

Material Ecocriticism: Materiality, Agency, and Models of Narrativity¹

Serenella Iovino
University of Turin

Serpil Oppermann
Hacettepe University, Ankara

The proliferation of studies bearing on the intellectual movement known as the “new materialisms” evinces that a material turn is becoming an important paradigm in environmental humanities. Ranging from social and science studies, feminism, to anthropology, geography, environmental philosophies and animal studies, this approach is bringing innovative ways of considering matter and material relations that, coupled with reflections on agency, text, and narrativity, are going to impact ecocriticism in an unprecedented way.

In consideration of the relevance of this debate, we would like to draw for *Ecozon@’s* readers an introductory map of the new paradigm and introduce what can be called “material ecocriticism.” We will illustrate what we consider to be its main features, situating them in the conceptual horizons of the new materialisms. From this genealogical sketch, we will examine the re-definitions of concepts like matter, agency, discursivity, and intentionality, with regard to their effects on ecocriticism and in terms of their ethical perspectives.

1. The Conceptual Horizons of the Material Turn

Especially in the humanities, the new materialisms (significantly, a plural word) incorporate insights from various sources. Inaugurated by fields of research across the social sciences, and in particular by a recent debate in feminism and feminist science studies, they cover a vast and transversal array of disciplines.² In all these fields, the reconsideration of materiality is associated with the twentieth-century developments in natural sciences and with the radical changes that have affected our environments in the last decades. Most notably, this reconsideration is characterized by a distinctive interest in the “ultimately unmappable landscapes of interacting biological, climatic, economic, and political forces” (Alaimo, *Bodily* 2).

In the humanities and social sciences in particular, this neo-materialist renaissance comes after a period of dismissal of materiality as the main result of the so-

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² For a interdisciplinary overview and a philosophical introduction about the material turn, see Coole and Frost’s Introduction to *New Materialisms*. Also useful is the *Oxford Handbook of Material Culture Studies*, eds. Hicks and Beaudry.

called “linguistic turn,” namely, the view that language constructs reality.³ One of the key-points of the “material turn” is a pronounced reaction against some radical trends of postmodern and post-structuralist thinking that allegedly “dematerialized” the world into linguistic and social constructions. The new attention paid to matter has, therefore, emphasized the need for recalling the concreteness of existential fields, with regard to both the bodily dimension and to non-binary object-subject relations. In cognitive terms, this entails questioning the representations of the mind-body dualism. Inspired by such intellectual approaches as Maturana and Varela’s “autopoiesis” and Gregory Bateson’s ecology of mind, some trends of the new materialisms interpret the world not as a set of objective processes, but as a “densely intertwined ... tissue of experience” (Abram 143), disclosing new perspectives also in the fields concerning nonhuman systems of signs, such as bio- and eco-semiotics.⁴

In the environmental debates the material turn has also assumed many forms and stances. A determining moment can be identified in the discussion about “material feminisms.” Edited by Susan Hekman and Stacy Alaimo, the essays included in the volume *Material Feminisms* (2008) place a strong emphasis on two points that will recur in further discussions of the eco-materialism. The first of these points is the need to retrieve the body from the dimension of discourse, and to focus attention on bodily experiences and bodily practices (where “body” refers not only to the human body but to the concrete entanglements of plural “natures,” in both human and more-than-human realms). The second point is the need to respond to the linguistic turn with practical-theoretical strategies that attempt to overcome the chasm between cultural constructionism and the materiality of natures and bodies. These issues can be reformulated in the following terms: how do we define the field of our experience of material natures? And, secondly, how do we correlate discursive practices (in the form of political categories, socio-linguistic constructions, cultural representations, etc.) with the materiality of ecological relationships? On what ground is it possible to connect these two levels—the material and the discursive—in a non-dualistic system of thought?

While feminist theorists shift their analyses from biological determinism and linguistic constructionism to a cultural theory informed by the insights of natural sciences and political economy, other thinkers question the boundaries of agency, and

³ The expression “linguistic turn” (concerning the developments in linguistic philosophy) comes from the title of an anthology (1967), edited by Richard Rorty, *The Linguistic Turn: Essays in Philosophical Method*. In literary theory the linguistic turn is associated with the structuralism of Ferdinand de Saussure and later with poststructuralism, with Derrida’s claim that “there is nothing outside of language” mistakenly perceived as an erasure of the relation of reference to the world.

⁴ What Gregory Bateson calls “ecology of mind” is the fundamental unity of the human self and the broader system of ecological organization. Here the mind is evidently not considered as a subjective power, but rather an ecological function that mirrors the ineludible material interrelatedness between the self and the environment (See Bateson, *Steps to an Ecology of Mind* and *Mind and Nature*). Proposed by Chilean scientists Humberto Maturana and Francisco Varela, “autopoiesis” is a theory that combines the concepts of homeostasis and system thinking. According to this theory, living systems are seen as “self-producing” and self-regulating mechanisms that have the capability to maintain their form despite material inflow and outflow (see Maturana and Varela, *Autopoiesis and Cognition*). Bio- and eco-semiotics investigate signs and meanings as emerging properties of organisms (see, for instance, Wheeler, *The Whole Creature*).

propose to rework the human-nonhuman infiltrations in ways that take into account matter's "inherent creativity" (De Landa 16). It is also important to note that while the sociological accounts of materiality consider the role of "material agency" in social relations, environmental accounts focus more on the "ethical and political possibilities" that "emerge from the literal contact zone between human corporeality and more-than-human nature" (Alaimo, *Bodily* 2).

The idea that matter possesses agency is of central significance in the new materialisms. Against the visions that associate agency with intentionality and therefore with human intelligence, the claim for material objects to act with effectivity is a way to "[absolve] matter from its long history of attachment to automatism or mechanism" (Bennett, *Vibrant* 3). Accordingly, the true dimension of matter is not that of a static and passive substance or being, but of a generative becoming. This is evident for instance in the theory of "agential realism," developed by the feminist thinker and quantum physicist Karen Barad—one of the key-figures of the new materialisms—in her groundbreaking work *Meeting the Universe Halfway* (2007). Reality, Barad maintains, is a symmetric entanglement of material and discursive processes. Here the word 'matter' "does not refer to an inherent, fixed property of independently existing objects;" rather, Barad concedes, "'matter' refers to phenomena in their ongoing materialization" (*Meeting* 151). In other words, matter "is not a blank slate," or "immutable or passive," but "*a doing, a congealing of agency;*" and Barad calls it "*a stabilizing and destabilizing process of iterative intra-activity*" (*Meeting* 151). She further proclaims that "[m]atter is neither fixed and given nor the mere end result of different processes. Matter is produced and productive, generated and generative. Matter is agentive, not a fixed essence or property of things" (*Meeting* 137). On the premise of an intrinsically "agentive" matter, Barad proposes a theory of agential realism--an onto-epistemological vision of reality--as a continuous process that involves simultaneously ("intra-actively," in Barad's terminology) matter and meanings, and where embodiments and forms co-emerge into a unitary field of existence.

In the eco-philosophical debates the issue of the material interactions of bodies and natures has been addressed by a number of challenging publications. Besides the already mentioned collection *Material Feminisms* and Barad's *Meeting the Universe Halfway*, these publications include Andrew Pickering's *The Mangle of Practice* (1995), Jane Bennett's *The Enchantment of Modern Life* (2001), Joseph Rouse's *How Scientific Practices Matter* (2002), and Freya Mathews' *For Love of Matter* (2003). More recently, this thematic trend has been enriched by new titles, such as Diana Coole and Samantha Frost's *New Materialisms*, Stacy Alaimo's *Bodily Natures*, Jane Bennett's *Vibrant Matter*, Susan Hekman's *The Material of Knowledge*, David Abram's *Becoming Animal* (all published in 2010), and Vicky Kirby's *Quantum Anthropologies* (2011). The cultural horizon to which these works refer is multifaceted. In some cases, though expressly skeptical about certain extreme forms of cultural reductionism, the project of re-conceptualizing materiality engages a critical but constructive conversation with postmodernism. Even if linguistic constructionism has ultimately failed to "bring the material dimension into theory and practice" (Hekman 2), the turn to the linguistic and

the discursive has proved “enormously productive,” in that it “has fostered complex analyses of the interconnections between power, knowledge, subjectivity, and language” (Alaimo and Hekman 1). Postmodernism is, therefore, to be considered in terms of challenge and of legacy. This challenge, taken on by material feminisms in particular, consists in “build[ing] rather than abandon[ing] the lessons learned in the linguistic turn,” trying to accomplish the very project of postmodernism: “to deconstruct the language/reality dichotomy by defining a theoretical position that does not privilege either language or reality but instead explains and builds on their intimate interaction” (Hekman 3).⁵ In fact, the deconstruction of the dichotomy between the real and the discursive is precisely the most distinctive feature of postmodern thought. As the postmodern critic and theorist Linda Hutcheon convincingly explains, “[p]ostmodern discourses assert both autonomy and worldliness” (46). The role of postmodernism in the discourse of material ecocriticism, therefore, deserves a closer consideration. Postmodernism acknowledges the problematic interrelations between the ontological and the epistemological with a critical self-reflection. In so doing, it draws attention to the constitutive engagement of human discursive systems with the material world, at the same time reflecting upon the complicity between our discursive formulations and the material world. By questioning the grounds of our moral attitudes and how they are “built into our language” (Elliott 160), postmodernism is resolutely focused on the integral ways of thinking not only discourse and matter, but also human and the nonhuman natures together. This account of postmodernism, which regards language and reality, nature and culture, and discursive practices and the material world as complexly intertwined, is known as “ecological postmodernism.” In a word, it proposes a worldview in which nature is, at a fundamental level, reanimated. Recognizing the vitality of things in all natural-cultural processes, and the co-extensivity of language and reality, ecological postmodernism perceives nature as being primarily constituted of interacting, interrelated phenomena. Its intention to “re-enchant” reality, claiming that all material entities, even atoms and subatomic particles have some degree of sentient experience and that all living things have agency of their own, is essential in the making of the new materialist approaches, especially those that place emphasis on ontology and politics.⁶ Major postmodern thinkers (for instance Deleuze and Guattari) consider the human and nonhuman territories as one and the same essential reality, and thus come

⁵ See also Alaimo and Hekman, “Introduction.” On postmodernism and the material turn, see Oppermann, “A Lateral Continuum.”

⁶ The project of “Ecological Postmodernism” has emerged from Charles Hartshorne’s as well as Alfred North Whitehead’s process philosophy, David Ray Griffin’s model of “reconstructive postmodernism,” which, for him, offers the most promising route to a re-enchanted interpretation of nature, and from Charlene Spretnak’s proposal of ecological postmodernism. On this point, see David Ray Griffin, ed. *Sacred Interconnections: Postmodern Spirituality, Political Economy, and Art* (SUNY Series in Constructive Postmodern Thought); Charlene Spretnak, *Relational Reality: New Discoveries of Interrelatedness that Are Transforming the Modern World*; Jane Bennett, *The Enchantment of Modern Life*; and Oppermann, “Rethinking Ecocriticism in an Ecological Postmodern Framework.”

closer to the ecological postmodern thought that is not only among the main features of the new materialisms, but also of material ecocriticism.⁷

The theoretical perspectives and the historical references of the material turn, however, reach far beyond its relationship to postmodernism. In fact, the works we have mentioned variously reinterpret important traditions of thinking that include Greek atomism, Renaissance philosophy, Spinoza, Bergson, Merleau-Ponty, and contemporary theorists of science studies and social sciences such as Bruno Latour, Donna Haraway, Ulrich Beck, and Manuel De Landa, as well as quantum physics, process philosophy, and conceptual trends such as the Actor-Network Theory, agential realism, and object oriented ontology.⁸

In their multifaceted frames and conceptual references, the works of these authors and their speculative visions constitute the intellectual horizon of material ecocriticism. A common characteristic here is the attempt to develop a integral theoretical structure for issues related to being, knowing, and doing, thus resulting in the interconnection--typical for many of these thinkers--between ontology, ethics/agency and epistemology. Extending the category of agency beyond the realm of the human, in fact, they all in various ways demonstrate the kinship between out-side and in-side, the mind and the world, embracing life, language, mind and sensorial perception in a non-dualistic perspective.

2. Material Ecocriticism: Matter, Meaning, and Narrativity

The agency of matter, the interplay between the human and the nonhuman in a field of distributed effectuality and of inbuilt material-discursive dynamics, are concepts that influence deeply the ideas of narrativity and text. If matter is agentic, and capable of producing its own meanings, every material configuration, from bodies to their contexts of living, is "telling," and therefore can be the object of a critical analysis aimed at discovering its stories, its material and discursive interplays, its place in a "choreography of becoming" (Coole and Frost 10). Material ecocriticism proposes basically two ways of interpreting the agency of matter. The first one focuses on the way matter's (or nature's) nonhuman agentic capacities are described and represented in narrative texts (literary, cultural, visual); the second way focuses on matter's "narrative" power of creating configurations of meanings and substances, which enter with human lives into a field of co-emerging interactions. In this latter case, matter itself becomes a

⁷ In Deleuze and Guattari's words: "We make no distinction between man and nature: the human essence of nature and the natural essence of man become one within nature in the form of production of industry, just as they do within the life of man as a species ... man and nature are not like two opposite terms confronting one another ... rather, they are one and the same essential reality, the producer-product" (*Anti-Oedipus* 4-5).

⁸ Object oriented ontology is developed by such scholars as Graham Harman, Levi Bryant and Timothy Morton who contend that "objects" are inclusive of humans, natural and cultural entities, language, nonhuman beings, cosmic bodies, as well as subatomic particles which, in their entanglements, constitute "Being."

text where dynamics of “diffuse” agency and non-linear causality are inscribed and produced.

Concerning the representations of nature’s agentic powers, instances can be found in almost every literary tradition. A memorable passage from Henry Roth’s *Call It Sleep* (1934), for example, captures the power of electricity as material agency that invites, to use Jane Bennett’s words, “imaginative attention toward a material vitality” (*Vibrant* 19):

Power! Incredible,
barbaric power! A blast, a siren of light
within him, rending, quaking, fusing his
brain and blood to a fountain of flame,
vast rockets in a searing spray! Power! (419)⁹

These lines resonate in a surprising way with the description that the Italian writer (and engineer) Carlo Emilio Gadda makes of the “catastrophic *itinéraire*” of a lightning bolt caught between two rooftop rods in his unfinished “baroque” novel *Acquainted with Grief* (*La cognizione del dolore*, 1963). In Gadda’s prose, things have not only a natural and wild vitality, but even possess proto-personal traits, thus exhibiting agentic power: from lightning (“this damn rambler,” 568) to rods, depicted as mischievous and mysteriously meditating, everything is strangely alive and ready to unchain unexpected material consequences in the world they share with humans and other nonhuman presences.¹⁰ Another striking example of material agency that we can quote to illustrate the vibrancy of the nonhuman comes from Thomas Hardy’s *The Return of the Native*. In its emphatic corporeality, Egdon Heath in this novel stands out as a powerful nonhuman agency that defies all human attempts to control its forces. Egdon Heath is a landscape with a strong character, interacting with human figures in shaping complexly structured dynamics of natural and cultural evolution. Displaying a vibrant agency that affects human and nonhuman life since time immemorial, Egdon Heath is near in its effectuality to those beings that Bruno Latour calls “actants.”¹¹ The place, in fact, is inscribed in myths and legends and in the lives of the people who dwell there, producing a material-semiotic intra-activity that Hardy describes as: “It could best be felt when it could not clearly be seen, its complete effect and explanation lying in this and the succeeding hours before the next dawn; then, and only then, did it tell its true tale” (53). Hardy’s literary description of this agentic force is significant in that Egdon Heath “acts” as a sentient being equal to human intentional acts and intelligence. It “listens” for example, and “awaits something” in anticipation of a crisis; it is self-conscious of being a spot that “returns upon the memory of” human beings who act in congruity with it, and it is

⁹ We borrow this example from Patricia Yager’s “Literature in the Ages of Wood, Tallow, Coal, Whale Oil, Gasoline, Atomic Power, and Other Energy Sources” (305).

¹⁰ On Gadda’s work, the most useful reference for international scholars is the *Edinburgh Journal of Gadda Studies* edited by Federica G. Pedriali. The journal is available on line at: <http://www.gadda.ed.ac.uk>.

¹¹ On the concept of “actant,” as an “entity that modifies another entity in a trial,” see Bruno Latour, *Politics of Nature* (237). In *Vibrant Matter* Jane Bennett has deployed this concept in her analysis of the posthuman material agency of electric grids, waste, inanimate objects etc.

clearly invested with qualities of what Hardy calls a “Titanic form” with an “Atlantean brow” (54). As “a place perfectly accordant with man’s nature” (55), Egdon Heath is a telling narrative example that produces the script of its own material story of unpredictability, and it provides an account of its own co-constitution with human actors. The human subjects here are an “organic part of the entire motionless structure” (63). A similar literary example is the River Congo as depicted by Joseph Conrad in *Heart of Darkness*: “There it is before you ... smiling, frowning, inviting, grand, mean, insipid, or savage” (14) – clearly the most conspicuous qualities associated with agency.

Material agency also manifests in the narratives of the sea such as told by the Fisherman of Halicarnassus, a Turkish writer (Cevat Şakir Kabağaçlı) who wrote about the flora and fauna specific to Bodrum peninsula on the juncture of the Aegean and Mediterranean coasts of Turkey. His stories highlight the permeable boundaries between marine creatures and human subjects. The sea, as a pulsating nonhuman agent, functions as a vital force. The Fisherman calls attention to the agentic assemblages of nature’s magnificent forces around him and narrates how his material imagination¹² has been crafted by their effects to tell the story of co-existence of human and nonhuman life in the process of evolution on Turkey’s Mediterranean coasts: “This deep blue sky of southern Anatolia, its violet-sea, light and land has nourished various trees, fruits, flowers, human beings, and civilizations. These stories, too, are the products of those heavenly hands, mountains, grass, coasts, wild rocks, ruins and open seas. I dedicate all the stories to them” (A prologue to *A Flower Left to the Aegean Sea*).¹³ These lines are in tune with Nobel Laureate Eugenio Montale’s poems *Mediterranean*, a section of his famous collection *Cuttlefish Bones* (1925). In these poems that, as Anna Re has written, are “crisscrossed by the emergence of language and law” (100), the poet is called to be a witness of the sea, a “father” who speaks his language of “briny words.” The Mediterranean sea, which is not just symbolically, but evolutionarily tied to human, is here in fact a material father--a father made of salt, water, stones, and ancient and innumerable living forms--whose “cold unpassing will” is an embodied and immanent force, certainly independent from and nonetheless interlaced with the destiny of the human.¹⁴

¹² The term “material imagination” is used by Gaston Bachelard to describe how the material world is imagined by poets and scientists. Imagination is itself always captivated by the world it imagines. So the phrase “material imagination” signifies the intersection between the materiality of imagining and the imagination of the material. See, Gaston Bachelard, *La Terre et les rêveries de la volonté* (Earth and Reveries of Will). Ben Anderson and John Wylie also use the term in “On Geography and Materiality” (318). For ecocritically relevant developments of this concept, see Abram, *Becoming Animal*; and Iovino, “Restoring the Imagination of Place.”

¹³ English translation by Oppermann. For an ecocritical analysis of the writer’s work, see Oppermann “The Fisherman of Halicarnassus’s Narratives of the White Sea (the Mediterranean): Translocal Subjects, Nonlocal Connections.”

¹⁴ For an ecocritical interpretation of these poems by Montale, see Anna Re, “The Poetry of Place.” Actually, the catastrophic wreckage of the cruise ship Costa Concordia (January 2012), now contaminating one of the few marine ecological reserves of Italy shows how complex and tight the bond between the destiny of the Mediterranean sea and the action of human beings is.

The Mediterranean, Egdon Heath and the River Congo are examples of ecological nonhuman agents projecting themselves as “textual forms” of matter and telling their stories through the material imagination of their human counterparts. They create a strong vision of how matter and meaning constitute each other. The landscape, the river and the sea are all made out of a material world, which is as much shaped by the stories as by physical forces. As these examples indicate, literary texts can actively engage materiality in many forms. But perhaps more striking examples can be found in the lesser known 18th century English novels which engage matter in its allegedly inorganic form. Here matter acts as the very embodiment of significance and producer of meaning in life. In such works as Tobias Smollett’s *History and Adventures of an Atom* (1769), Joseph Addison and Richard Steele’s *The Adventures of a Watch* (1788) and *The Adventures of a Cork-Screw* (1775), Charles Johnstone’s *Chrysal or the Adventures of a Guinea* (1760), Dorothy Kilner’s *Adventures of a Hackney Coach* (1781), and Thomas Bridges’s *The Adventures of a Bank-Note* (1770-71), objects (such as trousers, banknotes, snuffboxes, books, wigs, canes, coins, hats, etc.), as well as animals (such as cats, lapdogs, monkeys, and insects) figure as central characters who exhibit agentic capacities and appear to be endowed with consciousness and even thought. They narrate their stories, and interestingly they do so not to human readers but to their fellow “things.” For instance, “the lady’s slipper speaks to the lady’s shoe, and the waistcoat addresses a petticoat” (Festa 114). This is a palpable narrative instance of how matter and meaning can enter into a play of signification to produce intra-active relations between the human and the nonhuman, subject and object.

These few exemplary cases, among many others, have been chosen for two main reasons: the first is the clear confluence of matter and agency, and its discursive and narrative repercussions; the second is the role played by anthropomorphism and anthropomorphizing narrative techniques in the conceptual framework of material ecocriticism. This latter point is worth a closer examination. In the context of material ecocriticism, the humanization of things, places, natural elements, nonhuman animals, is not necessarily the sign of an anthropocentric and hierarchical vision but can be a narrative expedient intended to stress the agentic power of matter and the horizontality of its elements. If conceived in this critical perspective, anthropomorphizing representations can reveal similarities and symmetries between the human and the nonhuman. Thus, instead of stressing categorical divides, anthropomorphism potentially “works against anthropocentrism” (Bennett, *Vibrant* 120). As Jane Bennett suggests,

[a] touch of anthropomorphism . . . can catalyze a sensibility that finds a world filled not only with ontologically distinct categories of beings (subjects and objects) but with variously composed materialities that form confederations. In revealing similarities across categorical divides and lightning up structural parallels between material forms in ‘nature’ and those in ‘culture,’ anthropomorphism can reveal isomorphisms” (*Vibrant* 99).¹⁵

¹⁵ “An anthropomorphic element in perception can uncover a whole world of resonances and resemblances—sounds and sights that echo and bounce far more than would be possible were the universe to have a hierarchical structure” (Bennett, *Vibrant Matter* 99). On issues of anthropomorphism in nonhuman “narrative agencies,” see Iovino, “Toxic Epiphanies.”

This becomes evident when one thinks of nonhuman systems of signs, like in the case of biosemiotics. Also the language of biosemiotics is apparently anthropomorphic, but to see the capacity of producing signs as a distributed feature of living systems is a way to reveal similarities, isomorphisms, and material relations. When we read, for example, that “[t]he organism-environment coupling is a form of conversation, and evolution itself a kind of narrative of conversational developments,” a “kind of play . . . and education of life forms” (Wheeler 126), we see that apparently anthropomorphic patterns can be functional to a heuristic strategy intended to disclose the kinships and connections between the human and the nonhuman worlds. The relation between human and nonhuman beings, in this vision, is not simply leveled out, but restructured in terms of complexity.

Following and extending the lines of these “structural parallels,” material ecocriticism shed lights not only on the way agentic matter is narrated and represented in literary texts, but on matter’s “narrative” power itself. Matter, in all its forms, in this regard, becomes a *site of narrativity*, a storied matter, embodying its own narratives in the minds of human agents and in the very structure of its own self-constructive forces. Interpreted in this material-ecocritical light, matter itself becomes a text.¹⁶

Taking matter “as a text” means questioning the very idea of text. The text, for material ecocriticism, encompasses both human material-discursive constructions and nonhuman things: water, soil, stones, metals, minerals, bacteria, toxins, food, electricity, cells, atoms, all cultural objects and places. The characteristic feature of these material configurations is that they are not made of single elements, isolated from each other. Rather, they form complexes both natural and cultural, and in many cases human agency and meanings are deeply interlaced with the emerging agency and meaning of these nonhuman beings. Similar to Deleuze and Guattari, Latour calls these material and discursive intersections “assemblages” or “collectives.” In their agentic capacity they are inextricably connected to our lives, and in most cases (as atoms, molecules, bacteria, toxins, etc.) they are part of our bodies, of our “material self.” Heeding the continuity (the intra-action, Barad would say) of human and nonhuman in these open and evolving dynamics, material ecocriticism attends to the stories and the narrative potentialities that develop from matter’s process of becoming.¹⁷

The borders of this discourse are open to fathom a vast array of nature’s constituents as well as culture’s trash and garbage, which are manifestly “vibrant” and have “trajectories, propensities, or tendencies of their own” (Bennett, *Vibrant Matter* viii). These “things” are, as the “Thing Theory” exponent Bill Brown claims, semantically irreducible to objects (3). They “speak” in a world of multiple interacting processes, such as climate change or the systems of production and consumption of global capitalism, entailing geopolitical and economic practices and thus reminding us of the

¹⁶ On this topic, see Iovino, “Material Ecocriticism: Matter, Text, and Posthuman Ethics;” and Iovino and Oppermann, “Theorizing Material Ecocriticism: A Diptych.”

¹⁷ On this point, see Iovino, “Naples 2008.”

fact that “the linguistic, social, political and biological are inseparable” (Hekman 25). In other words, the corporeal dimensions of human and nonhuman agencies, their literary and cultural representations, are inseparable from the very material world within which they intra-act. In some profound sense, matter’s configurations always display “an enactive dance” (Morton 28) indicating that our knowledge practices, our stories and narratives are part of “natural processes of engagement and . . . part of the world” (Barad, *Meeting* 331-32). This means a substantial co-implication of knowing and being. As Barad explains: “We do not obtain knowledge by standing outside of the world; we know because ‘we’ are of the world. We are part of the world in its differential becoming” (“Posthumanist” 147). In this understanding, regardless of how great the difference between the human self and the material agency may be, the world comes to be constituted by multiple intra-actions of this “differential becoming.” This is a model of unavoidable partnership between different agents in creating reality.

Material ecocriticism, in our view, traces the artistic and cultural expression of these views, opening up textual possibilities of the materiality created in art, culture, and literature. In its transversal analysis of materiality and of material “ongoing stories,” it considers the cultural and literary potentials emerging from a natural environment in which the human agents co-exist and co-act with biological organisms that exhibit agentic capacities. But not only that: going beyond the domain of the “biological,” it relocates the human species in broader natural-cultural environments of inorganic material forces such as electricity, electro-magnetic fields, metals, stones, plastic, and garbage.

This leads us to a further consideration. If embodiment is the site where a “vibrant matter” performs its narratives, and if human embodiment is a problematic entanglement of agencies, the body is a privileged subject for material ecocriticism. As the debate on material feminisms has convincingly highlighted it, corporeal matter opens the patterns of agency to the structural interplay between the human and the nonhuman, being therefore crucial to overcome the idea of an “inert” matter positioned as antithetical to free human agency. It also shows how the material self is not an independent, “encapsulated” and circumscribed reality. The material self lives instead in “a world sustained by queer confederacies” (Haraway 161) in which the human is always intermingled with alien presences. As Jane Bennett perceptively remarks:

One can invoke bacteria colonies in human elbows to show how human subjects are themselves nonhuman, alien, outside vital materiality. One can note that the human immune system depends on parasitic helminth worms for its proper functioning or cite other instances of our cyborgization to show how human agency is always an assemblage of microbes, animals, plants, metals, chemicals, word-sounds, and the like. (*Vibrant* 121)

In a more specific eco-narrative sense, the body reveals the reciprocal interferences of organisms, ecosystems, and humanly made substances (those that Alaimo calls “xenobiotics”¹⁸). It is, therefore, a “collective” of agencies and a material palimpsest in which ecological and existential relationships are inscribed “in terms of flourishing or ...

¹⁸ See *Bodily Natures*, in particular 113-40.

illness" (Wheeler 12). This becomes strikingly evident when "individuals and collectives must contend not only with the materiality of their very selves, but with the often invisibly hazardous landscapes of risk society" (Alaimo, *Bodily* 17). Alaimo's concept of "trans-corporeality" is highly significant here.¹⁹ Trans-corporeality---a "movement across bodies" (*Bodily* 2) as Alaimo defines it---is a model of dynamic concurrence, permeability, and "interconnected agencies" (*Bodily* 21) of material substances and discursive practices. Highlighting the role of the often-undetectable material forces, or "flows of substances ... between people, places, and economic/political systems" (*Bodily* 9), trans-corporeality complements the conventional ecological vision according to which everything is connected with everything else. Alaimo's concept provides a more complete interpretive insight not only into the narratives of environmental health and risk, but also into every dynamic that takes place in what Nancy Tuana has called "an interactionist ontology," namely, "an ontology that *rematerializes the social and takes seriously the agency of the natural*" (188).

Matter's "active, self-creative, productive," and "unpredictable" dimension (Coole and Frost 9) is of crucial importance for material ecocriticism. Clearly, the supposed determinate boundaries of things, objects, human agents, concepts, and texts become more fluid and permeable. All these human and nonhuman agents enact the materiality of meaning through specific combinations of material and discursive practices. This is an interplay of life and its expressions as articulated emphatically by the arch-postmodern author Raymond Federman, who always underlined the crucial aspect of the fictional narratives of his own life by stating: "My body is, I hope, in the text too [...]. I am very tired when I am finished writing because I have used my body" (383). Examples like these shed light on biological and textual entanglements in terms of their efficacy in encoding and producing meanings. This perspective sees material reality, or all objects, forces, things, natural and cultural systems, and processes as players in co-creating social and cultural meanings. As Karen Barad points out, "meaning is not a human-based notion; rather, meaning is an ongoing performance of the world in its differential intelligibility" (*Meeting* 335). This new cultural imaginary is also highly significant in extending the moral imagination.

3. Materiality and the moral imagination

In accord with this vision, the ethical model that accompanies material ecocriticism is a "material ethics." It is an ethics based on the co-extensive materiality of human and nonhuman subjects, in a perspective which necessarily implies moral horizontality; it is also an ethics focused on the way discursive constructions and material bodies intra-act in given socio-political contexts. A material ethics is an ethics that considers the levels of embodiment of the concept into material reality, and vice versa, the way matter (as bodies, natures, forms of existence) is conceptualized in and modeled by discursive practices. It analyzes the way interconnected agencies and

¹⁹ On trans-corporeality, see also Alaimo, "Trans-corporeal Feminisms."

interconnected discourses shape a material reality in which “elaborate, colossal human practices, extractions, transformations, productions, and emissions” are inextricably entangled (Alaimo, *Bodily* 21). In its moral stance material ecocriticism takes this entanglement as the very cipher of existential configurations, and re-elaborates the horizon of human action according to a more complex, plural, and interconnected geography of forces and subjects.

Re-negotiating the boundaries of narrative agency has momentous consequences for recently unfolding posthumanist ethical discourses. In fact, this encourages a better understanding not only of human place in evolution (“we are walking, talking minerals,” Vernadsky qtd. in Bennett, *Vibrant* 11), but also of matter as a form of “emergent” agency that is combined and interferes with every “intentional” human agency: none of our intentional acts is limited to the sphere of “pure” intentionality, but always situates itself within a setting of co-emerging material configurations. The awareness that no intentional action is ever outside this world of material-discursive emergences can help us refine our ethical categories, building the conditions for a “more hospitable” posthuman ethics, emerging “from evolutionary paradigms that recognize the material interrelatedness of all being, including the human” (Alaimo, *Bodily* 151).²⁰ Posthumanism is a vision of reality in which the human and the nonhuman are seen as confluent, co-emergent, and defining each other in mutual relations. It marks “a refusal to take the distinction between ‘human’ and ‘nonhuman’ for granted, and to found analyses on this presumably fixed and inherent set of categories” (Barad, *Meeting* 32). More precisely, a posthumanist vision questions the givenness of the split between the human and the nonhuman, and emphasizes their hybridizations, their co-operative configurations, and their intra-actions. If the human and the nonhuman are constitutionally “entangled,” the result of this entanglement is a posthumanist space, “a space in which the human actors are still there but now inextricably entangled with the nonhuman, no longer at the center of the action . . . The world makes us in one and the same process in which we make the world” (Pickering 26). By shifting from a subject/object epistemology to a human-nonhuman onto-epistemology, the ontological relationality proposed by material ecocriticism discloses a theory and practice of posthumanism. As Bruno Latour has emphatically written:

The name of the game is not to extend subjectivity to things, to treat humans like objects, to take machines for social actors, but to *avoid using* the subject-object distinction *at all* in order to talk about the folding of humans and nonhumans. What the new picture seeks to capture are the moves by which any given collective *extends* its social fabric to other entities. (*Pandora's* 193-194).

Material ecocriticism provides a literacy for an evolving political ecology based on an understanding of our being, knowing, and acting as moments of a “conversation with those who are not ‘us’” (Haraway 174). In Donna Haraway’s words: “We have to strike up a coherent conversation where humans are not the measure of all things and where

²⁰ On this point, see Oppermann, “Feminist Ecocriticism: A Posthumanist Direction in Ecocritical Trajectory” and Iovino, “Material Ecocriticism: Matter, Text, and Posthuman Ethics.”

no one claims unmediated access to anyone else" (174). The function of material ecocriticism, in this framework, is to sharpen our vision and perception of what we call "nature" and what we call "culture," showing the multiplicity of players involved in this big pattern of material-discursive agencies. Dealing with the narrative levels disclosed in "the encounter between various and variegated bodies" (Bennett, *Vibrant* viii) has the ethico-cognitive potential to upgrade our sensorium, and to refine our understanding of the "dense network of relations" in which the materiality of our lives and of the life of the environment are "inextricably enmeshed" (*Vibrant* 13). The relational ontology proposed by material ecocriticism aims to enlarge the branches of our family tree, retracing broader genealogies, and therefore enriching our stories with more stories, namely with meanings emerging from the material forms that precede our existence or that are actual parts of our existence. In this sense, showing and speaking the connections and "family-ties" within material realities, material ecocriticism becomes a good response also to ecophobic cultures, namely, to cultures that posit and practice a radical contempt for every form of otherness, and that are characterized by a "pathological inability to see connections" (Estok 9).

This kind of approach points to the role of material agents in the way we understand political and cultural processes: no adequate cultural discourse intended to provoke a change into society "can ignore the importance of the bodies in situating empirical actors within a material environment of nature, other bodies, and the socioeconomic structures that dictate where and how they find sustenance, satisfy their desires, or obtain the resources necessary for participating in political life" (Coole and Frost 19).

Material ecocriticism is the attempt to finalize epistemology to a philosophy of culture, namely, to find a theoretical framework suitable to enable more effective actions, and to extend--as Richard Rorty would put it--solidarity as both an ethical practice and an ontological vision.²¹ Whether taking as its subjects 18th century British fiction or toxic bodies, material ecocriticism is part of a project of cultural criticism and cultural creativity. In this project literature can be used as an effective discourse crucial to enhance moral and environmental imagination. Material ecocriticism aspires to be a way of "knowing" the connections, of seeing through narratives, of extending the fields of intelligibility. All narratives that explore and challenge the borders between the "inner" self and the "outer" world in terms of materiality, of causality, of intertwined agency are *de facto* part of a project of liberation--a cultural, ecological, ontological, and material liberation. Every vision intended to bridge the discursive and the material, the *logos* and the *physis*, mind and body, restoring new forms of awareness and conceptualization of our material out-side, is an enterprise of liberation. It is liberation from dualisms, from ideal subjugations, from the perceptual limits that prevent our moral imagination from appreciating the vibrant multiplicity of the world. In re-creating patterns of continuity within this vibrant multiplicity, narratives are constructive imaginative strategies intended to build non-dichotomized visions of reality. They re-

²¹ See Rorty, *Contingency, Irony, and Solidarity*.

build landscapes of cultures and natures, the bond between people and land, between people and other people, between humans and nonhuman others. This bond is emotional and material; it is the expression of a culture of solidarity, of democratic "sympathy" and of creative democracy. Reconceiving materiality as the field of encounter and mutual realization of human and nonhuman agencies is the essential step toward a posthuman vision that will liberate us from oppressive and dualistic visions, starting with those between active minds and so-called inert matters and natures.

Material ecocriticism invites us into a polyphonic story of the world that includes the vital materiality of life, experiences of nonhuman entities, and our bodily intra-actions with all forms of material agency as effective actors. This story that we could explain as a self-representation of matter in its multifaceted embodiments, tells us that "matter is eternal life," and that "everything is unique in its own existing" (Fowles 14, 21). In this "alter-tale"²² the new narrative agents are things, nonhuman organisms, places, and forces, as well as human actors and their words. Together, they anticipate an alternative vision of a future where narratives and discourses have the power to change, re-enchant, and create the world that comes to our attention only in participatory perceptions.

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²² The idea of an "alter-tale" intended as a way to "re-enchant reality" is developed by Jane Bennett in her *The Enchantment of Modern Life*.

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