, p. 23). This means that there are different ways of not having a place or of being out of place, but also that each non-place comprises internal contradictions that do not “hold” together (pp. 110–111). And here, in the encounter with the radical

heterogeneity of non-places (but also of places, whose otherness non-places represent), is precisely where we come to the question of politics, as Augé notes (p. 112).

As Foucault (1984/1986) puts it talking about the irreducible heterogeneity of different sites,

We do not live inside a void that could be colored with diverse shades of light, we live inside a set of relations that delineates sites which are irreducible to one another and absolutely not superimposable on one another. (p. 23)

Heterogeneous space is not a given, but a continuous construction requiring constant engagement. Spatial simultaneity, the everywhere-ness of space, is never completed because *somewhere*, connections are yet to be established or unleashed. “This is a space of loose ends and missing links. *For* the future to be open, space must be open too” (Massey, 2005, p. 12).

In this chapter, I have discussed the terminological and conceptual dichotomy that has opposed space and place, taking Casey’s (1997) discussion of the fate of place as my point of departure and arriving at an interfacial approach based on Foucault’s notion of heterotopia (1984/1986) via Jameson’s (1991) quest for the cognitive mapping of contemporary space. As I have shown, drawing on Massey (2005), the most important consequences of this interfacial approach to spatiality are: firstly, the delinking of space and mimetic representation; secondly, the realignment of space and time; thirdly, the possibility of rearticulating both space, as a dimension of heterogeneity built out of relations that require continuous engagement, and representation as a navigational cartography that does not depict reality from afar, but contributes to its construction from the inside.

This last point, in particular, will be further explored in the following two chapters, in which I propose a reconsideration of the deconstructed link between space and representation under a different lens, this time considering what relates space as location (Chapter 2) and representation as figuration, and how they can be differently mediated by

means of a diffractive methodology (Chapter 3). In what follows, after reviewing the literature regarding the most common geographical accounts used to describe cyberspace, I start examining the different meanings of the concept of location, drawing on Rich's (1986) initial theorisation, Harding's standpoint epistemology (2004a) and Haraway's (1991a) situated knowledge. The anti-essentialist, relational concept of location that emerges from these accounts allows me to introduce an alternative notion of representation, which helps me outline what I will define as a situated "aesth/et(h)ics" of new technologies (Chapters 3, 4).

Chapter 2: Location, Mobility, Perspectives

2.1 Location and Mobility in Networked Space

How do all these considerations of space, place and representation apply to the way the space of new information and communication technologies is imagined and conveyed in theoretical analyses as well as in the practices of digital media? Reflections on globalisation and its usual association with the extensive diffusion of new technologies, together with the consequences of generalised connectivity, freedom of mobility and spatial boundlessness, play a big role here; their abundance of geographical metaphors and analogies (Brown & Lauriel, 2005; Kitchin & Dodge, 2011; Lemos 2008; Serfaty, 2005; Taylor, 1997) tend to constitute the same space they seem to describe, even when they apparently negate the spatiality of cyberspace and virtual reality (Adams, 1997; Graham, 1998). Eric Gordon (2007), for example, highlights the dominance of a metageographical model based on the grid, or what he calls “the graticule,”¹³ in early narratives of cyberspace, a model which has been progressively replaced by a metageography of locality and a new rhetoric of ubiquitous computing with the advent of Web 2.0 and the massive diffusion of location-based technologies. He writes: “The network has transitioned from a distant container for everyday life to a location from which everyday life emerges,” and in which the map interface has become the new mode of visualising and entering the network (p. 15). However, the latter is not necessarily an accurate depiction of the current situation since, if location is taken for granted and “left unchecked,” so to speak, it can work as another form of misrepresentation, based on yet other forms of selection and exclusion (p. 23; see also Fusco, 2004; Grusin, 2000).

In fact, spatial metaphors used to describe cyberspace not only have a descriptive function, but also productive and ideological ones (Adams, 1997; Graham, 1998; Holmes, 2003; see

¹³ “Graticule derives from the Medieval Latin word *craticula*, which means ‘little grating.’ The definition of the word grating is a material used for containment or preventing access. The abstraction of the graticule to symbolize earth, then, might be understood as the abstraction of containment. Very often the graticule has little connection to the actual map, but it is almost always included as a shorthand means of communicating the stable globe as a reference point, and thus a mastery of whatever is plotted therein” (p. 76).

also Harvey, 1993a) since they construct shared worldviews and figure how technology should express the “intimate nature” of society or relate to it—very often developing into deterministic assumptions. Indeed, the coexistence of contradictory descriptions of globalisation, alternatively defined as the epoch of absolute space and the epoch in which space is annihilated by time, should make us reflect on the problematic nature of such dichotomies (Massey, 2005, p. 90). Is the sense of loss of orientation (Jameson, 1991) and the experience of dislocation perceived as a consequence of time-space compression (Harvey, 1989), for example, valid for everyone, or is it rather a universal assumption masking the power relations upon which it rests, made up of differences, usually inequalities, among geographical as well as sexual, ethnic and class positionalities (Brah, 1996; M. Featherstone, 1993; Kirby, 1996)?

Gregory (1994), for example, notes that David Harvey’s well-known formula still manifests a modernist sensibility that transforms a specific geographical imagination into a global norm. Like time-space colonisation, based upon an expansion towards the outside, time-space compression, though it highlights the collapse of spatio-temporal coordinates, ignores the differences out of which spaces are made (pp. 414–415). Is the pretension of such a universal geographical imagination a way to conceal the locus of its own emergence (see J. S. Duncan, 1993; Massey, 1994, 2005; see also Meek, 2000)? The problem is that certain descriptions of space are often passed off as the truth about space (Zierhofer, 2002), and they, in turn, generate an illusory space of theory kept separate from social practice to which not only space, but also theoretical assumptions about space, belong. Unfortunately, however, many discourses about space obscure the ways space is produced so that spatial representations very often disguise or even control our spatial relations (Lefebvre, 1974/1991).

Tracing spatial borders is always a social act as naturally delimited places do not exist. It is the encounters, relationships, activities and connections that make places and give sense to them as spaces where maps of meanings and experiences are shared. Spaces and social

actors are coimplicated in a reciprocal performativity. If space is usually associated with representation, this is mostly because representation has commonly been thought of as spatialisation, as a way of fixing and stabilising represented things into a (pre)given frame. But if we adopt a non-representational perspective, then considering spatiality as a purified dimension, quantitatively measurable and separated from the contingency of events, is no longer possible. Once the issue of a neat distinction between signs and things is overcome, then representation and represented space can be conceived as a set of practices, an activity that does not stand outside the thing represented but which becomes part of it. Every representation, thus, is a representation of a space-time (Massey, 2005, p. 27). If space cannot be, so to speak, “purified,” then counterposing a space of places to a space of flows, location and mobility, physical and virtual space, is useless in the end.

When geographical assumptions are made about cyberspace, they typically work to reveal what cyberspace has in common with physical space; they rarely serve to cast a different light on the way cyberspace and new information and communication technologies could let us mobilise our imagination of “real” space. Paul Adams (1997) broadly identifies the most popular metaphors used to describe the places of information and communication technologies as those of virtual architecture, the electronic frontier and cyberspace, to which we could add the list of specific “spatial metaphors [...] commonly used to describe where one’s bits could ‘go’ when online: information *superhighway*, *website*, *chat room*, *internet café*, etc.” (Gordon, 2007, p. 9). Adams notes how these metaphors combine three types of functions: positional (which translates nonspatial conditions into spatial ones), ontological (which ontologically connects phenomena) and structural (which creates associations among familiar things)—terms that he draws from George Lakoff and Mark Johnson’s (1980) and Stanley Deetz’s (1984) work on language. According to Adams, however, all of these functions, more or less symbolically, indicate an increasing tendency towards the corrosion of the traditionally symmetrical relation between identity and (physical) place, “with its strong ties between social structure and a mappable space of

places” (p. 160). But, we are compelled to ask, has this mirroring relation ever existed? Does the dynamism of places only pertain to the current network topology, where phenomena like the global extension and dislocation of social relations inevitably influence the way we understand and construct places (see Adams, 1998)?

On the surface, we could not agree more with Adams’s (1998) idea that places and new media share a similar function: they create links among nodes. But Adams’s belief that location as measurable space is not adequate anymore today, given the mobility of communication networks and their ability to combine several different topologies at once—or what he calls “maps of possibilities” (p. 92)—seems yet to imply that such a measurable space, rather than just the *sense* of it (Rose, 1995a), had previously existed (and had been essential to geographical research). Moreover, the implication is that not only did location as a plain and homogeneous surface—whose image resonates in terms like “*container*” and “*stage*,” used by Adams to describe the social role of places (p. 90)—exist, but so, too, the bounded identity that was thought to correspond to it (see Stone, 1991).

Two problems arise here: firstly, both in utopian and dystopian accounts about the “space of flows,” location is dismissed as either a negative or a useless concept, equated with extension and passive matter (see Soja, 1989), precisely as site was in Casey’s (1997) theory of place. Secondly, location, so intended, is attributed the status of the object of traditional geography rather than being read according to specific geographical imaginations. This is an object-centred, essentialist view which is very common in urban planning, too, as Graham and Patsy Healey (1999) show, in which cities are still treated as surfaces upon which societal dynamics happen, with space and time as the external containers of human activities. Moreover, it is not places that have ontologically changed today; rather, our perspective on them has. That is why, for example, Appadurai (1996) prefers using the suffix “-scape” to indicate the contextual dynamism of today’s global flows and places, and the way different perspectival constructs are inflected by the

situatedness of different actors—not necessarily individual subjects, but also states, corporations and communities (p. 296). How could we otherwise explain the opening, even the dissolution, of traditional places, after having attributed no processuality to them at all unless we resort to an external, transcendental force—usually identified with an a-spatial, progressively unfolding, technological evolution? On the contrary, if, from the very beginning, we assume an *extroverted* (Massey, 1994, p. 155) and generative sense of place, a space made out of social interactions and intersections stretching across presumably natural local boundaries, we can also imagine a past of already existing, although differently articulated, connections.

An important consequence regards the theorisation of identities and the necessity of breaking the representational symmetry that correlates community and place, what William Mitchell (2000) defines as the decoupling of *civitas* and *urbs* in network society.

Geographical places are not the source of identity, nor are communities mappable onto them. As new ICTs today bring to the fore, communities can also exist without belonging to the same place, notwithstanding an evident theoretical difficulty in losing the ties among different kinds of proximity, whether geographical, social or cultural, whose descriptions are frequently mixed up in theoretical analyses (Ito, 1999; see also Kwon, 2002, p. 149 ff.).

Castells (1996), among others, dwells on this aspect of the network society that concentrates and, at the same time, disperses its territorial components so that simultaneity does not necessarily coincide with contiguity anymore. Besides, even while belonging to a common territory, members of the same community can have different senses of place, whereas the celebration of the transcendence of differences of digital space very often conceals an erasure of its specificities and tensions (Appadurai in Baldauf & Hoeller, 1999; Bhabha, 1999; Massey, 1994; Meyrowitz, 1985; Mohanty, 2003; I. M. Young, 1990).

Significant in respect to the end of this idea about the symmetry of community and place is Meyrowitz's (1985) analysis of the way electronic media, having loosened the equation between access to information and access to physical places (still considered as closed

entities), have progressively weakened the link between physical and social location. Before the massive diffusion of electronic media, the existence of doors and entrances concretely sanctioned a set of “rules of physical place” onto which social space was superimposed. The increasing mobility and speed of information in electronic media, having loosened the constraints of physical place on media environments, surely also implies a redefinition of the idea of interaction. Experience is not merely linked to physical location, but to *situation*, a more complex but less binding form of positionality, and an experience at a distance can be much stronger, today, than a face-to-face experience (to which the availability of user-friendly interfaces that increasingly naturalise technological devices contributes). For Meyrowitz, this implies a consideration of space as media environment rather than as physical extension. The space that electronic media, and locative media in particular, highlight is a fluid and immersive environment whose boundaries, which still surely exist and are continuously recreated, are nonetheless redefined by their inclusion or exclusion from the events of information and communication. It is a space that, rather than being delimited by entrances and exits, is traversed by mobile interfaces which continuously mediate the networks of sociospatial relations.

This surely implies, or better allows, a change in social behaviours, and understanding how people communicate as if they were in the same place when in fact they are not is of the utmost importance. On the one hand, the situational geography of society defines places more and more as models of access to information; they are figured along a continuum in which distinguishing between physical and media environments has become very difficult, and in which the situation of messages being produced combines with the situation of messages being represented. This conception very often leads to the imagination of an informational uniformity that translates into the idea of a unified informational environment. If electronic media permeate places, they at the same time also cease to determine social experiences. Location situates the users of mobile media in a network in

which “the radical visibility of located data creates the potentiality for users to experience meaningful nearness to things and people” (Gordon & de Souza e Silva, 2001, pp. 12–13). On the other hand, the possibilities of choice increase and, conversely, the dynamics of inclusion/exclusion as well, with inclusion now intended as an informational inclusion depending on choice rather than as a rigidly territorial one (Meyrowitz, 1985). Even an apparently unified space can include different forms of disunion inside. Contradictory geographical imaginations can coexist, as Massey (2005) explains, and are constantly negotiated (Appadurai, 1996; Slack & Willams, 2000). And yet, even the most cohesive communities, be they virtual or real ones, can follow exclusionary and authoritarian logics. So, for example, Brian Connery (1997) draws an interesting parallel between the utopianism of cyberspace and the seventeenth-century coffee-houses: both are, in fact, places that, although animated with egalitarian intents, find themselves inevitably limited by internal and external powers working according to discriminatory rules (Connery as cited in Wertheim, 1999). All this does not mean that physical places disappear: they are still the context of social events, and media changes still have to take into account the different forms of location and mobility of social actors. What new information and communication technologies urge us to consider, thus, is not what spatial forms cease to exist and what new forms emerge in our globalised scenario, but what relations are co-formed according to new kinds of techno-spatial configurations:

The argument here is simply that what is, or should be, at issue in accounts of modernity and globalisation (and indeed in the construction/conceptualisation of space in general) is not a kind of denuded spatial form in itself (distance; the degree of openness; the numbers of interconnections; proximity, etc. etc.), but the relational content of that spatial form and in particular the nature of the embedded power-relations. (Massey, 2005, p. 93)

In many discussions of the space of new technologies, the distinction between places and flows, location and mobility, is somehow still hegemonic, notwithstanding the emergence of Web 2.0 whose theories, focussing on the “return” to location, very often implicitly rest on the same binaries. Arguing for a geographical politics that is situated equally distant

from the hierarchical and the networked scalar model, Sallie Marston, John Paul Jones III and Keith Woodward (2005) list a whole series of binaries that dominate both the vertical and the horizontal accounts of topological nexuses, so as to shed light on the underlying essentialism of both (Table 1).

Table 1. A list of conflated binaries

Local	Global
Place	Space
Difference	Sameness
Concrete	Abstract
Experiential	Causal
Agency	Structure
Bordered	Stretched
Static	Dynamic
Sectarian	Cosmopolitan
Defensive	Open
Authentic	Produced
Nostalgic	Developmental
Culture	Economy
Embodied	Anonymous
Here	There
Transformed	Penetrating
Responsible	Detached

(Adapted from Marston et al., 2005, p. 421)

Location is generally equated with bounded place, while global space is seen as the realm of total mobility, or the *space of flows*, according to the well-known definition coined by Castells (1996). Graham (1998) very clearly shows this dichotomy at work in some of the approaches to the issue of space and information technology that he analyses, distinguishing among three main perspectives: *substitution and transcendence*, *co-evolution* and *recombinant*.

The perspective of *substitution and transcendence*, typical of the 1960–90s but still echoing today (Graham, 2004a, 2004b; Kaplan, 2002), sees new technologies in terms of impact and inevitability (resonating with arguments about technological determinism).

They are seen as liberating us from previous temporal and spatial constraints to the point of a complete erasure of distance and a dissolution of the old geographies of territory and the

body, considered as properties of the local dimension. Implicit, here, is the idea that space can be reduced to a question of measurable distance, as if we could deal with globalisation, and with spatial issues in general, by taking nude spatial forms as a point of departure (for a critique of the correlation between distance and difference in this respect, see Massey, 2005, p. 93). Rebecca Bryant (2001), for example, notwithstanding her attempt to read cyberspace as a complex phenomenon through several philosophies of space, still falls into the trap of posing a substantial difference between physical space and cyberspace; she attributes an empty, objective notion of distance to physical space and a finite, human-dependent, mostly temporal distance characterising cyberspace, which implies a substantial difference between physical space and time.

On the contrary, the need to fill the emptiness of measurable distances, paying attention to what is in-between the network of connected nodes rather than merely to the nodes as dimensional points on a surface, is precisely what links the communicative quality of space with the spatiality of communication. This requires that we adopt a different spatial approach to new information and communication technologies. Mobility, be it material or not, cannot be seen as a passage from one point to another in space, but as the possibility of producing and consuming information in movement. Conversely, the *where* mobilised by information disengages spatiality from a purely dimensional perspective, linking it to the practices of the everyday. This underlines a reciprocal co-emergence of codes and sociospatial formations, pointing to the performativity of both. As the space of a distributed materiality (the so called Internet of Things) and distributed information (ubiquitous computing), such a space continuously happens, relating subjects, objects and places in everyday practices.

Instead, according to the perspective of substitution, we are confronted, to paraphrase the *Wired Manifesto* (1996), with an “infinitely replenishable and extendible” alternative territoriality (as cited in Graham, 1998, p. 171) aimed at supplanting “real” places with parallel all-encompassing dimensions (a sharp dichotomy between them is implicit). An

outright theology of cyberspace flourishes from what Graham (2004a) has called “the anything-anywhere-anytime dream” (p. 4; see also Coyne, 1999; Wertheim, 1999). Such a fantasy is imbued with technological determinism, neoliberal triumphalism, and a cyberlibertarian mystique, and combines both utopic approaches, from Marshall McLuhan’s (1962, 1964) to the cybergurus’ (Barlow, 1996; Negroponte, 1995), and dystopic ones, among which Paul Virilio’s (2004) is the most well-known.¹⁴ Grusin (2000), declaring himself an “agnostic” in this respect, fiercely critiques such a perspective as he analyses the theses of Margaret Wertheim, author of *The Pearly Gates of Cyberspace* (1999) and one of the proponents of what Grusin (2000) calls “a virtual theology of cyberspace” (p. 52). What Wertheim and others miss, according to Grusin, is the mediated aspect of cyberspace: cyberspace, in fact, not only remediates previous media, “which are themselves embedded in and in turn embed material and social environments” (p. 54), and existing networks of communication, but also social spaces, including historical places such as cities and so called non-places, like parks and malls. New media perform connections as active interfaces that mediate the sociospatial. This aspect is particularly relevant in locative media practices, which are practices characterised by a participatory relationality linking humans and machines through a diffuse “addressability,” to use an expression of W. J. T. Mitchell (2008), in which the concepts of corporeality, materiality and location are performatively redefined. As a matter of fact, addressable media are “environments where images live, or personas and avatars that address us and can be addressed in turn” (p. 3).

The second perspective Graham (1998) examines, the perspective of *co-evolution*, believes in a parallel production of geographical and electronic space at various levels of reciprocity and influence, without neglecting the complex social and cultural dynamics in the production of place and space. Here, new technologies appear as intensifying mobility, but according to different modalities and relations of power: “New information technologies,

¹⁴ On the similar roots of utopias and dystopias, see Coyne (1999).

in short, actually resonate with, and are bound up in, the active construction of space and place, rather than making it somehow redundant” (p. 174). This perspective, which seems to be the most broadly adopted today, underlines a “recursive interaction” between new technologies and places. This is what Castells (1996)—to draw on one of the several subjects of Graham’s analysis, which ranges from Harvey to Massey—calls “the culture of real virtuality” (p. 373), a complex interrelation of the space of places and the space of flows, which gives life to new augmented environments (see also W. Mitchell, 2000). The new geometries of incorporation and exclusion complicate the rather simplistic view of a progressive shrinkage of the world to the point of total mobility without territorial barriers. Neither ICTs nor places develop neutrally; their production, uses and effects are embedded in different power relations. The “variable geometry” of the information society depends on the “differential location” (Castells, 1996, pp. 145, 147) of the power dynamics at stake in global networks (see also W. Mitchell, 2000; Sassen, 1998, 2002), in which “location” loses its exclusively geographical character in order to encompass the complexity of network culture. Thus, the advantage of one person can depend on the subordination of another in relation to the same network.

However, as the example of Castells (1996) exemplifies, the problem with such a view is that, even though it is socially embedded, this variable geometry is still considered a recent phenomenon, depending on a specific kind of network society, *id est*, information technology society, ignoring the always-already networked aspect of place (Massey, 1994). Actually, this “new kind of space” that is the space of flows (p. 398), even though it does not erase the space of places, is said to create new occasions for a restructuring of places (W. Mitchell, 1996, 2000); however, Castells argues, in the end it leads to a “structural schizophrenia” (p. 428) between the “material organization of time-sharing social practices that work through flows” (p. 412) and the places where “form, function and meaning [are] self-contained within the boundaries of physical contiguity” (p. 423; see also Wellman, 2001). In addition, this approach leaves unexplained the way “networks and

interdependencies between people, technologies and places interact with the situated aspects of action within those places,” as Barry Brown and Eric Lauriel (2005, p. 21) contend in their critique of Castells’s network sociology.

A third perspective, drawing on Actor-Network Theory (ANT; see Latour, 2005) and on Haraway’s (1991a) theories, conceives of new technologies in terms of *recombination*, taking the relational view of technologies and societies further and reinforcing the relational consideration of space and time. In this context, relationality is what links human and non-human actors (such as technological artefacts) in contingent and heterogeneous combinations and along multiple networks (a term which is now definitely preferred to the idea of a unified cyberspace). Relations are, from the beginning, both technological and social. Technology and society are not conceived as independent anymore; rather, we speak of “technosociality,” a term initially used by Arturo Escobar (1994/2000) and Allucquère Rosanne Stone (1995), to point to the interconnection of nature and technology in our lives. Both real and virtual places consist of a “fragmented, divided and contested multiplicity of heterogeneous infrastructures and actor-networks” (Graham, 1998, p. 178) that are contingently constructed and thus unevenly working.

The adoption of a relational conception of both information technologies and places also leads to the consideration of the inter-relationality of the two, as well as their perpetual recombination. The attribution of a networked character to every technosocial formation is an efficacious way to escape the rhetoric of substitution as well as that of novelty concerning information society, with all its fears and hopes. The attention focussed on the mediating operations which are proper to networked space subverts the theological belief in a dualism between our reality and a reality beyond. Affirming, as Wertheim (1999) does, that cyberspace is a real space despite its lack of physicality still means subscribing to a dualistic attitude which attributes no virtual character to the space we live in. Even if we agree with Wertheim that cyberspace is in fact “real,” although not necessarily physical, we disagree with her presupposition of an opposition between immateriality and

materiality that her assertion hides, as if a multileveled experience could only be possible in a parallel world. Even the idea of a “distributed cyberspace,” an expression which Grusin (2000, p. 55) adopts to describe the logic of ubiquitous computing, is risky in this respect:

although the virtual theology of cyberspace would privilege the dematerialisation and disembodiment of new digital media, and the advocates of ubiquitous computing would privilege the materiality of information appliances, both sides would agree in maintaining a categorical and practical distinction between the materiality of physical objects and space and the immateriality of digital information. [...] New media are engaged in reconfiguring the distinction between materiality and immateriality, between reality and mediation. The cultural economy of new digital media does not, as Baudrillard would have it, murder the real, but remediates it. (pp. 59–60)

A change in the analytical paradigm and the adoption of a performative, non-representational framework is required once we understand that, the more the planes of our reality interface with one another through locative and ubiquitous media networks, the more difficult it becomes to distinguish between places that are only physical and places that are only virtual. The real/virtual dichotomy is an inadequate one since all experiences are real, but differently mediated. The delinking of interactions from the constraints of the “here and now” does not impoverish reality, but rather enriches its virtualisation (Boccia Artieri, 1998, pp. 69, 74).

Places are not dead because of the passage of information and communication fluxes; what ceases are their closed ties. Real places are virtual places made of non-natural, non-determinant connections, which continuously exceed given locations. What mobile and locative media highlight is the different ways of experiencing them, which comprises material (the possibility of transporting mobile devices inside and through physical places) and symbolic elements (the possibility of moving through different forms of even virtual proximity). This foregrounds not only the convergences among different forms of identification, but also the divergences between different forms of belonging and dislocation. Thus, it contrasts with the idea of an absolute mobility of contemporary digital

landscapes and an absolute fixity of “traditional” places, as well as with the antithesis between the local and the global. As Meyrowitz (2005) puts it, “we do not always make sense of local experience from a purely local perspective. Various media give us external perspectives from which to judge the local. We may be mentally outside, even as we are physically inside” (p. 22).

The anti-totalising philosophy of networks, as elaborated by the recombinant perspective, dissolves the dichotomy between location and mobility, with the constellation of conceptual associations and linked dichotomies deriving from the opposition between the local (place) and the global (space), as listed in Marston et al.’s chart (2005; see Table 1). As for technologies and societies, which cannot be singularly defined, the local and the global cannot be independently taken either; as Tim Cresswell (2002) puts it, “place as practice and practice as place always relies on the symbiosis of locatedness and motion rather than the valorization of one or the other” (p. 26).

To paraphrase Latour’s (1991/1993) well-known expression, even a longer network remains local at all points (p. 118). And the contrary can be affirmed too: that is, every place is somehow already differently networked (see Massey, 1994). Moreover, although networks are extensible, they cannot be equated with surfaces, which makes concepts like local and global suitable for geometry but not for the topology of networks (Latour, 1991/1993, p. 119), where connections and connectivity exceed both the local and the global dimension (p. 121). As David Featherstone, Richard Phillips and Johanna Waters (2007) affirm regarding the spatialities of transnational networks, drawing on Latour’s network philosophy, when defining spatialities we should intend “the diverse ongoing connections and networks that bind different parts of the world together and that are constituted through (and in fact constitute) particular sites and places” (pp. 383–384). “Locality is relational and contextual, rather than scalar or spatial,” Appadurai writes (1996, p. 178 ff.). Locations are not given, but produced in a variety of virtual and real contexts which variably articulate their coincidences and disjunctures. Locations are also

productive since their generative power stretches beyond bounded spatial forms, both translocally and intercontextually. As a matter of fact, everything can be said to be local, because outside a local there's always another local, says Latour (2005), dislocated though it may be. Scale is not a fixed variable existing independently from the activity of scaling, which is the way social actors connect in networks (p. 184). Once we re-contextualise the local context, it is necessary to understand how this locality has been generated and redistributed. "Locals are *localized*, places are *placed*" (p. 195).

If, for a moment, we return to the geographical field, we can notice how the consideration of an interdependence of the local and the global dimension leads to a deconstruction of the dimensional parameter of scale. We can see that scaling is, in fact, a representational practice working to create distinctions, such as those between the local and the global or the micro and the macro dimensions, which are presented as foundational distinctions when they are really a consequence of the observed phenomena. Drawing on Jacques Derrida's (1967/1978) notion of spatiality as the performance of difference, Chris Collinge (2005) shows how scaling, apart from establishing a nested chain of bounded social subjects and spaces, also points to the interdependence of bounding and unbounding processes, and should thus be seen as an "infrastructural term" rather than a structural one (p. 204).

Marston et al. (2005) dismantle the ontology of scale by hypothesising a *flat ontology*, a term which explicitly relates to the definition of *site ontology* offered by Theodor Schatzki (2002). The authors oppose a network analysis to a transcendental methodology, although they are aware of the risks of predetermining the objects of observation even when looking at horizontal linkages (particularly when it comes to the issue of flows). In their opinion, a flat ontology accounts for sociospatial processes without assigning them any predetermined position or even resorting to static categories (pp. 424–425). Elaborating on Schatzki's idea of site as the context of human activities, Marston et al. further state that

discussion of the site's composition requires a processual thought aimed at the related effects and affects of its *n*-connections. That is, we can talk about the existence of a given site only insofar as we can follow interactive practices through their localized connections. (p. 425)

Their conclusion about site is very far from Casey's (1997) notion of site as dead extension. In fact, they continue, if we follow Deleuze, we can say that "the virtual, or potentiality, draws the forces of a site into *intensive relations* that are *actualized in extensity*" (p. 426, emphasis added), which is to say that the local and the global cannot be pre-assigned to spatial divisions, but can be interpreted as "the 'inside-of' and 'outside-of' force relations that continuously enfold the social sites they compose" (p. 426). Marston et al. also refer to the idea of a mutuality of interiority and exteriority that we find, for example, in the spatial philosophy of Elizabeth Grosz (1995). Put in Latour's (1991/1993) words:

The differences are seizable, but they are only of size. They are important (and the error of cultural relativism is that it ignores them), but they are not disproportionate (and the error of universalism is that it sets them up as a Great Divide). (p. 108)

Accordingly, Mizuko Ito (1999) hopes for a blurring of local "places" and global "forces" in her discussion of new media technologies. A technologically mediated proximity creates what she calls a "network locality." This is a geographically extended locality constituted through technological networks, the stretching of which across space cross-cuts the local/global, location/mobility dichotomies while revealing both the situated character of digital technologies and the networked aspect of geographical places:

denaturalized from association with geographic place, locality is unbounded and dynamic, an ongoing partial achievement that never exhausts possibilities for affiliation and solidarity. At the same time, it is grounded in particular social practices, materialized texts, placed infrastructures and architectures. In the end, the distinction between network and geographic locality should prove unnecessary, if locality becomes viewed as a dynamic production involving materials and actors located in multiple ways. All localities are ultimately hybrids of geographically and technologically placed connection. (p. 21)

Just as “groundedness” is not an exclusive attribute of the local dimension (Massey, 2005, p. 187), but pertains to networks as well, similarly there exist fragmented and disjointed localities that assume contradictory articulations (Appadurai, 1996; Baldauf & Hoeller, 1999; Grossberg, 1996). The political implications of these conclusions are not without importance: the deconstruction of spatial hierarchy and its substitution with what Latour (1991/1993) calls “symmetrical anthropology” (p. 105) does not only render it very difficult—if not impossible—to sustain any transcendental position; above all, it frees social agents from the constraints of predetermined positions (usually local ones in terms of contained, more controllable dimensions as opposed to the macroscopic dimension of generic structures and forces), offering more entry points to politics (Marston et al., 2005). In fact, networked spatialities have a dynamic character that can be productively engaged with, being in turn generative of new and alternative spatial formations (D. Featherstone, Phillips, & Waters, 2007). Surely, these formations are not necessarily revolutionary, since the production of locations can also follow reactionary or colonising routes. Namely, “there is no universal politics of topographic categories” (Laclau & Mouffe as cited in Massey, 2005, p. 165). Accordingly, existing locations must not be abstractly idealised as places of authenticity or social harmony that one can go back to since thinking that places stand still is equivalent to negating their historical, as well as geographical, dynamism, which often translates into a further denial of the other’s spatialities.

2.2 A Struggle to Keep Moving: the Politics of Location

The recombinant perspective foregrounds the role of subaltern agencies in the creation of contestational spaces that extend transversally into the past as well as the present, thus putting an end to such hegemonic narratives which contend that a neat distinction between global and local spaces corresponds necessarily to spatially bounded forms of political intervention (see D. Featherstone, 2007). Power and resistance are not external to each other, but coimplicated, just as the local and the global are. Here, we are more than ever

confronted with the necessity of reasoning and acting relationally rather than oppositionally. As Massey (2005) argues, responding to Michael Hardt and Antonio Negri's (2001) critique, "both the romance of bounded place and the romance of free flow hinder serious address to the necessary negotiations of real politics" (p. 175). The contrary happens when location is seen as a productive, intensive dimension, as in feminist politics of location. In "Notes Towards a Politics of Location," a talk given by Rich (1986) at the Conference on Women and Feminist Identity in Utrecht in 1984, a feminist definition of the politics of location was formulated, generating much subsequent debate. After focussing on Rich's text, I will show how the politics of location is still a valid starting point today, particularly when we try to account for the relations of positionalities in global technospaces, as is demonstrated, for instance, by the interpretation of the politics of location offered by situated knowledge epistemology and analyses of transnational feminism.

As many feminist geographers have already highlighted (Massey, 1994; McDowell, 1996; Rose, 1993, 1995a), the "spatialisation" of feminism is characterised by a redefinition of the concepts of space and identity, accompanied by an enquiry into the uneven positionalities that, on a material and representational level, differentiate both the experience and imagination of space (Ghani, 1993). The language of spatiality, according to Friedman (2000), gained terrain in the feminist debate during the mid-1980s in correspondence with the progressive abandonment of the rhetoric of "awakening, revelation and rebirth" by Third Wave feminists—all three well-expressed in the concept of consciousness raising—which had prevailed in the previous decades (even though, as she notes, the language of space was not at all absent in those years). Friedman attributes the emergence of a "locational rhetoric" to certain confluent conditions: the debate on multiculturalism and the increasing migratory fluxes in the U.S., the narrative of postmodernity and its insistence on movement and fluidity, the voices of postcolonial

histories and theories developing both inside and outside the Western academy and, finally, the “computer revolution,” with its prevailing spatial rhetoric.

Although the spatial paradigm that Friedman (2000) intends to adopt is “relational, situated and interacted,” an opposition between space and time is still at work in her analysis; ultimately, it remains trapped in the emphasis on the new, thus in the same linear temporality that she seems to contest, as clearly results in the following statement (where she also indulges in a certain technological determinism):

The explosion of spatial rhetorics throughout many fields of cultural studies, including feminist studies, is part and parcel of the Global Age, a condition of postmodernity in which intensified multiculturalism and the migration of peoples, goods, and cultural practices, along with the invention of cyberspace, are transforming the modes of human thought and expression. The growing emphasis on space is, I believe, a reflection of a transition from print culture to new forms of meaning-making that enhance the visual and spatial and thus compensate for prior privileging of the verbal and temporal.

Things are, of course, much more complicated than this. Analyses such as Derrick de Kerckhove’s (2001) point to the complicity between alphabetical literacy and Euclidean space, while considering the immersive environment of electricity as breaking the specular symmetry between spatiality and visibility, the interior space of the mind and the exterior space of the world. And, on the other hand, vision does not necessarily have to be associated with geometric spatiality since, as Haraway (1991a) contends, only “vision can be good for avoiding binary opposition” (p. 188), including false binaries between spatial models. On the contrary, as we will see, embodied vision, or “partial perspectives” (p. 190), and the politics of location, or “a commitment to mobile positioning,” can go hand in hand (p. 192).

As feminist enquiries into space and location make clear, all binaries—which, as they underline, are often organised around the heterosexual matrix—such as nature/culture, subject/object, theory/practice, manifest their epistemological fallacy when looking at the circumstances of their spatial materialisations; these reveal more nuanced and “scattered” realities, for which even “the theory of hegemonic oppression under a unified category of

gender” becomes clearly inadequate (Anthias, 2002; Frankenberg & Mani, 1993; Grewal & Kaplan, 1994). Every binary distinction, be it between space and time, or between the visual and the verbal, is considered misleading since it congeals the necessary dynamism of a politics of space. Thus, re-evaluating place as the true locus of experience, as humanist geographers did in the 1970s to contrast the hegemony of positivist geography and its reliance on rational, abstract and quantifiable space, apart from presupposing another dualism (that between the reality of place vs. the abstraction of space), does not alone suffice if place is given equally universal, although different, attributes. This is even more true if, as feminist analyses have shown, these continue to draw on essential feminine metaphors frequently privileging notions of intimacy, emotionality and dwelling (Rose, 1993). Location cannot be the feminist word for place, if place is intended this way. Rich considers “Notes Towards a Politics of Location” (1986) to be a summary of provisional notes rather than a declaration of intent or a list of theoretical standpoints. From the very beginning, she underlines that her notes underpin “the struggle to keep moving, a struggle for accountability” (p. 211). It is the same struggle that the bumblebee in the house of the writer engages in, trapped, just as Rich feels, “in a place where it cannot fulfil its own life” (p. 211). Although in *Three Guineas* Virginia Woolf (1938) is surely right when she argues that women have no country, if being geographically confined also means the containment of women’s agency and imagination as well as the imposition of essential divisions among women, her statement cannot be easily taken for granted, nor can it be easily reversed. Rich, in fact, affirms that both commonality and belonging, universality and particularity, are constructions inside which women struggle for their accountability.

Rich, indeed, gives voice to the typical feminist paradox of the need to speak for women as a “we,” “trying to see from the center” (p. 216), yet having a fear of speaking in a too categorical way which would reduce the idea of women’s views to one’s own limited—both rational and emotional—perspective. This conflation dismisses the perspectives of

others, particularly when one does not believe that “the white eyes see from the center” anymore; instead, it is time to unlearn the privilege of this space, which coincides with historicising it, while learning that other spaces and histories, of both oppression and agency, also exist (pp. 226–227). The palpable tension that we feel in “Notes” in the way that women are addressed as singular subjects and as a group, is driven by Rich’s urgency to unmask her own proper location, particularly in light of the hegemony of White Western Feminism in the academy and of the anti-imperialism and anti-militarism of radical feminism.

According to Rich, place at all levels, from the walls of the house to the borders of the nation and up to the spatial abstraction of the aerial dimension, including the domain of theory (and of the academy as institution), is not only a series of spatial coordinates, it is also a historical location. Here, women and feminists can at the same time be *subjected*, being given a definite position (when not conflated with it), and also try to locate themselves, finding their *subject* position: “I need to understand how a place on the map is also a place in history within which as a woman, a Jew, a lesbian, a feminist I am created and trying to create” (p. 212).

To begin with location, says Rich, is to start from matter: “Begin with the material,” for the author, means returning to the body of women as the “ground” (p. 213) which needs to be reclaimed against what she calls a “lofty and privileged abstraction” (p. 214), or, yet, a “free-floating abstraction” (p. 218), with which even feminist women—particularly in the academy—can be complicit. The “weightless” enthusiasm (p. 218) professed by Sally Kristen Ride—the first woman astronaut (not by chance, North-American and White)—about the potentialities of outer space for the pharmaceutical and chemical industries, sounds like the counterpart of the exploratory enthusiasm of Manfred Clynes and Nathan Kline in their renowned “Cyborgs and Space” article on *Astronautics* (1960/1995). Behind all this, however, a “heavier” version of the story lies, Rich warns us: one made of cancerous wastes, toxic waters, tested (usually female and poor) bodies:

we'll really get the funding that we need, says the astronaut, no mention of who “we” are and what “we” need funding for; no questions about the poisoning and impoverishment of women here on earth or of the earth itself. Women, too, may leave the earth behind. (Rich, 1986, p. 222)

This is a perspective of transcendence that we find in very similar terms in those narratives of cyberspace and ICTs highlighting the incommensurable difference between different spaces and the transformative, liberating power of new technologies (Kaplan, 2002).

Apparently, according to Rich (1986), if one is not born a woman, one is surely born a body. Although this assertion, and the insistence on a three-dimensional centrality of the body as an organism, could be interpreted as a residual essentialism (Haraway, 1991a; Kirby, 1993), Rich is aware that living in a singular body does not coincide with having only one identity (p. 215) and that what really oppresses women's bodies is not male domination as such, but rather a “tangle of oppressions” (p. 218) which require that we look for multiple, often intersecting, reasons (see also Friedman, 2000; Grewal & Kaplan, 1994). The body, with all its scars, marks, memories and shapes, and whose “the” is of course dangerously abstracted as well, is for Rich the limit of one's particular experience and the *memento* against any tendency to generalise, the location where not only a sex takes place, but where racial, class, sexual coordinates intersect.

The groundedness of the bodily dimension, on the other hand, serves to re-embody what Rich defines as her “primary perspective” on things (p. 215), that is, the “view from above,” as the example of the female astronaut confirms. It is a disclosure of the location of theory and knowledge, which is at the same time accomplished in the horizontal dimension (from the centre to the margin) and in the vertical one (from heaven to earth). As hooks (1990) notes, when talking about marginality as a site of “radical possibility” (p. 149), the politics of location initiates a “process of re-vision” (p. 145) that takes place as soon as we go back to our location after leaving it, in a continual return that knows no points of arrival. In fact, it is after “going there,” as a conference delegate to Sandinista-governed Nicaragua, and looking back *here* (towards the U.S.), that Rich elaborates her

idea of a politics of location, “marking a postcolonial moment of rupture from the agendas of modernity” (Kaplan, 1994, p. 140). This, incidentally, brings us back to the relational threshold that Foucault (1984/1986) identifies in heterotopias. And although the connection between travel and the discovery of identity could be interpreted as a lingering residue of Modernity (see Kaplan, 2002, p. 36), it surely also highlights the interdependence of the experiences of location and mobility.

Arguing for a spatialised politics, Neil Smith and Cindy Katz (1993) affirm that space can be neither reduced to a metaphor nor conceived as an inert container in which social relations take place. Analogously, although Rich is not actually very explicit on this point, the body is not merely the site of the inscription of social norms but is also materialised through them. The more space is naturalised, the more metaphors become free-floating, abstract signifiers (p. 78). But, “if a new spatialized politics is to be both coherent and effective,” Smith and Katz write, “it will be necessary to comprehend the interconnectedness of material and metaphorical space” (p. 68). This interconnectedness does not replace the dualistic vision of space with a false unity, nor does it make of location a copy of absolute space that is only diminished in dimension. Rich’s reclamation of the ground of politics is based on the awareness that locations are not fixed; not only, in Smith and Katz’s opinion, does Rich recognise the relationality of social locations amongst themselves (for an entirely different opinion, see Aimee Carrillo Rowe, 2005), she also deconstructs the homogeneity and boundedness of geographical location, which she understands as equally internally differentiated.

This latter aspect of Rich’s argument adds a dynamic, transformative—and thus political—quality to location that it lacks, according to Smith and Katz’s interpretation, in theories of travel such as that of James Clifford (1989). For Clifford, there are “a *series* of locations and encounters, travel within diverse, but limited spaces” (as cited in Smith & Katz, 1993, p. 78). He thus believes that “location, for Rich, is a dynamic awareness of discrepant attachments” (p. 78). Here, Clifford counterposes location to travel as static space to

movement, so that difference only pertains to the number of traversable pre-given locations, rather than being constitutive of locations themselves. When pursuing an anti-dualistic argument about space, however, we notice how location and mobility cannot be separately theorised or experienced. If, on the one hand, no location is simply *there* as a static determination of space or identity, on the other hand, “destabilizing has to be from *a location*” (Wolff, 1993, p. 232).

Undoubtedly, this awareness does not always exempt Rich, as many of her critics have rightly argued, from maintaining a too homogenous, somehow unconsciously privileged idea of the location of White North American feminism, as well as from overlooking the relational conditions that enable her to account for her own location (Carrillo Rowe, 2005; Wallace, 1988). She also seems to naively believe in travel as an immediate agent of change, implicitly reinscribing the global/local dualism (Kaplan, 1994; Wallace, 1988). But the dialectics of location that Rich introduces between “what we experience as knowledge and what we know as experience,” to use Elspeth Probyn’s words (1990, p. 184), at least problematises the homogeneity of both situated experience and situated knowledge that the feminist notion of location correlates.

The gesture of self-reflexivity required by the politics of location, which is partially foreshadowed in Rich’s “Notes,” has been widely debated, in particular by feminist standpoint epistemologists and feminist scientists, though not without controversies (Barad, 2007; Harding, 2004a). Surely, as regards the spatial politics of feminism, recognising the influence and complicity of geographical concepts on practices and ideologies of domination, as well as one’s own position inside them, is necessary (Mack-Canty, 2004). On the other side, dismissing some spatial approaches *tout court* does not take into account the possibility of using specific theories or specific technologies without necessarily adopting certain (hegemonic) epistemologies more than others (Gregory, 1995; Robinson, 2000). All locations can, after all, be mobilised. A recent example comes from the feminist employment and theorisation of Geographic Information Systems (GIS),

generally considered oppressive devices because of their association with surveillance and control (Kwan, 2004; see also Gregory, 1994); on the contrary, however, they can be mobilised for purposes that go against the oppressive uses of technoscience. This is to say that, for a counter-hegemonic spatial politics to be possible, it is not always necessary to go off the grid. But, as the politics of location and the politics of situated knowledge contend (Haraway, 1991a), its possibilities are already immanent in the power relations that work to normalise and suppress it.

As Gregory (1995) puts it, “if one occupies the ‘wrong position’ [...] is one really condemned to the solitary pleasures of ‘Big Boy’ theory? Isn’t this precisely the ‘vulgar’ version of situated knowledge from which Harvey [...] so forcefully dissents” (p. 179). After all, Gregory continues, the theoretical truths of science and the humanities are no more and no less than “hegemonic versions of local knowledges, partial, situated, embodied” (p. 179) and, as such, they can be disclosed as well as appropriated for alternative uses. Interestingly, here, Gregory quotes a passage from a text by Harvey (1993b) in which, facing the postmodern refusal of universals, he wonders if claims about universal principles, such as social justice, make sense in front of the situatednesses of “multiple othernesses” (p. 52).

Specifically, Harvey (1993b) points to two correlated risks of poststructuralist discourses: firstly, privileging the local and attributing resistance to this dimension only; secondly, adopting “a relativist, essentialist and non-dialectical view of situatedness,” which is precisely what Harvey considers the “vulgar” notion of situated knowledge (p. 57). In the first case, when the local is idealised as the only dimension in which authentic politics and community can arise, the ties that reinforce solidarity among members of the same group are transformed into instruments of exclusion and suppression of difference both within and without this bounded dimension (see I. M. Young, 1990). Privileging the local also implies a blindness to those forms of oppression which occur at multiple levels, far beyond the local, and which nonetheless interest the local in its fundamental relationality. As

regards situated knowledge, then, this becomes impracticable if it poses situations as homogeneous given, rather than as a heterogeneous processes. If difference is equated with radical alterity, no “partial connections,” to paraphrase Haraway, can be possible, and the alternative is again one between universalism and relativism.

In order to defend the political validity of appeals to social justice, Harvey (1993b) finds a suitable “meta-theoretical framework” in “a modernized version of historical and geographical materialism” (p. 62), finally indulging in a unifying move that he thinks can efficaciously contrast the dispersion of poststructuralism—the same one that authors such as Jameson also strenuously long for. But the developments of the politics of location and of situated knowledge inside feminist theory have shown how relativism can be faced without necessarily resorting to universal categories or universalising subjects. The multidimensionality of location that feminist spatial politics so strenuously points to is already an efficacious point of departure for a redefinition of spatial politics: a politics of location which is materialistic, translocal and relational precisely because it grows out of difference rather than identity. As Haraway (1991a) sharply explains:

Ambivalence towards the disrupted unities mediated by high-tech culture requires not sorting consciousness into categories of “clear-sighted critique grounding a solid political epistemology” versus “manipulated false consciousness,” but subtle understanding of merging pleasures, experiences and powers with serious potentials for changing the rules of the game. (pp. 172–173)

Poststructuralist and postcolonial readings of the politics of location insist on differences as, in the words of Chandra Talpade Mohanty (1995), “nonidentical histories that challenge and disrupt the spatial and temporal location of a hegemonic history” (pp. 77–78). She highlights the historicity of Rich’s idea of location and intends to revalue feminist political agency against the political transcendence that neatly opposes “synchronous, alternative histories” to a “diachronic, dominant historical narrative (History)” (p. 77). As a matter of fact, spatio-temporal difference cannot be theorised as absolute alterity, completely devoid of any relation with dominant Space and Time (p. 78). On the contrary, a politics of

location that reaches beyond a celebration of location or feminist experience *per se* requires “a politics of engagement (a war of position)” (p. 80) in order to prevent inclusive spaces (such as coalitions and collectives) from becoming exclusive ones. More importantly, to demand a space for women raises spatial and temporal questions at the same time: “any exclusive recourse to space, place or position becomes utterly abstract and universalizing without historical specificity” (Kaplan, 1994, p. 138). Analogously, a “temporality of struggle” always corresponds, for Mohanty, to an engagement with positionality: “it suggests an insistent, simultaneous, non-synchronous process characterized by multiple locations, rather than a search for origins and endings” (p. 81). Once we have reconquered the right to say who we are from our location, says Rich (1986), we have already become something else, not only because we are always in a constant state of change, but because a feminist politics of location requires that we change our realities and ourselves. So, the politics of location that Rich proposes urges feminist theorists to relocate their theories, as liberatory as they may be, through such questions as: “When, where, and under what conditions has the statement been true” (p. 214). This is a lesson that the situated knowledge epistemologies have acknowledged very well. The displacement of the centre, however, is not only the result of a shifting of perspectives. At least, as long as the dualistic “either/or” mentality still obeys the logic of the same, creating disjunctive oppositions (p. 221) rather than fertile comparisons among differences, “the movement for change is a changing movement, changing itself, demasculinizing itself, de-Westernizing itself [...]. We who are not the same. We who are many and do not want to be the same” (p. 225). Thus, alterity lies at the core of feminist location, not outside. To sum up, three primary and interconnected issues can be identified in Rich’s (1986) text: the first one is, obviously, the issue of *spatiality*, which includes the definition of space, place and location, and the dialectics between margin and centre, groundedness and abstraction, practice and theory, geography and history; the second one regards *materiality* and includes reflections about experience and the body, subjectivity and commonality,

while also pertaining to the dialectics between experience and theorisation, subjective and objective truth, embodiment and transcendence; the third one deals with the issue of *difference*, which, in a sense, serves to reframe and situate the whole “spatialized politics” (Smith & Katz, 1993, p. 67) of Rich, so as to recast the spatial and the material, together, in a different light. In fact, difference is used by Rich, and even more by her commentators, to mobilise both locations and identities: their materiality is already different within as well as different without. And even though Rich does not directly use terms like “performativity” or “relationality,” her search for movement inside positionalities—which problematises the same authorial and feminist point of view—can be said to prefigure similar developments of the politics of location (see Anthias, 2002), even if not without ambiguities such as Rich’s ultimate reliance on an individual Self that precludes a full openness to becoming (Carrillo Rowe, 2005; see also Kirby, 1993).

Whereas postcolonial and transcultural feminist interpretations of Rich’s politics of location have usually expanded on the spatial/historical question in combination with the issue of difference (Anthias, 2002; Brah, 1996; Carrillo Rowe, 2005; Frankenberg & Mani, 1993; Friedman, 2000; Kaplan, 1994; Mohanty, 1995), the scholarship of feminist technoscience has privileged the issues of materiality and difference, particularly in light of the developments of situated knowledge and standpoint epistemology. This has paralleled a return to materialism in feminist theory that, after the so-called linguistic turn and its deconstruction of essential categories, has tried to overcome the still-existing dichotomy between language and reality, focussing on the complexities of the “material-discursive” in order to accomplish a “deconstruction of the material/discursive dichotomy that retains both elements without privileging either” (Alaimo & Hekman, 2008, p. 6).

As a result, many hybridisations between these lines of thought, as well as several starting points for cross-cultural work, have already been advocated. Whereas Massey (1992, 2005) relies on physics to restate that there is no absolute spatial dimension in which interrelations between subjects/objects take place, but rather a space-time complexity that

gets constituted through interactions, Mei-Po Kwan (2004) proposes a hybrid geography that not only negotiates hybridity as a “location” among geographical fields inside the discipline, such as the analytical and the socio-cultural, but also overcomes the divide “between the social-cultural and the spatial-analytical, the qualitative and the quantitative, the critical and the technical, and the social-scientific and the arts-and-humanities” (p. 760). Accordingly, Sarah Whatmore (2006) notes that this “*return*” to materiality follows the acknowledgement of the “vital connections between the geo (earth) and the bio (life)” and is also “associated with the intensification of the interface between ‘life’ and ‘informatic’ science and politics” (pp. 600, 601). Furthermore, a Deleuzian feminist philosopher like Rosi Braidotti (2007)—in whose writings situated knowledge and the politics of location are usually associated—identifies in an embodied and embedded materialism the point of “transversal convergence” (p. 69) of recent feminist epistemologies, from situated knowledge to transnational feminism.

In any of these cases, the common starting point is offered, firstly, by the agreement on the contextual, processual and relational character of location, considered on a combined theoretical and practical, material and symbolic level; secondly, it arises in the acknowledgement of the ethico-political implications of Rich’s (1986) appeal, for whom recognising and giving voice to one’s own location is, in the first instance, a gesture of accountability and responsibility (p. 219). It is my intention, then, to consider the particular conceptualisation of the politics of location offered by feminist technoscientific accounts, and, more specifically, by standpoint epistemology and situated knowledge. Their spatialised approaches, in fact, combine issues of methodology and theory with issues of politics and ethics, offering many entry points for a convergence between knowledge and imagination which are necessary for relocating new technologies and technospaces inside a situated “aesth/et(h)ics.”

2.3 Defining Standpoint According to Standpoint Epistemology

We could start asking, together with David Wade Chambers and Richard Gillespie (2000, p. 228) “How does one articulate the *place* of knowledge or the *locality* of science?” The authors raise this question comparing the history of science and the history of colonial science in order to formulate a concept of location fundamental for any scientific discourse that not only recognises its situatedness—against the claims of universality of Western scientific knowledge—but also accounts for the networked, “assembled” character of location, which, in turn, allows for a comparison among the different locations of situated knowledges. As Suman Seth (2009) argues, introducing a special issue of *Postcolonial Studies* dedicated to the postcolonial studies of science and technology, “the production of locality, ‘in and through a dynamic of interaction’ may, in fact, be viewed as a leitmotif in recent work on global technoscience” (p. 378).

A decisive step towards the disclosure of the location of theorising is offered by the critique of scientific objectivity advanced by standpoint epistemology. I refer here to the second, and possibly a third, wave of standpoint epistemology (García Selgas, 2004; O’Leary, 1997; Pels, 2001/2004) which, overcoming the critiques concerning the identification of women as the unique category of analysis and the related notion of “epistemic privilege,” encompasses a dislocating moment, so to speak (Pels, 2001/2004). Standpoint epistemology has progressively distanced itself from the idea that women are granted an epistemic advantage because of the historically grounded and socially produced reasons behind their oppression. More recently, it has contemplated the “intersectionality” of oppressions, drawing on an initial formulation of Patricia Hill Collins (1986/2004), with the result of setting aside the need to consider women *as* and *along* a single axis of analysis (see Grewal & Kaplan, 1994; O’Leary, 1997). Once it recognised the mobility of positionings, standpoint epistemology finally encountered situated knowledge, allowing for a convergence between the transnational and postcolonial stances of the more recent interpretations of the politics of location and situated accounts of technoscience.

Harding (2008) has recently used the expression “sciences from below” (p. 115) to define all those projects that not only take women’s standpoints as their point of departure but articulate their analyses outside the Eurocentric horizon of Western Modernity. This gives rise to what Harding identifies as feminist postcolonial science and technology studies. These studies go beyond a simple perspective of integration and inclusiveness in order to make space for comparative studies which consider cognitive diversity on a global level. The issues already examined by standpoint epistemologists include: investigations of the co-emergence of European colonialism and Western Modernity, a critique of imperialism and the politics of development directed at Third World countries, comparative research attentive to phenomena of counter-Modernity and to multiple Modernities, and a reconsideration of reflexivity which allows every science, including Northern sciences, to be seen as differently localised (see also Seth, 2009).

Both standpoint epistemology and situated knowledge share a belief in the epistemic difference that social location—intended as a social practice—makes, and they overcome the rational/social dichotomy of many studies of science by focussing on the practice of science rather than its products. In standpoint epistemology, the issue of truth cannot be confronted as separate from the issue of power, so its theory is, first and foremost, a political theory of knowledge. In Harding’s (2004d) formulation, standpoint epistemology presents itself as a methodology, an epistemology and a political strategy at the same time (p. 2), whose character is not only descriptive, but also affirmative and transformative. Contrary to the common definition of perspective or point of view, standpoint is defined as an interested, engaged and potentially liberatory position, a *mediated* understanding which is *achieved*, rather than naturally or essentially owned (Hartsock, 1983/2004a, pp. 36–39), similar to the struggled-for location of Rich’s (1986) account. In this respect, standpoint also presupposes a postmodern and performative idea of subjectivity (Hirschmann, 1997/2004), one that is formulated in the plural and that is attentive to the collective, heterogeneous nature of all the agents of knowledge, even though it does not explicitly

contemplate a posthumanist approach to the issue, contrary to situated knowledge (but see Harding, 2003).

Given that a feminist is made, not born, a feminist standpoint can, in principle, be assumed whenever a feminist struggle is pursued, including cases in which the situations analyzed are not necessarily those of women. Thus intended, standpoint epistemology accommodates difference, multiplicity, and the performativity of identity. Replying to one of the most famous critiques made against standpoint epistemology (Hekman, 1997/2004), Nancy Hartsock (1997/2004b), drawing on Sandoval (1991), argues that the assumption of a feminist standpoint is first and foremost a question of strategic identity, which distinguishes standpoint epistemology from ethnoscience.¹⁵ In this context, subject positions are contingently assumed and are subjected to continuous transformations on the basis of the location—in the complex sense already examined—they constitute themselves through.

Notwithstanding its belief in the social construction of experience and location, standpoint epistemology maintains a fundamental materialist assumption (Hirschmann, 1997/2004), though materiality itself is nonetheless problematised. This aspect does not necessarily imply a divergence between standpoint epistemology and postmodernism, as some standpoint epistemology theorists such as Nancy Hirschmann (1997/2004) believe, but, rather, a further point of encounter. Hirschmann expresses a double suspicion about the claims of postmodernism in this respect—reprising, in fact, the two main critiques usually raised against postmodernism: on the one hand, she fears that the unmistakable acknowledgement of the mediated nature of reality transforms the materiality of experience into a discursive condition; on the other, she sees the risk of relativism resurfacing behind an unconditioned openness to multiplicity. To keep a position in-between the discursive and the experiential, then, Hirschmann proposes “a ‘materialist

¹⁵ If we attribute to the word “ethnoscience” an essential aspect, but clearly *not* if we use it in reference to the localised aspect of every scientific project, as mentioned above (see Harding, 2008).

moment' that serves as an interface between the possibility of a prediscursive 'concrete reality' on which standpoint feminism logically depends and the postmodern emphasis on the constantly shifting discursive character of such 'reality'" (p. 325).

However, the several explanations that Hirschmann (1997/2004) offers regarding this "moment" render the notion extremely slippery, especially because she still presupposes a "human mind" (see Pels, 2001/2004, p. 284) that, even though only momentarily, "succeeds in grasping the moment where the pre-discursive has not yet entered into discourse, leaving the relation between these two presumed distinct levels (p. 327).

Moreover, the way in which the discursive is said to come from the experiential is, in the end, unexplained. Since humans are not the measure of all things, as Haraway (1992/2008) points out, what is needed in order to recast materiality is, rather, "a different *kind* of theory of mediations" (p. 174)—in other words, *a change in the metaphor* that regulates the relations between bodies and languages (Haraway, 1991a, p. 188). In fact, this is precisely what situated knowledge initially elaborates through its notion of material-semiotic field in which what counts as human, nature and location are completely redefined.

Similarly, inside the debate about the Social Shaping of Technology Studies (SST), a form of "modified" or "modest" realism addressing both the social mediation of technologies and their material practicability has been addressed (Williams & Edge, 1996, p. 891).

Before going on, then, it is worth considering the many commonalities that have been identified between feminist epistemology and the epistemology of constructivism, starting in particular from the way the issues of objectivity and materiality have been dealt with in both fields. The adoption of a social constructionist approach, which has informed the broad debate developed inside Science and Technology Studies (STS) about the role of difference for the discussion of technoscience, has put forward the use of gender as a category of analysis, and of feminism as an appropriate "technogender theoretical framework" (Lohan, 2000, p. 900; see also Harding, 2008).

Put very simply, contrary to technological deterministic arguments that see technologies as impacting on societies and evolving independently from them (see Graham, 1998, 2004a, 2004b), STS consider technologies as inextricably linked with societies, thus neither self-determining nor autonomous in any way. Hence, they contemplate the epistemological value of difference in any discourse on the production, use and effects of (new) technologies. Many issues they explore, such as the “interpretative flexibility” of technology, the concept of “script/scenario,” and the definition of “actant,” particularly in such approaches as SCOT (Social Construction of Technology) and ANT, find a correspondence in the arguments adopted in feminist studies of technology (Lohan, 2000). For example, discussing the mutual interaction between feminist research and SST, Robin Williams and David Edge (1996) note that

feminist perspectives have made an important contribution to SST, broadening the range of actors and influences under consideration and in this way also provoked discussion about appropriate epistemologies. SST has provided tools to analyse the complexity of the relationship between (gendered) technology and (gendered) society. (p. 18)

Considering “gender” instead of “women” a more appropriate term to use inside a constructivist framework, they situate themselves along a specific aspect of the debate, which links technologies of gender to the gender of technology (and science). Accordingly, Wendy Faulkner (2001), drawing on the pioneering feminist technology studies of authors such as Judy Wajcman (1991) and Cynthia Cockburn (1992), resumes the terms of the debate by focussing on the material and symbolic coimplication of technology and gender: both are, in fact, shaped and reshapeable, thus “performed and processual in character, rather than given and unchanging” (pp. 80–82). This means that gender relations cannot be transformed without dealing with technology (p. 90), to which we can add that any discourse on technology that does not take gender into account, together with other forms of relationships “between variously constituted categories,” as Haraway puts it (1997, p. 28), would be at least incomplete.

On the one hand, the construction of femininity and the feminist debates around sex and gender are at issue here (see Braidotti, 2002b; Butler, 1990; De Lauretis, 1987); on the other hand, the gendered—but also racialised, geographical, in sum, broadly social—nature of technology is unmasked. It must be noted, with Harding (2008), that the consideration of the social character of technologies also affects, in turn, the reconsideration of sciences in technological terms. Whereas science has usually been conceptualised as “a set of representations of reality” (p. 186), paralleling the idea of technologies as exclusively hardware tools,

thinking of the goal of scientific work as, among other things, the successful interaction of scientists and their technologies with material, social and cultural contexts enables philosophies of science to make use of more of the resources created by social histories and social constructionist sociologies of scientific and technological changes. (p. 186)

For the sake of my argument, however, it is useful to dwell on the way the issues of truth and objectivity, together with those of materiality and embodiment, are confronted in relation to the knowledges and practices of technoscience in constructivism and feminist technology studies, with a particular attention to standpoint epistemology and situated knowledge. This will help us better understand the way situatedness and positionality are reformulated by feminist theorists when considering the couplings between nature and culture, the social and the technological.

Questions of truth and of scientific objectivity have been at the core of standpoint epistemology debates. They involve a critique of the essentialism of the categories employed in the processes of knowledge, such as those of nature and object, and a deconstruction of the binaries that they invoke, such as nature/culture and object/subject. In most cases, this flows into a discussion of the possible alternatives that lie beyond the choice between universalism and relativism, and how objectivity can be redefined outside the parameters of neutrality and absoluteness that have characterised the history of this category. Actually, standpoint epistemologists, rather than looking at the *what* of either

absolute or relative truths, are interested in *how* different regimes of truth work, and, thus, unmasking the power relations they instate in order to outline what Harding (1997/2004b) calls “less false accounts” of the world, whose standards obviously also may vary (p. 260) and which are very near to Haraway’s (1991a) multidimensional maps of the world.

To quote a well-known statement by Haraway (1991a), “feminist objectivity means quite simply *situated knowledges*” (p. 188). In order to argue this assertion, Harding (1993/2004c) distinguishes the grounds of standpoint from four other types of ground: the God-trick, ethnocentrism, relativism, and the perspective of the oppressed. This allows her to distance herself from the risks these imply, which she lists as: the abstraction from social situatedness (of the God-trick), or the so called “view from nowhere,” to use one of Haraway’s favourite expressions, which is also sometimes implicit in the appeal to absolute detachment towards truth and falsity of constructivism (see Rouse, 1996/2004); the attribution of an epistemological superiority to marginal or subaltern subjects’ standpoints (of ethnocentrism and the perspective of the oppressed) merely on the basis of their history of oppression, which also implies an essentialist belief about women and feminism; a pluralistic attitude which values difference *per se*, ending up in a sceptical and undifferentiated relativism.

Standpoint epistemology, on the contrary, believes that scientific knowledge always comes *from somewhere*, being historically embodied and located. As a consequence, standpoint epistemology does not distinguish between the subjects and objects of knowledge, but considers the social constitution of both, as well as their mutual interactions, as equally important for the process of scientific knowledge. “Strong objectivity requires that the subject of knowledge be placed on the same critical, causal plane as the objects of knowledge. Thus, strong objectivity requires what we can think of as ‘strong reflexivity’” (Harding, 1993/2004c, p. 136).

To equate strong reflexivity with strong objectivity means recognising that not all claims are equal, not when weighted against truth, but rather in terms of the effects they produce

and the liberatory potential they possess. Instead, the appeal to the neutrality of scientific values disguises the interests of the dominant groups that these values usually express (Harding, 1993/2004c, p. 137). Focussing on how these ideals work, rather than solely on their truth content, means being attentive to the implications of such knowledge claims in terms of the interests they serve and the inequalities they create: “for most feminist theorists of science, knowledge is neither external to nor merely instrumental for justice but is itself a valued end for which justice is integral” (Rouse, 1996/2004, p. 367). In so doing, standpoint epistemology contributes to delinking objectivity from transcendence, and to grounding it in an embodied dimension of accountability and responsibility. And, surely, this recourse to embodiment is not one that takes for granted the idea of pre-existing social circumstances, as Keith Grint and Steve Woolgar (1995), on the contrary, contend in their critique of “the embodiment metaphor” of feminist theories.

Standpoint epistemology theorists adopt a sociological and historical relativism while refusing an epistemological one. In so doing, they bypass the choice between universalism, with the recourse to a privileged feminist meta-narrative, and relativism, with the evaluation of epistemic differences to the point of an epistemology of multiplicity *per se*, which often also presents Eurocentric and masculinist assumptions (Harding, 1991, p. 153); or, put otherwise, they avoid the choice between a positivist form of materialism and radical constructivism (Harding, 1997/2004b, p. 256). This is a position which echoes feminist theorisations of a politics of location that reject both the acritical celebration of difference and the appeal to commonality made solely on the base of sex or gender, strategically retrieving situated belonging for feminist politics and epistemology (see O’Leary, 1997). What guarantees the validity of situated epistemologies is not essential truth, but a practical and political usability, what Lohan (2000), for example, terms “responsible reflexivity,” stressing not merely the symmetry between the subject and the object of knowledge, as constructivists do, but also the *active implication* of the subject in the field of the object. As she puts it:

responsible reflexivity in research seeks to identify the researcher, and frequently the research project, as an actor in the content of the research, by integrating the relationships of researcher, researched and research process into the production of science. This is compatible with the constructivist S&TS [Science and Technology Studies] claims that all knowledge is produced somewhere by somebody. However, it moves beyond the plain reflexivity of S&TS in that knowing is placed in the context of interrelationships between the knower and the known. Thus, responsible reflexivity must also incorporate the feminist rigour of “situated knowing,” namely the inclusion and positioning of the researcher and research project as a precondition of scientific knowing. In practice too, this means a form of “epistemological modesty,” and recognition of the *partial and necessarily collective character of knowledge-making*. (pp. 909–910, emphasis added)

This is very similar to what Joseph Rouse (1996/2004) asserts when he affirms that feminist science studies conceive knowledge in more interactive and operational ways which privilege *relationships* rather than relations of correspondence (that is representations), compared to the more discursive and representational aspect that knowledge assumes in the sociology of science (pp. 361–362, 367; see also Barad, 2007). Given that narratives are always situated, reflexivity offers yet another possibility of “interactions with others in partially shared surroundings,” rather than leading to further “self-enclosure” as he continues (p. 370). This produces an epistemology which is also a politics of science, although, to be precise, Rouse prefers to speak of a *post-epistemological* project.

2.4 Situated Knowledge and the Privilege of Partial Perspectives

Barad (2007) draws upon the assumptions that location is configured as a form of “specific connectivity” and that our knowledge lies in “partial understandings” which, nonetheless, do not impede objective judgments. They form the basis for her interpretation of quantum physics and defence of a *nonrelativist, realist* position—which she intends to distinguish from the *nonrelativist antirealist* position of standpoint epistemology and situated knowledge (p. 44; see also Eglash, n.d.), although it is possible to argue that what properly distinguishes Barad’s position is the function that she attributes to *mediation* rather than

the way she defines reality. Barad, to be precise, discards mediation in the sense of an operation that correlates, from the outside, two separate, distinct entities or the representation with the represented, as if there were an external mediator operating on a homogeneous, static realm of things (pp. 374–375). It must be noted that, in fact, representationalism is usually coupled with an instrumental thinking of technologies (Bolt, 2004, p. 8). Considering technological means as mere instruments, independent from the objects or the phenomena observed, is something that the arts and the hard sciences have in common when they act representationally, failing to grant objects the agency on which, to the contrary, ANT and Harawaian thought widely dwell.

Barad (2007), taking Judith Butler's (1990) theory of performativity even further, rejects representationalism altogether, privileging a *processual, performative account of matter*, or "mattering," that already contains operationality and dynamism inside itself—and in this light it should be clear why she prefers using the term "intra-action" instead of interaction. Knowledge, in this respect, does not concern the apprehension of facts but their material configuration (p. 91); thus, concepts are always materially embedded (p. 143) and "articulate" and "give account for" the world through specific practices (p. 149). Conversely, matter is always "*what it means to matter*" (p. 153), never a passive surface but a repository of actualisable possibilities. Defending a specific kind of posthumanism, Barad affirms that posthumanism does not pit culture against nature but, on the contrary, denies the division between nature and culture. "Cuts" between subjects and objects are enacted, rather than inherent: apparatuses, intended as material-discursive practices and as phenomena themselves, enact these cuts (p. 146). This is the notion of intra-action elaborated in Barad's agential realism, which is a practice of boundary-making that works ontically as well as epistemologically.

Notwithstanding Barad's dismissal of it, the role that mediation plays in Haraway's (1991a) theory is very similar to the notion of Barad since Haraway does not refuse representation completely but reworks it while insisting on the embodied nature of vision

(p. 188); instead of rejecting mediation outright, she invokes a different theory of mediations (Strathern, 2004; R. M. Young, 1992), or a different system of metaphors, mindful of the lesson of Latour (1991/1993). For Latour, a mediator is, in fact, a productive figure of *transport* (whose meaning is implicit in the etymology of the word “metaphor”) and *transformation* that does not stand outside the practice of mediation, but is implicated in it.

In her book, significantly entitled *Art Beyond Representation*, Barbara Bolt (2004) highlights how the conflation of the critique of Modern representation and the critique of realism and figuration is a result of a very precise “conceptual framing of representation” in which “representation equals realism,” as “opposed to abstraction or non-representation. However, what is at stake in the act of representation is not, as is commonly supposed, simply the realistic or figurative representation of a reality that exists out there” (p. 17). In fact,

representation is not an outcome, but rather a mode of thinking and a relationship to the world that involves a will to fixity and mastery. According to such a conception, representation should not be confused with realism. Moreover, abstraction may be as representationalist as realism. (p. 17)

However, Barad (2007) also strongly critiques reflexivity as well as those science studies approaches that consider reflexivity as a corrective of representationalism. An example of this is Dick Pels’s (2001/2004) radically constructionist appeal to a “reflexive radicalization of positional thinking,” which makes the situations of situated knowledges ultimately dependent on the standpoints of spokespersons (p. 286). This kind of position leads to an unending and abstracting reflexivity which continuously pursues validation and fails to do justice to the complex material-semiotic dimension of situated knowledges, in which no unifying external position, no matter how provisional, is required anymore (see García Selgas, 2004). If traditional realists rely on representations to mirror a presumed external reality, the option of “turning the mirror back to oneself,” as most antirealist theorists of science studies do, does not work either, says Barad (p. 58), as long as the

productive role of knowledge practices remains unexplained and representationalism is still at stake. As a matter of fact, “reflexivity is based on the belief that practices of representing have no effect on the objects of investigation and that we have a kind of access to representations that we don’t have to objects themselves” (p. 87).

Representation, Barad (2007) continues, even when “raised to the nth power,” “does nothing more than mirror mirroring” (p. 88). Of a slightly different opinion is Hayles (1993/1997), whose notion of “constrained constructivism” Barad takes into account in her critique of representationalism. Actually, Hayles, too, believes that the dichotomy between realism and anti-realism must be overcome; however, rather than abandoning the notion of representation, she thinks that dynamising representation is a viable alternative outside the true/false binary, as we will see further on. Barad, on the contrary, clearly prefers the notion of diffraction, drawing on Haraway’s (1997) use of it, since, instead of multiplying the effects of reflection, diffraction instates a completely different approach to knowledge and knowing differences. It must be noted, though, that Harding’s (2003) later analyses of this point also insist on the non-representationalist and, instead, interventionist character of technoscience, while renewing her belief that the emergence of differences in knowledge production relates to differences in and between locations. Before expanding on this crucial point regarding representation and the visual field, it is worth looking at the pivotal concepts of Haraway’s (1991a) original formulation of the situated knowledgeproject, lingering, in particular, on the way she deals with situation and the situatedness of technoscience, so as to find a way out of the polarisation between relativism and universalism as well as between realism and antirealism, representationalism and objectivism.

Haraway’s “Situated Knowledges” (1991a) originated as a comment on Harding’s book, *The Science Question in Feminism* (1986), in order to reinforce the idea, already contained in Harding’s text, that no politicised person can allow radical constructivism to become cynical relativism. Indeed, if objectivity, including scientific reality, were only rhetoric, the

world would be reduced to a textualised system of codes—a rather scary proposition for those who “would still like to talk about *reality*,” such as Haraway herself (p. 185), when considering the relation between bodies and language. Conceptual systems such as Marxism and psychoanalysis, although still based on humanistic assumptions, were at least oriented toward looking for “nuanced theories of mediation” between theory and practice, absolutism and relativism (p. 186). But many feminists who have tried to embrace, alternatively or simultaneously, both radical constructionism and critical empiricism have remained trapped in this inescapable dichotomy. So, apart from the evident epistemological question concerning objectivity and scientific knowledge, or rather beneath it, the mediatory theory that Haraway invokes should also effectively respond to the ethico-political need of feminists for “a no-nonsense commitment to faithful accounts of a ‘real’ world” (p. 187).

Haraway (1991a) argues that the “translation, convertibility” and “mobility” of knowledges, which should guarantee the universality of science, most often “loses track of its mediations,” whereas it should take into account “the earth-wide network of connections” through which knowledges are also partially embodied and translated (p. 187). Here, Haraway is criticising what she will later define as that “transhumanist technoenhancement” which dismisses the material ground of information, as if downloading human consciousness into a chip would rid us of pain and suffering (Haraway in Gane, 2006, p. 140). On the other hand, bodies, and the whole embodiment metaphor, which offers a (posthuman) redefinition of bodies as well as of their locations, need reconsidering so as to encompass not only the possible mediations between the semiotic and the material, but also the always-already mediated character of bodies themselves. Locating the subjects and objects of the practices of technoscience is, in fact, for Haraway (1997), the primary aim of the project of strong objectivity (p. 37). “Feminist embodiment,” she writes in an often quoted passage, “is not about fixed location in a

reified body, female or otherwise, but about nodes in fields, inflections in orientations, and responsibility for difference in material-semiotic fields of meaning” (1991a, p. 195).

Consequently, Haraway (1997) does not use location here as “the concrete to the abstract of decontextualization” (p. 37). As she later points out, drawing on Whitehead’s (1925/1997) explanation of the “fallacy of misplaced concreteness” (Haraway, 1997, p. 296), we build a whole metaphysics of essences on the basis of our belief in the existence of solid objects and locations, whereas objectifications should rather be considered as “stabilized interactions in a given frame of reference,” whose boundaries are always provisional. Thus, for Haraway,

Location is the always partial, always finite, always fraught play of foreground and background, text and context, that constitutes critical inquiry. Above all, location is not self-evident or transparent [...]. No layer of the onion of practice that is technoscience is outside the reach of technologies and critical interpretation and critical enquiry about positioning and location. (p. 37)

Haraway (1991a) insists that, in order to go beyond the simple deconstruction of scientific objectivity pursued by today’s scientists, we need to bring epistemological debate into the political and ethical field, to account for specific histories and engage in critical practices at the same time. Against objectivity as transcendence, against global systems of theorisation, against “holisms built out of summing and subsuming parts,” what is needed is a useful, non-innocent “earth-wide network of connections” (p. 192), in which non-standardised knowledges, as well as bodies, are continuously queered and translated:

I want a feminist writing of the body that *metaphorically* emphasizes vision again, because we need to reclaim that sense to find our way through all the visualizing tricks and powers of modern sciences and technologies that have transformed the objectivity debates. [...] So, not so perversely, objectivity turns out to be about particular and specific embodiment, and definitely not about the false vision promising transcendence of all limits and responsibility. The moral is simple: only partial perspective promises objective vision. (pp. 190–191, emphasis added).

It is in a similar framework that objectivity, for Haraway (1991a), comes to signify situated knowledges. This project of an embodied and embedded situated objectivity, equally far from the nowhere of universal totalisations and the everywhere of relativism and their

common denial of an investment in location, finds in partial perspectives “from somewhere” (p. 196) the context in which knowledge meets responsibility; and, here, responsibility means being locatable, and being able to give account of one’s own locatedness (p. 191). Only if situatedness comprises the double gesture of accountability and responsibility does “relativism [...] redefined as partiality [...] becomes an epistemic device” (García Selgas, 2004, p. 306).

Haraway (1991a) forcefully makes explicit what—if anything—remains ambiguous in the politics of location and in the notion of standpoint as theorised by standpoint epistemology: that there aren’t privileged or innocent positions, and that marginal or subaltern positions do not automatically imply the ability to see from below. No natural, authentic position exists: every position must be interrogated, learnt, assumed or revised through the exercise of a semiotic-material technology. “*How to see from below,*” Haraway continues, “requires at least as much skill with bodies and language, with the mediations of vision, as the ‘highest’ techno-scientific visualizations” (p. 191). No unmediated vision exists: whereas technologically-aided visions are made transparent the same moment their technology is celebrated (p. 189), our bare eyes, which would presumably carry transparent visions, should be considered active instruments in which visions are, instead, built and apprehended: “there are only highly specific visual possibilities” (p. 190) which generate certain visual practices that, in turn, are generative of partial perspectives. That is why understanding how these visual systems work, who has the power to see, and how this power is employed at different levels, is of the utmost importance for a feminist “politics of positioning” (p. 193) based on solidarity and connections.

Redefining a “political semiotics of representation” in terms of articulation (Haraway, 1992, p. 311), that is, of mediation in the already mentioned sense, is among the primary aims of Haraway’s (1992) philosophy. Traditionally, representation depends on the availability and dispossession of an object treated as a passive resource to be either exploited or protected, and in either case guaranteed an independent status as such by the

legitimizing authority of who represents (p. 313); thus, a politics of articulation involves both the representor and the represented on the same ground of action, where “boundaries take place in provisional, neverfinished articulatory practices” (p. 313). What is so importantly new in respect to previous feminist theories of location and standpoint is that these articulatory practices do not distinguish between the human and non-human actants involved. Articulation happens precisely through situated practices, which do not require separation or distantiation, but relationalities and connections which are necessarily partial; “you can’t be accountable to everything,” unless you reduce the complexity of the world into a taxonomy, that is, a detached, abstracting representation (Haraway in Gane, 2006, p. 145).

Interestingly, Marilyn Strathern (2004), in a discussion of representation and visibility in anthropology, draws a very specific comparison between feminism and ethnography, taking Haraway’s (1991a) notion of partiality and partial connection, as well as the latter’s cyborg figuration, as a starting point. She discusses how, in postmodernity, the figure of the ethnographer as tourist and consumer has come to substitute that of the ethnographer as fieldworker; having foregrounded the risks implicit in such a postmodern turn in ethnography in comparison with postmodern aesthetics, Strathern looks at Haraway’s theory as a possible different “ethnography for our times” (p. 32), one which is discursively and materially situated and at the same time able to retain a form of criticism towards one’s own and the other’s perspective. It is one in which partiality does not appear as relativism or *pastiche*, that is, as a celebration of fragmentation *per se*, nor does it need to be resolved into wholes or totalities. Instead, in Haraway’s ethnography, partiality becomes the possibility of establishing connections beyond unities as well as beyond multiplicities, if these are only an accretion of unities, augmented only in number. Thus, Strathern (2004) writes, feminism and anthropology cannot be distinguished on the basis of the “metaphor of locality.” In fact, “there is no walking away from one ‘place’ into another. Neither discipline offers a room of its own in whose refuge I can be constituted as

a whole person; neither is a complete context” (p. 35). Connections remain partial, since they do not create new unities, as demonstrated by the dialogue between feminism and ethnography in Strathern’s experience, or, more generally, of feminism and other theoretical fields; they only create *prosthetic* extensions of partial positions—always from the position that one occupies in the first instance—by means of relations of interlocution (p. 39). In this sense, partiality appears both as a question of incompleteness and as one of commitment: “neither position offers an encompassing context or inclusive perspective. Rather, each exists as a localized, embodied vision” (p. 40).

But Strathern (2004) also highlights the importance of the cyborg figuration as a human-machine hybrid, in this respect. As a matter of fact, the cyborg alludes to a connection between the body and the machine that is not based on a new organicism, but on the possibility that each component realises the other’s capacities without appealing to a superior unity, only to a different “extension.” Moreover, such incommensurability should not be measured according to a relation of parts versus totality: “at first sight, a ‘tool’ still suggests a possible encompassment by the maker and user who determines its use. Yet our theories of culture already tell us that we perceive uses through the tools we have at our disposal” (p. 40). As noted by Fernando J. García Selgas (2004) in his essay on standpoint epistemology and situated knowledge, “multidimensional” agents of knowledge take the place of subjects of knowledge, constantly redrawing its boundaries, in order to assure connectivity and mobility (p. 304).

Thinking about relationalities rather than mutual exclusivities, then, means overcoming the oppositions that counterpose absolute, self-contained entities against each other. In this light, it also means reconsidering feminist embodiments, as Haraway (1991a) contends in the above-mentioned passage, as “nodes in fields [and] inflections in orientations” (p. 195). If the existence of the master subject was in fact guaranteed by the possibility of a separation from the object, something which happened through a distancing, reflecting vision, an articulatory turn in representation would also mean the end of the same

possibility of this Subject's existence and its substitution with "non-isomorphic subjects, agents, and territories" based on the image of "splitting" (pp. 192–193). Given that cyborgs do not reproduce but instead "regenerate," as Strathern repeatedly emphasises (2004), there must be another model which is suitable for describing the limits and possibilities of their partial perspectives: that of critical distance, although comforting, remains, nonetheless, a fiction (Haraway, 1991a, p. 244).

In the first part of this chapter, I have focussed on the most common geographical narratives of cyberspace and the different perspectives from which the space of flows in network society (Castells, 1996) have been approached (see Graham, 1998) in order to put into relief the mobile and networked character of location in technospace. I have thus introduced the possibility of adopting an antidualistic and relational conception of the reality of location and its representation regarding technospaces, by means of a situated approach that I have specifically borrowed from Haraway's (1991a, 1997) alternative epistemology, since it also has the advantage of providing the possibility of a different representational practice. After discussing Rich's (1986) politics of location in detail, and the main aspects of both standpoint epistemology (Harding, 2004a) and situated knowledge (Haraway, 1991a), I have, firstly, outlined their commonalities and differences, and secondly, I have shown how the awareness of the situatedness and partiality of one's perspective is the basis for a different kind of theory of mediation and an alternative semiotics of representation, such as the one elaborated by Haraway (1997).

Drawing on these premises, in the following chapter I define the articulatory turn in representation (see Barad, 2007; Thrift, 2008), proposing a way to reconceptualise representation without refusing visibility (Haraway, 1997; Hayles, 1993/1997), conceiving it as a critical practice of engagement with vision and the different powers that circulate in the visual field.

Chapter 3: Reconceiving Representation

3.1 Questioning Representationalism and the Comprehensive Visual Field

The emergence of a shared sensibility in the arts and sciences and the construction of the world as a visual totality at the end of the nineteenth century are at the core of Gregory's *Geographical Imaginations* (1994). He addresses the problematic of visualisation in relation to the constitution of modern geography in the first chapter, which is significantly entitled "Geography and the World-as-Exhibition," after a renowned essay by Timothy Mitchell (1989). Gregory draws on elements of the history of art, science, and other disciplines to analyze the ocularcentrism of modern geography, but his arguments can easily be reversed and used to understand the role of visualisation technologies and such "geographical" tools as cartography and mapping in general in the arts and sciences. Gregory (1994) introduces Mitchell's essay in the second part of the chapter, noting how Mitchell talks about the ordering of the world as exhibition in Western Europe during the nineteenth century. Mitchell draws on an episode in which a delegation of Egyptian scholars invited to the 1889 International Congress of Orientalists in Stockholm faced the construction of alterity as exhibition twice: firstly, when they visited the Egyptian Pavilion at the World Exhibition in Paris during their voyage; secondly, when they themselves were treated as Orientals, rather than Orientalists, at the congress in Stockholm. This *mise-en-scène* corresponded to, and at the same time relied upon, a process of objectification of the things displayed that was made possible by a distant viewing subject constructed as spectator throughout this viewing modality. As in the case of panorama paintings or dioramas, this caused a paradoxical belief in the realism of representation (that is, its correspondence to an external reality), and a simultaneous acknowledgement of the exhibition *as* representation, "set up for an observer in its midst" who was simultaneously surrounded by images yet excluded from the order of display (T. Mitchell, 1989, p. 223)—

the point of view being created precisely through such a distancing move¹⁶ (see also Bolt, 2004, p. 25 ff.).

In T. Mitchell's (1989) analysis, this initiated a labyrinthine play of cross-references and mirror reflections between reality and representations, and the effect of an (endlessly unreachable) "external reality" that extended well beyond the proper space of the exhibition to include the entire city of Paris, as the case of the shopping arcades, perceived by Eastern travellers as miniaturised worlds, testifies. However, whereas people travelling from Asia to Europe perceived the European world as an exhibition, clearly organised and composed for the viewer to see, Europeans travelling abroad suffered from the "absence of pictorial order" (p. 227) of foreign places. This was, for example, the case in Gustave Flaubert's (1850/1983) account of Cairo, where no visual distance (and no visual "hygiene") was allowed for the stranger; thus, Mitchell notes, no comprehensive vision from any "position set apart and outside" (that is, the constitution of the point of view) was possible (p. 229). "Strangeness" was increasingly "expressed in terms of the problem of forming a picture" (p. 228), even though several stratagems were eventually found by European travellers in order to artistically recompose the experience of their journey. What T. Mitchell (1989) highlights is how the organisation of the world as exhibition created the belief in two different counterposed realms, the real world and the represented one; reality, in consequence, turned out to be what could actually be properly represented, that is, recomposed as an exhibition, as a distinct object, for the beholding eye of the viewing subject. It is a subject/object divide which, while represented, is at the same "congealed," assimilated to the totality of the enclosed space it should completely belong to according to the rules of representation (see Appadurai as cited in Farinelli, 2003, p. 81). Here, it is worth quoting a passage of Heidegger (1954/1977) cited by Bolt (2004) in her book about non-representational art, in which she draws on his critique of

¹⁶ Mathematically speaking, mapping is precisely the correspondence between two sets in which each element of the first one has a counterpart in the second one (cf. Farinelli, 2003, p. 78).

representationalism. In it, he directly delineates this double constitution and its impasse when he explains the meaning of *vortsellen*, that is, *to represent*:

That which is [...] is [...] that which, in representing, is first set over against, that which stands fixedly overagainst, which has the character of an object. Representing is making-stand-over-against, an objectifying that goes forward and masters. In this way representing drives everything together into the unity of that which is thus given the character of object. (Heidegger as cited in Bolt, 2004, p. 21)

Heidegger clearly expresses how representationalism becomes “a relationship where, whatever is, is figured as an object for man-as-subject,” writes Bolt (p. 13). And, as Mitchell goes on, the issue here is not so much proving that an external reality does exist or that we are trapped inside a nested box of representations: “What matters about this labyrinth is not that we never reach the real, never find the exit, but that such a notion of the real, such a system of truth, continues to convince us” (p. 236).

Drawing on Mitchell’s analysis, Gregory (1994) traces the genealogy of the world as exhibition back to the role of linear perspective and down to the invention of the *camera obscura* and the colonising moves of the nineteenth century. It is no coincidence, for Gregory, that both the World Exhibition in Paris and the International Congress of Geographical Sciences opened in 1889, nor that many types of optical machinery were invented in that same period, paralleling the institutionalisation of human geography (pp. 38–39).

Some of the most commonly adopted techniques of spatial construction, such as *perspectiva artificialis*, certain genres, such as landscape painting and *views*, and specific aesthetic categories, such as the picturesque, surely acquire a different significance when they are related to the appropriation of space going on from the Renaissance to the colonial enterprises of the nineteenth century (Bruno, 2002/2006; C. Duncan, 1982; Gregory, 1994; Nast, 1998; Nochlin, 1992; Pacteau, 1994; Rose, 1993; Solomon-Godeau, 1989; Williamson, 1986). Let us consider, for example, the continuous exchanges between landscape painting and cartography: emblematic, in this respect, is the contemporary

appearance of the translation of Ptolemy's *Geography* from the Greek into Latin with Brunelleschi's first experiments with linear perspective, which both took place in Florence at the turn of the fifteenth century, testimony to the new desire to know and master space that was beginning to emerge (see Rees, 1980).

However, the existence of a comprehensive visual field also signals the existence of what is excluded from it and perceived as a threat, so the analysis of a visual totality should always be accompanied by the exposure of its limits (see Deutsche, 1995; see Bruno, 2002/2006). In fact, as Gregory (1994) recognises, other scopic regimes existed in Western Modernity—and clearly other Modernities, each with their different visualities—which challenged the idea of the world as a single visual totality, although their power was less visible or, we could also say, their visibility was less powerful than the prevailing idea of the world as a visual totality (see below). However, the representational imaginary surely emerged as the dominant paradigm of Western Modernity (see Foucault, 1966/1994) because it was the most suitable to support the constitution of the identity of the Westerner as an autonomous and self-reliant individual, endowed with the (visually dependent) ability to calculate, categorise, separate and identify the Other for its own purposes.

That is why T. Mitchell (1989) affirms that Orientalism (see Said, 1978), before being an aspect of colonial domination, which it surely was, was first of all “part of a method of order and truth essential to the peculiar nature of the modern world” (p. 236). One only need think of the role of photography in the visual construction of racial and gender differences supporting the project of the American nation and its colonial expansion that so clearly emerges in the rich survey of pictures put together by Fusco and Brian Wallis (2003) on the occasion of the exhibition “Only Skin Deep. Changing Visions of the American Self,” supplied with an extremely well-documented catalogue.

It must be noted that, very often, feminist critiques have put into relief the necessity of analyzing the power and unevenness of spatial imaginations so as to elaborate a politics of transformation based on different imaginations and alternative spatialities (Berger, 1972;

Deutsche, 1995; Gregory, 1994; Pollock, 1988; Robinson, 2000). And if we exclude artists and art historians for their obvious focus on representation, it is feminist geographers who have been most interested in the power dynamics at the stake in the representational order. They have also widely relied on the feminist critiques of representation and visuality developed in visual and film studies, as Gillian Rose's (1993) references of to John Berger, Linda Nochlin, Laura Mulvey and Teresa De Lauretis attest, not to mention Gregory's (1994) own visual studies' sources, as well as Rose's (2007) more recent scholarship on visual methodologies.¹⁷ And, on the other hand, visual studies have also largely employed geographical and spatial concepts for their analyses of the relations between the technologies of vision and the imaginary of mobility and location (Bruno, 2006; Friedberg, 1993; Gordon, 2010; Rogoff, 2000). In this context, for example, one of the geographical concepts *par excellence*, that of field, has undergone a profound critique, something that can reasonably be compared to the reflexive turn that, in the "hard sciences," has dismantled the traditional divide between the observer and the observed phenomenon and instead prompted attention to the observer's position, whose observation is always of the second order (Harding, 2004a; Nast, 1994; Rose, 1993; Sparke, 1996; Staeheli & Lawson, 1994).

In fact, as Clifford (1990) has noted, the notion of field, which is shared by different disciplines, from geography to anthropology to the military and the visual arts, implies the existence of a place to be penetrated, explored and possessed, which, additionally, is frequently characterised by feminine metaphors (Clifford as cited in Sparke, 1996, p. 214). But, as Nast (1994) puts it, drawing on Katz's (1994) assertion that no researcher can claim for herself a position which is external to the field since she is always already *in* it, a problematisation and political contextualisation of the field can serve to blur the distinction between "the politics of fieldwork' and 'the politics of representation'" (Nast, 1994, p.

¹⁷ Rose (1995b) has also directly discussed the work of contemporary artists, such as Jenny Holzer, Barbara Kruger and Cindy Sherman, to illustrate how representations can be reworked to "make space" for an apparently unrepresentable space of femininity.

57). On the contrary, the naturalisation of the field not only presupposes that the field is a passive, a-historical space “out there,” but it also makes the space of the observer/researcher transparent, which is to say “innocent,” thus eliminating any “intra-action,” to quote Barad (2007), between differential positions inside the same field. Returning to Gregory’s (1994) argument, he extends his analysis to the present, considering the problematic of representation in relation to the issue of space-time compression; again, he demonstrates not only how human geography has much to learn from the connections between power, space and representation, but how these links interest a visual field which is common to various disciplines. Agreeing with Anthony Giddens’s (1990) belief that we live in an epoch that radicalises some traits of Western Modernity rather than dissolving them, so that we should speak of “high modernity” instead of postmodernity, Gregory intends to transpose Giddens’s observations into the field of cultural politics where he firmly believes that the arts and the sciences meet again today. To be precise, Gregory only mentions the social sciences, but, as we have seen, space can surely be made for the “hard” sciences within this common ground. As Gregory shows, it is around the middle of the twentieth century, when geography is finally constituted as a formal spatial science, that the idea of the world as exhibition reaches its apotheosis. The fascination with the grid, which Rosalind Krauss (1979/1985) identifies in Modern art as well, permeates geographers’ interest in spatial structures. Power, knowledge and space become more and more associated, their colonising and disciplinary power, if we follow Foucault, reciprocally reinforced and increased (Gregory, 1994, p. 63). Clearly today, the role of new information and visualisation technologies in the perception and employment of space has changed our relation with the world, which seems now to be *travelled through*, rather than simply *gazed at*. Thus Giuliana Bruno (2002/2006), discussing contemporary cinema, distinguishes between the visual experience of *sight-seeing* and the multisensorial experience of *site-seeing*, the latter implying a corporeal involvement, a movement of the senses, and an immersive, performative approach (see also Friedberg,

1993; Gemini, 2008). However, we should also wonder whether purely visual media have ever existed or, instead, if the visual has rather undergone a process of purification from the contamination with the other senses, given that the notion of media, which implies mediation, “already entails some mixture of sensory, perceptual and semiotic elements” (W. J. T. Mitchell, 2005, p. 260).

However, Gregory (1994) asks, commenting on Mark Poster’s (1990) claim regarding the contemporary dissolution of the divide between the real and the represented, do we actually assist in the dissolution or, rather, the apotheosis of the world as exhibition? In fact, Gregory notes, the three characteristics that Mitchell attributes to the world-as-exhibition still continue to exist today. They are: certainty, which pertains to belief in the possibility of representing the real; paradoxicality, which makes us use representations to depict reality, although we feel that we can only access reality through representations; finally, the colonising effect, or the complicity of visual representations in various systems of power (p. 64). This, on closer inspection, finds a parallel in the progressive autonomisation of the reality of fiction that Giovanni Boccia Artieri (2004) dates back to the theatre of the late sixteenth century and traces to novels of the eighteenth century; in these, the reader starts believing in a representation that he/she nonetheless *recognises* as such, thanks to literary devices such as fake letters, found documents and so on, an attitude that Don Quixote, who “*reads the world* in order to prove his *books*,” perfectly embodies (Foucault, 1966/1994, p. 47).

This reflexive practice continues today in some of the aspects of ICTs that play with the dynamic of involvement and distance—for example, reality television—and that digital media further radicalise. Indeed, the “video-digital gaze” does not need to stand apart in an invisible, detached place in order to be identified as such since observation and self-observation are now the environment that we move through, so that we can speak of a condition of diffuse panopticism that characterises the contemporary moment (Boccia Artieri, 2004, pp. 136–137). In Gregory’s (1994) words:

That sense of being “within” is greatly enhanced by the visualizing practices of more advanced geographical information systems and interactive telecommunications systems, which at once set the world at a distance—accessed from a platform, seen through a window, displayed on a screen—and yet also promise to place the spectator in motion inside the spectacle. (p. 66)

The paradoxical aspect, here, does not only lie in the always new combinations of reality and representation, images and lives—that labyrinthine chain of mirror reflections already proper to modern Western cities—which are now enhanced by the omnipresence of screens. It also pertains to the necessary recombination of the visual in a whole series of mediations that, on the one hand, urges us to relationally reconsider both visibility and representation and, on the other, requires a situated approach to both that can account for the various consequences of the involvement that vision produces, rather than only of the distance that it might guarantee. So, if new technologies such as GIS seem to confirm the, if not exactly privileged then at least enhanced, role of the visual today, as they are mostly treated as scientific and thus “detached” tools of observation, we must also be able to discern in this approach a “rhetoric of concealment” which disguises the fact that these technologies have also been produced *somewhere* (p. 65). And this somewhere also produces different visual experiences based on both the involvement and/or the exclusion of other (already mediated) senses and bodies. It is not by chance that *where* our technovisions are produced is precisely Haraway’s (1991a) chief question.

If the map and the territory are not distinguishable anymore, this does not necessarily imply an automatic substitution of the simulacrum for what was once real, nor a dystopian scenario in which the only cartography available is that of the powerful (Gregory, 1994, p. 67). But things are a little more complicated than in Jean Baudrillard’s (1981/1994) view. Asking which comes first, the map or the territory, reveals its uselessness given that both the question of whether a map is an accurate depiction of what is outside, and whether this outside really exists depend on a representational imaginary (November et al., 2010, p. 589). Representational cartography has used the map in the same way that the Shannon-

Weaver theory (1963) intended communication, that is, according to an idea of the reduction of error and distortion necessary for the optimisation of data transmission.

However, after the mid-1980s, thanks to changes introduced in computer graphics and the emergence of digital geovisualisation as well as critical cartography, the concept of maps has changed from one of simple products to being progressively considered as situations requiring an always more interactive participation and forms of shared construction. This has shifted attention away from the map as object and toward the practices of mapping, which has also revealed a co-constitution of space and maps and the creative aspects of mapping (see Kitchin, Perkins & Dodge, 2009).

Thus, Gregory (1994, p. 67) asks, can contemporary systems of visibility be interrogated differently? Are different (visual) “configurations of technopower” possible in this hyperreal world? The answer seems to be affirmative if we, like Gregory, agree with Haraway’s (1991a) critique of totalising, decorporealised vision, one in which space and spatial science appear to be of the utmost importance. In Gregory’s words,

in the center is spatial science, which, in its most classical form, retains the distinction between reality and representation but which, through its consistent focus on *modeling*, does at least draw attention to the process of representation as a set of intrinsically creative, constructive practices. Hence, in part, the accent on the aesthetics of modeling, on the “elegance” of spatial models (though the metaphoric of power is never far away). Tracking forward and to one side of spatial science are explorations of cyberspace and hyperspace, which often abandon the distinction between reality and representation as the unwanted metaphysical baggage of modernity and chart instead a postmodern world of representations and simulations. But in doing so they too draw attention to the constructive function of representation [...]. On the other side of spatial science, however, are spatial advances in GIS which seem to move in precisely the opposite direction: to assume that it is technically possible to hold up a mirror to the world and have direct and unproblematic access to “reality” through a new spatial optics. The question of representation, of regimes of truth and configurations of power, knowledge and spatiality, is simply never allowed to *become* a question. (p. 68)

Gregory believes that the “cartographic anxiety” that goes from Descartes, who, losing the stable terrain under his feet, feels as if he has “sudden [ly] fallen into very deep water” (as cited in Gregory, 1994, p. 72), to Jameson (1991), who fears “the suppression of distance

[...] and the relentless saturation” of postmodern space (p. 412), can be overcome if we keep in mind three basic points: firstly, the creative, productive role of representation and theory (see also Bolt, 2004; Latour, 1996/2010); secondly, the importance of the reflexive moment, as feminism, poststructuralism and postcolonialism (and second-order cybernetics) teach; thirdly, the situated character of all forms of knowledge and, in turn, the necessity of contextualising their critique (pp. 75–76).

Instead, Jameson (1991), notwithstanding his acknowledgement of the necessity of “renew[ing] the analysis of representation” so as to “enable a situational representation on the part of the individual subject to the vaster and properly unrepresentable totality” (p. 51), ends up reinstating the “classical problematic” of representation, even when shifting to the alternative of cognitive mapping—it is not a minor issue that he maintains the categories of the subject and of totality (Gregory, 1994, p. 159; see also Sandoval, 2000, p. 15 ff.). Jameson, in fact, reads the spatiality of postmodernity through the category of *schizophrenia*,¹⁸ a language of disorder in Lacan’s (1959/2007b) sense, which would mark the end of a linear orientation in urban space (Gregory, 1994, p. 153).

Incidentally, the geographer Franco Farinelli (2009) considers schizophrenia to be the condition of the perspective of the subject of Western Modernity, embodied by the doubting architect Filippo Brunelleschi who, under the Portico degli Innocenti in Florence, does not know whether to believe his eyes or his hands. His is an ambiguous condition that splits the unitary world prior to linear perspective, one in which “the map not only kills the Earth but also humiliates its language, since it rigidifies not only the object but also the way the object is referred to, paralyzing the subject as well” (Farinelli, 2003, p. 79, my translation).

Similarly, Celeste Olalquiaga (as cited in Gregory, 1994, p. 154 ff.) attributes to postmodern urban space the characteristic of *psychasthenia*, according to Roger Caillois’

¹⁸ Let us think about the “structural schizophrenia” identified by Castells (1996) as the condition caused by the the persistence of places in the space of flows that can be avoided by creating time-based “cultural and physical bridges” between these two kinds of spaces (p. 428).

(1935) definition, which she interprets as the confusion of the body's coordinates with the represented environment which surrounds it. This is a confusion in which the distinctions between signs and things cannot be easily re-established since recourse to a system of signs independent from reality is, in the end, impossible—a condition which Olalquiaga attributes to the displacement of the verbal by the visual. Where Jameson (1991) and Olalquiaga differ, however, is in the use of their “diagnosis.” The loss of the autonomy of both the referent and the sign marks, for Jameson, the crisis of historicity and, finally, the end of the space of praxis (pp. 25–27); Olalquiaga, on the contrary, sees the possibility of profiting from the crossing of boundaries and the heterogeneity of postmodern spaces. Accordingly, the schizoanalytic cartographies that Guattari (1992/1995; see below) proposes also possess a creative, constructive operationality that is what effectively allows praxis, rather than blocking it, as Jameson believes. They are, in fact, involved in the processes that they model, showing an intrinsic co-emergence of social assemblages and imaginaries.

Like Olalquiaga and Guattari, and, as we will soon see, Haraway, Sandoval (2000) finds that the confusion of boundaries, rather than their dissolution, is a fertile condition. She thus envisions a differential cognitive mapping animated by what she defines as “differential consciousness,” one that, differently from Jameson’s consciousness, is decentred and distributed but not at all schizophrenic in the classical sense. Indeed, differential consciousness does not oppose the real and the imaginary, presence (of the subject of modernity) and absence (of the subject of postmodernity), but partially traverses and inhabits both conditions, while at the same time remaining capable of naming, interpreting and visualising their limits. Its efficacy lies in the ability to create relations, as in Haraway’s (1992) “politics of articulation,” which Sandoval explicitly evokes: “this articulation between the self and its absence is a shifting place of mobile codes and significations, which invokes that place of possibility and creativity where language and meaning itself are constituted” (p. 33).

3.2 The Articulatory Turn in Representation

Whereas Sandoval (2000) speaks about reading signs and draws upon Roland Barthes (1957/2012) to formulate her differential semiology, Haraway (1997, 2000) is more explicitly interested in visual phenomena, and it is for this reason that she considers diffraction a fundamental part of her four-fold semiotics. “Boundaries take provisional, neverfinished shape in articulatory practices,” she says in “The Promises of Monsters” (1992, p. 313), in which people’s points of view build representations based on joint actions and exchanges rather than on distancing acts: “An articulated world has an undecidable number of modes and sites where connections can be made,” and, since articulation means finding points of contacts and terms of agreement, “to articulate is to signify” (p. 324). Paradoxically, as Haraway (1992) notes, the maximum articulation offered by cyberspace tends to produce the counter-effect of *paranoia*, a sort of mechanism in which the classical subject “re-emerges at the hearth of relationality,” looking for a defence against the excess of connections in cyberspace (p. 325). “Paranoia” actually represents “the condition of the impossibility of remaining articulate” (p. 325), in which the connections are congealed rather than being open. Interestingly, Gregory (1994) locates a similar “connective moment” in Foucault’s theorisation of heterotopias, which he links to the development of Foucault’s ideas about the genealogy of the subject and his belief in specific rationalities resisting the technologies of power through the activation of local knowledges (pp. 297–298).

A plea for articulation also animates the space imagined by Rose (1993): she proposes that differences and contradictions are fully articulated in feminist geography, so as to arrive at a “plurilocality” that characterises what she calls a “paradoxical space.” “Both the differences within the subject of feminism and the possibility of her self-representation have been articulated by feminists through spatial imaginaries,” she notes (pp. 138–139), citing Rich’s politics of location as an example. In fact, knowledge, representation and

location are deeply intertwined: “the politics of knowledge is understood in terms of the politics of representation, and the politics of representation is interpreted in terms of geopolitics of location” (Rose, 1996, p. 57). But it is upon the spatial imagination of De Lauretis’s (1987) “subject of feminism,” a subject which is constructed outside the male/female dualism and along a different set of social relations, that Rose (1993, p. 137 ff.) primarily bases her arguments.

According to Rose (1993), escaping the “dominant discourses of identity” (p. 138), the subject of feminism, in De Lauretis’s (1987) terms, is able to represent herself as well as confront its representations. De Lauretis formulates the spatial image of the “space-off,” which she imagines as an “elsewhere,” beyond the territorial logic of “transparent geographies,” a limit to the dream of comprehensiveness and autonomy of geographical imagination (Rose, 1993, p. 139; see also Deutsche, 1995). For De Lauretis (1987), the construction of gender is not only a matter of representation, but also of self-representation; women live a paradoxical condition of being at the same time “inside and outside gender, at once within and without representations” (p. 10). “The crossing back and forth of [...] boundaries” (p. 25) that De Lauretis invokes does not require that we leave the space where representations are discursively or visually produced in order to reach a presumed external objective reality, whether outside ideology or outside the symbolic. This elsewhere is, in fact, not yet represented, or is un-representable, yet still “implied” in the interstices, between the lines of representations. It escapes any dialectical subsumption, which is why it is paradoxical, since “spaces that would be mutually exclusive if charted on a two-dimensional map—centre and margin, inside and outside—are occupied simultaneously” (Rose, 1993, p. 140).

Paradoxical spaces, and similar feminist notions of location, position, and even feminist mapping, rather imply “heterogeneous” non-Euclidean geometries (Rose, 1993, pp. 140–141) which articulate a “plurilocality” more or less corresponding to Haraway’s “geometrics of difference and contradiction” (as cited in Rose, 1993, p. 151). This

threatens the dichotomic structure that supports dominant geographical imaginations since it allows feminist, and more generally subaltern, subjects to occupy the centre and the margins at the same time (see hooks, 1990).

Drawing on Luce Irigaray's (1991) notion of the imaginary as a refusal to distinguish the real from the imagined, space from non-space, the social from the symbolic, Rose (1996) also proposes a deconstruction of mirroring as a metaphor for a representation that solidifies reality (and, in her argumentation, also sexual difference), making of it something which remains "simply there," well distinct from the mastering "site of sight" (pp. 68–69). What, she says, if mirrors were not walls upon which the logic of the Same bounces anymore, but would depend on a completely different spatiality,

as if the imaginary space of master geographer was threatened from within and from without. It is to write as if the mirrors were not solid but permeable, as if the tain could move, as if the glass and silver were melting, as if there was an elsewhere? (p. 72)

This position not only echoes the "connective" stance of Foucault's heterotopias, as Gregory (1994) puts it, but also nearly resembles the way that Haraway (1992) defines the virtual as not being opposed to the real in "The Promises of Monsters." Here is the whole passage:

in optics, the virtual image is formed by the apparent, but not actual, convergence of rays. The virtual seems to be the counterfeit of the real; the virtual has effects by seeming, not being. Perhaps that is why "virtue" is still given in dictionaries to refer to women's chastity, which must always remain doubtful in patriarchal optical law. But then, "virtue" used to mean manly spirit and valor too, and God even named an order of angels the Virtues, though they were of only middling rank. Still, no matter how big the effects of the virtual are, they seem somehow to lack a proper ontology. Angels, manly valor, and women's chastity certainly constitute, at best, a virtual image from the point of view of late twentieth-century "postmoderns." For them, the virtual is precisely not the real; that's why "postmoderns" like "virtual reality." It seems transgressive. Yet, I can't forget that an obsolete meaning of "virtual" was having virtue, i.e., the inherent power to produce effects. "Virtu," after all, is excellence or merit, and it is still a common meaning of virtue to refer to having efficacy. The "virtue" of something is its "capacity." The virtue of (some) food is that it nourishes the body. Virtual space seems to be the negation of real space; the domains of SF seem the negation of earthly regions. But perhaps this negation is the real illusion. (pp. 324–325)

Commenting on Rose's notion of paradoxical space, Caroline Desbiens (1999) develops Rose's reflections further while highlighting that, since no transparent space outside representation in fact exists, the elsewhere always lies *within*, rather than *beyond* or *outside* representations.¹⁹ She also quotes Griselda Pollock's analysis of Monet's painting *Un bar aux Folies Bergère* (1882) in which she uses De Lauretis's notion of "elsewhere" to justify the possibility of re-vision, which consists in recombining the same elements in the frame so as to reveal a different "set of relations between them" (Desbiens, 1999, p. 183).

Accordingly, Hilary Robinson (2000) asks that we "look more closely at 'representational space' as a resource to political and feminist challenges to dominant spatialities" (p. 298). Cross-referencing the works of Julia Kristeva (1980/1982) on the semiotic and Lefebvre (1974/1991) on representational space, she, like Massey (1992, 1994, 2005), shows how the heterogeneity of space signals its processual character, thus its "transformative potential" (p. 298). Thus Robinson, like Desbiens, wants to pursue feminist spatial analysis further, so as to shed light on the political opportunities it discloses (see also Kirby, 1993, p. 189).

After criticising the Irigarayan stance of some of Rose's texts, in which the existence of a dominant masculine space seems to leave no space for feminist intervention, Robinson (2000) discusses the relation between the symbolic and the semiotic for the formation of the (not necessarily masculine) subject in Kristevian terms. What Kristeva calls the "demarcating imperative" (as cited in Robinson, 2000, p. 196) is the attempt to purify and separate the space of the symbolic from the abjection of the semiotic. Robinson shows how this attempt is destined to perpetual failure, given that the semiotic is *already inside* the symbolic. This would also explain the failure that, in geography, characterises the need to keep the spaces of alterity neatly separate, the impossibility of setting clear borders and delimiting what is inside and what is outside, once and for all—or, said otherwise, the

¹⁹ Desbiens points to many unexplained interchanges among these terms in Rose's text.

resurfacing of the limits of a picture whose presumed completeness is always founded on several exclusions (Deutsche, 1995).

According to Haraway (1991a), three “crucial boundary breakdowns” have put an end to the “border war” of Western science and politics today, which involve the territories of production, reproduction and imagination (pp. 151–153),²⁰ these boundaries are those between human and animal, organism and machine and the physical and non-physical realms. Hence, Whatmore (2006) lists some important shifts in scholarship that reflect such breakdowns, involving many theoretical fields, from cultural geography to science and technology studies. The first shift that Whatmore identifies is the relocation of agency in practice and performance, and a re-embodiment of theory itself, which marks the passage from discourse to practice. The second is the shift from meaning to affect, involving a rediscovery of the precognitive and its role in sense-making as a “force of intensive relationality” (p. 604). The third, a consequence of the previous dislocation, is the shift from the human to the more-than-human, or from society conceived as a closed and exclusively human whole to a multiplicity of assemblages constituting a heterogeneous socio-material fabric. Finally, the fourth shift is the move from a politics of identity to a politics of knowledge, produced, negotiated or contested according to different sociotechnical contexts and distributed practices (pp. 603–604).

According to a similar approach, knowledge does not stand outside the world it represents, but emerges from it and is enmeshed in it, being in this sense *situated*; given that representations are social facts, we cannot get rid of them. It doesn't matter if they are true or false—what matters is, rather, how they work, and why (Rabinow, 1996, p. 28 ff.). In her analysis, Whatmore (2006) directly quotes Barad (2003) to reinforce her argument that matter does matter, and that it also “comes to matter,” performatively and processually (p. 605); Whatmore (2002) also refers to Barad in her previous work in which, discussing the importance of distributed agency and the material-semiotic practices of the constitution of

²⁰ This part of the thesis until the end of section 3.3 was published with minor differences as Timeto (2011a).

the subject, she draws on Barad's (1998, 1999) notion of "intra-action" (Whatmore, pp. 4, 57), which the latter formulates in the context of her philosophy of "agential realism" (see below). In what follows, a comparative analysis of Hayles's theorisation of constrained constructivism, Haraway's concept of diffraction and Barad's agential realism aims to reconceptualise the role of representation for technoscience as an intra-active practice embedded and embodied in hybrid sociotechnical networks. If "representationalism takes the notion of separation as foundational" (Barad, 2007, p. 137), talking of representation as intra-action means considering the "*mutual constitution of entangled agencies*" (p. 33) which do not precede but rather emerge through their intra-acting processes.

Whereas conventional epistemologies have conceptualised science as a "set of representations of reality," interactionist (or, rather, intra-actionist) approaches consider science as intrinsically technological and performed through different practices, interpretations and applications (Harding, 2008, pp. 186–187). Scientific knowledge cannot accurately represent the world from a distance, let alone its objectivity, but only shows how the world effectively works and how representation can adequately fit such workings (Haraway, 1997; Latour, 1987). Let us think, for instance, of the "less false accounts" or "less false beliefs" about the world in the sense that Harding intends them in her theory of standpoint epistemology, "ones, apparently, as far as we can tell, less false than all *and only those* against which they have so far been tested" (1997/2004c, p. 256). These are provisional truths whose standards vary over time and space, but which are nonetheless useful, effective notions against both universalist and relativist claims. They are *adequate interventions* that replace the search for a semantic match between sign and things with the search for efficacy (Harding, 2003, pp. 156–157).

In the last two decades, the debate around the issue of representation has occupied several different fields, primarily as a reverberation of the anti-realist constructivist turn that has permeated postmodern philosophical debate. Discussing the different traditions of the conceptualisation of representation as the knowledge of reality, Markus F. Peschl and

Alexander Riegler (1999) show the change of focus that has occurred in recent decades, from an attempt to grasp the structure of the environment and map it onto a representational structure, according to an analogical correspondence between signs and things, to an awareness of representation as a dynamic and generative process in which environment, rather than reality, only constrains representation instead of determining its outcomes.

According to a radical realist position, the domain of our experiences as *Wirklichkeit* (reality as the domain of our experiences) equates the world of things as *Realität* (reality as the domain of things in themselves). Classical representational theory transforms *Wirklichkeit* into a function of *Realität*. Only in a dialectical materialistic perspective is representation re-contextualised and considered as the result of an interaction between the observer, the observed object and the context where observation takes place. But if we go further and adopt a self-referential framework, drawing on the theory of autopoietic systems, we can definitely drop the search for an external reality (without needing to either deny or affirm its ontic existence). In this case, representation is described as the perception of relations among the elements of the observed and self-observing system, which is characterised by its operational closure. Once we consider representations not as passive, however accurate, reflections of an independent reality, but as active constructions and viable, embodied and contingent processes of knowing, we can continue to employ them and at the same time disengage them from a correspondence with reality (and representationalism in a realist sense).

The acknowledgement of the agency of matter and of the hybrid connections between theory and practice, human and non-human beings, takes the form of a strong critique of representation in non-representational theory in particular. This, in most cases, associates representation with the metaphysics of visualism, although, to paraphrase Andrew Pickering (1994), when vision is delinked from “the representational idiom” and rather aligned with the “performative idiom,” a recovery and redefinition of visibility always

appears possible. The terms of the debate regarding non-representational theory were initially assessed in the field of human geography, but soon turned out to be of interest for many other theoretical domains, such as feminist studies, performance studies and science and technology studies (see Lorimer, 2005).

In non-representational theory, knowledge is firmly located in matter or, to partially paraphrase the subtitle of Barad's (2007) book, in "the entanglements of matter and meaning." It is also relationally generated, and in no way a solely rational, subjective or even human property, these all being assumptions that, on the contrary, belong to the tradition of Western Modernity (Thrift, 2008, p. 122). As Thrift (2008, p. 113) shows, non-representational theory has its roots in different philosophical traditions and their reciprocal points of contact. To name but a few of these, they include: feminist theories of performance and feminist spatial analyses, ranging from Butler (1990) to Irigaray (1991), the theory of practices drawing on the work of authors such as Bourdieu (1972/1977) and de Certeau (1980/1984), and what goes under the name of "biological philosophy," from Deleuze and Serres (see Ansell Pearson, 1997) to the current speculations in biosciences (see Rabinow, 1996). Thrift (2008) characterises non-representational theory as the conjoined insistence on a number of factors. It features a radical empiricism—which is anti-essentialist in character and which also distances itself from constructivism—while aligning itself with the philosophies of becoming, without completely abandoning the lived immediacy of the phenomenological and the precognitive. It includes an anti-subjectivism that disengages perception from the human perceiver and attributes it to encounters among heterogeneous forms, or what he calls "new matterings" (p. 22).

Non-representational theory, Thrift (2008) continues, relies on practices as being generative of actions rather than being their consequences, thus showing an interest in the "effectivity" of the world (p. 113). It insists on the transhuman coimplication of bodies and things in a network of functions, where embodiment becomes a diffuse situation of shared relationality. It requires an experimental attitude, which owes much to the performing arts

and is based on the unpredictability and radical possibility of the evenmental (p. 114). It takes an affective stance that allows the retention of a sort of “minimal humanism” (p. 13) while at the same time being anti-humanistic in a traditional sense, and which translates into an affirmative ethics of responsibility and care. Finally, it has a situational character in which space is itself becoming, distributed and networked. Needless to say, most of these elements can already be found in the theory of situated knowledge, but then this should come as no surprise, given the common root of non-representational theory and Harawaian philosophy in ANT (Latour, 2005).

Haraway’s (1991a) politics of representation, however, insists on the importance of vision and images and, recognising their contemporary pervasiveness, tries to articulate a different, opaque and non-innocent representational attitude which is partial, embodied and situated at the multiple crossings of the material-semiotic field. Her project of situated knowledge recognises the impossibility of doing without representations; a recovering of the sense of vision, or better, of revision, is of the utmost importance for the feminist project of a multidimensional cartography, which is itself a representation of a different kind, being always generated from somewhere, from below and from within the networks of technobiopower. That is why Haraway insists that we pose the following questions:

How to see? Where to see from? What limits to vision? What to see for? Whom to see with? Who gets to have more than one point of view? Who gets blinkered? Who wears blinkers? Who interprets the visual field? What other sensory powers do we wish to cultivate besides vision? (p. 194)

In a sense, a simple opposition to representation advanced in the name of the world of matter is still risky, implicated in the double bind that sees matter and meaning, or the semiotic and the material, as standing in a relation of mutual exclusion. Analogously, says Haraway (1991a), if we counterpose situatedness to universalism in a scheme which is still oppositional, we give the false illusion of a symmetry between the two, in which each position is seen as purely alternative or reciprocally exclusive. Instead, “a map of tensions and resonances between the fixed ends of a charged dichotomy better represents the potent

politics and epistemologies of embodied, therefore accountable, objectivity” (p. 194). As Jacobs and Nash (2003) affirm, commenting on recent scholarship in cultural geography, there is no need to dismiss representation altogether, particularly if we consider the importance of a critique and a politics of representation for feminist work, even if we share the assumptions of non-representational theory. As they put it, we “might insist on attending to the place of image,” so as to keep open a “wider semiotic framework” in which words and things interrelate, without contradicting the semiotics of materiality of non-representational theory (p. 273).

It is in this direction that Hayles (1993/1997) has looked for an escape from the alternative between realism and anti-realism through her notion of “constrained constructivism,” which does not tell us what reality is, but rather what fields of possibility make certain representations “consistent” with reality, and thus practicable for us. As a matter of fact, constrained constructivism is built upon an “interactive, dynamic, locally situated model of representation.” Here, the notion of “consistency” replaces that of “congruence.” Whereas congruence implies a one-to-one correspondence between signs and things, based on Euclidean geometry, consistency eschews this oppositional logic; rather than being kept in between the true/false dichotomy, it stands in between the not-true/not-false relation, which is one that subverts the symmetry between affirmation and negation.

What we call “observables,” writes Hayles (1993/1997), always depend on locally situated perspectives according to which different pieces of information about the environment are processed, as demonstrated in the example of the frog’s visuality, which Hayles gives at the beginning of her essay, drawing on the well-known article of Lettvin, Maturana, McCulloch and Pitts (1959). For the frog, the Newtonian first law of motion, which for humans applies to every object upon which a force is exerted, does not work equally. A frog’s brain is only stimulated by small objects in rapid movement, allowing it to detect potential prey, whereas bigger or static objects elicit a completely different response.

Recognising, however, that every reality is relative to the observer does not lead Hayles to

conclude that systems close in upon themselves leaving the world outside, or that perceptions can do without representations at all, as Lettvin et al. seemed to presuppose, and which Humberto Maturana and Francisco Varela (1980) further developed. As Hayles (1995) notes, even if we agree with the non-representational aspect of perception, we do not necessarily need to believe that “it has no connection with the external world,” particularly when we consider that a relation can also be transformative rather than solely reflexive (p. 75). And further, she argues against Maturana and Varela (1980), the observer is caught in continuous feedback loops within the autopoietic processes of the system, rendering “the domain of the observer” a convenient fiction (p. 78). Not willing to renounce a term like representation, but rather intending to formulate it differently, as “a dynamic process rather than a static mirroring,” Hayles opts for the way Niklas Luhmann (1990), whose systems are as closed as Maturana and Varela’s, nonetheless contemplates much more activity in systems, showing their contingency rather than their inevitability, and thus finds a way to escape the realist/constructivist debate (Hayles, 1995, p. 98). Actually, claims Hayles (1995), in contrast to Maturana and Varela, Luhmann recognises “that closure too has an outside it cannot see” (p. 98). This leads us to acknowledge, on the one hand, the fact that “the very interlocking assumptions used to achieve closure are themselves the result of historical contingencies and embedded contextualities” (p. 98). On the other hand, it allows for a preservation of the “correlation” or “interactivity” that connections, rather than absolute distinctions, make possible (Hayles et al., 1995, p. 16). Representations, in this context, appear not as a mirroring of “external” reality, but as “species-specific, culturally determined and context-dependent” processes of dynamic interaction (Hayles, 1993/1997).

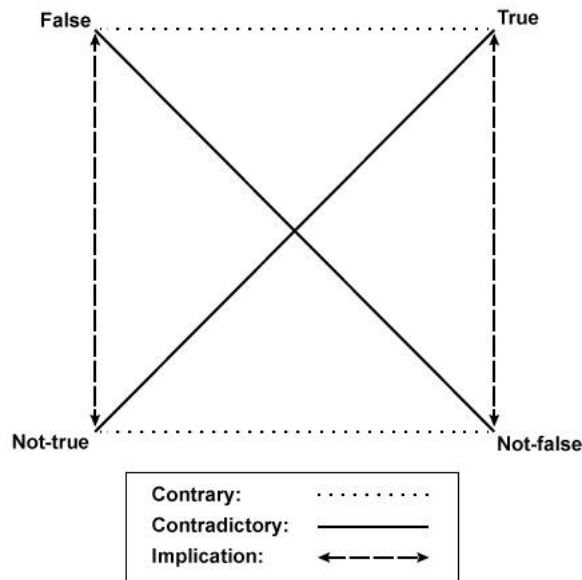
In Hayles’s terms (1993/1997), a representation can either be consistent with reality, or inconsistent with reality. In the latter case, this suggests that an inconsistent representation does not offer an adequate account of our interaction with what Hayles calls “the flux.”

She uses the terms “cusp” and “flux” in order to reformulate the notion of representation and its viability:

on one side of the cusp is the flux, inherently unknowable and unreachable by any sentient being. On the other side are the constructed concepts that for us comprise the world. Thinking only about the outside of the cusp leads to the impression that we can access reality directly and formulate its workings through abstract laws that are universally true. Thinking only about the inside leads to solipsism and radical subjectivism. The hardest thing in the world is to ride the cusp, to keep in the foreground of consciousness both the active transformations through which we experience the world and the flux that interacts with and helps to shape those transformations.

Representations, then, connect the sides of the cusp and allow us to ride it. The more representations are consistent, manifesting “local interactions rather than positive correspondences” with the flux, the more their “instrumental efficacy” allows us to “ride the cusp,” so to speak. Representations are ruled by constraints, which do not tell us what reality “in its positivity” is, but can tell us when representations are consistent with reality, enacting some possibilities and enabling certain distinctions instead of others. Constraints, then, operate in the making of selections between those representations which are viable and those which are not.

To better show the role of constraints for representations in her theory of constrained constructivism, Hayles (1993/1997) adopts and modifies the Greimas Square (Greimas & Rastier, 1968) (Ill. 1).



III. 1. Hayles's modified Greimas Square (Hayles, 1993/1997).

False and True occupy the top line of the square, so that they are mutually exclusive, since they stand in an exclusionary relation of opposition. Instead, the bottom line is occupied by the couple Not-true and Not-false, whose relation is not an oppositional one: actually, not-false are those representations which are consistent with the flux, while not-true are all the unknown representations, that is, the not yet practiced representations. This puts not-true and not-false in a relation that is one of consistency and of unknowability, rather than of antithesis—a relation that “folds together the ability to negate with the ability to specify,” that is a relation of denial (the unknown) and assertion (the consistent) rather than of negation and affirmation. If I, for instance, look at the pen that lies on my desk, I can surely say that it is an orange pen. However, my assertion is based on the observation of the colour that the plastic case of my pen appears to be. But if someone asks whether I have a black pen to lend, I can surely give them the same pen, given that it writes in black ink; thus it is a black pen, too. While asserting that my pen writes in black ink, I am not negating the orangeness of my pen, so to speak, but only further specifying something about the way it works.

The difference here is that denial and assertion are what Hayles (1993/1997) calls “marked,” or modal, terms, which cannot be assimilated to the “transparencies of non-modal statements” proper to realism, like true and false ones. This means that both not-true and not-false positions not only do not exclude the corresponding terms along the vertical axis, but stand with them in a relation of implication which, nonetheless, is in no way symmetrical: “denial implies negation while subtly differing from it, just as assertion implies affirmation without exactly being affirmation.” This, then, should rather be intended as a relation of articulation in which “articulations emerge from particular people speaking at specific times and places, with all of the species-specific processing and culturally-conditioned expectations that implies.”

But the terms of the semiotic square are implicated along the diagonal axis too, revealing what Hayles calls “a common concern with the limits of representation.” The “elusive negativity” expressed by the not-true position at the bottom left of the semiotic square is worth considering in detail. This, in fact, is the position that mostly escapes the either/or alternative of both realism and anti-realism, being a kind of negativity that is neither negative nor positive, and is thus inassimilable: let us think of the inappropriate/d other in Minh-Ha’s (see Gržinić & Minh-ha, 1998) terms, as Haraway (1992) explains it, in which the inappropriate/d other is not the untouched, authentic other, but the other that is not “originally fixed by Difference” and that stands in a “critical, deconstructive relationality, in a diffracting rather than reflecting (ratio)nality” (p. 299).

Elusive negativity is, for Hayles (1993/1997), precisely what designates the position *at the cusp*:

the diagonal connecting true and not-true reveals their common concern with the limits of representation. At the positive (“true”) end of the diagonal, the limits imply that we cannot speak the truth. At the negative (“not-true”) end, they paradoxically perform the positive function of gesturing toward that which cannot be spoken. Elusive negativity, precisely because of its doubly negative position, opens onto the flux that cannot be represented in itself.

The signification of the cusp is obviously always ambiguous, depending on the result of the encounter between physical and semiotic constraints that allude both to the reality of the world and the reality of language—the Harawaian material-semiotic field—without fully representing them. Such a position recognises that what we can get to know are, at least, the boundaries of the cusp; it thus bypasses not only realism, but also relativism. As Hayles explains at the end of her text, commenting on the notion of partial perspective elaborated by Haraway (1991a), it is not that we only partially see the truth in things while remaining ignorant of its totality. It is, rather, that partiality is the whole that we see, as the result of contextual and specific interactions with the “flux.” That is why she insists on what happens “at the dividing line,” in between the two sides (Hayles et al., 1995, p. 34).

So,

if it is true that “reality is what we do not see when we see,” then it is also true that “our interaction with reality is what we see when we see.” That interaction has two, not one, components—what we bring to it, and what the unmediated flux brings to it. [...] Omitting the zone of interaction cuts out the very connectedness to the world that for me is at the center of understanding scientific epistemology. (Hayles et al., 1995, p. 34)

3.3 A Different Kind of Theory of Mediations: A Diffractive Methodology

Constrained constructivism presupposes a language of metaphors: the difference that passes between metaphors and descriptions is, for Hayles (1993/1997), the same that passes between consistency and congruence. Haraway (1997) prefers speaking of *figurations* to name such “performative images that can be inhabited” (p. 11). Even though figurations always retain a visual aspect, which is not a secondary element in our “visually saturated technoscientific culture” (Haraway, 2000, pp. 102–103), figures need not be literally representational or mimetic. They “involve at least some kind of displacement that can trouble identifications and certainties” (1997, p. 11): they are neither complete nor static pictures of the world, but are representationally adequate insofar as they keep their performativity, with all its contradictions, alive.

Braidotti (2003), in her post-metaphysical feminist philosophy of difference, explains that this distinction between figurations and metaphors is intended to overcome the classical dichotomy of identity and alterity. From a Deleuzian perspective, the figural, based on difference and becoming, is opposed to the traditional aesthetic category of the figurative (or traditional representation) which, on the contrary, is based on identification and analogy between sign and object (Braidotti, 2002a, 2003, 2006). According to Braidotti (2006), figurations map the metamorphoses and hybridisations of subjectivities in technoculture. Figurations do not stand outside the world they describe but are living maps and transformative accounts which are never detached from their geopolitical and historical locations; they serve to “represent what the system had declared off-limits” without, in turn, attributing a separate status to it, as if the representation of differences were an end in itself (p. 170). Figurations do not reify or romanticise alterity, but “materially embody stages of metamorphosis of a subject position towards all that the phallogocentric system does not want it to become” (Braidotti, 2002a, p. 13).

Metaphors generally presuppose two distinct tracks—of signs and things—and work at reducing the unfamiliar to the familiar by linking two meaning systems, one of which is considered inert and stable so as to reduce the one to the other—as the practice of mapping traditionally does (see Smith & Katz, 1993). In contrast, figurations maintain a reciprocity between the two orders of meaning that shed light on another kind of space (and on different subject positions): one that is relational, active and unfixated. They stress transition, interconnectedness, interaction and border-crossing, as opposed to individuation and distinction (Braidotti, 2002a, p. 70). As Smith and Katz (1993) contend, discussing the function of spatial metaphors in contemporary social theory, reconceived metaphors can work as an “Alice’s passage through the looking glass,” since they also “have the reciprocal effect of revealing the familiar as not necessarily so familiar” (p. 91). Haraway’s (1997) figurations specifically rework the unfixity that co-implicates the two sides of Hayles’s analysis, transforming an exterior relation of correspondence into a relation of

coimplication. They are of the utmost importance, then, for a project of technoscience intended as a travelogue of “distributed, heterogeneous, linked sociotechnical circulations” (p. 12).

Haraway (1997, 2000) traces the origin of the meaning of the practice of figuration back to the semiotics of Western Christian realism, on the one hand, and to Aristotelian rhetoric on the other. In the history of Catholicism, the literal and the figurative continuously intersect, and figures are attributed with the power to contain the development of events, either of salvation or damnation—something which Haraway also finds in the millenaristic tone of many discourses of technoscience. Aristotle (2012 version) highlights the spatial character of figures of discourse: in his philosophy, “a figure is geometrical and rhetorical; topics and tropes are both spatial concepts” (Haraway, 1997, p. 11). This spatial aspect is visible in the strong link that Haraway’s figurations, in fact, maintain with location, although clearly locations cannot be made to coincide with abstract space, but rather, as Braidotti emphasises (2003), outline a cartography of spatial power relations and make sense of the different positionalities that these define. Figurations, moreover, also retain a temporal aspect that is by no means developmental, but assumes the modalities of “condensation, fusion and implosion” which is contrary to the modalities of “development, fulfillment and containment proper of figural realism” (Haraway, 1997, p. 12). It is precisely this implosion of boundaries between subject and object, or between the material and the semiotic, that puts borders in a constructive and transformative tension rather than using them as dividing lines. Figurations are thus *tropoi*, in that they, according to Greek etymology, do not simply figure, but “turn” what they figure (Haraway, 1992/2008, p. 159).²¹

²¹ Similarly, Latour (2005) distinguishes between “intermediaries” and “mediators,” and only the latter transform what they transport rather than simply carry it (p. 39).

It is once again Braidotti (1999) who, drawing on Haraway (1991a), shows how Harawaian figurations can be employed to develop a “politically charged practice of alternative representation” (p. 91):

feminist theories of “politics of location” [...] or “situated knowledges” [...] stress the material basis of alternative forms of representation, as well as their transgressive and transformative potential. In feminism, these ideas are coupled with that of epistemological and political accountability [...] that is the practice that consists in unveiling the power locations which one inevitably inhabits as the site of one’s identity. (p. 92, citations omitted)

This alternative practice, as Haraway (1997) repeats, can be delinked from the theology of representation that revolves around reflection and reflexivity and their root in the mastery of light, which the tradition of feminist critique rightly dismisses. Instead, it can be coupled with a physical, rather than geometric, optics that registers the passages of light rays through screens and slits, looking at the resonance and interference that light undergoes while passing through them: “The photological tenets of western philosophy” establish a strong correlation between light and visual representation (Bolt, 2004, p. 128). Whereas it is usually light that “sheds light,” id est, that unveils or informs matter, as the expression used to explain such “clarification” manifests so well, the fact that matter is always in a process of mattering, and is thus always informing matter, is never considered. Even in the opposition between empiricism and rationalism (or mysticism), that is, between the idea of light as perceived through the eyes, and light as ideal or divine source of enlightenment, representations are either the reflections or the prototypes of objects, so that representationalism still rules (Bolt, 2004, p. 125 ff.). Whereas Bolt, based on her painting experience, identifies a reversion to the Western path to enlightenment in the necessary act of hanging one’s head in the Australian landscape, as a way of retrieving the indigenous link between the eye and the body and the earth—she refers to *methexis* as a form of performative participation that had been violently broken by the coloniser (p. 135 ff.)—Haraway interrogates the physical phenomenon of diffraction to find a powerful figuration for “mattering light,” so to speak.

As a joke, albeit a serious one, Haraway (2000) affirms that semiotics is a science of four branches, “syntactics, semantics, pragmatics and diffraction” (p. 104). Intended as the production of difference patterns, diffraction, the fourth “optical” branch of semiotics, treats light differently from reflection though, as we will see, not necessarily in opposition to representation. As Barad (2007) so poignantly summarises,

first and foremost [...] a diffractive methodology is a critical practice for making a difference in the world. It is a commitment to understanding which differences matter, how they matter, and for whom. It is a critical practice of engagement, not a distance-learning practice of reflecting from afar. (p. 90)

Undoubtedly, reflection and reflexivity have their roots in representationalism (p. 87), but the opposite is not necessarily true. I thus disagree with the reading that Kirsten Campbell (2004) offers of Haraway’s writings and their presumed evolution regarding the issue of representation, because I think that the model of articulation that a practice like diffraction presupposes is analogous to the way representations are reworked according to the notion of figuration, a project already pursued by Haraway in such writings as “Situated Knowledges.” (in Haraway, 1991a). I would not counterpose the latter to texts like “The Promises of Monsters” (1992) or *Modest Witness* (1997) in which, according to Campbell, Haraway seems to abandon the representational model in favour of the diffractive one. Rather, what Haraway drops is the *metaphysics* of representation, while at the same time articulating representations by means of diffractive practices so as to render them still employable for feminist technoscience.

As we have seen, when Haraway (1991a) retrieves a notion like that of location for her idea of situated knowledge, she is at the same time exposing, via Whitehead (1929/1979), “the fallacy of misplaced concreteness” (p. 7) that lies at the core of either traditional realism or of traditional representationalism, both being based on an ontological distinction between representations and reality as well as on the existence of a distant and invisible representer (Haraway, 1991a; see also Barad, 2007). So, Barad’s (2003) assumptions about the dynamism and articulation of matter, which is not “a support, location, referent, or

source of sustainability for discourse” or any other external force inscribing onto it, but “always already an ongoing historicity” (p. 821), are not so different from Haraway’s appeal to the historical embeddedness of figurations.

It is worth repeating that Haraway (1997) never abandons representations, nor opposes diffractions to them. If Barad (2003) thinks that we should leave representations behind decisively for “matters of practices/doings/actions” (p. 802), Haraway (1991a) is saying that seeing, too, is a doing, and that we are responsible for the “generativity” (p. 190) of our visual practices. Accordingly, when Barad (2007) discusses the functioning of scanning tunnelling microscopes, which allow not only the visualisation of atoms but their manipulation, she notes that representations do not depict static objects out there, but are rather “condensations or traces of multiple practices of engagement” (p. 53).

Representations are performed as well as performing, so that we should rather talk about a set of *representational practices* that produce “what we take to be the evidence” (p. 53); our belief in them depends on historical and cultural variables, so that critically engaging with representations is always possible and, according to Haraway (1997, 2000), also desirable (see also Barad, 2007). Only when they are critically engaged are metaphors put into motion, that is, activated through a process of translation, becoming effective, dynamic figurations rather than remaining reflective depictions of static givens.

Haraway (2000) argues that, when considering light, light passages require that we also consider that light has a history (p. 103). In fact, diffraction is a physical phenomenon which records the patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen: “a diffraction pattern does not map where differences appear, but rather maps where the effects of difference appear” (1992, p. 300). This process replaces the idea of a mimetic mirroring proper of reflection and refraction, or what Haraway calls the displacement “of the same elsewhere” (1997, p. 273)—usually employed as a metaphor for the objectivity of science as well as for the traditional notion of artistic representation—in order to encompass interference, difference and interaction

instead. “To make a difference in material-semiotic apparatuses,” says Haraway (1997), we must be able “to diffract the rays of technoscience so that we get more promising interference patterns on the recording films of our lives and bodies” (p. 16). The historicity of diffraction, then, lies in its situated, embodied character and in its involvement in facticity and process-making. This also entails a critique of the methodology of reflexivity and its infinite regression which radical constructivism would counterpose to the realist option since, as we have already seen in Hayles’s (1993/1997) critique of the separate domain of the observer, reflexivity too is trapped in a geometry of exclusions (the top line of Hayles’s semiotic square) whenever it poses difference as an absolutely unrelated alternative to sameness (Barad, 2007, p. 72). “Reflexivity does nothing more than mirror mirroring” (Barad, 2007, p. 88), because, even if the observers re-enter the picture, they still maintain a distance from the object of their gaze, foreclosing any “reading through” (p. 90) the entanglements of phenomena and the production of borders.

Diffraction concerns the world of physical optics rather than that of geometrical optics. It describes the behaviour of waves when they encounter an obstacle, thus, practically all optical phenomena; contrary to geometrical optics, it also interrogates the nature of light. In physics, as Barad (2007) explains in her analysis, diffraction experiments are frequently used to compare the behaviour of waves to that of particles. One way to observe the phenomenon of diffraction—which the naked eye can easily notice when a pebble is launched into water or in the iridescence of a soap bubble—is the two-slit experiment, in which diffraction patterns resulting in bright or dark spots on a target screen—depending on the reciprocal enhancement or destruction of waves—are obtained when a light source passes through a two-slit screen (p. 71 ff.).

According to classical physics, only waves can produce diffraction patterns because only waves, not particles, can simultaneously occupy the same place. Barad, however, shows that quantum physics studies how particles can also behave like waves under certain circumstances. She then discusses the “modified” two-slit experiment at length, drawing

on Niels Bohr's (1958) diagrams; without entering into too much detail here, it suffices to say for the purpose of our argument that, depending on the apparatus used in the two-slit experiment, that is, whether a "which path detector" is employed or not, matter, and light as well, are observed to manifest either particle or wave behaviour. This apparent paradox forces us to radically rethink the dualism that lies at the core of representationalism and the idea that "practices of representing have no effect on the object of investigation" (p. 87), given that diffraction not only shows the entanglements of meaning and matter but is itself an entangled phenomenon.

Thus, adopting a diffractive methodology as Barad (2007) does, drawing on Haraway's lesson, implies a profound rethinking of Western ontology and epistemology (p. 83) because it replaces the analogical methodology, which consists in relating two separate entities by way of an external observer, with a methodology that shows how "*practices of knowing are material engagements that participate in (re)configuring the world*" (p. 91). Producing differences is what establishes connections rather than reinforcing distinctions: as Haraway (2000) writes, "diffraction patterns are about a heterogeneous history, not originals" (p. 101). A representation is not a sign that mirrors a separate external referent; it is rather a diffractive practice that reveals the coemergence and the coimplication of both meaning and matter.

Agency is redefined as precisely "a matter of intra-acting," from which the "agential realism" at the core of Barad's (1999, 2003, 2007) philosophy is derived: since "intra-actions are *constraining* but not determinate" (italics added), intra-acting neither belongs to a completely free subjectivity nor to a fully determined reality, but rather happens in a material-semiotic field where "particular possibilities for acting exist at every moment, and these changing possibilities entail a responsibility to intervene in the world's becoming, to contest and rework what matters and what is excluded from mattering" (Barad, 2003, pp. 826–827). This concept can be fruitfully confronted, for example, with the idea of transduction theorised by Adrian Mackenzie (2003): in the context of a post-

representational account of technologies, transduction accounts for the “embedded contextual understanding of technologies as networks of humans, nonhumans, spacings, timings, contexts, and imaginings” (p. 8), considering “the problem of eventfulness, differentiating kinds of relations, and resisting reduction to context” (p. 9). Transduction is a way to approach technologies considering their relationality and operationality, thus their generative aspect rather than their object status. Transduction means in-formation, an individuation in progress involving both the observer and the observed. It is also a partial operation, a set of potentialities that only provisionally actualise the boundaries between places of a shared domain (p. 13).²² Talking about constraining intra-actions brings us back to the idea of consistency theorised by Hayles, according to which, as we have seen, constraints are what enable us to select among viable, id est, consistent, rather than congruent representations, shifting representations from what we can (or could) see to the “interaction with reality [that] we see when we see” (Hayles et al., 1995, p. 34). This very much complicates the notion of vision as well as that of location (and the situatedness of the observer), since it dismantles the exteriority upon which both have traditionally relied and replaces it with specific forms of connectivity as well as accountability. Even if the observer comes back, he/she does not stand in a separate domain, but is connected in continuous feedback loops with his/her cognitive processes since the closure of the observer’s domain is never pre-given, but always achieved (Hayles, 1995, p. 78). Even as observers, we take part, writes Barad (2007), in the “world’s differential becoming” in which our knowledge enacts the world, engaging in “specific worldly configurations” from the inside (p. 91):

The point is not simply to put the observer or knower back *in* the world (as if the world were a container and we needed merely to acknowledge our situatedness in it) but to understand and take account of the fact that we too are part of the world’s differential becoming. And furthermore, the point is not merely that knowledge practices have material consequences but that *practices of knowing are specific*

²² This is very similar to what Varela (1992), talking about the perceiver’s mind, has called “*a disunified, heterogeneous collection of processes*” (p. 325).

material engagements that participate in (re)configuring the world. Which practices we enact matter—in both senses of the word. Making knowledge is not simply about making facts but about making worlds, or rather, it is about making specific worldly configurations. (p. 91)

As Haraway (1992/2008) notes, since we, as humans, need a “different *kind* of theory of mediations” (p. 174), new representational practices rather than new representations are required to make differences rather than merely see them. Since feminist theory has shown the criticality of a notion such as that of representation, representations cannot be easily dismissed but should rather be reworked according to alternative practices and wider semiotic frameworks. Adopting a performative idiom as a substitution for the representational one, and thus getting completely rid of representations, leaves a series of questions unresolved, as Hayles and Haraway particularly highlight. These concern the domain of the observer as much as the status of what is observable and, most of all, that which relates the two sides, the sign and reality, or meaning and matter (Barad, 2007). Hayles’s (1993/1997) theory of constrained constructivism tries to formulate the viability of representations through the idea that they can never be congruent with reality but, rather, be consistent with it. Even if we do not get to know reality through representations, we can nonetheless “ride the cusp” that separates and at the same time connects us with the flux, touching the limit of representation (and, also, the limit of the knowability of reality). Modifying the Greimas Square, Hayles proposes that we define the position at the cusp in terms of “elusive negativity,” a double negativity that connects us with the dividing line where our interactions meet with reality and our representations of it as well. This zone of intra-action is what Haraway’s (1997) practice of alternative representation goes through in order “to diffract the rays of technoscience” (p. 16). Haraway’s notions of figuration and diffraction serve to displace fixed identities and put boundaries in constructive tension, requiring engagement rather than distancing. While Barad (2007) recognises the importance of diffraction as a generative practice and interprets this notion in a non-representational way in her philosophy of agential realism, I have tried to argue

that there is no need to oppose diffractions to representations, since what Haraway abandons is, first and foremost, the metaphysics of representation, but not the performativity of images which can be read through and used to *read through* at the same time.

We configure our world and establish connections with it through our ways of seeing. Diffraction, so intended, does not simply regard our visual field but is a practice that invests our knowledge, our imaginary and our practices at the same time. It is, as Haraway (1997) writes, “a [...] technology for making consequential meanings” (p. 273). Productive interruption, as well as reciprocal reinforcement, is allowed by diffractions and their unpredictable and unintended effects: different realities and unforeseen possibilities can emerge from diffractive practices (Haraway as cited in J. Schneider, 2005, p. 150). If we, to take only one example, consider scholarship on visual studies, we can observe that what is defined as the “pictorial turn,” an ambiguous concept in itself, is rooted in the acknowledgement of the non-mimetic, and in this sense non-representational, function of the image which is now perceived as a “complex interplay” of relations rather than as the locus for the re-emergence of a pictorial presence (see W. J. T. Mitchell, 1992). Not so differently, the linguistic turn that philosophers such as Rorty advocated (1967) has actually been based on the same refusal of the model of representational transparency (and classical textuality) which governed traditional pictorialism. Visuality is so permeated with affect and desires that it is impossible to consider any visual representation independently from its effects, that is, the performative aspects that inhere in visuality, or what Thrift (2008) specifically calls the “effectivity” of the world (p. 113).

3.4 Relocating the Techno-Aesth-Et(h)ic

As noted by Strathern (2004) and analyzed in depth by Marcel Stoetzler and Nira Yuval-Davis (2002a), when situated knowledges are encountered, it is not unusual that expressions like imagination and imaginary resurface, even though they are frequently left

unexplained. An exception to this tendency is Haraway (1991a) who tries to combine the theory and practice of situated knowledge with that of situated imagination, as Braidotti (2002a, 2003, 2006) has frequently noted in foregrounding this particular aspect of Haraway's theory. Stoetzler and Yuval-Davis consider situated imagination as both a necessary condition and a product of the process of knowledge construction and focus on the creative role of imagination for the social and the political realm. They propose the process of imagining as the link that allows us to go from positions to practices, and from practices to standpoints, up to the whole process of knowledge- and value-making. In particular, they rely on the notion of creative imagination as defined by Cornelius Castoriadis (1994), for whom imagination retains a functional aspect for the social to which it guarantees a margin of freedom that cannot be in any case predetermined. Stoetzler and Yuval-Davis link this creative role of imagination with the issues of sensation and embodied imagination of Spinoza's (1680/1989) philosophy, as we also find in philosophers such as Deleuze and Guattari (1980/1987) and Braidotti (2002a, 2006). What interests them is, in the end, "a theory of the imagination as rooted in corporeality as well as in society" (p. 324), and it is precisely in Haraway's (1991a) notion of a split, non-identical self that they find this encounter between the rationality of knowledge and the creative potential of the imaginary, which should not be seen as two separate faculties but, rather, as "*dialogical moments* in a multidimensional mental process" (p. 324). Articulation and interlocution require a double movement comprising rooting (for situating) and shifting (for one's own ability to recognise the partiality of one's own perspective), a passage further elaborated by Yuval-Davis (2006) in terms of a shift from identity politics to transversal politics in feminism. Here, an exercise of imagination necessarily intervenes: it would be a mistake, however, to think that imagination is only involved in the act of shifting. It is, in fact, always already "rooted," so knowledge and imagination, that is rooting and shifting, are coimplicated.

Drawing on Haraway's philosophy, Wajcman (2004) defines technofeminism as a strategic engagement with technoscience which, rather than opposing or celebrating it, negotiates the networks of sociotechnology from within (p. 117). She also suggests that only by bridging the common gap between materiality and metaphor, intended as the dichotomy between the technical and the social, can we move forward in technofeminism (p. 106). In fact, for Haraway (1992/2008), *topos*, the commonplace of our discourses or the meeting point of public culture, and *tropos*, that is, etymologically, "what turns," id est, construction, displacement, movement, cannot be disjoined (p. 159). Their coimplication allows us to approach the material-semiotic complexity of technospaces from yet another angle, this time employing the epistemology of situated knowledge to outline a situated "aesth/et(h)ics" of new technologies. This, however, won't lead to the renaming of new representations, but to understanding new practices (p. 177).

Here, I intentionally use the term "aesth/et(h)ics" with a slash and an 'h' in brackets for two reasons: firstly, because I want to visualise an intimate split in the techno-aesthetic field as the impossibility of separating creativity from responsible praxis, imagination (aesthetics) from care and commitment (ethics)—as theoretical paths of science cannot be disjoined from the assumption of responsibility for one's own situatedness (Timeto, 2009b). Actually, as Bolt (2004) states, when we overcome the representational approach, the relationship "between objects, artists, materials and processes, emerges as one of co-responsibility and indebtedness, rather than one of mastery," so that "the work of art is no longer an object for a subject" (p. 8). Secondly, because I think that what has been argued about the processual character of sociotechnical formations and the viability of knowledge can be equally valid for reconsidering the aesthetic, and the concept of "representation" in particular. In fact, following the epistemological turn of standpoint epistemology, which privileges the practical over the representationalist idea of knowledge, we can also hypothesise an anti-contemplative practice of imagination in which invention and factuality meet (without necessarily dismissing the visual, as Haraway demonstrates).

In his last book, *Chaosmosis* (1992/1995), Guattari shows how technological machines intervene in the production of subjectivity not only at the level of knowledge (he speaks of “memory and intelligence”) but also at the level of “sensibility, affects and unconscious fantasms” (p. 4). Of course, such “machinic production of subjectivity,” not being predetermined, can have positive or negative outcomes, which depends on “its articulation within collective assemblages of enunciation” (p. 5; see also Stoeztler & Yuval-Davis, 2002). In fact, there exist many different cartographies that concur in the production of subjectivity: none of them offer an absolute model, a “grid” for subjectivation; all of them, however, can be used as “partial instruments” that can be creatively reappropriated (pp. 11–13). It is worth quoting the whole passage in which Haraway (1991a), accordingly, affirms that

any objects or persons can be reasonably thought of in terms of disassembly and reassembly; no “natural” architectures constrain system design [...]. What counts as a “unit,” a one, is highly problematic [...].

One should expect control strategies to concentrate on boundary conditions and interfaces, on rates of flow across boundaries, not on the integrity of natural objects. “Integrity” or “sincerity” of the Western self gives way to decision procedures, expert systems, and resource investment strategies. “Degrees of freedom” becomes a very powerful metaphor for politics. Human beings, like any other component or subsystem, must be localized in a system architecture whose basic modes of operation are probabilistic. No objects, spaces, or bodies are sacred in themselves; any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in a common language. In particular, there is no ground for ontologically opposing the organic, the technical, and the textual. But neither is there any ground for opposing the *mythical* to the organic, textual, and technical. Their convergences are more important than their residual oppositions. [...] The cyborg is text, machine, body, and metaphor—all theorized and engaged in practice in terms of communications. (p. 212)

Bolt (2004) returns to Heidegger’s rereading of the Aristotelean system of causality in order to abandon the instrumental view of technology for a notion of co-responsibility and indebtedness between humans and machines. Specifically, she sees in Heidegger’s own interpretation of Aristotle’s doctrine of the four causes the reversal of the chain of causality that allows a “shift from mastery to care” (p. 73):

Through a careful unpacking of the etymology of the term *causa*, Heidegger traces it back to the Roman and then the Greek. Whilst *causa* was the Roman designation for cause, the Greeks used the term *aiton*. In Greek thinking, *aiton* carries with it a different sense. Here, according to Heidegger, *aiton* means “that to which something else was indebted.” (p. 74)

But Heidegger’s granting of agency to matter is something which, for mostly historical reasons, he cannot further elaborate. It is in the material-semiotic apparatuses, instead, that Bolt recognises a fruitful and more articulated move towards a non-representational, processual and performative conception of the intermingling between humans and machines, “a different politics of practice” (p. 74) which is equally useful for rethinking the arts and the sciences as well as their links.

What is interesting for our argument is that Guattari (1992/1995)—as well as Deleuze and Guattari (1980/1987) previously—intends to shift from a scientific to an ethico-aesthetic paradigm for the human and social sciences through which he believes that a refoundation of politics passes too (p. 20), in terms very similar to Haraway’s (see p. 10). As Bolt (2004) writes, all of them “attend to the relations and forces that take place within the very process or tissue of making” (p. 82). They also “contest the objectification of representationalism and its propensity to set an object before a human subject” (p. 82). The definition of machine, for Guattari (1992/1995), does not coincide with that of technical machine or the artefactual machine:

One must never confuse here machinism and mechanism. Machinism, in the way that I understand it, implies a double process—autopoietic-creative and ethical-ontological (the existence of a “material of choice”)—which is utterly foreign to mechanism. This is why the immense machinic interconnectedness, the way the world consists today, finds itself in an autofoundational position of its own bringing into being. Being does not precede machinic essence; the process precedes the heterogenesis of being. (p. 108)

The machine, says Guattari, precedes technology rather than being an expression of it (p. 33). A machine is rather defined by its power of enunciation (p. 34). Furthermore, a machine is different from a structure, inasmuch as a machine always depends on “relations of alterity” (p. 37) in order to exist as such, whereas a structure is independent, self-

concluded and homogeneous. Contrary to those who support the systemic perspective, such as Maturana and Varela (1980), Guattari intends to redefine autopoiesis, affirming, firstly, that non-biological machines can also be autopoietic, *id est*, able to organise themselves; secondly, he claims that the autonomy of autopoietic machines is never, properly speaking, closed, since it always maintains several relations of alterity which lead to a continuous “disequilibrium,” implying a “radical ontological reconversion” (p. 37). These relations instate a sort of “proto-ethical dimension” based on giving. Being, the being of machines, is giving—that is, *being for alterity* rather than for the self. It is a generative process in which quality and matter, and also mind and matter, heterogeneity and homogeneity, “envelop each other” (Guattari, 1992/1995, p. 111). From the classical autopoietic body still organised around production and reproduction, accumulation and expenditure of energy, we shift to considering matter as an extended and open field of heterogeneous forces. As Patricia Ticineto Clough (2003) writes,

in the post-cybernetic thought of complexity, the positive correlation of information and entropy is further extended in rethinking entropy as the complexity of open systems, that are far from equilibrium, where information is linked to a dynamic energy and matter. (p. 363)

Matter is always already informational, which is to say that *techné* is only deferred *physis*. What are the main characteristics of aesthetic machines for Guattari (1992/1995)? Firstly, they are “nuclei of differentiation,” becomings “anchored at the heart of each domain” (p. 92) which also traverse heterogeneous domains. Secondly, they cannot be apprehended through external categories or systems of reference, not only because they are autopoietic, but because their autopoiesis rests on “affective contamination”: that is, they cannot be, so to speak, *represented* but only encountered, or, better, *taken* (pp. 92–93). Finally, aesthetic machines as autopoietic machines are not given objects, but assemblages, whose existence depends on their working, which gives meaning and value to certain existential territories rather than others: “all this implies the idea of a necessary creative practice and even an ontological pragmatics” (p. 94). Here lie the “ethico-political implications” of aesthetic

machines: creation actually means responsibility for the thing created, and that we take into account the fate of alterity in the process (p. 107). Thus, for example, for Colebrook (2005), the ethical power of art “brings us to an experience of ‘affectuality’—*or the fact that there is affect*” that manifests art as “an affirmation of life” rather than a “judgement on life” (p. 199).

Guattari (1992/1995) goes on to affirm that machines and values find themselves together in this processual movement, given that “all systems of value install themselves [...] at this machinic interface between the necessary actual and the possibilist virtual” (pp. 54–55). For him, the ethico-aesthetic paradigm implies an engagement with virtuality, that is, to use a well-known term of Deleuze and Guattari (1980/1987), with deterritorialisation.

When Guattari says that aesthetic machines are the “most advanced modes” for the project of an “ecology of the virtual,” he is not at all referring to (actually existing) institutionalised arts or recognised artists, nor is he advocating an aesthetisation of society (pp. 102, 134). Rather, the aesthetic he talks about comprises the realm of perception and affection, which he proposes to reinstall in the heart of the machine so as to recast even the techno-scientific field beyond its actual realisations, on the side of becoming, intensive creation and virtuality. He thus prefers speaking of a “proto-aesthetic paradigm” to refer to this “dimension of creation in a nascent state” (p. 102) which, because of this, appears to retain a “key position of transversality” (p. 105) in respect to other Universes of value, even if this does not ever translate into a “monopoly on creation” (p. 106).

If, Guattari (1992/1995) argues, values can be differently territorialised, undergoing different valorisation modalities, this means that they are not Universals but that they possess a “power of heterogenesis” (p. 55) which becomes differently limited in the constraints and resistances of several fields of activity. So, even though, usually, “techno-science place the emphasis on an objectal world of relations and functions, systematically bracketing out subjective affects” and, instead, seems to privilege “the finite, the delimited and coordinatable” over the virtual, and even though it appears that, in the art field, “affect

and percepts [...] tend to become more and more eccentred [*sic*] with respect to performed structures and coordinates,” a contamination between these domains is always possible, given that assemblages are not fixed but processual, and that they rely on relations of alterity (pp. 100–101). Clearly, here, when we talk about affect, we do not intend emotion, but as non-representational theory shows (Thrift, 2008), the ensemble of forces governing the human and non-human transactions of the technosocial (see Grusin, 2010). As Massumi (2002) puts it, “affects are *virtual synesthetic perspectives* anchored in (functionally limited by) the actually existing, particular things that embody them. The *autonomy* of affect is its participation in the virtual. *Its autonomy is its openness.*” (p. 35). Affects, then, are the virtual forces conferring a processual and performative character to matter.

This allows us to further comprehend the relation between the arts and sciences, and the renowned dialogue taking place in both fields (Barad, 2007; da Costa & Philip, 2008; Munster, 2006). In fact, “technoscience’s machinic Phylums²³ are in essence creative,” so that not only do aesthetic paradigms work with scientific ones, they are also worked by them (Guattari, 1992/1995, p. 107). Myths and tools, concepts and instruments, says Haraway (1991a), mutually constitute each other, so that they should be intended as momentary formalisations of the social fluid to which they belong (p. 164). As Jussi Parikka (2011) writes in his recent review of Paul Vanouse’s *Fingerprints* exhibition, what STS teaches us is that “apparatuses, techniques and frameworks create, never just discover. The truths found are as much in the apparatus as in the body—and hence, more accurately in the various couplings of technologies, biological bodies, and the mentioned abstract

²³ As Deleuze and Guattari (1980/1987) explain, “we may speak of a *machinic phylum*, or technological lineage, wherever we find a *constellation of singularities, prolongable by certain operations, which converge, and make the operations converge, upon one or several assignable traits of expression.* [...] This operative and expressive flow is as much artificial as natural: it is like the unity of human beings and Nature. But at the same time, it is not realized in the here and now without dividing, differentiating. We will call an *assemblage* every constellation of singularities and traits deducted from the flow—selected, organized, stratified—in such a way as to converge (consistency) artificially and naturally” (p. 406).

frameworks.” These words echo Haraway’s (1991a) appeal to the responsibility of situated knowledges, in which

science becomes the paradigmatic model not of closure, but of that which is contestable and contested [...] the myth not of what escapes human agency and responsibility in a realm above the fray, but rather of accountability and responsibility for translations and solidarities. (p. 196)

Returning to Guattari (1992/1995), he sees in contemporary interactivity a decisive step towards a return to orality which, overcoming the linearity of the signifier, will reinstall another kind of dialogue with machines, one based on affectivity and sensation rather than on rationality and codes (p. 97). This is a position which is quite popular among new media theoreticians, if we only think of the line that goes from McLuhan (1964) to Derrick De Kerckove (2001). But the issue, here, is not so much the choice of the oral over the written, or of experience over representation, or, yet, of affect over code (see Marchessault, 2005). In fact, as we shall see in what follows, such terms are not necessarily dichotomous. Rather, since new information and communication technologies alone do not suffice to bring about a “refoundation of political praxis” (Guattari, 1992/1995, p. 120), new collective assemblages, Haraway’s different mediations, and *new modalities of being* are necessary too. This means that a different techno-aesthetics must take into account the differential relations among its machinic components, whose operations do not derive from external identifications producing essential divisions, but on partial connections generating hybrid formations among bodies and machines. As Haraway (1991a) puts it:

taking responsibility for the social relations of science and technology means refusing an anti-science metaphysics, a demonology of technology, and so means embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts. It is not just that science and technology are possible means of great human satisfaction, as well as a matrix of complex dominations. Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia. (p. 181)

Proposing a baroque interpretation of digital machines, Munster (2006) reads new media and information aesthetics inside a field of differential forces in which all the binaries that have characterised the popular narratives of digital media “can be seen to impinge upon each other rather than be mutually exclusive” (p. 5). She clearly refers to the machinic as theorised by Deleuze and Guattari (1980/1987) to define the digital, thus delinking her digital aesthetics from digital artefacts and technologies “properly” intended, that is, from digital mechanisms. The movements of the digital go from virtuality to actuality, comprising at the same time the flows and the cuts, and the formations that such cuts create. Munster’s techno-aesthetics is deeply embodied in that it focusses on the way the capacities of bodies are transformed in the impingement with digital information, rather than considering bodies as void vectors or passive surfaces for the passage of information flows—which would eventually remain the same after the passage (p. 19).

That the code (the virtual) is always embedded in the body (the actual) does not result, in the end, in technological determinism, nor in technotopic enthusiasm eventually combined with a new productionism (see Haraway, 1992/2008): it rather means that code and matter reciprocally *enfold* and *unfold*, either diverging or converging inside an energetic continuum. As Guattari (1992/1995) specifies, distinguishing machines from structures, the difference lies in “a mechanical conception of deathly repetition and a machinic conception of processual opening” (p. 75).

The virtual, writes Munster (2006), does not belong to the order of representation because it does not derive from reality, nor does it belong to the order of simulation because it does not precede reality either: “it is, rather, a set of potential movements produced by forces that differentially work through matter, resulting in the actualization of that matter *under local conditions*” (p. 90, emphasis added). We have seen how Haraway (1992) reconnects the virtual to the original meaning of “having virtue,” id est, “capacity,” thus overcoming the dichotomy between real reality and virtual reality. According to Munster (2006), the virtual does not exclusively belong to new media technologies, but to bodies too; this

means that the appeal to an embodied digital aesthetics is not an appeal to re-embodiment of virtual technologies—which would still presuppose a duality, although undesired—but to conceive of “new modes of techno-embodiment” (p. 115).

So, just as Barad (2007) privileges the notion of intra-action to show the entanglements of matter and meaning, Munster (2006) proposes to reconceive the digital interface in a baroque rather than in a classical framework, that is, not according to modes of separation from materiality (see Coyne, 1999), but according to modes of interdependency, of pliability and enfolding (p. 114). Somehow responding to Guattari’s hope for new modalities of being, which are necessary to reimagine the political praxis of the new ethico-aesthetic field that he delineates, Munster repeats that

the aesthetics of technologically inflected, augmented and managed modes of perception is also about relations to others in the socius, to the ways in which these relations are themselves reorganized by the globalization of technologies and the concomitant responsibilities summoned by these rearrangements. (p. 151)

She, then, distinguishes between connectivity and engagement to further clarify this statement. Engagement, in fact, also implies an “active confrontation” (p. 152) with the socius, in terms of both active construction and responsible accountability, which connectivity does not necessarily do:

The ethico-aesthetic dimension of digital culture asks us to consider the extent to which the politics of connectivity foregrounds, cuts short or enables our capacity to engage with others and their differences in the interfaces, environments and artefacts produced. But it also asks us to make or create differently so that engagement with differences and others might be actualized in, rather than cede to, the political economy of connectivity. (p. 153)

Conversely, Guattari (1992/1995) believes that aesthetic machines are involved in a process of automodelling, or metamodelling, that instates differential relations among Territories, Universes of value, Flows and Machines (for a detailed analysis, see Holmes, 2009; O’Sullivan, 2010), escaping the overcodification of the Structure as well as the complete closure of the system onto itself. In fact, as Brian Holmes (2009) shows, whereas second order cyberneticians, such as Heinz von Foerster (1973/2003), look for the integration of different components in *systemics*, a word whose Indo-European roots

properly evidence the idea of integration, Guattari's schizoanalytic cartographies introduce relations of alterity inside the system which, rather than destroying it, also contribute to its construction. Such cartographies are not external schemas that define or reproduce the processes they represent, but are themselves involved in the processes of subjectivation that they pursue, just like the continuous enfoldings of the virtual and the actual at the machinic interface.

In this chapter, I have questioned the ideological and epistemological implications of traditional representation, presenting what can be defined as an articulatory turn in representation which resurfaces from the performative and materialist drive that, in recent decades, has characterised different theoretical contexts encompassing the social and hard sciences as well as the arts (see Barad, 2003, 2007; Braidotti, 2002a, 2006; Butler, 1990; da Costa & Philip, 2008; Deleuze & Guattari 1980/1987; Guattari, 1992/1995; Haraway, 1997; Hayles, 1993/1997; Latour, 1996/2010; Pickering, 1994; Rabinow, 1996; Stoetzler & Yuval-Davis, 2002a; Thrift, 2008; Whatmore, 2006).

Drawing on Hayles's (1993/1997) constrained constructivism and Haraway's (1997) diffractive methodology, my intention has been to formulate a viable mode of representation whose efficacy is not only visual but also ethical, with particular attention to the representations and practices of technospaces. For this reason, mostly borrowing from the late Guattari (1992/1995), I have coined the expression "aesth/et(h)ics," which, as it will be evident in the case studies chosen in the following chapter, indicates a set of creative practices and artworks happening in a hybrid sociotechnical context and implies a continuous action of self-positioning and relationality which is attentive to the other's spaces and the other's becoming. If in the previous chapters my intention has been to revise the existing definitions of space, representation and visibility in order to let what links locations and figurations emerge, in the final chapter I will take into consideration five artistic examples of practical engagement with the transformation of existing representations of space, which happens by means of a techno-aesth-et(h)ic theorization

and/or employment of new technologies, and which in one way or another offers a methodology for imagining and living space differently.

Chapter 4: Situated Knowledges in Technospaces

4.1 An Elsewhere within Here: Eastern Europe as Cyberfeminist

In the introduction to his book *The Location of Culture*, Bhabha (1994) argues that we can still use the prefix post-, provided that we get rid of any idea of consequentiality or antithesis with regard to what supposedly precedes or is opposed to the matter at hand. In fact, he believes that the appeal to a *beyond*, which the use of *post-* suggests, makes sense when it is used to transform the present through a movement of inversion and revision which expands this same present by making it *ex-centric*. The postsocialist subjects around which the theoretical and artistic work of the Slovenian video-artist Gržinić revolve inhabit precisely this kind of beyond, a beyond that establishes an interstitial, differential relation with its spatial and temporal Others, rather than an oppositional or classically dialectical one.

In what follows,²⁴ I only consider Gržinić's production as a theoretician since, as the artist herself affirms, action does not only mean making works of art, but also questioning the conditions under which our lives are produced and reproduced. Thus, she uses theory as an "other space," a productive space for reflection as well, as her constant activity as a curator also demonstrates (Gržinić, 2004, p. 9). In this sense, Gržinić's theory is an example of located theory which critically engages with the position it occupies (p. 41), giving account of her particular position and, at the same time, making it a space of tactical commitment. In her texts, Gržinić articulates an alternative representation of Eastern Europe and Identity based on a relational and situated cyberfeminist perspective that, comparing the construction of geographical space and femininity, mobilizes the notion of alterity upon which both rely, showing their paradoxical "inappropriatedness."

This is what emerges, for instance, from her analysis of the postsocialist Eastern European condition, which she chooses to interpret *as* and *through* a cyberfeminist paradigm

²⁴ This part of the thesis until the end of section 4.1 was published, with minor differences, as Timeto (2008a).

(Gržinić, 2001a). As we are told in the video *Eastern House*, realised by Gržinić and Šmid in 2003 [Fig.1]—and which can reasonably be considered a sort of manifesto of Gržinić’s thought—if we describe the artist solely as a cyberfeminist from Eastern Europe, the three terms of our description—feminism, cyberspace and geopolitical space—remain both unquestioned and unrelated, as if they were givens, and we also fail to articulate the artist’s position. However, if we assume that “Eastern Europe can be seen as the female side in the process of sexual difference,” then we ground ourselves “in the real of cyberworld,” which allows us to escape any essential definition not only of the spaces of the real and the virtual, but also of femininity and feminism (Gržinić, 2001a, p. 12).

To understand what this means and how this is possible, we need to see, first of all, how these three elements are approached and reconceived in Gržinić’s theory. Then we need to understand how they can be recombined so as to articulate a condition that situates *beyond*. Finally, we have to understand how this *beyond* is worked out in terms of negotiation rather than negation. In this context, the appeal to a *beyond*, as Bhabha suggests, serves to transform the present through a movement of inversion and revision that expands this same present by making it *ex-centric*.

What are the prevailing ideas about Eastern Europe today? In the political as well as in the institutional, academic and artistic fields, Eastern Europe, including the Balkans, is very often constructed and perceived as a monolithic entity endowed with a set of homogeneous attributes. At the same time, however, the homogenisation of Eastern Europe hides a process of fragmentation brought about by commercial, political and philanthropic approaches, with the consequence that the preexisting civic discourses of Eastern Europe are rendered increasingly fragile (Horvath, 2000). Maja Ćirić (2006), for example, when discussing the curatorial politics of three exhibitions about the Balkans that took place in the early 2000s, notes that many of the selected artists tend to play with the stereotype of the Balkan artist (a market construction in itself) in order to be integrated into the Western European art system, albeit as the exotic Other. The Balkan region, Ćirić notes, is

considered to be an incomplete, obscure Other, even though it is part of Europe in every respect, and ends up representing what she calls “an externalization from within” (p. 5). According to Gržinić (1999), after the political events of 1989, Eastern Europe was lost to the West a second time, just as it was on the point of being rediscovered. Treated as a whole—a whole in which something was nonetheless lacking, that is, freedom and development—the region appeared as a relic, a remnant, a mute and immobile territory in search of proper articulation. As opposed to the neocapitalist, globalised and technologically evolved Western world, it was positioned on the side of “therapy,” as a passive victim to be rescued and integrated, as if it suffered from a defect that might eventually be healed (p. 18).

But this image was itself a normative construction which worked as a formalised frame, and as such it was often appropriated from within, thereby producing a chain of truth-effects inside which postsocialist subjectivities were thought to find the instruments to read and write their new social reality (see Brandtstädter, 2007). A set of temporal and spatial oppositions have flourished around the idea of change and transition: as Susanne Brandtstädter (2007) writes,

“postsocialist countries,” have come to appear as “spaces of transition” in so far as they are constituted under a new “regime of representation” that locates them both in distinction to the “West,” and temporally and spatially related to it as a new “future” and “centre.” (p. 132)

This regime of representation is precisely where identities are constructed and managed, and where languages of sameness and otherness, of interiority and exteriority are developed (Escobar as cited in Brandtstädter, p. 143). Why, then, does Gržinić believe that Eastern Europe was lost again after the fall of the Berlin wall? Because, she argues, its “rediscovery” was a construction rather than a disclosure: the construction of a relative alterity which was needed for the West to be able to cope with a structural, rather than accidental, lack of totality, namely the *real* coming back in the form of *trauma*.

Considered as a concept and not simply as a geographical extension, Eastern Europe, which Gržinić (1999) calls the “Matrix of Monsters” (p. 30) to distinguish it from the Western European “Scum of Society Matrix” (p. 30), is not symmetrical with the concept of Western Europe because it cannot be made to occupy a complementary position and, therefore, cannot be refounded as a whole; instead, the concept of Eastern Europe is similar to what Derrida (1993/1994) would call a *spectre*, or Lacan (1974/1990) a *not-all* (p. 31). As Pheng Cheah (1999) suggests in his discussion of the ideology of the nation through the Derridaean concept of *hauntology* (1993/1994), which Derrida uses to refer to the spectres of communism haunting Europe after the fall of the Berlin wall, spectralisation is a process of radically *altering* and opening up Being, which appears as never fully in itself. The ontology of national space is inhabited by its difference, thus the nation exists in a condition of “paradoxical incorporation” (Cheah, 1999, p. 240) in which difference always returns as the inassimilable other, disrupting the logic of identity and closure with a perspective of openness and becoming. The disavowed real returning as a spectre which is impossible to symbolise allows us to escape the ontological binarism of reality versus illusion, as well as that of identity versus alterity. Actually, the spectre is what haunts the present as a radical but immanent difference, as that which cannot be made fully visible but is always already inscribed within.

Following Žižek’s (1998a, 1998b, 1998c) reading of the Oedipus myth via Lacan’s (2007a) notion of *surplus enjoyment*, Gržinić compares Eastern Europe to Oedipus: Oedipus is a *plus d’homme* since, once he has fulfilled his destiny, he finds himself in the condition of a no man and a surplus man at the same time. He has reached a sort of zero point of subjectivity, thus embodying a structural monstrosity that is impossible to refound or integrate, like the monstrosity of the cyborg who speaks from her inappropriate (residual and excremental) location. Similarly, as Gržinić (1999) says, Eastern Europe can be thought of as “*plus d’Europe orientale*,” as a “surplus of Europe (as it was before the fall of the Berlin Wall: too little, or not enough, European) and no Europe” (p. 21).

The new Europe, however, seems to disregard its internal surplus and goes on acting according to what Gržinić, drawing on Henry Krips's (2006) analysis, defines as a “perverse inclusive welfare ‘capitalist with a socialist face’” type of social totalisation (2007, p. 569). The psychoanalytic object that corresponds to the perverse type of social totalisation is *the lack in the Other*. If the hysterical type of social totalisation, to give just one more example, completely excludes the enemy by neutralising his/her power, the perverse type plays at including the excluded, while at the same time maintaining its status as excluded, often provoking in the excluded a sort of fragile *mise-en-scène* of his/her same alterity, in order to please the Other. Perverse in this sense, are, for example, EU policies concerning the treatment of illegal immigrants.²⁵

The metaphysical cannibalism practiced by the Modern European Subject has always devoured the Other in its various forms: as the ethnic and racial other, as woman, or as nature. Gržinić (2001a), however, affirms that it is time to shift from the logic of the One to the logic of the Two, since counting in the logic of the One will never lead us to the Other as the Second, but only as another One (p. 15). The Other is in the process of becoming, whereas the One simply is. That is why, for example, Braidotti (2002b) claims that a different consideration of Europe as post-Europe could arise from the difference of the post-woman woman as becoming subject. It is, then, worth taking a closer look at this idea of the post-woman woman as theorised by some contemporary feminist thinkers. According to Braidotti²⁶ (2002b), feminism traverses three (coexisting) levels of alterity, or (sexual) difference: the first is that of a difference conceived *in relation to men*, a difference that is intended, alternatively, both as lack and as excess, not yet represented or

²⁵ “The welfare pervert wants only that the integrated subjects complete the social and civilisational demands of the Other. The subject who seeks to be integrated repeats, in a ritualised set of almost sadomasochistic relations, what the Other wants to hear. Unsurprisingly, the perversely instrumentalised subject explodes! This is described in welfare states as a betrayal of the established relationship—seen as a model of perfection—forgetting that in a perverse inclusive welfare state the will of the subject is the will of the Other” (Gržinić, 2007, p. 573).

²⁶ Braidotti is a Deleuzian materialist feminist whose thought is, to some extent, very distant from Gržinić's Lacanian-Žižekian approach. See her critique of the *spectral economy* of subjectivity (2002a, pp. 54–58); see also her notion of imaginary in the same text (pp. 143–144).

entirely unrepresentable. The second level of alterity is where feminism, having acknowledged a radical asymmetry between men and women, looks at differences *among women*: this is the level where power relations, commonalities and differences among women are discussed and questioned and where the representation of Woman is criticised from a situated perspective. The third and final level corresponds to a post-psychoanalytic dimension, in which a disjuncture between identity and conscience reveals the imaginary relation each woman establishes with her history, genealogy and materiality: here, difference is found *inside* each woman, as the hiatus during which a woman sees herself as always already *other to herself*.

Similar to Braidotti's scheme is the distinction that De Lauretis (1999, p. 115) makes among three axes of difference²⁷: the negated woman, that is, woman as object and representation; the split woman, traversed by the many interrelated differences of sex, class, race, age and so on; and the *eccentric* woman. If De Lauretis agrees that to be a feminist one must be able to give an account of one's own positionality, she nonetheless believes that a situated perspective also requires a movement of disidentification and displacement that leaves behind the ideology of the Same implied in every inclusive perspective, be it that of the territory, the house, or even of feminism itself (p. 48).

The eccentric subject passes through multiple borders of exclusion and inclusion, like Bhabha's (1994) hybrid postcolonial subject who practices negotiations and re-signifies contradictions without needing to negate them. It is important to note that Gržinić (2004) has frequently invoked a cultural practice intended as negotiation as a method for working from *within* a certain situation—in communist as well as postsocialist Eastern Europe—to articulate a series of alternative significations. Actually, a *negotiation* is precisely a form of intervention that operates within a given structure, not by dismantling it completely, but by making constant readjustments.

²⁷ Let us note that, for De Lauretis, a woman is at the same time a psychic, corporeal and social subjectivity.

The post-woman woman and the eccentric subject have very much in common with a figuration that originates with postcolonial feminist theorist and filmmaker Minh-ha. Minh-ha, whom Gržinić has interviewed (Gržinić & Minh-ha, 1998), coined the term the *Inappropriate/d Other* to deal with the issue of identity and difference in relation to postcolonial women. Here, the notion of difference moves from a “pattern of sameness” to “an inconsequential process of otherness.” Intended in this way, difference therefore undermines the clear line traced to separate you and me, him and her, here and there.

According to the logic of the same, Min-ha (1988) writes:

the further one moves from the core the less likely one is thought to be capable of fulfilling one’s role as the real self, the real Black, Indian or Asian, the real woman. The search for an identity is, therefore, usually a search for that lost, pure, true, real, genuine, original, authentic self, often situated within a process of elimination of all that is considered other, superfluous, fake, corrupted, or Westernized.

On the contrary, the *Inappropriate/d Other*, who is both inappropriate and inappropriable, both beyond and alongside,

looks in from the outside while also looking out from the inside. Not quite the same, not quite the other, she stands in that undetermined threshold place where she constantly drifts in and out. Undercutting the inside/outside opposition, her intervention is necessarily that of both not quite an insider and not quite an outsider.

The *Inappropriate/d Other* moves the axes of difference from the between to the within, creating what Min-ha (Min-ha & Gržinić, 1998) calls an “*elsewhere within here*.” What we experience when we enter virtual reality and cyberspace is also very similar to an *elsewhere within here*. The common notion that we transcend our real limits—physical, sexual, geographical, social—and enter an entirely different dimension whenever we experience virtual reality is, in fact, based on the illusion that it is possible to overcome the medium’s mediation in order to reach the (presumed) reality beyond it.

As shown in Chapter One, this illusion has been extensively discussed, for example, by Bolter and Grusin (1999). With regard to space, the concepts of transparency and opacity both derive from the same illusion: namely the illusion of the substantiality and naturalness of space, which says that space is a given, self-evident, and fully decipherable object rather

than a social production. In this kind of illusory space, knowledge, information and communication all coincide. This description perfectly fits most accounts of cyberspace, but it also empties virtual reality of complexity by drawing sharp distinctions between inside and outside, as well as between what is real and what is virtual.

Min-ha (Min-ha & Gržinić, 1998) observes that, nowadays, technologies are too often used to access a reality without mediation, in order to pursue an aesthetics of objectivity. When this occurs, reality becomes that which is immediately visible, while the tools that are used to access it simply disappear. However, the removal of boundaries, whether by rendering them invisible or blurring them, is, in the end, illusory—even in cyberspace. Rather, Min-ha says, “it is a question of shifting [the boundaries] as soon as they tend to become ending lines.” Here again, the issue of the Inappropriate/d Other comes into play. But first, let us take a step back for a moment.

Žižek (1997), though he approaches the issue from a different angle, also criticises claims of the transparency and total accessibility of cyberspace and warns us about the false antitheses of total openness and total closure that are attributed alternatively to both virtual reality and real reality. He notes that new technologies appear to threaten three essential boundaries: between real life and simulated life; between objective reality and our perception of it; and between our identity and our self-perception. The full accessibility of cyberspace, however, with its excessive plenitude that denies closure, far from offering infinite choices, translates into total closure insofar as it suspends any form of distance and of presence of the other. Žižek (1998d) goes on to say that both distance and immersion depend on a marked border, without which we would experience the psychotic dimension. In other words cyberspace, in its dominant form, is not spectral enough precisely in that it disregards the thing that is purely virtual about spectrality, namely, the non-actual effectivity that will never be *as such* and that will always escape dialectical mediation. According to Žižek’s psychoanalytic approach, then, it would be better to conceive cyberspace as the radicalisation of an already built-in division of the symbolic order

(speaking in Lacanian terms). Žižek (1998d) finally suggests that perhaps, if we recognise that in cyberspace we experience the displacement of Subjectivity as something internal to subjectivity itself and not simply as a detachment from the multiplicity of possible alternative selves, we can learn to externalise, to “act out” this void at the core of the Same at the moment we encounter the so called Other Scene. Here, we can touch the traumatic Real in all its spectrality, traversing it without identifying with it (in this sense, the spectral means precisely the possibility of moving between fantasies). The traversing of the fantasy—*la traverse du fantasme* in Lacan’s (2007a) terms—is what enables us to plunge into our fantasies while at the same time keeping a necessary (and playful) distance. Explicitly quoting Žižek, Gržinić (1999) goes further: she believes that a radical step *beyond*, into the space of the virtual, or, which is the same thing, into the real of cyberspace, can help us adopt not only a different but also *differential* perspective, and not only in the space of postsocialist Eastern Europe and with regard to postsocialist subjects, but also in the space of women as cyborg subjectivities. Since these “conceptual matrixes” are themselves contested fields which nonetheless try to maintain clear borders, we must adopt a situated perspective if we are to interpret and criticise them. Here, “situated” does not necessarily mean situated geographically or locally but, rather, we might say it means “inappropriately” *grounded*, constantly, and paradoxically, positioned *within* displacement (Gržinić & Minh-ha, 1998). Situated, in other words, in a space that opens up precisely at the moment when the subject is “out of joint” and space seems to be forever lost, at least as a direct and natural experience.

So, in order to properly articulate the space of the postsocialist subject for both political and artistic purposes, we must first problematise the paradigm that sustains its construction. Gržinić (1999) firmly believes that talking about space in geometrical or even geopolitical terms no longer suffices, at least not in a context in which ICTs profoundly influence our perception of spatial and temporal coordinates.

What kind of space, then, is the Other Space Gržinić talks about? More to the point, how does it work? Surely, it should not to be confused with the space of the Other as the reified container of substantial differences. For, as we have seen, this Other Space is a space that exceeds the idea of territory, although it can sometimes appear in mappable spaces and also include geopolitical entities.²⁸ This does not, however, make it a non-space, insofar as the Other Space “expose[s] or turn[s] to advantage the fissures, gaps and lapses of the system” (Minh-Ha & Gržinić, 1998), whereas non-spaces, like the World Wide Web in its hegemonic form, sometimes conceal the constant dynamic of reterritorialisation that hides behind the appearance of an absolute deterritorialisation. Nor should this Other Space be characterised as utopian, as informational space often tends to be, for it does not establish “a relation of inverted or direct analogy with the real space of Society” (Foucault, 1984/1986, p. 24) but rather substitutes a dialectical relation with a negotiable one. Applying Scott Bukatman’s (1993) notion of terminal identity, Gržinić (1996, 2004) defines the Other Space as a space in terminal condition: that is, a totally decentralised space where the binary opposition reality/illusion is overcome in favour of their articulation. In the “inside/out glove situation” of zero gravity on which Gržinić’s (1996) analysis focusses, “everything I positively am, every enunciated content I can point at and say ‘that’s me’,” to use Žižek’s (1993) words once again, “is not ‘I’” (p. 40). Moreover, this is not because I am a pure negativity, but because what I am not is already (in) me. The Other Space already contemplates its constitutive inappropriatedness in that it puts together field and counterfield as real and virtual, sameness and otherness, original and copy, positivity and negativity. As we have seen, it also works according to a spectral logic since it alludes to space while making the illusion of space evident (Gržinić, 2004). Consequently, according to the Other logic of virtual space, a political articulation of the Otherness of women and Eastern Europe becomes possible *from within* a technological

²⁸ As in the case of specific art projects working around topicality—see for example the works of the Ljubljana-based art group Irwin or the Metelkova “case” discussed by Gržinić (2001b, 2004).

discourse. These subjectivities are located, like those of cyborgs, “in the belly of the monster,” to use a definition coined by Haraway (1991b, p. 25). They occupy a space that requires a completely different sort of geometry, one that avoids integration and recognises that the non-unitary condition of both women and Eastern Europe is neither a deficiency nor a pure negativity, but a consequence of their inappropriatedness, causing a failure in the system of the One.

In truth, the inappropriate/d Other cannot fit into the taxonomy of Identity and Difference; rather, she tries to escape the strategies the One uses to subsume difference, namely the “hierarchical domination, incorporation of part into wholes, paternalistic and colonialist protection, antagonistic opposition, or instrumental production from resource” (Haraway, 1991b, p. 24).

Because the *elsewhere* has always been within *here*, and not outside it as opposite to it, an alternative account of the here—*from here*—is possible, an account that gives voice to what has been evacuated and eradicated from hegemonic narratives. For Gržinić (2000), this re-conceptualisation must happen today through technology, for only through the artificiality of technological mediation can we avoid the risk of longing for lost presences and concentrate instead on how presence is constructed. Thanks to technology, and video-technology in particular, a “new economy of seeing” (p. 208) develops, one that is based on what can be rendered visible beyond what we already see.

4.2 Tracing Women’s Routes in a Transnational Scenario²⁹

A new economy of seeing is precisely what emerges from the video essays of the Swiss artist and curator Biemann. In what follows, I read Biemann’s video essays as feminist video-cartographies that counter the abstracting tendencies of the rhetoric accompanying mainstream uses of new ICTs with situated accounts that reveal the different roots and different relational networks implicated in transnational mobility.

²⁹ This section, with minor differences, was previously published as Timeto (2009c).

According to Jörg Huber (2003), the practice of video essayism works at putting into relief a set of connections. Firstly, it links theory and practice since it manifests the ways in which theory is embedded in its contexts of production and shows the processes that theories concretely set in motion. Secondly, it appears as both a mobile tool and a means for moving the audience which traverses and translates the world rather than framing it in static pictures. Lastly, and perhaps most importantly, it combines a transdisciplinary quality with a self-reflexive stance in that it unmask the position of the speaking/viewing subject while also accounting for its relational and processual character. All of these features render the video essay an appropriate instrument for tracing the intersections of location and mobility in the transnational scenario.

Biemann shows the interplay of the material and symbolic effects produced by the flows of transnational economies and ICTs on women's lives. Although ICTs open up routes and alternatives previously unimagined, they also tend to be used increasingly as instruments of control for the reinforcement of existing physical and virtual borders. Biemann's videos unmask the embeddedness of the technologies they both talk about and utilise, while functioning as navigational systems that account for the multiple locations of women's lives. At the same time, they disclose the complex interrelations between women's asymmetrical mobilities across several borders. I thereby interpret these video-cartographies according to the feminist notion of figuration, a core element in Haraway's concept of situated knowledge, which I recontextualise in a transnational framework. Figurations are lived maps that do not transcend the connections they outline but embody vision within the limits of a "partial perspective," allowing us not only to account for what we learn to see, but also to elaborate upon the specificities, the complicities and the differences of our ways of seeing (Haraway, 1991a, p. 190).

Another kind of mobility hides behind the "anything anywhere anytime" rhetoric of cyberspace (Graham, 2004a): that of globalised and increasingly feminised labour. Saskia Sassen (1998) notes how the internationalisation of manufacturing creates a sharp

polarisation between the superprofit-making capacity of corporations and the feminisation of the kinds of jobs upon which high-income gentrification draws. While rendering women the invisible subjects of this economy, such transformations also alter previous gender hierarchies and give women a new kind of control over their self-awareness, mobility and money, leading to new forms of female solidarity and transnational alliances. For this reason Sassen (2002), in her sociology of information technology, warns us against a purely technological interpretation of technological devices; in fact, such readings run the risk of ignoring the technological embeddedness of every technology, that is, “the material conditions and practices, place-boundedness and thick social environments within which these technologies operate” (p. 366).

In the interweaving of the space of flows with the space of places that characterises the contemporary moment, thinking about the subject and its location in unitary and delimited terms is considered problematic (Castells, 1996; Massey, 1994; Pile & Thrift, 1995; Rose, 1993; Stone, 1995). Yet feminist scholars from a variety of fields still appeal to a situated view. Rich (1986), the feminist theorist of the politics of location, reclaimed the body of women as the ground of struggles against what she called a “lofty and privileged free-floating abstraction” (pp. 213–214). More recently, Haraway (in Gane, 2006) has employed this aspect of the politics of location as a critique of the prevailing “transhumanist technoenhancement” permeating the narratives of new technologies (p. 140). As we have seen in the previous chapters, it is from the reclamation of the partiality of a vision *from somewhere* that her project of situated knowledge originates (1991a, p. 196), one in which location cannot be conceived as a naturally given and delimited spatial container but as a node in which movements, activities and influences of different social groups intersect at a transnational level (see Kaplan, 2002; Massey, 1994, 2005).

Location and mobility do not have the same meaning for everyone. Rather, they depend on where one is, wants to be, or can be situated. The “post-national” condition of the refugee, for example, which Biemann describes in her video essay *X-Mission* (2008), exerts a

profound change both on the refugees' self-perceptions and how they are perceived as human beings, a perception that is filtered through the politics of the Nation State and the visual rhetoric of humanitarianism conveyed through media. Transnational subjects like refugees or sex workers do not experience the kind of mobility theorised by those who believe that, in our techno-driven world, the act of travelling no longer requires any kind of material displacement. Feminist theorists such as Caren Kaplan (2002) are extremely sceptical about such narratives, which appear to have their roots in the flight from the body that characterises Western Modernity. Arguing for a deconstruction of the rigid polarisation of mobility and location which this rhetoric generates, she poses a series of urgent questions that cannot be dismissed in any embodied account of ICTs, that is: "who suffers, who troubles, who works these technologies of travel" (p. 40).

As Biemann's artworks make clear, these questions also imply the need to reconceive the act of visualising and representing (women), and thus to rethink the function of artistic practice and the role of the artist as witness/author. In order to become an "embedded artist," as Biemann claims to be in her work *The Black Sea Files* (2005), does it suffice to collect information and comment on what one sees? Or is it not imperative to adopt a self-reflexive stance so that the translocal cultural position of the video-essayist itself emerges through the proposed meanings? "Knowledge from the point of view of the unmarked" (Haraway, 1991b, p. 22) is pure fantasy, built on the rational myth of *everywhereness* which, from a feminist situated perspective, turns out to be the same as *nowhereness*. Discussing curatorial practices in postcolonial sites, Biemann (1997, 2003a) notes that posing such questions is a good entry point for transforming existing power relations without simply reproducing them. Biemann does not expound upon any local specificity of the lives framed in *Remote Sensing* (Verstraete, 2007, p. 122). Nor does she automatically affirm the existing hierarchies of power between women as subjects and women as objects, demonstrated by the "experts" (the artist among them) speaking for the anonymous "others" that remain in the background. In fact, Biemann's navigational rather than

representational video essays (Biemann, 2003a), including *Remote Sensing*, do not mirror existing spaces from above, like maps portraying the world in a fixed structure of power and meaning. Instead, they locate “the space of theorizing” (hooks as cited in Kaplan, 1994, p. 143), as well as that of visualising, within the complex system of signification that images can only partially render, thus unmasking the function of the actual instruments that are employed in their visualisation.

As navigational systems, cartographies are not merely visual objects (see November et al., 2010). Rather, they contain dynamic intersections of social relations and cultural meanings which contribute to building, instead of simply reflecting, the multiplicity of our realities (see Rogoff, 2000). Biemann’s video-cartographies account for the positioning of the cultural producer and the viewer within the practices of power that define the grid, while also working as figurations in visualising alternative agencies and otherwise invisible actors in the social field.

As we have seen in the previous chapter, figurations—a term first used by Haraway (1997) and further elaborated on by Braidotti (1998, 2003)—are deeply linked with location, but at the same time go beyond it. Unlike metaphors, figurations are always grounded, that is, embedded in specific historical and geopolitical contexts. Nonetheless, they do not simply trace, but also reinvent the connections between embodiment and movement, location and displacement, and are performative and transformative in character. In effect, they constitute a situated and corporeal opportunity to articulate our contemporary imaginary, particularly when a discussion of new technologies is involved. Braidotti (1998), for example, includes some very specific historical forms of female mobility among figurations, such as the mail-order bride, the rape victim of war, the au pair girl and the *doméstica*, along with the techno-skilled cyberfeminist. It is no coincidence that most of these figures are the very protagonists of Biemann’s video essays. As Rob Shields (2006) puts it, discussing the re-spatialisation of cyborg bodies in the contemporary scenario,

sites such as Home, Market, Paid Work Place, State, School, Clinic-Hospital and Church deserve to be re-mapped for their politics at a nano- and biotechnical scale without assuming that they are inhabited by a unitary, integrated and self-coherent political subject. How do these sites get grafted together so that the old landscape is folded over onto itself? How do they participate not only in material circuits but informational circuits? How are subjects regenerated as partial beings? How are categories of identity—such as the feminine—distributed in changing ways across not only reproductive bodies but objects and virtualities from angels to voice-based digital interfaces? (pp. 217–218)

The aesthetic dimension of Biemann's cartographies is always enmeshed with a thick human component which infuses the visual data with experiences and projections, merging local histories with global space (Biemann, 2002, p. 79). Analogously, the aesthetic dimension is a necessary component of a feminist theory that requires figurations to open up new historical possibilities for the reinvention of praxis (Braidotti, 2002a).

Biemann uses visual language and visualisation technologies to counter the invisibility to which women's bodies have been relegated by the displacing and abstracting effects of technospaces. Her video-cartographies literally *bring* women *into view* (Pratt & Yeoh, 2003) while dealing with the difficulty of documenting something that is always in motion, ultimately ungraspable once and for all, like transnational processes. The artist (2007) describes her choice of this artistic medium as follows:

like transnationalism, the video essay practices dislocation; it moves across national boundaries and continents, and ties together disparate places with a distinctive logic [...]. The narration in my video essays—the authorial voice—is clearly situated, in that it acknowledges a very personal view. This distinguishes it from a documentary or scientific voice. Though the narration is situated in terms of identification (as it is articulated by a white female cultural producer), it isn't located in a geographic sense. It's the translocal voice of a mobile, travelling subject that does not belong to the place it describes but knows enough about it to unravel its layers of meaning. The simple accumulation of information and facts for its own sake is of little interest to this project. My video essays are not committed to a belief in the representability of truth. Rather, my intention is to engage in a reflection about the world and the social order. This is accomplished by arranging the material into a particular field of connections. In other words, the video essay is concerned, not with documenting realities, but with organizing complexities. (p. 130)

For the purpose of my argument, I consider only three of Biemann's video essays here, specifically those in which the issue of gender mobility is overtly linked to new technologies. To shoot *Remote Sensing* (2001), which focusses on the organised and

individual paths of and reasons for the global sex trade, Biemann travelled to some of the places where the global sex industry has flourished, such as the Thailand–Myanmar–Laos triangle, the border between the former German Democratic Republic (East Germany) and what was once Czechoslovakia (now the Czech Republic and Slovakia), the United States–Mexico border, and the former U.S. Marine bases in the Philippines [Fig. 2]. Ultimately, however, *Remote Sensing* also explores some locations that are entirely imaginary.

Almost half of the total population migrating every year is female (Yinger, 2007).³⁰ Women migrate for many different reasons, some of them leading to, or connected with, trafficking: the entertainment industry, sex tourism, forced prostitution, discrimination, political instability, the need for complementary incomes, the supply of family services where these are lacking, or the social restructuring of gender relations. Women may also desire to move to affluent countries to realise their personal dreams.

In *Remote Sensing*, Biemann makes wide use of satellite images, inviting us to *feel* rather than merely see them (Timeto, 2006). Vision, recontextualised as a situated practice, dismantles the fiction of the neutral distance of techno-scientific methods (Kwan, 2002, 2007; Parks, 2005): the sites of production and reception of the images and their content are addressed, their silences and omissions foregrounded. The same satellite instruments used to keep women's movements under control also produce new perspectives that render the visual field more complex. If, on the one hand, some kinds of visualisation devices interfere with women's mobility, limiting their actual movements by tracking their routes across borders, technologies such as the World Wide Web on the other hand help women to become transnational actors—as occurs in the case of the cyberbrides, which I discuss below—giving them a greater opportunity to visualise and fulfill their desire for mobility.

³⁰ The 2012 Trafficking in Persons Report, released by the U.S. Department of State, draws on the data of the the International Labor Organization which calculates forced labour not on the basis of movement, but on the basis of exploitation: women and girls appear to be 55 percent of forced labour victims, of which 98 percent are sex trafficking victims (p. 45).

As the narrative of *Remote Sensing* explains, viewing sex migrants exclusively as victims reinforces sexist stereotypes, leading to the creation of restrictive measures intended to prevent mobility. Thus, a careful consideration of the kinds of power-related differences at stake in these movements, as well as their possible intersections, is imperative (Verstraete, 2007).³¹ Several national economies have become increasingly dependent on the remittances of sexualised mobilities, showing the interdependence of location and dislocation in the global scenario. Women who move along sexualised routes, however, frequently create their own alternative economies and “circuits of survival.” In *Remote Sensing*, electronic travel schedules indicating women’s journeys as well as their personal data—timetables, departure and destination places, longitude and latitude coordinates appearing alongside information regarding age, height, weight, ID and visa numbers—scroll over the video images. In some instances this information appears at the side of the screen, while in other it is superimposed upon the x-rayed portraits of the travelling women, against a backdrop of unrecognisable landscapes. Biemann adopts this strategy to mimic the official devices used to classify and depersonalise their identity, fixing them in a taxonomic grid of detached observation. In addition, she makes frequent use of the split screen, juxtaposing apparently frozen satellite images with images of movement recorded “from below.” The narratives of the interviewed women—NGO activists as well as ordinary women, whom we sometimes see and sometimes only hear off-screen—*embody* these otherwise mute and anonymous images.

Although the video contains a wealth of information and seems to adopt documentary tools, its intent is not properly *factual*: rather, Biemann investigates the interplay between the symbolisation of the feminine and the materiality of women’s experience. Here, the private and domestic sphere, where women have traditionally been confined, and the economic and public sphere, usually considered a masculine domain, appear to overlap, resignifying and expanding the space of the feminine itself. The women interviewed tell

³¹ Nonetheless, the exploitative dynamics of the global sex industry cannot be ignored (see Hughes, 1999).

stories that reveal different backgrounds, intentions, interests and desires, thus disrupting the flattening logic of the GIS. By looking at the negotiations occurring among the abstract flows of information, money, and representations, and the material flows of people, we as spectators confront the issue of women's mobility in a subtle way, avoiding the binary opposition of passive victim vs. free agent (Biemann, 2005, p. 185).

A very specific example of how women's mobility can benefit from the employment of new technologies is offered by *Writing Desire* (2000), a video essay on the dynamics of desire and the new female subjectivities generated by the different uses and locations of ICTs. Here, Biemann focusses on the phenomenon of the mail-order bride market on the Internet, particularly common in postsocialist and Southeast Asian countries. *Writing Desire* shows the exchanges between virtual and physical bodies in cyberspace and suggests the way in which virtual instruments facilitate women's mobility by linking virtual and real migrancies. In fact, the women's imagined—but not imaginary—places³² always maintain a connection with their real locations, which in turn come to be experienced differently according to the diverse symbolic projections.

Writing Desire opens with a glossy image of a tropical beach while statements about the passivity of women “waiting to be rescued” by foreign capital flow across the screen. A parallel between women and nature is established, with all the associations that this implies: above all, the idea that women, like nature, are essentially immobile and passive, and outside history (Williamson, 1986) as opposed to men, who can move, and thus change, continuously. “The body signifies the anonymous exotic, the desire to be conquered,” says Biemann. But this nostalgic image only apparently contrasts with the electronic fantasies that are articulated immediately afterwards. In both cases, what stimulates fantasies of virtual bodies are highly coded icons, whose interplay of distance

³² Ernst van Alphen (2002) explains the difference as follows: “‘Imagined’ is not the same as ‘imaginary.’ Imagined places are not fairytale places, they are not just fantasy. In one way or another imagined places do have a connection with a place that exists geographically. However [...] a place is somewhere ‘out there’ in the world, whereas an imagined place is an act of the imagination, with a subject responsible for performing this act in relation to a place” (p. 56).

and proximity generates “a sense of always approaching, but never reaching.” In this instance Biemann does not merely show how women are signified as desirable bodies; she also shows us how women signify their desire.

In *Writing Desire*, diverse writing positions coexist without creating a dichotomy between female subjectivities in purportedly “advanced” Western societies, where women follow a postmodern logic of desire and adopt a free and easy approach to sexuality, and those “third world women” who, in their fight to survive, are obliged to offer their care and services in order to escape from degrading living conditions. Maris Bustamante, for instance, not only writes her desire, but also realises it. This 50-year-old Mexican woman, feminist, artist, widow and university professor looks for a partner online because she is not satisfied with the men that are available to her in the local Mexican environment. Finally, she meets John, a lieutenant colonel in the U.S. Marine Corps, and marries him. Although this choice may seem unexpected, they manage to form a new family, embodying their virtual fantasy in daily experience.

Studying a group of well-educated middle-class Mexican women from Guadalajara seeking a transnational marriage in the U.S., Felicity Schaeffer-Grabiell (2004) argues that these women look for men “over there” in order to leave behind traditional restrictive values associated with womanhood and to improve their lives. When interviewed, most of the women state their intention to escape from the “machismo” of Mexican men, simultaneously revealing their critique of the national body, which devalues women’s changing roles in private and public spaces. Even so, they tend to project a self-image mirroring the ideal of a traditional Mexican woman who is suitable for an American man looking for an authentic “precapitalistic” marriage. This highlights, once again, an internalisation of stereotypes and a simultaneous re-enactment and transgression of gender roles. Like Maris Bustamante, these women have attained a consumer position, although their achievement is often ambiguously tied to the commodification of their own bodies.

If *Writing Desire* shows how women can overcome phantasmatic and real borders through new ICTs such as the Internet, *Performing the Border* (1999) deals with the reciprocity between the gendering and the technologisation of female subjectivities as they negotiate the contradictory dynamics of transnational space [Fig. 3]. ICTs and visualisation technologies structure the technologies of gender (De Lauretis, 1987; Terry & Calvert, 1997; Volkart, 2000), but they too are engendered as well as racialised, caught in a complex network of socio-historical relations. In order to understand how and why the gendering of a technology does not necessarily occur to the detriment of women, we should always consider who is empowered in the deployment of a specific technology, where and for what reason, beyond the mere question of access. In seeking to answer these questions we must pay attention to the “implicit and explicit socio-cultural hierarchies within transnational urban work spaces shaped by the ICT related technology work” (Gajjala & Mamidipudi, 2002).

In *Performing the Border* the geographical border becomes a powerful figuration for an analysis of the performativity of several boundaries: those between masculinity and femininity, the organic and the machinic, production and reproduction, location and mobility, the real and the virtual. Of course, borders do exist, but they are neither natural nor fixed. They are differently and constantly re-signified by people crossing them, either sanctioning or transgressing their logic (Stoetzler & Yuval-Davis, 2002b; Zanger, 2005). Another of Biemann’s video essays, *Europlex* (2003), made in collaboration with the anthropologist Angela Sanders, looks at the multiple movements generated by transnational economies along the border, this time between Spain and Morocco, and in the Spanish enclaves of Ceuta and Melilla (North Africa) in particular. The video-narration is divided into three *Border Logs*, a term that evokes the travelogue and conceals a participatory ethnographic method: *Border Log I* follows women smuggling goods under their dresses to Africa, a project that requires them to move illicitly across a geographical border. *Border Log II* describes the daily routine of African women going to work as

domésticas in the enclaves, having to commute between time zones, thus crossing a more “invisible” border. Finally, in *Border Log III* we see Moroccan women working in sweatshops inside the transnational area. Their experience of the border is even subtler here since they only commute between different cultural environments; nonetheless, they experience a continuous shift between these environments and, in so doing, they perform yet another kind of border.

The narrative focus of *Performing the Border* is the experience of the young women working on assembly lines in plants situated in the export processing area of Ciudad Juarez, inside the post-NAFTA zone between Mexico and the U.S. Here, the microelectronic components assembled in the Juarez *maquiladoras* are used to produce technologies for information processing, satellite systems, and optical instruments, which are often the same technologies that reinforce existing borders and maintain control of women’s bodies, literally and metaphorically. In fact, visualisation technologies track women’s movement in space as if they were commodities, but they also circumscribe their gender identity according to the transnational standards of production and consumption. Women are functionalised and transformed into working machines that can be substituted and recycled if needed. Other new media artworks have recently focussed on similar issues. *Mythic Hybrid* (2002), a website project created by Prema Murthy, explores the relations between women’s work in microelectronic factories in India and the collective hallucinations they were reportedly experiencing. *A/S/L* (2003), a multimedia installation by the Raqs Media Collective, deals with the lives of women workers in the online data outsourcing industry in India (see Munster, 2006; Timeto, 2008b). Still, in none of these accounts do women fall into the stereotype of the passive victim since they are given a voice, fragile though it may be, which counterbalances the hegemonic narrative.

Women in Ciudad Juarez live a boundary condition since they perform the border and embody all the anxieties it evokes; these are related to national and colonial fantasies of mastery and domestication in which their geobodies signify the traditional values of the

motherland as well as the transnational logic of the corporate economy. In both cases, the abstraction of women's bodies from the actuality of their lives renders them vulnerable subjects, suspended between the coalescing forces of the natural and the technological, which cooperate to keep them under control.

As Berta Jottar, drawing on Gloria Anzaldúa (1987), states in the opening of the video, the border is a wound, a "surgical place" requiring constant healing. The possibilities of the border, both a corporeal and territorial confinement, are variously performed: these range from squatting inside houses built on the remnants of industrial wastes to, in some cases, trying to run away, possibly with the help of coyotes like Concha, who helps pregnant women steal across the border in safety so that they can give birth in a U.S. hospital. The sex industry, by now a structural component of the global economy, also flourishes here, often because of the women's need to produce additional income. This has gradually led to the emergence of an entertainment industry that addresses women as autonomous consumers of leisure activity, affecting their relationships and impacting on their role in society. At the same time, however, sex work remains the only possibility that young women living in this area have to make ends meet if they are not educated enough to enter a *maquiladora* or lack the references to work as *domésticas*.

In this as in the other videos, Biemann uses what Volkart (1999) has called a "flow discourse," a fluid aesthetic technique with the camera constantly moving between subjects and places, exhibiting a shifting position in order to be able to follow the many streams of mobility. The sequences are frequently shot from a moving car, and some of them are slowed down, out of focus shots. This fluidity, however, does not coincide with linearity. Rather, it breaks into multiple voices, images and perspectives, which are shown next to each other (in split-screen), inside each other (the use of multiple windows), over or under each other (the shift between perspectives from above and from below). These displacements include the video essayist's position too, when Biemann alternatively speaks off-screen or writes her "working" notes over the image. All these techniques, achieved for

the most part at the editing stage, create sutures that subtract the video essays from the logic of both authorial and spectatorial comprehensive vision. In fact, these video-cartographies are figurations of the “grey areas in-between” that the activist Bandana Pattanaik refers to in *Remote Sensing*: it is in these zones that the video essay captures the otherwise invisible flows of the “geographies of survival” (Biemann, 2007) and returns them to visibility.

The imagination travels, and so do people, who cross real and virtual borders thanks to, and often notwithstanding, the production and consumption of ICTs. Biemann’s figurations, unlike traditional maps which are reliable in that they depict borders and clear lines, contemplate more nuanced, shifting perspectives that do not rely on the transcendent logic of binary optics. Working as performative and transformative tools, they allow us to look across the partialities and disjunctures of the global connectivity narrative, exposing different connections between the asymmetrically interrelated positions of transnationality. Biemann (2008) appeals to an ecology of visibility, which parallels the call of feminism for an ethics of geospatial practices (Kwan, 2007; see also Le-Phat Ho, 2008; Pavlovskaya & St. Martin, 2007; Propen, 2006; Schuurman & Pratt, 2002; Sui, 2004). She believes in a “sustainable representation” that does not simply reproduce or reflect an external pre-existing reality but reveals itself as an instrument of interpretation and navigation, disclosing the various ways in which geography “takes place” together with the acts of observing its taking place (Huber, 2008, p. 173). This entails taking into account alternative uses of both space and (its) representations, where various forms of agency, including critical agency, are seen as contributing to the geopolitics of social formations and their discursive practices. It also requires that these images keep their generative force open so that the possibilities of other social actors in the field are not exhausted by the artist’s gaze (Biemann, 2008, p. 91) but, on the contrary, emerge through its declared partiality.

4.3 A Situated Feminist Reading of *Turista Fronterizo*³³

Long before the need to reconceive our sense of place and space more fluidly in the current debates about new technologies and time-space compression, feminist theorists (see Massey, 2005) have shown the dangers of thinking about places and identities as stable and fixed locations. For instance, the consideration of place as home, frequently conflated with the feminine, has revealed itself to rest on particular gender and power relations whose boundaries have in turn been strictly defined according to such a conception³⁴ (see also Shields, 2006). Massey (1994) notes that the characterisation of place as home usually comes from those who have left, whereas it would be much more interesting to see how often this idea takes shape around those who have been left behind to personify the subjects who do not change, and who are not even allowed the desire of mobility. In her renowned essay on Impressionist women painters and the spaces of femininity in late nineteenth-century Paris, the feminist art historian Pollock (1988) focusses on the asymmetries of being a man and being a woman in that epoch and how “the social structuration of sexual difference” would, in turn, influence the way women were painted in relation to space (pp. 247–248). Taking into consideration the imaginary of the painters Berthe Morisot and Mary Cassatt, she examines three distinct kinds of space: space as location, or the kind of space represented as the scene of paintings, mostly private domestic spaces where the bourgeois woman’s everyday rituals take place; space as the spatial order within paintings, that is, the formal composition of space, the way space is divided and boundaries are staged in order to demarcate specific and distinct areas for femininity (inside) and masculinity (outside), as well as a tendency to compress figures into the foreground, conveying a sense of proximity and intimacy with the scene depicted; and, finally, space as “the social space from which the representation is made,” including “the

³³ A version of this section, with minor differences, was published in Italian as Timeto (2008c).

³⁴ For an example of a feminist conception of a political coalition which does not rely on the idea of incorporation and appropriation and which is opposed to the notion of home, see Mohanty (2003). See also Iris Marion Young’s (1990) idea of a community which does not deny differences in its inclusive constitution.

reciprocal positionalities” (p. 252) this implies in terms of production and consumption, authoriality and spectatorship. This approach allows her to show how the kind of Modernism that has become canonical is one that has established itself on a set of gendered practices organised around a number of key “markers.” These markers, that is, leisure, consumption, spectacle and money, help Pollock map the multiple, interrelated axes along which different experiences of space can be (or cannot be) made, according to gender, class, and other historical divisions. So, for example, if the figure of the *flâneur* embodies the privilege of mobility inside the modern city, a feminist correspondent has never and could not have existed in the same terms (see Shields, 2006).³⁵

One of the main polarities of Modernity, the one between the security of fixed locations and the freedom experienced by those who travel, frequently resurfaces in our globalised context (Kaplan, 2002), albeit on a wider scale. In fact, whereas Modernity was grounded on a metaphysics of presence which produced a “hypertrophy of the perception of *where*” (Stone, 1995, p. 90)—the Modern subject, considered as the true site of agency, should always be locatable in order for the law to function—the employment and development of new ICTs, the changes introduced by a post-capitalist transnational economy, and the emergence of postcolonial subjects seem to delineate a completely different scenario. Inflated hype about disembodied mobility, combined with a utopian universalism, prevails in many current discussions of new technologies; on the other hand, mainstream postmodernist rhetoric continues to rest on a spatial vocabulary that conceals a kind of nostalgia behind the search for lost roots and stability (see Chapter 2). These apparent contradictions emerge because the proliferation of symbolic exchanges of many postmodernist theories does not take into account that, even though the positivity of the *here* has disappeared, this does not mean that the *whereness* has vanished too (Haraway, 1991a; Stone, 1995). This is why, for example, mobility cannot be equal for everyone, but

³⁵ For a slightly different approach, see Bruno’s (2002/2006, Chapter 4) discussion of the figure of the nineteenth-century travel lecturer Esther Lyons who, although from a privileged position, attempted to wear the mask of the explorer in order to expand the horizons of contemporary femininity.

there are different kinds of mobility depending on where one is, can or wants to be located; some forms of mobility, however, are usually unaccounted for or cut off from the most glossy global scenario (see Braidotti, 2006; Kaplan, 1994).

Some feminist thinkers, however, according to Soja and Barbara Hopper (1993), have revitalised spatial vocabulary, working to avoid the double bind of the place-boundedness/placelessness dichotomy and to try to account for a pluralised idea of mobility without dismissing embodied materialities. Wolff (1993), for example, notes that there is an intrinsic, although problematic, relationship between travelling and the construction of masculinity and that, nonetheless, women are also interested in destabilisation—of constraining codes, ideologies and boundaries. The important thing is, she continues, that we always keep in mind that “destabilizing has to be from a location, and [that] simple metaphors of unrestrained mobility are both risky and inappropriate” (p. 191).

Actually, all metaphors have their centre and create their marginality, so that we, to paraphrase Wolff (1993), are not on the same road together. Consequently, it is much more helpful to theorise travel and mobility not in binary opposition with location and stability, but as a dynamic relation occurring in a complex field within which transnational postcolonial subjects trace their multiple itineraries. Here is where a situated feminist perspective emerges. According to the feminist politics of location,

Thinking may not be topologically bound, especially in the age of the global economy and telematic networks, but this does not make it ungrounded. Postmodernity as a specific moment of our historicity is a major location that needs to be accounted for. [...] A location is a materialist temporal and spatial site of co-production of the subject, and thus anything but an instance of relativism. Locations provide the ground for accountability. (Braidotti, 2006, p. 29)

The instrument to account for such a multiplicity is a politically informed cartography which embeds critical practice in a situated perspective, avoiding generalisations and abstractions. A situated cartography cannot exist as a closed, separate system of representation, nor does it portray a single truth; it remains open to different social

dynamics and possibilities. In this sense, a project of situated political aesthetics, such as that of feminist politics, is not only descriptive, but above all transformative. In this respect, cartographies cannot be employed as classical metaphors but rather as figurations in the sense I have delineated throughout this thesis (Braidotti 2002a; Haraway, 1991a). The interactive topology that Fusco and Dominguez propose with the game discussed below succeeds in accounting for an existing reality without closing it into a grid abstracted from the often contradictory dynamics of historical and social processes. Moreover, the artists show how interactions occur not only at the level of the game, between the player's position and the virtual dimension he/she enters, but already at the level of "reality" itself, so that every cartography must be sufficiently (and honestly) provisional to follow the shifts and drifts of the ongoing material and imaginary dynamics. As Denis Wood (2006) affirms, when contemporary artists employ counter-mappings,³⁶ they reject the authority of the map to work normatively as a confirmation of the status quo and, rather than using them as "descriptions of the territory," they employ them as "descriptions of the behaviors linked through the territory" (p. 8). Moreover, as Holmes (2003) notes, whereas mapping was traditionally adopted as a rational, cognitive tool—as the case of Jameson's (1991) quest for a cognitive mapping of the present still testifies (see Chapter One)—it acquires an effectivity that is also a political one only when "it actually transits through the 'great global multinational and decentered communicational network' in which we are individually and collectively caught—both as moving targets and as potential actors."

Turista Fronterizo [Figs. 4, 5] is an online board game that Fusco and Dominguez created together for the fifth edition of the *InSite* exhibition, a project developed since 1992 between San Diego (California) and Tijuana (Mexico) to reflect upon the ideology of the border. Fusco is a New York-based artist, performer and curator whose work focusses on

³⁶ Counter-mapping is a practice that Wood dates back to the late 1960s and which gained authority during the 1990s, in parallel with the increasing digitalisation of mapping and democratisation of its techniques.

gender and ethnic identity, primarily in relation to representational techniques and visualisation technologies. Among her books are *English is Broken Here: Notes on Cultural Fusion in the Americas* (1995) and the catalogue of the exhibition *Only Skin Deep: Changing Visions of the American Self* (2003) that she curated with Brian Wallis about the rise of a multiracial America. She was also one of the founders of the mailing list *Undercurrents*, founded in 2002 to reflect upon cyberfeminist issues in a postcolonial transcultural perspective (it is no longer online). Dominguez is a former member of the *Critical Art Ensemble* (CAE), co-Director of *the Thing* (thing.net) and founder of the EDT and the *particle group*. He is currently Associate Professor at the Department of Visual Arts at the University of California, San Diego, where he has also worked at the CalIT2 (California Institute for Telecommunications and Information Technology, calit2.net) since 2000. He and his collaborators are renowned for *Electronic Civil Disobedience* (ECD),³⁷ a practice by which the EDT transforms the Net into a site of political action rather than using it merely as a communicative tool. The artists underline the simplicity of their game,³⁸ which uses basic html and has very few instructions. They state that the model, apart from the well-known original Parker Brothers game of Monopoly, especially its Mexican version *Turista*, is *The Game of War* issued by Guy Debord together with his wife, Alice Becker-Ho, in 1987; besides, the idea of playing a game to live a shared collective experience is derived from surrealist experiments, such as the *cadavre exquis*, although technically speaking *Turista Fronterizo* must be played alone, through “point and click” interaction with the screen. Here is what Fusco and Dominguez (2006) claim:

³⁷ ECD works through a simple application which allows the participants to set up an automated reload request every few seconds against the home page of the institution under attack; it reaches its utmost efficiency in a short period of time, creating an informational gap which renders unstable the institution that is the object of attack, thus allowing a momentary reconfiguration of power relationships. The inaugural Floodnet took place on 10 April 1998 following the Acteal (Chiapas) massacre of 1997 in which 45 indigenous people were killed. It was directed against Mexican President Zedillo and in support of the Zapatistas, who were already using the Net for their fight. Many other virtual sit-ins have been organised by the EDT since, including one protesting the ongoing femicide in Ciudad Juárez (August 2002) and a more recent one (March 2008) against the Nano/Bio War Profiteers, on the occasion of the 5th anniversary of the Iraqi war.

³⁸ Available online at <http://www.thing.net/~cocofusco/StartPage.html>

We propose to create a game that allows people from many walks of life and from many different places to “take a trip” through the border zone by playing our game, and to step into the roles of others around them who they might see regularly but never speak to. At the same time, by identifying the ways that pre-fabricated identities shape experiences in the game, we seek to show how forces outside the control of individuals, whether they are geopolitical laws, the rules of a game, or the entrenched structures of feeling of a given community, delimit the scope of one’s experience.

Let us compare the apparent similarities of *Turista Fronterizo* and Monopoly: in both games, players advance around a board by rolling dice, and each player has an amount of money that he/she can increase or lose completely while playing. In both cases, he/she can also go to jail, depending on the incidents which occur during the game. However, unlike Monopoly, which has “chance squares,” in *Turista Fronterizo* the player jumps into “nightmares” and “dreams.” And whereas the Monopoly game is made of properties that can be bought, sold or rented, and that determine the value of any space (mirroring capitalist economy), the *Turista Fronterizo* squares, which are named after existing places too, can only be, so to speak, *activated* by performing different experiences.

The game is structured around three main elements, which can apparently be organised around binary divisions, among which the U.S./Mexican border is the originating one: while playing the game, the participant discovers that these divisions blur and overlap much more than they initially appeared to. These elements are: 1) *space*, intended as the represented geographical zone (the existing U.S./Mexican border), as well as the representation of space in the form of a particular kind of map; 2) *the character*, outlined as the stereotype of a gendered identity with a specific socio-cultural background, who *activates space more than acting in space* according to precise dynamics of power and resistance; 3) *the player*, who plays one character at a time and who actually meets the character in the counter-space of the game while putting into play his/her own position too. The geographical territory in which the game takes place is the border zone between Tijuana and San Diego. It is an extremely meaningful place to represent the condition of the global transnational economy, like the factory town was during the Industrial

Revolution (Fusco, 1998); this export processing zone, like many others around the world, is a highly performative place, discursively and materially constructed. The majority of the labour-intensive operations that assure a free-trade haven for capital mobility are located here. The assembly lines of the *maquiladoras*, which employ a mostly young female workforce, produce the electronic components necessary for the information and communication industry, and at the same time they widen the gap between the materially bounded immobility of the producer and the promise of flight for the consumer, which goes hand in hand with the rise of the flexibility of the economy (Biemann, 2003b; Fusco, 1998). Although reality is much more nuanced, the subalternity of the workforce continues to be built on a feminisation of labour which rests on traditional stereotypes, ignoring the deep changes that have occurred in these women's roles in recent decades.

Fusco and Dominguez choose to represent this border zone as a sort of map in the form of a game board. The choice of the game form is particularly important: fundamentally, a game is based on a set of rules which must be applied in order for the game to work correctly. The player, however, does not simply apply all the available rules; he/she also makes some choices depending on the strategy or the tactic he wants to adopt. Walking through the squares, he/she actualises possibilities (of space and of the game) which imply the existence of differential relations (see de Certeau, 1980/1984; Kwon, 2002).

Fusco and Dominguez also refer to the Situationist approach of Debord (1958/1998). And even though they look at the tactical game Debord invented as his version of the *Kriegspiel*, we cannot ignore the maps with which Situationists worked. There exists a series of maps of Paris created by Debord in the late 1950s which were shown at "The First Psychogeographic Exhibition" in 1957. Based on Situationist psychogeography, they represent the effect of the *détournement* on the urban tissue. Situationist psychogeography is a hybrid approach, half play and half urban methodology, aimed at deconstructing the codes of a territory through the creation of new connections and disconnections between the physical and architectural structures and the rational or emotional representations that

people can have of them. By means of drift (*dérive*), defined by Debord as a “ludic-constructive behaviour that differs from the classical concepts of journey and walk in every respect” (p. 56, my translation), space is experienced as fluid and discontinuous, until the pre-set marked boundaries, which progressively vanish through the drift, tend to disappear completely. According to the Situationist approach, the *détournement* cannot be conceived of as an interpretative frame, but only as a *use* of already existing elements which have to be displaced and recombined.

If we try to combine the Situationist approach with a situated feminist perspective, we notice that in both approaches space cannot be mapped from the outside, but can only be practiced according to specific forms of orientation (Kirby, 1996, p. 53). The significance of a place derives from the intersection of different trajectories that draw different *power geometries*, whose lines and borders, even though they surely exist, are not natural and can thus be crossed and differently signified. These power geometries do not depend only on economic or technological factors, but must also include variables such as gender, class, age or ethnic origin, all linked with history as well as location (Massey, 1994).

The *Turista Fronterizo* board is organised so that each side groups different areas of activity. The corners of the board represent the detention camp, the border checkpoint, the lottery and the jail. With a few exceptions (that is, the pharmacy), the left side mainly includes leisure places, such as the nightclub, the mall, the hotel, the stadium; the upper side contains institutional places, such as the consulate, the police department, the U.S. Drug Enforcement Agency (D.E.A.). On the right we find many multinational factories and, in the bottom side, collectives and local groups. Incidentally, the representation of the factories, in which primarily technological components are assembled, unmasks the “formalist fixation” of many new media designers and consumers—artists included—which “obfuscates the political and economic realities out of which digital media and telecommunications emerge. Far from being decentralised businesses, the electronics,

electrical components, and electrical industries are among the top ten most monopolistic industries on earth” (Fusco, 1998).

As we have already said, the player can choose from four roles and, depending on which s/he chooses, s/he may play in English or Spanish. Bilingualism, like the border, can be a very tricky notion, one that can be used for either progressive or reactionary scopes, depending on the context; but it also allows the player to assume the Other’s position from the inside, decentring her/his own self and experiencing the tour as linguistic and cultural as well (Gomez Peña cited in Fusco, 1995, p. 156). The possibility that the participant has to choose his/her role is very limited, but this is not accidental. On the one hand, as the artists state in the proposal text for the exhibition (Fusco & Dominguez, 2006), these prefabricated identities bear on themselves some external constraints which limit their experiences. On the other, the possibility of playing all the roles puts the player in the privileged position of simultaneously being the one who “knows the rules” and the one who experiences them. This means that he/she can stay both inside and outside, but it also means that, if he/she stays outside, he/she cannot go through the different places, but only *look* at them. The immobility of the stereotype can only be disrupted once the player’s position is mobilised too.

Let us now consider the four characters in greater depth. The two women are the Spanish speaking *Todologa* and the American *Gringa Activista*. The first, aged 23, does not have a stable job but does whatever she can for a living. She does not own a car, but uses only public transportation, and at the beginning of the game she is the one who has the smallest amount of money, a mere \$1,000. The *Activista*, who is 30 years old and travels in a Volkswagen Bug, is an anthropology student. She starts the game with \$10,000. The two male characters are the *Junior Huevón*, (that is, “dude”), a 25-year-old who travels in a G500 Mercedes and starts with \$50,000, and the Binational (although definitely American) Businessman, alias the *Gringo poderoso*, aged 47, who is the most economically privileged among the characters, starting with \$300,000, and travels in a Lexus Sedan. Each of the

characters pass through the same places, but their condition, interests and experiences are completely different; and even though none of them directly meets the others, we can see how their actions are interrelated. To give a few examples, in the leisure zone, the *Todologa* easily finds occasional low-paying jobs, usually as a housecleaner or as a dishwasher. She also risks being employed in the sexual market or being accused of robbing tourists and sent to jail.

On the other hand, the *Huevón* and the *Businessman* spend most of their money here to buy drugs, alcohol and private dances at the Bambi Club, even though for completely different purposes: for the *Businessman*, leisure activities are often instrumental to his work. In the institutional section, the *Todologa* lives under constant fear of being discovered in possession of the false documents she needs in order to cross the border, or she tries to get a visa (we can suppose that she needs it to find a job) for which she pays a lot of money considering her scarce income and resources. She also risks being detained and interrogated for days and losing her job when suspected of being the maid of a wanted drug dealer. The *Activista*, who posts her stickers with political slogans everywhere and tries to take pictures for her documentary—for which she bribes the police—wants to cross the border too, but in order to investigate and collect interviews and documents. For the *Businessman*, who can freely go from one side of the border to the other—he enjoys a bi-national status, although he is clearly American—the border is a place where he can make money and increase his power: he either pays bribes to get things moving and obtain the permits he needs to expand his factories and properties, buys public land thanks to his contacts with powerful people, or takes part in important meetings with local authorities who can secure for him what he needs.

In the area in which assembly plants are located, the *Todologa* lives the typical experiences of the *maquila* worker: she is denied her rights, is forced to take contraceptives, spends money on medicines for her boyfriend who has been beaten during a workers' protest, and also risks falling ill due to the factories' harmful fumes. Before the damages provoked by

the industries to the health of the local population, as well as water and land pollution caused by toxic waste, the *Todologa*, who is socially weak but an aware subject, tries to react and participates in meetings where she can obtain information and organise local activities; the *Activista* draws the attention of non-profit organisations and collects information as proof, while the *Huevon* does not have any political stance and reacts jokingly to the workers on strike or is irritated by the obstacles the protests can cause for him.

The *Businessman*, on the other hand, prepares his strategies to move his non-productive factories elsewhere, secures contracts and deals, devises marketing plans for military devices, corrupts lobbyists and lawyers, scares those who dare to protest, and holds press conferences to deny his responsibilities for workers' health. As regards his relationship with the local collectives, he can occasionally spend money to make donations in order to save face, or he can pay media consultants to slander his adversaries. It is no surprise that his worst nightmares are that the value of his stock drops when his company is investigated for dumping toxic waste, or that "Doctors without Borders" accuses his electronics factory of causing lung cancer.

From these few examples, it should be clear how the player, interacting with the character, ends up experiencing the character's experience of space, overlapping with his/her positions and projections, so that neither of them is left unchanged at the end of the game. The usual immersive dimension of virtual reality is in some way turned upside down by a counter-immersive move that pushes the player towards the experience of an embedded and embodied materiality (see Foucault, 1984/1986). This space of relation is neither homogeneous nor empty, but filled with networks of relations delineating sites and countersites. While this mutual back and forth movement dismantles the ontology of the real, it also gives place to that movement of extroversion which is necessary to understand the assumption of one's own position. What results at the end of the experience is a reciprocity in the formation of space, the character and the player, where space, visibly

represented as the border zone in the form of a cartography, is signified by a set of enacted relations.

Fusco and Dominguez intend to show the border as an open figuration (see Haraway 1997), one which is not reified or fetishised by the cartography offered, but rather one that is constantly produced and transformable. Similarly, since this kind of map cannot pre-exist its various readings, Fusco and Dominguez do not provide us with yet another interpretative code, but rather with an approach that, while accounting for its modes of production, allows flexible interpretations and new operational attitudes.

The representation of space and the practice of space converge in an interactive processual topology very similar to what Vincent Del Casino and Stephen Hannah (2006), drawing on the tradition of critical cartography and ANT, have called *map spaces*, spaces where disjoining “representations from performances” (p. 44) becomes impossible: “map spaces are always partial and incomplete, contested sites where the collisions of various identity and subject positions blur the boundaries of center and margin” and where the “maps that people simultaneously make and use mediate their experiences of space.” (p. 44). A concrete idea of connectivity replaces an abstract one: maps, like places, actually work because they are practiced and performed, which gives more importance to the actions among the nodes than to the nodes themselves (see Latour, 2005). It is in the reciprocity between the player, the characters and their locations that space, represented as a generative figuration, is signified by a set of possible relations, always ready to become *some/thing-where* else.

4.4 Performing Technologies for Performed Territories. Reconceiving Locative Media Art

Although *Turista Fronterizo* is an html game, thus falling more properly under the category of Net Art, it foregrounds a politics of location whose counter-immersive move pushes the player towards the experience of an embedded and embodied dimension, like

much locative media art does. While sharing a very similar approach to space and location, the work discussed in this section, *The Transborder Immigrant Tool* (TBT, 2007-), developed at University of California, San Diego, by Dominguez along with other members of the EDT (Brett Stalbaum, Micha Cárdenas, Jason Najarro and Amy Sara Carroll) is also, technically speaking, a locative media artwork, being a mobile phone equipped with a GPS receiver and a specifically designed piece of software [Fig. 6]. The aim of this walking tool, working like a compass, is to help migrants orient themselves among several aid stations so as to safely trespass the U.S.–Mexican border without being detected. Before considering the TBT more in detail, however, I want to focus on how locative media arts work inside contemporary geomediality. It is my intention to determine whether the approach that locative media have to location can be considered as situated by definition, or if other factors intervene in the way location is conceived and approached when locative tools are employed.³⁹

Geolocalised information and communication today have become not only the content but also the context—pervasive and surrounding—of our interactions (Gordon & de Souza e Silva, 2011). Electronic media have created a dissociation between physical and social place, profoundly changing the way we define and experience situations and our situatedness in them. As Rowan Wilken (2005) puts it, “networked mobility prompts renewed consideration of the ‘where’ of everyday places by forcing us to reflect in our apprehension and comprehension of them in transit.” This goes hand in hand with the perception of a different *a-whereness*, to use Thrift’s (2008, p. 166) expression, which corresponds to an environmental understanding of the pervasiveness of technologies in the interstices of our everyday life: animals, humans and machines are all caught up in a hybrid continuum made of extended and active environments sharing different processes of

³⁹ Some of these reflections were presented at the 12th Consciousness Reframed International Research Conference at the Centro Cultural de Belém in Lisbon, December 2011 and subsequently published as Timeto (2011b).

“mattering,” made of both distributed “intelligencing” and affectivity with the entities inhabiting them (p. 166; see also Grusin, 2010; Parikka, 2011).

Drawing on the recent analysis of Tristan Thielmann (2010), who adopts the term “geomedia”⁴⁰ to name the current entanglements of media and geography, we can affirm that we live in a geomedia environment today. This means that the end of space, which has been feared for so long and has commonly been attributed to the “advent” of information society, should rather be intended as a transformation that interests places and media at the same time, giving rise to media that appear to be increasingly located and localities that become more and more mediated. Locative media include the information and communication environments and practices that work through location-aware technologies, such as GPS, RFID, wireless networks, ubiquitous computers, smartphones and wearables, and that can be accessed from either mobile or fixed technologies—although the locational aggregation of data is only foundational of mobile applications (Gordon & de Souza e Silva, 2011, p. 11).

The wide availability of locative technologies and free and open source software (FOSS), together with new forms of digital cooperation such as crowdsourcing (Crampton, 2009), mark the end of “the desktop phase” of computers and the emergence of a geospatial Web or, as the writer Neal Stephenson’s (1992) has put it, the transformation of the whole earth into a “universal desktop.” This “return” to location, however, is far from a simple retrieval of the local, contextual dimension which has supposedly vanished amid electronic flows: in fact, besides opening up a different scenario for contemporary subjects in terms of new affordances and constraints, the geospatial aspect of locative media casts the two poles of this renewed debate—the presumed concreteness of location and the presumed abstraction

⁴⁰ The use of a term such as “geomedia” denotes the impossibility of considering locative media and mediated localities separately as well as the fact that the spatial turn of media studies has been accompanied by a substantial media turn in geography which has, for example, produced such neologisms as “Neogeography.” This term defines the diffusion and employment of locational applications beyond the field of professional geography, so as “to include experimental and artistic practices that come ‘from the outside’” (Haden, 2008; see also Cerda Seguel, 2009).

of information—in a more complex, entangled scenario that forces us to consider both places and technologies of location as intertwined from the very beginning.

In this respect, some identify this blurring with a shift from cyberspaces to hybrid spaces (de Souza e Silva, 2006); others foreground a passage from virtual reality to the reality of the virtual (Grusin, 2010). In any case, what many scholars highlight are the entanglements of planes that were previously kept apart, the domains of the material and the digital, now seen in a relation of coimplication in which information unfolds in matter just as matter continually performs code. Each time geomedia renegotiate place, they do not do so because they alter the traditional essence of place, assuming that one ever existed, but because they open up traditional interpretations of place. Geomedia performances require that we conceptualise place in a different manner, according to different functions, but not as if place had either assumed a new form or recovered an old one.

Lemos (2008) has, for example, coined the term “informational territory” to describe the way digital flows of information create new functions for the social practice of places, rather than new places intended as forms (see Chapter 1). In their most recent book, Rob Kitchin and Martin Dodge (2011) define such spaces as code/spaces, which occur whenever software and spatiality are mutually co-constituted (p. 16). This renders socio-spatialities less static (allowing for a conjoined consideration of location and mobility) and also more temporal, as “a set of unfolding practices that lack a secure ontology” (p. 16), but rather possess an ontogenetic quality. Spaces are continually remade through performative practices, and so are sociotechnical relations. The performativity of code/spaces is not intrinsically predetermined, but depends on the way different subjects experience and operate them through their interactions.

Location is a fundamentally mediated and unstable concept. Accordingly, all technologies can be said to have always been locative, just as all places are and have always been informationally mediated. All our media function as “global positioning systems” in this respect (Meyrowitz, 2005, p. 24). Apart from the novelty of the manifold digital

applications that characterise locative tools, location-based media cannot only be considered under the lens of their novelty: firstly, because all media, including those for which distance and immateriality apparently play the dominant role, such as satellite technologies, are locatively produced and consumed, part of an ongoing process of negotiation and recombination; secondly, because even what goes under the name of locative media today must be considered in a relation of convergence with many other media and existing mediated and mediating practices (Bolter & Grusin, 1999; Parks, 2005; Poster, 2004). As Sassen (2002) puts it:

Hypermobility and dematerialization are usually seen as mere functions of new technologies. This understanding erases the fact that it takes multiple material conditions to achieve this outcome. Once we recognize that the hypermobility of the instrument [...] had to be produced, we introduce non-digital variables in our analysis of the digital. Obversely, much of what happens in electronic space is deeply inflected by the cultures, the material practices, the imaginaries, that take place outside electronic space [...]. Digital space is embedded in the larger societal, cultural, subjective, economic, imaginary structurations of lived experience and the systems within which we exist and operate. (pp. 368–369)

What otherwise get missed are the epistemological and political issues related to media as historical and cultural practices rather than solely as sets of devices (Parks, 2005).

Moreover, although the definition of locative media is, strictly speaking, related to the adoption of locative digital technologies, not all locative media projects necessarily rely on a situated approach and, conversely, locative technologies are not *stricto sensu* the pre-condition for a locative use of information and communication technologies. It follows that the definition of locative media, and locative media arts as well, can be extended or narrowed down indefinitely, often depending on which notion of location it presupposes. The aesthetic theorisation of locative media, as well as its definition, is a relatively recent one.⁴¹ Coined by Karlis Kalnins during a workshop in Karosta, Latvia, in the Summer of 2003, the term broadly denotes artistic uses of location-based media as opposed to their

⁴¹ However, at the time of writing, a panel at the 17th ISEA conference in Istanbul is taking place which is focused on what comes after locative media arts. The presenters wonder if locative media as a category died once locative media permeated our spatialities so extensively that any definitional problem is useless, unless it is accompanied by different spatial practices of distributed participation. The panel is entitled “Beyond locative: media arts after the spatial turn.”

corporate applications (see Crow, Longford, Sawchuk, & Zeffiro, 2008). Actually, “the locative case, in Finnish, roughly corresponds in English to the *preposition* ‘in’, ‘at’, or ‘by’, indicating the types of proximity or relationality that we have to a given territory” (Crow et al., 2008). The term, then, does not merely regard the technical possibilities of mapping and localising that are permitted by locative devices, but also the practice of places in their performative and embodied dimension. Artistic interventions employing locative media range from tagging, geoannotation and storytelling, which can be grouped under the umbrella of “experiential mapping” (Bleecker & Knowlton, 2006), to wearables, games and theatrical events. In the introductory essay of the *Transcultural Media Reader* (2006), Ben Russell, who incidentally is the author of *The Headmap Manifesto* (2001)—considered the first manifesto on locative media (see Tuters & Varnelis, 2006)—notes that locative technologies are not merely hard devices but also encompass a metaphorical dimension in which new places of thinking, seeing and doing are activated at the same time. As Drew Hemment (2004) synthesises, locative media “uses portable, networked, location aware computing devices for user-led mapping and artistic interventions in which geographical space becomes its canvas.”

From the very beginning, however, the definition of locative media appears to be imbued with vagueness and ambiguity, being also frequently attached to ubiquitous computing and smart or augmented environments. Looking through the introductory essay of the *Transcultural Media Reader* (Russell, 2006), locative media seem, on the one hand, to indicate a new conceptual framework within which to discuss changes of consciousness in relation to virtual and real places happening by means of (not necessarily new) information and communication technologies; on the other hand, they delineate a new critical area in which the hegemonic uses of locative tools can be analyzed in order to tactically utilise their possibilities for creative and user-oriented purposes. Because the political assumption of this second aspect has not always been pursued, especially since locative media arts

easily find commercial funding and application (see Lemos 2008; Tutters and Varnelis 2006), it is on this issue that I focus here.

Obviously, as Hemment (2006) himself highlights in the first comprehensive essay on locative arts, all art has always dealt with location in varying degrees, starting from the relation of the artwork to its context of production and consumption (see also Gomes, 2006). However, some artistic movements more than others have deployed an aesthetics of location rooted in a politics of situational engagement entailing different dynamics of situatedness and mobility: we need only think of the counter-cultural practices dating back to the late 1960s, often based on a performative dialectics between mobility and site-specificity, such as Performance Art, Arte Povera, Land and Earth Art and, last but not least, the Situationists' psychogeography experiments. Many of these practices showed how a place could be initially mobilised and accessed via the circulation of information and communication, which in turn would allow its reappropriation by different social subjects.

Whereas it is with the site-specific installations of Minimalism that a stress on location started to question the abstraction of Modernist sculpture, it was only in the late 1960s and early 1970s that site and context came to be conceived in social terms, inside a broader institutional critique made by such artists as Daniel Buren, Hans Haacke or Mierle Laderman Ukeles (Kwon, 2002). This also ended up problematising the initial definition of site, causing what Miwon Kwon calls the "unhinging" of site-specific artworks (p. 30).⁴² Such unhinging remains rather ambiguous, though, as does the embeddedness of locative media practices, because both tendencies reflect how the same locative media can be employed either for corporate and commercial uses or for user-oriented and "bottom-up" purposes (Hemment, 2006; Townsend, 2006).

⁴² "The artwork is becoming more and more unhinged from the actuality of the site once again—'unhinged' both in a literal sense of a physical separation of the art work from the location of its initial installation, and in a metaphorical sense as performed in the discursive mobilization of the site in emergent forms of site-oriented art" (Kwon, 2002, p. 30).

However, locative media can be used not for pinning down but rather for opening up when contesting the top-down approach of conventional cartography to open up a manifold of different ways in which geographical space can be encountered and drawn, as well as appropriating and refunctioning positioning or tracking technologies (Hemment, 2004). Anthony Townsend (2006) identifies in the bottom-up approach of locative media their tactical character:

in a sense, one of the main tenets of the locative media movement seems to be that location-aware computing should illustrate the complexity and richness of culturally constructed space. This is in stark contrast to the top-down forms, which largely seek to circumvent such “obstacles.” (p. 346)

Generally, locative media arts are supposed to manifest a return of the digital to its historical and geographical embeddedness (Sassen, 2002), contrary to many assumptions about the artistic autonomy of Net Art (see Tuters & Varnelis, 2006).⁴³ However, somehow contradictorily, locative media arts also actualise the experiments with communication and information of many conceptual artists of the late 1960s and 1970s,⁴⁴ in which locative tools—let us think of maps and grids—were often used to advocate for the objectivity of the work of art and thus banish any spatio-temporal contingency from it (Fusco, 2004; Pope, 2005). This is to say that the adoption of locative tools does not always originate from or lead to situated accounts; it can also highlight a dimension in which a traditional notion of subjectivity, and the spatiality that it reflects, is reinforced rather than disseminated or dislocated, often by way of a fascination with the visual device and the abstract quality of locative objects such as maps.

It is worth noting that, in fact, it is around the issue of cartographic representation that some of the weakest aspects of locative media arts resurface: the unquestioned and reductive notions of scientificity and spatiality that they often presuppose, which leads to a distancing from embodiment and context, the latter existing only as residues of the

⁴³ Even though there exist some exceptions that attest to what has been called the “translocal schizophrenia” of Net Art (Loseby as cited in Wojtowicz, 2006).

⁴⁴ An example in this respect is the work of Douglas Hueber, in which graphs and charts assume a documentary, programmatic character in which chance seems to have no place (Wollen, 1999).

coordinate system; an insistence on a perfect correspondence between image and world, and a tendency towards the assumption of either utopian or dystopian approaches. For instance, a project like *The Degree Confluence Project*, initiated in 1996 with the aim of taking a picture, accompanied by personal narratives, at every intersection of latitude and longitude in the world, although it surely constitutes an attempt to humanise the spatial grid, still rests on its unquestioned objectivity for its deployment (see Pope, 2005). On the contrary, Pete Gomes's urban drawings, which visualise the GPS coordinates of specific places on streets only by means of chalk, imply a more complicated dialectics of permanence and fluidity, including the possibility that the drawings lose their accuracy or even their significance by chance, such as mutated weather conditions, or because of inadvertent human interventions, such as the collection of the garbage bags previously positioned by the artists himself (see Gomes, 2006).

Today, locative media practices, whether based on new technologies of location or on more traditional ones, undoubtedly tend towards new forms of both material and discursive mobility. In part, this happens because of the mobilisation of the experience of space which is linked to the new information and communication technologies and the related dynamics between real and virtual spaces, but this is also clearly related to a complication of the notions of site and location. When Hemment (2004) proposes that we define locative media as “embedded media,” a definition that stresses the pervasiveness of media technologies in all experiences of space, he is also foregrounding the ambiguity of such experiences. Actually, the embeddedness of locative media is part and parcel of their complicity with the power to chart a territory for commercial and military purposes—to cite only two hegemonic uses of locative tools—employing the same locative networks and devices, from mobile phones and RFID, to GPS and GIS.

As Kaplan (2009) reminds us in her analysis of the use of mobile technologies in the Mumbai attacks of November 2008, the neat distinction between an immoral use of technologies by Muslim terrorists and a democratic use of the same technologies by

“multicultural citizens” is untenable, given that “the tension between sovereignty and networks” should be read not so much in “binary” but in “mutually constitutive” terms (p. 304).

The expression “global positioning” should not only stand for the ensemble of locative technologies that rely on geometrical coordinates but also for the very act of mobile positioning that is required whenever a technology is contextualised “between technological uses, knowledge practices, and social positionalities that stretch across national borders,” as Lisa Parks (2005, p. 181) contends. Thus, even locative technologies and locative practices need to be located and approached from a situated perspective because their recourse to location is much less immediately legible than would appear in the first instance. Locative media arts share with other site-oriented art practices a “relational specificity” (Kwon, 2002, p. 166) which keeps open the contradictions between the increasing abstraction of space and the production of particularities of local specificity (p. 159). In this sense, locative media arts assume the complexity of place and its layered dimension are not intrinsically oppositional, but reveal the dialectics implicit in the contradictory spatial dynamics of “embeddedness” and “unhinging.” That is why the politics of location proper to locative media lies in its ability to occupy a paradoxical and contradictory space in which hybrid spaces are performed and opened up from the inside, notwithstanding their ambiguities and complicities with diverse and contradictory networks of power.

Embeddedness, however, also means something else. Locative media do not only work like traditional mapping tools at the level of visual representation. They also work at a performative level, as tools for mobilising a given representation of a territory and thus dismantling several consequential illusions: the illusion that places pre-exist their representations, the belief in an exact correspondence between a representation and the space represented, and the assumption that only one representation can be the objective one and thus has to be commonly shared, acquiring an ideal status *per se*. Conceiving locative

media arts performatively redefines the idea of representation together with that of location. Representation, here, intervenes in the experiences we make of places producing “*patterns of difference*,” to quote Haraway (1997, p. 268).

Performative locative media whose approach is a situated one, thus locative in a broader sense, dismantle the metaphysics of location in a way that territories appear as always-already performed by means of different technologies which continuously configure, prefigure or disrupt⁴⁵ places, either materially or symbolically. For this reason, they usually require an embodied dimension that takes into account “material bodies and substances,” and that “engage[s] in the ambiguity, dirt, sweat and smells of the world” (Hemment, 2006, p. 354). Situated locative media, then, rely on a spatial awareness that often translates into the creation of local communities of involvement, as in the tradition of artistic practices of counterculture of the late 1960s and 1970s (see Russell, 2001), in which many location-aware and spatial-shaping devices, such as maps, mail, telephones, faxes, were used for artistic purposes for the first time. As Hemment (2004) again puts so well:

a politics that is distinct to locative media—a politics of location—is not immediately apparent. Locative media proposes a form of dissent that is “collectively constructive rather than oppositional” [...]. As a descriptive term it would highlight the way in which locative media is embedded not only in geographical space but political and cultural space as well. Locative Media’s political moment might not be *despite* its complicity in mechanisms of domination but *because* of it, residing in the acceptance of the paradox and occupying the ambiguous space it creates, creating a site of resistance by working from the inside.

A clear example of performative locative media that works from a position of “located accountability [...] situating the terms of access to militarist infrastructures and capitalist ventures” so as to “disrupt rather than secure the act of appropriation” (Zeffiro, 2006) is the TBT. Whereas Border Patrol agents can rely on volunteers all over the world watching surveillance cameras set along the border to detect the movements of migrants and report them to the police, thanks to the BlueServo.net program, at the same time and thanks to the same locative technologies, migrants can attempt to trespass the border safely thanks to the

⁴⁵ Hemment (2006), for example, suggests that we speak of *dis-locative media*, based on the geometry of the social rather than the geometry of the grid.

TBT. In reality, the TBT is a cheap Motorola mobile equipped with a GPS receiver designed to help people that are excluded from what the group calls the “emerging grid of hyper-geo-mapping-power” to acquire a “situational awareness” of such a grid (EDT, 2009).

Similarly, the Bangladeshi-born American artist Hasan M. Elahi, detained for nine hours at the Detroit airport with the accusation of stockpiling explosives and investigated by the FBI for suspicion of terrorism based solely on his ethnic origins, turns police control into a lifelogging performance. His project, which is also a website initiated in 2006 and still ongoing, is entitled *Tracking Transience* and explores the border “between society and technology [and] the intersection of geopolitical conditions and individual circumstances” (Elahi, n.d.). Here, Elahi records every insignificant aspect of his life—from meals to credit card transactions—by means of a device similar to the prison ankle bracelet. Each piece of information, which is also visually supported by many pictures, is geotagged and then uploaded to a server that sends the tag to the United States Geological Survey, which returns it in the form of an aerial surveillance image (visible at different scales on the project’s web site). In this way, the artist not only pre-empts control by exposing himself to absolute visibility, but also empties visibility from its hegemonic significance, transforming images into performative gestures.

In between walking art and locative media art, the TBT⁴⁶ foregrounds the differences between and the entwining of bodies and data, material and immaterial flows, artistic wandering and migratory mobility, focussing on the issues of life and death that are involved in the traversing of borders. The artists draw on the idea of *performative technology* as it is conceived by the locative media artist Christian Nold (2009),⁴⁷ as a device used to mediate interpersonal relationships and build a sense of local community, which Brett Stalbaum (2006) echoes in his notion of *paradigmatic performance*. Stalbaum

⁴⁶ This analysis of the TBT is based on Timeto (2009a).

⁴⁷ For his ongoing *Bio Mapping* (2004-) project, participants wear “galvanic” devices that record their emotional arousal in relation to the places they walk in, so that communal emotion maps can be produced.

uses this term to define a technologically-based artistic practice that is not only collectively conceived but also employed for collective purposes, being “*generative of new configurations of practice.*” The performativity of the TBT is markedly political since it is intended to directly improve people’s lives, according to what Dominguez and his EDT collaborators identify as a shift from tactical media to *tactical biopolitics*.

The TBT is intended as both an aesthetic piece and an ethico-political intervention.

Stalbaum has projected a *Virtual Hiker Algorithm* for it, so that the cell phone can be used as a GPS walking tool to mediate the actual experience of migrants trespassing the border. According to Stalbaum, “A virtual hiker is an algorithm that produces computationally derived paths from data in such a way that allows them to be re-followed through the actual world.”⁴⁸ But GPS, here, does not only stand for Global Positioning System; it is also an acronym for Global Poetic System. In fact, the cell phone is also endowed with a set of bilingual poems written by Amy Carroll that starts to play while walking: they are intended to psychologically assist migrants during their crossing and welcome them into a new space of hospitality and solidarity.

Made in collaboration with local collectives like the Border Angels, the project, which is entering its Beta stage, comprises several steps: from the GPS mapping of the coordinates of the border territory, as well as of support networks and anchor points, such as water and food stations, and the development of the specific software and bilingual (English/Spanish) interface,⁴⁹ to the final distribution of the mobile phones to migrants on both sides of the border, who are supposed to return them for further use after reaching their final anchor point. In 2011, on the occasion of the cross-border event *Political Equator 3* that took place at the San Diego/Tjuana border in June, the b.a.n.g. lab (the EDT research lab at Calit2, an acronym for Bits, Atoms, Neurons, and Genes) tested the TBT: the phone was

⁴⁸ This statement was online at http://www.paintersflat.net/virtual_hiker.html. The page is not available anymore.

⁴⁹ They have also created a comic book with the help of a local writer in order to explain how to use the tool in the simplest way possible (personal communication with Dominguez, 31 August 2009).

symbolically walked by artist Marlène Ramírez-Cancio⁵⁰ into Mexico via a tunnel from the U.S. side of the border.

The TBT has been the object of investigation, paralleling the investigation by the Audit & Management Advisory Services at the University of California (UC), San Diego, that followed the virtual sit-in performance of 4 March 2010, promoted by the EDT. The virtual sit-in was launched against the homepage of UC President Mark Yudof in conjunction with UC-wide demonstrations against financial cuts as well as the racist atmosphere of the UC campuses. The virtual strike was accused of violating University policy and thus investigated which, as a matter of fact, caused an investigation of Dominguez, putting his tenure-track academic position at risk. The most important underlying reason was to find out whether the University funds employed for the TBT project were being used according to the motivations of their allocation or in violation of it. A Legal Action Fund was soon created to give economic support to Dominguez, but the charges against him were dropped the following July with the finding that the funds were being appropriately used.

What the activity of the EDT brings to the fore is the problem of the material as well as semiotic transgression of borders. Both the TBT and the practice of ECD, in fact, make transparent the shifting boundaries between theory and practice, art and politics, the material and the immaterial. Commenting on the event, Arthur Kroker (2010) has written that all tactical media are transborder tools in this respect, since they are about transgressing borders, whether of power, economy, territory or gender. Cárdenas (2010), a member of the EDT, on the other hand, drawing on the definition of transversal technology coined by Munster (2006, p. 24),⁵¹ has talked about the technology of becoming in terms of trans-aesthetics.

The EDT (2009) also refers to Sandoval's book *Methodology of the Oppressed* (2000) as a source of inspiration. Her notion of differential consciousness, intended as a performative

⁵⁰ For video documentation of the event see: <http://vimeo.com/24771347#at=0> (last accessed 22 July 2012).

⁵¹ "The transversal can be configured as a diagram rather than a map or territory: directional lines cross each other, forming intersections, combining their forces, deforming and reforming the entire field in process" (Munster, 2006, p. 24).

medium that activates a new tactical space for oppositional praxis (pp. 57–63), which she elaborates in the context of her feminist thought, can be compared to that of performative technologies in the sense used here. Sandoval believes that resistance is only effective when it is differently related to the diverse forms that power can assume, that is, when it is activated through specific tactics which vary contextually. The differential crosses the multiple networks of power devising them also as tactical tools, and thus allowing for a constant rearranging of either material or symbolic boundaries (p. 181; see also Holmes, 2003).

If a map renders a route as a series of visible points that transform “*action into legibility*,” to use de Certeau’s words (1980/1984, p. 97), a performative tool is supposed to do exactly the opposite, re-embodiment readable lines into active practices. Like a linguistic enunciation, walking presupposes a series of differential relations among people using the same space, says de Certeau:

walking affirms, suspects, tries out, transgresses, respects, etc. the trajectories it “speaks.” All the modalities sing a part in this chorus, changing from step to step, stepping in through proportions, sequences and intensities which vary according to the time, the path taken and the walker. These enunciatory operations are of an unlimited diversity. They therefore cannot be reduced to their graphic trail. (p. 99)

Accordingly, the TBT works performatively insofar as it accompanies the migrant along a journey which dislocates the corporate territorialisation of the border zone and performs *bottom-up* tactical functions of the same social and geographical space.

Both the virtual walk of *Turista Fronterizo* and the actual walk of TBT enact a politics of location that foregrounds the performativity of locative media together with the performativity of space. They show how digital space cannot be fully experienced unless it is embedded in the material conditions allowing for its existence and representation.

Conversely, a territory cannot be reduced to a series of geographical coordinates or digital visualisations, but is made of different processes and practices that constantly draw and erase material and immaterial trajectories.

4.5 Unmasking the Theatre of Technoscience: The Cyberfeminist Performances of subRosa

The dislocation that the TBT effectuates happens on a horizontal, anti-hierarchical level, so to speak. It challenges the transcendentalism of the American tradition which permeates much of the contemporary hype about new technologies and replaces it with issues of bare life, emergency and hospitality—in a word, with biopolitics. As Shields (2006) writes, “everyday sites need to be re-thought as milieux interlaced with political and biotechnical processes happening at nano-scale” (p. 217). Proposing a spatialisation of the figure of the cyborg, Shields compares it with the figure of the Modernist *flâneur*, underlining how the cyborg, being a figure of partiality and hybridisation, also moves inside “a virtual terrain of struggle” comprising spaces “of nano- and biotechnology *beneath* the scales at which domination has been understood to operate socially and politically” (p. 218). This, Shields continues, “re-scales the political and breaches the privilege social theory has given to the spaces of the nation, community, family and individuals” (p. 218) which were based on the predominance of a homogenous, unitary social actor. Since the cyborg, according to Haraway’s (1991a) theorisation, does not correspond to the traditional human social actor anymore, it is inaccurate to consider it the site of inscription of biopolitics even in the sense Foucault (1976/1978) intends it, says Shields. The interfacial landscape of cyborgs

operates not at the material level of the body but as a fractal body (e.g. regrowing organs and replacing body parts), at a nanotechnical scale (e.g. manipulating stem cells), with impacts which reverberate up in spatial scale and out temporally as a signal which changes the surrounding milieu. (Shields, 2006, p. 217)

Nor does appealing to a cyborg condition mean transcending the biological plane in the name of a transhumanist project, since this is a position which—although from different angles—is still imbued with a residual idealism, when not an explicit spiritualism, which in turn conceals a unitary idea of human nature (see Caronia, 2008). As Hayles puts it so well in *How We Became Posthuman* (1999), posthuman does not mean the end of humanity, but

only of a precise conception of it. “There is no other distinctive trait, no other possible way to describe ‘human nature,’ if not as an extreme and variable pliability, an openness to the possible, a relational and hybridizing vocation,” writes Antonio Caronia (2008, p. 146, author’s translation).

Such a “distributed” and fragmented body is at the core of the work of the subRosa collective⁵²: a body that cannot be identified along singular coordinates but which manifests simultaneously as the “medicalized body, socially networked body, cyborg body, citizen body, virtual body, laboring body, soldier body, animal body and gestating body” (subRosa, 2011, p. 16). subRosa is a cyberfeminist collective based in the U.S. whose activity dates back to the late 1990s—it is no coincidence that it initially emerged as a study group around Faith Wilding, one of the founders of the first Feminist Art Program at CalArts and a leading artist of the *Womanhouse*⁵³ (1972) project.

The collective creates performative environments that enhance participants’ understanding of the politics and effects of new technologies on our lives, while at the same time providing them with tactical means of resistance.⁵⁴ *Can You See Us Now* (2004), for example, is an installation in which subRosa maps the intersections of both affective and material women’s labour in the cultures of production of the former manufacturing and mill town of North Adams (Massachusetts) and Ciudad Juárez, the same border town on which Biemann’s video essay *Performing the Border* focusses (see above).

Tracking the history of North Adams’s Sprague Electric factory, which boomed with the production of capacitors for civilian and military use during World War II, subRosa follows the transformation of a family business gone global. As a matter of fact, most of

⁵² This section combines, in large part, two prior works of mine (Timeto, 2010, 2012).

⁵³ Judy Chicago, Miriam Schapiro and Wilding, together with a group of female students who took part in the first Feminist Art Program at CalArts, collaboratively worked to restore an abandoned house in Hollywood which, starting in the autumn of 1971, was the theatre of one of the largest scale feminist installations ever mounted (Jones, 1996). For about three months, artists and students worked together at restoring and recreating each space of the house that took the name *Womanhouse*, assigning a specific feminist theme to each room.

⁵⁴ For detailed visual and textual documentation of the projects discussed here, see subRosa’s website www.cyberfeminism.net and their video-collection of selected projects (subRosa, 2005).

Sprague Electric's manufacturing has recently been relocated to Juárez, where the *maquiladora* industry has grown drastically since the North American Free Trade Agreement (1994), instituted to guarantee tax-free zones for foreign owners and investors in cross-border areas. The effects of the global economy on affective labour, manual work, service and care industries, tourist economy, health conditions and reproductive technologies are all randomly mapped on the walls and the "forensic" floor of the subRosa installation, and need to be connected by the visitors. At the same time, this mapping allows another history to emerge: one of solidarity, struggle and resistance, in which autonomous zones such as education and support centres attempt to build another—unfortunately equally silenced—history of the two towns. At the entrance, the installation also includes a map where visitors can pin the label of their clothes to visualise the trajectories of objects in the garment industries and the way these intersect with human mobility [Fig. 7].

When considering the connection between women and technology from a technobiosocial perspective (Wajcman, 2004), gender, bio- and digital technologies appear to be reshaping each other within the current trajectories of technobiopower. The latter is a term used by Haraway (1997) who, expanding on Foucault's (1976/1978) analysis, speaks of technobiopower to analyze the dynamics of production and reproduction of cyborg bodies inside multiple global flows. Foucault stressed the immanent forces, both regulative and productive, that create a coimplication between the discourses of sexuality and the power relations at stake in specific forms of knowledge concerning bodies. Haraway further writes: "all the entities in technoscience are constituted *in* the action of knowledge production, not before the action starts," so that "the discursive production of sexuality" happens "*through the constitutive practices of technoscience production themselves*" (pp. 29, 35). This statement implies two important consequences. Blurring the boundaries between the subject and the object of technoscience, it evidences, firstly, how bodies are always materially, as well as symbolically, *in the making* and, secondly, how science,

rather than being a continuous approximation of essential truth, also engages in “practices/doings/actions” (Barad, 2003, p. 802).

As a way to escape the visual essentialisation of the feminine without being relegated to invisibility and to contest the exclusivity of the established canons of the art world, performance art and performativity have been at the core of feminist art and activism from the very beginning. Performance art inaugurates “another representational economy,” one that does without representation (R. Schneider, 1997, p. 3), transforming the work of art from a fetish into an operational event. Performances are contingent and ephemeral, virtually repeatable but nonetheless always differently situated. Feminist performers experiment with the provisional, un-fixity, deformity and the formless in order to contrast the fantasies that circumvent the feminine body and the work of art, accompanied by the desire to possess them both. Pregnancy, menstruation, dieting, ageing, surgeries, erotic pleasure, violence, rape—everything that shows the passage from integrity to fragmentation, from the closed organism to the liminality of the corporeal, is explored by feminist visual performers.

Performativity is of the utmost importance in recent cyberfeminist practices that “embody feminist content, practices, and agency within the electronic technologies, virtual systems, and Real Life spaces, which we inhabit in our work and lives” (subRosa in Griffis, 2003). subRosa’s “site-u-ational” approach (subRosa, 2004)—which finds analogies in the modes and scope of the “recombinant theatre” of the CAE (2000)—aims at involving the audience to a public debate on such themes so as to counter the “private theatre” of technoscience (subRosa 2003): in subRosa’s works, knowledge is a common experience, not private property; it cannot be bought or possessed, but can only be acquired and disseminated through a practice of sharing.

subRosa employs and remixes high- and low-tech media, paralleling offline activities with online ones in the form of webworks and documentation websites, which in turn work as a locus for further reflection and action. Its methods, such as conviviality, collective action,

an enlarged version of consciousness-raising through panelling, networking and leafleting, are not very far removed from those of many feminist artists of the 1970s, nor is its focus on the embodied dimension of women's lives.

However, subRosa's "confrontation with the network," as well as its performativity, which Hauser (2008, p. 87) includes among the distinctive traits of bioart today, must be related to the tradition of grassroots politics and a feminist politics of location, which subRosa reframes according to a transnational perspective (Fernandez & Wilding, 2002). As feminist artists working *with* and *on* digital and biotechnologies, they foreground the embeddedness of scientific practices as well as the situatedness of women's lives and feminist activism, inside the material and virtual networks of global technobiopower. This requires the consideration of the hybridity of the female body not only as an empowering condition, but also as the result of several overlapping powers and their unequal effects: an "integrated circuit" (Haraway, 1991a, p. 149) of medical, military, labour and informational power forces in which women and other subaltern subjects, as well as animals and plants, are valued and exchanged as commodities.

The collective reinterprets and actualises the feminist strategies of "weaving," so as to act inside the augmented dimension of the digital web, too, as an interwoven space of consciousness raising, connectivity and political advocacy. In this layered and scattered space, the feminist subject of knowledge and responsible action can only work in a multiple web of interconnections, being, as Braidotti (2000) contends, "non-unitary, non-linear, web-like, embodied and therefore perfectly artificial."

For the exhibition *Knowing Bodies* (2000), for example, subRosa puts together three interconnected pieces drawing on vaginal iconology and the maternal, as in the tradition of feminist art: a giant soft sculpture reproducing a vagina, which the audience is allowed to construct and manipulate; a video-performance, *Vulva De/Reconstructa*, about aesthetic surgery on female genitalia; and a webwork, *Smart Mom*, about the possibility (passed off as plausible) of monitoring the pregnant mother and the foetus via remote control sensor-

equipped suits. The *jouissance* for the re-appropriation of the feminine dimension, however, is problematised as soon as subRosa foregrounds the implications of such bodily enhancements: the audience learns that there exist many different—not only aesthetic—reasons for vulvar surgery, for instance genital mutilation, and that very often the request for “vaginal rejuvenation,” behind the promise of a renewal of sexual pleasure, disguises the pressure to conform to the heterosexual and patriarchal norm (Wilding, 2002). Smart technologies, too, are traced back to their military origin and their possible application to the control and normalisation of deviant bodies.

Typically, subRosa unmask the theatre of technoscience by re-employing and displacing its power from the inside through mimicry. Like other feminist performers before, such as Hannah Wilke, Adrian Piper, Eleanor Antin, Suzanne Lacy, to cite only a few, but also like some contemporary “artivists” such as the Yes Men and the CAE, subRosa members act “as if,” to devise the intervals of power among repetitions, where “alternative forms of agency” are made possible (Braidotti, 1994, p. 7; see also Butler, 1990).

In the participatory art of subRosa, the performances of technobiopower are restaged and deconstructed to reveal their linkages with the performances of everyday life. Works such as *Sex and Gender in the Biotech Century* (2000) and *Expo Emmagenics* (2001) adopt the strategies of corporations and turn them upside down. In the first one, people take part in a fake class held by subRosa members posing as corporate and government delegates: while compiling a sort of exercise book and learning about Assisted Reproductive Technologies (A.R.T.), the participants in fact learn how bodies are accorded a different market value on the basis of ethnic, class and geographical factors. For *Expo Emmagenics* [Fig. 8], subRosa’s members pretend to be representatives of leading U.S. firms preparing a trade show targeted toward the European market, where the latest American products related to A.R.T. are promoted: lively demonstrations explain how to use the *MegaBytes Tasties* and *Human Caviar*—resulting from the excess eggs of hormonal stimulation—as fertility and

sexual revitalisers, as well as sperm saver condoms, do-it-yourself kits for in vitro fertilisation and GPS devices to find the perfect mate for “producing” the ideal child. Whereas the narratives of A.R.T. are often based on the rhetoric of choice and the manipulation of desire conveyed through the neutral and normalising language of technoscience, subRosa’s performative mimicry discloses very different accounts which are class, race and gender-targeted. At issue are the ways women, notwithstanding appeals to individual freedom, are still addressed as objects of investigation and consumption, their bodies treated either as laboratories or resources, according to uneven routes of mobility that very often follow colonial and eugenic ideologies (subRosa, 2002): consider, for instance, the similarities between the illegal traffic in organs and the legal mobility of egg and sperm cells, explored by subRosa in *International Markets of Flesh* (2003), or the growing patenting of stem cells and seeds as a way to manage diversity and privatise common resources, at the centre of *Cell Track* (2004–2005) and *Epidermic! DIY Cell Lab* (2005).

In subRosa’s multimodal environments, people have the opportunity to learn by reading texts, watching videos and even eating themed snacks that subRosa members jokingly distribute. “Refugia” is the name that subRosa gives to “becoming autonomous zones”⁵⁵ like these. “Refugia” (subRosa, 2001) should be conceived as situations rather than territories: not homogeneous places, but spaces of commonality and nourishment that are also hybrid spaces of differentiation and recombination against every form of monoculture. “Refugia” are not containers either, since they do not simply gather but also disseminate, having a porous, dissipative tissue. Being adaptable, situated and reproducible, “Refugia” do not fall under precise categories of identification and representation so as to resist corporate control. They also defy traditional spatial and temporal logics: their situatedness makes them neither utopias nor dystopias, but slow-down spaces of “imaginative inertia” (subRosa, 2001), affect and desire. “Refugia” cannot be properly employed, since they are

⁵⁵ This is a term reminiscent of Hakim Bey’s (1985) T.A.Z, or “temporary autonomous zones.”

useless, playful, unregulated zones, but they nonetheless generate shared knowledge and common action.

In conclusion, while subRosa's cyberfeminist performances establish an important link with second wave feminist art (Fernandez & Wilding, 2002), adopting most of its strategies and themes, at the same time they conduct a situated critique of technoscience which requires that these same methods and issues be recontextualised in a transnational framework. subRosa's restaging of the theatre of technoscience opens up performative spaces where people can learn about and act against the uneven production and exploitation of women's bodies in the integrated circuit of technobiopower.

Conclusion: Towards an Aesth-et(h)ics of Technospaces

Every cognition of space is simultaneously a form of recognition by specific subjects and communities of subjects. Recognition cannot exist without agency. Space is recognised both individually and collectively. Re/cognition also implies that space cannot be apprehended once and for all. If today space has to be re/cognised, this is because it can no longer be perceived as static. The process of re/cognition signals a temporary convergence of subjectivities, one that is concrete and yet ready to dissolve under the pressure of transformation. (Dimitrikaki, 2000, p. 41)

How can the implications of diffracting representation for techno-aesth-et(h)ics be summarised, in conclusion?

As we have seen in this research, traditional representation relies on a series of binaries that keep the subject and object of representation separate as well as unquestioned, assuming that their respective spaces already exist and that representation is an instrument with a constitutive and pre-assigned function that the subject can pick up as if from a toolbox, whenever the need arises. In this case, representation would work at bridging, so to speak, the voids of this subject/object gap, creating a series of analogical correspondences that go back and forth between these two opposed realms, as a procedure that variably reflects or transcends the gap that it, nonetheless, contributes to keeping open. However, as we have seen, it is this gap between the subject and the object—which in turn rests upon a number of other binaries discussed here (see Marston et al., 2005)—which precisely confirms the equation between representation and spatialisation.

This is why my research begins by examining the way space and place have been conceived, foregrounding in particular the way that they have typically been conceived as in opposition, as traditional representation has worked at fixing space while emptying, with a conjoined move, both space and representation of their intrinsic processuality. At the same time, this has foreclosed the possibility of considering the interrelation between representational practices and the practices of space—where for practices of space we intend those practices of mapping spaces that do not stand outside or before the space they

represent but come together with the creative emergence of spatial formations (see Del Casino & Hannah, 2006; Haraway, 1991a; Kitchin & Dodge, 2011; Marston et al., 2005; November et al., 2010).

The constitution of a comprehensive visual field based on a complicity between traditional representational practices and the creation of the spaces that they reflect has had many theoretical and ideological consequences; these can be summed up in the paradoxical belief in the adequacy of representation, on the one hand, and its correspondence to an external reality sanctioned with this same act of faith, on the other (see Gregory, 1994; T. Mitchell, 1989; November et al. 2010). Having imposed the representational imaginary of Western Modernity as the dominant paradigm (see Foucault, 1966/1994; Gregory, 1994), this not so ingenuous play of cross-references has also continually concealed its limits—or, we could also say, it has worked thanks to this concealment (see Latour, 1991/1993, 2005)—suppressing any consideration of differences inside and outside, while at the same time continuing to rest on a chain of rigid dichotomies.

Instead, I have examined the theoretical and practical consequences of adopting an interfacial approach to space and representation following Foucault's (1984/1986) theorisation of heterotopias, particularly as this approach implies a reworking of representation that “suspect[s], neutralize[s] or invert[s]” (p. 24) the mechanisms of traditional reflexivity. The relational rather than analogical correspondence evidenced by such approach allows for an openness to alterity and heterogeneity that positively confounds what traditional representation has kept separate, foregrounding the performativity and processuality that link both the act of representing spaces and the act of locating representations.

The relocation of representation and the abandonment of any transcendental pretension of the representational idiom (Pickering, 1994) also requires the adoption of a “symmetrical” (Latour, 1991/1993), or recombinant (Graham, 1998), framework in which the hybridising and mediating counteractions among sociotechnical assemblages and their permeable

domains of activity, at the same time, mobilise the social and offer more entry points to politics (see Marston et al., 2005), leaving space for the potential of un-predetermined connections. If a heterotopia, according to Foucault, “makes the place that I occupy at the moment when I look at myself in the glass [...] absolutely real, connected with all the space that surrounds it,” it nonetheless also makes it “absolutely unreal,” not because it cannot exist, but for exactly the opposite reason, that is, because “in order to be perceived it has to pass through [a] virtual point which is over there” (p. 24). Such a virtual point is the boundary where our vision recognises its partiality and envisions alterity as well, and it also sanctions the necessary dynamism of representations as well as the necessity of representational practices based on “local interactions” that can be “meaningful to us in that [specific] context,” reaching a limited but nonetheless valid objectivity that renounces “omniscience and coercive power” (Hayles, 1993/1997).

Diffraction representations, then, starts from locating them: location, a notion widely explored by feminist theorists in particular (Anthias, 2002; Barad, 2007; Braidotti, 1999, 2000, 2002a, 2003; Carrillo Rowe, 2005; Frankenberg & Mani, 1993; Friedman, 2000; Haraway, 1991a; Harding, 2004a; hooks, 1990; Kaplan, 1994; Mohanty, 1995; Rich, 1986; Smith & Katz, 1993), goes beyond a mere geometrical or territorial definition, encompassing a complex idea of positionality whose implications are of the epistemological as well as the ethico-political order, and whose performative outcomes are, as a matter of fact, figurative. Locations are material-semiotic dimensions (Haraway, 1991a), always recognised as produced and productive (see Latour, 2005), which dismantle any scalar logic and its hierarchies, stretching beyond their boundaries which they traverse and displace but never erase (Gržinić & Minh-ha, 1998; Haraway, 1991a, 1992).

Going back to location, however, does not mean rediscovering a lost dimension of authenticity or commonality in which to reside, nor simply acknowledging one’s own reflexivity in the picture (see Lohan, 2000). To be precise, the very moment that we go back to location we start the process of destabilising it (Wolff, 1993, p. 232). So intended,

reflexivity translates into a partial and relational practice of knowledge-making; it becomes the project of a situated knowledge (see Haraway, 1991a) that goes well beyond the awareness of a symmetry between the subject and the object of knowledge. It involves an *active implication* of the subject in the field of the object based on “the partial and necessarily collective character of knowledge-making” (Lohan, 2000, p. 910). A similar idea conceives of reflexivity as the contrary of self-enclosure, being the precondition of an openness to alterity that sets the foundations for an ethico-political understanding of representational practices in space (see Rouse, 1996/2004).

Locations are spaces of engagement in that they can never be taken for granted. They are actively figured and can be refigured in the same moment that they are practiced and transformed by means of the encounters that turn their “commonplace.” *Tropoi* are what turn *topoi*, says Haraway (1992/2008, p. 159). *Tropoi* displace places, transform forms, deconstruct constructions. Thus, figurations are alternative practices of representation that transform locations, disobeying to the logic of Identity and engaging with differences (see Barad, 2007; Haraway, 1997) through forms of “contingent articulation” (Hand & Sandiwell, 2002, p. 213).

We have seen that diffraction is the figuration—and also the methodology—proposed by Haraway (1997) for articulating situated knowledge together with situated imagination, and their unceasing alternation of “rooting” and “shifting” (Stoetzler & Yuval-Davis, 1992a; Yuval-Davis, 2006). In the field of physical optics, diffraction describes the patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen, interrogating the nature of light and exposing where the effects of differences appear, as well as the actively mediating role of material-semiotic apparatuses (see Barad, 2007). If traditional representationalism works by separation and opposition, a diffractive methodology, which also offers itself as a “different *kind* of theory of mediations” (Haraway, 1992/2008, p. 174), on the contrary follows the coimplications

of meaning and matter, whose emergence does not precede but rather happens through the observed and represented processes and encounters.

We configure our world and establish connections with it through our ways of seeing. Diffraction, so intended, does not simply regard our visual field but is a practice that invests our knowledge, our imaginary and our actions at the same time. It is, as Haraway (1997) writes, a “technology for making consequential meanings” (p. 273). The productive interference caused by diffraction discloses the unforeseen possibilities of an incompleteness that does not manifest a diminution of our reality but, on the contrary, its intrinsic creativity, if by this term we intend the encounter with the always differently actualisable potential that its limits contain (see Colebrook, 2005; Deleuze, 1968/1994; Haraway in J. Schneider, 2005).

What has all this to do with technospaces? As Munt suggests (2011), technospaces are the realms of “spatial praxis” in which humans and machines intersect (p. 11). Their hybrid and contingent constitution, in which the social and the technical continuously enmesh to create provisional formations only partially connected and thus open to change (see Guattari 1992/1995; Haraway 1991a, 1992, 1997; Latour, 1991/1993), is a privileged field from which to observe the effectivity of such alternative representational practices which give shape to and envision the possibilities of transformation that such sociotechnical assemblages already contain (Guattari, 1992/1995).

As a series of transformations that some new technologies in particular—such as locative technologies—put well into relief, the fluidity and continuous reworking of the boundaries of technospaces can only be figured by alternative representational practices that no longer rely on the instruments of classical representationalism. Actually, if by employing a traditional representational framework the boundaries of technospaces are erased while their dichotomies are maintained, only an alternative representational methodology like the one described in this thesis articulates and puts in constructive tension the several—still

existing—boundaries of technospaces, while also dismantling the binary logic at the core of traditional representationalism.

The dismissal of the paradigm of distance, either critical or visual, which was required by a traditional representational approach, gives way to modes and spaces of articulations of meaning that are undecidable in advance (Haraway, 1992, p. 324) but which can be engaged precisely because of their partial and connective character. So, given that connectivity is an overemployed word when talking about technospaces, understanding what it means and how it works in these hybrid and articulated contexts is paramount. This understanding goes hand in hand with the awareness of the mediated and mediating processes of our information and communication environment. If we consider technologies not as mere instruments that influence social changes or that are available for social uses, but rather in terms of a co-responsibility and mutuality between humans and machines, then we can devise “a different politics of practice” (Bolt, 2004, p. 74) that replaces mastery with care and affect (Massumi, 2002; Thrift, 2008; Ticineto Clough, 2003) and which is equally useful for rethinking the arts and the sciences as well as their links. In technospaces seen as mediating environments—something particularly visible today after the end of the desktop phase of computation and the increasing ubiquity of geomeia (Thielmann, 2010)—mediation is distributed everywhere in the interpenetration of the social and the technical, the actual and the figural, the material and the informational, across “limitless interfaces” (Guattari, 1992/1995, p. 92) that perform such relations. But mediation is precisely what disappears when we adopt a classical representational framework. This is why I think that the only appropriate way to approach the mediating operations of technospaces, so as to fully encompass their theoretical and practical implications, is to rely on an alternative representational practice that starts from acknowledging its own hybrid, both mediated and mediating, workings.

In this context of shared agency and diffused relationality between subjects and objects, connectivity can be reformulated as engagement because it always requires an ability to

actively engage with differences (Munster, 2006). My appeal to an aesth-et(h)ics of technospaces, then, goes precisely in this direction, trying to combine creativity and commitment, imagination and responsibility, by means of an anti-contemplative representational practice actively intervening in the figuration and transformation of sociotechnical assemblages. These assemblages, writes Guattari (1992/1995), have to work in order to live. There are no “extrinsic systems of reference” (p. 92) that validate their existence from the outside; there are no representations that can fix their meanings or forms. What “all this implies,” continues Guattari, is “the idea of a necessary creative practice and even an ontological pragmatics” (p. 94). That is, a “new aesthetic paradigm” in which the processual aesthetic dimension of “creation in a nascent state” (p. 100) traverses all the domains of the social, intensifying its autopoietic nodes. Here is where the aesthetic encounters the ethical: as Guattari underlines, creation so intended means responsibility for the things created. It is not an isolated act of the individual, but a gesture of care that always takes “into account the fate of alterity” (p. 107) at the very moment of its emergence and inassimilable in/appropriatedness (Gržinić & Minh-ha, 1998).

In this research, I have analyzed the theoretical and practical implications of reconceiving the link between representation and spatialisation, with a particular focus on the representation of technospaces. My intention has been to offer a situated account whose validity coincides with an always declared partiality, which is also my personal declaration of engagement with the other partialities with which I connect.

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Appendix 1: Figures



Fig.1 Marina Gržinić and Aina Šmid, *Eastern House* (2003), video still.



Fig. 2 Ursula Biemann, *Remote Sensing* (2001), video still.



Fig. 3 Ursula Biemann, *Performing the Border* (1999), video still.



Figs. 4, 5 Coco Fusco and Ricardo Dominguez, *Turista Fronterizo* (2005), computer screenshots.

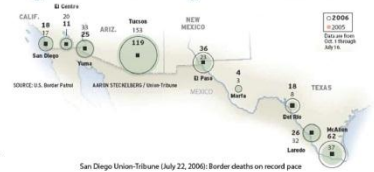
Transborder Immigrant Tool Project

JASON NAJARRO, Cognitive Science, UCSD RICARDO DOMINGUEZ, Visual Arts, UCSD BRETT STALBAUM, ICAM MICHA CARDENAS, Visual Arts, UCSD

Background

Each year, thousands of people attempt to traverse the unforgiving desert terrain that makes up the United States-Mexico border. Hundreds of those migrants lose their lives to the elements due to the inability to discern where they are in relation to where they have been and which direction they need to go.

Migrant Deaths Along U.S.-Mexico Border



Objective

The goal of the project is to help reduce the number of deaths along the border by developing a common cell phone device into a navigation tool that will help migrants locate life saving resources in the desert such as water caches and safety beacons.

Motorola i455

- > GPS Enabled
- > Inexpensive (\$40)
- > Supports J2ME Applications
- > No service required for GPS functionality



Research

Understanding the Context of Usage

In order to save lives, the tool must prove operable in hands of users who are inexperienced with mobile devices, in the context of extreme weather conditions and a tense social environment. Significant time was spent researching the context of usage to help guide the design for a cell phone software application. Here is some of what was learned:

- > The non-literacy rate among migrant population is high.
- > Not all speak Spanish but also various indigenous languages.
- > Device most likely to be used at night.
- > Humanitarian groups want to keep their water stations protected.
- > Border patrol will arrest those who they suspect of being guides

Design Inspiration



"Dowsing, or water witching, refers to practices which some people claim enables them to detect hidden water, metals, or other objects, usually obstructed by land. The movement or vibrations of the apparatus, such as a Y-shaped twig, are used in the practice."

Dowsing.
<http://en.wikipedia.org/w/index.php?title=Dowsing&oldid=155844709> (last visited Sep. 10, 2007).

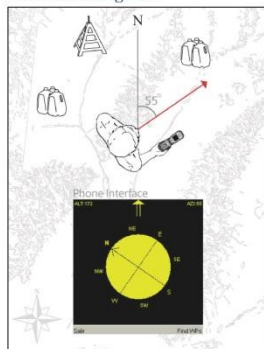
Design Advantages

- > Provides user with greater situational awareness.
- > Dowsing paradigm better maps to users' preconceived notions of how GPS technology functions.
- > Depth of menu navigation is reduced, a major benefit for non-literate users.
- > While traveling, tactile feedback frees user from phone display interface, allowing user to concentrate on the surrounding environment.

Results

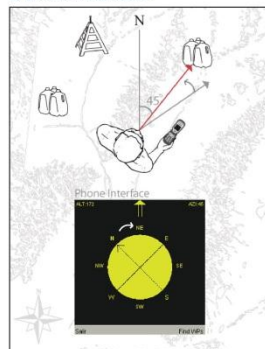
A beta version of the Transborder Immigrant Tool was programmed on the J2ME platform and deployed on a Motorola i455 cell phone. Below is a demo of the tool's main operation.

1. Normal Navigation



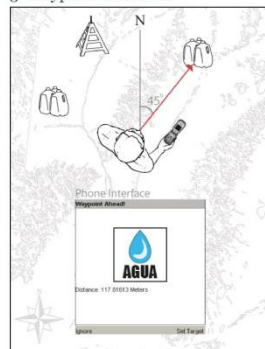
While walking with the device in hand, the mobile interface represents a traditional compass interface

2. Course Alteration



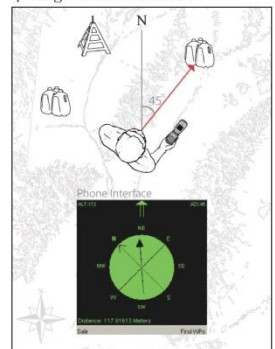
If the user changes his or her direction of travel, the compass face will adjust to represent the user's new course.

3. Waypoint Detection



When the direction of travel is equal to angle between true north and the position of some life-saving resource, an alert will appear with information pertaining to the resource ahead.

4. Target Destination Set



When the user chooses to search for a resource, an arrow on the compass face will always guide the user to the destination even when the user changes his or her course.



Fig. 6 Electronic Disturbance Theater, *Transborder Immigrant Tool* (2007-), presentation leaflet.

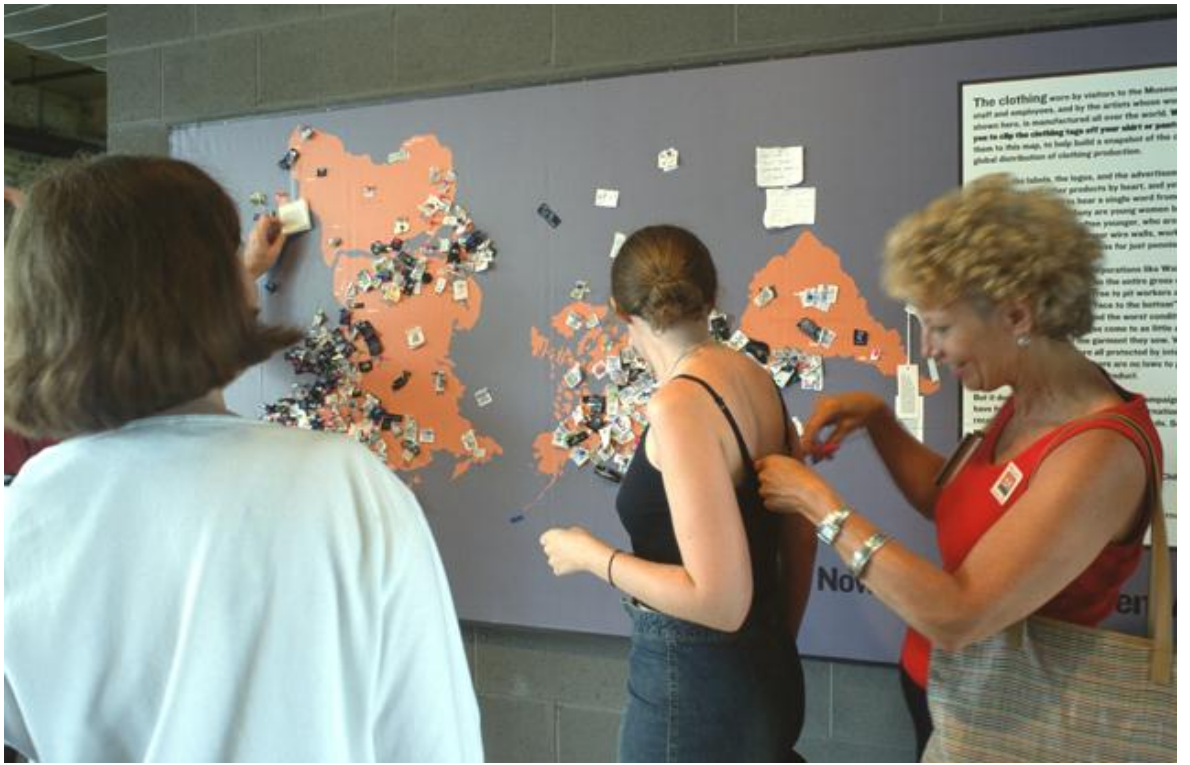


Fig.7 subRosa, *Can You See Us Now?* (2004), installation detail.

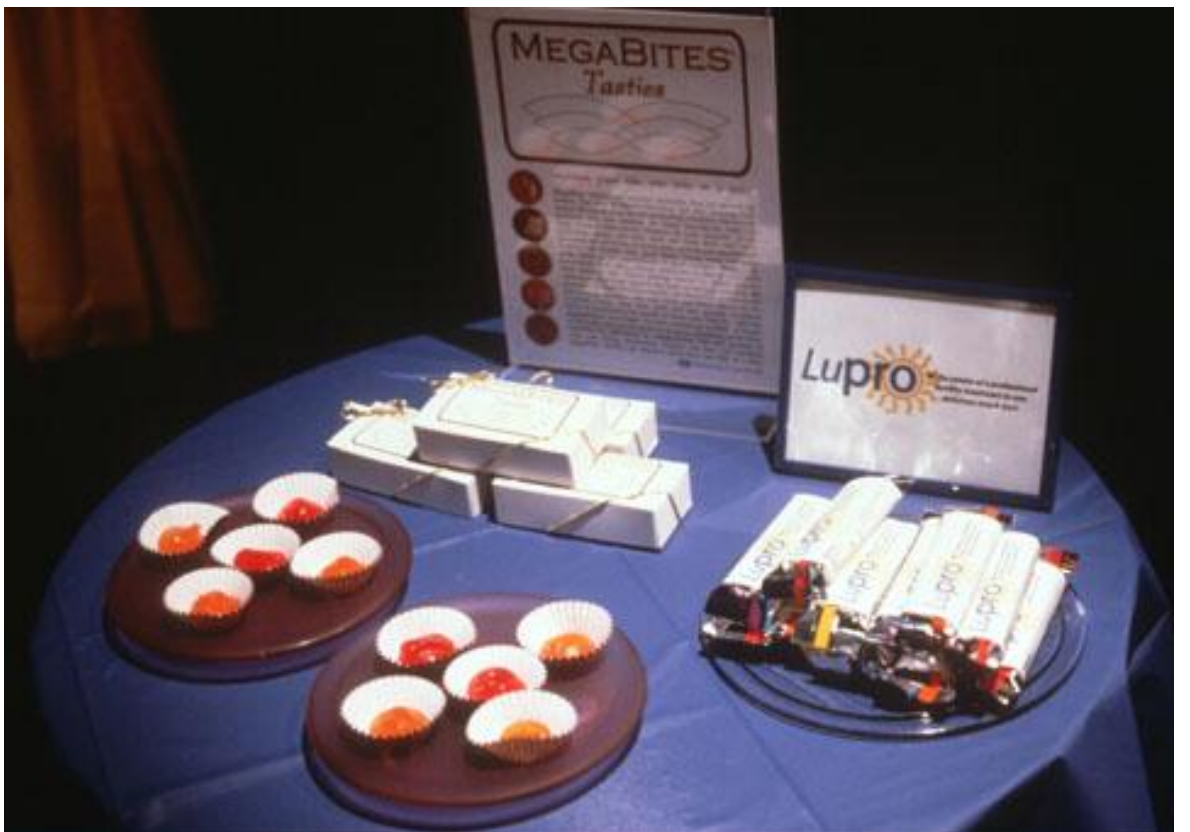


Fig. 8 subRosa, *Expo Emmagenics* (2001), installation detail.

Appendix 2: Published texts

MELA BOOKS 03 – RF02 CULTURAL MEMORY, MIGRATING MODERNITIES AND MUSEUM PRACTICES

Published by Politecnico di Milano, Dipartimento di Progettazione dell'Architettura

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Dispersed Webs.

Consciousness Raising in the Digital Age

Federica Timeto is a PhD candidate at the University of Urbino “Carlo Bo,” in the Faculty of Sociology. Her scholarship encompasses studies of aesthetics, science and technology studies, visual and cultural studies, and feminist art. Her current research focuses on the sociospatial dimension of locative media. She has written extensively on feminist aesthetics, visual studies, and situated epistemology, both in Italian and in international academic peer-reviewed journals, such as *Feminist Media Studies*, *Poiesis & Praxis* and *Studi Culturali*. In 2008 she edited *Culture della differenza* (Utet Università), a reader on the intersection of feminism, visuality and postcolonial issues.

In my essay I compare the work of the subRosa cyberfeminist art collective and the Women on Waves activist group to reflect on the conjoined virtual as well as material practices of consciousness raising in the digital age. subRosa is based in the United States and its activity dates back to the late nineties. Its work addresses the condition of the “distributed body” inside the transnational networks of technobiopower, employing biotechnologies in order to unmask the production of science, and the construction and exploitation of contemporary subjectivities. subRosa’s work is performative and “site-u-ational,” since it aims at involving local audiences by means of participatory workshops, lectures and other unconventional methods. The collective parallels offline activities with online ones in the form of webworks and documentation websites, which in turn work as a locus for an expanded consciousness raising. Women on Waves (WoW) is a non-profit organization founded by the gynaecologist and feminist activist Rebecca Gomperts, which operates on a ship that sails to countries where abortion is illegal, and provides safe medical abortions in transnational waters as well as sexual education with advocacy. WoW also works via a website (Women on Web) offering counselling and the possibility of sharing one’s experiences.

In 1998, the feminist artist and activist Faith Wilding established a study group on “Sex and Gender in the Biotech Century” at Carnegie Mellon University to discuss the production and circulation of texts and images on this topic. The aim of the study group was also to discover the links between feminist art and the new fields of bioart, new media art and the art/science exchanges (subRosa 2011). Faith Wilding was one of the founders of the first Feminist Art Program at CalArts and a leading artist of the *Womanhouse* (1972) project. Together with Judy Chicago and Miriam Schapiro, Wilding was one of the most active figures in the collaborative restoration of an abandoned house in Hollywood in 1971. The house became the site of one of the largest-scale feminist installations ever made (Jones 1996). For about three months artists and students worked together at restoring each space of the house—which was called *Womanhouse*—assigning a specific feminist theme to each room. The installations and their final presentation combined a use of low media, craft practices, and performances, with the chosen themes—which played on stereotypes of femininity (such as housework, nurturing, domestic labour, and makeup) in order to articulate not only the condition of women, but also of women artists, in a continuing hierarchical and exclusionary patriarchal system. On that occasion, Faith Wilding created *Crocheted Environmental*, also known as the *Womb Room*, a sheltering crocheted tent foregrounding the issues of dwelling and self-healing, which was considered the result of hard, collaborative work and was represented here by crocheting, traditionally considered a feminine craft.

What this work visualized was also the feminist practice of creating connections through weaving (Plant 1995), which, as Donna Haraway affirms, continues to be the metaphor of networking for oppositional cyborgs against (and within) the strategies of the “integrated circuit” (Haraway 1991, 170). An integrated circuit—an expression which Haraway borrows from Rachel Grossman—is a web of medical, military, labour and informational power forces where women and other subaltern subjects, as well as animal and plants, are valued and exchanged as commodities. Both the actions of subRosa and WoW, engaging in a dialogue with the tradition of feminist activism, focus on these forces of power and their material and symbolic effects on what can be defined as the “distributed body” inside the current transnational scenario—a body that cannot be identified along singular coordinates but manifests simultaneously as the “medicalized body, socially networked body, cyborg body, citizen body, virtual body, labouring body, soldier body, animal body, and gestating body” (subRosa 2011, 16). They reinterpret and actualize the feminist strategies of weaving, so as to act inside the augmented dimension of the digital web too, as an interwoven space of consciousness raising, connectivity, and political advocacy. Moreover, although initially operating in different fields—subRosa is an art collective and WoW an activist group—both continually push the boundaries of institutional and closed fields of action, so as to create a common interstitial zone where theory and practice, imagination and materiality cannot be easily disjoined. Both collectives, then, work online and offline, and sometimes both ways

simultaneously—thus involving material as well as virtual audiences in a dialogue that gains a reciprocal echo from the several different ways in which information is acquired and disseminated. For example, the website of WoW, together with the group's Facebook page, offers women from different countries a safe, common "space of navigation" in different languages to access information on chemical abortion and the possibility of buying online abortion pills, as well as medical counselling, if needed.

subRosa appeared on the scene for the first time in 1999, with an intervention at the Next Five Minutes Festival in Amsterdam, which can be considered as the official birth-act of the group. The name "subRosa" refers to the expression "under the rose," describing the practice of hanging a rose over a meeting as a symbol of confidentiality, and is also an homage to the feminist figures named Rosa, such as Rosa Luxemburg, Rosa Bonheur, Rosa Parks and so on. The themes addressed by subRosa are biotechnologies, environmental studies, sex and work exploitation, and the multiple ways they affect our lives. The questions that the subRosa collective poses through its practice can be summarized as follows: "what counts as collective knowledge production?" and "what apparatuses [...] counter the sharing of [...] contemporary knowledge?" (subRosa 2011, 20).

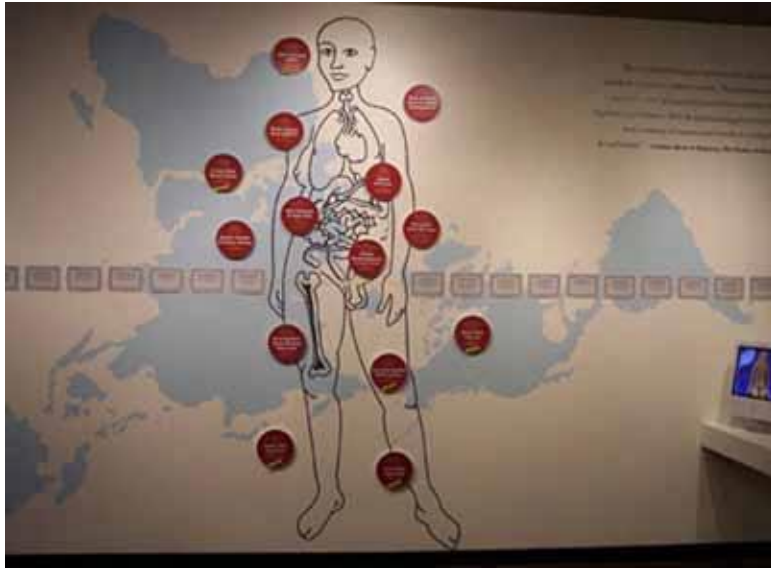
The link between art and science and "the constitutive practices of technoscience" (Haraway 1997, 35) is at the core of both subRosa's and WoW's works. subRosa foregrounds the embeddedness of scientific practices inside the material and virtual networks of technobiopower. It blurs the boundaries between the subject and the object of technoscience, and evidences first how bodies are materially, as well as symbolically, in the making and second, how science, rather than being the approximation or uncovering of an essential truth, is also a set of performative practices that change through time and space. Analogously, WoW's "moving" actions deal with the contextual construction of women's bodies through scientific discourses whose absolute validity the group endlessly question with its "navigational methods".

subRosa enacts the theatre of technoscience (Timeto 2010) and its production of truth by introducing the audiences "into the lab" (subRosa 2011, 20). The collective usually creates performative environments that enhance participants' understanding of the politics and effects of new technologies on our lives, while at the same time providing them with tactical means of resistance. subRosa's "site-u-ational" approach (subRosa 2004)—which finds analogies in the modes and scope of the "recombinant theatre" of the Critical Art Ensemble (2000)—aims at involving the audience in a public debate on these themes, so as to counter the idea that knowledge is private property. In subRosa's works knowledge is a common experience: it cannot be bought or possessed, but can only be acquired and disseminated through a practice of sharing.

Cell Track (2004) is an installation and a website investigating the pri-

¹ For the description and visual documentation of the works mentioned, see the official subRosa website: www.cyberfeminist.net (accessed July 29, 2012).

img. 01 —subRosa,
Cell Track, multimedia
installation, 2004



vatization of human, plant and animal genomes. In the installation, combining male and female parts is mapped with a dymaxion map, and a timeline on which important moments in the history of patenting are pinpointed horizontally bisects it. The website also offers a great number of source materials, including a booklet that can be downloaded for free (*Cultures of Eugenics*) a glossary, didactic animations, and *Manifesto for a Post-genome World* which suggests that a contestational biology—in which difference is evaluated but not fetishized, and responsibility is equally distributed—is still possible.

Retracing the tradition of situated epistemology and situated knowledge, subRosa acknowledges that, to use Haraway's words,

because science is part of the process of realizing and elaborating our own nature, of constituting the category of nature in the first place, our responsibility for a feminist and socialist science is complex. We are far from understanding precisely what our biology might be, but we are beginning to know that its promise is rooted in our actual lives, that we have the science we make historically (Haraway 1991, 45).

This also implies a reworking of the boundaries from within—that is “refusing an anti-science metaphysics, a demonology of technology, and [rather] embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts” (ibid., 181). Only “in this way we might become answerable for what we learn how to see” (ibid., 190). Science is a recombinant practice, and so are our bodies: this is the meaning of the use of cut-and-paste and editing techniques in a participatory performance like *Epidemic! DIY Cell Lab* (2005). In this performance the audience is taught how to streak a Petri dish and how to make yogurt—with the help of the collective's members doing “bench-side work” (subRosa 2011)—with the aim of demystifying the myth of science and its “alchemical imagery.”



img. 02 –subRosa,
Epidermic! DIY Cell Lab,
multimedia installation and
performance, 2005

The celebration of partiality is part and parcel of the meaning of subRosa's performances. Following the tradition of feminist art, subRosa's performances deal with the provisional and the partial in order to contrast the fantasies that surround the feminine body and the work of art, which are often accompanied by the desire to possess them both. The methods employed by the artistic collective—such as conviviality, collective action and an enlarged version of consciousness-raising through panelling, networking, and leafleting—are not very different from those of many feminist artists of the seventies. However, whereas in the seventies the stress was on feminine experience, and female identity and corporeality were still very often essentialized as dimensions to be authentically rediscovered, subRosa reframes these issues according to a postcolonial, transnational perspective (Fernandez and Wilding 2002)—one which requires the consideration of the hybridity of the female body not only as an empowering condition, but also as the result of several overlapping powers and their unequal effects. This is the reason why subRosa also returns to parody and mimicry, once again following the tradition of feminist art—as in performances like *Sex and Gender in the Biotech Cell* (2000) and *Expo Emmagen* (2001), in which members of the collective pose as corporate or government delegates while they actually involve the audience in the discovery of what Assisted Reproductive Technologies are. Specifically, they focus on how the rhetoric of choice and the manipulation of feminine desire are conveyed through the neutral and normalizing language of technoscience, which actually disguises very different narratives that are always class, race and gender targeted. At issue are the ways in which women, notwithstanding appeals to individual freedom, are still addressed as objects of investigation and consumption—their bodies treated either as laboratories or resources, according to uneven routes of mobility that very often follow colonial and eugenic ideologies (subRosa 2002).

To conclude this brief review of the work of subRosa, I will now discuss a work that shows many similarities with the WoW's hoax campaign I will present in the conclusion of my essay. The work I refer to is entitled *Can You See Us Now* (2004): an installation in which subRosa maps the intersections of both affective and material women's labour in the former manufacturing and mill town of North Adams (Massachusetts) and in Ciudad Juárez, a town on the Mexican-US border that is an infamous theatre of violence against women. Tracking the history of North Adams' Sprague Electric Company, which boomed with the production of capacitors for civilian and military use during World War II, subRosa follows the transformations of a family business gone global. As a matter of fact, most of Sprague Electric's manufacturing has recently been relocated right to Juárez, where the maquiladora industry has grown drastically since the North American Free Trade Agreement of 1994, instituted to guarantee tax-free zones for foreign owners and investors in cross-border areas. The effects of global economy on affective labour, manual work, service and care industries, tourist economy, health conditions and reproductive technologies are all randomly mapped on the walls and the "forensic" floor of the subRosa installation, and they need to be connected by the visitors. At the same time, this mapping allows another history to emerge: one of solidarity, struggle and resistance, where autonomous zones such as education and support centres attempt to build another—unfortunately equally silenced—history of the two towns. At the entrance, the installation also includes a map where visitors can pin the label of their clothes to visualize the trajectories of objects in the garment industries and the way these intersect with human mobility.

In a sense, although focussing on the promotion of Misoprostol for a safe abortion, the most recent WoW's action, launched in February 2012, also addresses the violation of women's rights in the garment industry. The target of the campaign is the fashion brand Diesel, chosen as an example of exploitation of women workers, who are forced to live under unhealthy conditions and whose wage is far below the legal minimum in the garment industry, particularly in developing countries. The fake press release and the fake ads realised by WoW imitate the glossy style of Diesel's campaigns, using supermodels in rarefied ultra-tech settings, and inviting the viewer to visit the campaign's website (which is a mirror site, along the lines of activist groups like the Yes Men, who incidentally took part in the creation of the website). The fake press release reads as follows:

after launching Diesel Island, Land of the Stupid and Home of the Brave, Diesel now creates Misopolis, a factory where brave female workers can have happy accidents without consequences. Misopolis will be the least fucked-up fashion factory in the world. But this is not just another factory— it is a destination that finally grants them real autonomy.

² All the written and visual documentation can be found on the WoW website: www.womenonwaves.org (accessed July 29, 2012).

³ All the names quoted (except Misopolis) are names of real and sexist campaigns by Diesel.



img. 03 –Women on Waves, image for the hoax campaign “Diesel for Women,” 2012

In one of the spoof ads created by WoW we read, for example, “Say goodbye to coat hangers.” In fact, coat hangers are not only used to hang clothes: they are also infamously known as abortion tools. In this spoof ad, a group of women stands around a table holding a bunch of coat hangers. On the table another woman partially lies with a blood stained t-shirt. The barcode on the tees of the women in the group, if scanned, offers information about Misoprostol. Everything is clearly extremely “staged,” but since this is the tone of the Diesel pictures as well, the difference is hard to recognize at first sight. Another ad shows an altar where a woman in a futuristic golden outfit (the “Immaculate Contraception”) feeds a girl an abortion pill rather than the Host. In each of these images, the actual Diesel slogan is repeated with only a slight difference, so that we now read “Abortions for successful living.” Reality, by the way, is of course very different from the carefree and glossy one depicted here. As we read in the WoW press release—following the letter from Diesel that threatens to take legal action—the hoax “intends to show that violations of human rights never happen in isolation and that the right to a safe abortion is connected with the broader framework of social rights, workers rights and the right to autonomy” (WoW 2012). In fact, between 75% and 90% of garment industry workers are women, very often young and uneducated, forced to work for many hours without a contract. They are also subject to sexual harassment and rape, and consequently exposed to unwanted pregnancies, without any right to maternity leave. These female workers often fear being fired if they reclaim their rights; also, they often live in countries where abortion is illegal, like Sri Lanka, Bangladesh, and Guatemala—to cite only a few.

WoW, then, like subRosa, uses parody as a way to turn the strategies of corporations upside down; more importantly it also offers an alternative to this strategy by disseminating information and connecting with wom-

en either through material or digital networks. This is therefore another example of the feminist practice of weaving in the digital age, where the feminist subject of knowledge and responsible action can only work in a multiple web of interconnections—being, as Rosi Braidotti contends, “non-unitary, non-linear, web-like, embodied and therefore perfectly artificial” (2000).

Braidotti, Rosi. 2000. “Between the No longer and the Not Yet.” Accessed July 9, 2012. <http://www.women.it/cyberarchive/files/braidotti.htm>.

Broude, Norma, and Mary D. Garrard, eds. 1997. *The Power of Feminist Art. The American Movement of the 1970s, History and Impact*. New York: Harry N. Abrams, Inc.

Critical Art Ensemble. 2000. “Recombinant Theater and Digital Resistance.” *The Drama Review* 44: 151v.

Fernandez, Maria, and Faith Wilding. 2002. “Situating Cyberfeminisms.” In *Domain Errors! Cyberfeminist Practices*, edited by Maria Fernandez, Faith Wilding, and Michelle M. Wright, 17-28. New York: Autonomedia.

Haraway, Donna. 1991. *Simians, Cyborgs, and Women. The Reinvention of Nature*. New York: Routledge.

———. 1997. *Modest_Witness@Second_Millennium.FemaleMan@Meets_OncoMouse*. New York: Routledge.

Jones, Amelia, ed. 1996. *Sexual Politics. Judy Chicago’s Dinner Party in Feminist Art History*. Berkeley: University of California Press.

Plant, Sadie. 1995. “The Future Looms. Weaving Women and Cybernetics.” *Body & Society* (3): 45’.

subRosa. 2002. “Stolen Rhetoric: The Appropriation of Choice by Art Industries.” In *Domain Errors! Cyberfeminist Practices*, edited by Maria Fernandez, Faith Wilding, and Michelle M. Wright, 135-148. New York: Autonomedia.

———. 2004. “In their own words.” Accessed July 9, 2012. <http://www.nyfa.org/level3.asp?id=296&fid=6&sid=17>.

———. 2011. “Bodies Unlimited. A Decade of subRosa’s Art Practice.” *n. paradox* 28: 16•.

Timeto, Federica. 2010. “Unmasking the Theatre of Technoscience: the Cyberfeminist Performances of subRosa.” *Feminist Media Studies* (2): 244”.

WoW. 2012. “Press release 3-2-2012: Fashion Industry violates women’s rights.” Accessed July 9, 2012. <http://www.womenonwaves.org/en/page/2573/press-release-3-2-2012-fashion-industry-violates-women-s-rights>.

New Realities: Being Syncretic

IXth Consciousness Reframed Conference Vienna 2008

University of Applied Arts Vienna
July 3 – 5, 2008

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TECHNOFEMINISM
SITUATED KNOWLEDGE
SPACE
PLACE
AESTH/ETHICS

Feminist Technotopias: the Relocation of Technology as Aesth/ethic Project

"Technoscience [...] is the travelogue of distributed, heterogeneous, linked, sociotechnical circulations that craft the world as a net called the global"

Donna Haraway (1997)

There is a "mild" tendency in constructivism (MacKenzie & Wajcman 1999), exemplified by concepts like that of *modified realism* (Williams & Edge 1996), which contemplates the material and symbolic aspect of technological artifacts, while allowing a pragmatic conception of technology, considered as a form of doing rather than a form of being. In the context of technosociality that we live in (Stone 1995, p.35–36; Escobar 1994, p. 57), technologies and societies coalesce in a complex material-semiotic field; technologies are approached as material-semiotic artifacts located inside practices and ideologies, so that we speak of complications and co-implications rather than of causalities and effects, setting aside any deterministic – either social or technological – approach (Aronowitz & Menser 1996; Graham 2004).

Nonetheless, digital narratives still tend to speak in utopian or dystopian terms, alternatively highlighting the promise of a technological future or the menace of a complete loss of the orientation and significance of previous categories, specifically space and time. Both descriptive and predictive accounts

of new technologies (Coynne 1999, p. 20) divert our attention from the situatedness of technology, as well as from our situatedness within technologies, finally foreclosing any form of critical agency. Here, I argue that a more proper account of technoscapes can be gained when adopting what I call a critical "technotopianism", which means a partial vision from somewhere inside, to paraphrase Donna Haraway (1991, p. 196). I also argue that, in parallel with the relocation of knowledge developed by current epistemologies and philosophies of science, a relocation of the aesthetics of new technologies is desirable. As a matter of fact, contrary to what Irit Rogoff fears in her study of geography's visual culture, I believe that a relocation of the "universal absence of positionality" of new technologies takes place in imaginative and transformative practices that do not dismiss what Rogoff calls "a scrupulous self-positioning with all of its accompanying baggage of power relations, performative identities, incomprehensions, inequalities and fantasmatic projections" (2000, p. 12).

For my purpose, I adopt a technofeminist-situated position, combining the notion of the politics of location with Standpoint Epistemology (SE) and Haraway's theory of Situated Knowledge (SK). Indeed, I believe, firstly, that feminist theory offers an insightful way to reconceive difference not only to ground the theories and practices of new technologies, so as to give account of their multiple and sometimes contradictory articulations (Escobar 1994), but also to imagine alternative "situations" by means of transformative figurations; secondly, and relatedly, I think that the notion of location outlined by these feminist theories is an efficacious point of departure to experience, describe, practice and transform the technoscapes we inhabit.

Since its first theorisation in the writings of Adrienne Rich around the mid-1980s, location has always been a problematic term: the embodied locus of women's struggle against a "lofty and privileged free floating abstraction" (Rich 1986, p. 213), it has never been conceived as a definite space, nor has it been intended solely in spatial terms, but first of all as the historical ground for the accountability of simultaneous oppressions and as a point of departure for destabilising essential categories of identity and experience. Here, locations, as well as identities, are considered in process and relational, thus subject to change. Recently, this aspect of the politics of location has been retrieved and highlighted by trans-cultural feminism, which privileges the encounters between differences and similarities across different categories and across the asymmetries of multiple power relations (Kaplan 1994).

In bringing forward a critique of scientific objectivity focused on the practice of science rather than

on its products, SE and SK assume a very similar idea of location. SE, which in Sandra Harding's words, is a methodology, an epistemology and a political strategy at the same time (Harding 2004, p. 2), rests on the notion of epistemic difference to elaborate the key issue of standpoint. Epistemic difference, intended as the difference that social practice makes, constitutes, in a sense, an adjustment of the initial and highly-contested idea of epistemic privilege, so as to include the consideration of an intersectionality of oppressions and to acknowledge the performativity of identity, while maintaining the centrality of the notion of standpoint. Differently from the common definition of perspective or point of view, standpoint is defined as an interested, engaged and potentially liberatory position, one which is achieved, rather than naturally or essentially owned (Hartsock 1983, p. 36). It follows that standpoint is first and foremost a question of strategic positioning, which can in principle be assumed whenever a feminist struggle is pursued, that is, not necessarily when feminine subjects are involved, but when a different kind of objectivity is invoked.

Totally bypassing the choice between universalism (with a feminist meta-narrative) and relativism (the evaluation of epistemic differences to the point of an epistemology of multiplicity *per se*), SE does not look for either absolute or partial truths, but is interested in unmasking power relations, in order to outline what Harding calls "less false stories" and Haraway "multidimensional maps of the world". In fact, SE theorists adopt a sociological and historical relativism, not an epistemological one: this means recognizing that not all claims are equal, not if weighted against truth, but in the effects they produce, and in the (liberatory) potentiality they possess. This also means substituting an interventionist idea of knowledge for a representationalist one, replacing the necessity of producing claims that are adequate to presumed natural features of the world with the priority given to the effectiveness of such claims, measured in relation to what they are aimed at (Harding 2003).

It is with Donna Haraway that the critique of science becomes explicitly accompanied by the project of situating knowledge to avoid the combination of transhumanism with technoscience, whenever this signifies a dismissal of the materiality of information. Of course, the materiality whose technoscience is the narrative, as Donna Haraway intends it, is not "raw" matter, it is rather a sociotechnical ensemble, where the actual and the imagined, the human and the machine, enmesh and are reciprocally constituted "in the action of knowledge production" (Haraway 1997, p. 29). Analogously, location must not be intended empirically, but as "the always partial, always finite, always fraught play of foreground and

background, text and context, that constitutes critical inquiry. Above all, location is not self-evident or transparent [...]. No layer of the onion of practice that is technoscience is outside the reach of technologies and critical interpretation and critical enquiry about positioning and location" (Haraway 1997, p. 37). Through location, we go beyond the simple deconstruction of scientific objectivity and bring the epistemological debate into the fields of politics and ethics, so as to account for specific histories and engage in critical practices at the same time. This articulation of the technical and the political is made possible when knowledges are situated in partial perspectives "from somewhere" - equally distant from the nowhere of universal totalizations and the everywhere of relativism.

Drawing on Haraway's philosophy, Judy Wajcman defines technofeminism as a strategic engagement with technoscience, which, rather than opposing or celebrating it, negotiates the networks of sociotechnology from within (2004, p. 117). She also suggests that only by bridging the common gap between materiality and metaphor, intended as the dichotomy between the technical and the social, we can move forward in technofeminism (2004, p. 106).

The coimplication of materiality and metaphor allows us to approach the complexity of technotopias from yet another angle, this time employing the epistemology of situated knowledge to outline a situated "aesth/ethics" of new technologies. Here, I use the term with a slash for two reasons: firstly, because I want to visualise a breach in the homogeneity of the techno-aesthetic field as the impossibility of separating creativity from responsible praxis, as theoretical paths of science can not be disjoined from the assumption of responsibility for one's own situatedness. Secondly, because I think that what has been argued about the processual character of sociotechnical formations, and about the viability of knowledge, can be equally valid in order to reconsider the aesthetic, and the concept of representation in particular. In fact, following the epistemological turn of SE, which privileges the practical over the representationalist idea of knowledge, we can also hypothesise an anti-contemplative practice of imagination where invention and factuality meet. Rosi Braidotti (1999) uses Haraway's notion of figuration to name this practice of "alternative representation", underlining how figurations, which always manifest themselves according to different spatio-temporal modalities, can not be disjoined from location, but somehow constitute a virtual counterpart. According to Haraway, figurations, which derive from the secularisation of the figural realism of Christianity combined with the spatial tropes of

Aristotelean rhetoric, share with the other material-semiotic processes of technoscience a displacing quality. Actually, even though they always retain a fundamentally visual aspect, figures need not be literally representational or mimetic: they "trouble identifications and certainties. Figurations are performative images that can be inhabited" (Haraway 1997, p. 11).

Giving account of our partial and partisan positionality inside technotopias, figurations re-embody and situate many of the abstracting and displacing metaphors used to describe the global networks of information and communication technologies, offering a more useful tool to articulate and contextualise our contemporary imaginary. They, however, are neither complete nor static pictures of the world, but are representationally adequate insofar as they remain performative.

In his critique of utopian and dystopian conceptions of technology, Richard Coyne (1999) argues that digital narratives, indifferently drawing on realist and idealist bases, often deal with space through the representational model. Space is considered as existing independently from its representation. The latter, then, given a presumed correspondence between signs and objects, can eventually take over space by virtue of its capacity of violation, resistance and transcendence. Several binaries are presupposed behind this sign/object division: empirical as well as metaphysical accounts of representation also assume a dichotomy between unity and multiplicity, objectivity and subjectivity, the absolute and the relative. This, Coyne contends, is not only revelatory of the role of information technology and the informational model in understanding and representing space, but also viceversa, it shows how spatial representations are employed to analyse the configurations and experiences of new technologies, like utopian and dystopian accounts attest. Therefore, Coyne draws on a phenomenological framework to outline a pragmatics of language and reality as contextualised practices that displace the primacy of representation for understanding the complexity of technoscapes.

Coyne privileges the role of metaphor as the locus where "imagination operates" (1999, p. 165). Instead, I believe that figuration is a more appropriate term to use inside technotopias, since it maintains a link with location that explicitly disrupts any causal relation, whether correspondence or violation. Whereas metaphors work at reducing the unfamiliar to the familiar by linking two meaning systems, one of which is considered inert and stable, so as to reduce the one to the other – like the practice of mapping normally does – figurations maintain a reciprocity between the two orders of meaning that generates an embodied, embedded,

and performative cartography (Smith & Katz 1993; Braidotti 2003). As visual culture explains, cartographies, inasmuch as they are representations, do not exist as autonomous visual objects, but contain dynamic intersections of potential and actual social relations, thus contributing to the construction of our complex reality, instead of simply reflecting it (Rogoff 2000). So, figurations map and articulate our contemporary imaginary, redefining our situated subjectivities together with the terms of the technoscientific debate.

The notion of diffraction used by Haraway describes the analytical and transformative work of figurations more appropriately than representation. Metaphors, Haraway thinks, need to be put in motion, i.e. activated, to become effective. Their "translation" implies a level of action that goes beyond simple reflexivity. This is where diffraction intervenes. Literally, the term describes the creation of patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen. Haraway, however, employs it for her critical project of "diffract[ing] the rays of technoscience" (Haraway 1997, p. 16): in fact, diffraction replaces the idea of mimetic mirroring proper to reflection, which is usually employed as a metaphor for the objectivity of science as well as for the traditional notion of representation, in order to encompass interference, difference and interaction.

Diffraction patterns give life to maps that are multidimensional, both material and semiotic, and that serve to navigate today's aesth/ethic technotopias. Here again, I use the term technotopias to purposefully situate my argument as equally distant from utopian and dystopian interpretations of technoscapes, and to underline the situatedness of today's networks and our situatedness within them. Such a critical technotopianism overcomes the essential binaries which have trapped both oppositional and enthusiastic theories of new technologies; it unifies and re-grounds the theories about, and the practices of, new technologies inside the flows and forces of globescapes, so as to account for their contradictory effects from within and to produce alternative figurations.

I find that in the last few years, after questioning its own definition, cyberfeminism as both theory and practice has assumed a similar technotopianist perspective based on the encounter with postcolonial and transcultural feminism and the politics of situated knowledge (Fernandez 1999; Fernandez et al. 2002; Gajjala 1999; Nakamura 2002; Kaplan 2002; Parks 2005). The adoption of an aesth/ethic (with a slash) position, which explicitly bridges the artistic and the political, keeps cyberfeminists away from the utopian vocabulary of the "cyberrevolution" initially celebrated, for example, by theorists

such as Sadie Plant and groups such as the VNS Matrix. Cyberfeminism today is a more complex phenomenon that encompasses several interrelated geopolitical and historical, not merely sexual, specificities. Its aim is to critically and creatively elaborate a set of interventions within technologies, thus creating material and virtual networks of awareness and imagination, without resorting, however, to "a humanist representational practice", as Kaplan puts it (2002, p. 38). Cyberfeminist projects like those of the subRosa collective, the Raqs Media Collective and Critical Art Ensemble, mailing-lists such as Undercurrents and Yasmin, artists like Marina Gržinić, Ursula Biemann, and Prema Murthi, to cite only a few of them, all account for the material-semiotic outcomes of new technologies, for example the WWW or satellite visualisation technologies, documenting the links between their production and consumption, immaterial flows and migratory flows, location and mobility. From their situatedness, cyberfeminists claim forms of feminist agency and a feminist imaginary originating from contexts and histories where the mixing of bodies and technologies makes (a) difference, in order to counter the "free-floating abstraction" of either dominant or oppositional accounts of new technologies.

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Diffractioning the rays of technoscience: a situated critique of representation

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Abstract This essay focuses on the possibility of adopting a representational approach for technoscience, in which representation is considered as a situated process of dynamic “intra-action” (Barad 2007). Re-elaborating the recent critiques of representationalism (Thrift 2008), my analysis begins by analysing Hayles’s situated model of representation from an early essay where she explains her definition of constrained constructivism (Hayles [1991] 1997). The essay then discusses the notions of figuration and diffraction and the way they are employed by Haraway in many of her writings for her critique of technoscience (Haraway 1991, 1997). Finally, after considering diffraction through Barad’s reading of this practice in the context of her theory of agential realism (2007), it shows the links that relate constrained constructivism, situated knowledge and agential realism, and the way all of them work at “diffract[ing] the rays of technoscience” (Haraway 1997: 16) through an alternative representational practice.

Résumé Cette rédaction se focalise sur la possibilité d’adopter une approche représentationnelle envers la technoscience, dans laquelle la représentation est considérée comme un processus située d’ “intra-action” dynamique (Barad, 2007). En ré-élaborant les critiques récentes de représentationalisme (Thrift, 2008) mon analyse commence par l’analyse du modèle située de représentation de Haylé, tire

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d'un essai antérieur dans lequel elle explique sa définition du constructivisme contraint (Hayles [1991] 1997). Puis, je traite les notions de figuration et de diffraction et la manière dans laquelle elles sont employées par Haraway dans beaucoup de ses publications concernant sa critique des technosciences (Haraway 1991, 1997). Enfin, après avoir considéré la diffraction à travers les écrits de Barad sur cette pratique dans le contexte de sa théorie de réalisme agenciel (2007), un lien devient évident entre le constructivisme contraint, la connaissance située et le réalisme agenciel, ainsi que la manière dans laquelle ils participent dans la "diffraction des rayons de la technoscience" (Haraway 1997: 16) par une pratique alternative représentationnelle.

Zusammenfassung Der folgende Essay befasst sich mit der Möglichkeit, in der Analyse von Technowissenschaft einen repräsentationalen Ansatz zu verfolgen, der Repräsentation als situieren Prozess dynamischer Intra-Aktion (Barad 2007) versteht. Mit Bezug auf rezente Kritik des Repräsentationalismus (Thrift 2008) setzt meine Analyse bei Hayles' ([1991] 1997) situiertem Repräsentations-Modell und dem von ihr propagierten constrained constructivism an. Der Essay diskutiert daraufhin die Konzepte der Figuration und Diffraction in Haraways (1991, 1997) Analyse von Technowissenschaft sowie Barads Analyse von Diffraction im Kontext ihres agential realism (2007). Schließlich werden Gemeinsamkeiten von constrained constructivism situiertem Wissen und agential realism dargestellt; insbesondere deren Versuch, durch alternative repräsentationale Praktiken "die Strahlen der Technowissenschaft zu beugen" (Haraway 1997: 16).

1 Introduction

According to Haraway, three "crucial boundary breakdowns" have put an end to the "border war" of Western science and politics today, which involve the territories of production, reproduction and imagination (Haraway 1991: 151–153); these boundaries are those between human and animal, organism and machine and the physical and non-physical realms. Hence, Whatmore (2006) lists some important shifts in scholarship that reflect such breakdowns, involving many theoretical fields, from cultural geography to science and technology studies. The first shift that Whatmore identifies is the relocation of agency in practice and performance, and a re-embodiment of theory itself, which marks the passage from discourse to practice. The second is the shift from meaning to affect, involving a rediscovery of the precognitive and of its role in sense making as a "force of intensive relationality" (ibid.: 604). The third, a consequence of the previous dislocation, is the shift from the human to the more-than-human, or from society conceived as a closed and exclusively human whole to a multiplicity of assemblages constituting a heterogeneous sociomaterial fabric. Finally, the fourth shift is the move from a politics of identity to a politics of knowledge, the way this is produced, negotiated or contested according to different sociotechnical contexts and distributed practices (ibid.: 603–604). According to a similar approach, knowledge does not stand outside the

world it represents, but emerges from it and is enmeshed in it, being in this sense situated given that representations are social facts, we cannot get rid of them: it doesn't matter if they are true or false; what matters is, rather, how they work, and why (Rabinow 1996: 28 ff.).

In her analysis, Whatmore directly quotes Barad to reinforce her argument that matter does matter, and that it also “comes to matter,” performatively and processually (Whatmore 2006: 605); Whatmore also refers to Barad in her previous work in which, discussing the importance of distributed agency and the material-semiotic practices of the constitution of the subject, she draws on Barad's notion of “intra-action” (Whatmore 2002: 4, 57), which the latter formulates in the context of her philosophy of “agential realism” (see below). In what follows, a compared analysis of Hayles's theorization of constrained constructivism, Haraway's concept of diffraction and Barad's agential realism aims to reconceptualize the role of representation for technoscience as an intra-active practice embedded and embodied in hybrid sociotechnical networks. If “representationalism takes the notion of separation as foundational” (Barad 2007: 137), talking of representation as intra-action means considering the mutual constitution of entangled agencies (ibid.: 33) which do not precede, but rather emerge through their intra-acting processes.

Whereas conventional epistemologies have conceptualized science as a “set of representations of reality,” interactionist (or, rather, intra-actionist) approaches consider science as intrinsically technological and performed through different practices, interpretations and applications (Harding 2008: 186–187). Scientific knowledge cannot accurately represent the world from a distance, let alone its objectivity, but only shows how the world effectively works and how representation can adequately fit such workings (Latour 1987; Haraway 1997). Let us think, for instance, of the “less false accounts” or “less false beliefs” about the world in the sense that Harding intends them in her theory of standpoint epistemology, “ones, apparently, as far as we can tell, less false than and only those against which they have so far been tested” (Harding [1997] 2004: 256). These are provisional truths whose standards vary over time and space, but which are nonetheless useful, effective notions against both universalist and relativist claims. They are adequate interventions that replace the search for a semantic match between sign and things with the search for efficacy (Harding 2003: 156–157).

2 Beyond representationalism

In the last two decades, the debate around the issue of representation has occupied several different fields, primarily as a reverberation of the anti-realist constructivist

¹ For a detailed discussion on the implications of a technoscientific approach see the articles contained in the special issue of *Poiesis Prax* (vol. 7, no. 1–2, 2010) entitled “Focus: Technoscience and Technology Assessment.”

turn that has permeated postmodern philosophical debate. Discussing the different traditions of the conceptualization of representation as the knowledge of reality, Peschl and Riegler (1999) show the change of focus that has occurred in the last decades, from an attempt to grasp the structure of the environment and map it onto a representational structure, according to an analogical correspondence between signs and things, to an awareness of representation as a dynamic and generative process where environment, rather than reality, only constrains representation instead of determining its outcomes.

According to a radical realist position, the domain of our experiences as *Wirklichkeit* equates the world of things as *Realität*. Classical representational theory transforms *Wirklichkeit* into a function of *Realität*. Only in a dialectic materialistic perspective representation is re-contextualized and considered as the result of an interaction between the observer, the observed object and the context where observation takes place. But if we go further and adopt a self-referential framework, drawing on the theory of autopoietic systems, we can definitely drop the search for an external reality (without needing to either deny or affirm its ontic existence): in this case, representation is described as the perception of relations among the element of the observed and self-observing system, which is characterized by its operational closure. Once we consider representations not as passive, however, accurate, reflections of an independent reality, but as active constructions and viable, embodied and contingent processes of knowing, we can continue to employ them and at the same time disengage them from a correspondence with reality (and representationalism in a realist sense).

The acknowledgement of the agency of matter and of the hybrid connections between theory and practice, human and non-human beings, takes the form of a strong critique of representation in non-representational theory in particular. This, in most cases, associates representation with the metaphysics of visualism, although, to paraphrase Pickering (1994), when vision is delinked from “the representational idiom” and rather aligned with the “performative idiom,” a recovery and redefinition of visuality always appears possible. The terms of the debate regarding non-representational theory were initially assessed in the field of human geography, but soon turned out to be of interest for many other theoretical domains, such as feminist studies, performance studies and science and technology studies (cf. Lorimer 2005).

In non-representational theory, knowledge is firmly located in matter or, to partially paraphrase the subtitle of Barad’s book (2008), in “the entanglements of matter and meaning;” it is also relationally generated, and by no way solely rational, nor a subjective or even a human property, all assumptions that, on the contrary,

² If we, to take only one example, consider scholarship on visual studies, we observe that what is defined as the “pictorial turn,” an ambiguous concept in itself, is rooted in the acknowledgement of the non-mimetic, and in this sense non-representational, function of the image, which is now perceived as a “complex interplay” of relations rather than as the locus for the re-emergence of a pictorial presence (Mitchell 1994). Not so differently, the linguistic turn that philosophers such as Rorty (1967) advocated has actually been based on the same refusal of the model of representational transparency (and classical textuality) which governed traditional pictorialism. Visuality is so permeated with affect and desires that it is impossible to consider any visual representation independently from its effects, that is, the performative aspects that inhere in visuality, or what Thrift specifically calls the “effectivity” of the world (Thrift 2008: 113).

belong to the tradition of Western Modernity (Thrift 2008: 122). As Thrift (2008) shows, non-representational theory has its roots in different philosophical traditions and their reciprocal points of contact: for example, feminist theory of performance and feminist spatial analysis, ranging from Butler to Irigaray, the theory of practices drawing on the work of such authors as Bourdieu and De Certeau, and what goes under the name of “biological philosophy,” from Deleuze to the current speculations of biosciences (cf. Thrift 2008 113; Whatmore 2002). Thrift (2008: 5 ff.) characterizes non-representational theory as the conjoined insistence on a number of aspects. It features a radical empiricism—which is anti-essentialist in character and which also distances itself from constructivism—while aligning itself with the philosophies of becoming, without completely abandoning the lived immediacy of the phenomenological and the precognitive. It includes an anti-subjectivism that disengages perception from the human perceiver and attributes it to encounters among heterogenous forms, or what he calls “new matterings” (ibid.: 22). It relies on practices as being generative of actions rather than being their consequences, thus showing an interest in the “effectivity” of the world (ibid.: 113). It insists on the transhuman co-implication of bodies and things in a network of functions, where embodiment becomes a diffuse situation of shared relationality. It requires an experimental attitude, which owes much to the performing arts and is based on the unpredictability and radical possibility of the eventful (ibid.: 114). It takes an affective stance that allows the retention of a sort of “minimal humanism” (ibid.: 13) while at the same time being anti-humanistic in a traditional sense, and which translates into an affirmative ethics of responsibility and care. Finally, it has a situational character where space is itself becoming, distributed and networked.

Needless to say, most of these elements can already be found in the theory of situated knowledge, but then this should come as no surprise, given the common root of non-representational theory and Harawaian philosophy in actor-network theory (cf. Latour 2005). Haraway’s politics of representation, however, insists on the importance of vision and images and, recognizing their contemporary pervasiveness, tries to articulate a different, opaque and non-innocent representational attitude which is partial, embodied and situated at the multiple crossings of the material-semiotic field. Her project of situated knowledge recognizes the impossibility of doing without representations; a recovering of the sense of vision, or better, of re-vision, is of the utmost importance for the feminist project of a multidimensional cartography, which is itself a representation of a different kind, being always generated from somewhere, from below and from within the networks of technobiopower. That is why Haraway insists that we pose the following questions:

How to see? Where to see from? What limits to vision? What to see for?
Whom to see with? Who gets to have more than one point of view? Who gets blinkered? Who wears blinkers? Who interprets the visual field? What other sensory powers do we wish to cultivate besides vision? (Haraway 1991: 194)

In a sense, a simple opposition to representation advanced in the name of the world of matter is still risky, implicated in the double bind that sees matter and meaning, or the semiotic and the material, as standing in a relation of mutual exclusion. Analogously, says Haraway, if we counterpose situatedness to

universalism in a scheme which is still oppositional, we give the false illusion of a symmetry between the two, where each position is seen as purely alternative or reciprocally exclusive (ibid.). Instead, “a map of tensions and resonances between the fixed ends of a charged dichotomy better represents the potent politics and epistemologies of embodied, therefore accountable, objectivity” (ibid.). As Jacobs and Nash (2003) affirm, commenting on recent scholarship in cultural geography, there is no need to dismiss representation altogether, particularly if we consider the importance of a critique and a politics of representation for feminist work, and even if we share the assumptions of non-representational theory. As they put it, we “might insist on attending to the place of image,” so as to keep open a “wider semiotic framework” where words and things interrelate, without contradicting the semiotics of materiality of non-representational theory (ibid.: 273).

3 Consistent representations

It is in this direction that Hayles ([1991] 1997) has looked for an escape from the alternative between realism and anti-realism through her notion of “constrained constructivism,” which does not tell us what reality is, but rather what fields of possibility make certain representations “consistent” with reality, and thus practicable for us. As a matter of fact, constrained constructivism is built on an “interactive, dynamic, locally situated model of representation.” Here, the notion of “consistency” replaces that of “congruence.” Whereas congruence implies a one-to-one correspondence between signs and things, based on Euclidean geometry, consistency eschews this oppositional logic; rather than being kept in between the true/false dichotomy, it stands in between the not-true/not-false relation, which is one that subverts the symmetry between affirmation and negation.

What we call “observables,” writes Hayles, always depends on locally situated perspectives according to which different pieces of information about the environment are processed, as demonstrated in the example of the frog’s visuality, which Hayles gives at the beginning of her essay, drawing on the well-known article of Lettvin et al. (1959). For the frog, the Newtonian first law of motion, which for humans applies to every object upon which a force is exerted, does not work equally. A frog’s brain is only stimulated by small objects in rapid movement, allowing it to detect potential prey, whereas bigger or static objects elicit a completely different response. Recognizing, however, that every reality is relative to the observer does not lead Hayles to conclude that systems close in on themselves leaving the world outside, or that perceptions can do without representations at all, as Lettvin, Maturana, McCulloch and Pitts seemed to presuppose, and which Maturana and Varela further developed (Maturana and Varela 1980).

As Hayles notes (1995), even if we agree with the non-representational aspect of perception, we do not necessarily need to believe that “it has no connection with the external world,” particularly when we consider that a relation can also be transformative, rather than solely reflexive (ibid.: 75). And further, she argues contra Maturana and Varela, the observer is caught in continuous feedback loops within the autopoietic processes of the system, rendering “the domain of the

observer” a convenient fiction (ibid.: 78). Not willing to renounce a term like representation, but rather intending to formulate it differently, as “a dynamic process rather than a static mirroring” (Hayles [1991] 1997), Hayles opts for the way Niklas Luhmann, whose systems are as closed as Maturana’s, nonetheless contemplates much more activity in systems, showing their contingency rather than their inevitability, and thus finds a way to escape the realist/constructivist debate (Hayles 1995: 98). Actually, claims Hayles, “unlike Maturana,” Luhmann

twists the closed circle of tautological repetition (“we do not see what we do not see”) into an asymmetric figure (“one does not perceive when one perceives”). The energy generated by these contradictory propositions rebounds like a loaded spring toward the very term that Maturana’s closure was designed to erase, namely “reality.” What is enacted rhetorically within the structure of this sentence is formalized in Luhmann’s theory by investing the observer with the agency to draw a distinction. By making a distinction, the observer reduces the unfathomable complexity of undifferentiated reality into something she can understand (ibid.: 97).

What Hayles appreciates in Luhmann’s position is that he recognizes “that closure too has an outside it cannot see” (ibid.: 98). This leads us to acknowledge, on the one hand, the fact that “the very interlocking assumptions used to achieve closure are themselves the result of historical contingencies and embedded contextualities.” (ibid.: 98). On the other, it allows for a preservation of the “correlation” or “interactivity” that connections, rather than absolute distinctions, make possible (Hayles et al. 1995: 16). Representations, in this context, appear not as a mirroring of “external” reality, but as “species-specific, culturally determined and context-dependent” processes of dynamic interaction.

In Hayles’s terms (Hayles [1991] 1997), a representation can be consistent with reality, or inconsistent with reality. In the latter case, this suggests that an inconsistent representation does not offer an adequate account of our interaction with what Hayles calls “the flux.” She uses the terms “cusp” and “flux” in order to reformulate the notion of representation and its viability :

On one side of the cusp is the flux, inherently unknowable and unreachable by any sentient being. On the other side are the constructed concepts that for us comprise the world. Thinking only about the outside of the cusp leads to the impression that we can access reality directly and formulate its workings through abstract laws that are universally true. Thinking only about the inside leads to solipsism and radical subjectivism. The hardest thing in the world is to ride the cusp, to keep in the foreground of consciousness both the active transformations through which we experience the world and the flux that interacts with and helps to shape those transformations (ibid.).

³ These notions of cusp and flux recall the concept of “double contingency” in Luhmann’s theory, which regulates the way Ego and Alter “intra-act,” relating to each other both through the indeterminacy of their own autoreferentiality and the determinability of their own selections (cf. Baraldi et al. 1990: 75 ff.).

Representations, then, connect the sides of the cusp and allow us to ride it. The more representations are consistent, manifesting “local interactions rather than positive correspondences” with the flux, the more their “instrumental efficacy” allows us to “ride the cusp,” so to speak (*ibid.*). Representations are ruled by constraints, which do not tell us what reality “in its positivity” is, but can tell us when representations are consistent with reality, enacting some possibilities and enabling certain distinctions instead of others. Constraints, then, operate in the making of selections between those representations which are viable and those which are not (*ibid.*).

To better show the role of constraints for representations in her theory of constrained constructivism, Hayles adopts and modifies the Greimas Square (Fig. 1).

False and True occupy the top line of the square, so that they are mutually exclusive, since they stand in an exclusionary relation of opposition. Instead, the bottom line is occupied by the couple Not-true and Not-false, whose relation is not an oppositional one: actually, not-false are those representations which are consistent with the flux, while not-true are all the unknown representations, that is, the not yet practiced representations. This puts not-true and not-false in a relation that is one of consistency and of unknowability, rather than of antithesis—a relation that “folds together the ability to negate with the ability to specify,” that is a relation of denial (the unknown) and assertion (the consistent) rather than of negation and affirmation (*ibid.*). If I, for instance, look at the pen that lies at my desk, I can surely say that it is an orange pen. However, my assertion is based on the observation of the colour that the plastic case of my pen appears to be. But if someone asks whether I have a black pen to lend, I can surely give them the same pen, given that it writes in black ink, thus is a black pen too. While asserting that my

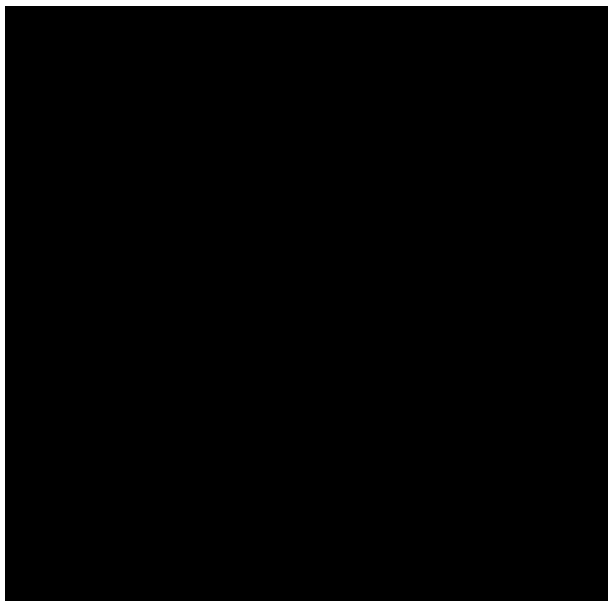


Fig. 1 Hayles's modified Greimas Square

pen writes in black ink, I am not negating the orangeness of my pen, so to speak, but only further specifying something about the way it works.

The difference here is that denial and assertion are what Hayles calls “marked,” or modal, terms, which cannot be assimilated to the “transparencies of non-modal statements” proper to realism, like true and false ones. This means that both not-true and not-false positions do not only not exclude the corresponding terms along the vertical axis, but stand with them in a relation of implication, which, nonetheless, is in no way symmetrical: “denial implies negation while subtly differing from it, just as assertion implies affirmation without exactly being affirmation.” This, then, should rather be intended as a relation of articulation, where “articulations emerge from particular people speaking at specific times and places, with all of the species-specific processing and culturally-conditioned expectations that implies” (ibid.).

But the terms of the semiotic square are implicated along the diagonal axis too, revealing what Hayles calls “a common concern with the limits of representation” (ibid.). The “elusive negativity” expressed by the not-true position at the bottom left of the semiotic square is worth considering in detail. This, in fact, is the position that mostly escapes the either/or alternative of both realism and anti-realism, being a kind of negativity that is neither negative nor positive, and is thus inassimilable: let us think of the inappropriate/d other in Min-ha’s terms as Haraway (1992) explains it, where the inappropriate/d other is not the untouched, authentic other, but the other that is not “originally fixed by Difference” and that stands in a “critical, deconstructive relationality, in a diffracting rather than reflecting (ratio)nality” (ibid.: 299).

Elusive negativity is, for Hayles, precisely what designates the position at the cusp:

The diagonal connecting true and not-true reveals their common concern with the limits of representation. At the positive (“true”) end of the diagonal, the limits imply that we cannot speak the truth. At the negative (“not-true”) end, they paradoxically perform the positive function of gesturing toward that which cannot be spoken. Elusive negativity, precisely because of its doubly negative position, opens onto the flux that cannot be represented in itself (Hayles [1991] 1997).

The signification of the cusp is obviously always ambiguous, depending on the result of the encounter between physical and semiotic constraints that allude both to the reality of the world and the reality of language—the Harawaian material-semiotic field—without fully representing them. Such a position recognizes that what we can get to know are, at least, the boundaries of the cusp; it thus bypasses not only realism but also relativism. As Hayles explains at the end of her text (ibid.), commenting on the notion of partial perspective elaborated by Haraway, it is not that we only partially see the truth in things while remaining ignorant of its totality. It is, rather, that partiality is the whole that we see as the result of contextual and specific interactions with the “flux.” That is why she insists on what happens “at the dividing line,” in between the two sides (Hayles et al. 1995: 34). So,

If it is true that “reality is what we do not see when we see,” then it is also true that “our interaction with reality is what we see when we see.” That

interaction has two, not one, components—what we bring to it, and what the unmediated flux brings to it. [...] Omitting the zone of interaction cuts out the very connectedness to the world that for me is at the center of understanding scientific epistemology (ibid.).

4 Inhabiting figurations

Constrained constructivism presupposes a language of metaphors: the difference that passes between metaphors and descriptions is, for Hayles, the same that passes between consistency and congruence. Haraway prefers speaking of figurations to name such “performative images that can be inhabited” (Haraway 1997: 11). Even though figurations always retain a visual aspect, which is not a secondary element in our “visually saturated technoscientific culture” (ibid.; Haraway 2000: 102–103), figures need not be literally representational or mimetic. They “involve at least some kind of displacement that can trouble identifications and certainties” (Haraway 1997: 11): they are neither complete nor static pictures of the world, but are representationally adequate insofar as they keep their performativity, with all its contradictions, alive.

Braidotti (2003), in her postmetaphysical feminist philosophy of difference, explains that this distinction between figurations and metaphors is intended to overcome the classical dichotomy of identity and alterity. From a Deleuzian perspective, the figural, based on difference and becoming, is opposed to the traditional aesthetic category of the figurative (or traditional representation) which, on the contrary, is based on identification and analogy between sign and object (Braidotti 2002: 78 ff.; 2003: 48; 2006: 170). According to Braidotti, figurations map the metamorphoses and hybridizations of subjectivities in technoculture. Actually, figurations do not stand outside the world they describe, but are living maps and transformative accounts never detached from their geopolitical and historical locations; they serve to “represent what the system had declared off-limits” without, in turn, attributing a separate status to it, as if the representation of differences were an end in itself (Braidotti 2006: 170). Figurations do not reify nor romanticize alterity, but “materially embody stages of metamorphosis of a subject position towards all that the phallogocentric system does not want it to become” (Braidotti 2002: 13).

Whereas metaphors generally presuppose two distinct tracks—that of signs and that of things—and work at reducing the unfamiliar to the familiar by linking two meaning systems, of which one is considered inert and stable, so as to reduce the one to the other—like the practice of mapping traditionally does (cf. Smith and Katz 1993)—figurations maintain a reciprocity between the two orders of meaning that shed light on another kind of space (and on different subject positions): one that is relational, active and unfixed. They stress transition, interconnectedness, interaction and border-crossing, as opposed to individuation and distinction (Braidotti 2002 Met: 70). As Smith and Katz contend, discussing the function of spatial metaphors in contemporary social theory, reconceived metaphors can work as an “Alice’s passage through the looking glass,” since they also “have the reciprocal effect of

revealing the familiar as not necessarily so familiar” (Smith and Katz 1993: 91). Haraway’s figurations rework precisely the unfixity that co-implicates the two sides of Hayles’s analysis, transforming an exterior relation of correspondence into a relation of co-implication. They are of the utmost importance, then, for a project of technoscience intended as a travelogue of “distributed, heterogenous, linked sociotechnical circulations” (Haraway 1997: 12).

Haraway traces the origin of the meaning of the practice of figuration back to the semiotics of Western Christian realism, on the one hand, and to Aristotelian rhetoric on the other (Haraway 1997: 9 ff.; 2000: 141). In the history of Catholicism, the literal and the figurative continuously intersect, and figures are attributed to the power to contain the development of events, either of salvation or of damnation—something which Haraway also devises in the millenaristic tone of many discourses of technoscience. Aristotle highlights the spatial character of figures of discourse: in his philosophy, “a figure is geometrical and rhetorical; topics and tropes are both spatial concepts” (Haraway 1997: 11). This spatial aspect is visible in the strong link that Haraway’s figurations, in fact, maintain with location, although clearly locations cannot be made to coincide with abstract space, but rather, as Braidotti (2003) emphasizes, outline a cartography of spatial power relations and make sense of the different positionalities that these define. Figurations, moreover, also retain a temporal aspect that is by no means developmental, but assumes the modality of “condensation, fusion and implosion” which is contrary to the modalities of “development, fulfilment and containment proper of figural realism” (Haraway 1997: 12). It is precisely this implosion of boundaries between subject and object, or between the material and the semiotic, that puts borders in a constructive and transformative tension rather than using them as dividing lines. Figurations are thus *tropoi*, in that they, according to Greek etymology, do not simply figure, but “turn” what they figure (Haraway 2008: 159).⁴

It is once again Braidotti who, drawing on Haraway, shows how Harawayian figurations can be employed to develop a “politically charged practice of alternative representation:”

Feminist theories of “politics of location” (Rich [1984] 1987), or “situated knowledges” (Haraway 1991) stress the material basis of alternative forms of representation, as well as their transgressive and transformative potential. In feminism, these ideas are coupled with that of epistemological and political accountability (Harding 1987), that is the practice that consists in unveiling the power locations which one inevitably inhabits as the site of one’s identity (Braidotti 1999: 91–92).

This alternative practice, as Haraway repeats, can be delinked from the theologies of representation that revolves around reflection and reflexivity and their root in the mastery of light, which the tradition of feminist critique rightly dismisses, and be rather coupled with an optics that registers the passages of light

⁴ Similarly, Latour distinguishes between “intermediaries” and “mediators,” where only the latter transform what they transport rather than simply carry it (Latour 2005: 39).

rays through screens and slits, looking at the resonance and interference that light undergoes while passing through them.

5 A different way of thinking about light

As a joke, albeit a serious one, Haraway affirms that semiotics is a science of four branches, “syntactics, semantics, pragmatics and diffraction” (Haraway 2000: 104). Intended as the production of difference patterns, diffraction, the fourth “optical” branch of semiotics, treats light differently from reflection, though, as we will see, not necessarily in opposition to representation. As Barad (2007) so poignantly summarizes,

First and foremost [...] a diffractive methodology is a critical practice for making a difference in the world. It is a commitment to understanding which differences matter, how they matter, and for whom. It is a critical practice of engagement, not a distance-learning practice of reflecting from afar. (ibid.: 90)

Undoubtedly, reflection and reflexivity have their roots in representationalism (ibid.: 87), but the opposite is not necessarily true. I thus disagree with the reading that Campbell (2004: 174 ff.) offers of Haraway’s writings and their presumed evolution regarding the issue of representation, because I think that the model of articulation that a practice like diffraction presupposes is analogous to the way representations are reworked according to the notion of figuration, a project already pursued by Haraway in such writings as “Situated Knowledges.” I would not counterpose the latter to texts like “The Promises of Monsters” or “Modest Witness” where, according to Campbell, Haraway would abandon the representational model in favour of the diffractive one. Rather, what Haraway drops is the metaphysics of representations, while at the same time she articulates representations by means of diffractive practices, so as to render them still employable for feminist technoscience.

As we have seen, when Haraway retrieves a notion like that of location for her idea of situated knowledge, she is at the same time exposing, via Withehead, “the fallacy of misplaced concreteness” that lies at the core of either traditional realism or of traditional representationalism, both being based on an ontological distinction between representations and reality as well as on the existence of a distant and invisible representer (Haraway 1991; Barad 2007: 46 ff.). So, Barad’s belief in the dynamism and articulation of matter, which is not “a support, location, referent, or source of sustainability for discourse” or any other external force inscribing onto it, but “always already an ongoing historicity” (Barad 2003: 821), is not so different from Haraway’s faith in the historical embeddedness of figurations. It is worth repeating that Haraway never abandons representations nor opposes diffractions to them. If Barad thinks that we should leave representations behind decisively for “matters of practices/doings/actions” (ibid.: 802), Haraway is saying that seeing too is a doing and that we are responsible for the generativity of our visual practices (Haraway 1991). Accordingly, Barad, when discussing the functioning of scanning tunnelling microscopes (STM), which not only allow the visualization of but also

the manipulation of atoms, notes that representations do not depict static objects out there, but are rather “condensations or traces of multiple practices of engagement” (Barad 2007: 53). Representations are performed as well as performing, so that we should rather talk about a set of representational practices that produce “what we take to be the evidence” (ibid.); our belief in them depends on historical and cultural variables, so that critically engaging with representations is always possible and, according to Haraway, also desirable (see also Barad 2007: 49). Only when they are critically engaged are metaphors put in motion, that is, activated through a process of translation, becoming effective, dynamic figurations rather than remaining reflective depictions of static givens.

When considering light, translation requires that we also consider that light has a history (Haraway 2000: 103). In fact, diffraction is a physical phenomenon that records the patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen: “a diffraction pattern does not map where differences appear, but rather maps where the effects of difference appear” (Haraway 1992: 300). This process replaces the idea of a mimetic mirroring proper of reflection and refraction, or what Haraway calls the displacement “of the same elsewhere” (Haraway 1997: 273)—usually employed as a metaphor for the objectivity of science as well as for the traditional notion of artistic representation—in order to encompass interference, difference and interaction instead. “To make a difference in material-semiotic apparatuses,” says Haraway, we must be able “to diffract the rays of technoscience so that we get more promising interference patterns on the recording films of our lives and bodies” (ibid.: 16). The historicity of diffraction, then, lies in its situated, embodied character and in its being involved in facticity and in process making. This also entails a critique of the methodology of reflexivity and its infinite regression, which radical constructivism would counterpose to the realist option, since as we have already seen in Hayles’s critique of the separate domain of the observer, reflexivity too is trapped in a geometry of exclusions (the top line of Hayles’s semiotic square) whenever it poses difference as an absolutely unrelated alternative to sameness (Barad 2007: 72). “Reflexivity does not more than mirror mirroring” (ibid.: 88), because, even if the observers re-enter the picture, they still maintain a distance from the object of their gaze, foreclosing any “reading through” (ibid.: 90) the entanglements of phenomena and the production of borders.

Diffraction concerns the world of physical optics rather than that of geometrical optics. It describes the behaviour of waves when they encounter an obstacle, thus practically all optical phenomena; it also, contrary to geometrical optics, interrogates the nature of light. In physics, as Barad explains in her analysis, diffraction experiments are frequently used to compare the behaviour of waves to that of particles. One way to observe the phenomenon of diffraction, which the naked eye can easily notice when a pebble is launched into water or in the iridescence of a soap bubble, is the two-slit experiment, in which diffraction patterns resulting in bright or dark spots on a target screen—depending on the reciprocal enhancement or destruction of waves—are obtained when a light source passes, precisely, through a two-slit screen (ibid.: 71 ff.). According to classical physics, only waves can produce diffraction patterns, since only waves, not

particles, can simultaneously occupy the same place. Barad, however, shows that quantum physics studies how particles can also behave like waves under certain circumstances. She then discusses the “modified” two-slit experiment at length, drawing on Niels Bohr’s diagrams; without entering into too much detail here, it suffices to say for the purpose of our argument that depending on the apparatus used in the two-slit experiment, that is, whether a “which path detector” is employed or not, matter, and light as well, are observed to manifest either particle or wave behaviour. This apparent paradox forces us to radically rethink the dualism that lies at the core of representationalism and the idea that “practices of representing have no effect on the object of investigation” (ibid.: 87), given that diffraction not only shows the entanglements of meaning and matter, but is itself an entangled phenomenon.

Thus, adopting a diffractive methodology, as Barad does drawing on Haraway’s lesson, implies a profound rethinking of Western ontology and epistemology (ibid.: 83) because it replaces the analogical methodology, which consists in relating two separate entities by way of an external observer, with a methodology that shows how “practices of knowing are material engagements that participate in (re)configuring the world” (ibid.: 91). Producing differences is what establishes connections rather than reinforcing distinctions: As Haraway writes, “diffraction patterns are about a heterogeneous history, not originals” (Haraway 2000: 101). A representation is not a sign that mirrors a separate external referent; it is rather a diffractive practice that reveals the coemergence and the co-implication of both meaning and matter. Agency is redefined as precisely “a matter of intra-acting,” from which the “agential realism” at the core of Barad’s philosophy is derived: since “intra-actions are *constraining but not determinate*,” (my italics) intra-acting neither belongs to a completely free subjectivity nor to a fully determined reality, but rather happens in a material-semiotic field where “particular possibilities for acting exist at every moment, and these changing possibilities entail a responsibility to intervene in the world’s becoming, to contest and rework what matters and what is excluded from mattering” (Barad 2003: 826–827). Talking about constraining intra-actions brings us back to the idea of consistency theorized by Hayles, according to which, as we have seen, constraints are what enable us to select among viable, that is, consistent, rather than congruent representations, shifting representations from what that we could see to the “interaction with reality [that] we see when we see” (see above).

This very much complicates the notion of vision as well as that of location (and the situatedness of the observer), since it dismantles the exteriority on which both have traditionally relied, and replaces it with specific forms of connectivity as well as accountability. Even if the observer comes back, he/she does not stand in a separate domain, but is connected in continuous feedback loops with his/her cognitive processes, since the closure of the observer’s domain is never pre-given, but always achieved (Hayles 1995: 78). Even as observers, we take part, writes Barad, in the “world’s differential becoming” (Barad 2007: 91) in which our knowledge enacts the world engaging in “specific worldly configurations” from the inside (ibid.).

6 Conclusion

As Haraway notes, since we as humans need a “different kind of theory of mediations” (Haraway 2008: 174), new representational practices rather than new representations are required to make differences rather than merely see them. Since feminist theory has shown the criticality as well as the importance of a notion like that of representation, representations cannot be easily dismissed but should rather be reworked and signified according to alternative practices and wider semiotic frameworks. Adopting a performative idiom as a substitution for the representational one, thus getting completely rid of representations, leaves a series of questions unresolved, as Hayles and Haraway particularly highlight. These concern the domain of the observer as much as the status of what is observable, and most of all, that which relates the two sides, the sign and reality, or meaning and matter (Barad 2007).

The theory of constrained constructivism elaborated by Hayles ([1991] 1997) tries to formulate the viability of representations through the idea that they can never be congruent with reality but, rather, be consistent with it. Even if we do not get to know reality through representations, we can nonetheless “ride the cusp” that separates and at the same time connects us with the flux, touching the limit of representation (and, also, the limit of the knowability of reality). Modifying Greimas’s Square, Hayles proposes that we define the position at the cusp in terms of “elusive negativity,” a double negativity that connects us with the dividing line where we meet our interactions with reality and our representations of it as well.

This zone of intra-action is what Haraway’s practice of alternative representation goes through in order “to diffract the rays of technoscience” (Haraway 1997: 16). Haraway’s notions of figuration and of diffraction serve to displace fixed identities and put boundaries in constructive tension, requiring engagement rather than distancing. While Barad recognizes the importance of diffraction as a generative practice and interprets this notion in a non-representational way in her philosophy of agential realism, I have tried to argue that there is no need to oppose diffractions to representations, since what Haraway abandons is, first and foremost, the metaphysics of representation, but not the performativity of images which can be read through and used ~~read~~ read throughout the same time.

We configure our world and establish connections with it through our ways of seeing. Diffraction, so intended, does not simply regard our visual field, but is a practice that invests our knowledge, our imaginary and our practices at the same time: it is, as Haraway writes, “a [...] technology for making consequential meanings” (Haraway 1997: 273). Productive interruption, as well as reciprocal reinforcement, is allowed by diffractions and their unpredictable and unintended effects: different realities and unforeseen possibilities can emerge from diffractive practices (Haraway in Schneider 2005: 150).

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INTRODUCTION

Media Artists and Feminist Performance

Kumarini Silva and Kaitlynn Mendes

In a 2007 article in the *Washington Post* titled “Feminism and Art,” Blake Gopnik noted that

Feminism can be thought of as the crucial movement of the recent past because it could act as an umbrella for any number of approaches to making art. It encourages a vast range of attitudes and media and forms, with each one valued for whatever point it's most suited to making. . . . in its ideal vision of itself, what a work of art is made from or looks like is supposed to matter less than what it is about. Feminism helped put such notions into play. (2007, n.p.)

Gopnik's observation here of the relationship between feminism, media arts, and activism succinctly contextualizes this issue of *Commentary and Criticism*. Indeed, throughout the last few decades, performance-based artists like those discussed in this section, along with others such as Coco Fusco, Cindy Sherman, the Guerilla Girls, and musicians like Ani DiFranco, together with punk artists in both North America and Europe, have used media to provide, through their creative practices, enduring commentary about women in contemporary culture.

These individual artists are joined by scholars and curators writing on contemporary artists/activists (e.g., Butler & Mark 2007; Pollock 1996; Reilly & Nochlin 2007; Shohat 1998), as well as virtual artistic communities like the International Museum of Women (n.d.). In this issue of *Commentary and Criticism*, we further this discussion/analysis of the intersection between feminism and media arts by bringing together a group of scholars who examine artists/activists using a variety of media to express themselves as feminists and activists.

In “Pour Your Body Out: On Visual and Other Pleasures in Pipilotti Rist,” Kate Mondloch interrogates the impact of Swiss artist Pipilotti Rist's 2008 video installation *Pour Your Body Out*. By its very eroticism and embracement of both biological and sexual femininity, Mondloch contends that Rist's work, “appear[s] now to reaffirm female subjectivity precisely through these once disallowed representations.” Positioned against the canonical work of Mulvey (1975) on the male gaze, Mondloch notes how Rist forces scholars to rethink the notion of viewing, pleasure, and feminist subjectivity. Extending this notion of rethinking artists and their work through a new feminist lens, Jenny Gunnarsson Payne focuses on the work and practice of Bitte Andersson. Through an interview format,

Gunarsson Payne, in "Sexing the Raspberry: A Brief Portrait of Bitte Andersson," presents a window into the life of an artist/activist, whose practice extends from painting, to music, to television producer. According to Gunnarsson Payne, "Andersson's diverse repertoire of imaginary characters, from asexual Ingrid to the bestial werewolf television presenter, could be understood as a way of 'mediating gendered perspectives' (Zerilli 2005, p. 149) which are not normally portrayed in dominant media and popular culture." In addition to this, Gunnarsson Payne notes that Andersson's commitment to her queer feminist bookstore Hallongrottan (The Raspberry Cave) shows the relationship between space, art, community, and participation.

In "Dismembering and Re-membering MotherIndia: Women's Trauma, Partition, and the Indian Nation," Alessandra Marino interrogates the work of video installation artist Nalini Malani's work titled *Mother India: Transactions in the Construction of Pain* (2005). Marino looks at the relationship between Malani's visual representation, and its relationship to other canonical texts of the same name that Malani borrows from. Through the history of representation, as well as popular and scholarly narratives of the partition, Marino contends that "underlining the striking contrast between national politics and female experience, Malani's *MotherIndia* reiterates the traumatic event of the nation's splitting: the space of the installation, inhabited by a messianic time, is disseminated with women's bodies and voices." A similar dismembering of culture, popular narratives, and feminist media occupies the work of cyberfeminist collective subRosa, who are the focus of analysis in Federica Timeto's contribution, "Unmasking the Theatre of Technoscience: The Cyberfeminist Performances of subRosa." Framed by the work of Haraway and her work on technobiopower, Timeto approaches the subRosa group as exemplar of the relationship between second wave feminist art and rethinking strategies of feminist performance/intervention through a transnational lens that incorporates technoscience. As Timeto writes, "In the participatory art of subRosa, the performances of technobiopower are restaged and deconstructed to reveal their linkages with the performances of everyday life."

Feminist media artists have, for many decades, commented visually, orally, and aurally on and about the realities of women across cultures. Their work is significant because it highlights the relationship between media, performance, activism, and everyday life. As Blake Gopnik writes:

Feminist art wasn't about the "either/or" of traditional art history, where one preening artist—almost always male—tries to assert his way of making art as the "next big thing," in part by elbowing rival artists and approaches out of the way. Feminism was about "both/and," in the service of coming to grips with a massive issue that was more than any one artist, or way of making art, could ever deal with. (2007, n.p.)

And the contributions to this issue of Commentary and Criticism clearly articulate the depth and breadth of this activism and commitment to something more "massive" than the individual.

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5. In her essay Das analyzes the short story *Fundanen* (Pompoms) by Sadat Hasan Manto, in which the protagonist draws on her own body's two stomachs because, she says, women need a normal stomach and an additional one to be able to bear the fruits of violence within themselves (1997, p. 86). Malani seems to take her cue from this passage.
6. Transcript from the video; the following quotations from the video are extracted directly by the author.

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Unmasking the Theatre of Technoscience: The cyberfeminist performances of subRosa

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When considering the connection between women and technology from a technobiosocial perspective (Wajcman 2004), gender, bio and digital technologies appear to

be reshaping each other within the current trajectories of technobiopower. The latter is a term used by Haraway who, expanding on the analysis of Foucault, speaks of technobiopower to analyze the dynamics of production and reproduction of cyborg bodies inside multiple global flows (Haraway 1997, p. 12). Foucault (1978) stressed the immanent forces, both regulating and productive, that create a co-implication between the discourses of sexuality and the power relations at stake in specific forms of knowledge concerning bodies. Haraway further writes: “all the entities in technoscience are constituted by the action of knowledge production, not before the action starts,” so that “the discursive production of sexuality” happens “through the constitutive practices of technoscience production themselves” (1997, pp. 29, 35; italics in original). As feminist artists working with and on digital and biotechnologies, subRosa members foreground the embeddedness of scientific practices, as well as the situatedness of women’s lives and feminist activism, inside the material and virtual networks of technobiopower. Blurring the boundaries between the subject and the object of technoscience, their cyberfeminist performances evidence, firstly, how bodies are materially, as well as symbolically, in the making and, secondly, how science, rather than being a continuous approximation to essential truth, also engages in “practices/doings/actions” (Barad 2003, p. 802).

As a way to escape the visual essentialization of the feminine without being relegated to invisibility and to contest the exclusivity of the established canons of the art world, performance art and performativity have been at the core of feminist art and activism from the very beginning. Performance art inaugurates “another representational economy,” one that does without representation (Schneider 1997, p. 3), transforming the work of art from a fetish into an operational event. Performances are contingent and ephemeral, virtually repeatable but nonetheless always differently situated. Feminist performers experiment with the provisional, un-fixity, deformity, and the formless in order to contrast the fantasies that circumvent the feminine body and the work of art, accompanied by the desire to possess them both. Pregnancy, menstruation, dieting, ageing, surgeries, erotic pleasure, violence, rape—everything that shows the passage from integrity to fragmentation, from the closed organism to the liminality of the corporeal, is explored by feminist visual performers.

Performativity is of the utmost importance in recent cyberfeminist practices that “embody feminist content, practices, and agency within the electronic technologies, virtual systems, and Real Life spaces, which we inhabit in our work and lives” (subRosa in Griffiths 2003, n.p.). subRosa is a cyberfeminist collective based in the United States whose activity dates back to the late 1990s—it is no coincidence that it initially emerged as a study group around Wilding, one of the founders of the first Feminist Art Program at CalArts and a leading artist of the Womanhouse(1972) project. The collective creates performative environments that enhance participants’ understanding of the politics and effects of new technologies on our lives, while at the same time providing them with tactical means of resistance. subRosa’s “site-u-ational” approach (subRosa 2004)—which finds analogies in the modes and scope of the “recombinant theatre” of the Critical Art Ensemble (2000)—aims at involving the audience in a public debate on such themes so as to counter the “private theatre” of technoscience (subRosa 2003): in subRosa’s works, knowledge is a common experience, not private property; it cannot be bought or possessed, but can only be acquired and disseminated through a practice of sharing.

subRosa employs and remixes high and low-tech media, paralleling offline activities with online ones in the form of webworks and documentation websites, which in turn work

as a locus for further reflection and action. Its methods, such as conviviality, collective action, an enlarged version of consciousness-raising through panelling, networking, and leafleting, are not very far removed from those of many feminist artists of the 1970s, nor is its focus on the embodied dimension of women's lives. However, subRosa's "confrontation with the network," as a return to physical reality after the initial fascination for the immateriality of the genetic code, as well as its performativity, which Hauser (2008, p. 87) includes among the distinctive traits of bioart today, must be related to the tradition of grassroots politics and a feminist politics of location, which subRosa reframes according to a transnational perspective (Fernandez & Wilding 2002). This requires the consideration of the hybridity of the female body not only as an empowering condition, but also as the result of several overlapping powers and their unequal effects: an "integrated circuit"—an expression which Haraway (1997) borrows from Rachel Grossman—of medical, military, labour, and informational power forces where women and other subaltern subjects, as well as animal and plants, are valued and exchanged as commodities.

For the exhibition *Knowing Bodies* (2000),¹ for example, subRosa puts together three interconnected pieces drawing on vaginal iconology and the maternal, as in the tradition of feminist art: a giant soft sculpture reproducing a vagina, which the audience is allowed to construct and manipulate, a video-performance, *Vulva De/Reconstruct*, about aesthetic surgery on female genitalia, and a webwork, *SmartMom*, about the possibility (passed off as plausible) of monitoring the pregnant mother and the foetus via remote control sensor-equipped suits. The *poissance* for the reappropriation of the feminine dimension, however, is problematized as soon as subRosa foregrounds the implications of such bodily enhancements: the audience learns that there exist many different—not only aesthetic—reasons for vulvar surgery, for instance genital mutilation, and that very often the request of "vaginal rejuvenation," behind the promise of a renewal of sexual pleasure, disguises the pressure to conform to the heterosexual and patriarchal norm (Wilding 2002). Smart technologies too are traced back to their military origin and their possible application to the control and normalization of deviant bodies.

Typically, subRosa unmask the theatre of technoscience by re-employing and displacing its power from the inside through mimicry. Like other feminist performers before, such as Hannah Wilke, Adrian Piper, Eleanor Antin, Suzanne Lacy, to cite only a few, but also like some contemporary "artists" such as the Yes Men and the CAE, subRosa members act "as if," to devise the intervals of power among repetitions, where "alternative forms of agency" are made possible (Braidotti 1994, p. 7; see also Butler 1990). In the participatory art of subRosa, the performances of technobiopower are restaged and deconstructed to reveal their linkages with the performances of everyday life. Works like *Sex and Gender in the Biotech Century* (2000) and *Expo Emmagenics* (2001) adopt the strategies of corporations and turn them upside down. In the first one, people take part in a fake class held by subRosa members posing as corporate and government delegates: while compiling a sort of exercise book and learning about Assisted Reproductive Technologies (ART), the participants in fact understand how bodies are accorded a different market value on the base of ethnic, class, and geographical factors. For *Expo Emmagenics*, subRosa's members pretend to be representatives of leading US firms preparing a trade show targeted toward the European market, where the latest American products related to ART are promoted: lively demonstrations explain how to use the *MegaBytes*, *Human Caviar*—resulting from the excess eggs of hormonal stimulation—as fertility and sexual

revitalizers, as well as sperm saver condoms, do-it-yourself kits for in vitro fertilization and GPS devices to find the perfect mate for “producing” the ideal child.

Whereas the narratives of ART are often based on the rhetoric of choice and the manipulation of desire conveyed through the neutral and normalizing language of technoscience, subRosa’s performative mimicry discloses very different accounts which are class-, race- and gender-targeted. At issue are the ways women, notwithstanding appeals to individual freedom, are still addressed as objects of investigation and consumption, their bodies treated either as laboratories or resources, according to uneven routes of mobility that very often follow colonial and eugenic ideologies (subRosa 2002): consider for instance the similarities between the illegal traffic of organs and the legal mobility of egg and sperm cells, explored by subRosa *InternationalMarketsofFlesh*(2003), or the growing patenting of stem cells and seeds as a way to manage diversity and privatize common resources, at the centre of *CellTrack*(2004) and *Epidermic!DIYCellLab*(2005).

In subRosa’s multimodal environments, people have the opportunity to learn by reading texts, watching videos and even eating themed snacks that subRosa members jokingly distribute. “Refugia” is the name that subRosa gives to “becoming autonomous zones” (BAZ, a term reminiscent of Hakim Bey’s TAZ, “temporary autonomous zones”) like these. “Refugia” (subRosa 2001) should be conceived as situations, rather than territories: not homogeneous places, but spaces of commonality and nourishment that are also hybrid spaces of differentiation and recombination against every form of monoculture. “Refugia” are not containers either, since they do not simply gather but also disseminate, having a porous, dissipative tissue. Being adaptable, situated, and reproducible, “Refugia” do not fall under precise categories of identification and representation so as to resist corporate control. They also defy traditional spatial and temporal logics: their situatedness makes them neither utopias nor dystopias, but slow-down spaces of “imaginative inertia” (subRosa 2001), affect, and desire. “Refugia” cannot be properly employed, since they are useless, playful, unregulated zones, but they nonetheless generate shared knowledge and common action.

In conclusion, while subRosa’s cyberfeminist performances establish an important link with second wave feminist art (Fernandez & Wilding 2002), adopting most of its strategies and themes, at the same time they conduct a situated critique of technoscience which requires that these same methods and issues be recontextualized in a transnational framework. subRosa’s restaging of the theatre of technoscience opens up performative spaces where people can learn about and act against the uneven production and exploitation of women’s bodies in the integrated circuit of technobiopower.

NOTE

1. For detailed visual and textual documentation of the projects discussed here, see subRosa’s websites (cyberfeminist.net [n.d.]; refugia.net [n.d.]) and their video-collection of selected projects (subRosa 2005).

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TRACING WOMEN'S ROUTES IN A TRANSNATIONAL SCENARIO

The video-cartographies of Ursula Biemann

Federica Timeto

This essay analyzes the video essays of Ursula Biemann, which focus on the relations between globalized production processes, the exploitation of women's bodies, and the sexualization of female labor. Showing the interrelation of the flows of transnational economies and information and communication technologies (ICTs) with the performances of gender and space, these video essays work as feminist cartographies. Deploying the video essay format, Biemann creates figurations to delineate an alternative system of navigation. Visual language and visualization technologies become a political instrument to counter women's invisibility behind the displacing and abstracting effects of technoscapes.

KEYWORDS Ursula Biemann; video essay; ICTs; transnational feminism; feminist cartography; visualization technologies

Embedded Technologies

According to Huber (2003), the practice of video essayism works at putting into relief a set of connections. First, it links theory and practice, since it manifests the ways in which theory is embedded in its contexts of production and shows the processes that theories concretely set in motion. Second, it appears as both a mobile tool and a means for moving the audience, which traverses and translates the world, rather than framing it in static pictures. Finally, and maybe most importantly, it combines a transdisciplinary quality with a self-reflexive stance, in that it unmask the position of the speaking/viewing subject, while also accounting for its relational and processual character. All these features render the video essay an appropriate instrument for tracing the intersections of location and mobility in the transnational scenario.

I propose to read the video essays of the Swiss artist and curator Ursula Biemann as feminist video-cartographies that counter the abstracting tendencies of the rhetoric accompanying mainstream uses of new information and communication technologies (ICTs) with situated accounts that reveal the different roots and different relational networks implicated in transnational mobility. Biemann shows the interplay of the material and symbolic effects produced by the flows of transnational economies and ICTs on women's lives. Although ICTs open up routes and alternatives previously unimagined, they



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also tend to be used increasingly as instruments of control for the reinforcement of existing physical and virtual borders. Biemann's videos unmask the embeddedness of the technologies they both talk about and utilize, while functioning as navigational systems that account for the multiple locations of women's lives. At the same time, they disclose the complex interrelations between women's asymmetrical mobilities across several borders. I thus interpret these video-cartographies according to the feminist notion of figuration, a core element in Haraway's concept of situated knowledge, which I recontextualize in a transnational framework. Figurations are lived maps that do not transcend the connections they outline but, instead, embody vision within the limits of a "partial perspective," allowing us not only to account for what we learn to see, but also to elaborate on the specificities, the complicities, and the differences among our ways of seeing (Haraway 1991b, p. 190).

Another kind of mobility hides behind the "anything anywhere anytime" rhetoric of cyberspace (Graham 2004)—that of globalized and increasingly feminized labor. Sassen (1998) notes how the internationalization of manufacturing creates a sharp polarization between the superprofit-making capacity of corporations and the feminization of the kinds of jobs upon which what she defines "high-income gentrification" draws. While rendering women the invisible subjects of this economy, such transformations also alter previous gender hierarchies and give women a new kind of control over their self-awareness, mobility, and money, leading to new forms of female solidarity and transnational alliances. For this reason Sassen, in her sociology of information technology, warns us against a purely technological interpretation of technological devices; in fact, such readings run the risk of ignoring the technological embeddedness of every technology, that is "the material conditions and practices, place-boundedness and thick social environments within which these technologies operate" (2002, p. 366).

In the interweaving of the space of flows with the space of places that characterizes the contemporary moment, thinking about the subject and its location in unitary and delimited terms is considered problematical (Castells 1996; Duncan 1996; Massey 1994; Pile & Thrift 1995; Rose 1993; Stone 1995). Yet feminist scholars from a variety of fields still appeal to a situated view. The feminist theorist of the politics of location, Rich, has already reclaimed the body of women as the ground of struggle against what she calls a "lofty and privileged free-floating abstraction" (1986, pp. 213–214). More recently, Haraway has employed this aspect of the politics of location as a critique of the prevailing "transhumanist technoenhancement" permeating the narratives of new technologies (Gane 2006, p. 140). At the core of Haraway's situated knowledge, by contrast, there is the partiality of a vision "from somewhere" (1991b, p. 196; italics mine); this means finding "a larger vision" from a specific location with all its "limits and contradictions" in order to build a never innocent and always relative "earth-wide network of connections" (p. 192). In fact, location cannot be conceived as a naturally given and delimited spatial container, but as the node where movements, activities and influences of different social groups intersect at a transnational level (Kaplan 2002; Massey 1994).

Location and mobility do not have the same meaning for everyone. Rather, they depend on whereone is, wants to be, or can be situated. The "post-national" condition of the refugee, for example, which Biemann describes in her most recent video *Asylum* (2008), exerts a profound change both on the refugees' self-perception and how they are perceived as human beings, a perception that is filtered through the politics of the nation-state and the visual rhetoric of humanitarianism conveyed through media. Transnational subjects like refugees or sex workers do not experience the kind of mobility theorized

by those who believe that, in our techno-driven world, the act of traveling no longer requires any kind of material displacement. Feminist theorists such as Kaplan are extremely skeptical about such narratives, which appear to have their roots in the flight from the body that characterizes western modernity. Arguing for a deconstruction of the rigid polarization of mobility and location which this rhetoric generates, she poses a series of urgent questions that cannot be dismissed in any embodied account of ICTs, that is: "Who suffers, who troubles, who works these technologies of travel?" (Kaplan 2002, p. 40).

Video-Cartography as Figuration

As Biemann's artworks make clear, these questions also imply the need to reconceive the act of visualizing and representing (women) and hence to rethink the function of artistic practice and the role of the artist as witness/author. In order to become an "embedded artist," as Biemann claims to be in her work *The Black Sea File* (2005), does it suffice to collect information and comment on what one sees? Or is it not imperative to adopt a self-reflexive stance, so that the translocal cultural position of the video essayist itself emerges through the proposed meanings? "Knowledge from the point of view of the unmarked" (Haraway 1991a, p. 22) is pure fantasy, built on the rational myth of everywhere-ness which, from a feminist situated perspective, turns out to be the same as nowhere-ness. Discussing curatorial practices in postcolonial sites, Biemann (1997, 2003) notes that posing such questions is a good entry point for transforming existing power relations without simply reproducing them. Biemann does not expound upon any local specificity of the lives framed in *Remote Sensing* (Verstraete 2007, p. 122). Nor does she automatically affirm the existing hierarchies of power between women as subjects and women as objects demonstrated by "experts"—the artist among them—who speak for the anonymous "others" who remain in the background. In fact, Biemann's navigational rather than representational video essays (Biemann 2003), including *Remote Sensing*, do not mirror existing spaces from above, like maps portraying the world in a fixed structure of power and meaning (Pile & Thrift 1995, p. 48). Instead, they locate "the space of theorizing" (hooks cited in Kaplan 1994, p. 143), as well as the space of visualizing, within a complex system of signification that images can only partially render, thus unmasking the function of the actual instruments that are employed in their visualization.

As navigational systems, cartographies are not merely visual objects. Rather, they contain dynamic intersections of social relations and cultural meanings, which contribute to building, instead of simply reflecting, the multiplicity of our realities (Rogoff 2000). Biemann's video-cartographies account for the positioning of the cultural producer and the viewer within the practices of power that define the grid, while also working as figurations in visualizing alternative agencies and otherwise invisible actors in the social field. Figuration is a term first used by Haraway (1997) and further elaborated on by Braidotti (1998, 2003) to define maps that are deeply linked with location, but which at the same time go beyond it. Unlike metaphors, figurations are always grounded, that is, embedded in specific historical and geopolitical contexts. Nonetheless, they do not simply trace, but also reinvent the connections between embodiment and movement, location and displacement, and are performative and transformative in character. They constitute, in effect, a situated and corporeal opportunity to articulate our contemporary imaginary, particularly when a discussion on new technologies is involved. Braidotti (1998), for example, includes some very specific historical forms of female mobility among figurations, like the mail-order

bride, the rape victim of war, the au pair girl, and the doméstica along with the techno-skilled cyberfeminist. It is no coincidence that most of these figures are the very protagonists of Biemann's video essays.

The aesthetic dimension of Biemann's cartographies is always enmeshed with a thick human component, which infuses the visual data with experiences and projections, merging local histories with global space (Biemann 2002, p. 79). Analogously, the aesthetic dimension is a necessary component of a feminist theory that requires figurations to open up new historical possibilities for the reinvention of praxis (Braidotti 2002, p. 21). Biemann uses visual language and visualization technologies to counter the invisibility to which women's bodies have been relegated by the displacing and abstracting effects of technoscapes. Her video-cartographies literally bring women into view (Pratt & Yeoh 2003), while dealing with the difficulty of documenting something that is always in motion, ultimately ungraspable once and for all, like transnational processes. The artist describes her choice of this artistic medium as follows:

Like transnationalism, the video essay practices dislocation; it moves across national boundaries and continents, and ties together disparate places with a distinctive logic. The narration in my video essays—the authorial voice—is clearly situated, in that it acknowledges a very personal view. This distinguishes it from a documentary or scientific voice. Though the narration is situated in terms of identification (as it is articulated by a white female cultural producer), it isn't located in a geographic sense. It's the translocal voice of a mobile, travelling subject that does not belong to the place it describes but knows enough about it to unravel its layers of meaning. The simple accumulation of information and facts for its own sake is of little interest to this project. My video essays are not committed to a belief in the representability of truth. Rather, my intention is to engage in a reflection about the world and the social order. This is accomplished by arranging the material into a particular field of connections. In other words, the video essay is concerned, not with documenting realities, but with organizing complexities. (Ursula Biemann 2007, p. 130)

The Differences of Mobility

For the purpose of my argument, I consider only three of Biemann's video essays here, specifically those in which the issue of gender mobility is overtly linked to new technologies. To shoot *Remote Sensing* (2001), which focuses on the organized and individual paths of and reasons for the global sex trade, Biemann traveled to some of the places where the global sex industry has flourished, such as the Thailand-Myanmar-Laos triangle, the border between the former German Democratic Republic (East Germany) and what was once Czechoslovakia (now the Czech Republic and Slovakia), the United States-Mexico border and the former US Marine bases in the Philippines. Ultimately, however, *Remote Sensing* also explores some locations that are entirely imaginary.

Almost half of the total population migrating every year is female (Yinger 2007). In the context of an increasing global feminization of labor and migration, the number of trafficked women has reached 80 percent of the total of trafficked people (Trafficking In Persons Report 2008). Women migrate for many different reasons, some of them leading to, or connected with, trafficking: the entertainment industry, sex tourism, forced prostitution, discrimination, political instability, the need for supplementary income, the provision



FIGURE 1
Remote Sensing(2001)by Ursula Biemann(Courtesyoftheartist)

of family services where these are lacking, or the social restructuring of gender relations. Women may also desire to move to affluent countries to realize their personal dreams.

In *Remote Sensing*, Biemann makes wide use of satellite images, inviting us to feel rather than merely see them (Timeto 2006). Vision, recontextualized as a situated practice, dismantles the fiction of the neutral distance of techno-scientific methods (Kwan 2002, 2007; Parks 2005): the sites of production and reception of the images and their content are addressed, their silences and omissions foregrounded (Rose cited in Kwan 2002, p. 649). The same satellite instruments used to keep women's movements under control also produce new perspectives that render the visual field more complex. If, on the one hand, some kinds of visualization devices interfere with women's mobility, limiting their actual movements by tracking their routes across borders, technologies like the World Wide Web on the other hand help women to become transnational actors—as occurs in the case of the cyberbrides, which I discuss below—giving them a greater opportunity to visualize and fulfill their desire for mobility.

As the narrative of *Remote Sensing* explains, viewing sex migrants exclusively as victims reinforces sexist stereotypes, leading to the creation of restrictive measures intended to prevent mobility. Thus, a careful consideration of the kinds of power-related differences at stake in these movements, as well as their possible intersections, is imperative (Verstraete 2007).³ Several national economies have become increasingly dependent on the remittances of sexualized mobilities, showing the interdependence of location and dislocation in the global scenario. Women who move along sexualized routes, however, frequently create their own alternative economies and “circuits of survival” (Biemann 2007, p. 134). In *Remote Sensing*, electronic travel schedules indicating women's journeys as well as their personal data—timetables, departure and destination places, longitude and latitude coordinates appearing alongside information regarding age, height, weight, ID, and visa numbers—scroll over the video images. In some instances this

information appears at the side of the screen, while in others it is superimposed upon the x-rayed portraits of the traveling women, against a backdrop of unrecognizable landscapes. Biemann adopts this strategy to mimic the official devices used to classify and depersonalize their identity, fixing them in a taxonomic grid of detached observation. In addition, she makes frequent use of the split screen, juxtaposing apparently frozen satellite images with images of movement recorded “from below.” The narratives of the interviewed women—NGO activists as well as ordinary women, whom we sometimes see and sometimes only hear off screen—embody these otherwise mute and anonymous images.

Although the video contains a wealth of information and seems to adopt documentary tools, its intent is not properly factual; rather, Biemann investigates the interplay between the symbolization of the feminine and the materiality of women’s experience. Here, the private and domestic sphere, where women have traditionally been confined, and the economic and public sphere, usually considered a masculine domain, appear to overlap, resignifying and expanding the space of the feminine itself. The women interviewed tell stories that reveal different backgrounds, intentions, interests, and desires, thus disrupting the flattening logic of the Geographical Information Systems (GIS). By looking at the negotiations occurring among the abstract flows of information, money, and representations, and the material flows of people, we as spectators confront the issue of women’s mobility in a subtle way, avoiding the binary opposition of passive victim versus free agent (Biemann 2005, p. 185).

A very specific example of how women’s mobility can benefit from the employment of new technologies is offered by *Writing Desire* (2000), a video essay on the dynamics of desire and the new female subjectivities generated by the different uses and locations of ICTs. Here, Biemann focuses on the phenomenon of the mail-order bride market on the Internet, particularly common in postsocialist and Southeast Asian countries. *Writing Desire* shows the exchanges between virtual and physical bodies in cyberspace and suggests the



FIGURE2
Writing Desire (2000) by Ursula Biemann (Courtesy of the artist)

way in which virtual instruments facilitate women's mobility by linking virtual and real migrancies. In fact, the women's imagined—but not imaginary—places always maintain a connection with their real locations, which in turn come to be experienced differently according to their diverse symbolic projections. The video opens with a glossy image of a tropical beach, while statements about the passivity of women “waiting to be rescued” by foreign capital flow across the screen. A parallel between women and nature is established with all the associations that this implies—above all, the idea that women, like nature, are essentially immobile, passive, and outside history (Williamson 1986), as opposed to men, who can move and thus change continuously. The body signifies “the collective exotic the desire to be conquered,” says Biemann in the video. But this nostalgic image only apparently contrasts with the electronic fantasies that are articulated immediately afterwards. In both cases, what stimulates fantasies of virtual bodies are highly coded icons, whose interplay of distance and proximity generates “a sense of always approaching, but never reaching” (Writing Desire 2000). In this instance Biemann does not merely show how women are signified as desirable bodies; she also shows us how women signify their desire.

In *Writing Desire* diverse writing positions coexist without creating a dichotomy between female subjectivities in purportedly “advanced” western societies, where women follow a postmodern logic of desire and adopt a free and easy approach to sexuality, and those “third world women” who, in their fight to survive, are obliged to offer their care and services in order to escape from degrading living conditions. Maris Bustamante, for instance, not only writes her desire, but also realizes it. This 50-year-old Mexican woman, feminist, artist, widow, and university professor looks for a partner online as she is not satisfied with the men that are available to her in her local, Mexican environment. Finally, she meets John, a lieutenant colonel in the US Marine Corps, and marries him. Although this choice may seem unexpected, they manage to form a new family, embodying their virtual fantasy in daily experience. Studying a group of well-educated middle-class Mexican women from Guadalajara seeking a transnational marriage in the United States, Schaeffer-Grabiell (2004) argues that these women look for men “over there” in order to leave behind the traditionally restrictive values associated with womanhood as well to improve their lives. When interviewed, most of the women state their intention to escape from the “machismo” of Mexican men, simultaneously revealing their critique of the national body which devalues women's changing roles in private and public spaces. Even so, they tend to project a self-image mirroring the ideal of a traditional Mexican woman that would appeal to an American man looking for an authentic, “precapitalistic” marriage. This highlights, once again, an internalization of stereotypes, and a simultaneous reenactment and transgression of gender roles. Like Maris Bustamante, these women have attained the position of consumer, although their achievement is often ambiguously tied to the commodification of their own bodies.

The Boundary Condition

If *Writing Desire* shows how women can overcome phantasmatic and real borders through new ICTs such as the Internet, *Performing the Border* (1999) deals with the reciprocity between the gendering and the technologization of female subjectivities as they negotiate the contradictory dynamics of transnational space. ICTs and visualization technologies structure the technologies of gender (de Lauretis 1987; Terry & Calvert 1997; Volkart 2000), but they too are engendered as well as racialized, and caught in a complex



FIGURE 3
Performing the Border (1999) by Ursula Biemann (Courtesy of the artist)

network of sociohistorical relations. In order to understand how and why the gendering of a technology does not necessarily occur to the detriment of women, we should always consider who is empowered in the deployment of a specific technology, where, and for what reason, beyond the mere question of access. In seeking to answer these questions we must pay attention to the “implicit and explicit socio-cultural hierarchies within transnational urban work spaces shaped by the ICT related technology work” (Gajjala & Mamidipudi 2002).

In *Performing the Border* the geographical border becomes a powerful figuration for an analysis of the performativity of several boundaries: those between masculinity and femininity, the organic and the machinic, production and reproduction, location and mobility, the real and the virtual. Of course, borders do exist, but they are neither natural nor fixed. They are differently and constantly resignified by people crossing them, either sanctioning or transgressing their logic (Yuval-Davis & Stoetzler 2002a; Zanger 2005). Another of Biemann’s video essays, *Europlex* (2003), made in collaboration with the anthropologist Angela Sanders, looks at the multiple movements generated by transnational economies along the border, this time between Spain and Morocco, and in the Spanish enclaves of Ceuta and Melilla (in Northern Africa) in particular. The video-narration is divided into three *Border Logs*, a term that evokes the travelogue and conceals a participatory ethnographic method: *Border Log I* follows women smuggling goods concealed under their dresses into Morocco, a project that requires them to move illicitly across a geographical border; *Border Log II* describes the daily routine of African women going to work as domestic workers in the enclaves, having to commute between time zones, thus crossing a more “invisible” border. Finally, in *Border Log III* we see Moroccan women working in sweatshops inside the transnational area. Their experience of the border is even subtler here, since they only commute between different cultural environments; nonetheless they experience a continuous shift between these environments and in so doing they perform yet another kind of border.

The narrative focus of *Performing the Border* is the experience of the young women working on assembly lines in plants situated in the export processing area of Ciudad Juárez, inside the post-NAFTA zone between Mexico and the US. Here, the microelectronic components assembled in the Ciudad Juárez maquiladoras are used to produce technologies for information processing, satellite systems, and optical instruments, which are often the same technologies that reinforce existing borders and maintain control of women's bodies, literally and metaphorically. In fact, visualization technologies track women's movement in space as if they were commodities, but they also circumscribe their gender identity according to the transnational standards of production and consumption. Women are functionalized and transformed into working machines that can be replaced and recycled as needed. Other new media artworks have recently focused on similar issues. *Mythic Hybrid* (2002), a website project created by Prema Murthy, explores the relations between women's work in microelectronic factories in India and the collective hallucinations they were reportedly experiencing. *A/S/L* (2003), a multimedia installation by the Raqs Media Collective, deals with the lives of women workers in the online data outsourcing industry in India. Still, in none of these accounts do women fall into the stereotype of the passive victim, since they are given a voice, fragile though it may be, which counterbalances the hegemonic narrative.

Women in Ciudad Juárez live a boundary condition, since they perform the border and embody all the anxieties it evokes; these are related to national and colonial fantasies of mastery and domestication in which their geobodies signify the traditional values of the motherland, as well as the transnational logic of the corporate economy. In both cases, the abstraction of women's bodies from the actuality of their lives renders them vulnerable subjects, suspended between the coalescing forces of the natural and the technological, which cooperate to keep them under control. As Berta Jottar, drawing on Gloria Anzaldúa, states in the opening of the video, the border is a wound, a "surgical place" requiring constant healing. The possibilities of the border, both a corporeal and territorial confinement, are variously performed: these range from squatting inside houses built on the remnants of industrial wastes to, in some cases, trying to run away, possibly with the help of coyotes like Concha, who helps pregnant women to steal across the border in safety so that they can give birth in a US hospital. The sex industry, by now a structural component of the global economy, also flourishes here, often because of the women's need to produce additional income. This has gradually led to the emergence of an entertainment industry that addresses women as autonomous consumers of leisure activity, affecting their relationships and impacting on their role in society. At the same time, however, sex work remains the only possibility that young women living in this area can avail of to make ends meet if they are not educated enough to enter a maquiladora or if they lack the references to work as *domésticas*. In this as in the other videos, Biemann uses what Volkart (1999) has called a "flow discourse," a fluid aesthetic technique with the camera constantly moving between subjects and places, adopting a shifting position in order to be able to follow the many streams of mobility. The sequences are frequently shot from a moving car, and some of the images are out of focus or are presented in slow motion. This fluidity, however, does not coincide with linearity. Rather, it breaks into multiple voices, images, and perspectives, which are shown next to each other (in split-screen), inside each other (with the use of multiple windows), over or under each other (with the shift between perspectives from above and from below). These displacements include the video essayist's position

too, when Biemann alternatively speaks off screen or writes her “working” notes over the image.

Figuring the In-Between

All these techniques, achieved for the most part at the editing stage, create sutures that subtract the video essays from the logic of both authorial and spectatorial comprehensive vision. In fact, these video-cartographies are figurations of the “grey areas in-between” that the activist Bandana Pattanaik refers to in *Remote Sensing*; it is in these zones that the video essay captures the otherwise invisible flows of the “geographies of survival” (Biemann 2007) and returns them to visibility. In this article, I have proposed a reading of Biemann’s videos as figurations, drawing on the notion elaborated by Haraway and Braidotti, which I employ in a transnational framework. Figurations, as Braidotti puts it, “don’t embellish or metaphorize: they just express different socio-economic and symbolic locations. They draw a cartographic map of power relations and thus can also help identify possible sites and strategies of resistance” (2003, p. 54). Figurations show how the imagination is always situated; neither disembodied nor disembodying, the imagination works as a bridge linking positions and practices with knowledge. The point becomes how things are imagined, who imagines them and for what reason (Yuval-Davis & Stoetzler 2002b). But the imagination also travels, and so do people who cross real and virtual borders thanks to, and often notwithstanding, the production and consumption of ICTs. Thus, figurations, unlike traditional maps, which are reliable in that they depict borders and clear lines, contemplate more nuanced, shifting perspectives that do not rely on the transcendent logic of binary optics. Working as performative and transformative tools, they allow us to look across the partialities and disjunctures of the global connectivity narrative, exposing different connections between the asymmetrically interrelated positions of transnationality.

Biemann appeals to an ecology of visibility (2008), which parallels the call of feminism for an ethics of geospatial practices (Kwan 2007).⁵ She believes in a “sustainable representation” that does not simply reproduce or reflect an external pre-existing reality, but reveals itself as an instrument of interpretation and navigation, disclosing the various ways in which geography “takes place” together with the acts of observing its taking place (Huber 2008, p. 173). This entails taking into account alternative uses of both space and (its) representations, where various forms of agency, including critical agency, are seen as contributing to the geopolitics of social formations and their discursive practices. It also requires that these images keep their generative force open so that the possibilities of other social actors in the field are not exhausted by the artist’s gaze (Biemann 2008, p. 91) but, on the contrary, emerge through its declared partiality.

NOTES

1. For various feminist discussions of spatiality and mapping, see Grosz (1995), Kirby (1996), McDowell (1996), Mohanty (2003) Nast and Kobayashi (1996), Pavlovskaya (2007), Rose (1995), Sandoval (2000), and Stanford Friedman (1998).
2. On the grounding of metaphors, see Smith and Katz (1993).

3. Nonetheless, the exploitative dynamics of the global sex industry cannot be ignored (see, for example, Hughes 1999).
4. Van Alphen explains the difference as follows: "'Imagined' is not the same as 'imaginary.' Imagined places are not fairytale places, they are not just fantasy. In one way or another imagined places do have a connection with a place that exists geographically. However a place is somewhere 'out there' in the world, whereas an imaged place is an act of the imagination, with a subject responsible for performing this act in relation to a place" (2002, p. 56).
5. See also Le-Phat Ho (2008), Pavlovskaya (2007), Proppen (2006), Schuurman and Pratt (2002), and Sui (2004).

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Performing Technologies for Performed Territories. Reconceiving Locative Media Art

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The definition of locative media¹ is a relatively recent one. Coined by Karlis Kalnins during a workshop in Karosta, Latvia, in the Summer of 2003, the term broadly denotes artistic uses of location-based media as opposed to their corporate applications (cfr. Crow *et al.*, 2008). As Drew Hemment (2004) points out, locative media “*uses portable, networked, location aware computing devices for user-led mapping and artistic interventions in which geographical space becomes its canvas*”.

From the very beginning, however, the term appears to be imbued with vagueness and ambiguity, being also frequently attached to the definition of ubiquitous computing and of smart or augmented environments. Looking through the introductory essay of the *Transcultural Media Reader* (Russell 2006), locative media seem, on the one hand, to indicate a new conceptual framework within which to discuss changes of consciousness in relation to virtual and real places happening by means of (not necessarily new) information and communication technologies; on the other hand, they delineate a new critical area where the hegemonic uses of locative tools can be analyzed in order to tactically employ their possibilities for creative and user-oriented purposes. Although the political assumption of this second aspect has not always been pursued, especially since

locative media arts easily find commercial funding and application (cfr. Tuters and Varnelis 2006; Lemos 2008), it is on this issue that I want to focus today.

Obviously, as Hemment himself highlights in the 1st comprehensive essay on locative arts (2006, p. 349)², all art has always dealt with location in varying degrees, starting from the relation of the artwork to its context of production and consumption (see also Gomes 2006). However, some artistic movements more than others have made of the dynamics between situatedness and mobility their same *raison d'être*, deploying an aesthetics of location rooted in a politics of situational engagement and community involvement: we need only think of Performance Art, Arte Povera, Land and Earth Art, and, above all, the Situationists' psychogeography experiments (cfr. Careri 2006).

Locative media arts are supposed to manifest a return of the digital to its historical and geographical embeddedness³ (Sassen 2002), contrary to many assumptions about the artistic autonomy of Net Art (Tuters and Varnelis, 2006), although locative tools – let us think of maps and grids – are also used to advocate for the objectivity of the work of art and thus banish any spatio-temporal contingency from it (Fusco 2004; Pope 2005).

Clearly, the embeddedness of locative media is part and parcel of their complicity with the power to chart a territory for commercial and military purposes (Pope 2005; Hemment 2004) – to cite only two molar uses of locative tools – employing the same locative networks and devices, from mobile phones and radio frequency identification technology to global positioning systems and geographic information systems.

It is around the issue of cartographic representation that some of the weakest aspects of locative media arts resurface: the unquestioned and reductive notions of scientificity and spatiality that they often presuppose, an insistence on a perfect correspondence between image and world, and a tendency towards the

assumption of either utopian or dystopian approaches. Locative media, however, do not only work like traditional mapping tools at the level of visual representation. They can also work at a performative level, as tools for mobilizing a given representation of a territory and thus dismantling several consequential illusions: the illusion that places pre-exist their representations, the belief in an exact correspondence between a representation and the space represented, and the assumption that only one representation can be the objective one and thus has to be commonly shared, acquiring an ideal status *per se*.

Conceiving locative media arts performatively redefines the idea of representation together with that of location. Representation, here, does not mirror the world from the outside, but rather diffracts it, intervening in the experiences we make of it and producing “*patterns of difference*”, to quote Donna Haraway (1997, p. 268 ss.)⁴. Performative locative technologies dismantle the metaphysics of location in a way that territories appear as always-already performed by means of different technologies, which continuously configure, prefigure or disrupt places either materially or symbolically. André Lemos (2008) has, for example, coined the definition of *informational territory*⁵ to describe the way digital flows of information create new *functions* for the social practice of places, rather than new places intended as *forms* (or, as some people still believe, new non-places). Others, like Hemment, suggest that we speak of *dis-locative media* (2006), based on the geometry of the social rather than the geometry of the grid.⁶

Today I want to focus on two artworks that employ locative tools in a performative, user-oriented way in relation to the border experienced both as a geographical and a performed territory. *Turista Fronterizo* (TF) and the *Transborder Immigrant Tool* (TIT) speak from and about the border zone between Mexico and the U.S. Here, in the assembly lines of the *maquiladoras*, labor-intensive operations guarantee the mobility of capital while at the same time producing the technological components necessary for the information and communication industry, which in turn contribute

to creating and supporting other forms of mobility as well as several new forms of confinement. Whereas the TIT is definitely a locative media artwork, consisting of a cell phone with a GPS receiver, TF is an html (formerly online) game, falling more properly under the category of Net Art. Nonetheless, I have included it in my analysis since it foregrounds a politics of location whose counter-immersive move pushes the player towards the experience of an embedded and embodied dimension, like much locative media art does. Likewise, the artist Ricardo Dominguez, former member of the Critical Art Ensemble (CAE) and founder of the Electronic Disturbance Theater (EDT), is involved in the conception of both works⁷.

TURISTA FRONTERIZO, created by Dominguez together with Coco Fusco for the 5th edition of the InSite show (2005, San Diego/Tijuana), is a simple online html board game based on the model of the Monopoly game, especially in its Mexican version, *Turista*, but also on *The Game of War* issued by Guy Debord and Alice Becker-Ho in 1987 (and of course one cannot avoid thinking about Situationist psychogeography as an additional reference).⁸ Nonetheless, there are some major differences between Monopoly and TF, most notably the fact that, while in Monopoly properties can be bought, sold or rented, determining the value of any space (and mirroring the capitalist economy), in TF, the squares, which are named after existing places of the San Diego/Tijuana border, can only be, so to speak, *activated* by performing different experiences. Each side of the TF board groups different areas of activity. With a few exceptions, the left side mainly includes leisure places, like the nightclub and the stadium; the upper side contains institutional places, such as the consulate and the police department. On the right we find many multinational factories, and in the lower side collectives and local groups.⁹ The player can play four roles, either in English or Spanish. Choices are very limited, given that, as the artists state in the proposal text for the exhibition, these prefabricated identities bear some external constraints which limit their experiences. The immobility of the stereotype, however, is disrupted once the

player's position is mobilized too, so that they leave the viewer's mastering gaze and abandon their privileged location to situate themselves at the level of the game.

The characters comprise two women, the Spanish speaking *Todologa* and the American *Gringa Activista*, and two men, the *Junior Huevón*, (i.e. "dude"), and the Binational (although definitely American) *Businessman*. Each of the characters passes through the same places, but their social and economic condition, their interests and experiences, are completely different; and even though none of them directly meets the others, the game, once played, reveals how their actions are deeply interrelated.

Let us focus on the institutional section as an example of how TF works: here, the *Todologa* lives under constant fear of being discovered for possessing the false documents she needs in order to cross the border, or she tries to get a visa (we can suppose that she needs it to find a job) for which she pays a lot of money, considering her scarce income and resources. She also risks being detained and interrogated for days and losing her job when suspected of being the maid of a wanted drug dealer. The *Activista*, who tries to take pictures for her documentary – for which she bribes the police – wants to cross the border too, but in order to investigate and collect interviews and documents. For the *Businessman*, who can freely go from one side of the border to the other – enjoying a bi-national condition – the border is a place where he can make money and increase his power: He is either paying bribes to get things moving and to obtain the permits he needs to expand his factories and properties, or he buys public land thanks to his contacts with powerful people, or he even takes part in important meetings with local authorities who can secure him what he needs. Similarly, in this border area in which assembly plants are located, the *Todologa* lives the typical experiences of the *maquila* worker: her rights are denied, she is forced to consume contraceptives, and she also risks falling ill due to the factories' harmful fumes. The *Businessman*, on the other hand, secures contracts and deals, corrupts lobbyists and lawyers,

scares those who dare to protest, and holds press conferences to deny his responsibility for the workers' health.

From these few examples, it is clear how the interactive topology of TF questions the mapping of territory from the outside, and instead proposes that space is practiced according to specific forms of orientation (Kirby 1996, p. 53). What results at the end of the experience is a reciprocity of space, of the character and the player, where space, visibly represented as the border zone in the form of cartography, is signified by a set of enacted relations. Different trajectories draw different *power geometries*, whose lines and borders can also be differently crossed and thus differently signified (cfr. Massey and Jess 1995). The border appears as an open figuration¹⁰, one which is not reified or fetishized by the cartography offered, but rather one that is constantly produced and transformable. Similarly, since this kind of map cannot pre-exist its various readings, Fusco and Dominguez do not provide us with yet another interpretative code, but rather with an approach that, while accounting for its modes of production, allows flexible interpretations and new operational attitudes.

The second project I want to discuss today is the *TRANSBORDER IMMIGRANT TOOL* (2007-),¹¹ a cheap Motorola cell phone equipped with a GPS receiver and a specifically designed piece of software that is being developed at UCSD (University of California, San Diego) by Ricardo Dominguez along with other members of the EDT (Brett Stalbaum, Micha Cárdenas, Jason Najarro and Amy Sara Carroll). The aim of this walking tool, working like a compass, is to help those who are usually excluded from what the artists call the “*emerging grid of hyper-geo-mapping-power*” to acquire “*situational awareness*” (EDT, 2009): this will help migrants to orient themselves among several aid stations so as to safely trespass the border without being detected. The TIT is intended as both an aesthetic piece and an ethico-political intervention. Brett Stalbaum has projected a *Virtual Hiker Algorithm*¹² for it, so that the cell phone can be used as a GPS walking tool¹³ to mediate the actual

experience of the migrants trespassing the border. But GPS, here, does not only stand for Global Positioning System; it is also an acronym for Global Poetic System. For this reason, the cell phone is also endowed with a set of bilingual poems written by Amy Carroll that will start to play while walking: they will psychologically assist the migrants during their crossing and welcome them into a new space of hospitality and solidarity.

Made in collaboration with local collectives like the *Border Angels*, the project, which is now entering its Beta stage,¹⁴ comprises several steps: from the GPS mapping of the coordinates of the border territory, as well as of support networks and anchor points, like water and food stations, and the development of the specific software and bilingual (English/Spanish) interface, to the final distribution of the mobile phones to migrants of both sides of the border, who are supposed to return them for further use after reaching their final anchor point.

In between walking art and locative media art, the TIT foregrounds the differences between and entwining of bodies and data, material and immaterial flows, artistic wandering and migratory mobility,¹⁵ focusing on the issues of life and death that are involved in the traversing of borders. The artists draw on the idea of *performative technology* as it is conceived by the locative media artist Christian Nold (2009, p. 6),¹⁶ as a device used to mediate interpersonal relationships and build a sense of local community, which Brett Stalbaum echoes in his notion of *paradigmatic performance*. Stalbaum (2006) uses this term to define a technologically-based artistic practice that is not only collectively conceived but is also employed for collective purposes, being “*generative of new configurations of practice*”.

The performativity of the TIT is markedly political, since it is intended to directly improve people’s lives, according to what Dominguez and his EDT collaborators identify as a shift from tactical media to *tactical biopolitics*. The EDT (2009) also refers to Chela Sandoval’s book *Methodology of the Oppressed* (2000) as a source

of inspiration. Her notion of differential consciousness, intended as a performative medium that activates a new tactical space for oppositional praxis (Sandoval 2000, pp. 57-63), which she elaborates in the context of her feminist thought, can be compared to that of performative technologies as it has been used in this paper. Actually, Sandoval believes that resistance is only effective when it is differently related to the diverse forms that power can assume, that is, when it is activated through specific tactics which vary contextually. The differential crosses the multiple networks of power devising them also as tactical tools, and thus allowing for a constant rearranging of either material or symbolic boundaries (*Ivi*, p. 181. cfr. also Holmes 2003).

If a map renders a route as a series of visible points that transform “*action into legibility*”, to use Michel De Certeau’s words (1984, p. 97), a performative tool is supposed to do exactly the opposite, re-embodiment readable lines into active practices. Like a linguistic enunciation, walking presupposes a series of differential relations among people using the same space (De Certeau, 98): “*Walking affirms, suspects, tries out, transgresses, respects, etc. the trajectories it ‘speaks’*. All the modalities sing a part in this chorus, changing from step to step, stepping in through proportions, sequences and intensities which vary according to the time, the path taken and the walker. These enunciatory operations are of an unlimited diversity. They therefore cannot be reduced to their graphic trail.” (De Certeau, p. 99).

Accordingly, the TIT works performatively insofar as it accompanies the migrant along a journey which dislocates the corporate territorialization of the border zone and performs *bottom-up* (see: Townsend 2006, p. 346) tactical functions of the same social and geographical space (see: Lemos 2008). Both the virtual walk of TF and the actual walk of TIT enact a politics of location that foregrounds the performativity of locative media together with the performativity of space. They show how digital space cannot be fully experienced unless it is embedded² in the material conditions allowing for its existence and representation. Conversely, a territory cannot be reduced to a series of geographical coordinates or digital

visualizations, but is made of different processes and practices that constantly draw and erase material and immaterial trajectories.

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1 The definition of *Location-based media* (LBM) is slightly different which, as it reads on Wikipedia, "delivers multimedia directly to the user of a mobile device dependent upon their location. Location information determined by means such as mobile phone tracking can be used to customize media content presented on the device. The term was jointly coined at the 2004 Consumer Electronics Show by Tom Brammar, the then Chief Executive of Node, and Martin Hill an original founder of Symbian, and wireless pioneer."

2 Tuters and Varnelis (2006) consider Ben Russell's "Headmap Manifesto" (1999) the ur-text on locative media.

3 Hemment proposes that we define locative media as embedded media (2004) so as to stress the pervasiveness of media technologies in all experiences of space, as well as their complicity with power (considering the military employment of the term "embedded").

4 For a detailed analysis of Haraway's notion of diffraction, see chapter 2 of Karen Barad's *Meeting the Universe Halfway*, where she deploys the notion for her theory of agential realism. Here is how Barad reads Haraway's diffraction (Barad, 2007, p. 90): "First and foremost, as Haraway suggests, a diffractive methodology is a critical practice for making a difference in the world. It is a commitment to understanding which differences matter, how they matter, and for whom. It is a critical practice of engagement, not a distance-learning practice of reflecting from afar", which, we could add, locative tools often indulge in.

5 Informational territories, according to Lemos, function as heterotopias in Foucault's sense (Foucault 1986). Similarly, Cindy Katz and Neil Smith (1993) speak of "grounded metaphors", although they do not directly refer to Foucault. Heterotopias return in Hemment's 2006 essay.

6 But here we must be careful not to oppose the social to the spatial, as Ben Russell does (quot. in Hemment 2006), or networks to places. Michael Boyce, in an essay about mapping (2006), affirms that networks are not places, they are connections. However, he reinstates a dichotomy that needs debunking: that places are static containers, whereas networks embody the mobility of our information age, being a more suitable model for interpreting the "space of flows" (see Massey 1994).

7 The EDT is renowned for having launched the first Floodnet. On the Zapatista Floodnet see: <http://www.thing.net/~rdom/eCd/ZapTact.html> (last accessed 1 September 2009).

8 The idea of playing a game to live a shared collective experience derives from the surrealists' experiments, such as the *cadavre exquis*, although technically speaking TF must be played like a solitaire, through "point and click" interaction with the screen.

9 The corners of the board represent the detention camp, the border checkpoint, the lottery and the jail.

10 In this respect, feminist theorists like Haraway and Rosi Braidotti have elaborated on the notion of figuration to name a feminist cartography that is not only descriptive, but also transformative (Haraway 1997; Braidotti 2003): working both contingently and performatively, figurations are "living maps" that, while accounting for different locations and power relations, also outline situated tactics of resistance (Braidotti 2003).

11 The new blog of the project is available at: <http://bang.calit2.net/xborder/> (last accessed 1 Sept. 2009).

12 "A virtual hiker is an algorithm that produces computationally derived paths from data in such a way that allows them to be re-followed through the actual world." For further information see: http://www.paintersflat.net/virtual_hiker.html (last accessed 1 Sept. 2009).

13 See: <http://www.walkingtools.net> (last accessed 1 Sept. 2009).

14 The artists have already done GPS marks of the aid stations with the help of the *Border Angels*, and are going to test the TIT next October to see how close they get to these sites. They are also creating a comic book with the help of a local writer in order to explain how to use the tool in the simplest way possible (personal communication with Ricardo Dominguez, 31 August 2009).

[15](#) On the presumed borderless realm of cyberspace, see also Heath Bunting's *BorderXing Guide* (2002-3).

[16](#) For his ongoing *Bio Mapping* (2004-) project, participants wear "galvanic" devices that record their emotional arousal in relation to the places they walk in, so that communal emotion maps can be produced. See: www.biomapping.net (last accessed 8 September 2009).

[17](#) "much of what happens in electronic space is deeply inflected by the cultures, the material practices, the imaginaries, that take place outside electronic space ... Digital space is embedded in the larger societal, cultural, subjective, economic, imaginary structurations of lived experience and the systems within which we exist and operate (Sassen 2002, pp. 368-9).

feminist technotopias: the relocation of technology as aesth/ethic project

“Technoscience [...] is the travelogue of distributed, heterogeneous, linked, sociotechnical circulations that craft the world as a net called the global”
Donna Haraway (1997)

There is a “mild” tendency in constructivism (MacKenzie & Wajcman 1999), exemplified by concepts like that of modified realism (Williams & Edge 1996), which contemplates the material and symbolic aspect of technological artifacts, while allowing a pragmatic conception of technology, considered as a form of doing rather than a form of being. In the context of technosociality that we live in (Stone 1995, p.35; Escobar 1994, p. 57), technologies and societies coalesce in a complex material-semiotic field; technologies are approached as material-semiotic artifacts located inside practices and ideologies, so that we speak of complications and co-implications rather than of causalities and effects, setting aside any deterministic – either social or technological – approach (Aronowitz & Menser 1996; Graham 2004).

Nonetheless, digital narratives still tend to speak in utopian or dystopian terms, alternatively highlighting the promise of a technological future or the menace of a complete loss of the orientation and significance of previous categories, specifically space and time. Both descriptive and predictive accounts

of new technologies (Coyne 1999, p. 20) divert our attention from the situatedness of technology, as well as from our situatedness within technologies, finally foreclosing any form of critical agency. Here, I argue that a more proper account of technoscapes can be gained when adopting what I call a critical “technotopianism”, which means a partial vision from somewhere inside, to paraphrase Donna Haraway (1991, p. 196). I also argue that, in parallel with the relocation of knowledge developed by current epistemologies and philosophies of science, a relocation of the aesthetics of new technologies is desirable. As a matter of fact, contrary to what Irit Rogoff fears in her study of geography’s visual culture, I believe that a relocation of the “universal absence of positionality” of new technologies takes place in imaginative and transformative practices that do not dismiss what Rogoff calls “a scrupulous self-positioning with all of its accompanying baggage of power relations, performative identities, incomprehensions, inequalities and fantasmatic projections” (2000, p. 12).

For my purpose, I adopt a technofeminist-situated position, combining the notion of the politics of location with Standpoint Epistemology (SE) and Haraway’s theory of Situated Knowledge (SK). Indeed, I believe, firstly, that feminist theory offers an insightful way to reconceive difference not only to ground the theories and practices of new technologies, so as to give account of their multiple and sometimes contradictory articulations (Escobar 1994), but also to imagine alternative “situations” by means of transformative figurations; secondly, and relatedly, I think that the notion of location outlined by these feminist theories is an efficacious point of departure to experience, describe, practice and transform the technoscapes we inhabit.

Since its first theorisation in the writings of Adrienne Rich around the mid-1980s, location has always been a problematic term: the embodied locus of women’s struggle against a “lofty and privileged free floating abstraction” (Rich 1986, p. 213), it has never been conceived as a definite space, nor has it been intended solely in spatial terms, but first of all as the historical ground for the accountability of simultaneous oppressions and as a point of departure for destabilising essential categories of identity and experience. Here, locations, as well as identities, are considered in process and relational, thus subject to change. Recently, this aspect of the politics of location has been retrieved and highlighted by trans-cultural feminism, which privileges the encounters between differences and similarities across different categories and across the asymmetries of multiple power relations (Kaplan 1994).

In bringing forward a critique of scientific objectivity focused on the practice of science rather than

on its products, SE and SK assume a very similar idea of location. SE, which in Sandra Harding's words, is a methodology, an epistemology and a political strategy at the same time (Harding 2004, p. 2), rests on the notion of epistemic difference to elaborate the key issue of standpoint. Epistemic difference, intended as the difference that social practice makes, constitutes, in a sense, an adjustment of the initial and highly-contested idea of epistemic privilege, so as to include the consideration of an intersectionality of oppressions and to acknowledge the performativity of identity, while maintaining the centrality of the notion of standpoint. Differently from the common definition of perspective or point of view, standpoint is defined as an interested, engaged and potentially liberatory position, one which is achieved, rather than naturally or essentially owned (Hartssock 1983, p. 36). It follows that standpoint is first and foremost a question of strategic positioning, which can in principle be assumed whenever a feminist struggle is pursued, that is, not necessarily when feminine subjects are involved, but when a different kind of objectivity is invoked.

Totally bypassing the choice between universalism (with a feminist meta-narrative) and relativism (the evaluation of epistemic differences to the point of an epistemology of multiplicity *per se*), SE does not look for either absolute or partial truths, but is interested in unmasking power relations, in order to outline what Harding calls "less false stories" and Haraway "multidimensional maps of the world". In fact, SE theorists adopt a sociological and historical relativism, not an epistemological one: this means recognizing that not all claims are equal, not if weighted against truth, but in the effects they produce, and in the (liberatory) potentiality they possess. This also means substituting an interventionist idea of knowledge for a representationalist one, replacing the necessity of producing claims that are adequate to presumed natural features of the world with the priority given to the effectiveness of such claims, measured in relation to what they are aimed at (Harding 2003).

It is with Donna Haraway that the critique of science becomes explicitly accompanied by the project of situating knowledge to avoid the combination of transhumanism with technoscience, whenever this signifies a dismissal of the materiality of information. Of course, the materiality whose technoscience is the narrative, as Donna Haraway intends it, is not "raw" matter, it is rather a sociotechnical ensemble, where the actual and the imagined, the human and the machine, enmesh and are reciprocally constituted "in the action of knowledge production" (Haraway 1997, p. 29). Analogously, location must not be intended empirically, but as "the always partial, always finite, always fraught play of foreground and

background, text and context, that constitutes critical inquiry. Above all, location is not self-evident or transparent [...]. No layer of the onion of practice that is technoscience is outside the reach of technologies and critical interpretation and critical enquiry about positioning and location" (Haraway 1997, p. 37). Through location, we go beyond the simple deconstruction of scientific objectivity and bring the epistemological debate into the fields of politics and ethics, so as to account for specific histories and engage in critical practices at the same time. This articulation of the technical and the political is made possible when knowledges are situated in partial perspectives "from somewhere" – equally distant from the nowhere of universal totalizations and the everywhere of relativism.

Drawing on Haraway's philosophy, Judy Wajcman defines technofeminism as a strategic engagement with technoscience, which, rather than opposing or celebrating it, negotiates the networks of sociotechnology from within (2004, p. 117). She also suggests that only by bridging the common gap between materiality and metaphor, intended as the dichotomy between the technical and the social, we can move forward in technofeminism (2004, p. 106).

The coimplication of materiality and metaphor allows us to approach the complexity of technotopias from yet another angle, this time employing the epistemology of situated knowledge to outline a situated "aesth/ethics" of new technologies. Here, I use the term with a slash for two reasons: firstly, because I want to visualise a breach in the homogeneity of the techno-aesthetic field as the impossibility of separating creativity from responsible praxis, as theoretical paths of science can not be disjoined from the assumption of responsibility for one's own situatedness. Secondly, because I think that what has been argued about the processual character of sociotechnical formations, and about the viability of knowledge, can be equally valid in order to reconsider the aesthetic, and the concept of representation in particular. In fact, following the epistemological turn of SE, which privileges the practical over the representationalist idea of knowledge, we can also hypothesise an anti-contemplative practice of imagination where invention and factuality meet. Rosi Braidotti (1999) uses Haraway's notion of figuration to name this practice of "alternative representation", underlining how figurations, which always manifest themselves according to different spatio-temporal modalities, can not be disjoined from location, but somehow constitute a virtual counterpart. According to Haraway, figurations, which derive from the secularisation of the figural realism of Christianity combined with the spatial tropes of

Aristotelean rhetoric, share with the other material-semiotic processes of technoscience a displacing quality. Actually, even though they always retain a fundamentally visual aspect, figures need not be literally representational or mimetic: they “trouble identifications and certainties. Figurations are performative images that can be inhabited” (Haraway 1997, p. 11).

Giving account of our partial and partisan positionality inside technotopias, figurations re-embodiment and situate many of the abstracting and displacing metaphors used to describe the global networks of information and communication technologies, offering a more useful tool to articulate and contextualise our contemporary imaginary. They, however, are neither complete nor static pictures of the world, but are representationally adequate insofar as they remain performative.

In his critique of utopian and dystopian conceptions of technology, Richard Coyne (1999) argues that digital narratives, indifferently drawing on realist and idealist bases, often deal with space through the representational model. Space is considered as existing independently from its representation. The latter, then, given a presumed correspondence between signs and objects, can eventually take over space by virtue of its capacity of violation, resistance and transcendence. Several binaries are presupposed behind this sign/object division: empirical as well as metaphysical accounts of representation also assume a dichotomy between unity and multiplicity, objectivity and subjectivity, the absolute and the relative. This, Coyne contends, is not only revelatory of the role of information technology and the informational model in understanding and representing space, but also viceversa, it shows how spatial representations are employed to analyse the configurations and experiences of new technologies, like utopian and dystopian accounts attest. Therefore, Coyne draws on a phenomenological framework to outline a pragmatics of language and reality as contextualised practices that displace the primacy of representation for understanding the complexity of technoscapes.

Coyne privileges the role of metaphor as the locus where “imagination operates” (1999, p. 165). Instead, I believe that figuration is a more appropriate term to use inside technotopias, since it maintains a link with location that explicitly disrupts any causal relation, whether correspondence or violation. Whereas metaphors work at reducing the unfamiliar to the familiar by linking two meaning systems, one of which is considered inert and stable, so as to reduce the one to the other – like the practice of mapping normally does – figurations maintain a reciprocity between the two orders of meaning that generates an embodied, embedded,

and performative cartography (Smith & Katz 1993; Braidotti 2003). As visual culture explains, cartographies, inasmuch as they are representations, do not exist as autonomous visual objects, but contain dynamic intersections of potential and actual social relations, thus contributing to the construction of our complex reality, instead of simply reflecting it (Rogoff 2000). So, figurations map and articulate our contemporary imaginary, redefining our situated subjectivities together with the terms of the technoscientific debate.

The notion of diffraction used by Haraway describes the analytical and transformative work of figurations more appropriately than representation. Metaphors, Haraway thinks, need to be put in motion, i.e. activated, to become effective. Their “translation” implies a level of action that goes beyond simple reflexivity. This is where diffraction intervenes. Literally, the term describes the creation of patterns of difference caused by the movements of rays resulting from the passage of light through a prism or a screen. Haraway, however, employs it for her critical project of “diffract[ing] the rays of technoscience” (Haraway 1997, p. 16): in fact, diffraction replaces the idea of mimetic mirroring proper to reflection, which is usually employed as a metaphor for the objectivity of science as well as for the traditional notion of representation, in order to encompass interference, difference and interaction.

Diffraction patterns give life to maps that are multidimensional, both material and semiotic, and that serve to navigate today’s aesth/ethic technotopias. Here again, I use the term technotopias to purposefully situate my argument as equally distant from utopian and dystopian interpretations of technoscapes, and to underline the situatedness of today’s networks and our situatedness within them. Such a critical technotopianism overcomes the essential binaries which have trapped both oppositional and enthusiastic theories of new technologies; it unifies and re-grounds the theories about, and the practices of, new technologies inside the flows and forces of globalscapes, so as to account for their contradictory effects from within and to produce alternative figurations.

I find that in the last few years, after questioning its own definition, cyberfeminism as both theory and practice has assumed a similar technotopianist perspective based on the encounter with postcolonial and transcultural feminism and the politics of situated knowledge (Fernandez 1999; Fernandez et al. 2002; Gajjala 1999; Nakamura 2002; Kaplan 2002; Parks 2005). The adoption of an aesth/ethic (with a slash) position, which explicitly bridges the artistic and the political, keeps cyberfeminists away from the utopian vocabulary of the “cyberrevolution” initially celebrated, for example, by theorists

such as Sadie Plant and groups such as the VNS Matrix. Cyberfeminism today is a more complex phenomenon that encompasses several interrelated geopolitical and historical, not merely sexual, specificities. Its aim is to critically and creatively elaborate a set of interventions within technologies, thus creating material and virtual networks of awareness and imagination, without resorting, however, to “a humanist representational practice”, as Kaplan puts it (2002, p. 38). Cyberfeminist projects like those of the subRosa collective, the Raqs Media Collective and Critical Art Ensemble, mailing-lists such as Undercurrents and Yasmin, artists like Marina Gržinić, Ursula Biemann, and Prema Murthi, to cite only a few of them, all account for the material-semiotic outcomes of new technologies, for example the WWW or satellite visualisation technologies, documenting the links between their production and consumption, immaterial flows and migratory flows, location and mobility. From their situatedness, cyberfeminists claim forms of feminist agency and a feminist imaginary originating from contexts and histories where the mixing of bodies and technologies makes (a) difference, in order to counter the “free-floating abstraction” of either dominant or oppositional accounts of new technologies.

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A cura di
Federica Timeto

CULTURE DELLA DIFFERENZA

Femminismo, visualità e studi postcoloniali



UTET
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Femminismo transculturale e pratiche di re-visione

«La visione richiede strumenti di visione. Un'ottica è una politica di posizionamento»

Donna Haraway

I saggi raccolti in questo volume esplorano le differenti figurazioni dell'identità di genere nella cultura visuale contemporanea, all'interno dello scenario postcoloniale¹ e transculturale della postmodernità. Il femminismo transculturale (Kaplan e Grewal, *infra*) che accomuna i saggi, tra loro profondamente diversi per taglio e contenuto, adotta un'attitudine interpretativa profondamente politica nei confronti delle figurazioni della postmodernità intesa come condizione storica, non soltanto come fenomeno estetico.

Il termine *figurazioni* è adoperato da Rosi Braidotti, sulla scorta della *politica della collocazione* di Adrienne Rich (1984) e dei *saperi situati* di Donna Haraway (1991) per indicare le cartografie dei nuovi rapporti di potere. Le figurazioni non sono semplici rappresentazioni o metafore, ma mappature dell'attualità e insieme strumenti epistemologici e politici necessari a individuare e attivare luoghi e strategie di resistenza. Pur animate da un forte potenziale immaginativo, le figurazioni non hanno nulla a che vedere con la fantasia, quanto piuttosto con la responsabilità. Sono figurazioni la lesbica, la *womanist*, l'*altra inappropriata*, il nomade, il cyborg, il coyote, come pure la badante, l'immigrato clandestino, la vittima dello stupro etnico, la sposa per corrispondenza e la lavoratrice sessuale, tutti resoconti materialmente radicati delle relazioni di potere contemporanee, molti dei quali al centro dei saggi che compongono questo libro.

Autoriflessive, incarnate e situate, le figurazioni conservano una forza trasformativa grazie alla quale vedere e immaginare diversamente il presente. In questo senso, esse hanno un carattere performativo, piuttosto che semplicemente descrittivo, dal momento che aprono la strada a nuove possibilità interpretative, quindi identitarie e storiche.

¹ Uso questo termine nella consapevolezza dei suoi limiti e nel suo valore epistemologico piuttosto che cronologico (vedi Patella, 2005): esso è decisamente di moda nell'accademia occidentale, dov'è spesso usato come categoria universale che finisce per cancellare le differenze storiche e culturali, per oscurare le continuità e le discontinuità delle diverse configurazioni di potere, mettendo in secondo piano il peso di altre differenze, come ad esempio quelle di genere, nelle dinamiche storiche, laddove sarebbe auspicabile una declinazione plurale delle forme di colonialismo così come delle esperienze postcoloniali (McClintock, 1992; Frankenberg e Mani, 1993).

La visualità è stata uno dei modi privilegiati in cui, in Occidente, si sono costituite, spesso sovrapponendosi, le categorie del genere e dell'alterità, come ci ricorda Amelia Jones in *The Feminism and Visual Culture Reader* (2003), e come evidenziato in modo particolare dai testi riprodotti nella seconda sezione di *Culture della differenza*. Alternativamente negandole o assumendole, oscillando tra la rivendicazione del non ancora rappresentato e la problematicità del rappresentabile (Braidotti, 2002), la riflessione femminista sulla visualità ha sempre fatto i conti con la modalità costitutiva, piuttosto che con il carattere semplicemente riflessivo, delle immagini. Le immagini non rispecchiano una realtà preesistente, allo stesso modo in cui le cartografie non sono semplici oggetti visuali, ma contengono intersezioni dinamiche di relazioni sociali e di significati culturali (Rogoff, *infra*); esse sono prodotte, circolate, adoperate nel tempo e nello spazio all'interno di una rete complessa di relazioni di potere e di piacere, e intrattengono con la molteplicità del reale un rapporto di complicazione, piuttosto che di esteriorità. Come figurazioni, le immagini sono incarnate e situate, sedimentate e porose, prodotte ma anche produttive. L'inevitabile passaggio dalla domanda essenzialista alla domanda genealogica a proposito dell'identità culturale (Braidotti, 1998) si estende alle stesse formazioni visuali di queste identità, sulle quali ha poco senso, ormai, domandarsi cosa siano, quanto piuttosto quando, dove, come e da parte di chi siano costruite, e per quali ragioni.

L'esperienza del visivo, sostiene Nicholas Mirzoeff nella sua *Introduzione alla cultura visuale* (1999, trad. it. 2002), avviene nel *campo della visione*, ed è un'esperienza sostanzialmente transculturale, alla quale non sono più applicabili né il modello antropologico né quello artistico della cultura, con la loro visione «sigillata» dell'Occidente. Il superamento dei confini nazionali ci porta a considerare le formazioni globali della cultura visuale nelle loro dinamiche di trasformazione e creazione di nuove identità personali e collettive, e contemporaneamente a riflettere sull'eredità, le persistenze e gli influssi delle diverse storie e tradizioni su simili formazioni. Lontano sia dall'approccio globalistico sia da quello relativistico, il femminismo transculturale e postcoloniale opera confronti e crea connessioni tra queste differenze senza usare categorie unificanti, ma partendo dalla consapevolezza di una concezione dinamica dell'esistente, dove l'identità e l'alterità sono già da sempre *in contatto* tra loro (Pratt, 1992; Auricchio, *infra*), unite in ricuciture parziali e imperfette che consentono di «vedere insieme [all'altro] senza pretendere di essere un altro» (Haraway, 1991, trad. it. p. 117).

L'incontro tra femminismo transculturale e cultura visuale, dunque, avviene nel campo permeabile e inter-, quando non anti-, disciplinare, di produzione, circolazione, uso e ibridazione delle differenti formazioni visuali dell'attuale scenario geopolitico. In esso, simili formazioni generano pratiche di significazione e strumenti di negoziazione e navigazione, al pari delle figurazioni. Ne consegue la duplice necessità di sottoporre forme, categorie e interpretazioni del visuale – pensiamo a concetti come quelli di «naturale», «esotico» e «primitivo» – da una parte a quella ricostruzione storica che bell hooks chiama «politicizzazione della memoria», cosa ben diversa dalla nostalgia per un passato perduto (hooks, 1990), dall'altra a una ri-contestualizzazione nella rete

complessa di coordinate socio-culturali che non riguardano più soltanto il sesso o il genere, ma l'etnia, il colore della pelle, l'appartenenza sociale, le divisioni territoriali ed economiche dei soggetti coinvolti.

Il libro si divide in quattro sezioni, ognuna delle quali prende il titolo dalle opere, rispettivamente, di tre artiste e un collettivo. Questi lavori, i cui titoli già di per sé evocano i temi affrontati in ciascuna parte, sono stati scelti perché rianodano tra loro i diversi approcci dei testi, consentendone una lettura trasversale. Al centro di ognuno, infatti, le pratiche di *ri-cognizione* (Dimitrikaki cit. in Timeto, *infra*) e *re-visione* (hooks, 1990) passano attraverso la materialità corporea dei soggetti coinvolti, che radica e *re-incarna* il sapere e lo sguardo.

From Here I Saw What Happened and I Cried [fig. p. 3] è un'installazione fotografica creata nel 1995 da Carrie Mae Weems su commissione del J. Paul Getty Museum di Malibu, in concomitanza con l'evento *Hidden Witness: African Americans in Early Photography*. La mostra comprendeva dagherrotipi, ambrotipi e ferrotipi – appartenenti alla collezione privata di Jackie Napoleon Wilson, nipote di uno schiavo della Carolina del Sud –, raffiguranti soggetti afroamericani di metà Ottocento, per lo più schiavi. Carrie Mae Weems utilizza le immagini dell'archivio, alternandovi opere di fotografi contemporanei come Evans e Mapplethorpe: le fotografie, in tutto trentadue organizzate a gruppi di quattro, sono ingrandite, virate in rosso sangue (tranne la prima e l'ultima, che raffigurano il volto in blu di una donna che, osservando l'intera serie, pronuncia la frase che le dà il titolo), re-inquadrate, e poste sotto un vetro su cui sono impresse varie frasi, secondo una modalità già sperimentata in opere precedenti, come le serie *Ain't Jokin'* (1987-88) e *Kitchen Table* (1990).

Ho scelto quest'opera in apertura della prima sezione, che introduce i temi del libro, perché in essa la storia – una storia dolorosa, difficile sia da dire che da visualizzare, come quella della schiavitù – appare nella sua duplice valenza di archivio ed esperienza vissuta, di tradizione istituzionale e racconto orale, di vissuto individuale e collettivo. Carrie Mae Weems recupera il passato e lo attualizza nel presente, coniugando la pratica di *re-visione* alla rivendicazione di una posizionalità intesa, nelle parole di Irit Rogoff, come ciò cui si giunge, piuttosto che qualcosa che si possiede a-priori (Rogoff, 2000, p. 3). Cominciare «da qui» è estremamente doloroso ma necessario per rivedere e reincarnare la differenza tra ciò che è stato e ciò che può (ancora) essere. Dal momento che esistono solo «possibilità visive altamente specifiche» (Haraway, 1991, trad. it. p. 113), bisogna imparare a saper vedere, ma anche essere in grado di rendere conto di ciò che vediamo. «Da qui» Carrie Mae Weems dà voce alla nostra responsabilità di fronte alla costruzione della storia e dell'identità, occupando paradossalmente – e facendo volutamente combaciare – il posto dello Stesso, riservato all'artista che opera all'interno del contesto istituzionale impiegandone gli strumenti, in questo caso la fotografia², e il posto dell'Altro – corpo muto messo in scena a testimoniare la propria alterità.

² «Il mito della verità fotografica e insieme l'affermazione della sua neutralità sono serviti come strumenti della stereotipia che è alla base della relazione fra la fotografia e la razza. Il ruolo della

L'archivio, almeno fino alla sua sostituzione con la forma aperta del database, è un sistema chiuso che serve essenzialmente a due scopi: individuare per distinguere e a tipizzare per riconoscere (Sekula, cit. in Wallis, 2003, p. 172). Archiviare e sopprimere (l'altro) sono connessi in una contraddizione ineliminabile (Derrida, cit. in Frieling, 2004). Si archivia ciò che si vuole contenere e sopprimere, anzi, lo si archivia attraverso la soppressione. Carrie Mae Weems si era già confrontata con l'archivio nella serie *Sea Islands* (1991-93), il cui tema era la cultura materiale della diaspora africana in queste isole della Carolina del Sud ad alta concentrazione di piantagioni coltivate da schiavi. In apertura della serie, Weems aveva posto tre tritici di fotografie, ingrandite e virate con un procedimento analogo a quello usato in seguito, tratte dai dagherrotipi commissionati dallo zoologo svizzero Louis Agassiz a J.T. Zealy nel 1850. Agassiz, che si considerava il successore ideale dell'anatomista francese Georges Cuvier – tristemente noto per avere analizzato, esibito, e infine sezionato il corpo di Sartjie Baartman (Pacteau, *infra*) –, aveva fatto ritrarre sette schiavi della zona intorno Columbia, Carolina del Sud, semi-svestiti, di fronte e di profilo, per supportare la tesi della poligenesi, fornendo così una prova «scientifica» dell'inferiorità della razza nera. Come ha notato Lisa Gail Collins nel suo libro significativamente intitolato *The Art of History*, sia l'uso del corpo della Venere ottentotta da parte di Cuvier che quello dei dagherrotipi da parte di Agassiz, rappresentano «i collegamenti tra l'imperialismo, la schiavitù e la documentazione visiva delle differenze presunte. Entrambi i casi espongono anche la relazione tra la fame di prove evidenti, gli abusi della scienza e la complicità dei mezzi visivi» (Gail Collins, 2002, p. 23). Sono precisamente questi collegamenti che Carrie Mae Weems, e i saggi raccolti in questo libro, mostrano e, per così dire, «sciogliono», restituendoci la possibilità di vedere diversamente le differenze.

Nel saggio che apre il catalogo della recente retrospettiva americana di Kara Walker *My Complement My Enemy My Oppressor My Love*, Philippe Vergne (2007) ha scritto che l'artista, animata da una sorta di cannibalismo metodologico, rimembra e smembra la storia. *Endless Conundrum* (2001, fig. p. 43), il cui titolo riprende il nome di una nota scultura di Brancusi *Endless Column*, trasformando, però, la «colonna» in un «enigma», è un'installazione parietale di silhouette, che combina una pratica considerata artigianale come quella del ritagliare sagome su carta con la magniloquenza del quadro storico di grande formato. L'opera è la risposta di Kara Walker alla critica istituzionale della mostra *Ornament and Abstraction. The Dialogue Between Non-Western, Modern and Contemporary Art*, ospitata dalla fondazione Beyeler di Basilea nel 2001. Prendendo spunto dalla nutrita collezione svizzera di opere moderniste e di artefatti provenienti da paesi non occidentali, Walker riflette sia sulla rappresentazione della storia sia sulla storia della rappresentazione. Ugualmente, i saggi

fotografia nella produzione egemonica di una soggettività normativa e standardizzata ha necessariamente generato anche una tassonomia degli «altri», cioè di archetipi identificabili, controllabili e decifrabili, resi convenzionali e archiviati in un numero infinito di documenti che vanno dal materiale all'immaginario» (Firstenberg, 2003, p. 313).

riuniti in questa sezione affrontano gli enigmi che si celano dietro la costruzione dei canoni visivi dominanti in Occidente, da quelli della tradizione storico-artistica a quelli della pubblicità televisiva, affrontando, in particolare, i legami fra il primitivismo come fantasia modernista, la creazione dello stereotipo, la «manifattura dell'alterità» (secondo un'espressione di Anthony Appiah) e l'orrore misto a fascinazione per il feticcio.

Kara Walker ha detto di usare la silhouette perché, come lo stereotipo, dice molto attraverso il minimo di informazione, ponendosi come una sorta di anti-immagine che, tuttavia, non rinuncia al racconto visivo (vedi Blocker, *infra*). A questo proposito, Gwedolin Dubois Shaw ha descritto le silhouette come «spazi di vuota nerezza resi intelligibili dai loro margini» (Dubois Shaw, 2004, p. 36). L'arte della silhouette, nota in principio come «arte delle ombre» (era impiegata negli spettacoli teatrali per narrare delle storie), e sorta di antenato della fotografia, fu ampiamente usata da Johann Caspar Lavater per il progetto di «ombranalisi» perseguito nei *Frammenti Fisionomici* (Stoichita, 1997, trad. it. 2000). Lavater considerava l'ombra «l'immagine più debole e più vuota che si possa dare di una persona [e tuttavia] anche l'immagine più veridica e la più fedele» (cit. in Stoichita, 1997, trad. it. p. 146), perché concentrando l'attenzione sui soli lineamenti, epurati dalle espressioni, avrebbe permesso di ritrovare l'anima decaduta altrimenti oscurata dalla carne. Anche la scelta del nero per il colore con il quale riempire i lineamenti fisionomici non fu immediata, poiché il nero, rientrando nella categoria del sublime, evocava effetti e riferimenti inquietanti.

Compongono *Endless Conundrum* una serie di silhouette in nero e marrone, singole o riunite a gruppi di due. Al centro, una sagoma danzante circondata da banane, una specie di Josephine Baker (vedi Pacteau, *infra*) in versione Giuditta, calpesta la testa di un uomo decollato. Appare due volte una figurina chiodata, esemplata sul modello della *nkisi nkondi* - un tipo di statua votiva congolese - conservata alla fondazione Beyeler: la prima al centro, nell'atto di salutare un bambino - il figlio? - dal profilo allungato di statua africana (che ritroviamo più in basso, appena cresciuto, in catene), portato via da uno schiavista; la seconda mentre danza, in posizione frontale, il sesso e la bocca come una vagina dentata ben in mostra, brandendo una mano e un piede maschili. Secondo un procedimento di inversione, le statue africane, feticcio per definizione dell'artista modernista, si animano e dialogano con le figure «reali», queste ultime, invece, come «fissate» dalla tecnica della silhouette in tutta la mostruosità delle loro azioni: in basso, sulla destra, un uomo scolpisce una donna contro il tronco di un albero, quasi divorato dal corpo sovradimensionato di lei, il cui profilo gli si sovrappone (forse la stessa donna che, poco più in alto, ormai epurata nelle forme e ridotta a un profilo filiforme di gusto matissiano, nega aiuto all'uomo che sta annegando). Simmetricamente, all'estrema sinistra, il signore inginocchiato e con il dito puntato contro lo stomaco del suo aggressore, ingoia il pugno di un uomo nero che esce fuori, avviluppandolo, dalla sua scarpa, come un genio maligno dalla lampada - e il cui sesso esageratamente accentuato è, non a caso, zigzagato come la colonna di Brancusi. Stessa specularità nelle due coppie di figurine scolpite di profilo nella parte inferiore del

murale: a sinistra, due donne unite in un abbraccio a scala, che riprendono probabilmente certa statuaria erotica africana di uso funerario, fronteggiano due uomini col cappello coloniale, «africanizzati» in un posa analoga.

La colonna, che Brancusi intendeva come scala verso l'infinito, e che nelle sue diverse versioni è sempre concepita in posizione verticale, emblema della trascendenza ma anche inequivocabile simbolo fallico, viene non a caso «orizzontalizzata» da Kara Walker, e anch'essa impiegata due volte: la prima, sovrastata da una coppia di figurine maschili intente in un atto di sodomia, la seconda usata in funzione masturbatoria da una sagoma femminile dai tratti molto simili a quelli della donna danzante al centro dell'installazione. In posizione centrale è anche una donna di profilo, con le mani fra le gambe, la cui posa mi-ma quella della schiava liberata nella statua tardo-ottocentesca di Giacomo Gi-notti *Abolizione della Schiavitù* – manca solo l'appoggio –, di cui accentua l'aspetto erotico³. Non mancano, infine, l'acqua, elemento attraverso il quale avvenne il commercio degli schiavi, ma anche luogo della transculturazione e della messa in discussione della purezza razziale, e i riferimenti scatologici frequenti nell'opera di Kara Walker (variamente interpretati come un'allusione alla disobbedienza infantile e come un simbolo della rivolta antischiavista): un uomo travestito da donna che partorisce dall'ano un feto già vecchio, e un uomo accovacciato che, defecando, modella una figurina steatopigica.

Il rovesciamento, in senso reale e simbolico, è il tema di questa installazione. Il primo rovesciamento visibile è quello puramente formale, per cui l'opera è tutta giocata sulla possibilità d'invertire l'alto con il basso (sia sul piano della dimensione, sia riguardo al mescolamento dei codici impiegati) e la destra con la sinistra, quasi si trattasse di un'enorme macchia di Rorschach (vedi O'Brien, cit. in Gilman, 2007, p. 31). Un altro rovesciamento, stavolta non solo formale, è quello del positivo nel negativo: dell'immagine nella sua ombra, ma più in generale del bianco nel nero. Il progetto di Kara Walker di «visualizzare il mondo come una cosa nera» inghiotte nel nero assoluto l'invisibilità del bianco, con la sua volontà di mascherarsi come categoria e colonizzare le norme per la definizione dell'alterità (Dyer, 1988), rendendolo in questo modo evidente, anche se non propriamente visibile. Allo stesso tempo, il nero diventa ancora più nero, nell'accentuazione insieme gotica e grottesca di tutto ciò che lo fa tale agli occhi del bianco. Il nero è l'idolo, la maschera, il feticcio, l'eccessivo, l'abietto, lo spaventoso: il buco nero della rappresentazione. Questi rovesciamenti, però, non servono a creare delle antitesi: essi segnalano, semmai, la zona d'indiscernibilità in cui la differenza è (ancora) invisibile, ma anche quella in cui può essere rivista. Significano la possibilità di sottrarsi alle definizioni, intese letteralmente come limiti che inquadrano e contengono l'identità e le sue immagini. In effetti, perché una silhouette fosse fedele, il requisito principale era la morte di ogni apparenza vitale nell'assoluta immobilità del modello. Come nelle *cartes de visite* con la propria fotografia vendute dalla femminista Sojourner Truth per supportare la causa abolizionista, recanti la

³ Come se la disponibilità sessuale fosse il prezzo da pagare dell'avvenuta liberazione (vedi Gail Collins, 2002, p. 45).

scritta «I sell the shadow to support the substance», a indicare il commercio della propria immagine per supportare il corpo una volta schiavo, così Kara Walker manipola l'«archivio delle ombre⁴» per evocarne alla radice tutta la *so-stanziale* ambivalenza.

Il corpo che attraversa i confini della terra, della lingua, della casa, della propria stessa pelle, è un corpo estraneo, perché viola l'omogeneità e l'integrità dell'identico attraverso la propria differenza. I corpi estranei di cui parlano i saggi riuniti nella terza sezione di questo libro sono soprattutto corpi che appaiono, guardano e parlano diversamente, corpi tradotti e che (si) traducono attraverso diverse forme di confine. Come teorizza Hemily Hicks (cit. in Brah, 1998) la strategia del confine, in effetti, appartiene piuttosto all'ambito della traduzione che a quello della rappresentazione. Traduzione che, nelle parole Homi Bhabha, è sempre linguaggio *in actu*, non *in situ* (Bhabha, 1994, trad. it. p. 315).

All'erosione dei vecchi confini territoriali dovuta al complesso intreccio di fattori politici, economici e tecnologici della postmodernità, corrisponde, sempre più spesso, la costruzione di nuovi confini. L'alternarsi e il confondersi delle dinamiche di deterritorializzazione e riterritorializzazione evidenzia come i confini sono costruzioni arbitrarie, ma non astrazioni: come tutte le figurazioni, essi sono materialmente radicati e diversamente esperiti. Piuttosto che considerare esclusivamente il modo in cui confini condizionano i movimenti dei corpi che li attraversano, bisognerebbe guardare all'azione compiuta dai corpi che, nell'attraversarli, conferiscono loro un significato (Biemann, *infra*). Il femminismo transculturale riflette sul senso sia simbolico sia materiale dei confini, poiché è nei confini, mantenuti, oltrepassati o trasgrediti in funzione egemonica o subalterna, che si evidenziano i «processi paradossali di connessione e separazione» (Stanford Friedman, 2000; vedi Timeto, *infra*) di una realtà in cui la precarietà delle divisioni binarie lascia il posto a una molteplicità di relazioni e posizioni.

Ideato nei primi anni Ottanta come un lavoro sul tema della sorveglianza, *Corps étranger* di Mona Hatoum [fig. p. 93] vede la luce solo nel 1994, grazie al supporto tecnico e finanziario del Centre Pompidou di Parigi. L'installazione consiste in una camera cilindrica bianca, accessibile allo spettatore, sul cui pavimento è proiettata, ingigantita, un'endoscopia dell'interno del corpo dell'artista, accompagnata dai suoni della stessa endoscopia e di una precedente ecografia. Il corpo è doppiamente attraversato, la prima volta dalla telecamera che lo esplora, la seconda dallo spettatore che lo penetra calpestandolo. Violando a un tempo l'integrità, la distanza e la verticalità della rappresentazione classica del corpo, Mona Hatoum sperimenta la performance del confine sulla propria stessa pelle, visualizzando così l'incontro tra il personale e il politico.

Tutta l'opera di Hatoum ruota attorno al concetto di estraneità *del e al* domestico: dagli utensili elettrificati ai tappetini di chiodi, fino alle mappe insta-

⁴ Termine con il quale Allan Sekula si riferisce, in realtà, alla funzione della fotografia (cit. in Mirzoeff, 2003, p. 111).

bili di biglie, sapone o limatura di ferro, l'artista esplora la dialettica fra collocazione e dislocazione, familiarità e distanza, vicinanza ed estraneità. Se è vero che le donne sono sempre state *fuori luogo* nel discorso occidentale, pur essendo spesso assimilate allo spazio – concepito nell'ottica maschilista della penetrazione e del dominio – e in esso confinate (Grosz, 1995), è altrettanto vero che «c'è voluto un po' di tempo perché potessimo realizzare che il nostro posto era proprio la dimora della differenza piuttosto che la sicurezza di una differenza in particolare» (Lorde, cit. in Sandoval, 2000, p. 68). L'immobilità dei luoghi è un concetto decisamente maschilista, da cui deriva, ad esempio, la presunta analogia tra luogo, casa e femminilità. Ma la casa, come dimostra la *Unheimlichkeit* delle opere di Mona Hatoum, è sempre un luogo conflittuale. La dicotomia tra privato e pubblico, e tra personale e politico, da cui muovevano le rivendicazioni femministe tra gli anni Sessanta e Settanta, è ripensata radicalmente in un'ottica fluida che rilegge le relazioni fra chiusura e apertura, collocazione e mobilità non più in maniera antinomica, ma in modo processuale e performativo, facendo del confine una delle figurazioni centrali della riflessione contemporanea.

Solo l'estraneità al domestico, nel suo movimento di spossessamento e di non appartenenza, è la condizione dell'iniziazione all'oltre inteso come tempo della *re-visione* del presente (Bhabha, 1994, trad. it. p. 19). Il femminismo transculturale, tuttavia, c'invita a mantenere aperta la dialettica tra mobilità e collocazione, per sfuggire al rischio di romanticizzare la questione della mobilità considerandola in astratto e universalmente.

Là dove il rischio è più evidente è nei discorsi sulle nuove tecnologie, tema dell'ultima sezione del libro, nei quali l'attenzione posta sulla libertà di movimento e accesso è spesso svincolata da una serie di domande fondamentali, come ad esempio: «Chi sopporta, chi patisce, chi opera queste tecnologie della mobilità?» (Kaplan, 2002, p. 40). Nonostante gli studi sui nuovi media, per esempio, mostrino una preoccupazione crescente per il tema del corpo, dell'identità, della storia e dell'agire politico, restano ancora pochi i punti di contatto con il femminismo e gli studi postcoloniali, che affrontano questi stessi temi in una prospettiva situata, a partire dal riconoscimento della complessità contemporanea (Fernandez, *infra*).

Dietro la retorica del cyberspazio, il cui universalismo utopico assume spesso toni da missione civilizzatrice (Fernandez, *infra*; Timeto, *infra*), si cela una mobilità ben più complessa, quella del lavoro globalizzato e, sempre più spesso, femminilizzato. L'analisi femminista dell'economia globale (Sassen, 1998) rileva che sono soprattutto le donne i soggetti invisibili delle nuove dinamiche economiche⁵. Le nuove tecnologie, spesso considerate la via verso una libertà assoluta e una mobilità disincarnata, hanno conseguenze reali sulle loro vite, trasformandone sia l'immaginario sia le effettive condizioni di esistenza. Al

⁵ Sebbene non ne siano necessariamente le vittime. L'economia globale, infatti, alterando le precedenti gerarchie di genere, conferisce anche alle donne un maggior controllo sul proprio corpo, sui propri movimenti e sul proprio denaro, consentendo loro nuove forme di solidarietà e alleanza transnazionale (Sassen, 1998; Kaplan e Grewal, *infra*; Biemann, *infra*).

Introduzione

contempo, le stesse tecnologie la cui produzione e circolazione poggia in larga misura sull'occultamento del lavoro necessario a produrle, servono a tenere sotto controllo l'età, il sesso e la posizione di coloro che le producono, limitandone, spesso, proprio la mobilità⁶.

A/S/L (Age/Sex/Location) (2003, fig. p. 139), l'opera che introduce l'ultima sezione di questo libro, è un'installazione multimediale del Raqs Media Collective⁷ che ha per protagonista la lavoratrice indiana di un call center, emblema di genere del nuovo proletariato digitale. Anche se si trova al centro dell'economia globale, la lavoratrice di call center rimane una figura marginale e praticamente invisibile. Tuttavia, dal momento che ogni margine, scrivono i membri del collettivo (Raqs Media Collective, 2004), ha il suo campo visuale, come accadeva nei manoscritti medievali – dove ai margini delle scene raffiguranti re e signori stavano i contadini, le prostitute, i ladri e i mendicanti, che raffiguravano in modo estremamente dettagliato il proprio tempo –, leggere i margini (non solo geografici) del mondo contemporaneo alla ricerca di queste figure può farci vedere molto di più sulle nostra realtà di quanto non appaia a prima vista.

In *A/S/L*, una proiezione simultanea su tre schermi combina, tra le altre, immagini video di una laringe femminile, registrazioni audio di conversazioni telefoniche reali e fittizie tra lavoratrici e clienti, e la rielaborazione di un dialogo delle *Upanishad*. Attraverso l'esperienza di questo «agente remoto» che è l'operatrice di call center, il Raqs Media Collective rilegge la questione della connettività e la geografia degli spostamenti virtuali, rilevando le dinamiche di delocalizzazione e disidentificazione alla base dei flussi contemporanei. La lavoratrice, che in realtà risiede in India, assume un accento anglofono per rispondere ai clienti sparsi in tutto il mondo, mascherando così la propria collocazione geografica. La sua laringe diventa il simbolo di un corpo storicamente costruito da anni di colonizzazione culturale ed economica.

Nel passaggio a un'economia immateriale, in cui uno stesso prodotto può essere realizzato ovunque mantenendo intatte le proprie caratteristiche, il lavoratore, e in modo esemplare l'operatrice di call center, diviene una sorta di performer che sfrutta i suoi strumenti e le sue abilità materiali per produrre codici e significati. La conversazione fra lei e i clienti si basa sulla creazione di un comune immaginario che nega certe realtà per costruirne altre, dando luogo a una complessa mistura di realtà e rappresentazione, legami materiali e proiezioni simboliche (Raqs Media Collective, 2004). L'età, il sesso, la collocazione sociale e geografica, gli accenti e i nomi entrano ed escono dalle diverse identità performati quotidianamente da queste lavoratrici sulla mappa della rete globale, confondendo la certezza delle nostre cartografie.

⁶ Sulla possibilità di impiegare in un'ottica femminista e opposizionale le tecnologie di visualizzazione si vedano però Parks, 2005; Sui, 2004; Kwan, 2002, 2007.

⁷ Gruppo di artisti (Jeebesh Bagchi, Monica Narula, Shuddhabrata Sengupta) co-fondatori del Sarai Media Lab di Nuova Delhi, centro fisico e virtuale per artisti e attivisti interessati agli aspetti politici e sociali dei nuovi media. Il nome del gruppo deriva da un termine persiano che indica il movimento rotatorio dei dervisci, ma che è anche un acronimo per *rarely asked questions* [domande che si pongono di rado], il contrario di *faq*, cioè *frequently asked questions* [domande ricorrenti].

Bisogna andare «fuori griglia», per usare un'espressione di Coco Fusco (*infra*), per recuperare una prospettiva dal basso che ci consenta di guardare alle forme di «globalizzazione subalterna» altrimenti invisibili. Questo significa ripensare radicalmente la pratica artistica come una pratica sociale transculturale e transnazionale, in grado di creare un campo di connessioni e reti di tutt'altro tipo rispetto a quelle globali dominanti: reti costruite dentro la storia (Fusco, *infra*; Wilding, *infra*), miranti a organizzare la complessità contemporanea piuttosto che a documentarne semplicemente la realtà (Biemann, 2007). «Per far questo, chi pratica l'arte deve forse inventare, o scoprire, protocolli di dialogo tra i luoghi e le diverse posizionalità storiche nella rete; inventare protocolli per la costruzione e condivisione delle risorse, creare strutture dentro le strutture e reti dentro le reti [...]. Si può, allora, cominciare a pensare alla pratica artistica come una messa in atto, un processo, come un insieme di elementi in interazione o conversazione all'interno di una rete» (Raqs Media Collective, 2004).

E.T.

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CAPITOLO 2

Arte femminista e nuove tecnologie: una prospettiva situata

Federica Timeto

L'enfasi posta sulla spazialità nella maggior parte degli attuali dibattiti sui mutamenti apportati dall'impiego delle nuove tecnologie di informazione e comunicazione ha caratterizzato, negli ultimi decenni, anche la politica e le teorie femministe sui saperi situati, attraverso i concetti chiave della posizionalità e della collocazione. E nonostante, a una prima analisi, sembrano davvero pochi i punti di contatto fra i teorici dei nuovi media e il pensiero femminista situato¹, e appaiano più numerose le divergenze, in modo particolare riguardo alle questioni della disincarnazione, della mobilità e dell'accesso (Haraway, 1991a; Stone, 1995; Hayles, 1999; Fernandez, 1999; Muri, 2003; Wajcman, 2004), in questo saggio cercherò di dar conto del dialogo che, seppure in modo ancora circoscritto, ha cominciato ad avviarsi tra i due ambiti, grazie soprattutto al pensiero critico di alcune femministe che hanno saputo trovare un'alternativa al vicolo cieco che isteriliva il dibattito, opponendo la demonizzazione delle nuove tecnologie alla loro celebrazione trionfalistica. Nella seconda parte del saggio analizzerò, quale esempio di un approccio femminista situato all'arte che fa uso delle nuove tecnologie, il lavoro di *Net Art Turista Fronterizo*², creato dagli artisti Coco Fusco e Ricardo Dominguez per la manifestazione *InSite 05*. Il contesto dell'opera, basata sul modello del gioco da tavolo *Monopoli*, è la realtà transculturale di due città al confine messicano-statunitense, San Diego e Tijuana. Dopo aver assunto uno dei quattro ruoli a sua disposizione, il giocatore può seguire diverse traiettorie percorrendo i luoghi (corrispondenti a siti esistenti) sulla tavola del gioco. Questi si rivelano *siti relazionali* in cui forze diverse, e spesso anche opposte, operano simultaneamente, per rinforzare o, al contrario, per sovvertire, i limiti costrittivi del concetto di confine. La stessa forma del gioco, simile a una mappa che dev'essere letteralmente attraversata perché emergano i suoi vari significati, dà vita a una cartografia praticata la cui rigida tassonomia si dissolve progredendo nel percorso. Ne risulta una topologia interattiva e non prescrittiva, che nell'intenzione degli

¹ Si veda come, recentemente, l'incontro fra cyberfemminismo e pensiero postcoloniale ha reintrodotto nel dibattito sulle nuove tecnologie la questione della differenza multipla e incarnata (Gajjala e Mamidipudi, 1998 e 2002). Un esempio di cyberfemminismo postcoloniale è l'esperimento della mailing list *Undercurrents*, avviata nel 2002 dalle moderatrici Coco Fusco, Faith Wilding, Irina Aristarkova e Maria Fernandez. La mailing list è tuttora attiva.

² D'ora in poi TF.

autori mette in atto un movimento, per così dire, "contro-immersivo": gli artisti evitano così quell'astrattezza che spesso accompagna l'impiego del lessico spaziale, poiché questa finirebbe per ignorare o cancellare le differenze incarnate, come quelle sessuali ed etniche, ma soprattutto metterebbe fuori gioco la storia, a tutto vantaggio di una cornice spaziale rigida e ancora modellata su parametri essenzialistici (Fusco, *infra*).

2.1 | Nuove tecnologie e metafore spaziali

Passando in rassegna i diversi approcci alla questione dello spazio e del luogo nelle teorie sulle nuove tecnologie di informazione e comunicazione, Stephen Graham (1998) identifica tre possibili prospettive: la prima, che definisce *della sostituzione e della trascendenza*, e che appare come la prospettiva dominante, ipotizza che le nuove tecnologie soppiantino il vecchio modo di concepire lo spazio e la posizionalità, dissolvendo le geografie urbane ormai obsolete e offrendo una territorialità alternativa infinitamente estendibile e riempibile (Graham, 1998, p. 171). Basandosi su metafore tanto efficaci quanto universali, che vanno da quella di "villaggio globale" di Marshall McLuhan, a quella di "spazio immersivo" di De Kerckhove, questo approccio³ interpreta il progresso tecnologico in modo essenzialistico e deterministico⁴, ai limiti, spesso, dell'utopismo messianico, poiché considera la tecnologia come principale causa del cambiamento *epocale* in atto. L'accento è quasi sempre posto sul carattere di *novità* delle tecnologie e sull'*avvento* di un paradigma epistemologico completamente nuovo. Esemplificativa, a tal proposito, è l'affermazione di Nicholas Negroponte citata da Graham: «La vita digitale dipenderà sempre meno dall'essere in un determinato luogo in un determinato tempo, e inizierà ad essere possibile la trasmissione stessa dei luoghi» (Negroponte, cit. in Graham, 1998, p. 170). Cui fa eco quella di Roy Ascott: «Il computer networking soddisfa il nostro desiderio profondo di trascendenza – raggiungere l'immateriale, lo spirituale – anelare a essere fuori dal corpo. Eccedere i limiti del tempo e dello spazio, una sorta di teologia biotecnologica» (Ascott, cit. in Muri, 2003, p. 76). E possiamo ancora citare Joshua Meyrowitz, che nel suo libro pionieristico significativamente intitolato *Oltre il senso del luogo*, scriveva che tutto ciò che accade nei media può succedere ovunque ci troviamo, per cui, se siamo ovunque, non siamo più in nessun luogo in particolare (Meyrowitz, 1985, trad. it. p.

³ Adottando la classificazione di Graham sono cosciente di operare una generalizzazione, dal momento che ognuna di queste teorie meriterebbe di essere discussa nel dettaglio e nella ricchezza delle sue sfumature, ma non è questa la sede.

⁴ Successivamente, Graham (2004) evidenzierà sei punti deboli nelle fantasie posturbane dei discorsi tecnodeterministi: l'ignoranza delle tendenze reali in fatto di crescita urbana e aumento della mobilità, la non considerazione delle geografie materiali su cui poggiano le tecnologie di informazione e comunicazione, la tendenza a generalizzare gli effetti del loro impatto, il dualismo teorico creato dalla sopravvalutazione delle nuove tecnologie e dalla svalutazione dei luoghi, il mascheramento «patinato» degli interessi dell'ideologia postcapitalistica e infine l'abbandono della questione politica.

214). Molto spesso, tuttavia, dietro questa enfasi sull'intrinseca positività e sulla validità universale di concetti come fluidità e mobilità, si nasconde un diffuso disinteresse per la questione dell'agire politico. Le istanze totalizzanti, definite da Graham (2004) come «il sogno del tutto, ovunque e sempre», al pari del relativismo, appaiono nemiche dei saperi situati, in quanto promettono «di essere in nessun luogo mentre si afferma di essere dappertutto in modo uguale» (Haraway, 1991a, trad. it. p. 115; Wajcman, 2004, p. 62).

the condition
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Il secondo approccio identificato da Graham, o *della coevoluzione*, immagina invece che territori e spazi elettronici si producano contemporaneamente, interagendo all'interno del nuovo scenario globale postcapitalistico. Ridurre ogni cosa a informazione trascura la complessità della dimensione sociale: le nuove tecnologie si legano piuttosto al farsi stesso dei luoghi, di cui potenziano le funzioni, sicché i luoghi sono sottoposti a un processo di ristrutturazione continua all'interno dei nuovi circuiti di produzione, distribuzione e consumo (Graham, 1998, p. 175). Lo sviluppo delle nuove vie di informazione e comunicazione non è un processo neutro per i sostenitori di questa prospettiva, definibile anche *relazionale*, ma una questione di potere sociale. La "compressione spazio-temporale", dunque, non è uguale per tutti, ma per qualcuno può significare anche una restrizione della mobilità o l'impossibilità ad accedere a determinati luoghi. È stato per primo David Harvey a parlare di "compressione spazio-temporale". Per Harvey, il luogo è un costrutto sociale (Harvey, 1990, trad. it. 1993): seguendo Lefebvre (1974), egli sostiene l'interrelazione tra esperienza, percezione e immaginazione nella produzione materiale e simbolica dei luoghi. La compressione di cui parla è soprattutto una conseguenza della rivoluzione tecnologica e dell'accumulazione del capitale, sebbene in essa egli non veda la scomparsa totale dei luoghi, ma l'emergere di fenomeni di resistenza o reazione miranti, spesso, a ricostruire il luogo. A tal proposito, vale la pena citare la critica di Doreen Massey ad Harvey: la geografa femminista vede nella compressione spazio-temporale un'invenzione culturalmente specifica dell'Occidente (si vedano anche Brah, 1996; Ghani, 1993), e sostiene che i luoghi non sono mai stati insieme chiusi, stabili e coerenti, ma sempre fluidi e relazionali, i cui confini sono creati dall'intersezione di molteplici geografie e geometrie del potere (Massey, 1995, trad. it. 2001). A Manuel Castells che, come Harvey, ritiene sia impossibile definire lo spazio indipendentemente dalle pratiche sociali, si deve la fortunata definizione di "spazio dei flussi", inteso come «l'organizzazione materiale delle pratiche sociali di condivisione del tempo che operano mediante flussi» (Castells, 1996, trad. it. pp. 472-73). Egli evidenzia come le diverse posizioni dell'economia globale, organizzate in reti e flussi che si avvalgono delle infrastrutture tecnologiche del circuito informazionale, non coincidono più con precise aree geografiche. Lo spazio dei flussi crea processi simultanei di dispersione e concentrazione, sovrapponendosi allo spazio dei luoghi, ma senza soppiantarli del tutto: anche nella società delle reti, infatti, la maggior parte della gente continua a vivere nei luoghi, che per Castells sono spazi confinati, autosufficienti e caratterizzati dalla contiguità fisica⁵.

⁵ Una critica a questa idea di luogo viene ancora da Massey, 1994.

Infine, Graham illustra la prospettiva della ricombinazione, basata sulla *actor-network theory* di Callon e Latour, e sulla teoria del cyborg di Donna Haraway, la cui eco si ritrova nelle riflessioni sullo spazio di femministe come Gillian Rose (1993), Elizabeth Grosz (1995), Elspeth Probyn (1990 e 1993), e già citata Doreen Massey (1994). Imperniata ancora più radicalmente sulla questione della relazionalità, questa prospettiva studia le tecnologie, la vita sociale, il tempo e lo spazio come entità non separate né definibili in sé, ma nelle loro ricombinazioni contingenti. A questo proposito, Rosanne Stone, sulla scorta del concetto di biosocialità di Paul Rabinow, adopera il termine *tecnosocialità*, per indicare l'indistinguibilità di natura e tecnologia nel contesto sociale che abitiamo (Stone, 1995, trad. it. pp. 49-50). Secondo Bruno Latour, non esiste il cyberspazio nella sua singolarità e universalità, ma una "matassa di reti" fatta di linee di connessione piuttosto che di superfici (Latour, cit. in Graham, 1998, p. 179): frammentate ed eterogenee, e capaci di connettere ma anche di dividere, queste connessioni funzionano come "mediatori" piuttosto che come semplici "intermediari", in quanto dotate della capacità di tradurre, trasformare e talvolta tradire ciò che trasportano (Latour, 1991, trad. it. pp. 96 e ss.).

2.2 | Femminismo e nuove tecnologie

Ritroviamo una rassegna analoga a quella di Graham, ma in una prospettiva femminista, nel libro di Judy Wajcman *Technofeminism* (2004). La sua analisi parte dalle prime ricerche femministe sui legami tra genere e tecnologia, per giungere alla sua idea di "tecnofemminismo". Se negli anni Sessanta e Settanta, sulla scia di posizioni come l'ecofemminismo e il femminismo radicale, le ricerche si concentravano sulla connotazione *essenzialmente* patriarcale della scienza, che affondava le sue radici in una cultura maschilista e militarista, generando una visione per lo più fatalistica e pessimistica, a partire dagli anni Ottanta, come nota efficacemente Sandra Harding, si passò dalla questione della donna nella scienza alla questione della scienza nel femminismo (Harding, cit. in Wajcman, 2004, p. 18).

Il merito del primo approccio era stato quello di politicizzare la questione della tecnologia, scavalcando l'analisi incentrata esclusivamente sui suoi usi e abusi; il limite, quello di non aver saputo porre abbastanza l'accento sulla questione dell'agire femminista. Con l'adozione di una prospettiva costruzionista, in particolare all'interno dei cosiddetti STS (Social Studies of Technology), le tecnologie vengono analizzate soprattutto come costrutti sociali, al pari del genere (Butler, 1990, trad. it. 2004). In quest'ottica, l'evoluzione delle tecnologie non è più considerata un evento naturale e inevitabile, ma un insieme di processi contingenti ed eterogenei. Come sostiene la *actor-network theory*, diventa chiaro che tecnologia e società si costituiscono vicendevolmente⁶. Anche nella

⁶ Per una critica femminista alla *actor-network theory* vedi Wajcman, 2004, pp. 23-24.

considerazione della costruzione sociale delle tecnologie, comunque, è mantenuta la centralità delle relazioni di genere.

Una decisa reazione al pessimismo delle teorie precedenti viene dal cyberfemminismo, di cui Sadie Plant è considerata la teorica principale. Plant (1997) adopera il concetto di rete e la metafora della tessitura come idealmente femminili, elaborando una teoria che finisce per considerare la tecnologia come valore positivo in sé, anche se, questa volta, piegato agli scopi e all'agire delle donne. Nella sua rassegna, Wajcman sottolinea la sostanziale tendenza all'utopismo del cyberfemminismo storico, che spesso «riguarda il *no-where*» tralasciando «il *now-here*» (Wajcman, 2004, p. 75), soprattutto quando considera la realtà virtuale come il luogo ideale per liberarsi dai limiti della "vita reale" e sperimentare le performance dell'identità (Turkle, 1995, trad. it. 1997; Stone, 1995). Tuttavia, la stessa non considera il modo in cui, più recentemente, il cyberfemminismo, anche in conseguenza dell'incontro con la cultura visuale e gli studi postcoloniali nel contesto di una prospettiva transnazionale, ha assunto un atteggiamento molto più critico e politico, oltre che decisamente più vario al suo interno (Wilding, 1998; Wilding, Wright e Fernandez, 2002; Paasonen, 2000 e 2005; Gržinić, 2004). Ecco cosa scrivono, per esempio, le moderatrici di *Undercurrents* nella dichiarazione di apertura della loro mailing list:

C'è bisogno di un approccio più critico, oggi, per analizzare il modo in cui la cultura e l'arte dei nuovi media mascherano gli interessi dell'industria facendo sembrare i percorsi della tecno-scienza desiderabili, potenzianti, irrefutabili e necessari [...]. Vogliamo promuovere una discussione sull'impatto reale della deterritorializzazione nella vita contemporanea per non perdere di vista chi ne è più condizionato, e come questi effetti si riverberino nelle società in cui viviamo [...]. L'auto-etnografia, sia essa presentata in forma di cronaca o espressa in una telepresenza politicamente impegnata, oppone dei punti di vista necessari per controbilanciare i resoconti problematici sull'"ibridità" e sulla "disincarnazione" (Aristahrkova, Fernandez, Fusco e Wilding, 2002).

La rassegna di Wajcman continua con un capitolo sul tema del cyborg, rilevando come questa figura dell'ibridità, dopo Donna Haraway, sia divenuto emblema della «utopia postpolitica delle possibilità infinite» (Squires, cit. in Wajcman, 2004, p. 64). Per Haraway, invece, il cyborg è un mito soprattutto politico, che sfida i dualismi del pensiero occidentale, come quello fondante fra natura e cultura, o quello fra soggetto e oggetto, e che mostra come anche la scienza sia conoscenza incarnata, fatta di un insieme di pratiche materiali e semiotiche. Insieme alla *standpoint theory* di Sandra Harding, i saperi situati di Haraway privilegiano la relatività e la contingenza dei punti di vista posizionati e incarnati nei corpi intesi come "nodi generativi" (Haraway, 1991a, trad. it. p. 127). Genere, classe ed etnia sono, dunque, categorie costituite anche attraverso le pratiche della tecnoscienza.

In ultimo, Wajcman illustra la propria posizione, che definisce del "tecnofemminismo". Si tratta di un approccio che, partendo dal femminismo del cyborg, lo radica nella prospettiva materialistica degli studi sociali sulle nuove tecnologie, ritornando in un certo senso alla stessa Haraway, e insistendo sulla coimplicazione di tecnologia e dinamiche sociali. Il problema, dice Wajcman, non è più quel-

lo di accettare od opporsi alle tecnologie, ma quello di adottare una flessibilità interpretativa che si ponga la questione degli usi strategici della tecnoscienza (Haraway, 1991a, p. 107). «È la relazione tra un'analisi sociale e i progetti di una trasformazione sociale che segna la fondamentale differenza fra i normali studi sulla tecnoscienza e il tecnofemminismo» (Haraway, 1991a, p. 127).

Noi crediamo che il passaggio dall'analisi alla progettualità e dalla teoria alla pratica delle nuove tecnologie non possa che passare attraverso la politica della collocazione. Riprendendo una nota domanda di Gayatri Spivak, che dà anche il titolo a uno dei suoi saggi più conosciuti, *I subalterni possono parlare?* (1988, trad. it. 2005), Irit Rogoff, nel suo libro su geografia e cultura visuale, concorda sul fatto che i soggetti possano prendere la parola soltanto quando hanno una posizione da cui parlare e un linguaggio da adoperare, a differenza di quanto accade nei «discorsi recenti animati da un utopismo tecnologico trionfalistico che ignora proprio la necessità della posizionalità, quando ci dice che essere capaci di trasmettere e di farsi ricevere a livello globale cancella il problema del chi a chi, e attraverso quale riconosciuta struttura di senso, qualcosa venga trasmesso» (Rogoff, 2000, p. 13). La nostra cultura, dice Rogoff, non fa altro che rinnovare, sotto nuove forme – i flussi di circolazione delle informazioni e del capitale – una “universalità non situata” (Rogoff, 2000, p. 12). Ma è davvero così difficile, se non impossibile, rintracciare quella che Rogoff definisce un’“etica contingente della collocazione geografica” nella pratica artistica che fa uso delle nuove tecnologie? Assumere una posizione così nettamente sfavorevole nei confronti delle nuove tecnologie non porta ad essenzializzarle nuovamente? Forse, si chiede Rhadika Gajjala in un saggio sugli *e-spaces* femministi, nel tentativo di delineare un'analisi utile alla “ricollocazione strategica dei cybercittadini”, «non è detto che i subalterni vogliano parlare dall'interno, ma ricollocare la loro soggettività attraverso disidentificazioni che consentano loro di farsi ascoltare, anche se in modo spiacevole. Dunque, gli “atti di parola” possono anche presentarsi come silenzi, o *flames* oppositivi» (Gajjala, 2001, p. 120).

2.3 | La retorica spaziale del femminismo e la prospettiva situata sulle nuove tecnologie

Il linguaggio della spazialità, nota Susan Stanford Friedman, si è fatto strada nel femminismo più o meno a partire dalla metà degli anni Ottanta, in parallelo con il progressivo accantonamento della retorica del risveglio e della rinascita che aveva caratterizzato i due decenni precedenti. Dove la retorica temporale sottolineava la linearità di un movimento ascendente e progressivo⁷, la retorica spaziale enfatizzava la fluidità della dimensione orizzontale, situando il genere, prima considerato nella maggior parte dei casi come categoria d'analisi isolata, all'interno di una rete complessa di relazioni di potere; inoltre, la conside-

⁷ Si veda a questo proposito l'analisi del «post» nella definizione di postcoloniale fatta da Ann McClintock (1992).

razione processuale e reversibile delle dinamiche spaziali metteva in evidenza il concetto di *negoziazione*, accentuando, in particolare, le implicazioni della spazialità per la prassi:

Come modalità del pensiero, la retorica spaziale suggerisce modi di essere fluidi e flessibili che pongono l'identità come relazionale, situazionale e interattiva – il risultato di un divenire continuo senza origine né fine [...]. Invece del telos individualistico dei modelli progressivi, la nuova geografia configura l'identità come un luogo radicato storicamente, una posizionalità, un punto di vista, un terreno, un'intersezione, una rete, un network, un incrocio di saperi situati multipli. Essa non articola lo sviluppo di un'identità organica, quanto piuttosto la mappatura di territori e confini, contorni e topografie, i terreni della dialettica dentro/fuori e centro/margine, gli assi intersecati di posizionalità differenti, e gli spazi di un incontro dinamico – la "zona di contatto", il "terreno di mezzo", le terre di confine, la *frontera* (Stanford Friedman, 2000).

Ma l'aspetto interessante della retorica spaziale che permea la politica della collocazione risalente alla definizione di Adrienne Rich (1984) su cui si fonda, oggi, il femminismo postcoloniale e transculturale, è che, rispetto all'impiego di un vocabolario analogo a quello di molte altre teorie sui flussi globali, essa non perde mai di vista il carattere storico della dimensione geografica, così come la funzione pratica e politica che i saperi situati assumono per i corpi diversamente posizionati nel panorama contemporaneo: «L'incarnazione femminista non riguarda [...] delle collocazioni fisse in un corpo reificato, femminile o meno, ma nodi all'interno di campi, inflessioni all'interno di orientamenti, e la responsabilità per la differenza nei campi material-semiotici del significato» (Haraway, 1991b, pp. 22-23; vedi anche Munt, 2001a). I luoghi diventano posizioni, impossibili da considerare in sé come vuote estensioni, e invece profondamente legati ai soggetti che vi *prendono posizione*. I confini appaiono creati non solo da limiti geografici, ma anche sessuali, etnici, culturali ed economici, e governati da un insieme di relazioni di potere materiali e simboliche che stabiliscono assetti variabili (Massey, 1994; McDowell, 1999).

Lo strumento per rendere conto di questa pluralità molteplice diviene una cartografia femminista dal carattere trasformativo, non solo descrittivo (Braidotti, 2002). A differenza delle normali cartografie, che pur essendo sempre frutto di precise ideologie e codici visuali, si offrono come strumenti trasparenti di decifrazione della realtà (Mohanty, 1991; Wood, 1992; Lévy, 1994, trad. it. 1996; Pile e Thrift, 1995; Brah, 1996; King, 2003; Farinelli, 2003), la cartografia femminista si pone come una *figurazione* performativa, una "mappatura politica dell'attualità" (Braidotti, 2002, p. 15), piuttosto che come una metafora, poiché non sta semplicemente a rappresentare una realtà esterna, ma funziona in modo non riflessivo e non trascendente, mostrando come nessuna metafora spaziale evolva indipendentemente dalla concezione materiale dello spazio, ma stia con questa in un rapporto di relazionalità reciproca (Smith e Katz, 1993, p. 71; Del Casino e Hannah, 2006).

Apriamo una breve parentesi sul rapporto fra realtà e rappresentazione: è

interessante notare come due fra i più stimati teorici delle nuove tecnologie, Bolter e Grusin (2000), nel mostrare l'assoluta interdipendenza di mediazione e realtà, contestino l'idea di un cyberspazio inteso come luogo di totale prossimità in grado di trascendere i limiti fisici, partendo da una critica dell'illusione della trasparenza e dell'immediatezza – spesso associate all'idea di connettività –, che si sono affermate ogni qualvolta si è voluto credere nella possibilità di scavalcare la mediazione del medium, nell'illusione di poter afferrare la realtà dietro di esso. Non è un caso che di "illusione della trasparenza" parlasse già Henri Lefebvre (1974), spiegando come l'equivalenza fra conosciuto e trasparente dissimulasse la produzione sociale dello spazio attraverso l'equiparazione di conoscenza, informazione e comunicazione, allo stesso modo in cui l'opposta illusione dell'opacità si reggeva sul presupposto di una sostanzialità materiale e naturale dello spazio. In modo analogo, Michel Foucault (1984), in uno dei suoi testi più "geografici", prende a esempio lo specchio per mostrare come questo possa funzionare sia come utopia, cioè come luogo senza luogo che mi separa da un altrove in cui non mi trovo, sia come "eterotopia", cioè come luogo virtuale che, mostrandomi dove non sono, mi rimanda indietro alla posizione che occupo, stabilendo dunque una relazione di reciprocità in cui spazio reale e spazio virtuale s'incontrano fuori da ogni logica binaria.

Al pari di tutte le altre "rappresentazioni", le cartografie non esistono come oggetti visuali autonomi, ma contengono intersezioni dinamiche di relazioni sociali e significati culturali espressi o potenziali (Rogoff, 2000), contribuendo a costruire, piuttosto che a rispecchiare, la molteplicità delle nostre realtà. Le mappe indicano non solo i luoghi, ma anche le vie di accesso e fuga e gli itinerari delle soggettività che li percorrono, e percorrendoli mobilitano lo spazio in modo "generativo". Nel rendere conto della nostra posizionalità all'interno di una rete di relazioni di potere, le figurazioni cartografiche possono reincarnare e ricollocare una serie di metafore deterritorializzanti altrimenti astratte come quelle dell'assenza di confini, della virtualità e della libertà di movimento e accesso (Smith e Katz, 1993; Braidotti, 2002). Tracciando una cartografia dell'attualità e ridefinendo le soggettività femministe e i termini del dibattito scientifico e tecnologico, le figurazioni rivestono una triplice funzione, insieme geopolitica, etica ed epistemologica (Braidotti, 1995, p. 12), offrendo un'articolazione incarnata e situata dell'immaginario contemporaneo.

Un esempio di figurazione generativa è la mappa interattiva creata da Coco Fusco e Ricardo Dominguez in TF. La loro cartografia, infatti, rende conto di una realtà esistente senza tuttavia chiuderla in una griglia astratta dalle dinamiche storiche e dai processi sociali anche contraddittori che la caratterizzano. Si tratta della cartografia provvisoria di una topologia "relazionale"⁸, che segue le derive e gli slittamenti delle dinamiche di volta in volta attivate dai partecipanti al gioco insieme ai loro avatar.

⁸ Mi rifaccio qui alla definizione di "spazio relazionale" di Foucault (1984).

2.4 | Tecnologie situate e pratiche artistiche femministe

Scrivendo delle pittrici impressioniste Berthe Morisot e Mary Cassatt e degli spazi della femminilità nella Parigi di fine Ottocento, la storica dell'arte femminista Griselda Pollock esamina tre tipi di spazio: lo spazio come luogo rappresentato nei dipinti, la griglia spaziale della composizione del dipinto e l'insieme di «spazi sociali dai quali la rappresentazione viene fatta» (Pollock, 1988, trad. it. 2000, p. 26), ovvero la collocazione sociale e psichica dell'artista in un campo storicamente e ideologicamente costituito, inclusi «gli effetti di reciproco posizionamento» di autore e spettatore all'interno delle dinamiche di produzione e consumo. Identificando quattro segni chiave, cioè il tempo libero, il consumo, lo spettacolo e il denaro, Pollock delinea una mappa delle interrelazioni molteplici attorno a cui è possibile fare (o meno) diverse esperienze all'interno dello stesso spazio della Modernità, in base al genere, alla classe sociale e ad altre divisioni storiche e ideologiche. Così, per esempio, se la figura del *flâneur* incarna il privilegio e il simbolo della mobilità all'interno della città moderna, non è possibile concepire un corrispettivo femminile negli stessi termini e nello stesso periodo (vedi anche Wolff, 1985; Hartmann, 2000⁹).

Sembrirebbe che l'impiego e lo sviluppo delle nuove tecnologie di informazione e comunicazione, i mutamenti dell'economia postcapitalistica e l'emergere dei nuovi soggetti postcoloniali delineino uno scenario completamente diverso, privo di confini prestabiliti e caratterizzato da una fluidità pressoché totale. Ma nonostante le incontestabili diversità della condizione postmoderna, è indubbio che le metafore spaziali continuano a territorializzare ciò che parrebbe sfuggire ad ogni confinamento. Nello scenario attuale, la polarità spaziale maggiormente dibattuta resta ancora quella fra stabilità e mobilità¹⁰ (Kaplan, 2002). Gli effetti prodotti dai panorami etnografici, finanziari, mediatici e tecnologici di cui parla Appadurai (1990) somigliano molto a quelli individuati da Griselda Pollock¹¹, sebbene su scala globale. Se, infatti, la dimensione ontologica del *qui*, che caratterizzava la Modernità, sembra decisamente scomparsa, non significa che sia svanita nel nulla anche la dimensione del *dove* (Stone, 1995). Il concetto di mobilità, per esempio, non ha lo stesso significato per tutti, ma dipende da *dove* si ci trova, si può o si vuole essere situati. Nonostante ci sia chi sostiene che viaggiare significa ormai attraversare panorami del senso, nei quali si concretizza la «metafora della conoscenza come esplorazione» (Boccia Artieri, 2004, p. 183), – af-

⁹ Fanno eccezione – confermando dunque la regola – alcune figure come quelle della conferenziera di viaggio Esther Lyons, di cui parla diffusamente Giuliana Bruno nel suo *Atlante delle Emozioni* (2002, trad. it. 2006, pp. 101 e ss.).

¹⁰ È noto, per esempio, come la considerazione del luogo in quanto "casa" abbia contribuito a definire la femminilità, conferendole l'attributo della fissità come antitetico anche al solo desiderio della mobilità (Massey, 1994). Si vedano opere d'arte significative in tal senso, come *Femme-maison* (1947) di Louise Bourgeois, *Womanhouse* (1972) di Judy Chicago, fino a *Homebound* (2000) di Mona Hatoum.

¹¹ Per i risvolti anche legali della territorializzazione dello spazio virtuale si vedano Lemley (2002) e Olson (2005).

Coco Fusco e Ricardo Dominguez, *Turista Fronterizo*, 2005.

fermazione che suona piuttosto "modernista" e che rievoca il concetto di *flânerie* – ci sono, in realtà, forme di mobilità frequentemente tagliate fuori dalle teorie dominanti sulle nuove tecnologie, per esempio quelle dei soggetti transnazionali come le lavoratrici sessuali o i rifugiati (Kaplan, 2002; Braidotti, 2006, trad. it. 2007). Ai saperi situati, agli studi postcoloniali e al femminismo transnazionale si deve il merito di aver superato la rigida polarità fra collocazione e dislocazione in seno al dibattito sulle nuove tecnologie, proprio grazie a una riconsiderazione del concetto di mobilità: questa, infatti, può essere riappropriata dalla politica femminista purché si riconosca che dev'essere ogni volta situata se se ne vogliono comprendere gli effetti destabilizzanti. Ogni metafora origina da un centro, e ogni metafora produce a sua volta i propri centri e le proprie marginalità; ma nessuna metafora è statica, e ognuna può quindi essere "mobilitata" contro l'egemonia del suo centro (Wolff, 1993).

Nella presentazione di TF per la mostra *InSite 05*, Coco Fusco e Ricardo Dominguez pongono l'accento sulla semplicità del gioco, che usa il linguaggio html e fornisce al partecipante poche elementari istruzioni. Gli autori affermano di aver trovato ispirazione, oltre che nella versione messicana del Monopoli, denominata, appunto, *Turista*, nel *Gioco della guerra* di Guy Debord e Alice Becker-Ho (1987) e negli esperimenti surrealisti di gioco collettivo, come per esempio il *cadavre exquis*. Scrivono Fusco e Dominguez nella presentazione del lavoro:

Vogliamo creare un gioco che permetta alle persone con diverse esperienze di vita e provenienti da luoghi diversi di "fare una gita" nella zona di confine giocando il nostro gioco, e di mettersi nei panni di quegli altri attorno a loro che magari incontrano tutti i giorni ma ai quali non rivolgono mai la parola. Allo stesso tempo, individuando il modo in cui delle identità prefabbricate danno forma alle esperienze del gioco, cerchiamo di mostrare come forze estranee al controllo dei singoli, siano esse le leggi della geopolitica, le regole del gioco, o le strutture di una data comunità, delimitino gli obiettivi dell'esperienza di qualcuno (Fusco e Dominguez, 2005).

Come nel Monopoli, in TF si avanza di casella in casella tirando i dadi, e il giocatore possiede una somma di denaro che può incrementare o perdere, caso, quest'ultimo, che pone termine alla partita. Le probabilità e gli imprevisti del Monopoli diventano "incubi" e "sogni" in TF. E se nel Monopoli ci sono proprietà che possono essere acquistate, vendute o affittate e che determinano il valore di ogni spazio (rappresentando la logica dell'economia capitalista), le caselle di TF, che pure prendono il nome da luoghi esistenti, possono solo essere, per così dire, percorse e attivate attraverso le diverse esperienze dei giocatori. Dal momento che né i luoghi né i soggetti che li attraversano preesistono alle loro (reciproche) articolazioni, un'estetica femminista situata sullo spazio delle nuove tecnologie non può che nascere dall'interno di una pratica che impiega le tecnologie, indifferentemente nuove o vecchie, semplici o sofisticate, non come mezzo espressivo fine a se stesso, ma come strumento per lasciare emergere nuovi modelli di relazione con la realtà che producano una conoscenza politica di questi soggetti e di questi luoghi. Scrive Angela Dimitrikaki nel catalogo della mostra *Private Views* (Tallin, 1998), a proposito del rapporto fra spazio e genere, che

ogni cognizione dello spazio è simultaneamente una forma di ri/cognizione da parte di soggetti specifici e comunità di soggetti. La ri/cognizione non può esistere senza l'azione [...]. La ri/cognizione implica anche che lo spazio non possa essere appreso una volta per tutte. Se oggi lo spazio deve essere riconosciuto, è perché non è più percepito come statico. Il processo di ri/cognizione segnala una convergenza temporanea di soggettività, una convergenza concreta e tuttavia pronta a dissolversi sotto la pressione della trasformazione (Dimitrikaki, 2000, p. 41).

Il gioco si struttura attorno a tre elementi principali, che in apparenza si organizzano secondo una serie di divisioni binarie (come dentro/fuori, maschile/femminile, reale/virtuale). Tra questi, il confine è, in un certo senso, la divisione originaria che sottende tutte le altre: ma, procedendo nel gioco, il partecipante si accorge che simili divisioni sfumano o si sovrappongono molto più di quanto non appaia inizialmente. I tre elementi sono: 1) *lo spazio*, inteso come la zona geografica rappresentata (il confine messicano-statunitense), ma anche come la rappresentazione dello spazio nella forma di una cartografia¹², cui somiglia la tavola del gioco; 2) *il personaggio*, delineato come lo stereotipo di un'identità di genere, classe ed etnia, con un preciso retroterra socio-cultura-

¹² Si veda la distinzione di Lefebvre (1974) tra "spazio della rappresentazione" e "rappresentazione dello spazio".

le, al quale è dato il compito di attivare lo spazio che attraversa, piuttosto che semplicemente agire nello spazio, in base a precise dinamiche di potere e resistenza; 3) *il giocatore*, che non solo impersona, ma effettivamente *incontra* all'interno del gioco il personaggio scelto, *mettendo in gioco* anche la propria posizione (inizialmente esterna ai luoghi rappresentati).

Il territorio geografico nel quale TF ha luogo è la zona di confine tra Tijuana e San Diego, area altamente significativa per rappresentare la condizione dell'economia globale transnazionale, esattamente com'era la città industriale nell'economia capitalistica (Fusco, 1998): la maggior parte delle operazioni industriali ad alto sfruttamento di manodopera si localizzano in questo paradiso di esenzione fiscale per la mobilità del capitale. Le catene di montaggio delle *maquiladoras*, che impiegano soprattutto giovane manodopera femminile, producono le componenti elettroniche necessarie all'industria dell'informazione e della comunicazione, amplificando allo stesso tempo il divario che separa l'immobilità vissuta da chi assembla queste componenti dalla promessa di fuga per il consumatore, che va di pari passo con l'aumento della flessibilità economica¹³ (Fusco, 1998; Biemann, *infra*).

Ogni gioco, per funzionare, si basa su una serie di regole che devono essere correttamente applicate. Il giocatore, ad ogni modo, non applica tutte le regole a sua disposizione, ma attua delle scelte anche in base alla *strategia* o alla *tattica* che ha intenzione di adottare. Camminando attraverso le caselle della tavola, attualizza delle possibilità spaziali e ludiche che implicano l'esistenza di relazioni differenziali. La distinzione tra strategia e tattica, che dobbiamo a Michel de Certeau, è nel nostro caso molto utile. La strategia è «il calcolo (o la manipolazione) dei rapporti di forza che divengono possibili dal momento in cui un soggetto dotato di una propria volontà e di un proprio potere [...] è isolabile. Essa postula un luogo suscettibile d'esser circoscritto come *spazio proprio* e di essere la base da cui gestire i rapporti» (De Certeau, 1980, trad. it. p. 72). La circoscrizione del «luogo proprio» è un gesto moderno, poiché si basa su un saper (pre)vedere che conferisce il potere, e la vittoria dello spazio sul tempo. Essa crea luoghi teorici in grado di articolare e controllare i luoghi fisici. La tattica è, al contrario, «l'azione calcolata che determina l'assenza di un luogo proprio. Nessuna delimitazione d'esteriorità le conferisce un'autonomia. La tattica ha come luogo solo quello dell'altro [...]. Non ha modo di mantenersi autonoma [...]. Non ha dunque la possibilità di darsi un progetto complessivo né di totalizzare l'avversario in uno spazio distinto, visibile e oggettivabile. Si sviluppa di mossa in mossa» (De Certeau, 1980, trad. it. p. 73). Le tattiche sono piuttosto delle procedure, basate su movimenti che modificano di volta in volta l'organizzazione dello spazio. Come vedremo, nello spazio di TF il giocatore e i personaggi possono scegliere di adottare sia strategie che tattiche per controllare o mobilitare i luoghi percorsi.

Nel riferirsi al *Kriegspiel* di Guy Debord, Fusco e Dominguez non possono

¹³ Sebbene la realtà sia molto più complessa di così, la condizione subalterna della forza lavorativa continua ad essere costruita sulla femminilizzazione del lavoro che si basa sull'immobilità degli stereotipi tradizionali di genere, ignorando le profonde trasformazioni che il ruolo di queste donne nella famiglia e nella società ha vissuto negli ultimi decenni (Sassen, 1998).

certamente aver ignorato le mappe dei situazionisti, come per esempio le mappe di Parigi create da Debord nei tardi anni Cinquanta, ed esposte alla Prima Mostra Psicogeografica del 1957. Secondo la psicogeografia situazionista, queste mappe rappresentano gli effetti del *détournement* sul tessuto urbano¹⁴. L'obiettivo della psicogeografia, approccio ibrido a metà tra il gioco e la metodologia urbana, è quello di decostruire i codici del territorio attraverso la creazione di nuove connessioni e disconnessioni tra le strutture fisiche e architettoniche e le rappresentazioni razionali o emozionali che le persone possono averne. Per mezzo della deriva [*dérive*], che Debord definisce come un «comportamento ludico-costruttivo, ciò che da ogni punto di vista si oppone ai classici concetti di viaggio e di passeggiata» (Debord, 1958, trad. it. p. 56), lo spazio è esperito come mutevole e discontinuo, uno spazio i cui limiti prestabiliti tendono progressivamente alla deriva. Nell'ottica situazionista, il *détournement* non può essere inteso come uno strumento interpretativo applicato dall'esterno, ma solo come un *uso*, relativo e immanente, di elementi già esistenti da muovere e ricombinare¹⁵.

Confrontando l'approccio situazionista con la prospettiva femminista situata, notiamo che in entrambi i casi lo spazio non può essere mappato dall'esterno, secondo un progetto generale valido per chiunque, ma soltanto praticato sulla base di forme specifiche di orientamento¹⁶ (Kirby, 1996, p. 53). Sono le diverse geometrie del potere (Massey, 1995), legate alla collocazione sia geografica che storica e dipendenti da una serie di variabili interrelate come il genere, la classe, l'età, l'appartenenza etnica, a delineare le linee e i confini dei luoghi. «I confini vengono tracciati disegnando mappe delle pratiche», scrive Donna Haraway, «gli "oggetti" non preesistono in quanto oggetti; sono progettati di confine. Ma i confini si muovono dall'interno; i confini sono complicati. Quello che i confini contengono provvisoriamente rimane generativo, produttore di significati e corpi. Stabilire confini (e prenderne visione) è una pratica rischiosa» (Haraway, 1991a, trad. it. p. 128).

La tavola di TF è organizzata in modo che ognuno dei quattro lati del gioco raggruppi luoghi simili. Gli angoli, invece, ospitano il campo di detenzione, il checkpoint di confine, la lotteria e la prigione. Con qualche eccezione, il lato sinistro di questa sorta di quadrato include i luoghi del tempo libero, come il night club, il centro commerciale, l'hotel, lo stadio; in alto, si trovano i luoghi istituzionali, come il consolato e il dipartimento di polizia. A destra, ci sono soprattutto le fabbriche, tra cui spiccano quelle di componenti microelettroniche, che entrano nel contenuto del gioco per controbilanciare il tecnoformali-

¹⁴ Si veda a questo proposito *Cytopolis* (2002-2004), il progetto di mappatura urbana in stato di ipnosi curato da Marcos Lutyens e Daniela Frogheri, la cui descrizione è disponibile all'indirizzo <http://lutyens.net>.

¹⁵ Si veda il rapporto fra territorializzazione e deterritorializzazione in Deleuze e Guattari (1980).

¹⁶ Frederic Jameson, nella sua analisi dell'architettura postmoderna (Jameson, 1991), invoca una riconquista pratica del senso del luogo attraverso una "mappatura cognitiva", da intendersi più come un viaggio esistenziale, un itinerario, che come una cartografia mimetica. Kirby (1996) lo rilegge in un'ottica femminista.

simo di molti produttori e consumatori di nuovi media (artisti inclusi) con la rappresentazione diretta di una tra le peggiori realtà di monopolio e sfruttamento al mondo (Fusco, 1998; Fernandez, *infra*). In basso, infine, si collocano i collettivi e i gruppi di attivismo locale.

Come dicevamo, il giocatore può scegliere fra quattro possibili ruoli da interpretare e, in base a questo, giocare in spagnolo o in inglese¹⁷. Effettivamente, la scelta dei ruoli è piuttosto limitata, ma non è un caso. Nella presentazione del progetto, gli artisti stessi evidenziano come queste identità prefabbricate portino su di sé alcune costrizioni esterne che limitano le loro esperienze. D'altra parte, la possibilità di giocare tutti i ruoli mette il giocatore nella posizione privilegiata di essere quello/a che conosce le regole, e allo stesso tempo anche quello/a che le vive sulla propria pelle. Questo significa che il giocatore può trovarsi sia dentro che fuori la realtà rappresentata, ma che nella posizione esterna deve limitarsi a guardare i luoghi senza poterli percorrere. Per decostruire l'immobilità dello stereotipo è necessario che anche la posizione del giocatore venga "mobilitata".

Analizziamo uno per uno i quattro personaggi. Le due donne sono la spagnola *Todologa* e l'americana *Gringa Activista*. La prima ha ventitré anni, non ha un lavoro stabile ma fa qualsiasi cosa le capiti per sbarcare il lunario. Non ha un'automobile, ma usa solo i mezzi di trasporto pubblico, e all'inizio del gioco possiede, tra tutti, la somma di denaro più modesta, solo mille dollari. L'attivista, che ha trent'anni e viaggia in maggiolino, è una studentessa di antropologia, e inizia il gioco con diecimila dollari. Ci sono poi i due personaggi maschili, lo *Junior Huevón*, venticinque anni, che viaggia in Mercedes e possiede cinquantamila dollari e l'uomo d'affari, il *Gringo Poderoso*, definito come *binational*, ma decisamente statunitense, quarantasette anni, e fra tutti il personaggio economicamente privilegiato, con un portafoglio di trecentomila dollari e una Lexus Sedan.

In base al lancio dei dadi, ognuno dei personaggi può percorrere gli stessi luoghi sulla tavola del gioco, ma poiché ognuno di loro ha una collocazione sociale e interessi e scopi differenti, le esperienze che farà di quei luoghi saranno diverse da quelle degli altri personaggi. I personaggi non s'incontrano mai, letteralmente, durante il gioco. Tuttavia, chi gioca si accorge di come le loro esperienze siano inestricabilmente correlate. Per fare qualche esempio, nella zona del tempo libero e dei divertimenti, la *Todologa* può trovare facilmente lavori sottopagati, di solito come cameriera o lavapiatti. Contemporaneamente, però, corre il rischio di finire nelle maglie della prostituzione, o essere accusata di furto dai turisti ospiti dell'albergo in cui lavora. Parallelamente, negli stessi posti in cui la *Todologa* sbarca il lunario, lo *Huevón* e il *Gringo* spendono il loro denaro in droga, alcol e lap-dance private. Seguendo ancora la *Todologa* nella zona degli uffici pubblici e dei posti di controllo, ci accorgiamo di come ella viva nella paura costante di essere scoperta in possesso dei documenti falsi di

¹⁷ Il bilinguismo, come il confine, può essere un concetto ingannevole, utilizzabile per scopi sia progressivi che reazionari in rapporto al contesto: ma permette anche, al giocatore, di assumere la posizione dell'Altro dall'interno, vivendo il gioco come un'esperienza anche linguistica e culturale (Gómez-Peña, 1989, p. 156).

cui ha bisogno per oltrepassare il confine, oppure la vediamo mentre cerca di ottenere un visto (si può supporre che le serva per trovare lavoro) sborsando una somma di denaro eccessiva per le sue misere entrate. Tra i rischi che corre, c'è quello di essere detenuta illegalmente e interrogata per giorni e giorni perché accusata di essere la donna di servizio di un trafficante di droga ricercato dalla polizia.

Anche l'attivista, che appiccica adesivi con slogan politici ovunque le capiti, e scatta foto per il suo documentario – per le quali paga sottobanco la polizia locale –, vuole oltrepassare il confine, ma per raccogliere documenti e testimonianze. Per l'uomo d'affari, che grazie alla sua doppia nazionalità può andare avanti e indietro a suo piacimento, il confine è il luogo dove far soldi e acquisire più potere: lo vediamo mentre partecipa a importanti riunioni con autorità locali o paga mazzette per ottenere i permessi che gli servono ad ampliare le fabbriche o edificare nuove proprietà, oppure mentre acquista terreno pubblico grazie ai suoi contatti altolocati. Nella zona in cui si trovano le fabbriche, la Todologa vive la tipica esperienza della lavoratrice delle *maquiladoras*: non ha alcun diritto sindacale, è sottoposta alla contraccezione forzata, spende i suoi soldi in medicinali per curare il fidanzato, picchiato durante uno sciopero dei lavoratori, e rischia di ammalarsi per le esalazioni dannose della fabbrica. Di fronte all'inquinamento delle acque e del suolo e ai danni provocati dalle industrie alla salute della popolazione locale, la Todologa, che appare come un soggetto socialmente debole ma consapevole, cerca di reagire raccogliendo informazioni e organizzando attività a livello locale; l'attivista, dal canto suo, attira l'attenzione delle organizzazioni no profit e raccoglie testimonianze come prove per il suo lavoro, mentre il giovane scapestrato non ha alcuna coscienza politica, e anzi reagisce schernendo i lavoratori in sciopero perché lo intralciano nei suoi movimenti.

L'uomo d'affari, invece, ordisce piani per spostare da qualche altra parte le fabbriche poco produttive, pianifica strategie di mercato per apparecchiature militari, corrompe lobbisti e avvocati, spaventa chi protesta e tiene conferenze stampa per esimersi dalle responsabilità nell'aver provocato danni alla salute dei lavoratori. Occasionalmente, egli fa anche delle donazioni ai collettivi locali per salvare l'apparenza, oppure paga i consulenti dei media per mettere in cattiva luce gli avversari. Non sorprende che il peggiore tra i suoi incubi sia quello di veder calare vertiginosamente il valore delle azioni quando la compagnia viene indagata per avere disperso rifiuti nocivi, o che l'associazione *Doctors without Borders* accusi la sua fabbrica di componenti elettroniche di aver causato il cancro ai polmoni dei lavoratori.

Dagli esempi riportati, risulta evidente come il giocatore, che interagisce col personaggio, finisce per esperire lo spazio attraverso quest'ultimo/a, su cui proietta la propria posizione: in questo modo, la dimensione immersiva della realtà virtuale viene in un certo senso capovolta attraverso una mossa "contro-immersiva", che spinge il giocatore verso l'esperienza di una realtà incarnata e situata, costringendolo a lasciare la propria posizione e a ritornarvi dall'esterno per poterla ridefinire ogni volta, come nel caso dell'eterotopia di Foucault. Lo spazio in cui il giocatore e il personaggio s'incontrano non appare né omoge-

neo né vuoto, ma percorso da una matassa di reti che delineano e intrecciano luoghi sia strategici che tattici. La rappresentazione e la pratica dello spazio convergono in una topologia interattiva molto simile a quella che Vincent Del Casino e Stephen Hannah (2006, p. 44) hanno definito dello *spazio mappa*: «Usiamo questo termine [*map spaces*] per significare l'impossibilità teorica di distinguere le rappresentazioni dalle performance. Gli spazi mappa sono sempre parziali e incompleti, luoghi contesi dove il convergere di varie posizioni identitarie e soggettive confonde i confini fra centro e margine». Una connettività concreta subentra all'idea astratta di connettività: le mappe, infatti, come i luoghi, funzionano perché praticate e performate, cosa che conferisce maggior rilievo all'azione fra i nodi piuttosto che all'esistenza dei nodi stessi (Latour, 2004). È nella reciprocità tra il giocatore, i personaggi e i loro luoghi che lo spazio, rappresentato nella forma di una figurazione generativa, viene significato da un insieme di relazioni possibili, sempre sul punto di divenire altro(ve).

Il video-saggio e le tecnologie del confine

Dialogo con la videoartista svizzera Ursula Biemann, la quale affronta la propria opera e ne chiarisce le idee fondanti.

La geografia è una questione di posizionalità, come lo è la differenza di genere. In entrambi i casi, infatti, si tratta di assumere attivamente una prospettiva situata sull'appartenenza e l'esclusione, sulla prossimità e la distanza da una posizione che, teorica o corporea, immaginata o territoriale, nasce da e contemporaneamente implica una complessa rete di relazioni di potere e conoscenza. Quando poi la riflessione su geografia e dinamiche di genere trova formulazione nella pratica artistica, le rappresentazioni visuali appaiono, piuttosto che come oggetti di conoscenza, come vere e proprie relazioni sociali produttrici di visibilità e soggettività, e dunque anche di confini o spazi condivisi. È nei luoghi conflittuali della cultura visuale che Ursula Biemann (www.geobodies.org) studia le relazioni tra dinamiche della mobilità, nuove tecnologie e rappresentazioni di genere, «non tanto per intervenire nella produzione dell'immagine, quanto nella produzione di conoscenza derivante dai dati visuali». Abbiamo incontrato l'artista svizzera, che vive a Lugano quando non lavora in giro per il mondo (in Messico, Turchia, Thailandia, Africa), in occasione della presentazione del progetto *Europlex* alla Fondazione Olivetti di Roma. Realizzato in collaborazione con l'antropologa Angela Sanders, *Europlex* è un *work in progress* multimediale, iniziato nel 2003, che indaga le geografie del confine tra Spagna e Marocco, soprattutto le enclaves di Ceuta e Melilla e le piantagioni andaluse che impiegano prevalentemente manodopera africana. Tra i suoi progetti attualmente in corso, l'archivio di *The Black Sea Files* sulla politica del petrolio nell'area del Mar Caspio, che è parte di un più ampio progetto sulle geografie transculturali (www.tc-geographies.net), e il *Maghreb Art and Research Project* sulla mobilità nel Mediterraneo.

Nel saggio introduttivo a Stuff It, libro di cui sei la curatrice, parli del video-saggio come di un «mediatore tra differenti spazi culturali». Il video-saggio, che non è né documentario né fiction, ma entrambe le cose allo stesso tempo, non è facile da definire. Infatti, non serve semplicemente a riflettere realtà esistenti, ma solleva domande e mette in luce realtà complesse e contraddittorie, mentre lavora in modo riflessivo nel decostruire la posizione dell'osservatore distaccato, sia esso l'autore o lo spettatore. In che senso il video-saggio può essere considerato, oggi, un medium postcoloniale?

Storicamente, il video-saggio come genere risale ad autori come Chris Marker e Jean-Luc Godard,

ma non dimentichiamo che ci sono anche delle illustri video-saggiste come Yvonne Rainer e Trinh T. Minh-ha. Credo che il video-saggio risponda ai cambiamenti sociali e tecnologici del nostro tempo. Una di queste forme di transizione si collega letteralmente alla diaspora, alla dislocazione e alla migrazione. Ecco perché molti artisti postcoloniali sono degli ottimi video-saggisti: i loro video sollevano la domanda su come una sempre maggiore ambivalenza nella loro esperienza del luogo, della nazione e dell'appartenenza li abbia portati a sviluppare un linguaggio artistico che corrisponde alla voce del saggista, una voce che parla da una condizione di *placelessness*, o mancanza di luogo.

Il loro background culturale è frammentato, e spesso si trovano a vivere tra due culture, che cercano continuamente di mediare. Nonostante il video-saggio abbia avuto dei grandi padri, trovo che sia una forma adatta proprio a decostruire le cosiddette *master narratives*, le grandi narrazioni. Io mi considero in tutto e per tutto una video-saggista, ma non amo molto la forzatura delle definizioni. Anche perché definire il video-saggio pone l'accento sul piano formale, codificato, mentre a me interessa maggiormente il suo contenuto.

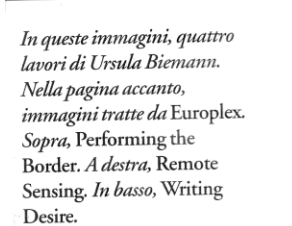
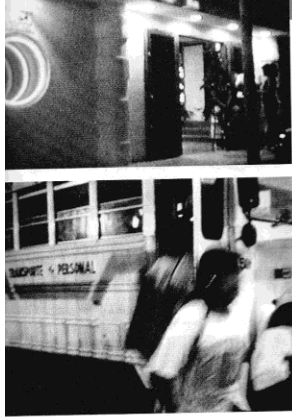
*Ritieni che la geografia intesa come forma di cultura visuale sia la migliore cornice di riferimento per comprendere le interconnessioni fra il livello materiale e quello simbolico delle realtà che prendi in esame? Ogni volta che guardi allo spazio, anche quando prendi in considerazione lo spazio virtuale della cyber-realtà, come nel video *Writing Desire* (2000), o lo spazio scientifico delle mappe satellitari, come in *Remote Sensing* (2001), ci vuoi fare avvertire l'incompletezza, e la parzialità, dell'osservazione oggettiva...*

Il problema è proprio lo spazio assoluto, lo spazio misurabile della geometria euclidea, o quello dell'ottica binaria, per intenderci. Si tratta di uno spazio monodimensionale, adatto forse per discutere di questioni politiche, o di proprietà privata... È lo spazio del controllo, che ha un forte impatto sulla vita delle persone, ma è assolutamente insufficiente a restituirne la complessità, perché non è costruito in funzione loro. E soprattutto non tiene conto degli aspetti esperienziali e simbolici che intervengono nella costruzione



ne dello spazio vissuto. Il mio scopo, dunque, è proprio far *sentire* queste immagini dello spazio, piuttosto che farle semplicemente vedere. In *Remote Sensing*, per esempio, la mia strategia estetica consiste nel riempire le immagini satellitari di contenuti legati al genere e di dati sulle traiettorie migratorie, in modo da completare l'ottica orbitale con una visuale terrena, focalizzata sulle vite delle donne che si muovono in questi paesaggi digitali.

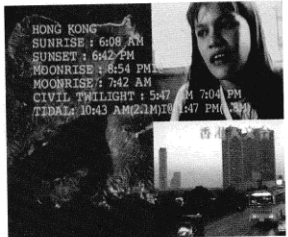
*Sia in *Europlex* che in *Performing the Border* (1999), il confine è*



In queste immagini, quattro lavori di Ursula Biemann. Nella pagina accanto, immagini tratte da Europlex. Sopra, Performing the Border. A destra, Remote Sensing. In basso, Writing Desire.

investigato in quanto spazio performativo, dove hanno luogo negoziazioni materiali e immateriali. Che si tratti del confine tra Messico e Stati Uniti, come nel primo video, o di quello fra Spagna e Marocco, come nel secondo, esso non è mai soltanto un pezzo di terra. Possiamo collegare l'idea della performatività del confine a quella zona grigia che esiste nello spazio tra le divisioni binarie e le definizioni nette di cui parla Bandana Pattanaik riferendosi alle lavoratrici sessuali, che non andrebbero considerate in modo semplicistico e stereotipato, come vittime, ma anche come soggetti attivi?

Il genere, la performance e il confine sono strettamente correlati. Il confine, come dice l'attivista messicana Berta Jottar - che di solito si occupa proprio di performance di genere - in *Performing the Border*, è



qualcosa di completamente artificiale. Bisogna però riprodurlo continuamente perché il suo significato sia mantenuto. Il confine non dovrebbe mai essere considerato una linea, una formazione lineare, ma una zona complessa... Il confine è fatto dai movimenti delle persone con la loro identità di genere e la loro appartenenza etnica, e questo determina anche il modo in cui esso si produce e, a sua volta, produce identità di genere. Tutti questi sono movimenti che, comunque, avvengono contemporaneamente. L'intervento dell'artista - parerei in questo caso di «estetica spe-

rimentale» - può essere quello di cercare di dare un senso a fenomeni che appaiono tra loro mescolati.

Nei tuoi video-saggi esplori le relazioni tra genere, tecnologia ed economia transnazionale. In questa dimensione, i corpi delle donne sono "tecnologizzati" a diversi livelli, e non sempre questo significa per loro un'acquisizione di potere, come alcune teoriche del cyberfemminismo hanno sostenuto. Basti pensare ai corpi delle donne che lavorano alle catene di assemblaggio di micro-componenti elettroniche nelle maquiladoras (termine ispanico per indicare queste fabbriche, e il cui nome viene da «Golden Mills») del confine messicano: corpi altamente tecnologizzati e disumanizzati allo stesso tempo. In particolare, tu ritieni insufficiente affrontare la questione del gender divide solo sul piano dell'accesso alle nuove tecnologie, come spesso si fa, ma pensi che bisognerebbe considerare la costruzione, ben più sottile, delle soggettività femminili in questa rete complessa. Potresti precisare ulteriormente quest'idea?

Quella dell'accesso è una questione importante che merita però di essere esaminata più nel dettaglio. Noi sappiamo che le tecnologie ottiche e delle telecomunicazioni creano differenti soggettività nei paesi industrializzati e in quelli in via di sviluppo. L'uso delle nuove tecnologie per le donne non ha a che fare con il miglioramento della loro condizione in senso assoluto. Ci sono infatti diverse sfumature nella relazione tra donne e tecnologia. Uno dei miei interessi primari è sempre stato quello di cercare di capire come le tecnologie costruiscano diverse sog-

gettività di genere e come poi queste si relazionino l'una con l'altra attraverso la circolazione delle immagini e i significati che esse veicolano. *Writing Desire* è un tentativo di combinare diverse posizioni "scrittive", senza tuttavia voler evidenziare alcuna dicotomia tra i soggetti femminili delle società occidentali avanzate, che praticano una logica del desiderio autoriflessiva, psicanalitica e postmoderna e una sessualità disinvoltata, e le donne che invece lottano per sopravvivere e offrono le loro cure e i loro servizi emozionali e sessuali per fuggire dai bassifondi.

a cura di Federica Timeto



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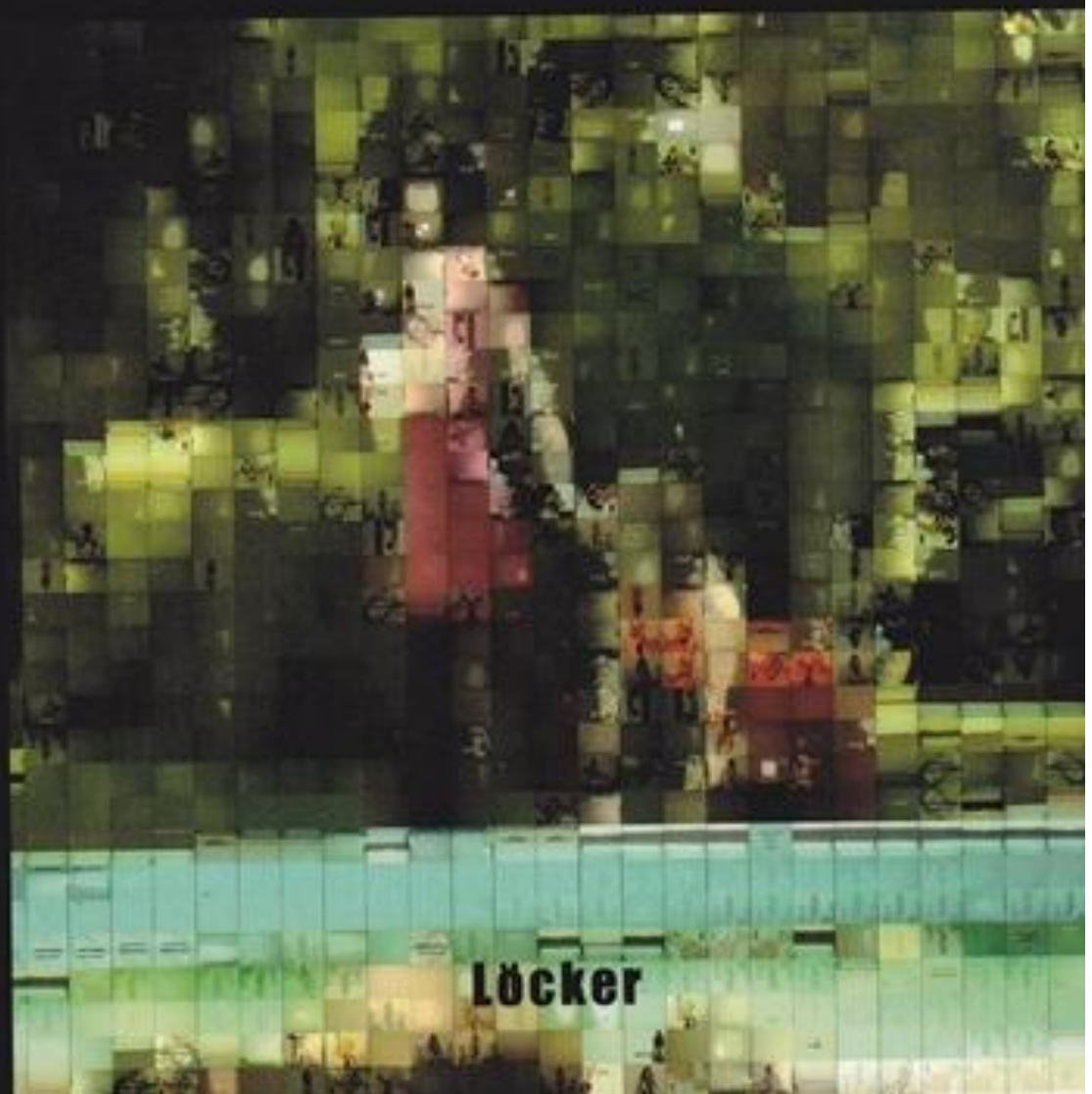
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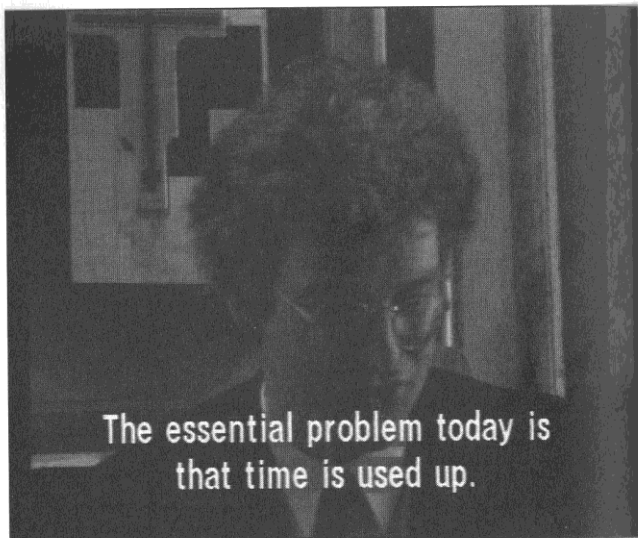
and **Politics**

The Video Art of Marina Gržinić and Aina Šmid

Edited by Marina Gržinić and Tanja Velagić

Translated by Rawley Grau





Marina Gržinić, Aina Šmid, *Transcentrala*,
video and video installation, 1993

the real and the virtual, but also about femininity and feminism.²

To understand what this means and how it is possible, we need to see, first of all, how these three elements are approached and reconceived in Gržinić's theory. Then we need to understand how they can be recombined so as to articulate a condition that situates a *beyond*. Finally, we have to understand how this *beyond* is worked out in terms of negotiation, rather than negation. In this context, the appeal to a *beyond*, as the postcolonial theorist Bhabha suggests, serves to transform the present through a movement of inversion and revision that expands this same present by making it *ex-centric*.

What are the prevailing ideas about Eastern Europe today? In the political as well as in the institutional, academic, and artistic fields, Eastern Europe, and therefore the Balkans, are very often constructed and perceived as a monolithic entity endowed with a set of homogeneous attributes. At the same time, however, the homogenization of Eastern Europe hides a process of fragmentation brought about by commercial, political and philanthropic approaches, with the consequence that the pre-existing civic discourses of Eastern Europe are rendered as increasingly fragile.³ Maja Ćirić, for example, when discussing the curatorial politics of three exhibitions about the Balkans that took place in the early 2000s, notes that many of the selected artists tend to play with the stereotype of the Balkan artist (a market construction in itself) in order to be integrated into the Western European art system, albeit as the exotic Other. The Balkan region, Ćirić notes, is considered to be an incomplete, obscure Other, even if it is part of Europe in every respect, and ends up representing what she calls »an externalization from within.«⁴

According to Gržinić, after the political events of 1989, Eastern Europe was lost to the West a second time, just as it was on the point of being rediscovered. Treated as a whole – a whole in which something was nonetheless lacking, i.e.

freedom and development – the region appeared as a relic, a remnant, a mute and immobile territory in search of proper articulation. As opposed to the neocapitalist, globalized and technologically evolved Western world, it was positioned on the side of »therapy,« as a passive victim to be rescued and integrated, as if it suffered from a defect that might eventually be healed.⁵ But this image was itself a normative construction that worked as a formalized frame, and as such was often appropriated from within, thereby producing a chain of truth-effects inside which post-socialist subjectivities were thought to find the instruments they needed to read and write their new social reality.⁶ A set of temporal and spatial oppositions have flourished around the idea of change and transition: as Susanne Brandtstädter writes, »‘Postsocialist countries’ have come to appear as ‘spaces of transition’ in so far as they are constituted under a new ‘regime of representation’ that locates them both in distinction to the ‘West,’ and temporally and spatially being related to it as a new ‘future’ and ‘centre.’«⁷

A regime of representation is precisely where identities are constructed and managed, and where languages of sameness and otherness, of interiority and exteriority are developed.⁸ Why, then, does Gržinić believe that Eastern Europe was lost again after the fall of the Berlin Wall? Because its »rediscovery« was a construction rather than a disclosure, the construction of a relative alterity, which was needed for the West to be able to cope with a structural, rather than accidental, lack of totality, namely, the *real* coming back in the form of *trauma*. Considered as a concept and not simply as a geographical extension, Eastern Europe, which Gržinić calls »the Matrix of Monsters« to distinguish it from the Western European »Scum of Society Matrix,« is not symmetrical to the concept of Western Europe, because it cannot be made to occupy a complementary position and, therefore, cannot be refounded as a whole; rather, the concept of Eastern Europe is similar to what Derrida would call a *specter*, and Lacan, a *not-all*.⁹

As Pheng Cheah suggests in his discussion of the ideology of the nation through the Derridean concept of *hauntology*, spectralization sets aside the ontologocentric perspective about the nation, opting for a process of a radical alter-ing and opening up of Being, which appears as never fully in itself.¹⁰ The disavowed real returning as a specter impossible to symbolize allows us to escape the ontological binarism of reality vs. illusion, as well as that of identity vs. alterity. Actually, the specter is what haunts the present as a radical but immanent difference, as that which cannot be made fully visible but is always already inscribed within.

Following Žižek’s reading of the Oedipus myth via Lacan’s notion of »surplus enjoyment,« Gržinić compares Eastern Europe to Oedipus: Oedipus is *plus d’homme* since, once he has fulfilled his destiny, he finds himself in the condition of a no-man and a surplus man at the same time. He has reached a sort of zero point of subjectivity, thus embodying a structural monstrosity that is impossible to refund or integrate, like the monstrosity of the cyborg who speaks from her inappropriate (residual and excremental) location. Similarly, as Gržinić says, Eastern Europe can be thought of as »*plus d’Europe orientale*«: »a surplus of Europe (as it was before the fall of the Berlin Wall: too little, or not enough, European) and no Europe.«¹¹

The new Europe, however, seems to disregard its internal surplus and goes on acting in accord with a perverse inclusive welfare capitalist-with-a-socialist-face type of social totalization, as Gržinić describes it, drawing on Henry Krips’s analysis.¹² The psychoanalytic object that corresponds to the perverse type of social totalization is *the lack in the Other*. If the hysterical type of social totalization, to give just one more example, completely excludes the enemy by neutralizing his or her power, the perverse type plays at including the excluded, while at the same time maintaining its status as excluded, often provoking in the excluded a sort of fragile *mise en scène* of his or her same alterity, in order to please the Other. For example,

the European Union's policies concerning the treatment of illegal immigrants are, in this sense, perverse.¹³

The metaphysical cannibalism practiced by the Modern European Subject has always devoured the Other in its various forms: as the ethnic and racial other, as woman, or as nature. Gržinić, however, affirms that it is time to shift from the logic of the One to the logic of the Two, since counting in the logic of the One will never lead us to the Other as the Second, but only as another One.¹⁴ The Other is in the process of becoming, whereas the One simply is. That is why, for example, the feminist philosopher Rosi Braidotti claims that a different consideration of Europe as post-Europe could arise from the difference of the post-woman woman as becoming subject.¹⁵ It is, then, worth taking a closer look at this idea of the post-woman woman as theorized by certain contemporary feminist thinkers.

According to Braidotti, feminism traverses three (coexistent) levels of alterity, or (sexual) difference: the first is that of a difference conceived *in relation to men*, a difference that is intended, alternately, *both as lack and as excess, not yet represented or entirely unrepresentable*. The second level of alterity is where feminism, having acknowledged a radical asymmetry between men and women, looks at differences *among women*: this is the level where power relations, commonalities, and differences among women are discussed and questioned and the representation of Woman is criticized from a situated perspective. The third and final level corresponds to a post-psychoanalytic dimension, where a disjuncture between identity and conscience reveals the imaginary relation each woman establishes with her history, genealogy, and materiality: here, difference is found *inside* each woman, as the hiatus where a woman sees herself as always already *other to herself*.¹⁶

Similar to Braidotti's scheme is the distinction Teresa de Lauretis makes between three axes of difference: the negated

woman, that is, woman as object and representation; the split woman, traversed by the many interrelated differences of sex, class, race, age, and so on; and the *eccentric* woman.¹⁷ If de Lauretis agrees that to be a feminist one must be able to give an account of one's own positionality, she nonetheless believes that a situated perspective also requires a movement of disidentification and displacement that leaves behind the ideology of the Same implied in every inclusive perspective, be it that of the territory, the house, or even of feminism itself.¹⁸ The eccentric subject passes through multiple borders of exclusion and inclusion, like Bhabha's hybrid postcolonial subject, who practices negotiations and re-signifies contradictions without needing to negate them.¹⁹ It is important to note that Gržinić has frequently invoked a cultural practice intended as negotiation as a method for working from *within* a certain situation – in communist as well as post-socialist Eastern Europe – to articulate a series of alternative significations. Actually, *negotiation* is, precisely, a form of intervention that operates within a given structure, not by dismantling it completely, but by making constant readjustments.

The post-woman woman and the eccentric subject have much in common with a figuration that originates with the postcolonial feminist theorist and filmmaker Trinh T. Minh-ha and that Gržinić often uses in her texts. Trinh (whom Gržinić has interviewed²⁰) coined the term *the inappropriate/d Other* to deal with the issue of identity and difference in relation to postcolonial women. Here, the notion of difference moves from a »pattern of sameness« to »an inconsequential process of otherness.«²¹ Intended in this way, difference therefore undermines the clear line traced to separate you and me, him and her, here and there. According to the logic of the same, Trinh writes:

the further one moves from the core the less likely one is thought to be capable of fulfilling one's role as the real self, the

real Black, Indian or Asian, the real woman. The search for an identity is, therefore, usually a search for that lost, pure, true, real, genuine, original, authentic self, often situated within a process of elimination of all that is considered other, superfluous, fake, corrupted, or Westernized.²²

On the contrary, the inappropriate/d Other, who is both inappropriate and inappropriable, both beyond and alongside, looks in from the outside while also looking out from the inside. Not quite the same, not quite the other, she stands in that undetermined threshold place where she constantly drifts in and out. Undercutting the inside/outside opposition, her intervention is necessarily that of both not quite an insider and not quite an outsider.²³

The inappropriate/d Other moves the axes of difference from the between to within, creating what Trinh calls an »elsewhere within here.«²⁴

What we experience when we enter virtual reality and cyberspace is also very similar to an *elsewhere within here*. The common notion that we transcend our real limits (physical, sexual, geographical, social, etc.) and enter an entirely different dimension whenever we experience virtual reality, is in fact based on the illusion that it is possible to overcome the medium's mediation in order to reach the (presumed) reality beyond it. This illusion has been extensively discussed, for example, by Jay David Bolter and Richard Grusin.²⁵ As Bolter and Grusin note, the illusion that cyberspace is a space that transcends real limits and is ultimately without limits rests in turn on the idea of the transparency of space – the attributes of which comprehend immediacy and connectivity – a notion Henry Lefebvre has discussed in his seminal study, *The Production of Space*.²⁶ With regard to space, the concepts of transparency and opacity both derive from the same illusion (even if they pertain to two opposing perspectives), namely, the illusion of

the substantiality and naturalness of space, which says that space is a given, self-evident, and fully decipherable object, rather than a social production. In this kind of illusory space, knowledge, information and communication all coincide. This description fits perfectly most accounts of cyberspace, but it also empties virtual reality of complexity by drawing sharp distinctions between inside and outside, as well as between what is real and what is virtual.

In her interview with Gržinić, Trinh T. Minh-ha observes that nowadays technology is too often used to access a reality without mediation in order to pursue an aesthetics of objectivity. When this occurs, reality becomes that which is immediately visible, while the tools that are used to access it simply disappear. But the removal of boundaries, whether by rendering them invisible or blurring them, is in the end illusory, even in cyberspace. Rather, Trinh says, »it is a question of shifting [the boundaries] as soon as they tend to become ending lines.«²⁷ Here again, the issue of the inappropriate/d Other comes into play. But let us step back for a moment.

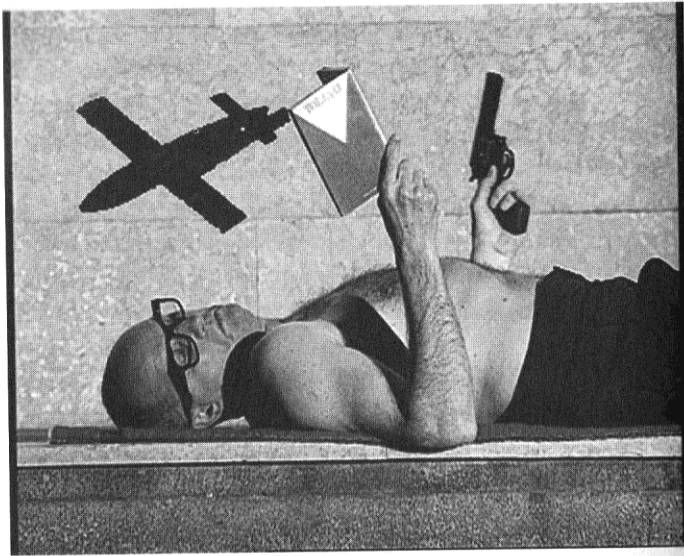
Slavoj Žižek, though he approaches the issue from a different angle, also criticizes claims for the transparency and total accessibility of cyberspace and warns us about the false antithesis of total openness/total closure that are attributed alternately to both virtual reality and reality.²⁸ He notes that informatization appears to threaten three essential boundaries: between real life and simulated life; between objective reality and our perception of it; and between our identity and our self-perception. The full accessibility of cyberspace, however, with its excessive plenitude that denies closure, far from offering infinite choices, translates into total closure insofar as it does away with the very idea of limits. Žižek goes on to say that both distance and immersion depend on a marked border, without which we would experience the psychotic dimension. In other words, cyberspace in its dominant form is not spectral enough precisely in that it disregards the thing that is purely virtual

about spectrality, namely, the non-actual effectivity that will never be *as such* and that will always escape dialectical mediation.²⁹ According to Žižek's psychoanalytic approach, then, it would be better to conceive cyberspace as the radicalization of an already built-in division of the symbolic order (speaking in Lacanian terms). Žižek finally suggests that maybe if we recognize that in cyberspace we experience the displacement of subjectivity as something internal to subjectivity itself, and not simply as a detachment from the multiplicity of possible alternative selves, we can learn to externalize, to »act out,« this void at the core of the Same at the moment we encounter the so-called Other Scene. Here, we can touch the traumatic Real in all its spectrality, traversing it without identifying with it (in this sense, the spectral means precisely the possibility of moving between fantasies). The traversing of the fantasy (*la traverse du fantasme*, in Lacan's terms) is what enables us to plunge into our fantasies while at the same time keeping a necessary (and playful) distance.

Quoting Žižek explicitly, Marina Gržinić goes further: she believes that a radical step *beyond*, into the space of the virtual or, which is the same thing, into the real of cyberspace, can help us adopt not only a *different* but also a *differential* perspective, and not only in the space of post-socialist Eastern Europe and with regard to post-socialist subjects, but also in the space of women as cyborg subjectivities. Since these »conceptual matrices« are themselves contested fields, which nonetheless try to maintain clear borders, we must adopt a situated perspective if we are to interpret and criticize them.³⁰ Here, »situated« does not necessarily mean situated geographically or locally, but rather, we might say, it means »inappropriately« *grounded* – constantly, and paradoxically, positioned *within* displacement³¹ – situated, in other words, in a space that opens up precisely at the moment when the subject is »out of joint« and space seems forever lost, at least as a direct and natural experience.

Therefore, in order to properly articulate the space of the post-socialist subject for both political and artistic purposes, we must first problematize the paradigm that sustains its construction. Gržinić firmly believes that talking about space in geometrical or even geopolitical terms no longer suffices, at least not in a context where information and communication technologies deeply influence our perception of spatial and temporal coordinates. What kind of space, then, is this »Other Space« Gržinić talks about? More to the point, how does it work? Surely, it should not be confused with the space of the Other as the reified container of substantial differences. For as we have seen, this Other Space is a space that exceeds the idea of territory, although it can sometimes appear in mappable spaces and also include geopolitical entities.³² This does not, however, make it a non-space, insofar as the Other Space »expose[s] or turn[s] to [its] advantage the fissures, gaps and lapses of the system,«³³ whereas non-spaces, like the World Wide Web in its hegemonic form, sometimes conceal the constant dynamic of reterritorialization that hides behind the appearance of an absolute deterritorialization. Nor should this Other Space be characterized as utopian (as informational space often pretends to be), for it does not establish »a relation of inverted or direct analogy with the real space of Society«³⁴ but rather substitutes a dialectical relation with a negotiable one.

Applying Scott Bukatman's notion of terminal identity, Gržinić defines the Other Space as a space in terminal condition: that is, a totally decentralized space where the binary opposition »reality/illusion« is overcome in favor of their articulation.³⁵ In the »inside-out glove situation« of zero gravity, »everything I positively am, every enunciated content I can point at and say that's me, is not I,« says Gržinić, drawing on Žižek's position.³⁶ Moreover, this is not because I am a pure negativity, but because what I am not is already (in) me. The Other Space already contemplates its constitutive inappropriateness in that it puts together field and counterfield



Marina Gržinić, Aina Šmid, *On the Flies of the Marketplace /
O muhah s tržnice*, video, 1999

as real and virtual, sameness and otherness, original and copy, positivity and negativity. As we have seen, it also operates by a spectral logic, since it alludes to space while making the illusion of space evident.³⁷

Consequently, according to the Other logic of virtual space, a political articulation of the Otherness of women and Eastern Europe becomes possible *from within* a technological discourse. These subjectivities are located, like those of cyborgs, »in the belly of the monster,« to use Donna Haraway's expression.³⁸ They occupy a space that requires a completely different sort of geometry, one that avoids integration and recognizes that the non-unitary condition of both women and Eastern Europe is neither a deficiency nor pure negativity, but a consequence of their inappropriateness, which causes a failure in the system of the One. Actually, the inappropriate/d Other cannot fit into the taxonomy of Identity and Difference; rather, she tries to escape the strategies the One uses to subsume difference, namely, »the hierarchical domination, incorporation of parts into wholes, paternalistic and colonialist protection, antagonistic opposition, or instrumental production from resource.«³⁹

Because the *elsewhere* has always been within *here*, and not outside it as opposite to it, an alternative account of the here – *from here* – is possible, an account that gives voice to what has been evacuated and eradicated from hegemonic narratives. For Gržinić, this re-conceptualization must happen today through technology, for only through the artificiality of technological mediation can we avoid the risk of longing for lost presences and concentrate instead on how presence is constructed. Thanks to technology, and in particular, video technology, a »new economy of seeing«⁴⁰ develops, one that is based on what can be rendered visible beyond what we already see.

Notes

- 1 Marina Gržinić, *Spectralization of History, Spectralization of the Image, Spectralization of Europe*, Quaderns portàtils 1 (Barcelona: Museu d'Art Contemporani de Barcelona, 2001), 12; online at http://www.macba.es/uploads/20060531/QP_01_Grzinic.pdf. For an elucidation of the relationship between video and theater, see Hans-Thies Lehmann's discussion of the theatrical use of media in *Postdramatic Theater*, tr. Karen Jürs-Munby (London: Routledge, 2006), 167–173.
- 2 Gržinić, *Spectralization of History*, 12.
- 3 See John Horvath, »Alone in the Crowd: The Politics of Cybernetic Isolation,« in Laura Lengel, ed., *Culture and Technology in the New Europe: Civic Discourse in Transformation in Post-Communist Nations* (Stamford, Conn.: Ablex Publishing Corp., 2000), 77–104.
- 4 Maja Ćirić, »Constructions of the Balkans as the Other in Contemporary Art Practices,« a paper delivered at the 8th Annual Kokkalis Program Graduate Student Workshop, Harvard University, February 2–3, 2006; online at http://www.hks.harvard.edu/kokkalis/GSW8/Ciric_paper.pdf.
- 5 Marina Gržinić, »Spectralization of Europe,« in Marina Gržinić and Adele Eisenstein, eds., *The Spectralization of Technology: From Elsewhere to Cyberfeminism and Back: Institutional Modes of the Cyberworld* (Maribor: MKC, 1999), 18.
- 6 See Susanne Brandtstädter, »Transitional Spaces: Postsocialism as a Cultural Process: Introduction,« *Critique of Anthropology* 27, no. 2 (2007), 131–145.
- 7 Ibid., 132.
- 8 Ibid., 143. As Brandtstädter points out, this notion of a »regime of representation« comes from Arturo Escobar.
- 9 Gržinić, »Spectralization of Europe,« 30–31.
- 10 »By *ontopology* we mean an axiomatics linking indissociably the ontological value of present-being [on] to its *situation*, to the stable and presentable determination of a locality, the *topos* of territory, native soil, city, body in general.« Jacques Derrida, *Specters of Marx*:

- The State of the Debt, the Work of Mourning, and the New International*, tr. Peggy Kamuf (New York: Routledge, 1994), quoted in Pheng Cheah, »Spectral Nationality: The Living On [sur-vie] of the Postcolonial Nation in Neocolonial Globalization,« *Boundary 2*, v. 26, no. 3 (1999): 249; available online at: <http://muse.jhu.edu/demo/boundary/v026/26.3cheah.html>.
- 11 Gržinić, »Spectralization of Europe,« 21.
 - 12 See Marina Gržinić, »From Transitional Postsocialist Spaces to Neoliberal Global Capitalism,« *Third Text* (London) 21, no. 5 (2007), 563–575.
 - 13 »The welfare pervert wants only that the integrated subjects complete the social and civilisational demands of the Other. The subject who seeks to be integrated repeats, in a ritualised set of almost sadomasochistic relations, what the Other wants to hear. Unsurprisingly, the perversely instrumentalised subject explodes! This is described in welfare states as a betrayal of the established relationship – seen as a model of perfection – forgetting that in a perverse inclusive welfare state the will of the subject is the will of the Other.« Ibid., 573.
 - 14 Gržinić, »Spectralization of History,« 15.
 - 15 See Rosi Braidotti, »Genere, identità e multiculturalismo in Europa,« in *Nuovi Soggetti Nomadi* (Roma: Luca Sossella, 2002), 165–201.
 - 16 Rosi Braidotti, »La differenza che abbiamo attraversato,« in *Nuovi Soggetti Nomadi*, 91–127. Braidotti, by the way, is a Deleuzian materialist feminist whose thought is in some ways very distant from Gržinić's Lacanian–Žižekian approach. See Braidotti's critique of the spectral economy of subjectivity in her *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge, England: Polity Press, 2002).
 - 17 Teresa de Lauretis, *Soggetti eccentrici* (Milan: Feltrinelli, 1999), 115. For de Lauretis, a woman is simultaneously a psychic, corporeal, and social subjectivity.
 - 18 Ibid., 48.
 - 19 Ibid., 117.
 - 20 See Trinh T. Minh-ha and Marina Gržinić, »Inappropriate/d

- Artificiality« 1998, online at <http://arch.ced.berkeley.edu/people/faculty/bourdier/trinh/TTMHInterviews002.htm>.
- 21 Trinh T. Minh-ha, »Not You/Like You: Post-Colonial Women and the Interlocking Questions of Identity and Difference.« *Inscriptions*, no. 3–4 (1988), online at http://humwww.ucsc.edu/CultStudies/PUBS/Inscriptions/vol_3-4/minh-ha.html.
- 22 Ibid.
- 23 Ibid.
- 24 Trinh and Gržinić, »Inappropriate/d Artificiality.«
- 25 See Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, Mass.: MIT Press, 2000).
- 26 See Henri Lefebvre, *The Production of Space* (Oxford, England: Blackwell, 1991).
- 27 Trinh and Gržinić, »Inappropriate/d Artificiality.«
- 28 Slavoj Žižek, »Cyberspace, or, The Unbearable Closure of Being,« in *The Plague of Fantasies* (London and New York: Verso, 1997), 127–170.
- 29 Slavoj Žižek, »The Cyberspace Real« (1998), online at <http://www.egs.edu/faculty/zizek/zizek-the-cyberspace-real.html>.
- 30 See Gržinić, »Spectralization of Europe.«
- 31 See Trinh and Gržinić, »Inappropriate/d Artificiality.«
- 32 As with certain art projects that deal with topicality – see, for instance, the works of the Ljubljana-based art group Irwin, whose projects Gržinić has extensively discussed in her theoretical writings and also presented in several of the videos she made with Aina Šmid.
- 33 Trinh and Gržinić, »Inappropriate/d Artificiality.«
- 34 Michel Foucault, »Of Other Spaces,« *Diacritics* 16, no. 1 (1986), 24.
- 35 Marina Gržinić, *Situated Contemporary Art Practices: Art, Theory and Activism from (the East of) Europe* (Ljubljana: ZRC; Frankfurt am Main: Revolver, 2004).
- 36 Marina Gržinić, »What Space?,« paper presented at the symposium Media and Ethics of the Contemporary Critique, Helsinki, September 12–14, 1996; available online at <http://neoscenes.net/archive/me/texts/grzinic.html>.
- 37 Gržinić, *Situated Contemporary Art Practices*, 17.

- 38 Donna Haraway, »The Actors are Cyborg, Nature is Coyote, Geography is Elsewhere: Postscript to 'Cyborgs at Large'« Constance Penley and Andrew Ross, eds., *Technologies of the Subject* (Minneapolis: University of Minnesota Press, 1991), 25.
- 39 Ibid., 24.
- 40 Marina Gržinić, »Video as Civic Discourse in the Former Yugoslav Republics: Strategies of Visualization and the Aesthetics of Video in the New Europe,« in Lengel, ed., *Culture and Technology in the New Europe* (London: Routledge, 2008), 208.