

"A Life of Metal": An Ecocritical Reading of Silvia Avallone's *Acciaio*

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Abstract



Silvia Avallone's acclaimed novel *Acciaio* (2010) narrates the struggling friendship, complicated existence, and coming of age of Anna and Francesca, two teenage girls who live in a working class neighborhood in the Tuscan coastal town of Piombino, near the Lucchini steel plant where most of their blue-collar older friends and relatives work. It tells the stories of human bodies who grow, love, suffer, struggle and die, but also of nonhuman matter (iron, steel) that is created, transformed and then "lives" a parallel co-existence in the same environment. More in particular, as its title and plot suggest, the novel also deals with the close relationship and reciprocal interferences between human beings and nonhuman matter, be it inorganic, like the iron ore and the machines the workers use to produce steel, or organic, like the animals, plants and shells the girls find on a beach near the plant site. Building on some of the theoretical postulates and methodological insights provided by ecocriticism's recent "material turn", that is, focusing on the novel's representations of the encounters "between people-materialities and thing-materialities" (Bennett x), the aim of this paper is to suggest that Avallone's novel not only presents a radically alternative vision of—at least a section of—Tuscany's famed "Etruscan Coast," but also hints at the sort of posthuman ecology that regulates this particular place. Ultimately, I argue that this text, by drawing attention to the mutual connections between "organisms, ecosystems, and humanly made substances" (Iovino 10), and between the biological, socio-economic and cultural spheres, goes way beyond the story of Anna and Francesca and the industrial area of Piombino where the Lucchini factory is situated. Taking this unusual Tuscan territory as an example, Avallone's text provides a template for understanding ongoing dynamics in many other "Piombinos", be they nearby in Tuscany—the Solvay soda-ash plant in Rosignano comes to mind—elsewhere in Italy, or all around the globe.

Keywords: material ecocriticism, Silvia Avallone, industrial pollution, environmental issues

Resumen

La aclamada novela de Silvia Avallone, *Acciaio* (2010), narra la lucha de la amistad y la complicada existencia y mayoría de edad de Anna y Francesca, dos adolescentes que viven en un barrio de clase obrera en el costero pueblo Toscano de Piombino, cerca de la acerería Lucchini, donde trabajan la mayoría de sus amigos mayores y sus parientes obreros. La novela cuenta la historia de cuerpos humanos que crecen, aman, sufren, luchan, y mueren, pero también de la materia no humana (hierro, acero) que se crea, se transforma, y después "vive" una existencia paralela en el mismo entorno. En particular, tal y como sugieren el título y la trama, la novela también trata de la cercana relación y las interferencias recíprocas entre los seres humanos y la materia no humana, sea inorgánica, como el mineral de hierro y las máquinas que los trabajadores usan para producir acero, u orgánica, como los animales, las plantas y las conchas que las chicas encuentran en una playa cerca de la acerería. Usando como base algunos postulados teóricos y conocimientos metodológicos surgidos del reciente "giro material" de la ecocrítica, es decir, centrándose en las representaciones que la novela ofrece de los encuentros "entre materias-humanas y materias-cosas" (Bennett x), el objetivo de este ensayo es sugerir que la novela de Avallone no solo presenta una visión de la famosa "Costa Etrusca" de la Toscana (por lo menos una parte) radicalmente alternativa, sino que también insinúa el tipo de ecología posthumana que regula este lugar en concreto. Por último, argumento que este texto, al dirigir la atención a las conexiones mutuas entre "organismos,

ecosistemas, y sustancias hechas por humanos" (Iovino 10), y entre las esferas biológicas, socioeconómicas, y culturales, va más allá de la historia de Anna y Francesca y del área industrial de Piombino donde se encuentra la acerería Lucchini. Tomando este insólito territorio toscano como ejemplo, el texto proporciona una plantilla para entender las continuas dinámicas en muchos otros "Piombionos", estén cercanos a la Toscana (la planta de sosa Solvay en Rosignano viene a la mente), en otros lugares en Italia, o alrededor del mundo.

Palabras clave: ecocrítica material, Silvia Avallone, contaminación industrial, temas medioambientales

"As Alessio walked he crushed nettles and chunks of refractory brick underfoot. Metal saturated the ground and his skin."¹

(Silvia Avallone, *Swimming to Elba* 17)

"And human metalworkers are themselves emergent effects of the vital materiality they work."

(Jane Bennett, *Vibrant Matter* 60)

According to its official tourist website (<http://www.costadeglietruschi.it>), the section of Tuscan coast overlooking the Tyrrhenian Sea branded as "Costa degli Etruschi" extends approximately one hundred kilometers, from Livorno in the North, to Piombino in the South. Directly to the west lie three of the islands forming the Tuscan Archipelago—Elba, Capraia and Gorgona. The other four—Pianosa, Giglio, Montecristo and Giannutri—are scattered further south. To the East of the Costa degli Etruschi, in its adjacent hinterland, villages such as Bolgheri and Castagneto Carducci exude the "Etruscan" aura of beauty, civilized refinement, layered history, culture and literariness. Besides Giosuè Carducci, the bard of unified Italy, who celebrated these places in his poetry in the late nineteenth century, Gabriele D'Annunzio spent at least some of his "inimitable life" in his cliff-side "Villa Godilonda" near Quercianella. A little later, yet another famous poet, Giorgio Caproni, wrote memorable lyrics about Livorno (his birthplace) and his beloved Tyrrhenian Sea. And, finally, in 1962 film director Dino Risi shot some crucial scenes of his classic *Il Sorpasso* (*The Easy Life*) on the coastal road near the fashionable and celebrity-friendly resort town of Castiglioncello.² Those whose interests veer more towards the gourmet than the literary and cinematic might also recall that one of the best red wines in the world ("Sassicaia") is produced in this area, benefitting from the mild climate and the sea breezes.

Such cultural associations and representations of place (the list is far from exhaustive) have helped boost the appeal of this geographic area. Perceived by the majority of Italians and foreigners alike as a place of leisure, a coveted Arcadian tourist

¹ "Alessio calpesta ortiche e resti di mattoni refrattari. Il metallo saturava il terreno e la sua pelle" (24). Passages quoted are taken from Antony Shugaar's English translation of *Acciaio: Swimming to Elba*.

² Actors Marcello Mastroianni, Alberto Sordi, and Paolo Panelli, and screenwriter Suso Cecchi D'Amico all owned villas and used to vacation here.

destination, the "Costa degli Etruschi" is usually appreciated for its well-tended beaches, unpolluted sea, nature reserves, archeological sites, gastronomical excellence, and, last but not least, progressive environmental policies.³

Of course, it goes without saying that this sort of Edenic, constructed perception of the area is substantially incomplete, and does not capture the real and more complex nature of the place.⁴ For example, on any given day the air quality in Livorno's industrial harbor area is quite mephitic.⁵ Tar, oil from ships and plastic debris, from large bottles to microscopic spheres, gather in even the most secluded rocky coves and beaches. Vada's famous "White Beaches", with their Caribbean-like powder sand and eerie-looking turquoise waters, are actually the direct byproduct of industrial toxic waste, loaded as they are with chemical compounds of ammonia, soda-ash, and mercury from the local site of the Belgian multinational corporation Solvay.⁶ However, at a time when Italy as a whole is facing skyrocketing unemployment rates and much greater economic and political problems, this sort of information, even on the rare occasions when it manages to reach a wider public, is generally considered an annoying curiosity, of at most marginal importance.⁷ This said, a poignant look at and realistic representation of the southernmost point of this coastal area, Piombino and surroundings, is found in a contemporary work of literary fiction: Silvia Avallone's acclaimed first novel *Acciaio* (2010).⁸ This novel problematizes the initial, idyllic picture I painted above, and simultaneously raises both local and wider, global environmental concerns.

³ I use the term "progressive" also to emphasize how Tuscany's environmental efforts and policies are presented by the media (rightly so, in many cases) as particularly advanced, if compared to those of other, euphemistically speaking, "historically less environmentally engaged" Italian regions (i.e. Campania). For example, in 2013, the international "Programma Bandiera Blu" [Blue Flag Program] (<http://www.bandierablu.org/common/index.asp>) which assigns a sought after eco-label to coastal localities that promote a sustainable management of the environment, listed and rewarded with a "blue flag" the following locations in the area: Livorno (Antignano and Quercianella); Rosignano Marittimo (Castiglioncello and Vada); Bibbona (Marina di Bibbona); Castagneto Carducci; Cecina; Piombino (Parco naturale della Sterpaia); San Vincenzo. This, of course, does not mean that the situation in Tuscany is ideal.

⁴ Interestingly, Carducci in his poem "In riva al mare"—without any clear environmental concern in mind—already mentions the Tyrrhenian Sea's "suicide schiume" [dirty foaming waters], and its "immonde prede" [unclean prey] hunted by a "cetaceo" [cetacean].

⁵ See Barbaro and Maltagliati, <http://www.arpat.toscana.it/documentazione/report/indagine-sociale-sulle-maleodoranze-intorno-all2019area-picchianti-livorno-analisi-delle-schede-di-rilevazione>.

More information may be found on the site of ARPAT (Agenzia regionale per la protezione ambientale della Toscana) <http://www.arpat.toscana.it/>.

⁶ A recent book such as K. Bertrams, N. Coupain and E. Homburg's *Solvay: History of a Multinational Family Firm* provides the reader with everything one may wish to possibly know about Solvay, its praiseworthy initiatives and innovative corporate policies, with the exception of any hint of the "history" of the effects that this "family firm" has had for the past one hundred and fifty years (and continues to have) on the environment (on Rosignano Solvay and its nearby coastal areas as well).

⁷ As I am writing this paper (Spring 2014), the Lucchini steel-plant in Piombino is (still) in trouble. Its workers are organizing strikes to protest against the potential sale of the factory to an Indian investment group.

⁸ Silvia Avallone was born in Biella in 1984. After graduating with a degree in Philosophy at the University of Bologna, she collaborated with *Il Corriere della Sera* and *Vanity Fair*. Her poetry and short fiction appeared in *Granta* and *Nuovi Argomenti*. As noted, the English translation of *Acciaio* came out in 2012 with a title, *Swimming to Elba*, which would seem to target Anglo-American readers of Frances Mayes' "Bella Tuscany" book series (if so, these readers may not find exactly what they expected). A cinematic adaptation with the same title as the novel, *Acciaio*, directed by Stefano Mordini, was premiered in 2012.

Set in 2001, *Acciaio*'s main plot line tells the story of the struggling friendship, complicated existence, dreams, and coming of age of Anna and Francesca, two teenage girls who live in a working class neighborhood in the industrial quarter of Piombino. Most of their relatives and friends work in the nearby Lucchini steel plant. At the same time, as its title suggests, the novel also deals with the close relationship and reciprocal interferences between human beings (their own bodies and selves) and nonhuman matter, be it inorganic, like the iron ore and the machines the workers use to produce steel, the combination of concrete, asbestos and rust with which their tenement houses are built, or organic, like the animals, plants, algae and shells the girls find on their secret beach near the plant. This relationship and interference is both literal and symbolic. For instance, human beings may assume "thing-like" qualities, like Francesca's father, who is significantly called a "Whatsisname" ("coso") after losing his finger, and objects, which may in turn display uncanny anthropomorphic and vital qualities, like the fused metal which is subtly assimilated into the flow of blood (16), or the blast furnace "A-Fo 4" that is described as a "vast burgeoning organism" that "digests, ruminates, and belches out" twenty-four hours a day (16).

By building on some of the theoretical postulates and methodological insights provided by ecocriticism's recent "material turn," that is, by focusing on the novel's representations of the encounters between people and things, of a space in which the human protagonists are intimately entangled with nonhuman entities and, in short, of a situation in which bodies, machines, substances and landscapes are interlaced and collectively share agency, the aim of this essay is to suggest that Avallone's novel not only presents an alternative vision of (at least a section of) Tuscany's famed "Etruscan Coast," but also illustrates the "complexity of levels, at once ecological, political . . . artistic, cultural, that craft the life of this place" (Iovino, "Bodies of Naples" 98). I would like to argue that this text, by drawing attention to the mutual connections between organisms, ecosystems, and objects, and between the biological, social, and technological spheres, may go far beyond the main story of Anna, Francesca, the industrial area of Piombino and the Lucchini factory. Taking this fictional, "unusual," but also very real Tuscan territory as an example, Avallone's novel provides a template with which to better understand similar, ongoing dynamics in many other coastal, rural, or urban "Piombinos," be they nearby in Tuscany (the Solvay soda-ash plant in Rosignano comes again to mind), elsewhere in Italy, or anywhere around the globe.

While it would be impossible (not to mention redundant) in this context to provide an exhaustive summary either of the philosophical genealogy or of the growing theories and scholarship on "new materialisms" that, in recent years, have contributed to, and greatly expanded the range of environmental studies "beyond nature", let me at least sketch the underlying ideas and (more ecological) implications of this turn to materiality that are especially relevant to my discussion of *Acciaio*.

To limit the discussion to some of the scholars quoted so far (whose work I consider particularly inspiring for my discussion), I will just point out that part of my title, "A Life of Metal," hints at the homonymous chapter in Jane Bennett's *Vibrant Matter: A Political Ecology of Things*. The major claim of her book, which expands on a

materialist tradition that follows the line "Democritus-Epicurus-Spinoza-Diderot-Deleuze more than Hegel-Mark-Adorno" (xiii), is that there is an active vitality intrinsic to matter, that to separate what is "inert" from what is "vital" is more difficult than one thinks, and that the agencies of nonhuman materials and forces ("operating in nature, in the human body, and in human artifacts," xvi) need to be considered to ultimately "counter the narcissism of humans in charge of the world" (xvi). The section of her book titled "A Life of Metal," in particular, following insights by Deleuze and Guattari, convincingly questions a traditional "association of metal with passivity or a dead thingness" and observes that "it is metal that best reveals this quivering effervescence; it is metal, bursting with a life, that gives rise to 'the prodigious idea of Nonorganic Life'" (55). As the earlier quotes from the novel already suggest, this kind of observation seems to resonate quite well with some of the dynamics and situations described in *Acciaio*.

Bennett's positions on material agency and her ideas on a posthuman inseparability of human and nonhuman entities, themselves "'emergences' whose existence and meanings are strictly connected to the discursive dimensions with which they are entangled" (Iovino, "Steps" 135) are shared by a number of other scholars who (to simplify) generally agree in viewing the world as a place in which everything is intermeshed and interferes with everything else, and where, by extension, the primacy and centrality traditionally assigned to human beings and their discourse at the expense of other forms of life and/or "things" (i.e. the anthropo-logo-centric perspective) is radically questioned.

Thus, for example, when Andrew Pickering states that we all live in the "mangle of practice" and that "everyday life has this character of coping with material agency, agency that comes at us from outside the human realm and that cannot be reduced to anything within that realm," (6) he wishes to surpass the dichotomies society/nature, nature/culture and human/nonhuman. Similarly, and despite her different disciplinary angle and emphasis, when Stacy Alaimo introduces the notion of "trans-corporeality" to indicate "the extent to which the corporeal substance of the human is ultimately inseparable from 'the environment' . . . the flow of substances . . . between people, places and economic/political systems" (2-9), and views the self as "a process of interacting agencies rather than a fixed, immobile and self-referential identity" (qtd. in Iovino, "Steps" 138), she shares an interest in moving beyond traditional juxtapositions of matter, agency and meaning.

The work of additional scholars (from Bruno Latour and Gregory Bateson to Karen Barad and Rosi Braidotti) could certainly provide a more nuanced and detailed picture of the ramifications and consequences that this material turn has for ecocriticism. I would just like to emphasize two points for my limited purposes. First, that one of the main objectives of this interdisciplinary encounter is to re-think "the borders of the human," and develop "a more inclusive vision of the earthly dynamics" (Iovino, "Steps" 144). And, secondly, that within such a vision "there is . . . a mutual

porosity, an intra-action, between individuals and their landscapes" (Iovino, "Bodies of Naples" 105).⁹

From the material ecocritical perspective delineated above, *Acciaio*'s significance seems thus to rest in its representation of various transformations of human and nonhuman bodies (be they those of the girls, the animals, the industrial products, or the land itself), on that of the interactions between these bodies and their environment, and on the mutual transformation of narrative, landscape and nonhuman subjects. While depicting an intimate connection between organisms, ecosystems and humanly made substances, the novel ultimately also dramatizes the risky and potentially hazardous consequences that such a connection may entail. That is, it illustrates how difficult, if not impossible, it is to isolate the health or illness of geographic spaces from the health or illness of existential spaces. As the narrator asks: "What does it mean to grow up in a complex of four big tenements shedding sections of balconies parts and chunks of asbestos into a courtyard where little kids play alongside older kids dealing drugs and old people who reek of decay?" (24).¹⁰

Avallone's novel seems to hint right from (and especially at) its inception at this intersection between the biological and the social, at the mingling of bodies and world, at the "porous dimension in which bodies are absorbed by the world, and the world... is absorbed by bodies" (Iovino, "Bodies of Naples" 107). The narration significantly opens with the image of Francesca's attractive and sexually maturing body observed by her dull father (Enrico) from a distance (the balcony of his tenement apartment), as, together with her best friend Anna, it moves on, and interacts with, Piombino's Beach of Via Stalingrado. There is no question that, despite its "fatherly" provenance, this still is a quintessential male gaze which, following an ancient and well-known trope, dissects and fragments her figure in detail, unavoidably objectifying her:

Within the round blur of the lens, the body, headless, shifted slightly. A backlit wedge of flesh pulled into focus... Muscles flexing just above the knee, the arc of the calf... a gleaming blond head of hair... And the dimples on the cheeks, and the hollow between the shoulder blades, and the indentation of the belly button, and all the rest. (Avallone 3)¹¹

Here, however, I wish to leave the rightful impulse to analyze this passage from a gender and/or feminist perspective to someone else and, instead, merely stress the literal meaning of the word "object," that is, the "thingness" of Francesca, her being immediately introduced as belonging to an apparently transitional ontological status, between whole and part, human and thing ("headless"). Shifting attention to the beach where she is frolicking, one may then observe that this is a place where, as expressions

⁹ "Material ecocriticism relates therefore to landscapes as material narratives of a society's physical and cultural transformations" (Iovino, "Material" 61).

¹⁰ "Cosa significa crescere in un complesso di quattro casermoni, da cui piovono pezzi di balcone e di amianto, in un cortile dove i bambini giocano accanto a ragazzi che spacciano e vecchie che puzzano?" (32).

¹¹ "Nel cerchio sfocato della lente la figura si muoveva appena, senza testa. Uno spicchio di pelle zoomata in controtuce... i muscoli tesi sopra il ginocchio, la curva del polpaccio... una splendida chioma bionda... E le fossette sulle guance, e la fossa tra le scapole, e quella dell'ombelico, e tutto il resto" (9).

such as "an ankle dusted with sand"; "[she]plunged into the water"; "the expanse of flesh pebbled with salt" indicate (3, 4),¹² the sand, salt and water stick to, and "mangle" with her, but also where, at the same time and in a parallel dynamics, "the sand was mixed with rust and garbage; sewer pipes ran down the middle; and no one went there but criminals and the poor folk from the public housing" (4).¹³ Despite the fact that access to this beach seems to be, with an ironical twist, limited by one's (low)socio-economic and (affirmative) penal status, all the substances at play cannot but actually intermingle, disregarding any real or constructed differences and hierarchies, any distinction between high or low. Thus, the sand becomes a part of Francesca's attractive young body and, at the same time, actively mixes with the rust, the trash and the industrial waste.

This condition of material porosity may immediately raise some questions: first, what may the direct or indirect consequences of this situation be? Second, who could tell with absolute certainty that the sand (or any other human/nonhuman matter) coming from this degraded beach will not one day move around and risk contaminating with its disturbing, or potentially poisonous presence also the nearby, shimmering "white beaches on the Isle of Elba... an unattainable paradise. The inviolate domain of the Milanese, the Germans, the silky-skinned tourists in black SUVs and sunglasses" (10)?¹⁴ And, finally, who, and/or what, will be eventually *Swimming to Elba*, to refer to the market-smart title translation of *Acciaio* in English? Of course, the novel will eventually provide its answers to at least some of these queries, but from these initial pages it may already be possible to suggest that the scenario Avallone is depicting is one where there cannot be pure, clear-cut distinctions and solid boundaries between different bodies, or between inside and outside, where substances, be they organic or inorganic, natural or artificial, mix together and, in short, where human beings are always entangled, with both other subjects and other objects.

The narrative provides another, literal instance of the mutuality between the human and the nonhuman by reminding us that the large size and growth of Enrico's own body has been determined by external circumstances and materials: "from childhood, he'd sculpted his muscles by hoeing and digging the earth. He had become a giant in the tomato fields, and, later, shoveling coking coal" (5),¹⁵ before the following chapter takes us inside the perimeter of the Lucchini factory. In these artfully crafted pages, one finds even clearer kinds of corporeal and material entanglements. The opening scene in the factory chapter is of a fistfight between Alessio (Anna's brother) and another, younger factory worker guilty of having verbally disrespected Anna. It informs us right away not only of the inherent violence, energy and power this place cultivates and projects, but also that it is one where distinctions between human and

¹² "La caviglia sporca di sabbia," "si iniettava dentro un'onda," "pelle intarsiata di sale" (9, 10).

¹³ "La sabbia si mescolava alla ruggine e alle immondizie, in mezzo ci passavano gli scarichi, e ci andavano soltanto i delinquenti e i poveri cristi delle case popolari" (9, 10).

¹⁴ "Spiagge bianche dell'isola d'Elba... un paradiso impossibile. Il regno illibato dei milanesi, dei tedeschi, i turisti satinati in Cayenne nero e occhiali da sole" (17).

¹⁵ "Fin da bambino si era scolpito i muscoli a forza di zappare la terra. Si era fatto un gigante nei campi di pomodori, e poi spalando carbon coke" (11).

nonhuman, inert and living matter are particularly hard to make. Thus, in the same way in which inorganic substances, like the iron filings smearing the face and being swallowed by Alessio during his fight ("his whole face, filthy with pig iron... He had to swallow a huge gob of spit and iron filings to keep calm" 14-15)¹⁶ define and become an integral part of the human subject, organic matter is processed by the body of the plant, and ends up taking part in the creation of its final product.

Bennett's expression of "material vitality" (or "vital materiality" 60), indicating "the elusive idea of a materiality that is *itself* heterogeneous, itself a differential of intensities, itself *a life*" (57), seems especially fitting in the context of the industrial factory plant and its various theriomorphic components, unfailingly described by Avallone as being an extended (or, to be precise, "burgeoning") animated organism. A word like "secretion", more commonly associated with the physiological sphere, is used to depict the multiple, hybrid agencies involved in the production and coming into existence (or "birth") of steel: "Steel does not exist in nature, it is not an elementary substance. It's a secretion of thousands of human hands, electric meters, mechanical arms and every so often the skin of a cat that's tumbled into the molten alloy" (Avallone 14).¹⁷ Metal—continues Bennett—"is always metallurgical, always an alloy of the endeavors of many bodies, always something worked on by geological, biological, and often human agencies" (60). Multiple agencies and the secretion of "many bodies" are certainly involved here, to a point where both human and mechanical arms, electricity and even some occasional cat fur become the necessary ingredients to be mixed in and, in turn, swallowed up by the "ladles" where the melting takes place (15). Such an enormous container is just the first, surreal inhabitant of this fantastic, trans-corporeal ecosystem:

It's an entire zoo in here: pig iron everywhere, cranes of every species and variety. Rusted animals with horned heads... The dense black sludge of molten metal was bubbling in the crucibles, potbellied swiveling barrels running along on the mill trains. Giant tanks on wheels that looked like primordial creatures... Metal was everywhere, in the process of birth. Unceasing cascades of steel and glistening cast iron and viscous light. Torrents, rapids, estuaries of molten metal coursing through the flow lines, into the ampules of the ladles and pouring out into the tundishes to drain into the molds for furnaces and trains... Raw materials were being transformed at every hour of the day and night... You could feel the blood rushing through your arteries at a fantastic velocity in there, and from the arteries to the capillaries, while your muscles built up in tiny fractures: You were regressing to the animal state. Alessio was small and alive in this vast burgeoning organism. (15-16)¹⁸

¹⁶ "Il viso sporco di ghisa . . . dovette ingoiare un bolo grosso così di saliva e limatura di ferro" (21-2).

¹⁷ "L'acciaio non esiste in natura, non è una sostanza elementare. La secrezione di migliaia di braccia umane, contatori elettrici, bracci meccanici, e a volte la pelliccia di un gatto che ci finisce dentro" (21).

¹⁸ "Un intero zoo: nel cielo sveltavano torri merlate, gru di ogni genere e specie. Animali arrugginiti dalle teste cornute... La melma densa e nera del metallo fuso ribolliva nelle siviere, barili panciuti trasportati dai treni siluro. Cisterne munite di ruote che assomigliavano a creature primordiali... Il metallo era ovunque, allo stato nascente. Ininterrotte cascate di acciaio e ghisa lucente e luce vischiosa. Torrenti, rapide, estuari di metallo fuso lungo gli argini delle colate e nelle ampolle dei barili... A ogni ora del giorno e della notte la materia veniva trasformata... Ti sentivi il sangue circolare a ritmo pazzesco, là in mezzo, dalle arterie ai capillari, e i muscoli aumentare in piccole fratture: retrocedevi allo stato animale. Alessio era piccolo e vivo in questo smisurato organismo (22-3).

The various references to, on the one hand, animals, streams, rapids and estuaries and, on the other, human arteries, capillaries and muscles make evident Avallone's wish to rhetorically correlate different bodies that are traditionally considered separate and, in turn, to analogically assimilate the artificial landscape of technology and the processes of industrial production to natural and physiological phenomena. In fact, the awe-inspiring energy, excitement and dangerous beauty that characterize this place evoke the aesthetic notion of the "technological sublime," perhaps in a peculiar postmodern (and posthuman) "hybrid" manifestation.¹⁹ In other words, a manifestation where nature or, better yet, the language of nature, has not been completely displaced by (that of) the machine, but is still reappearing, and exploited to convey a particularly striking experience. At the same time, however, Timothy Morton's reminder that "Nature as such appears when we lose it, and it's known as a loss" (133), may quickly make us realize that this resurfacing and discursive presence of nature is nothing but a spectral trace, a linguistic remnant and, as such, also the sign of an actual loss, an absence. And among the ramifications of this uncertain situation seem not only to be that one cannot again be sure of the location of borders, of the meaning of nature, but also, albeit tangentially, that "it is impossible to separate matters of social and environmental concern from discursive ones" (Iovino and Oppermann 463).²⁰

"Where does the body end and 'nonhuman nature' begin?" Stacy Alaimo asks in her *Bodily Natures* (11). The passage from *Acciaio* quoted above provides a potential answer to her question by implying that technology, animality, landscape and humanity are all intermeshed. This particular human being, Alessio, like every other thing, is just a part of this more-than-human, immense organism. His substance is "inseparable from the environment" (Alaimo 2), and his life and vitality are literally dependent on (and even "enhanced" by) those of the steel plant which, in turn, depends on him to function properly.²¹

Various instances of the "vibrancy" of matter and its transformations, of its "various degrees of agentic capacity" (Iovino and Oppermann 461) seem thus to surface in these pages: "[Alessio] shot a quick glance at the blonde on the *Maxim* calendar. Constant yearning for sex, in the mill. The reaction of the human body inside the titanic body of industry: It's not a factory but material changing form" (16).²² If taken literally, these lines not only suggest, along with Bennett, that a factory and a human being are

¹⁹ On the technological sublime, see Slack and Wise. The authors observe how the machine has supplanted nature with "almost religious like reverence" (18).

²⁰ "Apparently, the very dynamics of environmental degradation lie not only in our social and economic practices and imperialist attitudes to nature, but in the structures of the discursive formations that have led to such destructive mechanisms in the first place" (Iovino and Oppermann 464). In this light, the comparison the novel makes between a cascade of melted steel and one of water could contribute to conveying the former's apparent naturalness and, therefore, diminish (or eliminate) the potential environmental concerns associated with it.

²¹ "Everyone knows, everyone takes it for granted that inside the Lucchini plant, deep down in the bowels of the place, the flesh of human legs, arms, and heads is stirring" (73) ["Uno lo sa, lo dà per scontato, che dentro la Lucchini, nelle viscere, si muove la carne di gambe, braccia, teste umane" (86)].

²² "Diede un'occhiata alla bionda del calendario Maxim. Perenne desiderio di scopare, là dentro. La reazione del corpo umano nel corpo titanico dell'industria: che non è una fabbrica, ma la materia che cambia forma." (23)

both bodies constituted by and manifesting merely different shapes and degrees of material animation, but also that it is through their respective agencies, their mutual intercourse, that a final production (be it industrial/inorganic, like steel, or biological/organic, like an actual "secretion") may be completed.²³ Significantly, although Alessio is aroused by looking at the image of a human (though virtual) pin-up blonde on a calendar (one of many hanging around the factory), the text seems to subtly suggest that the monstrous, nonhuman body of the plant blast furnace is the real (additional and/or involuntary) target of his physiological reaction since he is, after all, responsible for "inseminating" it so that it can deliver its final product: "The artificial insemination took place in a test tube as tall as a skyscraper, the rust-flaked urn of A-Fo 4—AltoForno4, or BlastFurnace4—that has hundreds of arms and bellies and three horns in place of ahead" (16).²⁴

In other words, the textual closeness between, on the one hand, Alessio's "wish to fuck," and, on the other, the action of "artificial insemination" that sparks the creation of steel, can hardly be random. Not surprisingly, both A-Fo 4's (plus the rest of the machinery's) animal-like features and animated, "biological" behaviors, and Alessio's mixed, hybrid corporeality, are further underlined in the following paragraphs, together with a clear hint at the hazardous byproducts and catastrophic effects created by such an erotic human-machine intercourse:

He could feel the pressure of it at the nape of his neck, the black tower of the A-Fo 4, a giant spider that digests, ruminates, and belches out... Bluish fluorescences, toxic clouds in volumes sufficient to poison not only the Val di Cornia, but all of Tuscany... tons of metal whirling like birds, yellow clouds of carbon smoke, black at the mouths of the smokestacks. It's called continuous integrated steel production. As Alessio walked he crushed nettles and chunks of refractory brick underfoot. Metal saturated the ground and his skin... the elementary motion of machinery that is no different from life. (16-17)²⁵

What may first capture one's attention in this literal and metaphorical scenario of contamination is not only the intimacy of Alessio's and A-Fo 4's different, and yet physically proximate bodies, the indication of the various and ubiquitous embodiments of metal (and other materials) or, finally, the explicit analogy and direct attribution of life to the technological object. At another level, these lines potentially evoke also a

²³ Regarding "secretions," the fact that, later on, the narrator will refer to the plant as "steel jungle", and to "the incessant screeching, roaring, the ejaculations of the mill" (291) ["La giungla d'acciaio, lo stridore continuo, ruggiti, eiaculazioni di impianti" (337)] seems again particularly revealing of a confusion between technology and biology. Mario Perniola's observations in his study, *The Sex Appeal of the Inorganic* may also come to mind here.

²⁴ "La fecondazione assistita avveniva in un'ampolla alta come un grattacielo, l'urna rugginosa di Afo 4 che ha centinaia di braccia e pance, e un tricornio al posto della testa" (23).

²⁵ "Se la sentiva premere sulla nuca, la torre nera di Afo 4, il gigantesco ragno che digerisce, rimescola erutta... Fluorescenze azzurognole, nubi tossiche in quantità sufficiente ad ammorbare non solo la Val di Cornia, ma la Toscana intera... tonnellate di metallo vorticavano come uccelli, nuvole gialle di carbonio, nere dalle bocche delle ciminiere. Si chiama ciclo continuo integrale. Alessio calpestava ortiche e mattoni refrattari. Il metallo saturava il terreno e la sua pelle... il movimento elementare della macchina che è uguale alla vita" (24-5).

"monstrous/toxic birth"²⁶ and, in turn, what Rosi Braidotti has "coded as *zoe*... the non-human, vital [generative] force of Life... the transversal force that cuts across and reconnects previously segregated species, categories and domains" (60) that implies an expanded (i.e. post-anthropocentric) notion of the relational self and, at the same time, also alludes to *Thanatos*, *zoe*'s complementary "other side," the "death-bound or necropolitical face of post-anthropocentrism" (118).²⁷

Alessio's encounters with organic and inorganic corpses including "the rotting corpse of a rat," "the posthumous carcasses of the three blast furnaces that hadn't yet been dismantled," followed by his view of the local population of resident cats "all of them mangy and sick, all of them calico, with black and white patches, from the relentless inbreeding," as he walks through the plant site towards its exit "where the canebrakes, the marshes, begin, and you could breathe a sigh of relief" (18)²⁸ may thus suggest again a context of extended, transversal vulnerability, since a rat, the blast furnaces, a cat and, eventually, Alessio himself are all perishable objects. Just like life, death, destruction and illness are not the prerogative of just one thing. As Braidotti observes, "the body [any body] doubles up as the potential corpse it has always been" (119).

In the advanced capitalist dynamics which the surviving Lucchini plant still embodies, one where "the West was reproducing the world and exporting it" (18),²⁹ vitality and decay, beginning and end coexist, and affect multiple corporealities. The apocalyptic landscape described in the novel, one where "Some sectors of the plant were dying; smokestacks and industrial sheds were being demolished with dynamite," while, at the same time, "millworkers had their fun, riding the power shovels like bucking bulls, their transistor radios blaring out at full volume, an amphetamine tablet dissolving under their tongues" (18),³⁰ seems to perfectly capture the sort of complex dynamics and encompassing proximity between inorganic death and organic life (and vice-versa). Alessio's own absurd death at the end of the novel, in turn, further reminds us of the entanglements and environmental inter-connections addressed so far. On the one hand,

²⁶ David del Principe's "eco-gothic" approach, also connected with questions of industrialization, comes to mind in this instance.

²⁷ Braidotti writes that "Life as *zoe* also encompasses what we call 'death'" (134). The objective of her "posthuman affirmative ethics" is to stress the positive, "productive aspect of the life-death continuum" and, "the politics of life itself as a relentlessly generative force including and going beyond death" (121). That is, from her posthuman, vitalist brand of materialism, "the emphasis on the impersonality of life is echoed by an analogous reflection on death," and the latter "could not be further removed from the notion of death as the inanimate and indifferent state of matter, the entropic state to which the body is supposed to 'return'" (131-137). It should be clarified that I am quoting Braidotti especially to underline that death (like life) "is not a human prerogative," and the proximity of human and nonhuman entities, but that, at least in the context of this novel, I am not able to individuate any of its "productive aspect[s]." I tend to see more the negative, lethal effects of industrialized modernity on multiple subjects/objects.

²⁸ "Il cadavere putrefatto di un topo," "le carcasse postume dei tre altoforni non ancora smantellati," "tutti malati, tutti bianchi e neri a forza di incrociarsi sempre tra loro," "cominciavano i canneti, le paludi e tu potevi tirare un sospiro di sollievo" (24/26).

²⁹ "L'Occidente . . . riproduce il mondo e lo esporta" (25).

³⁰ "Alcuni rami della fabbrica morivano, ciminiere e capannoni venivano fatti saltare con il tritolo," "gli operai... si divertivano a cavalcare gli escavatori come tori, con le radioline portatili a palla e una pasticca di anfetamina sciolta sotto la lingua" (25).

in fact, like a dismantled blast furnace he represents a human "posthumous carcass" (recalling one of Braidotti's "potential corpse[s]"), a disposable "sector of the plant," and on the other, as his own corporeality vanishes, he ultimately becomes indistinguishable from, and merged with, the posthuman body of the plant: "Alessio had . . . stopped being a human body. . . had become a puddle of blood, spreading between the scattered steel rods, a blinding pool. *Not Alessio. A cat.*" (341)³¹

The novel's initial chapters are not the only sections that could benefit from a material ecocritical analysis. References to the dangerously attractive vibrancy of matter, and to the corporeal interchanges between "human bodies, non-human creatures, ecological systems, chemical agents, and other actors" (Alaimo 2) recur in additional, significant moments in the narration. When, for example, Anna and Francesca hop on the scooters of their young suitors and ride to an abandoned, secluded area within the Lucchini plant, another "dead branch of the factory [that] had been reduced to a carcass of rusted metal... industrial cemetery" (53),³² one immediately notes the juxtaposition between the burning desire and sexual vitality of the adolescents and the lifeless, scorching condition of the place. However, it does not take long to realize that the terms of such a juxtaposition can also be reversed, since multiple, active substances coming from the plant are entering and vitally affecting everyone's body, implicitly turning the four friends into additional, endangered appendices of this hellish ecosystem:

You could feel the light coating of coal dust filtering into your lungs, sticking to your body, blackening your skin... The body was pounding hard along with the metals in the furnaces. Rebar, slabs, billets: along with the heart, the arteries, the aorta... The incessant, raucous, lament of the steel mills – you could feel it vibrating deep in your bones... Lead and the heavy scent of iron burned the lungs and the nostrils... you could feel yourself liquefying. (52-53)³³

Once again, human and nonhuman matters intermesh in this environment up to a point in which substance-saturated human bodies, just like the metals involved in the production of steel, may literally liquefy. At that time, words like "dead" and "burning" could ideally describe both a few pieces of anthropomorphized broken machinery ("an excavator with a twisted arm and an upside-down bucket. Dead and seething with heat." 53) or, from a posthumous perspective, also those young, human bodies. Not surprisingly, Enrico's own body following his job-related accident, with his fractured ribs, vertebrae and shattered hand is not only broken (just like the "excavator") and literally transformed into a useless thing ("Then he wasn't even a first and last name anymore. Whatsisname, he'd become" 248), but his amputated finger also directly

³¹ "Carcassa postuma," "ramo della fabbrica," "Alessio aveva... cessato di essere un corpo, ed era diventato... una pozza di sangue allargata tra i tondi, una polla abbacinante. Non Alessio. Un gatto" (341).

³² "Ramo morto della fabbrica [che] si era ridotto a una carcassa di ruggine... [un] cimitero industriale." (64-65). This is an important scene in the novel because it reveals Francesca's attraction and queer desire for Anna.

³³ "Lo spolverino prodotto dal carbone te lo sentivi entrare nei polmoni appiccicarsi addosso, annerire la pelle... il corpo batteva forte insieme ai metalli nei forni. Le barre, i blumi, le billette: insieme al cuore, le arterie, l'aorta... Il lamento rauco, perenne delle acciaierie, te lo sentivi vibrare nelle ossa... Il piombo, l'odore pesante del ferro bruciava i polmoni e le narici... ti sentivi liquefare" (64).

mirrors a parallel, physical loss in the industrial body of the plant: "The decline in the price of steel on the world market over the past two decades had forced the steelworks to dismantle A-Fo 1, A-Fo 2, and A-Fo 3. They were gone now. Like his finger. An enormous hole in the toxin-saturated earth" (248).³⁴ As Enrico's finger vanishes, anticipating by synecdoche both the disappearance of the blast furnaces and of Alessio, he thus becomes "A zero in the depressed system"(249) another discardable entity in this "inhuman," market-driven space of corporeal confusion and contamination.

After having focused my analysis on the pages of *Acciaio* dedicated to the representation of the Lucchini factory and the iteration of some mutual interactions between the steel plant and the novel's main characters, I wish to move towards the conclusion of this essay by making a few observations on the "canebrake," the girls' secret beach, which is the apparent natural other of the factory. I say apparent because, despite the obvious differences, there also is a certain similarity between these two crucial places in the narration, especially in terms of their both being sites where human and nonhuman elements coalesce, where equal importance is assigned to subjects and objects, and, finally, where the vitality (and, by extension, the mortality) of matter is made evident. Animals, animate and inanimate things, "human actors and their words" (Iovino and Opperman 469), waste products, debris and garbage, are all constitutive parts (also) of this ecosystem, and implicitly convey an essential continuity and mutuality between the industrial/technological and the supposedly natural. Thus, in the "canebrake" Francesca and Anna, significantly "emitting little, scarcely human bursts of giggles," (94) become just "a pair of excrescences on that murky landscape," (94) their sweat mixing with the sap from the vegetation, their soiled bodies merging with (and ontologically similar to) those of the insects, the algae, the shells, the cats, and all the other things, either alive or dead, that end up here:

Their damp hair, scented with shampoo, was gradually being impregnated with another odor: a mixture of sweat and sap. The downy growth on the surface of the plants caused their skin to itch. It felt as if they were walking through wool... The beach was piled high with seaweed... Fishermen came here to leave the broken hulks of boats to save money on dumping fees... Balls of neptune grass by the million, all tossed up by the sea right there. On the shore they broke down into a black mucilage, a muck that reeked of pee and fresh bread... They chewed the algae. They sank their faces into the damp and rough furs of the cats... That dead zone of the coastline was reduced to a primordial broth of things... a ladle, a ceramic tile. [Francesca] d hunker over her digging and shout if she unearthed anything human. (94-5-6)³⁵

³⁴ "Poi, non era più neanche un nome e cognome. *Coso*, era diventato," "La flessione dell'acciaio sul mercato, nel giro di due decenni, aveva costretto a smantellare Afo 1, 2, e 3. Non c'erano più. Come il suo dito. Un buco enorme nel terreno saturo di veleno... Uno zero nel sistema depresso" (288).

³⁵ "Sudore misto a linfa. La peluria delle piante pruriginava a contatto con la pelle. Sembrava di camminare nella lana... La spiaggia era un cumulo di alghe... I pescatori ci venivano a gettare le carcasse per non pagare la tassa dei rifiuti... Posidonie brune a milioni, riversate dal mare tutte lì. Sulla riva si sfibravano in una mucillagine nera, una poltiglia che sapeva di pipì e di pane... Masticavano le alghe. Affondavano il muso nelle pellicce umide e ruvide dei gatti... Quel punto morto della costa era ridotto a un brodo primordiale di cose... un mestolo, una piastrella di ceramica. [Francesca] Si chinava a scavare e gridava, se dissotterrava qualcosa di umano" (109-111).

The ironic contrast emerging in these lines between the lifeless condition of this coastal area (a "dead zone") and the fact that, at the same time, it also constitutes a "primordial broth" cannot be overlooked. Not only is this apparent necroregion³⁶ literally at odds with its definition as a "primordial broth," that is, the hot, carbon-based solution that is allegedly at the origin of organic life on Earth but, in turn, such a life-giving substance is paradoxically constituted by human made things and inorganic debris. In other words, these are objects which simultaneously suggest their condition as both "dead" and "alive," or as Bennett puts it, which "at one moment disclos[e] themselves as dead stuff and at the next as live presence: junk, then claimant; inert matter, then live wire" (5).³⁷

This condition seems to re-emerge also in a later, related passage. When, after her falling out with Francesca, Anna revisits the beach alone, and reminisces while gazing at the garbage deposited by the sea: "Empty gas canisters, used sanitary napkins, glass and plastic bottles... She walked by the cadavers of things. There were broken dishes and fruit juice cartons. There were plastic spoons and forks and shredded plastic plates. The rusty shower up there, and here a broken toy pail" (221), this sight deeply affects her. This vision of desolation and abandon stirs her memory, increases her awareness of the effects this place has on her ("Places cling to you. Places become extraneous to you", 222) and, most significantly, makes her realize that there are "The things that come back, the things that can never come back" (222),³⁸ implicitly associating Francesca (and their interrupted friendship) with one of those "moving" things.

Once again, therefore, Bennett's observations that "a vital materiality can never really be thrown 'away', for it continues its activities even as discarded or unwanted," and her affirmation that inanimate things have the "curious ability... to animate, to act, to produce effects dramatic and subtle" (6), would seem to aptly describe the kind of interactions between human and nonhuman entities mentioned above.

At this point, I should not need to stress either how Avallone's novel deeply understands the life and mind of this particular place; how it is informed by a marked sensibility to and awareness of the environmental, socio-economic, and political issues that characterize Piombino's industrial territory and its surroundings, or the extent to which the narration repeatedly alludes to the kind of coextensivity across bodies, and blurring between people, things and landscapes, which has been variously theorized by scholars of vital materialism and posthumanism. Therefore, I prefer to conclude by reflecting on a few of the larger ecological implications of this closeness and mutual

³⁶ I am borrowing the concept of "necroregion" from Serenella Iovino, to indicate an extension of space (such as the "canebrake" but also the whole area of the Lucchini factory) which shows evident signs of ecological and cultural abandonment.

³⁷ In the section "Thing-Power I: Debris," Bennett describes a (rather similar) encounter she had "On a sunny Tuesday morning... in the grate over the storm drain to the Chesapeake Bay," and writes: "Glove, pollen, rat, cap, stick... I caught a glimpse of an energetic vitality inside each of these things, things that I generally conceived as inert" (4-5).

³⁸ Cisterne vuote, assorbenti usati, bottiglie di plastica e di vetro... Passava accanto ai cadaveri delle cose. C'erano cocci e cartoni di succo di frutta. C'erano posate e piatti di plastica sventrati. Le docce arrugginite lassù, e qui un secchiello rotto" (258); "I luoghi ti impastano. I luoghi ti diventano estranei" (258); "Le cose che ritornano e le cose che non possono tornare." (258-259)

relationship between organic and inorganic substances. The first is that, as the novel depicts some of the dynamics specific to this localized industrial Tuscan landscape, it also implicitly evokes comparable, global capitalist practices of advanced industrial production and consumption, and their real effects on other human/nonhuman bodies. And the second is that, while doing so, it reminds us of literature's power to provide readers with knowledge, awareness and "the critical instruments necessary to develop their own 'strategy of survival' both environmentally and politically" (Iovino, "Naples 2008" 343).

Serenella Iovino writes that a story may initiate the practice of "restoring the imagination of place" only when is "open," that is, when it shows "awareness (about values and critical issues), projectuality (vision of the future), and empathy (as a mutually enhancing dialectic amid different subjects)" ("Restoring the Imagination" 107). Even though ecological questions may not be its most obvious or principal subject, *Acciaio* seems to be "open" in the way Iovino describes, and, as such, is also an example of what she calls "narrative reinhabitation," that is a narrative able to affect a taken-for-granted knowledge of the world (here, of a particular world), and with the ultimate potential to transform a (quasi) necroregion into an "evolutionary landscape" (112).

In its final pages, the novel hints at how such an evolution may look in Piombino's industrial area, by alluding to some of the changes the Lucchini plant will likely undergo: "People were already starting to talk about reclamation, about dismantling the steel mills. Converting the local economy, focusing on tourism, the service industry... Like the Colosseum, like the hulls of the fishing boats stranded on the sand, the blast furnace, too, in a decade or so, would become the property of the cats" (303).³⁹

We learned that the substances that constitute this place and those that make the humans who inhabit it are not that different: what happens to one may eventually happen to the other. It should not be surprising, therefore, that, in the end, Francesca, now described as "the most radiant of all the elements" (308),⁴⁰ travels together with her best friend Anna from Piombino to Elba, symbolically taking the place and reversing the trip of the iron ore that was once shipped from Elba's mines to Piombino's industries. If, on the (optimistic) one hand, this action could be a first step in the right direction towards such a (posthuman) form of restoration and reinhabitation, on the (less so) other, it cannot but recall and, in turn, further unsettle the idyllic view of the Etruscan coast I initially sketched. As the text re-imagines and re-draws the borders between these Arcadian and industrial spaces, it also reminds us that any landscape requires more complex and hybridized readings than those we are usually exposed to. The "blue flag" I mentioned at the beginning may now well show a hint of steel grey.

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³⁹ "Cominciavano già a parlare di bonifica, di smantellamento. Convertire l'economia locale, puntare al turismo e al terziario... Come il Colosseo, come gli scafi arenati sulla spiaggia, anche l'altoforno, nel giro di un decennio, se lo sarebbero preso i gatti" (351).

⁴⁰ "Era il più radiosio fra gli elementi" (358).

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