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Reclaiming Territory from Below

Grassroots Environmentalism and Waste Conflicts in Campania, Italy

SALVATORE PAOLO DE ROSA | FACULTY OF SOCIAL SCIENCES | LUND UNIVERSITY

Reclaiming Territory from Below

Salvatore Paolo De Rosa
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Reclaiming Territory from Below

Grassroots Environmentalism and Waste Conflicts in Campania, Italy

Salvatore Paolo De Rosa

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Title: Reclaming Territory from Below. Grassroots Environmentalism and Waste Conflicts in Campania, Italy

In the course of 2000s, the region of Campania in southern Italy and its capital city Naples became global icons of waste mismanagement after the images of piles of rubbish occluding their urban areas hit the headlines. Conventional explanations, in Italy and elsewhere, pointed to administrative failure, cultural backwardness and mafia infiltrations as the main causes of waste mishandling. In the same narratives, local people opposing the construction of landfills, incinerators and storage sites were labeled the root of the problem. However, what these explanations could not account for was the persistence, the breadth and the magnitude of social mobilizations around environmental concerns and their engagements with issues beyond the urban trash. With this thesis, I address this gap by unearthing the political, socioecological and cultural dynamics of grassroots environmentalism in Campania. My aim is twofold: one the one hand, to debunk hegemonic narratives of the waste 'crises', alongside certain framings of protests, through an analysis of the political economy and ecology of waste metabolisms and by investigating specific instances of popular environmentalism; on the other hand, to inquire the politics of society-nature relationships that emerges from grassroots environmental organizing so to work out conceptual contributions to political ecology based on a dialogue between activist and academic knowledges.

Rooted in previous activist engagement and on ten months of empirical research with the grassroots committees and the Stop Biocide Coalition of Campania, this thesis reconsiders the recent history of the region's urban and toxic waste 'crises' and investigates the emergence, the outcomes and the legacies of grassroots environmentalism from 2000 to 2015. Positioned across the fields of political ecology, anthropology and geography, the research traces the drivers, the historical depth, the spatial and ecological articulations, and the power relations embedded in the Campania's waste metabolisms. Next to clarifying the processes leading to waste occupation, the main contribution is an ethnography of social mobilizations.

By focusing on the knowledge generation and on the spatial interventions of the committees and the Coalition, the research explores the bottom-up defense, reimagination and reclamation of territory in the course of environmental conflicts, scrutinizing resistance strategies and meaning-making processes. The overarching question asks how the grassroots environmental movements experienced, contested and counteracted processes of waste accumulation and socio-environmental degradation. In particular, analytical attention is devoted to charting the emergence of alternative imaginaries and practices of socioecological relations with a transformative political scope. Accordingly, the four articles included in the thesis represent three empirically grounded theoretical interventions and one methodological reflection into the concerns of the research.

The findings suggest that socio-environmental conflicts such as Campania epitomize a crucial question of our times: the relations between the unequal distribution of power, the physical and cultural survival of social groups, and the maintenance of ecological conditions suitable for life. The grassroots environmental movements of Campania have developed strategies and notions to tackle these issues that I bring to academic scrutiny. By elaborating the concepts of commoning, ecological decolonization and competing territorialisations, I expand and complement the groundwork of activists, establishing links with emerging debates that interrogate the relevance of grassroots environmental mobilizations for projects of broader political emancipation.

Key words: grassroots movements, popular environmentalism, territory, waste management, environmental conflicts, organized crime, Southern Italy, political ecology, socioecological metabolism

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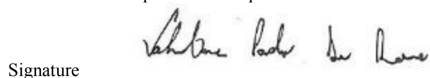

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Reclaiming Territory from Below

Grassroots Environmentalism and Waste Conflicts in Campania, Italy

Salvatore Paolo De Rosa

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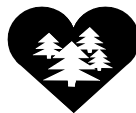

“The territorial question isn’t the same for us as it is for the State. For us it’s not about possessing *territory. Rather, it’s a matter of increasing the density of the communes, of circulation, and of solidarities to the point that the territory becomes unreadable, opaque to all authority. We don’t want to occupy the territory, we want to* be *the territory”*

Invisible Committee (The Coming Insurrection, 2009)

“Trash is gold”

Nunzio Perrella (camorra boss, 1994)

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This research would have been impossible without the availability of participants to grassroots environmental movements to share with me their time, knowledge, stories and experiences. Therefore, my gratitude goes primarily to the women and men of Campania mobilizing in the defence of health and territory. I learned from them much more than I will ever be able to give back, although I will keep trying.

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carried me and the endless love that nurtured me. There are no words that could express how much I love them.

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List of articles

Article 1:

Caggiano M. and De Rosa S. P. (2015) Social Economy as Antidote to Criminal Economy: How social cooperation is reclaiming commons in the context of Campania's environmental conflicts. *Partecipazione e Conflitto* 8(2): 530-554.

Article 2:

De Rosa S. P., Barca S. and Milanez F., Decolonial Ecologies. Necrocapitalism and territorial struggles in the Lower Tapajós (Brazil) and Campania (Italy) *(submitted to a peer-reviewed journal).*

Article 3:

De Rosa S. P., Competing Territorialisations: The spatialities of waste conflicts in Campania, Italy *(to be submitted to a peer-reviewed journal).*

Article 4:

Armiero M. and De Rosa S. P. (2017) Political Effluvia: Smells, revelations, and the politicization of daily experience in Naples, Italy. In Thorpe J., Rutherford S. and Sandberg L. A. (eds.) *Methodological Challenges in Nature-Culture and Environmental History Research*. London: Routledge, pp. 173-186.

List of abbreviations

CCF	Coordinamento Comitati Fuochi (Coordinator of Committees against Fires)
CSB	Coalizione Stop Biocidio (Stop Biocide Coalition)
CWE	Commissioner for the Waste Emergency in Campania
EJ	Environmental Justice
GEM	Grassroots Environmental Movement
NGO	Non-governmental Organization
NIMBY	Not In My Back Yard
PE	Political Ecology
RDF	Refused Derived Fuel
SIN	Sito d'Interesse Nazionale (Site of National Interest)
SOF	Stabilized Organic Fraction
UPE	Urban Political Ecology

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1. Introduction

In our world, reclaiming the environment you depend upon for your life can get you killed. In 2015, at least 185 grassroots environmental activists have been murdered across 16 countries, according to Global Witness (2016). An increase of 59% compared to 2014. Latin America is the region where most were killed. Among them, 40% were self-recognized Indigenous people. To begin to understand why this is happening, we could look at the penetration of mining and food businesses into remote areas rich in natural resources that until recently were considered uninteresting or out of reach. Or we could consider that the total throughput of materials and energy for the reproduction and maintenance of the global economy has increased relentlessly during the last two hundred years (Mayer and Haas 2016), and continues to grow. Both phenomena illustrate the intensifying pressure on socioecological systems exercised by capitalist economies. This is behind the rise in environmental conflicts and, ultimately, the killing of environmentalists. They are leaders and members of local communities that fight to keep their lifeworld viable, physically and symbolically, against contamination, destruction, dispossession and other forms of violence.

Ironically, a defining feature of our time is the challenge of keeping planet Earth habitable for present and future generations of living beings. There is near-unanimous consensus that the unfolding global environmental changes that are affecting the main life support systems are the result of the impacts of human activities (Gaffney and Steffen 2017; Steffen et al 2015). Specifically, they are the outcome of the expansion of fossil fuel powered industrial economies over the last two hundred years, that has caused an unprecedented increase in greenhouse gas concentrations linked to rising global temperatures and sea levels (Pachauri and Meyer 2014). This mounting and converging evidence has triggered the inauguration of a new geological era, the *Anthropocene* (Crutzen and Stoermer 2000). Attempts from political elites to advert or mitigate the ongoing ecological catastrophe through global commitments and partnerships continue to fail to address its root causes, and seem unable to act with the kind of urgency required to make adequate

changes needed to maintain life as we know it. The same relentless extraction, production and disposal of materials and energy driven by the capitalist imperative of accumulation for accumulation's sake, or the 'treadmill of production' (Gould et al 2015) that causes environmental conflicts and triggers the killing of environmentalists, is also threatening to make our planet inhabitable. Techno-managerial fixes like the 'greening' of the economy and the attempts at designing 'sustainable growth' seem insufficient or rather useless, especially when experienced from the sites where the environmental apocalypse is already hitting the most poor and disenfranchised (Swyngedouw 2013). The unequally distributed effects of detrimental anthropogenic changes to the Earth's ecosystem are hitting the most those least responsible for their inception (Matthew 2008). The same people who are fighting to defend life and who, more and more often, are criminalized, arrested, repressed and even killed for daring to do so.

Yet, it is precisely from some of the very places where the ecological contradictions of the current system are most felt, that resistance and alternatives continue to arise. From the frontiers of extraction to urban centres, in the Amazon forest and in the countryside of Europe and North America, the frontlines of socio-environmental conflicts are the sites where the confrontation between different rationalities and practices of nature are exposed most clearly. At the same time, these are also the places where bottom-up, transformative political strategies are being experimented. The multiplying cases of grassroots environmental mobilizations – in defence of cultural and ecological territories tied to particular lifestyles, and for the right of the inhabitants to make autonomous decisions about their environments – represent barriers erected at the socioecological friction points of the capitalist system. The reaction to potential or actualized detrimental socio-environmental changes by local groups who suffer their outcomes is often the first step towards the situated rethinking of economic, ecological and cultural dimensions of collective life. The alternative knowledges and practices of human-environment relations arising from the creativity and the groundwork of grassroots movements deserve serious attention, as they may provide novel political possibilities and paths for the emergence of more just and equal socioecological worlds. But how exactly do the resisting subjects of grassroots movements generate their knowledges and practices? And how do they progress from defending territories to building alternatives? How does an ordinary person become an activist, and how do groups of activists build broad coalitions moving from local mobilizations? What are the outcomes and legacies of grassroots environmental movements?

This thesis considers these questions in relation to waste and contamination. It investigates the long-standing socio-environmental conflicts around urban and hazardous waste (mis)management and disposal in the region of Campania in southern Italy, focusing on the grassroots movements that have emerged therein in defence of health and territory. This region has been traversed in the last twenty years by recurrent waste 'crises': stall of the waste management system, flooding of garbage into the spaces of social life and cities buried under their own scraps. What may seem an eco-social catastrophe of huge proportions reveals at a closer scrutiny the convergence of disparate interests around the handling of waste. A waste to bury, to incinerate, to move, to process, to store, to burn; all actions that drive money somewhere and contaminants somewhere else. Against this state of affair, grassroots environmental movements have been the 'grain of sand in the machine', as an activist told me. They did not accept to be the recipient of waste of various sort and to witness their lands being turned into a trashcan. Instead, they rebelled, and the progression of their resistance produced one of the most interesting and long-standing experiences of popular environmentalism in Italy in recent years. This is the topic of the thesis you are reading.

Italy is formally a democratic country. However, this does not prevent millions of its inhabitants from living within degraded and contaminated environments and being excluded from decision-making around projects with relevant impacts on territorial and socio-environmental relations. These processes of 'letting die'[1] and exclusion work through the de-politicization of environmental issues and by disqualifying protesters from the realm of the political. In reaction to such processes, the country is witnessing an upsurge in popular environmentalism that is increasingly networked and pro-active. Grassroots, or popular, environmentalism is conceived here as a form of bottom-up organizing of people with and without previous political experience that react to potential or actualized detrimental socio-environmental changes experienced in the everyday life – what Loftus calls 'metabolic fractures' (2012). Popular environmental mobilizations emerge from pre-existing civil society institutions and create new ones to challenge

[1] I borrow this concept from Tania Murray Li, who utilizes it to speak about populations rendered surplus in relation to labour markets in Asia, people to which the biopolitical instance of 'make live' of contemporary forms of government does not apply (Li 2010). Here, it stands for the relative inaction by State institutions towards situations of environmental degradation and risk disseminated in the country. For a mobilization of this concept to analyse a case of environmental management in Sicily, see Bellinvia 2016

what is often an undemocratic management of environmental governance. In the case of Campania, the imposed normalization of living amongst trash has been disrupted by the politicization and reconceptualization of the processes that drive waste movements and management, interpreted from the positionality of those suffering their burden.

My contention is that popular environmental struggles in Campania have had a fundamental role in counteracting the exploitation of socioecological territories while bringing forward instances of progressive political, cultural and socioecological change. My overall theoretical outlook is grounded in political ecology (hereafter, PE), in particular on an integration of insights and contributions from Urban Political Ecology, Environmental Justice and Latin American Political Ecology. These theories helped me to elaborate the conceptual toolbox for the analysis as well as outline the theoretical landscape in which the findings on this specific case contribute to broader debates on popular environmentalism and socioecological struggles. Research for this thesis has developed along two main lines of inquiry. On the one hand, in order to clarify the roots and the terms of the conflict, I unpacked the dynamics of waste management and disposal processes entangled with strategies of capital accumulation and the resulting socio-environmental degradation of portions of Campania. On the other hand, and as a central concern, I explored activists' narratives and practices throughout the recent history of grassroots environmentalism against waste occupation from the point of view of the movements themselves. The result is an examination of the ways in which grassroots knowledges are generated and of the strategies through which networks of activists and local inhabitants attempt to increase control over their environments. Moving from the analysis of the rich empirical material I collected on the Campania case, I elaborate concepts and strategies that help us better understand the dynamics of popular environmentalism, and that can inspire both activists and researchers in the task of reclaiming the possibility of a dignified life for all. I chose the word reclamation also to synthetize the project emerging from the engagement of Campania grassroots movements. A reclamation of territory, intended as *recovery*, *repossession* and even *redemption*, towards new futures arising from below rather than imposed from above.

This thesis is thus not concerned with finding a 'solution' to the Campania conflicts or other waste-related disputes, by calling for 'dialogue', by 'bridging clashing interests' or by devising a 'win-win' situation for all the actors. Given the current unequal distribution of power at local and global

scales, the historical legacies of subordination of specific social groups and geographical areas, and the pressing necessity of devising alternative configurations of socio-environmental relations that subvert the hegemony of the dominant ones, I believe that (socioecological) justice and equality can be achieved only through broader social, economic and political transformations. The grassroots environmental movements of Campania have put themselves onto this path. They are not alone, but they can only aspire to achieve control over their bodies, knowledges and spaces if their antagonistic attitude increases, alongside forms of self-organization, of coalition building and through the accumulation of learned practices of self-government. The contribution, and the wish, of this thesis, therefore, is not a 'solution' to the conflict that would again render invisible the physical and epistemic violence suffered by Campanians and by other communities facing environmental degradation and contamination, under the blanket of a mystified 'social peace'. Rather, this research aspires to offer feasible paths of advancement as well as critical assessments of recent environmental mobilizations that may help this and other movements 'to read themselves' in order to continue the struggle with more awareness. The hope is to support emancipatory paths of struggle towards the building of coalitions and the strengthening of local societies. Therefore, from this research stems both an interpretation and a political proposal. To think of the grassroots environmental movements that are multiplying in Italy and elsewhere as experiences of territorial reclamation from below intends to support converging threads and shared agendas between territorial movements, so as to overcome the fragmentation that at times makes the existent common grounds crumble. This task is best described by the incitement of Serenella Iovino (2009), when she questions the role of eco-cultural interventions for facing the enormous challenges of our time and answers that "the first task of ecological culture is to restore social hope, to become 'prophetic' in the sense theorized by social pragmatists such as Cornel West, Richard Rorty, Noam Chomsky, Paulo Freire. Being prophetic means here to critically extend social consciousness and to turn it into a common educational project, to transform words into world"(341). Humbly, I tried to put myself on the trails left by these giants.

2. Aims and research questions

The immediate aim of this research is to challenge the conventional explanations of the waste ‘crises’ in Campania that characterize it as a symptom of local social ineptitude to sort and recycle garbage and as manifestation of NIMBY syndrome[2] (following the interpretative path already opened by Petrillo 2009; D’Alisa et al 2010; Armiero 2014a). I do this by debunking the hegemonic narratives of the causes and effects of waste mishandling, alongside certain framings of protests that have been utilized to delegitimize dissent, through an analysis of the political economy and ecology of waste metabolisms and by investigating ethnographically specific instances of grassroots environmentalism in Campania. The broader aim is to inquire into the politics of society-nature relationships emerging from grassroots environmental organizing, in order to work out conceptual contributions to political ecology that can enhance our understanding of popular environmentalism and expand the mutually enriching dialogue between activists and scholars. This is the core objective of my research, substantiated in the analyses and concepts developed in the articles.

With grassroots environmentalism, I refer to the conflictual engagements and everyday performances of activists and ordinary people confronting detrimental socio-environmental changes through processes of collective action that are sustained across space and time and that constitute a pursuit of alternative agendas (Escobar 1995; Alvarez et al 1998). Rather than

[2] Acronym of "Not In My Back Yard", an accusation often moved to local communities (especially in the urban North) opposing the siting of facilities (like infrastructures, industries, energy plants, landfills, incinerators, etc.) in their localities that qualifies them as ignorant, irrational, anti-modern and lacking civic sense (Mannarini and Roccato 2011). Recent research suggests that NIMBY is more of an ideological tool that pejoratively labels opposition and provides ways for discrediting and delegitimizing it (Burningham 2000). Indeed, definitions of NIMBYism fail to account for opposition stemming from local citizens exclusion from decision-making processes (Rootes 2007), disproportionate share of environmental hazards due to racism or class discrimination (Pellow 2002), defense of and attachment to place (Devine-Wright 2009) and search for new models of economic development.

established environmental organization, the grassroots (or popular) appellative signifies loosely structured groups of people that unite on a territorial basis and resort to several forms of protest to oppose interventions they claim to be damaging their quality of life, in some cases integrating opposition with proactive political interventions and direct socio-environmental rearrangements. The analysis of the ways in which the relations between nature and society are conceived, contested and re-organized moving from a confrontation with waste within the specific conflicts of Campania intends to contribute to the heterogeneous literatures that inquire into historical and contemporary manifestations of grassroots environmental politics (Peet and Watts 1996; Rootes 2007; Della Porta and Piazza 2008; Martinez Alier et al 2014). In particular, I interrogate and critically assess such 'subaltern political ecologies' (Featherstone 2007) hypothesizing their relevance for broader emancipatory struggles and projects of progressive political transformation[3].

In an explicit attempt to counterbalance mainstream narratives, I devote attention to what participants in the grassroots environmental movements of Campania 'say' and to what they 'do' based on a direct engagement with them. By building on a strong empirical base, the research provides a narrative and analytical contribution on the political role of contemporary grassroots environmentalism. Specifically, I assume the knowledges and the spatialities the movements generated as privileged entry points into their socio-environmental politics. This is because, on the one hand, the epistemological creativity of grassroots movements constituted a field of elaboration that called into question the dominant constructions of society-nature and redefined grievances, bodies, places and the narratives of past, present and future of the land. On the other, the grassroots interventions in space allow insights into the ways in which local geographical configurations and the multi-scalar relationships implicated in the production of socio-environmental inequalities have been signified, acted upon and rearranged from the bottom-up.

[3] Following Escobar's suggestion that "crucial insights for the pursuit of alternatives will be found not in academic circles—critical or conventional—or in the offices of institutions such as the World Bank but in a new reading of popular practices and of the reappropriation by popular actors of the space of hegemonic sociocultural production" (1995:223).

The main question driving the research reflects these conceptual and political concerns. Looking at Campania region in the era of the waste 'crises', I ask:

How do grassroots environmental movements experience, contest and counteract processes of waste accumulation and socio-environmental degradation?

This overarching question is operationalized through the following sub-questions:

- *How is the political economy/ecology of waste metabolism produced and organized in Campania?*
- *How and what do grassroots environmental movements know about waste and the environment?*
- *How do they disrupt spatial processes of legal and illegal waste accumulation? Which kind of spatialities do they produce and how?*

The analysis is built upon an engaged ethnography (Casas-Cortés et al. 2013; Scheper-Hughes 1995) with the *comitati popolari* of Campania that, from 2013, united in the *Coalizione Stop Biocidio* (Stop Biocide Coalition, CSB). The *comitati popolari*, literally 'grassroots committees', have been the coordinating units of local political and environmental organizing in Campania, and are at the forefront of local struggles in many parts of Italy. The CSB is a confederation of grassroots committees, social movements and civic associations established after more than a decade of environmental conflicts in the region. CSB works to address various forms of waste (mis)management and contamination but also coordinates hundreds of members within a political project based on a shared platform of socio-territorial regeneration. This inquiry takes into account mobilizations from as early as the 1980s, but focuses on the years between 2000 and 2015.

Waste and camorra: conceptual clarifications

The years from 2000 to 2015 are also the period investigated for reconstructing the genealogy and unfolding of the waste 'crises' in Campania. Central to this part of the research are the conceptualizations and the materialities of wastes of various sorts (specifically, urban-household and hazardous-industrial waste) examined through an analysis of their *metabolisms*, as deepened in the chapter on overarching theoretical

frameworks. In recent years, waste has become an object of inquiry in its own right, giving rise to a vast literature that interrogates it from a variety of angles (cf. Hawkins and Muecke 2003; Moore 2012; Corvellec 2016). To focus and delimit my approach, I turned to a notion of waste as on object *being commodified* through entanglements in processes of trade, regulation and marketization, in order to disclose the ways in which waste is remade into a mean of (private) wealth generation (O'Brien 1999). However, I also gave equal importance to the socioecological characteristics of the *stuff* being manipulated and to its material 'stubbornness' that make the handling, transformation and disposal of waste materials an issue of public concern and the root of social conflicts (Rootes 2009).

The analysis of waste tackles the role of organized crime, the so-called *camorra*, in the business of waste management and disposal. Camorra refers to the wide array of mafia-like criminal groups originating in Naples and other cities and towns of the Campania region but today widespread nationally and internationally (Sciarrone and Storti 2014). These groups are armed organizations whose main aim is to maintain power positionalities through a complex interplay of territorial control, service provision, political patronage, violence and the spreading of specific cultural values (Santino 1995). Their predatory economic behaviour leads them to manage illegal economic activities and to infiltrate legal ones, pursuing power, profits and monopolistic control of territory even at the cost of their social legitimacy. Legambiente, a leading Italian environmental NGO, has called the camorra clans implicated in environmental crimes *ecomafie* (ecological mafias). Putting all the blame for the urban waste management problems in Campania on the ecomafie has been one of the leading narratives in international press (Dines 2013) and in general explanations of the 'waste crises' in Italy (Sales 2012). Even though the camorra and other Italian mafias have huge interests in the waste business, this has been a move that at times had the result of depoliticizing the issue by concealing the systemic drivers toward specific forms of waste commodification, the political choices and the corruption thriving in the grey area of cooperation between economic, criminal and State actors. To counteract such tendencies, I bring into focus the concrete networks, drivers and mechanisms of illegal practices of waste management. Mafias in general and camorra in particular, are indeed important players and service providers for the working of much larger networks. The framing of organized crime in this research posits, following Martone (2014), that camorra clans acted as stakeholders in the territorial governance of waste management in Campania because they have been able to regulate and to

enforce specific land uses, and to penetrate public consortia of municipalities and firms in a hegemonic position. Their persistence and prominent role within governance is hard to grasp without referring to the mafias' ability of filling the vacuum left by State institutions in particular territories with their own set of values, beliefs and organizational schemes. In general, organized crime relies on the historical rootedness in the material governance of the economy and on the threat of violence. However, the territorial power over specific places and the 'services' it provides to (some of) the locals, translates into persistent cultural patterns that reinforce mafias legitimacy. This vicious circle has had a fundamental role in the waste 'crises' but it was unsettled in radical ways by the social mobilizations.

As hinted above, my approach attempts to overcome reductionist readings of grassroots environmentalism as NIMBY phenomena and as solely concerned with narrowly defined environmental concerns, to unearth their political potential by grounding the analysis of popular environmentalism more firmly in political ecology theory and empirical engagement, as I explain in the next section.

My contributions to Campania's conflicts research and to political ecology

This thesis tackles the waste conflicts in Campania from a socioecological perspective, integrating historical materialism with a post-structuralist theoretical posture. The conceptual approach to grassroots mobilizations builds upon studies in PE of environmental conflicts and society-nature relations, engaging only tangentially with social movements' theories. Overall, rather than moving from theories of collective action, I delimit the analysis of grassroots environmentalism to the epistemological and spatial realms of confrontation unfolding within Campania's waste conflicts. During the last two decades, these conflicts have elicited an unending stream of analyses, research and works of art. Scientific studies, journalistic enquiry, political memoires, oral history books, independent and activists research and cultural products (books, movies, songs, theatre, dance shows, etc.), abound. What differentiates my study from the extensive scientific and popular literature on the case, making it an ideal continuation and integration of previous research, is its focus on the grassroots movements' progression from defensive reaction to proactive organization. The thesis diagnoses how

grassroots engagement expanded through time and invaded other spheres of social life, starting processes that left material and immaterial legacies inscribed on both personal stories and landscapes. Drawing on my sustained personal engagement and on historical scrutiny, I discerned a progression in the complexity and depth of grassroots environmental politics manifested in Campania. The generation and accumulation of autonomous knowledges and learned practices of resistance, the exchanges with other social movements and the search for alternatives, have all helped the individuals and groups resisting against waste occupation to structure bottom-up projects that address broader dimensions of society-nature relations, attempting at the same time to reconfigure them in opposition to hegemonic ones. This is what I understand as *reclamation of territory from below*; a dynamic and consistent series of principles, knowledges and practices geared at remaking communities, economies and environments according to people's "needs, desires and aspirations".

In terms of my theoretical contribution, the first three articles add to political ecology by exploring conceptual synergies between PE and other frameworks, while the fourth contributes to research methodologies. In article 1, Monica Caggiano and I link the treatment of *commons* proposed by Massimo De Angelis (2010, 2012) to environmental conflicts, showing how the coupling of political organizing and work on social reproduction, accomplished by the collaboration between grassroots movements and social cooperatives in Campania, defines a promising path of territorial reappropriation by the subalterns. In article 2, together with Felipe Milanez and Stefania Barca, we attempt to elaborate a decolonial political ecology approach, broadening our understanding of environmental justice in order to unearth convergences between EJ movements from Global South and North. Theoretically, we incorporate decoloniality into the analysis of environmental conflicts, and apply this framework to two radically different geo-historical contexts (the Brazilian Amazon and Campania). In our proposal, decolonizing ecologies should become a fundamental component of the global opposition to what we term, with Banerjee (2008), *necrocapitalism*. In article 3, I integrate into political ecology several approaches to territory and territorialisation, intended as both strategic phenomena and lived realities, showing how new dimensions of conflicts around socio-environmental change can become visible by looking at the territorial dynamics that trigger them and that they in turn produce. In particular, I elaborate the concept of *competing territorialisations*, which describes the rivalling space-making practices through which different actors attempt to territorialize the

arrangements and imaginaries that forward their agendas, (re)configuring in the process the socioecological relationships therein and at other scales in intentional and unintentional ways. The contribution of article 4, written with Marco Armiero, is to deploy novel research methods generated at the crossroad of activism and science by recognizing the political and epistemological role of sensuous perceptions, and of smell in particular. Our experimenting with methods helped us develop walking interviews concerned with sensations, oral sensorial histories and 'toxic tours'.

Structure of the thesis

This thesis is comprised of four articles that display three theoretical interventions into the concerns of the research and one methodological contribution to qualitative research methods for the study of environmental conflicts. The *kappa* you are reading presents the overall approach, deepens the background of the conflicts and clarifies the conceptual and empirical grounding on which the articles build. In the next chapter, the theoretical framework explains the concepts mobilized, and the ideas behind them, drawing attention to the connections between different traditions of PE. The following chapter on methodology details how data was collected and analysed. A chapter on the broader context, history and events most relevant to Campania's waste conflicts is then presented. Besides delineating actors and processes, it indulges the voices and materials collected on the field in order to give the reader a deeper first-hand immersion into the local activists' lifeworld. The chapter that follows presents the main contributions of the articles included in the thesis. Finally, a closing chapter summarizes the findings of the research and points to potential venues for expanding a research agenda geared at understanding and nurturing the political potential of grassroots environmentalism in a time of unequal and radical anthropogenic socio-environmental changes.

3. Theoretical framework

This chapter weaves together works from academic traditions that have dealt with environmental conflicts, society-nature relations and grassroots environmentalism to unpack the concepts at the heart of the thesis – waste metabolism and grassroots movements' knowledge generation and spatial interventions – into a framework for empirical analysis. This framework is the result of a continuous circulation of ideas between fieldwork and theory. It informed my gaze, guided the data collection and analysis, and provided the overall theoretical outlook at the base of the conceptual elaborations put forward in the articles.

I integrate different scholarly and activist traditions in a rather eclectic and 'undisciplined' form. On the one hand, I approach the production of spaces of waste management and accumulation from the theoretical standpoint of urban political ecology (hereafter, UPE). This has allowed the sorting of the political-economic and socioecological processes implicated in the transformation of waste into a means of profit making and rent capture through its commodification realized via specific spatial configurations. Here, the perspective of UPE conceptualizes dialectically the enrolment of things, environments, humans and non-humans in the production of (unequal) socionatures driven by broader capitalist dynamics and sustained by hegemonic narratives. On the other hand, I elaborate a framework for the analysis of grassroots movements' knowledge generation and socio-spatial practices by drawing on environmental justice, anthropology and strands of political ecology from Latin American authors, in particular works that examine the embodied and situated character of activists' knowledges and the relations between territoriality and grassroots politics.

Hence, this research operates on the conceptual basis of a synthesis of approaches that have interrogated in different ways the multiple dimensions of socio-environmental change and of meaning making in relation to nature. The historical materialist approach to socionatural change allows for insights into the coevolution of societal and environmental material configurations mediated by social relations of power. Concurrently, a post-structuralist

sensitivity affords greater attention to the epistemological and subjective dimensions embedded in any attempt at remaking human-environment relations, helping to make visible the role of ideas, discourses, narratives and imaginaries in shaping the present and future of local and global socionatures.

The theoretical exposition follows a progression from the general framework to the specific conceptual categories mobilized in the analysis. First, I set the stage by presenting relevant approaches to the study of environmental conflicts from the broad field of political ecology. Second, I deepen the particular angle from which I tackle the waste metabolism at the root of the Campania conflicts, namely the perspective of UPE. This allows me to locate waste movements, transformations and disposal within the broader relations and local manifestations of capitalist development by looking dialectically at the socio-material articulations in which waste metabolism is embedded and at the ideological dimensions on which it rests. Third, I clarify the core concern of the thesis – grassroots environmentalism – conceptualizing knowledge generation and spatial interventions as entry points for framing what activists 'say' and 'do' during and beyond their struggles.

The aim of this chapter is to present the theoretical framework I relied upon for understanding the clashes in Campania within broader terms. This toolbox will help me locating and unearthing the contribution of grassroots environmentalism in disrupting established hegemonies, roles and relations of power, and in bringing up alternatives.

Mobilizing against socio-environmental injustice and inequality: perspectives in political ecology

Environmental conflicts are a central topic in political ecology. Having emerged during the 1980s through the work of geographers and anthropologists like Piers Blaikie (1985), Michael Watts (1986) and Suzanna Hecht (1985), PE is an interdisciplinary approach to, rather than a coherent theory of, the complex interactions between societies and environments that pays particular attention to relations of power and to the distribution of costs and benefits of environmental change (Robbins 2011; Gregory et al 2011:545). In early works, the stated aim was to bring together "the concerns of ecology and a broadly defined political economy" (Blaikie and Brookfield

1987:17). From the initial empirical focus on rural areas in developing countries, it expanded in scope, contexts and objects of analysis through deploying a variety of methods and conceptual frameworks, yet maintained a shared commitment to provide critical perspectives on simplistic narratives of socio-environmental change and conflicts (Le Billon 2015). For Peluso and Watts, PE understands conflicts "as a site specific phenomenon rooted in local histories and social relations yet connected to larger processes of material transformation and power relations" (2001:5). Broadly understood, PE is thus about the conflictual and political character of ecological issues, bringing local and global configurations of social inequality, structural violence and power relations to centre stage in order to explain contested processes of socio-environmental change.

Political ecologists have interpreted environmental conflicts as the outcome of "changes in environmental management regimes and environmental conditions [that] create opportunities or imperatives for local groups to secure and represent themselves politically" (Robbins 2011:23). The *politicization* of environmental problems or the *ecologization* of pre-existing conflicts are common threads (Robbins 2011). Martinez-Alier et al (2010) speak of *ecological distribution conflicts* to refer to "struggles over the burden of pollution or over the sacrifices made to extract resources [arising] from inequalities of income and power" (154). From these premises, scholars have investigated how local communities and disenfranchised social groups react to the degradation of their livelihoods by organizing in movements that contest detrimental forms of development or exploitation. Martinez-Alier's notion of the *environmentalism of the poor* (2002) brought into focus the material interest in the environment of impoverished populations and the ordinary women and men who are struggling against State or private companies that threaten their livelihoods, health, culture and autonomy.

The contemporary frontlines of environmental conflicts are located in both the global North and South, in rural areas, often at the commodity frontiers (Moore 2000), and in urban environments, as the environmental justice movement had already made clear in the 1980s (Agyeman et al 2003). Environmental justice (hereafter EJ) emerged as a normative concept and as a social movement in the United States in the aftermath of a struggle against a toxic waste dump in Warren County, North Carolina in 1982. EJ scholarship – the outcome of collaborations between activists and engaged researchers – showed empirically through spatial analyses the disproportionate environmental harm from waste sites, industries, refineries and other

infrastructures suffered by minorities, low-income groups and workers from poor backgrounds in comparison with white and well-off communities (Bullard 1990; Pellow 2002; Mitchell and Dorling 2003; Lerner 2005; Sze 2006; Downey and Hawkins 2008). Because the incidence of pollution was shown to affect predominantly Black, Hispanic and Indigenous communities, activists deployed the concept of *environmental racism*, integrating and carrying forward the concerns and campaigns of the civil rights movement (Pulido et al. 1996; Pulido 2000). While growing out of struggles in the global North, EJ movements have emerged in other countries as well as globally (Pellow 2007; Walker 2012). Indeed, the EJ paradigm has expanded into a transnational scholarly field of study that not only addresses the distribution of costs and benefits of socio-environmental conditions and changes, but also the claims of participation and recognition of impacted groups (Schlosberg 2007). EJ activists have proposed a situated redefinition of the environment as the "place where we live, work and play"[4] by linking struggles against the inequitable exposure to toxins with issues of housing, transportation, air quality, workers health, economic development and Indigenous territorial rights (Bullard 1990; La Duke 1999; Agyeman and Schlosberg 2015). The EJ movement inside and outside of academia has helped to transform the focus of public health, urban ecology and planning research (Agyeman et al 2003; Anguelovski 2013). More recent developments have addressed food justice (Gottlieb and Joshi 2010), the bodily dimension of injustice (Walker 2012) and the knowledges generated by EJ movements (Corburn 2005; Ottinger and Cohen 2011). Armiero and D'Alisa (2012) have interpreted the Campania waste conflicts through the EJ perspective, pointing out the unequal distribution of burdens and risks at their root and the exclusion from the decision-making process of the people most affected by those very decisions. They also highlighted how local bodies are porous entities in a dialectical relationship with external nature (Merchant 2005), thus clarifying that in Campania the defence of the environment and the preservation of human health became the same struggle. The attention to the body is a result of feminist theoretical engagements with EJ (Gabrielson and Parady 2010), which drew attention to how bodies are embedded in different social and ecological contexts and how the material life of the body is entangled with questions of social and environmental justice.

[4] Credited to Dana Alston in her address to the first People of Color Environmental Leadership Summit in 1991 (quoted in Agyeman and Schlosberg 2016:328).

The interest in the body and everyday life has brought EJ concerns closer to materialist positions (Schlosberg and Coles 2015). However, prominent Marxists' approaches to political ecology are critical of notions of justice focused on recognition or redistribution of environmental harm (Cook and Swyngedouw 2012). The theoretical field of urban political ecology – that informs the analysis of waste management and disposal in this thesis – is rather concerned with the explicit politicization of socioecological processes and relations as well as with the openings this can afford for radical political organizing (Keil 2003). UPE is grounded in a Marxian reading of the unity and coevolution of nature and society (Smith 1984; Foster 2000). It interrogates how basic sociomaterial flows like those of water, electricity and waste produce cities and their hinterlands and influence their physical environments, but also participate in structuring social, political and economic relations and the distribution of use- and exchange-values (Swyngedouw 1996; Heynen et al. 2006). Central in the theorizing is the concept of metabolism, conceived as the ensemble of political economic processes and biophysical transformations that enrol human and non-human entities from across the globe in the production of the socioecological worlds we inhabit (Swyngedouw 2004, 2006). UPE is concerned with the historical, material and geographical dynamics of the urbanization of nature driven by dialectical processes and by the circulation of metabolized nature in the form of commodities. The socio-material realities of urban environments are 'moments' in the metabolic circulatory processes, embodying the tensions between abstract capitalist urbanization, concrete socioecological conditions and unequal power relations (Swyngedouw and Heynen 2003). Through urbanization, the enhancement of 'sustainability' somewhere often undermines the stability of local ecologies in other places; therefore, for UPE, the space of politics is located in the question of who gains from and who pays for particular trajectories of socio-environmental change articulating at several scales (Heynen et al. 2006). Conflicts, in this perspective, are understood as a vital expression of politics. Indeed, conflicts disrupt the active depoliticization of socioecological metabolisms typical of the changes in modes of government shaped by neoliberalism and by the shift from government to governance (Swyngedouw 2009). Such depoliticization unfolds through a top-down managerial approach to environmental issues, that rests on a combination of expert knowledge and public consultation with strict inclusion criteria and limited participation in decision-making. Moreover, depoliticization is a result of the populism of environmental views – for example, those around sustainability and a green economy – that

constitute an exclusionary form of consensus by characterizing alternative viewpoints as ‘radicalism’ (Swyngedouw 2009). Emancipatory urban politics reside, for UPE, in conflicts that repoliticize socioecological relations, in which the subalterns and disenfranchised strive for acquiring the power to produce their physical and social environments. Even though UPE’s empirical engagement with social mobilizations has been less sustained than EJ scholarship, its approach has shown that the way in which socionatural relations are produced, who produces them and who they are produced for are subjects of intense social struggle and contestation (Cook and Swyngedouw 2012).

UPE approaches provide formidable conceptual tools to disentangle the material co-constitution of society and nature mediated by political and economic processes. However, in UPE studies, less attention has been devoted to the subjective and cultural dimensions of socio-environmental changes interwoven with conflicts around the biophysical environment (Grove 2008). The recognition that environmental transformations are enmeshed within worlds of social meaning and multiple axes of valuation (Martinez Alier 2002; Gandy 2006; Oliver 2006; Perreault and Valdivia 2010) compels a more explicit integration of UPE with post-structuralist perspectives. With this approach, I join scholars working on analyses that consider meaning and interpretation as theoretical grounds for the redesign that the present and future world demands (e.g. Moore 1998; Powell 2015). As Grove (2009:209) suggests, this perspective connects “historically specific urban metabolisms with cultural practices through which everyday experiences of ‘the urban’ and ‘nature’ gain significance”. Recent developments in urban studies and environmental sociology have applied this view, investigating how social groups understand the environmental conflicts they are engaged in and examining what is the role of place in local disputes. For example, Anguelovsky has shown how place-based environmental conflicts and struggles for long-term environmental quality are shaped by, and thus influence, the attachment to place and sense of community (Anguelovski 2013). Similarly, Rootes pointed out that during environmental conflicts “localities become invested with meaning and so justify their defence against socioecological threats, as well as becoming resources for future mobilization” (Rootes 2007:730). However, the kind of PE developed by some Latin American scholars has been more explicit in linking an attention towards meaning and place during socio-environmental conflicts to further conceptual consequences (cf. Leff 2012; Alimonda 2016).

The work of Arturo Escobar is of particular relevance insofar as his anti-essentialist political ecology de-centres the materialist base of environmental politics by taking seriously the knowledge production and the territorial articulations of cultural and ecological difference performed by social movements (Escobar 1999, 2008, 2016). His work emphasizes how local communities and social movements in place-based environmental mobilizations can be seen as centres of innovation through their enactments of cultural politics mediated by ecological considerations (Escobar 1998). With cultural politics, Escobar refers to conflicts between social actors that are shaped by, and embody, different cultural meanings and practices (Escobar 1998). This view implies that cultural practices through which nature is inscribed with meaning must be accepted as political because they are constitutive of processes that, implicitly or explicitly, seek to redefine social power and are bound up in questions of 'whose' nature may be legitimately practiced. Escobar views local knowledges as practice-oriented, dynamic and embodied (cf. Leff 1997), therefore generated by engagement with the environment rather than through a system of shared, context-free knowledge (cf. Ingold 2000). This implies a hiatus between the context-free knowledge (typical of modern thinking) and local practice-oriented and hybrid knowledge generation, a gap that is always inhabited by politics. Here Escobar echoes the works of Habermas (1987) and Melucci (1985, 1989), in particular their definition of 'lifeworld' as the shared and lived knowledge that infuses social praxis with cultural significance, which may be 'colonized' by the excessive intrusion of State and market.

For Enrique Leff, PE today is directly concerned with both ontological and epistemological questions, since it critiques "the modes of thought, scientific paradigms, productive practices and social behaviour that degrade life (…) the power devices rooted in the hegemonic rationality of modernity" (2015:64). Leff argues that the reinvention of culture, place and meanings in the course of environmental conflicts is an instance of the social reappropriation of nature by the subalterns against the hegemonic rationality of modernity. Grassroots movements, in this perspective, can be seen as resisting not just specific development projects or interventions but the rationalities of nature that threaten their life-worlds. Some Latin American authors see these hegemonic rationalities as manifestations of the *coloniality* of contemporary forms of power, a constitutive element of modernity and its "darker side" (Mignolo 2000). Coloniality "refers to long-standing patterns of power that emerged as a result of colonialism, but that define culture, labour, intersubjective relations, and knowledge production well beyond the

strict limits of colonial administrations" (Maldonado-Torres 2007:243). Coloniality is the classification of peoples and knowledges according to the categories embedded in dominant Western forms of knowing and being. In other words, the experience of subaltern groups having their arguments, values and alternatives ignored or delegitimized in the course of environmental conflicts can be seen as manifestation of coloniality insofar as exclusion is based on a hierarchical ordering of legitimate knowledges and 'authorized' peoples. Moving from such an understanding, a crucial step toward decolonizing the contemporary politics of knowledge is to underline the *locus of enunciation*, that is, the geo-political and body-political location of the subject that speaks (Grosfóguel 2011:4). Concretely, this means that "subjugated knowledges about ecological, economic, cultural-cognitive and spiritual transformations must be regarded as key points of reference for a decolonial option" (Schulz 2017:129). As such, decoloniality becomes a political commitment based on new forms of collaboration that are geared toward "studying with subaltern social groups" (Mato 2000:487), a position(ality) that is also at the heart of this research.

Besides knowledge, the spaces at stake during conflicts are also often reworked through practices and discourses that constitute meaningful links between humans and non-humans in the inhabited place. The notion of *territory*, intended as "a multidimensional space, fundamental for the creation and recreation of communities' ecological, economic and cultural practices" (Escobar 2008:145-146), catches this relation. Defending territory entails the defence of specific patterns of social, ecological and cultural relations (for a resonant perspective in Italian geographical scholarship cf. Magnaghi 2005). During conflicts, territorial defence implies the creation of a new sense of belonging linked to the political construction of a collective life project and the redefinition of relations with the dominant society. The struggle for territory can thus be seen as a cultural and ecological struggle for autonomy and self-determination – for the right to be different against the hegemonic rationalities of nature. These views have been applied mostly to the global South. In my research, I show how they can be mobilized fruitfully to better understand grassroots environmentalism in the context of the global North.

To summarize, a broadly defined PE research agenda has interrogated in multiple ways and from a variety of angles cases of environmental conflicts. It is therefore uniquely positioned to inform the overall outlook of this thesis. Three approaches are especially relevant. First, Environmental Justice, for its focus on *patterns* and *procedures* of socio-spatial inequality, and its recent

attention to the situated judgements, knowledges and embodiments of the resisting subjects. Second, Urban Political Ecology, for its concern on the *processes* involved in the *production* of socio-environmental inequalities and for the radical emancipatory politics it foregrounds. Third, some strands of Latin American PE that help integrate structural explanations with the meanings and the territorial relations expressed by grassroots environmental movements. To bring together these approaches makes the most of their respective strengths while remedying their relative shortcomings. First, it allows reading the distribution and contradictions of urban metabolisms in the light of the mechanisms of power that work to legitimize particular ways of conceiving and practicing socioecological relations. Second, through this theoretical encounter, the knowledges that sustain grassroots environmentalism, and the role of territorial defence and attachment, are linked dialectically to the contestation of specific arrangements of socioecological metabolisms and to their remaking from below.

In the next section, I unpack the notion of socioecological metabolism as theorized by UPE and mobilize it to develop the framing of the political, economic and ecological processes implicated in the movements and transformations of waste that are at the root of Campania's conflicts. Subsequently, I conceptualize grassroots environmentalism by mobilizing insights from EJ and Latin American PE.

The metabolism of the waste commodity

The notion of metabolism was introduced in physical sciences by studies carried out during the early- and mid-nineteenth century on the biochemical reactions and exchanges of living beings. According to Swyngedouw (2006), its mobilization in social theory is due to early formulations of historical materialism by Karl Marx. In general terms a historical materialist philosophy asserts that the history of humans begins with, and is forever dependent upon, "the production of the means to satisfy needs, the production of material life itself" (Marx 1974 [1846]:48). This production unfolds through the act of labouring: the human ability to fuse creative capacities with the physical properties of other humans and non-humans in a purposeful activity. As Swyngedouw puts it, labouring is "nothing other than engaging the 'natural' physical and mental forces and capabilities of humans in a metabolic physical-material process with other human and non-human"

(2006:23). Broadly conceived, labour is thus a socioecological process that results in the creation of socionatural entities. The different ways in which labour has been socially organized have affected the different metabolisms that have manifested throughout history. In this sense, the concept of metabolism captures, dialectically and historically, the processes and relationships that shape the making and remaking of the social and physical world.

The entities that are the products of transformed nature and embodied 'dead' labour take a life of their own and are enrolled again in subsequent assemblages (Kirsch and Mitchell 2004). The historically specific arrangements that organize the social relations of appropriation, production, and exchange – or, in other words, the property relations and the mode of production at any given time in history – structure the particular metabolic and circulatory flows that mediate the socionatural assemblages through which human societies exist. Under the generalized capitalist mode of production, metabolized socionatures take the form of *commodities*, as the reification of human labour mixed with nonhuman things for creating value. The process of urbanization of nature unfolding on a planetary scale is predicated upon the increasing metabolization of materials and energy that are transformed into the useable, ownable and tradable commodities constituting urban environments (Coe et al. 2007). The commodity status of a thing is not intrinsic but rather assigned. Thus the term commodification connotes a process that is irreducible to the things commodified but which nonetheless affects them – and which may, reciprocally, be affected by them (Kopytoff 1986). UPE contributions have directed attention towards the material specificities of the commodification process, namely to the socionatural articulations and consequences of an object being commodified (Castree 2003). Relevant to this perspective are the mutual interactions between processes of commodification and the materialities that allow, sustain and are affected by them.

Waste, as with any other sociomaterial flow, can be reworked to extract value through its commodification. Indeed, the social necessity of dealing with discarded materials, industrial by-products and emissions is increasingly dealt with by governments and corporations through a now well established global waste market (cf. Bank of America Merrill Lynch 2013). Through this market, waste is transformed into different moneymaking commodities (Hanson 2001) while "liberalisation and privatisation [drive] a corporate view of waste disposal as a profitable industry in itself" (Khoo & Rau 2009:968).

The public concern with the use-value of managing waste (to avoid pollution, liberate space, recover materials, etc.) is being captured by private interests in the exchange-value that waste affords through regulatory configurations, material interventions and relations of power. Therefore, the metabolism of waste in our capitalist societies can be conceived as a process of commodification of a material object through its transformation and manipulation, aimed at extracting economic value from it (O'Brien 1999). Such commodification unfolds through regulative schemes entangled with human labour and biophysical processes. Waste is not 'made' as such; it is a by-product of extraction, production and consumption. Its commodification requires both a political-economic framework that regulates the conversion of value (O'Brien 1999, 2007) and the power over concrete socioecological spaces to realize this value. This perspective focuses on the political-economic processes that regulate the conversion of value from waste, but also allows to "demonstrate the physical and social consequences of a waste material metamorphosing into another as it traverses the circuits of production, distribution, consumption, reclamation and annihilation" (Gille 2007).

Linking the circulation of waste to the circulation of money connects the biophysical characteristics and effects of waste materials to forms of social and economic power. The realization of the profitability of waste depends on the production of sites of management and disposal and on a consistent political-economic framework, all of which relies on the power to impose and legitimize such arrangements. Given the particular 'nature' of waste products, those who manage waste in order to make money from it need to persuade or to coerce (with the help of the State) those who bear the negative socio-environmental outcomes of the realization of its exchange value. A formal, or legal, configuration of waste metabolism would, in most cases, unfold through the constitution of hegemonic discourses and territorialisations: by instilling the acceptance of specific waste management projects through the depoliticization of the project and the naturalization (and repression) of eventual protests, and by 'defining and defending' the spaces of management. An informal, or illegal, configuration would instead operate through threats, violence, patronage, bribery and other forms of territorialisation (see article 3). In this research, different processes of waste metabolism (urban and industrial/hazardous) are tackled through reconstructing the links and mechanisms that make them profitable enterprises, and through tracing the concrete socio-environmental and spatial configurations that sustain them and are, in turn, produced by them. The notions of metabolism is mobilized to

frame and describe the urban waste management project and the toxic waste trafficking and disposal in Campania, to uncover the mechanisms and networks that make them venues of capital accumulation intertwined with the production of socio-environmental inequalities. A similar approach has been proposed by Demaria and D'Alisa (2013), following Harvey (2003), with the notion of *accumulation by contamination* applied to the waste movements in Campania. Accumulation by contamination refers to the process whereby the capitalist system socializes operational costs through successful cost-shifting strategies, which degrade the means of existence and bodies of specific groups and generate, in turn, new possibilities for capital valorisation through land reclamation (Demaria and D'Alisa 2013).

Applying the UPE lens to waste mobilizations, transformations and immobilizations suggests that these processes that constitute waste metabolisms are not politically neutral. Privileging waste incineration over the promotion of recycling schemes, remaining inactive in sanctioning illegal waste disposal and turning urban waste management into a means of profit extraction and rent capture, are the results of *choices* by powerful actors, social blocs or coalitions of interest that draw priorities and necessities, deliver policies and regulations, utilize violence, and impress specific directions to socio-environmental change. Moreover, the framing of protests against waste schemes, facilities and disposal sites as manifestations of NIMBYism, irrationality or backwardness act as depoliticizing mechanisms based on constructed hegemonies, hiding or normalizing the inequalities embedded in the broader political economic processes that underlie these contexts.

In the analysis of the Campania case, metabolism and commodification provide the lens thorough which I conceptualize the roles and processes implicated in the urban and hazardous waste movement, transformation and disposal. This frame clarifies the scalar connections behind local manifestations of waste 'colonization', it links money circulation to contaminants circulation and it helps to draw the broader context within which grassroots environmental mobilizations emerged. Finally, it illuminates how the loss of control over the flows of waste and contaminants through spaces and bodies are at the core of the politicization of ecological issues by the grassroots movements.

On grassroots environmental movements

I define grassroots environmental movements (hereafter GEMs) as forms of local contestation and social organizing that arise from potential or experienced material livelihoods' degradation, dispossession or contamination, and from related clashes of meanings, imaginaries and desired futures mobilized around socio-environmental conditions and changes (Peet and Watts 1997; Martinez Alier 2002; Escobar 2006; Robbins 2011). To constitute and animate the GEMs, there can be local residents, women, students, farmers, poor people, experts, activists and so on. They share the fact of being situated in (and often, tied to) specific places, and are brought together by a material and cultural interest in what they define as the 'environment', something that is often very different from what NGOs, nature conservation groups and transnational institutional or corporate networks call 'nature' or 'environment'. Indeed, an ideology that centres the protection of 'nature' as a value in itself is usually not the main driver of grassroots environmentalism (Armiero 2008). The very meanings of environment, nature and the body are disrupted, renegotiated and potentially remade into novel configurations during conflicts such as the one in Campania, which have the ability to blur what was experienced before as a more or less stable separation between nature and society. The signifier of the 'environment' becomes, in this way, more of an anchoring point to indicate the complex associations of things, networks and beings which are at stakes during conflicts (Latour 2004). It temporarily fixates the engagement of different individuals and groups around concerns with the chemical composition of water, soil and air in their surroundings, with the land-use change, with pollutants within bodies, with the impact of development projects, and so on. In this perspective, it is easy to realize how a series of other issues and campaigns can be subsumed in the 'environment', such as the health care system, the education system, the status of urban spaces, the local agriculture and economy, the forms of democratic participation, the territorial identities and the instances of commons reclamation.

Grassroots environmental movements in the developed world are often labelled NIMBY (Not In My Backyard) and dismissed as attempts to resist LULUs (Locally Unwanted Land Uses) (e.g. Schively 2007; cf. Footnote 2). This has been an accusation often used to delegitimize protests of the Campania movements (D'Alisa et al 2010). However, studies of NIMBY have argued that instead of implying selfish behaviour, local protests may be

motivated by a request for fairness (Wolsink 2006), place attachment (Devine-Wright 2009) or meaningful public participation in decision-making (Fischer 2000; Zografos and Martinez-Alier 2009). The frame of NIMBY has contributed to reproduce a line of separation between environmental conflicts in the Global North and South. While in some ways PE has moved forward from the almost exclusive focus on 'Third World' issues of the first generation of political ecologists (McCarthy 2002), more work needs to be done in order to bridge approaches to grassroots environmentalisms in the global South and North. The project of EJOLT goes in this direction. EJOLT is a global Atlas of more than 2000 environmental conflicts documented by the collaboration of activists and researchers that allows, through its database, the comparison and analysis of global patterns of both the causes of conflicts and the tactics elaborated by grassroots movements[5] (Temper et al 2015). This kind of collaborative research, by pointing out convergences of grassroots mobilizations from different geographies, aims to support the linking of struggles, the emergence of alliances and the bridging of the gap between theorist and activist approaches to EJ (Temper and Del Bene 2016). Part of the findings of this thesis have contributed to the EJOLT project with specific case studies from Campania. Moreover, in article 2, my co-authors and I contested the alleged separation between global North and South in EJ approaches by showing the similar colonial and decolonial dynamics within the environmental conflicts of the Lower Tapajos in Brazil and Campania in Italy.

The focus on the local that is typical of GEMs does not prevent the construction of networks of cooperation, alliance and exchanges with other movements that stretch over several scales. Indeed, a place-based strategy that relies on the attachment to territory and culture is often coupled with network strategies that enable grassroots movements to enact a politics of scale from below (Escobar 2008). Campania's movements have generated networks of 'exposed communities', interlinked resistance sites and 'pacts of mutual support' work to harness and transfer resources, and to enlarge the scope of their actions, while simultaneously rooting their political, social and economic organization of alternatives in place. For a closer look at the internal dynamics of Campania's GEMs, I have centred my analysis on the

[5] EJOLT documents and classifies environmental conflicts according to the commodities in question. This is a socio-metabolic approach that includes resource extraction, transport and conflicts over waste disposal at the end of the 'commodity chain'. The Atlas of EJOLT can be found at https://ejatlas.org/ (Accessed 7/4/2017).

knowledge generation and the spatial interventions of grassroots mobilizations, in order to inquire into the transformative potential of environmental protests as cultural, spatial and socioecological laboratories of territorial reclamation from below.

Knowledge generation

In one of his scientific articles on Campania, Armiero (2014a) asked provocatively "is there an indigenous knowledge in the urban north?". With this question, he meant to problematize the clash between an official knowledge developed via the context-free scientific discourse of modernity, on the one side, and the hybrid and situated knowledges generated by protesters and activists in this context of the urbanized West or Global North, on the other. Through dramatizing this clash, Armiero intended to make visible the structural and discursive inequalities dictating the recognition of legitimate knowledge that manifested throughout the Campania conflicts by the systematic government disavowal of the concerns, narratives and claims – in short, the knowledges – brought forward by the grassroots committees. He contended that "while struggling with landfills and incinerators, the activists have also fought over the very legitimacy of knowledge, claiming the possibility for them to understand the issue and propose different solutions" (Armiero 2014a:4). Such difference in understanding is akin to the difference of Indigenous peoples' ways of knowing, often relegated in the realm of superstition by the heralds of western scientific knowledge. Or as more near to 'nature' than to 'society', and therefore liable of being treated with paternalism, in the best scenario, or with violence, in the worse, if refusing the *legitimate* knowledge imposed on them and its very concrete effects.

Research traditions located at the crossroad of scholarship and activism that valorize indigenous and grassroots knowledge do exist. This valorisation has been of prominent importance in the emergence of the field of popular epidemiology (Brown 1992, 1997). *Popular epidemiology* proposed that 'lay' knowledge of illnesses from pollution is as valid, or sometimes more valid, than official knowledge. It is at least an early warning system, a complement to and partly a substitute for, scientific epidemiological studies. Another approach to grassroots knowledges focuses on the historical perceptions of ordinary people and sees them as forms of *street science*, through which the daily experiences of residents with environmental contamination and

degradation integrate academic research and professional research techniques, supporting legal claims and demands (Corburn 2005; Porto and Finamore 2012). Similarly, Martinez Alier et al (2014) speak of *activist-led* and *co-produced social sustainability science* to frame civil society's ability to conduct research and create concepts of PE 'from the ground up'. These concepts support the formation of solidarity networks and inspire organisational forms of environmental movements; at times, they are taken up, refined and applied by academics and policy makers. Some of these concepts include environmental justice, environmental racism, ecological debt, biopiracy, climate justice, water or hydric justice, food sovereignty and more. To recognize the creative epistemological capacities of popular environmentalism widens the base of the legitimate knowledge mobilized for solving local and global environmental problems by supporting the inclusion of other values and meanings (Fischer 2000), a position maintained also by the *post-normal science* perspective (Ravetz and Funtowicz 1999; see D'Alisa et al 2010 for its application to the Campania case). In Campania, the recognition that ordinary people can *experience* the toxic contamination means opening up the canon of scientific knowledge to lay people, instead of entrusting the ability for meaningful knowledge creation only to the official experts with their tools and labs.

Casas-Cortéz et al have emphasized the value of direct experience in the making of knowledge by theorizing knowledge-*practices*: a way to highlight the embodied, lived and situated character of knowledge generation (cf. Santos 2005; Varela 1999). In their approach, knowledge is seen not only as situated experiences and positioned explanations of the processes leading to unjust and unequal outcomes (e.g. environmental contamination), but also as "micro-political and cultural interventions that have more to do with 'know-how' or the 'cognitive praxis' that informs all social activity" (Casas-Cortéz et al 2008:21). It is a rather expansive conception of knowledge, one that includes "experiences, stories, ideologies, and claims to various forms of expertise that define how social actors come to know and inhabit the world" (Casas-Cortéz et al 2008:27). In brief, this perspective valorises both the movements' practical and technical solutions to environmental problems and their production of critical subjectivities and new modes of being. For Casas-Cortéz et al "the inability to recognize knowledge-practices as some of the central work that movements do, has made it difficult for social movement theorists to grasp the actual political effects of many movements" (2008:20). Indeed, these effects include not only strategic objectives of social and political change, but also "the very rethinking of democracy, the generation

of expertise and new paradigms of being, as well as different modes of analyses of relevant political and social conjunctures" (Casas-Cortéz et al 2008:20). A main analytical goal in the study of GEMs that stems from this approach becomes "the documentation of and engagement with activist knowledges that are in turn important and potentially useful for society at large" (Casas-Cortéz 2008:28). This means documenting the analyses, concepts, theories, imaginaries and the methodological devices and research tools of GEMs. Following this conception of knowledge, I directed my attention to the sites and processes of knowledge generation of Campania movements through engaged ethnography, participant observation, interviews and oral history, as detailed in the methodological section.

Knowledge generation by GEMs in Campania has had fundamental role in politicizing waste metabolism and contamination, and in denaturalizing the elites' depictions of protesters. A research group based in Naples coordinated by Antonello Petrillo (2008), has unearthed the discursive order on which the emergency regime and the top-down, technocratic approach to urban waste management relied upon, by applying the perspective of biopolitics. They showed how the dichotomy of modern/uncivilized – engrained in the Italian national history as in broader configurations of colonial rule (Festa 2012; Teti 1993) – was utilized to frame protesters as primitive rebels, thus rejecting their claims as the realm of 'noise' and legitimating their physical repression. The persistence of colonial mechanisms of population control is detectable in the racialization and inferiorization processes that lurk underneath the unfolding of development projects presented as modernizing missions, wielded against those who dare to oppose development. Deadly consequences are made acceptable by making the life of some populations less valuable than others (Banerjee 2008). As I show in article 2, the GEMs reaction to the roles imposed by the ongoing project of colonial modernity unfolding in Campania included processes of epistemological disobedience (Mignolo 2011) though which the subalterns reassessed their past, reclaimed their capacity to generate knowledge and reconstituted socio-environmental relations autonomously. Such decolonial attitude is expressed by the GEMs of Campania not only through uncovering the process of inferiorization they are subjected to, and thus re-politicizing socio-environmental relations, but also by elaborating alternative visions for achieving wellbeing, or, in other words, their own 'life project' (Blaser et al 2004).

Spatial interventions

My research interest in the meanings and practices of space emerging from grassroots environmental politics stems from dialogue and exchange with the activists themselves. I became initially concerned with the *geographical imagination* (see Harvey 1973) of Campania's GEMs, i.e. the way participants and activists conceptualized the role of space and place in their own biographies, which subsequently led me to enquire the kind of interventions triggered by these understandings. I thus looked at geographical imaginaries and the narratives expressing them as "a cognitive mapping with political intent and material effectivity" (Castree 2004:139). The symbolic and material reconfiguration of place(s) throughout the conflicts – from both the top-down and the bottom-up – has been a central matter of contention addressed by the movements. Therefore, I followed Escobar's (2001:152) understanding of place as emergent and not as given – a process defined in part through resistance to changing 'strategies of power' – and as grounded – i.e. linked to the everyday engagement of specific peoples with specific landscapes, environments or 'natures'. At the same time, I kept in mind that place as a continuously (re)negotiated geographical entity is inextricably linked with the consequences of wider interdependencies that ''are no longer a matter of choice'' (Bauman 2001:147).

Crucially, the evocation of *territory* by interviewees for synthetizing the ecological, political, economic and cultural dimensions of what was defended during struggles led me to interrogate scholarships dealing with territory and territoriality. Indeed, the mobilization of territoriality by indigenous peoples and social movements is increasingly a political strategy to help ground alternative practices, imaginaries and cosmologies in place (Anguelovski and Martinez Alier 2014; Halvorsen 2012; Martinez Alier et al 2010; Fernandes 2005). According to Escobar (2001), indigenous and grassroots environmental movements often constitute territory as a site of negotiation between multiple and competing political projects, articulating a relational understanding of territory related to a collective sense of well-being. In particular, Escobar insists on territorial autonomy and control as fundamental for the expression of alternative political identities. Socio-environmental and Indigenous peoples movements' claims, he argues, are motivated by a desire to secure the space necessary to maintain a collective form of life (Escobar 2001), they are less about the defence of place as a physical location per se than about maintaining a set of relationships. The defence of territory is thus

understood as defence of intricate patterns of social and ecological relations and cultural meanings. The challenge then becomes the development of "local economies and forms of governability that can support effective defence [of the territory]" (Escobar 1998:72).

Escobar's ideas, elaborated by researching on and with social movements in Colombia, resonate with the territorialist approach of Alberto Magnaghi, one of the founders of the Italian Society of Territorialists[6]. Magnaghi is concerned with how to devise and to produce forms of local planning sensitive to the historical and geographical specificities of places and that are the result of horizontal and inclusive participation of local inhabitants. In his most comprehensive treatise (Magnaghi 2005), he invites local societies to reclaim places in order to re-establish the conditions for survival, through what he calls the *production of territoriality*, i.e. of environmental quality, of new municipalities and belonging, of growth of local societies, of valorisation of local and urban identities. The reclamation of territories implies the forging of novel connections between sociocultural systems, economic systems and ecological systems. Magnaghi calls for the necessity of developing a culture of self-government and of care for territory through the reappropriation by the dwellers of the wisdom necessary for the production of environmental and territorial quality. This reappropriation involves the re-thinking of identities, not so as to recover an original nature of the place, but instead as the individuation of good reproductive practices that provide rules (architectural, environmental, ecological, etc.) to carry out counter- and re-territorialisation. The making of a new social and physical geography grounded in the revitalization of local environmental systems implies new forms of protagonism of the settled communities: to re-inhabit places means the daily care of them by those who live there. Re-territorialisation thus needs active inhabitants who are able to bring together expert and local knowledges through participatory democracy. The main challenge lies in the making of the local society so as to promote the ability of local inhabitants to self-organize the territory, also as producers.

[6] This society is a research and policy-oriented non-profit association promoting "the dialogue between scientific disciplines that assume the central value of local assets in processes of transformation aimed at social welfare and public happiness (…) [developing] knowledge and social responsibility towards the territory as a common good". They publish the peer-reviewed journal *Scienze del Territorio* and manage a website, available at http://www.societadeiterritorialisti.it/ (accessed 9/4/2017).

Building on Escobar and Magnaghi, I define spatial interventions as embodiments and performances of territorial reclamation. Such interventions span from the physical occupation of sites to block the unfolding of socioecological violence, to the grassroots mapping of community resources and environmental degradation, to broader bottom-up projects of land defence through alliances between farmers, inhabitants and activists. The concept of spatial interventions frames the attempts by GEMs to undermine in space the viability of those processes leading to socio-environmental degradation, and visibilizes the efforts to territorialize the spatial arrangements and imaginaries forwarding alternative agendas and novel configurations of socioecological relationships, both in place and at multiple scales. Deploying a territorial lens helps one approach the landscape as an "ongoing spatial history in which dominant groups and subalterns confront one another in an effort to impose and defend competing visions of life on the land" (Fields 2010:65). Such competing 'geographical imaginings' (Milbourne and Mason 2016) are fundamental dimensions of the clash between different socio-material territorialisations, and are at the heart of Campania's waste conflicts.

4. Methodology

This thesis seeks to inquire into the emergence, the strategies and the legacies of grassroots environmentalism, with particular attention to the knowledges and spatialities the movements generate, by locating them within the complex processes and relations of a specific socio-environmental conflict. Consequently, the research methodology has two main objectives. On the one hand, I seek to unpack the relationships between political economic processes and spatial and socio-environmental changes manifested by waste metabolisms in this region of southern Italy. On the other hand, and more fundamentally, I intend to comprehend the individual and collective experience of uprising, the meaning-making processes and the concrete strategies of popular environmentalism through the voices and actions of those who performed it. By drawing together the two main objectives, I relate the grassroots movements' praxis and epistemology to the broader context in which they are embedded, theorizing the territorial reclamation from below as a conceptual category and as a set of bottom-up political strategies.

But why enquire into this particular conflict and not another one? As I often answer, rather than choosing to deal with waste and activism, I have 'been chosen' by waste and I became an activist much before constructing my identity as an engaged social scientist interested in environmental conflicts and waste management. The beginning of the trajectory that has led me to take up the responsibility of deepening, interpreting and narrating the waste conflicts coincides with my birth: indeed, I am a native of Campania, so what happened to the environmental matrixes of this region of southern Italy, to a certain extent, happened to me as well. Having been born in Acerra, a medium-size town located fourteen kilometres north of Naples, I was forced to confront the stubborn materiality of trash spilling over into the spaces of social life since my early childhood. I still preserve in my memory the image of a several meters high mountain of uncollected household garbage rising next to my primary school, to which I remember looking upon with a mixture of awe and amusement. In 2000, as a fifteen years old, I was rallying with my fellow citizens in the streets of Acerra shouting “No to the incinerator!”. At

nineteen, I was better able to articulate my position, and engaged in the subgroup of the local committee that was elaborating alternatives to waste incineration. At this point, I was also among the thirty thousand people – local inhabitants, activists from other places in Campania and from other social movements in Italy – that marched towards the construction site of the incinerator on August 29th, 2004. We wanted to symbolically occupy it but were dispersed by around 800 police officers in anti-riot gear, who smashed a peaceful demonstration in the first major event of harsh repression of dissent in Campania during the waste emergency era. Even when I left Campania that very year, moving permanently outside the region, I continued studying the waste conflicts in the region from an anthropological perspective throughout my early academic work, and I narrated, through independent media articles and collective books, the grassroots networks that were forming. Therefore, this research fundamentally comes from, and has been shaped by, my experience as an activist engaged in the social mobilizations, and later as a researcher sympathetic with the movements' goals.

My personal involvement aside, the Campania' waste conflicts are an extremely interesting case to deepen in themselves, since they have come to represent one of the most controversial issues of environmental governance in Italian recent history. More than twenty years of illegal hazardous waste disposal; fifteen years of urban waste emergency; and widespread grassroots mobilizations for more than ten years have left more than a mark on the political, social and ecological landscapes. Moreover, violent confrontations, long-standing grassroots campaigns, international media attention, political impacts at the local, regional and national scales, threats to public health, falls in the sale of agricultural products, and endless yet inconclusive studies over the effective contamination have configured an extreme and paradigmatic case of environmental conflict of broader significance, yet deeply embedded in the particular context of southern Italy at the beginning of twenty-first century. Given the main concern of this thesis in exploring the persistence and metamorphoses of grassroots environmentalism over a sustained period, Campania is a perfect context.

Case study and fieldwork

For untangling the complexities of Campania's waste conflicts, I utilized a case study strategy, a framing that allows using and triangulating multiple

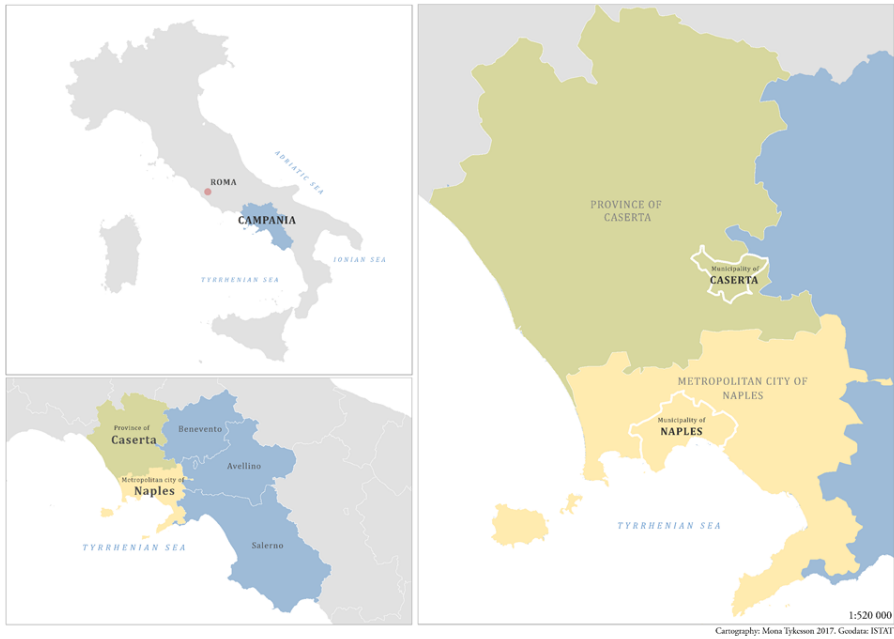
research methods to gain insights into specific instances of particular phenomena. A case study strategy is especially suitable to capture complexity and to sustain an in-depth account of events, relationships, experiences or processes (Snow and Trom 2002; Denscombe 2007). In general, a case study inquires contemporary phenomena within their real-life context, in which the boundaries between phenomenon and context are not evident, as compared to an experiment that deliberately divorces phenomena from their context (Yin 2003). In fact, this strategy enabled me to work embedded in context and to sort out the relations and processes of the various phenomena under scrutiny. I strived not to let the situated focus of this approach prevent openness towards comparison, analytical generalization and conceptual proposition (Yin 2003). This required a clear conceptual design with a coherent and consistent set of methods and procedures for generating, analysing and triangulating the research material (Verschuren 2003; Flyvbjerg 2006).

In particular, I delimited my geographical focus to include the wide plain corresponding to the administrative metropolitan area of Naples as well as the southern part of Caserta's province, which includes both cities (see map 1). I set these boundaries because they encompass the areas where most of the conflicts around urban waste management happened, where the networks that illegally trafficked hazardous waste were disposing of said waste, and where the work of grassroots committees and the CSB has been focused. Here is the former *Campania Felix*[7], today known as the *Land of Fires*[8].

[7] Ancient Romans used to call the region *Campania Felix* (Happy Campania), to indicate the mild climate and the fertility of the soil.

[8] This is the label given to the wide plain between Naples and Caserta by activists and NGOs to highlight the phenomenon of illegal toxic fires of waste occurring for at least one decade, having intensified in recent years.

Map 1. Location of Campania, the metropolitan area of Naples and the province of Caserta (map by Mona Tykesson).



The data-gathering phase was carried out through fieldwork, which lasted a total of ten months. From October to November 2013, I spent two months of exploratory fieldwork establishing contacts with the committees and attending the organizational phase of the biggest demonstration ever performed by the Campania's GEMs, on November 16th of that year. Between January and May 2014, the main chunk of fieldwork was carried out over five months in the region. During this time, I followed the grassroots committee of Acerra closely, conducted interviews with activists of other committees and visited the social cooperatives on lands confiscated from camorra (cf. article 1). Finally, between January and March 2015, I came back on the field to perform additional interviews, to attend the final sessions of two important trials to camorra-linked waste entrepreneurs, and to organize together with a local social centre the first national forum of Italian grassroots environmental movements.

The main units of analysis of this research are the waste metabolisms of Campania and the grassroots committees of activists and ordinary citizens.

Understanding waste movements, transformations and immobilizations required the integration of different research strategies. It is important to clarify that *two* intertwined processes of waste metabolism had to be tackled for gaining detailed insights into the issues at stake in Campania's environmental conflicts. On the one hand, the urban waste management was investigated by analysing the technologies, the ordinary and 'exceptional' regulatory frameworks, the specific conflicts engendered by landfills, incinerators and storage sites, and finally the legitimating discourses of top down interventions. On the other hand, the examination of illegal toxic waste disposal required the consultation of judicial proceedings, attending ongoing trials, the consultation of scientific works on epidemiological statistics and soil chemical composition in order to assess contamination and links between waste and increasing diseases, as well as visits to the sites of illegal disposal. Moreover, for both phenomena, I collected interviews with relevant actors. I elaborate on the methods for this part of the research in the section 'deep into the trashcan'.

For gathering data on the grassroots environmental movements, I utilized several qualitative methods: participant observation, in-depth semi-structured interviews, oral histories, documents and media analysis, and online archival research. Arriving to carry out fieldwork with broadly defined research questions and a theoretically informed outlook, I worked inductively to identify those manifestations of grassroots environmental organizing that would allow me to get closer to the world of meaning of specific groups and to follow them in their activities. This approach led me to identify three interrelated instances of grassroots environmental politics that could represent the larger social landscape of Campania's mobilizations: the collaboration between environmental activists and social cooperatives working on land confiscated from camorra clans; the long-lived grassroots committee of Acerra; the regional coalition *Stop Biocidio.* The methods for data collection of this part of the research are documented in section 'deep into the movement'.

Research philosophy and approach

My research philosophy sits closely to critical realism, according to which all entities and phenomena exist in a real and material world independently from our knowledge of them but cannot be accessed without systems of symbolic

mediation that change through time (Bhaskar 2008). This posture considers biophysical processes as an objective reality and posits that material conditions generate different structures and specific social relations and positions. Critical realism holds that structure precedes agency insofar as it provides the material causes of human action; however, human agency both reproduces the society of which it is the result *and* transforms it in conscious ways (Bhaskar 2008; Sayer 1992). The social constructions of reality – e.g. the knowledges and imaginaries of society-nature relations enquired in this thesis – are considered material forces insofar as they inform human interactions with the external nature. Ollman (2003:173) summarizes Bhaskar's take on critical realism arguing that he "substitutes a study of ontology, or the nature of reality as such, for that of epistemology, or how we learn about reality and what it means to know it". In relation to my research, this implies that different actors' understandings and behaviours are fundamental parts of the social reality I seek to explore, while at the same time I recognize that they are shaped by the historically and materially specific ecological, political, economic and social structures in which they are embedded. This is precisely the logic that underlies a historical look at the dynamics of waste metabolisms in Campania, and that underpins the effort at theoretically and empirically drawing together contextual dynamics and lived realities during and beyond the waste conflicts in the region.

The critical realist stance at the base of my philosophy of science upholds a commitment to a historical materialist and dialectic understanding of socio-environmental relations. Historical materialism as formulated by Marx maintains that social and historical processes should be understood by inquiring into the material conditions of the capitalist society. However, rather than a deterministic causal relationship of the economic life over all other phenomena of social life (juridical, political, cultural etc.), the dialectical thinking compels an understanding of capitalist production as the materialization of *social relations* that are irreducible to simple causation. Dialectics indeed posits that reality is made by a dynamic set of interrelated processes rather than by a collection of discrete objects, it is therefore *relational*, in the sense that any part is connected to everything else. How *nature* should be thought of following this approach remained somewhat implicit in the work of Marx, but during the second half of the 20th century this has become a central concern of eco-Marxist authors (cf. Smith 1984; Foster 2000). The main theoretical endeavour developed by this literature has been a blurring of the analytical division between nature and society. I sought to follow this recognition of the co-constitution of society-nature and of the

eminently political qualities of their relations, thus combining in the analysis physical and social processes.

My research approach is best described as an engaged ethnography (Scheper-Hughes 1995; Casas-Cortés et al. 2013), a type of activist research (Hale 2006) that is characterized by a researcher's commitment to contribute to a movement through theory and practice. This research approach was shaped by the nature of the grassroots committees and the CSB. Upon participating in assemblies and actions, and by following the grassroots committee of Acerra and the formation of the regional coalition closely, it became clear that they are producers and diffusers of knowledge based on the experience of their members, often critical of 'expert' or 'established' knowledge. In other words, they are knowledge practitioners, producing 'situated knowledge' (Haraway 1991), what activists defined in their own terms as *saperi popolari* (people's knowledges). In terms of methodology, this underlines the need for an engaged approach that involves "blurring established social scientific boundaries and promoting a more relational-symmetrical approach" (Casas-Cortés et al 2008:17). The grassroots environmental mobilizations in Campania were thus not perceived as a research object but as a social process that generated their own analysis and concepts, as well as practices, unfolding in a specific time, place and context, what Casas-Cortés et al (2013:215) term "situated sources" of knowledge. Focusing on how and which knowledges were generated by movements and on the translation into space of the worldviews shaped by these knowledges, allowed me to rely on rich empirical material from which I sought to develop broader theoretical and political reflections relevant for academia and for the CSB.

Deep into the trashcan: data collection and analysis of waste metabolisms

In approaching the issues surrounding waste movements, transformations and immobilizations in Campania at the centre of the case study, I proceeded with a systematic collection and review of documents produced by a variety of sources that covered the different aspects of the two phenomena under scrutiny: urban waste management and illegal hazardous waste disposal. Informed by UPE theory, I was guided when detecting and analysing relevant sources by three interrelated concerns: first, gaining an understanding of the

political economy behind both phenomena, namely, the mechanisms, regulations and procedures instrumental to the generation of profits and rents from waste; second, getting a clear picture of the ecological consequences and the spatial distribution of contamination from waste and its impacts on public health; and third, exploring the statements, narratives and media depictions of the waste conflicts, and their role in legitimizing specific configurations of waste management and in disqualifying grassroots' knowledges and practices.

The process of data gathering spanned throughout the four years of the PhD. It happened parallel to the document analysis that pointed, in turn, to new sources to collect. To integrate and triangulate the findings from the document review, during the second and third phase of fieldwork I carried out 7 semi-structured interviews with key informants who occupied roles that were relevant to different aspects of the waste issues. I interviewed academics, political representatives and emissaries of the central government in Campania, getting insights into first-hand professional engagement with waste from different perspectives. In particular, interviews with the current Mayor of Naples and the Commissioner for the toxic fires designated by the government in 2012 helped me to assess the effects of grassroots mobilizations on institutional politics. The interviews are detailed in appendix I.

The number of documents collected for this part of the research allowed for a demanding yet rewarding immersion in the recent history of Campania as seen from its historically manifested 'waste regimes' (Gille 2010). The documents that were collected and analysed for grasping the political economy of urban and hazardous waste metabolisms in Campania are: regional urban waste management plans from 1999 to 2012; reports of the Parliamentary Commissions of inquiry on illegal activities in the waste cycle from 1994 to 2016; publications of the Italian Institute for Environmental Research (ISPRA); proceedings from two trials of illegal waste traffickers linked to the camorra. The sources reviewed for the analysis of the ecological and public health impacts of waste contamination are: the reports of the Regional Agency for Environmental Protection (ARPAC) on contaminated sites and land remediation works; government reports on pollution in Campania; reports from the project ECOREMED[9]; scientific studies on

[9] ECOREMED is an EU funded project based at the University of Agricultural Science of Portici, near Naples, aimed to develop eco-compatible protocols for remediation of

health impacts of contamination and statistics from ISTAT and the National Cancer Registry. To explore mainstream narratives and statements from political representatives, from September 2013 until January 2016 I regularly collected Italian and international press articles on the social conflicts around waste in Campania, from the newspapers *Il Mattino*, *La Repubblica*, *Il Sole 24 ore* (I also consulted their archives from 1994 to 2013), and from *The Economist* and *The New York Times.* In addition, I followed the regional and local press. Finally, I have also referred to secondary sources in the form of journalistic accounts (Vassallo and De Crescenzo 2016; Iacuelli 2008) and expert reports (Rabitti 2008; Capone et al 2006).

By combining these sources of information, I was able to read together the technical and regulative aspects of the urban waste management project in Campania, the dynamics of the illegal hazardous waste trade, the concrete socioecological impacts of their compounded metabolisms, and the supporting discourses. At the same time, using statistics, official reports and other secondary sources I was conscious of their social nature and the broader order within which they are constructed, meaning that they cannot be taken at face value but rather need to be viewed critically (cf. Cloke et al. 2004). This was done wherever possible by triangulating data between sources.

Deep into the movement: the grassroots committees and the Stop Biocide Coalition

Within my engaged ethnographic approach towards grassroots mobilizations, I employed multiple data collection strategies through a qualitative framework, including participant observation, semi-structured interviews and oral histories, alongside document and social media analysis, and online archival research. In addition to these, I also experimented during fieldwork, together with Marco Armiero, with research methods that could give me an insight into the bodily and sensorial experiences, in particular smell, mediating the individual perceptions of the links between internal and external nature (detailed in article 4). I thus integrated an attention to smell into the methods of walking interviews, oral 'sensorial' history and of 'toxic tours'. In article 4, by bringing together empirical material and

agricultural polluted soils through experimentations in Campania. The project website is available at http://www.ecoremed.it/ (accessed 4/4/2017).

methodological reflections, my co-author and I attempted to show how stench has triggered the politicization of people's relations with the environment.

Engaged ethnography relies crucially on participant observation, where the researcher spends considerable time observing and interacting with a social group (Angrosino 2005). The aim of participant observation is to gain insights into processes and events and to reflect on the subtleties, complexity and interconnectedness of the social world it investigates and can help researchers get closer to understanding the ways people interpret and experience the world (Denscombe 2007). In my relationships with activists, grassroots committees and the CSB, it was fundamental to participate in their assemblies, actions and initiatives while observing and taking notes to get precious insights into individual and collective reasoning and internal dynamics of mobilization, all the while allowing me to realize the potential contribution I could give[10]. Between January and May 2014, I participated in 16 local assemblies of the grassroots committee of Acerra, mostly held in private homes and sometimes in an association's locale. The assemblies were organized by local inhabitants with several years of experience in the waste-related mobilizations. In particular, the assemblies of Acerra were called by the *Donne del 29 Agosto* (Women of 29th August, a collective of women that formed in the aftermath of the harsh repression of Acerra's demonstration against the construction of the trash incinerator on municipal land on August 29th 2004), by the local association of the Italian branch of ISDE (International Society of Doctors for the Environment), and by individual activists that participated in several previously active local committees. These assemblies were aimed at reviving popular participation on environmental

[10] The sustained engagement with the movements has been fundamental in order to provide concrete support to their actions. Here is a comprehensive list of my contributions: 1) dissemination of CSB point of view through articles published on an independent media platform (*Napolimonitor.it*); 2) support in harnessing funding and in organizing a national forum of grassroots environmental movements and academic and independent researchers in Naples between 1 and 3 March 2016; 3) direct translation from English to Italian and vice versa during a talk of Dilar Dirik and Ercan Ayboga (Kurdish activists) during the event *Radical democracy, self-defense and ecological feminism* organized in Naples in March 2016; 4) mediation and networking between Italian and international journalists and activists of CSB that came to Campania in January 2015; 5) support in organizing a *Toxic Tour* for international researchers in June 2015 to the sites of urban waste infrastructure, illegal disposal areas and a cooperative on land confiscated from camorra; 6) presentation of the CSB's narratives and strategies at the *International Zero Waste Youth Congress 2014* in San Juan, Puerto Rico, on November 17-18, 2014; 7) organization of a web-radio program with the media outlet *Bleb Radio,* three episodes of two hours each between 1 and 25 May 2015.

issues and to work on an alliance with the local farmers and traders, in order to improve coordination between activists and productive forces of the territory. I attended these assemblies mostly as a listener and observer, but I also took minutes and provided other practical organizational support. During the initial phase of fieldwork in October-November 2013, I witnessed the emergence of the regional coalition Stop Biocide that grew out of the coordinated efforts and the accumulated experience of Campania's grassroots committees. In the second phase of the fieldwork, from January to May 2014, besides taking part in the local assemblies of Acerra's committee, I participated in events, initiatives and assemblies of the coalition, detailed in table 1, and carried out interviews with participants of several committees. Furthermore, during the second phase of fieldwork, together with my co-author in article 1 Monica Caggiano, I deepened my understanding of a specific instance of grassroots organizing: the collaboration between environmental activists and social cooperatives on lands confiscated to camorra. Article 1 thus came to focus on the coupling of political pressure and work on social reproduction, seen as a manifestations of acts of commoning, a work of territorial reappropriation based on the bottom-up remaking of social and ecological relations. During the third phase of fieldwork, I collected further interviews with activists and farmers.

Table 1. Brief description of the events, initiatives and assemblies attended during first phase of fieldwork (January-May 2014)

Activity	Date	Description
Picket outside the tribunal of Naples	January 19th	25-30 people with banners for drawing public attention towards a trial of the Pellinis brothers, a family of waste entrepreneurs from Acerra linked to camorra
Funeral of Michele Liguori in Acerra	Janury 20th	300 hundred people took part to the funeral of Michele Liguori, a local police officer in Acerra that denounced illegal toxic disposal for years but worked in isolation until dying of cancer and being recognized by the coalition as a precursor
Road blockade at the incinerator of Acerra	January 25th	Around 200 people from the committee of Acerra, farmers and activists of the CSB coalition blocked the transfer of waste to the local incinerator to protest the burning of unlawful waste
Demonstration in Giugliano	February 8th	About 2000 people from many local committees protested against the hypothesis by the regional administration of a new incinerator in Giugliano (eventually cancelled)
Assembly in Marano	February 10th	An assembly organized by committees of the coalition to relaunch the participation in Marano municipality
Coalition Assembly in Acerra	March 1st	150 people participated in an assembly of the CSB coalition to prepare a shared agenda of further actions against the incinerator
General Assembly of CSB in Acerra	March 7th	350 people, representatives from more than 50 committees from the provinces of Naples and Caserta, reunited to collectively review progresses and shortcomings of the coalition's actions

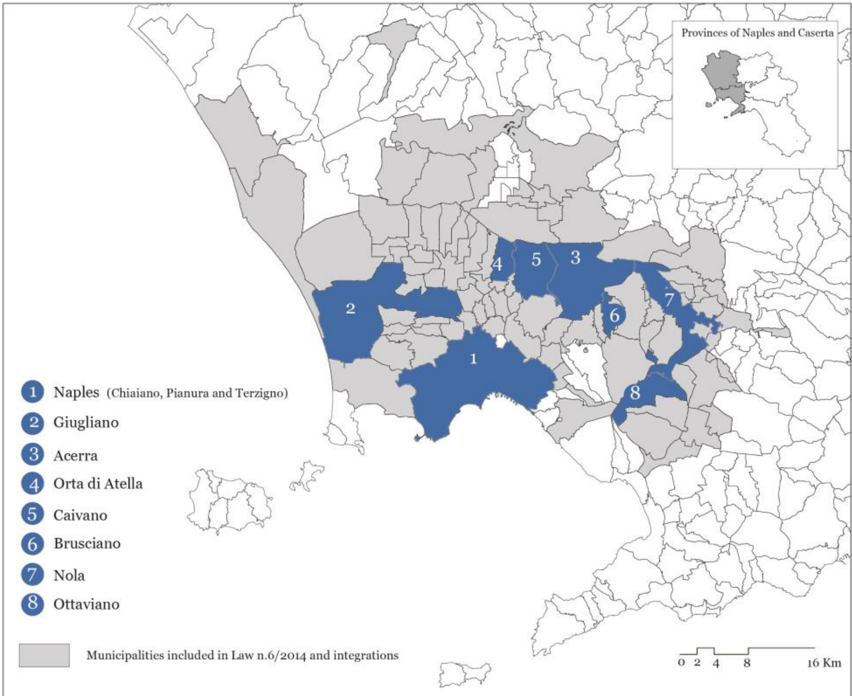
Semi-structured interviews sought to inquire into the lived experience of three categories of relevant actors: first, the participants in the grassroots committees; second, the organizers and the workers of social cooperatives on lands confiscated from camorra; third, the local farmers with and without ties to grassroots committees. Among the active participants in grassroots committees, the majority did not have previous grassroots political background; others did come from experiences of activism linked to the *no global* movement, to social centres, to workers struggles and to civic associations. I conducted 20 one-on-one interviews with participants of grassroots committees. In selecting interviewees, I tried to balance membership in different committees, geographical locations, gender, age and income of informants. The interviews lasted between one and three hours and were conducted in places of the interviewees choosing (mostly in public spaces, and some in private homes). Further 10 interviews were conducted with members of social cooperatives on lands confiscated to camorra, of which seven were with organizers and 'public faces' of the cooperatives and three were with workers. Importantly, some of the organizers of the social cooperatives also shared their experiences as activists of grassroots environmental committees. These interviews were gathered in the different cooperatives of the network NCO, as described in article 1. Finally, I interviewed four farmers from four different municipalities, two with strong relations to the grassroots committees and two with no relation to the environmental mobilizations. With three of the grassroots committees' participants and two farmers, I returned after the initial interview to expand the scope of the questions through the method of oral history. All interviews are listed in appendix I and the location where they were carried out are shown in map 2.

The semi-structured interviews focused on different elements depending on the informant. Towards addressing the core concern of the research, the interviews with grassroots committees' participants sought to explore the personal experience of mobilization, the methods and the contents of the grassroots' knowledge generation, the aims and drivers of the committee's work, and the visions of the land that informed their action. With the members of social cooperatives, the focus was on the motivations they gave to their work, on the relation with environmental mobilizations and on the broader imaginaries nurtured by the cooperatives' social and economic practices. Interviews with farmers explored their perceptions and explanations of socio-environmental changes linked to waste mismanagement

and disposal and sought to understand the reasons for joining, or not, the grassroots committees.

Participant observation, semi-structured interviews and oral histories were complemented with an analysis of documents generated by the grassroots committees, mainly reports and press releases produced between 2000 and 2015, which were useful to grasp the public discourse of the committees and their work of counter-information. Social media proved to be a major channel of diffusion of the committees and of the CSB point of view. I therefore followed and consulted their Facebook and Twitter profiles. Lastly, in order to get a sense of shifts and continuities in grassroots environmental mobilizations on a longer timeframe, I consulted the online archives of Angelo Genovese and Angelo Orientale, two long time activists that ordered and collected news and documents of political and environmental activism from roughly the 1970s to present.

Map 2. Municipalities where interviews were carried out (map by Cesare Cascella)



Data organization and analysis

All interviews were transcribed with the support of a contracted local activist. The field notes and documents collected were ordered according to a timeline as well as by macro-categories of interest. The written material thus ordered was then coded through descriptive and analytical codes following both the theoretical framework as well as issues emerging from the data at hand in an iterative fashion. To uncover the patterns emerging from the data collected, I used a combination of narrative and successive approximation analysis (Neumann 2007). For the former, I thematically analysed the narratives of grassroots committees' informants. The concepts I came equipped with when I arrived on the field – related to the broader theoretical interests of grassroots' knowledge generation, epistemological disobedience, the defence of territory, etc. – shaped the questions I asked. By coding the interviews, similar stories and themes emerged in accounts from multiple informants, for example the feeling of having being epistemologically and physically 'colonized' by waste, the importance of saving local agriculture, the trigger effect of the fear of contamination. This allowed me to circulate between data and theory, enriching the insights afforded by both. Successive approximation involved an iterative process of moving from the research questions and conceptual framework to probe the data I collected, and vice versa; I thus sought to move "from vague ideas and concrete details in the data toward a comprehensive analysis with generalisations" (Neumann 2007:337).

5. Campania's waste conflicts and the voices from the field

This chapter is dedicated to a narrative reconstruction of Campania's socio-environmental conflicts. It draws from the examined sources and the empirical material analysed – as detailed in the methodology section – and presents historically and thematically the many facets of this complex case from the particular perspective I developed in the previous chapters. The aim of this chapter is twofold: on the one hand, to provide the contextual elements and the key facts within which the waste mishandling and illegal disposal in Campania can be critically assessed beyond mainstream explanations; on the other, to show the emergence and progression of grassroots mobilizations with insights into the main battles and turning points and through a recollection of voices from the field thematically organized. As a whole, this chapter's overview deepens and expands the background and the contextual information on which the thesis' articles build upon. The reader will find more information on the political economy/ecology of waste metabolisms than on the grassroots committees, since the latter are treated in detail in the articles and I wanted to avoid too many redundancies. In this chapter, I critically reassess the recent histories of waste conflicts in the region, part of a historical and anthropological inquire I am conducting also in Italian (De Rosa 2016a, 2016b).

The chapter starts with an introduction to current environmental issues and contestations in Italy, paying attention to the recent escalation of disputes around socio-environmental changes, privatization and development projects foregrounded by the growing density of grassroots mobilizations and activists' networks. Second, I begin the descent into the intricacies of the Campania case and context. Here, I develop an analytical exposition for teasing out the actors, processes and events that shaped the field of environmental conflicts around waste in the region. In the following two sections, I deal with urban waste management, illegal hazardous waste trafficking and disposal, the Land of Fires phenomenon, and their

compounded socioecological implications. Third, I present a historical reconstruction of the grassroots environmental movements' emergence, strategies and legacies, divided in subsections according to temporal progression. Finally, a short narrative on a controversial episode for the committees (and on how they dealt with it) is followed by a longer section in which some of the voices from the field are organized into a path through the themes identified by the analysis.

Environmental issues in Italy: between diverging priorities and contestation

In recent years, there has been a a growth in popular discontent around environmental conditions and changes across Italy, manifested in increasing citizens' mobilizations and territorial conflicts against operating and planned energy plants, industrial facilities, highways and railways, waste treatment facilities, military bases and other infrastructures with relevant socio-environmental impacts (Poggio and Ruzzenenti 2012). The increasing repeal by citizens groups of projects deemed necessary by different governments, spurred the 2004 Ministries of Productive Activities and of the Environment to promote the *NIMBY Forum*, a private-public partnership nominally devoted to the study of environmental and territorial contestation – that it frames as a 'social disease' – but which, in practice, is geared at building consensus around contested facilities. Major Italian energy, waste and construction companies stand behind the *NIMBY Forum*[11]. Their yearly report from 2016 highlights a steadily increase in contested facilities in Italy from 171 in 2006, to 283 in 2009, to 342 in 2015 (NIMBY Forum 2016). On the other side of the political fault line is the Italian environmental *Centro Documentazione Conflitti Ambientali* (Documentation Centre of Environmental Conflicts, hereafter CDCA) who, working in cooperation with citizens' committees, has coordinated the elaboration of a national online map of ongoing environmental conflicts in the country, uploading 125 cases[12] so far. The Italian Atlas, shaped by the EJOLT Global Atlas, systematizes the

[11] Including the Impregilo group, the corporation that, through its subsidiaries, won in 1999 the tender for constructing and managing the industrial waste cycle in Campania.

[12] The Italian Atlas of environmental conflicts is a work in progress and it is available at the website http://atlanteitaliano.cdca.it/ (accessed 2/7/2017).

available information from a variety of sources for each case of conflict and documents the strategies that groups of concerned citizens utilize to oppose processes of environmental destruction, contamination and dispossession, and the imposition of development projects.

Pollution from dismissed and operating industrial and waste facilities is one of the main issues around which recent protests coalesced. Indeed, Italy is traversed by a discontinuous geography of pollution that goes back decades, to the legacy of the Italian economic expansion and industrialization that followed the reconstruction after World War II (Poggio and Ruzzenenti 2012). The Italian State has recognized the widespread public risks linked to the exposition to contaminants since 1998, when the Ministry of Environment begun classifying *Siti d'Interesse Nazionale* (Sites of National Interest, SINs)[13]. These are areas in Italy (highly varied in terms of extension and population) where pollution of soil, subsoil, surface and ground water is so extensive that it constitutes a serious danger to public health and to the natural environment, and for which remediation works are authorized and supervised by the Ministry of Environment. Within the identified SINs, there are multiple polluting sources: abandoned or still active industrial areas, active ports, former mines, quarries, and legal and illegal waste dumps. The total area identified as SINs consists of 1,800 km² of marine areas, lagoons and lakes, and 5,500 km² of land areas, amounting to about 3% of the national territory. The municipalities included in the SINs are more than 300, and are home to about six million inhabitants. There is no Italian region that does not host at least one SIN; Campania has six, which have been nominally reduced to two through a recent law decree. However, the SINs are only a fraction of the recorded sources of pollution in Italy. Indeed, under the responsibility of the Regional administrations, more than 13,000 sites have been classified as potentially contaminated and about 5,000 of these are classified as in need of remediation (ISPRA 2008). In 2013, in reaction to delays and inconsistencies by the Ministry of Environment in the remediation of polluted sites, local administrators of the municipalities falling within the

[13] The criteria for the classification of SINs was defined by legislative decree 22/97 (Ronchi Decree) and by the Ministerial Decree 471/99. On this basis, 57 sites were classified. The SINs have been the object of several legislative interventions, the last being the Ministerial Decree 11 January 2013 that, by changing classification criteria, reduced only nominally the number of SINs to 39. According to the Legislative Decree 152 of 2006, the SINs are identified in relation to the characteristics of the site, the quantity and danger of pollutants, the impacts on the surrounding environment in terms of health and ecological damage as well as the impairment of the cultural and environmental heritage.

SINs created the National Network of SINs Municipalities, with the aim of spurring partnerships, exchanging information and implementing coordinated actions in response to the health and environmental problems that concerned the territories involved.

The risks in terms of health for the residents within the SINs have been the subject of a national study carried out between 2010 and 2014 by the Italian National Institute of Health together with a network of regional scientific institutions and with the support of the World Health Organization. The project is called *S.E.N.T.I.E.R.I.*, an acronym for the Epidemiological Study of Residents in National Priority Contaminated Sites[14]. The third report of the study, published in 2014, presents the results based on an analysis of mortality rates, of cancer incidence and of hospital discharges among the population inhabiting eighteen national SINs (the ones where data was most reliable), covering a period of approximately twenty years. The study found an increased risk of developing several forms of cancer and other diseases for people living within the SINs, even though direct causal links between specific contaminants and the occurrence of sickness could not be proven in the majority of cases. The study recommended to deepen the knowledge about the sanitary conditions of the people exposed through individual bio-monitoring analyses in selected areas, and invited the government to speed up the securing and remediation of contaminated areas.

Each of the SINs has a specific history and characteristics. The activities generating the pollution and the kind of contaminants, the judicial proceedings for establishing the perpetrators' responsibilities, and the scope and progression of the remediation work all vary greatly between the sites. Some issues linked to specific sites have recently become the sources of heated debates at the national level. This is the case of contamination from asbestos, a source of pollution that causes mesothelioma lung cancer[15], and of the SIN of Taranto, in which the steel factory of the ILVA group is currently at the centre of a conflict between residents, workers, owners of the plant and

[14] Of the three concluding reports, the first details the methodological basis of the study (Pirastu et al 2010), the second the mortality rates for the population of 44 SINs (Pirastu et al 2011) and the third the mortality rates, oncologic incidence and hospital discharges of 18 SINs (Pirastu et al 2014).

[15] Deaths in excess from mesothelioma and malignant tumours of the pleura have been recorded in the Sicilian SINs of Biancavilla (CT) and Priolo (SR), where it is documented the presence of asbestos, in the SINs with port areas (Trieste, Taranto, Venice), with industrial chemical facilities (Lagoon of Grado and Marano, Priolo, Venice) and with steel production activities (Taranto, Terni, Trieste) (cf. Pirastu et al 2014).

the State[16]. These cases stand out because they point to the polarization between the priorities of economic development and the priorities of health and environmental security, issues that are increasingly under public scrutiny. In the case of asbestos, the historic verdict in February 2012 that sentenced the owners of the Eternit factory of Casale Monferrato to eighteen years in prison for having caused the asbestos-related deaths of more than three thousand people, was overturned on the ground that more than ten years had passed since the closure of the factory, meaning that the crime was no longer punishable under current legislation[17]. On Taranto's ILVA, several government decrees bypassed the tribunal resolutions that imposed the closure of the factory for the risks to the health of workers and of residents, on the ground that the relevance of ILVA for the Italian industrial apparatus justified a production process that was adverse to the environmental safety standards set by the law.

The diverging priorities between segments of the population and government institutions were exemplified in the disputes surrounding the approval of the Law 133/2014, more famously known as the *Sblocca Italia* (Unlock Italy) law, on October 2014, highly wanted by the then ruling *Partito Democratico* (Democratic Party, centre-left) as part of structural reforms to boost growth and attract investments. This law is an assemblage of normative changes composed by 45 articles that address a heterogeneity of sectors with the stated goal of "reducing bureaucracy, unlocking the country's development, re-launching the economy". From construction permits to oil extraction, touching on waste management, public administration reform, disaster prevention, privatization of public services and internet infrastructure, the

[16] In 2012, the Public Prosecutor of Taranto seized the facilities of the ILVA and ordered the arrests of the managers. The managers were charged of having allowed levels pollution responsible for the death of thousands of people and of having contaminated unscrupulously the environment, without compliance with the emission limits set by law. However, the seizure was followed by seven government decrees that cancelled the orders issued by the Judiciary (for a political ecology analysis of this case can see Barca and Leonardi 2016).

[17] On the insufficiency of the Italian legislative apparatus to punish environmental crimes, it is paradigmatic the final indictment pronounced by the General Prosecutor Francesco Iacoviello at the Eternit trial: "in the end the prescription does not respond to the needs of social justice but we should be careful not to conflate the law with substantial justice. (…) The judge must always interpret the justice according to the law: if he is convinced of the guilt, he must try to punish a billionaire criminal who has not even a sign of humanity and respect for its victims. But there are times when law and justice are on opposite sides. When the judge is placed in front of the dramatic choice between law and justice, he has no alternative. He must choose the law" (Iacovello 2014).

main rearrangement impacted by the Unlock Italy is the centralization of decisions over the issuing of permits and certifications in the central government, depriving regional and local administrators of their prerogatives. Some of the most controversial articles in the Unlock Italy streamlined the granting of permits for oil and gas extraction by reducing environmental assessment procedures, provided funding and incentives for new infrastructures and *grandi opere* (great works, i.e. public funded mega-projects), and liberalized the movements of garbage across the country to saturate the thermal load of all waste incinerators in Italy. According to the Constitutional law expert Paolo Maddalena, this law rests on the idea that speeding up public works and private investments should prevail over fundamental interests that are protected by the Constitution (Maddalena 2014). The Law was met with the opposition from the National Association of Italian Municipalities (ANCI), lamenting the deprivation of the powers granted to local authorities. However, the strongest campaigns and the most explicit challenges to the Unlock Italy Law and its undemocratic rationale and outcomes arose in those territories where environmental resistance movements have been building up in recent years.

In the context of long-standing conflicts, like the struggle against the High Speed Railway (Tav) in the Susa Valley (Leonardi 2013; Marincioni and Appiotti 2009; Della Porta and Piazzi 2007) and the resistance in Campania against waste contamination (Armiero and D'Alisa 2012), and alongside enduring public controversies like the one surrounding the ILVA's industrial complex of Taranto (Barca and Leonardi 2016; Greco and Chiarello 2016) and the planned MUOS military radar facility in Sicily (Di Bella 2015), a myriad of citizens' groups in Italy have been mobilizing in recent years against what they perceive as dispossession of their livelihoods, territory, health and rights (Di Pierri and Altiero 2015). In this context of contradictory tendencies in which further environmental burdens are imposed on places already jeopardized, and underlined by a lack of democratic debate, the construction of national campaigns made of myriads of local litigations on different fronts (waste; privatizations; oil extraction; mega-projects and so on), are a defining feature of the controversies surrounding socio-environmental change today in Italy. At least three networks of national breadth are worth evoking here. First, the *Forum Italiano dei Movimenti per l'Acqua* (Italian Forum of Movements for Water), a coalition bringing together local environmental movements, activists for the commons and grassroots committees formed in 2006 with the aim of reversing the

increasing commodification of water[18]. Grouping more than 80 national networks and about 1000 local grassroots movements, the Forum was able to collect over one million signatures for proposing a referendum in 2011 to ask Italians if they wanted to keep water management public and under the responsibility of local and regional administrations. With 95% of voter responding yes, the referendum was a success of the capillary campaigns waged by Forum, and it sent a clear message to the government against the privatization of public utilities. Second, the *Coordinamento Nazionale No Triv* (National Coordination Against Drilling) was established in 2012 from the cooperation of the Italian grassroots committees struggling against the detrimental local and global effects of fossil fuels extraction. This network aims to unite the "national and local forces of resistance against prospection, extraction, storage, transport and refining of oil and gas"[19]. It became more prominent after the ratification of the Unlock Italy Law. The movements gathered around the *No Triv* claim to lead a struggle for the "defence of commons, of democracy and of the will of local communities, against the centralization of power and of fossil imposition". Finally, in October 2015 in Ancona the network *Stop Devastazione e Saccheggio dei Territori* (Stop Devastation and Looting of Territories) was formalized during an assembly of local movements from all over Italy. Self-formation, mutual support and transparency of environmental data are the main objectives of the network, which also became an online platform that gathers news from local contexts engaged in environmental struggles[20].

The recurring themes that animate these uprisings and national alliances are the perception by localities of being in the grip of past abuses and ongoing exploitation, and the attempts at more substantial participation in the decisions affecting local socio-environmental conditions. Besides resistance, this geography of environmental grassroots mobilizations increasingly implements visions of prosperity and locality grounded in renewed notions of territorial belonging, place awareness and local political empowerment (Di Pierri and Altiero 2015).

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[18] The Forum has a vibrant and updated website, reachable at http://www.acquabenecomune.org/ (accessed 18/6/2017).

[19] As stated in the official website of the network: http://www.notriv.com/about/ (accessed 18/6/2017).

[20] Accessible at https://stopdevastazioni.wordpress.com/ (accessed 18/6/2017).

Campania, or the wasted land

In this section, I elaborate a narrative that follows the Campania waste metabolisms of the last two decades and the emergence and progression of grassroots environmental movements. In particular, I delve into the political economy and ecology of both household and special waste flows, unpacking the articulations of their movements, transformations and immobilizations. Subsequently, I unravel the conflicts that erupted in response to waste accumulation and mishandling, and provide a historical account of the rise of popular environmentalism, the central battles, the controversies and the eventual outcomes.

The 'waste crises'

Campania comprises five provinces: Avellino, Benevento, Caserta, Naples and Salerno. The almost 6 million people who inhabit Campania are unequally distributed in the region. Indeed, most of the residents live within the metropolitan city of Naples (more than 3 million)[21], which represents less than 9% of the total regional area (1.170 km2 of the 13.590 km2 total area). The average population density is about 2.500 inhabitants per square kilometre while just within the municipal border of Naples it reaches 8.000 (Istat 2011). Between the provinces of Naples and Caserta, 80% of the region's population is concentrated in an intricate network of urban areas, farms, small industries and commercial activities. These two provinces have the highest population density in Italy and in the EU. The synergy between such population density and the presence of waste treatment and disposal facilities (legal and illegal) expose the area to very high waste-related biophysical pressure (D'Alisa et al. 2012).

Campania is one of the poorest regions in Italy. Its GDP per capita of 16,335 euros is one of the lowest in the country, superior only to Sicily and Calabria, while the richest regions of Trentino Alto Adige and Valle d'Aosta reach more than the double this amount, sitting at 37,665 and 36,183 euros respectively (SVIMEZ 2015). The global economic crisis of 2007-2008 hit

[21] The metropolitan city of Naples cover the same area of the previous Province of Naples. This was instituted on January 1st, 2015, through the Law 56/2014.

all southern Italian regions hard (with a 13% decrease in GDP between 2008 and 2014 in the *Mezzogiorno* as a whole compared to a 7.4% decrease in the center-north), and Campania was no exception (14.4% decrease in GDP in the same interval) (SVIMEZ 2015). Data from 2012 shows that the disposable income of Campanian families was 13,849 euros, 1.6% and 23.7% less than the average of the south and north of Italy respectively (ISTAT 2012). Between 2007 and 2012, family income declined in Campania by 8.1%. The overall unemployment rate was at 21.7% in 2014, reaching its peak since 1993 (Banca d'Italia 2015). The unemployment rate among young people of Campania (15-24 years) reached 56% per cent in 2014, a rate four times higher than in 2013. Another depressing record of Campania saw in 2015 the life expectancy at birth arriving at 78.3 years for men and 82.9 years for women, values that are the lowest among Italian regions (at a national level the average is 80.1 for men and 84.7 for women) (Solipaca and Marino 2015).

The recent history of the region is inseparable from the controversies around waste. The images of the capital city of Naples buried under its own garbage and the apocalyptic accounts of toxic waste illegally disposed of in the region surfaced in the international news from around 2003 onwards (Dines 2013). What appeared to be an indecipherable issue of gigantic proportions puzzled international commentators as well as Italian analysts. How could a modern country of the developed world like Italy allow such a derailment in the provision of an essential proximity service like waste handling? The complexities surrounding the case were boiled down by mainstream media, both in Italy and elsewhere, to be the result of two main factors. On the one hand, the incapacity of local people to handle their own trash through sorting and recycling coupled with their irrational and selfish unwillingness to host waste treatment facilities on their territory (e.g. The Economist 2008). On the other hand, the presence of organized crime groups that systematically hijacked the government institutions' attempts to solve the waste 'crises' while pushing people to protest in the pursuit of some hidden agenda (e.g. Yardley 2014; Phillips 2008). The international press in particular resorted to "pre-existing ideas about Naples as an aberrant city on the margins of a 'normal' Europe" for explaining the waste crisis, as Dines (2013:410) concludes in reference to the treatment of the issue by British media, thus failing to decipher the complexity of the political and administrative backgrounds, and ultimately reinforcing negative stereotypes about Campanian people.

These explanations, also fed by various government officials and ministries from both the centre-right and centre-left parties that have ruled the country over the last two decades, put the blame on the local inhabitants or on the camorra, entities that are seen as almost overlapping. Such indictments suggested, at times between the lines and at times more explicitly, the existence of some sort of cultural defect that excludes Campanians and Southern Italians from the civilized world. From such 'naturalization' of the conflict, stemmed the depoliticization of the issue and the legitimacy for the use of force against people's protests (Petrillo 2008). Moreover, the focus put by political elites on the *urban* waste 'crisis' – dealt with as a public order issue and as a question of Italy's international reputation – delayed the acknowledgement by the governing institutions at regional and national level of the far more dangerous, in terms of public safety, illegal trafficking, improper disposal and open air burning of *toxic* waste.

The main setting of Campania where these eco-social dramas played out is the wide area between the northern province of Naples and the southern province of Caserta, located in the centuries-old, and now officially dismissed, administrative division of *Terra di Lavoro* (Working Land) and at the heart of the *Campania Felix* designated by the Ancient Romans. It is within this area that two intertwined, multi-scale processes that revolve around the commodification of different waste materials have had a remarkable influence on the changes of the landscape and the socio-environmental conditions. First, the implementation of the regional urban waste management plan that was supervised and managed by a special governmental agency and carried out through a public-private partnership under the legal framework of the 'urban waste emergency'. Second and imbricated with the former, is the massive illegal dumping of hazardous and industrial waste in unsuitable landfills and in agricultural areas carried out by a complex network of entrepreneurs, State officials, industry managers, owners of waste facilities and organized crime groups. These two processes have complex interrelations that blur the demarcation between legal and illegal practices of waste management. The common factor that best exemplifies the logic of their functioning is the decrease of the democratic space of negotiation on environmental management issues (D'Alisa et al 2010).

First phase of the emergency (1994-2005): setting up the disaster

The first comprehensive regulation for urban waste management in Campania was adopted in 1993 with the Regional Law n.10. This law planned within three years to reduce the landfilling of garbage by 50% through the implementation of sorting and recycling schemes. However, the plan never took off, and on February 11, 1994, the Prime Minister Ciampi declared the 'state of emergency' for the management of urban trash in Campania. This is the official beginning of a state of exception within the regional territory renewed until the end of 2009. Fifteen years of suspension of ordinary laws, of environmental safeguards and of democratic procedures, in which ten different Commissioners, who were designated by the central government, and their entourage were invested with the power to rewrite the landscape without strict accountability in the name of managing urban garbage (Armiero 2014b). The Prefect of Naples Umberto Improta was designated as the first Special Commissioner in charge of seizing the illegal dumping sites[22] to remedy the 'environmental emergency', determined by the saturation of available landfills, and to the 'criminal emergency', caused by the infiltration of organized crime in the waste disposal business. In 1996, the regional governor was appointed Special Commissioner for the waste emergency with the specific mission of devising the regional urban waste management plan. In June 1997, the governor in office Antonio Rastrelli presented the regional plan for an 'industrial waste cycle' based on two waste incinerators[23], seven waste processing facilities for the production of Refused Derived Fuel (RDF), and landfills for the fraction in excess from incineration and recycling. In 1999, the governor organized the tender for assigning to a private operator the task of constructing and managing the entire urban waste cycle. The tender was closed in 2000, at which point the Commissioner was the governor Antonio Bassolino, when it was won by a temporary consortium of four companies called FIBE, from the initials of the names of the firms Fisia Italimpianti, Babcock Environment GmbH and Evo Oberrhausen. The

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[22] In 1990, the Ministry of Environment had found that of 459 facilities for waste treatment in Campania (mostly landfills), 316 did not have any authorization while among the 124 public and private landfills, 103 were operating in violation of environmental laws (Legambiente 2008).

[23] Interestingly, the incinerators were renamed *termovalorizzatori* in the plan, literally 'thermal value maker', an euphemism based on political calculus to make the facilities look more positive (see Wu Ming 2008), much like the current *waste-to-energy* wording that is popular among proponents of incinerators in Europe.

majority ownership of these companies, however, goes back to single corporation, the Impregilo (renamed Salini-Impregilo in 2014 after a merge), that is today the largest Italian engineering and general contractor group, and a global player in the construction sector. For ease of exposition, I will utilize Impregilo in this thesis to refer to the contractor of the waste management plan in Campania.

Impregilo won the tender on the basis of a planned cost of operation lower than the competitors and because of the proposed shorter terms for the delivery of the facilities, even though the technical quality of the project was judged 'poor' by the selection board (Rabitti 2008; D'Alisa et al 2010). A controversial aspect of the contract gave Impregilo exclusive authority on the localization of waste facilities and on the acquisition of lands for storage sites and deposits of Stabilized Organic Fraction (SOF). This concession left a delicate sphere of planning and of public interest in the hands of the private firm. Indeed, it went on to be one of the key causes of social unrest in local communities that learned about incinerators and storage sites to be built on their land from the media. Moreover, the possibility to entertain in private negotiations for the purchase of lands went on to cause the infiltration of organized crime. Between the formulation of the terms of the tender, the awarding and the signing of the contract, the conditions were put in place that led to the derailment of the urban waste management by Impregilo, with the backing of the Commissioner, and to the ultimate failure of its project. According to the reconstruction of the engineer Paolo Rabitti (2008), surveyor for the Naples Prosecutors in the court proceedings on the Campania urban waste management, the agreements made between the corporation entrusted with the contract and the Commissioner, and pressured by the banks that loaned the money, violated systematically the Napolitano Ordinance[24], that in 1998 outlined the terms within which waste management should have been dealt with.

The first violation was committed as early as the call for bids that was organized by the Commissioner. Indeed, it requested to treat the *totality* of urban garbage produced in the region of Campania (amounting, in 2000, to 2,598,000 tons per year, about 7,500 per day) and not just the residual waste from separate collection, the latter a task pertaining to municipal administrations and public-private consortia. The second violation was the inclusion of the clause *deliver or pay,* which imposed on the municipalities

[24] Ministerial Ordinance n.2774 of March 31st 1998.

utilizing the Impregilo facilities the delivery of a certain amount of waste or the payment of a fine, making the efforts to implement reduction and recycling of garbage economically disadvantageous. The third violation occurred by erasing the contract's clauses requiring the contractor to burn the RDF in other plants in Italy, at its expense, until the completion of the incinerator in Campania, and the one that limited the material to burn to half of the waste treated by the corporation. These violations opened the way for the transformation into RDF of all the waste treated by Impregilo and to the accumulation in storage sites of the so-called *ecoballe* (waste blocks of RDF) produced before the activation of the incinerator. This is how the Commissioner acquiesced to the needs of the contractor. Indeed, the accumulation of RDF was the guarantee of profits for Impregilo and the impetus for the banks that provided the loan, because thanks to the resolution no.6 1992 of the Interministerial Committee on Prices, the so-called CIP6, burning more trash meant an increase in revenues[25]. In addition, the subsequent need to implement storage sites for the RDF led to the proliferation of speculation on lands to rent for that purpose and to the infiltration of organized crime, which established business relations directly with the Commissioner and contractor through controlled companies and figureheads (Parliamentary Commission 2013b:243-248).

Despite the optimal contractual conditions, Impregilo did not produce proper RDF[26] and SOF, did not complete the incinerators within the due date, and

[25] The CIP6 resolution establishes an increase of 7% of the price of purchase for electricity produced from renewable sources by the Italian Authority for Energy Services, paid directly by end users through the utilities bill. The resolution was designed to promote renewable energy production by ensuring higher profits to producers of electricity from renewable sources compared to traditional fossil fuel sources, and thus encourage the energy transition of the country. However, in the formulation of the resolution, next to the expression "renewable energy" was added the extension "or assimilated", which contemplated thermoelectric power plants and waste incinerators. In recent years, according to official data (ISPRA 2012), the Italian Authority for Energy Services in 2012 supported incinerators with more than 1200 million euros, compared to 225 million euros for geothermal plants, 200 for hydro plants, 196 for wind power and 4 for solar plants. Therefore, the management of a waste incineration plant in Italy provides relevant opportunities for profit (Crivello 2015). The CIP6 limitation to "incineration plants already built and operating," contained in the Finance Act of 2006, was overtaken by the adoption of emergency regulations, such as Law No.210/2008.

[26] The RDF, to be defined as such, must comply with the technical specifications laid down by law, including the correct calorific value and the right humidity. In Campania, the RDF produced by Impregilo's facilities, according to the findings of Naples' prosecutors, did not comply because it was too wet and contained bulky waste. In 2008, all RDF processing plants in Campania were renamed "plants for grinding and packaging".

resorted to landfilling to a greater extent compared to the initial plan. These compounded factors caused the depletion of authorized landfills available in Campania, the necessity to open new ones in conservation areas and in places already subjected to relevant environmental pressures, and finally, it led to the stall of waste collection and to the cyclic accumulation of garbage in the cities and towns of the region.

In February 2005, at the height of one of the garbage collection crises, the Neapolitan prosecutors seized all the RDF plants on the basis of their inability to treat waste according to the contract. The evidence gathered constituted the evidentiary basis of the judicial proceedings to the actors managing the waste emergency in Campania. In the aftermath of the investigation, the central government intervened and formally terminated the contract with Impregilo through Decree no.245 of 2005, converted into Law no.21 of 2006, which ended Impregilo’s management and forced the contractors to persevere until the identification of a new private entity who would take charge of the facilities.

Second phase of the emergency (2006-2014): authoritarian turn

Between 2006 and 2007, the landfill volumes for the daily delivery of garbage in Campania gradually became saturated. While RDF blocks were stacked in storage sites and the incinerator was far from completed, the garbage accumulated in the streets. In a move to solve yet another waste collection crisis, Prime Minister Romano Prodi (centre-left) intervened with the Decree no.61 of 2007, converted into Law no.87 of 2007, which identified four new landfills, authorized the construction of two more incinerators and opened the use of military personnel to remove the garbage from the streets. Almost simultaneously, on June 27, 2007, the European Commission started an infringement procedure against Italy for the unresolved emergency that was breaching European directives.

By sending a fraction of the accumulated waste from Campania to Germany, the waste in the streets decreased, but the situation worsened again when in two of the sites where landfills were planned, Pianura and Chiaiano, mounted protests of local people. In Pianura, a private landfill, Di.fra.Bi. (acronym of the names of the managers), was supposed to reopen adjacent to the old municipal dump, which was authorized, from 1989 to 1993, to receive huge amounts of toxic waste, hazardous sludge, medical waste and process waste from Acna of Cengio, a chemical factory in northern Italy. In 1996, following

protests of the local community who were exasperated by the stench, the Di.fra.Bi. was closed and the reclamation process began. It is estimated that along the 41 years of activity of the landfill, between 35 and 42 million cubic meters of waste of various kinds were disposed of (Crescenti 2009). Already in 2002 and 2004, the Commissioner had tried to reopen the landfill of Pianura. In 2002, local demonstrations prevented it. In 2004, a waste transfer platform was imposed through the intervention of the police and remained in operation for few months. By the end of 2007 the proposed reopening of the dump triggered a violent response by the locals, who reacted through urban warfare, including torched buses and clashes with police forces (De Biase 2015). Such resistance, supported by the grassroots movements that had arisen over the years of emergency in Campania, prevented the re-opening of the dump. Scientific evidence emerging after some weeks, indicated that the site was unsuitable for the reception of waste.

After the fall of the Prodi government in May 2008, Berlusconi (centre-right) was elected prime minister. He held the first Council of Ministers of the new government in the city of Naples submerged in rubbish. On this occasion, the Decree n.90 of 2008 was approved, and was converted into Law no.123 of 2008. The law concretized a tightening of the state of exception legitimized by the emergency. In the decree, the government identified ten sites in which ten landfills would be realized, declaring them areas of 'national strategic interest'. Tougher penalties for those who opposed the plans of the government and the actions of the Commissioner were introduced, and a prosecutor at the Court of Naples was given exclusive jurisdiction over environmental crimes committed throughout Campania. The decree assigned to the head of Civil Protection Guido Bertolaso, former Commissioner from 2006-2007, the responsibility for the waste emergency. From this moment onwards, military platoons guarded the areas utilized for waste management in Campania.

The law n.123 of 2008 confirmed the choice of Chiaiano for the disposal of 700,000 tons of urban waste in three years. The landfill was located in a quarry in the forest of Chiaiano, in the heart of the Metropolitan Park of the hills of Naples, a nature conservation area. Back in 2001, the project of disposing organic waste in the quarry had been met by strong protest. The news of the decision of a new landfill raised the immediate mobilization of the locals. A permanent *presidio,* a garrison, at the Rotonda Titanic in Chiaiano was established on the road leading to the quarries, and became the symbol of the protest in the months and years to follow. In the night between

23 and 24 May 2008, clashes with the police wounded many demonstrators. Negotiations between the government and committees reached a standstill after experts from both sides visited the landfill. The experts of the committees[27], in fact, rejected the landfill on the basis of hydro-geologic, chemical and engineering criteria of feasibility, but the Commissioner decided to proceed. The government managed further protests by sending in more police. Several activists were arrested and the landfill opened after 14 months of clashes. In 2011, the landfill was seized and closed by prosecutors for a number of offenses detected. In March 2014, the investigation of the Anti-Mafia Directorate on the landfill Chiaiano ended with 17 arrests, including the managers of the firm responsible for the construction and management, and the experts of the testing committee, accused of having favoured companies linked to the camorra and of carrying out the works without respecting the environmental safety criteria.

End of emergency and its legacy

On March 26, 2009, Berlusconi inaugurated with great fanfare the Acerra incinerator, but it was only the beginning of the test phase, and it would take the plant three years to work at full speed. According to the 2000 contract between the Commissioner and Impregilo, the contractor should have delivered the incinerator within 300 days. Because of the technical inability of Impregilo, sanctioned by the Ministry of Environment through the imposition of 27 adjustments for environmental protection, the construction site was opened only in 2004, after a fierce police repression of one of the first mass demonstrations of Campania's grassroots movements in Acerra, on August 29, 2004. In 2012, the Campania Regional administration bought the incinerator from the former contractor with 355 million euros of European funds. The facility is managed today by A2A, an Italian multi-utility company, which enjoys the subsidies granted by Cip6, in addition to the fees paid by municipalities to dispose of their waste[28].

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[27] The experts appointed by the committees were part of *Assise di Palazzo Marigliano*, a group of intellectuals who provided scientific support to the thesis of the committees (see Capone 2013). A collection of documents on the case of Chiaiano is available at http://www.napoliassise.it/specialechiaiano.htm (accessed 9/4/2017).

[28] Between 2009 and 2013, the total amount of revenues for the A2A have amounted to 250 million euro (see "Termovalorizzatore di Acerra, così utili e ricavi fanno boom" In *Corriere del Mezzogiorno* of 02/11/2014).

Thanks to the imposition of two contested landfills (in Terzigno and Sant'Arcangelo Trimonte), the garbage exports towards other Italian regions and abroad with public money, the activation of the incinerator and the increase in recycling rates, in 2009 the Commissioner Bertolaso was able to declare 'the crisis is over' (relying on the relative autonomy of two years guaranteed by the available landfill volumes). After fifteen years of special powers, and after the squandering of about 10 billion euros[29], the government agency of the CWE closed down. However, again in 2010 and until early 2011, the trash bags returned at different times to the streets of Naples. The government responded by granting further exceptions, allowing the disposal of waste in areas already subjected to significant environmental pressures (in, for example, Giugliano, Serre, Tufino and Chiaiano), and by crushing protests through the use of force.

The return to the ordinary regime slowly restored the balance of administrative powers and the relevant legal constraints to waste management. The most recent Italian legislation that regulates the treatment of waste is Law n.152 of 2006. The current regional plan for municipal waste management, delivered in January 2012, follows the directives of this law. The law divided the region into five optimal management areas, which coincide with the provinces, within which local authorities work together to implement waste collection and recycling services, following the criteria of proximity and self-sufficiency. The costs are covered by the municipal tax on waste paid by the residents. Currently, urban waste management in Campania is based on an integrated system that contemplates as a priority a constant increase of recycling and composting, but that still depends on the mechanical sorting of household waste through seven plants for grinding and packaging (the previous RDF processing facilities), the product of which is then directed to incineration with energy production, sent abroad or landfilled. In 2014, Campanians produced just over 2.5 million tons of municipal waste, about 7000 tons per day. Of this, 47.6% has been sorted and directed to recovery processes (following three streams: recyclable, humid fraction and residual), configuring the best performance for the sorted collection and recycling among the regions of southern Italy[30]. In Naples in

[29] The Commissioner agency received about 800 million euros per year for supporting its structures and for organizing the waste cycle, totaling more than 10 billion euros of expenses over 15 years (see Martone 2014).

[30] According to the ranking compiled by the Institute for Environmental Protection and Research (ISPRA 2015).

2014, the 23.41% of the waste produced in the city was recycled (113,000 tons of 502,000 total). The regional rates of sorting and recycling, however, are highly diverse, as the organization depends on the municipal administrations and consortia. The only incinerator inherited from the emergency era is the 600,000 tons/year facility in Acerra, that in 2014 burned 26.8% of the total waste produced in the region. Campania is still far from regional autonomy in terms of management: in 2013 the region exported about 526,000 tons of waste and in 400,000 in 2014 to other Italian regions, Austria and the Netherlands. There is a lack of treatment capacity for the organic fraction, for which only five composting plants are available, treating in 2014 about 60,000 tons of compostable waste (for a total production, deriving from sorted collection, which exceeds 650,000 tons). Two landfills for municipal waste, in Savignano Irpino and San Tammaro, received in 2014 almost 120,000 tons of ground and packaged waste, and are approaching exhaustion.

The legacy of the emergency is constituted by around 5.5 million tons of packaged garbage accumulated in 16 ‘temporary’ storage sites disseminated throughout the region, as shown in table 2. This was the ‘capital’ of the corporation that planned to turn this packaged garbage into profit through burning, but was prevented from doing so by its own technical and organizational incapability and by the intervention of the prosecutors.

Table 2. Quantities and distribution of the urban trash packaged and stored by Impregilo at present (source: author elaboration on data from Giunta Regionale della Campania 2015).

Location	Province	Quantity (tons)
Casalduni	Benevento	56,631
Fragneto Monforte	Benevento	86,702
Capua	Caserta	139,155
Santa Maria La Fossa	Caserta	69,183
San Tammaro (Ferrandelle)	Caserta	123,310
Marcianise	Caserta	16,475
Villa Literno	Caserta	2,101,784
Caivano	Napoli	409,916
Marigliano	Napoli	50,043
Giugliano	Napoli	2,318,153
Terzigno	Napoli	659
Avellino	Avellino	30,605
Nocera Inferiore	Salerno	541
Battipaglia	Salerno	5,889
Persano	Salerno	98,611
Eboli	Salerno	8,032
	Total	**5,404,710**

The illegal traffic of hazardous waste towards Campania

Since the late 1980s, Campania has become the terminal of millions of tons of toxic waste that, through the cooperation between legal and illegal economic actors, allowed a large operation of cost shifting from industries and manufactures (especially from Northern Italy) onto the environmental matrices and the bodies of residents. The economic turnover of this illegal business estimated in 2000 was worth around 7.5 billion euros per year, with a loss for the treasury of 1 billion euros (Parliamentary Commission on Waste 2000). Nowadays, it is worth almost 17 billion euros per year (Legambiente 2013). From 1991 to 2013, there were 82 judicial inquiries into waste traffic towards Campania, 915 precautionary custody orders were issued and 1,806 denunciation were made that involved 443 companies from much of Central and Northern Italy (Legambiente 2013). The toxic waste arriving illegally in the region - about 10 million tons in 22 years according to Legambiente (2013) – was set on fire, buried underground, mixed with municipal waste, passed off as agricultural compost, dumped in the concrete

of apartment buildings and roads, or simply abandoned in the countryside. On the one hand, the genealogy of the traffic points to an illicit system with national and international ramifications specialized in treating industrial waste in significant amounts. On the other hand, it has proliferated the practice of illegal disposal and set on fire of waste products of small industries and manufacturers, operating from *within* Campania but formally non-existent, part of the 'submerged economy'. The persistence of this latter practice earned the area the label of *Terra dei Fuochi,* Land of Fires (Parliamentary Commission 2013b:144-151).

The wide plain between the northern province of Caserta and the southern province of Naples has been the most affected by illegal disposal practices. This is in part because of the presence of criminal groups with consolidated territorial control – a camorra that has long since turned into armed entrepreneurship (Anselmo and Braucci 2008) and a stakeholder of local governance (Martone 2014) – but mostly because of the convergence of interests between political and business elites at the regional and national level. The exact evaluation of the socio-environmental impacts of the uncontrolled dispersal of pollutants from toxic waste is still a field of dispute between experts, grassroots movements and political institutions, both in the assessment of the actual contamination of environmental matrices and in the clarification of the links between pollution from waste and increasing diseases of various kind among the resident population (Cantoni 2016). The already mentioned S.E.N.T.I.E.R.I study – that analysed mortality rates, cancer incidence and hospital discharges among the population that lives in the Italian SINs – delivered a report in 2014 that considered 55 towns in the provinces of Naples and Caserta[31]. It confirmed the abnormally high mortality and cancer incidence in the population, emphasizing the worrying situation for children between 0 and 14 years old, and drew a significant correlation between the presence of legal and illegal landfills, and areas with increased incidence.

The efforts of grassroots committees and independent experts attempted to stop the disaster. As it will be clarified later on, the work of the activists has been crucial especially in fostering civic reactions to the inaction of State institutions against a systematic phenomenon that has continued mostly

[31] Edited by the Working Group "Land of Fires", designated by the President of the Institute of Health, Study Update S.E.N.T.I.E.R.I., 2014, available Online at http://www.iss.it/binary/pres/cont/Terra_dei_Fuochi_AGGIORNAMENTO_SENTIERI.pdf.

undisturbed for more than two decades. The work of the grassroots movements helped generate a widespread questioning of the links between hazardous waste, contamination of bodies and ecosystems, and profit-making strategies, conceptualized through the notion of *Biocide*, the significance of which is deepened in article 2. However, successive governments have done little since the first major investigations and studies on the topic, and to date the means of prevention and suppression of the phenomenon are still insufficient according to grassroots movements.

Italy has long been an important crossroad of international waste trade. Several investigations in the early 1980s uncovered an organization of ship-owners and entrepreneurs trafficking toxic waste to Venezuela, Nigeria and Romania, with Liguria as the linchpin, along with the ports of Naples and Malta (Iacuelli 2008). These trades intersected with the so-called 'toxic ships' laden with hazardous waste, in some cases radioactive, directed to Somalia or sunk in the Italian seas[32].Two journalist who were investigating on the Somali route, Ilaria Alpi and Miran Hrovatin, were killed on March 20, 1994, in what was an execution to prevent the publication of the information they gathered (Alvisi 2014). We know today that the terms of the illegal agreements with Somali clans involved the sending of toxic waste and the payment with arms supplies (Iacuelli 2008). The Parliamentary Commission of Inquiry on Waste (2013a) estimated that at least 39 suspicious sinking of ships have happened between 1979 and 1995 in the Italian seas. The most striking cases of sinking of ships and the public attention triggered by the assassination of Alpi and Hrovatin caused a tightening of border controls and a renewed interest of prosecutors in international waste trade, pushing traffickers to favour domestic routes.

Already from the mid-1980s the structural conditions that would bolster the smuggling of waste towards Campania began to form. Between 1984 and 1985, the main legal facilities for hazardous waste disposal in northern Italy were closed by the regional environmental agencies due to the high level of pollution detected in the area (Palladino 2013)[33]. Therefore, there was a drop in legal disposal possibilities at the same moment that there was increasing

[32] The web platform *in fondo al mar* attempted a census and a gathering all the available information on the "toxic ships". It is accessible at http://www.infondoalmar.info/index.php?lang=en.

[33] This circumstance is confirmed by the depositions of former camorra affiliate turned police informant Gaetano Vassallo. Tuscany in particular found itself in the late 1980s lacking facilities for disposing urban and hazardous waste cf. Vassallo and De Crescenzo 2016.

demand, which was intercepted by brokers of waste who interfaced simultaneously with criminal organizations and industrial groups. In the same period, in the countryside south of Caserta and north of Naples, the business of improper disposal of *municipal* waste, performed by companies that paid bribes to the camorra clans, was already booming. Dozens of municipalities in the province of Caserta disposed of their garbage in the landfills of entrepreneurs Gaetano Vassallo, Cipriano Chianese and Luca Avolio, between Aversa and Giugliano, all of them partners in business with the camorra; while in Naples, the La Marca brothers and the Di Francia brothers, also linked to the camorra, ran the dump of Pianura. The available space was the only limit to the steady stream of incoming municipal waste, ensured via exclusive contracts granted by corrupt municipal representatives. According to the deposition of Carmine Schiavone (Parliamentary Commission 1997), former cashier of the powerful Casalesi camorra clan, in that period the Casalesi were dealing mainly with cement and public works. The construction works of roads between Naples and Caserta – public contracts that companies linked to the Casalesi obtained thanks to the clans' control of local municipal councils[34] – opened new possibilities: the holes resulting from excavations for construction materials were filled with waste without following any criteria of environmental protection (Martone 2014).

Throughout the 1990s and until the beginning of 2000s, the illegal trafficking of industrial waste towards Campania thrived. The camorra clans were able to control the regional authorizations for special waste entering Campania through corrupt regional councillors (Iacuelli 2008). The contact between formally legal entrepreneurs and managers of landfills linked to the camorra, and members of the Freemasonry in touch with owners of industries and manufacturer activities, ensured disposal sites and a wide network of customers: industrial groups and companies from all over Italy in search of forms of low-cost disposal. The clans offered the operation their control of territory and their intimidating force. Landfill operators in Campania provided space and counterfeit documentation. The result was an open door to the arrival of millions of tons of hazardous waste. Sludge from chemical processes, ashes from fumes abatement of steel plants, hospital waste and scraps of industrial productions, are just a few of the hazardous materials

[34] Such 'administrative weakness' and ease of penetration of organized crime in the municipal councils are demonstrated by the fact that in Campania, from 1993 to 1997, about 40 municipal councils were dissolved according to the anti-mafia law.

improperly disposed in Campania landfills, buried in the countryside or passed off as agricultural compost.

Between 1992 and 1993, the Naples prosecutors uncovered, with the investigation *Adelphi,* the system of illegal disposal of toxic waste towards Campania[35]. Everything had started in 1992 with the arrest of the camorra boss Nunzio Perrella (the one who famously stated that for the camorra “trash is gold"), who began to collaborate with prosecutors, allowing insights from within the entire system. Based on the revelations of Perrella, one hundred and sixteen people were arrested. However, the trials arising from *Adelphi* operation, while offering numerous investigative leads that would be explored in later years, ended for most of the accused in acquittals and prescriptions because of the inadequacy of laws on environmental crimes at the time. For example, despite the pivotal position of the entrepreneur Cipriano Chianese in the organization of the traffic that was established by the evidence, he too was acquitted. He remained active in the waste business, and between 2001 and 2003 managed to put his facilities at the service of the government agency. Cipriano Chianese was arrested again in 2005 and 2006, and was sentenced to prison in 2016 for environmental disaster and mafia association.

Drivers and methods of illegal toxic waste disposal

In 1994, the environmental NGO Legambiente collected the available data on illegal toxic waste trafficking in the country (Legambiente 1994), making public the lawlessness in the field of waste disposal in Campania, Puglia, Basilicata and Lazio. In the same year, the state of emergency for the management of municipal waste in the Campania region was declared. Nineteen years later, in 2013, Legambiente published a report that focussed on the illegal routes of waste trafficking based on police investigations from 1994 onward, documenting 82 inquiries involving Campania. According to the report, every year at least 15-20% of toxic waste in Italy disappears between production and final storage (Legambiente 2013). Just for 2013, the

[35] In the indictment issued for the judicial case n.171/93, which originated from Adelphi, the public prosecutors wrote in 1993: "This group sought to acquire, directly, the total control of all the various activities of collection, transport and disposal of any waste produced by industrial or manufacturer activities, also toxic and harmful, from different areas of the national territory, and in particular the management, in monopolistic form, of the landfills located between Caserta and Naples” (Legambiente 1994:2).

profits produced by the illegal management of waste in Italy (hazardous and non-hazardous) were estimated at 3.1 billion euros, while in the last ten years the turnover of the illegal trafficking of waste was 43 billion euros. This is not just a phenomenon of Campania but of national (Legambiente 2013) and international scope (Pellow 2007).

How could this happen? Three main elements facilitated the proliferation of networks of illegal smuggling and disposal of toxic waste in Italy. First, the drive to reduce production costs by economic actors engaged in activities that require expensive disposal procedures for the resulting waste, especially in the industrial and chemical sectors. Police investigation and judicial proceedings have shown a strong interest by companies that are operating legally to utilize the illegal disposal networks for the competitive economic advantage they allow by reducing disposal costs. From the investigation *Houdini* (2004), for example, we know that the market cost to properly dispose of certain types of toxic waste imposed prices that ranged from 21 to 62 euro cents per kilo, while the illicit market provided the same service with prices from 9 to 10 cents per kilo. The head of the Anti-Mafia Department Franco Roberti has invited journalists and magistrates to consider the illegal disposal of waste a 'corporate crime', rather than shifting the responsibility solely on the camorra clans (Ciociola 2014). Industry owners and producers of waste with poor business ethics have facilitated the entry of organized crime in the business of hazardous waste (Massari and Monzini 2004). In addition, waste companies participating in the business but not affiliated to the camorra were instrumental in providing transfer and disposal sites, and fictitious certifications to the eco-criminal networks.

Indeed, the second element is widespread corruption and the ease with which controls could be circumvented. Illegal practices of waste management have occurred in each of the three phases of the cycle: origin, transit and destination (Massari and Monzini 2004). To settle the flow of the illegal cycle, corruption has occurred at all levels: from biased analyses, to authorizations to facilities outside the norm, to the silencing of public officials and controlling bodies. At the source, the producers of waste can declare lower quantities or provide false information about the chemical composition of the waste. In the transit segment, the shipping companies, the temporary storage sites and the treatment facilities can illegally transport and store hazardous waste by producing false documentation. The most common method is to downgrade the waste on paper from hazardous to non-hazardous through the 'switch invoice' technique. This is possible by means of false

certificates of analysis provided by laboratories and by counterfeiting the loading and unloading registers. The final destination of the waste can be anywhere. The most common illegal operations have included disposal at authorized but unsuitable sites, abandonment in construction sites or on agricultural fields, disposal in waste incinerators, disposal in unauthorized quarries.

The third element is the legacy of insufficient legislation for decades, that only recently has been updated thanks to the pressure of grassroots environmental movements. Until 2001, those trafficking hazardous waste only risked an administrative sanction, i.e. a fine. In 2001, the illegal trade and disposal of waste became a criminal offense through the creation of the 'organized waste trafficking' crime in the Italian legal system (art.260 Legislative Decree n.152/06). In 2015, the Italian parliament approved the first comprehensive law on environmental crimes (Law n.68 of 2015), in which five new crimes against the environment and public health were encoded: environmental pollution; environmental disaster; traffic and disposal of radioactive material; environmental neglect and control impediment. The punishment for these crimes is between 2 and 15 years in prison, as well as larger fines.

The Land of Fires

The countryside in the provinces of Naples and Caserta has been not only the terminal of waste trafficked by wide criminal networks spanning the entire country. In addition to the trans-regional and trans-national system of illegal disposal arranged by entrepreneurs, camorra clans and corrupt administrators, a flow of hazardous waste from *within* the Campania region, mostly from unregistered economic activities, ends in myriads of micro-illegal dumping sites, along cultivated fields and farm roads, and it is often set on fire. Many years of toxic smoke columns rising in the skies of the former *Terra di Lavoro* have earned to this vast area between the two largest cities of Campania the nickname of *Terra dei Fuochi,* Land of Fires. This term was used for the first time in a dossier by Legambiente (2003), a prominent environmental Italian NGO, to refer to areas within the municipalities of Giugliano, Qualiano and Villaricca where, since the 1980s, toxic waste has been buried and burnt, and popularised by the investigative non-fiction novel of Roberto Saviano, *Gomorrah* (2008).

The bulk of the materials that become the fuel of these toxic fires comes mostly from unregistered economic activities that cannot dispose of their waste legally and from legitimate firms unwilling to pay the costs of proper disposal of their scraps. These firms include (partly or completely) illegal manufacturers of garments and shoes, tire shops, car dismantlers, construction companies and private waste management companies. This business is not necessarily led by ecomafia, although it relies on a sort of laissez-faire attitude by the clans that have direct interests in the black economy. It does not generate the same revenues as the illegal trafficking of hazardous waste, since the quantities are much smaller, but it is, nevertheless, a necessary element of the black economy.

In 2013, the non-observed, submerged or black economy in Italy amounted to 206 billion euros, or nearly 12% of GDP (SRM 2013). The composition of this economy is constituted by 47.9% under-declared economic activities, 34.7% irregular work and 8% totally illegal activities. The black economy is spread across the all country, but the southern regions have the highest rates. In Campania, the amount of special and hazardous waste from unregistered economic activity is not less than one million tons per year (SRM 2013). The waste generated outside of declared production, or from illegal activities, must be disposed of in illegal ways. Small and medium firms in the region that have unregistered production in whole or in part, utilize unchecked spots in the countryside as a zero-cost dumping site, setting the waste on fire to cover the traces and to make room for the next load. According to the Campania firefighter's department, between January 2012 and August 2013, there have been 6,034 toxic fires in the Land of Fires. In 2015, from January to September, official data reported the number as being 1,461[36]. Such a decrease is mostly due to heightened controls and dedicated resources achieved by popular pressure and social mobilizations.

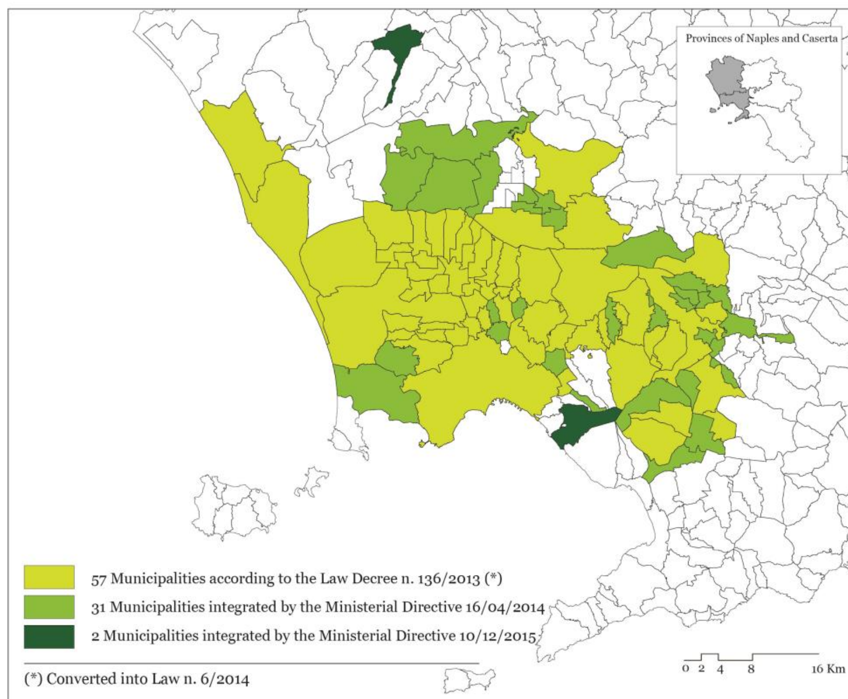
At the end of 2012, the Interior Ministry invested the prefect Donato Cafagna with the task of coordinating local authorities and law enforcement forces to combat the toxic fires. In 2013, on the initiative of Cafagna, the 'Pact for the Land of Fires', was signed and then ratified by the regional law n.222 of 2013. Through this pact, the municipalities affected by the waste burning phenomenon coordinate with other institutions of prevention, control and repression, and with the grassroots movements and citizens' associations who wish to propose countermeasures and solutions. The activities carried out

[36] The official website of the 'Pact for the Land of Fires' is http://www.utgnapoli.it/public/roghi2013/ (accessed 23/6/2017).

include the census of dumping sites, the removal of waste and the reclamation of land, and the dismantling of unregistered activities that produce the fuel for the toxic fires. The coordinating body headed by Cafagna has been the first State institution on the territory that has heard and applied some of the knowledges of citizens and activists, especially of the Coalition Stop Biocide.

Several massive popular protests at the end of 2013 prompted the national government to issue the Law Decree 136/2013, which was converted into Law 6/2014 a few months later and dubbed by the government and the media the Land of Fires Law. For the first time, the government recognized the risks in terms of health for the local population resulting from wild dumping and burning of hazardous waste. Initially, 55 municipalities between Naples and Caserta were included in the official definition of Land of Fires, a number which subsequently increased to 88 through Ministerial directives (see map 3). The law made the illegal burning of toxic waste a criminal offense. Furthermore, the national government committed economic resources to a large-scale analysis of environmental matrixes of cultivated areas in the Land of Fires in order to detect contaminated fields and prohibit their use. However, such countermeasures did not address the root of the issue, and only marginally included activists' in the design of countermeasures (Lucchini and Membretti 2016).

Map 3. The municipalities officially included in the Land of Fires (map by Cesare Cascella)



Socioecological implications of waste flows

The accumulation of waste through the compounded actions of State, legal and illegal firms, landowners and organized crime, produced hybrid socionatural configurations throughout Campania in which contaminants circulated within environmental matrices and through human and non-human bodies in unpredictable ways and with consequences that are still a field of heated disputes. In 2005, the Regional Plan for Remediation of Polluted Sites of Campania Region recorded 2,507 potentially contaminated sites[37], the

[37] The reference for the determination of a potentially contaminated site for this report was the Ministerial Decree of May 16th 1989, and subsequent integrations of Legislative Decree 22/97 and Ministerial Decree 471/1999. A potentially contaminated site is designated as one where anthropic activities caused the spreading of polluting substances that represented a potential danger for public health and the environment. A contaminated

majority clustered in the southern part of Caserta province and the northern part of Naples province (ARPAC 2005). This census included landfills, manufacturing activities and micro-sites of uncontrolled waste dumping. An update in 2008 brought the number to 3,733, flagging that only 13 of the previously identified sites were remediated and returned to their legitimate users (ARPAC 2009:333). In the latest Regional Plan for Remediation of 2012 (Regione Campania and ARPAC 2012), environmental reclamation works are reformulated in relation to seven so-called aree vaste (wide areas, see table 3), identified as portions of Campania in which the "environmental situation is particularly compromised due to the simultaneous presence, in a relatively limited territory, of several polluted sites" (68). One of the most thorough studies on localized environmental contamination from waste was carried out in the area vasta of Giugliano in 2010. A geological assessment commissioned by prosecutors during the so-called Resit trial[38] for evaluating the pollution caused by six landfills on 210 hectares of land, pointed out that the dumps are filled with hazardous waste mixed with urban waste to such an extent that the toxic leachate has penetrated the underground aquifer, and contamination will peak in 2064 (Balestri 2010). Few studies have detected the bioaccumulation of pollutants in animal populations in Campania. A veritable "sentinel" of environmental contamination has been the flocks of farm animals raised in the region. At the end of 2003, more than 12,000 cattle, river buffalo and sheep were culled for the level of dioxin[39] in their milk (Perucatti et al 2006). In particular, the sheep grazing the fields of Acerra became (in)famous in the same year for the extremely high levels of dioxin in blood and dairy products, causing visible malformations and unusual deaths[40] (Armiero and Fava 2016). The inertia of the State, or its

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site, instead, was declared to be so when it exceeded the values of the tables of Acceptable Concentration Limits for a number of contaminants in the soil, subsoil and surface and groundwater.

[38] From the name of the landfill owned by the main suspect, Cipriano Chianese, sentenced to jail in 2015 together with 15 collaborators for environmental disaster, poisoning of water and mafia association.

[39] Dioxins are a group of toxic chemicals that includes both polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs). Dioxins have been reported to be carcinogenic and to induce toxic and biochemical responses in the endocrine, reproductive and immune systems. They are not naturally present in the environment but result from certain manufacturing activities, municipal waste incinerators and burning of waste.

[40] Up to 50.65 pg of dioxin per 1 g of fat were found in the milk and in the fat of Acerra's sheep, compared to the tolerable threshold of 3 pg per 1 g (Marfella 2008).

‘strategic impotence’[41], in curbing illegal disposal caused, between 2012 and 2013, a stigmatization of the rural areas between Naples and Caserta through media narratives depicting all land as irremediably compromised and its agricultural products as vehicles of death. As a result, a national psychosis against Campania’s products hit the sector, causing the fall of sales and a decrease of between 25 and 75% in prices paid to producers, with smaller companies suffering the greatest effects (INEA 2014).

Table 3. *Wide Areas* (land and fluvial channels) in Campania with presence of several polluting sources where remediation works are planned (source: Regione Campania 2012)

***Aree Vaste* (Widea Areas)**	**Extension (ha)**	**Distance from town centres (m)**
Masseria del Pozzo - Schiavi	210	2000
Lo Uttaro	196	100
Maruzzella	215	4000
Bortolotto	26	4000
Pianura	156	500
TOTAL	**803**	
Fluvial channels within Aree Vaste	**Length (km)**	
Regi Lagni (network of water channels)	55 km	-
Sarno river	24 km	-

The assessment of the effects on human health of contamination from waste pollution has been a site of heated debate and controversy. Since the publication of the reportage by Senior and Mazza (2004) which posited a link between increasing morality rates among the population and authorized and illegal dumping sites, the denomination ‘triangle of death’ to indicate the area between Acerra, Nola and Marigliano, has haunted the locals. In 2004, the Department of Civil Protection commissioned a study to, among other research institutes, the World Health Organization focused on cancer incidence and mortality within 196 municipalities in the provinces of Naples and Caserta (WHO et al 2007). The results found positive and statistically significant correlations between health and illegal dumping of toxic waste, with excesses of specific cancers and congenital malformations. The severity of the consequences of exposure to pollution for the residents of Naples and Caserta areas have also been repeatedly denounced in official reports of the Italian Higher Institute of Health, which demonstrated an excess (compared

[41] I thank Felipe Milanez for suggesting this concept in one of our rewarding conversations.

to the national average) of neonatal malformations and mortality for leukaemia, sarcoma and malignant tumours of the lung, pleura, larynx, bladder, testicle, liver and brainstem (Comba et al 2006; Fazzo et al 2008; Fazzo et al 2011). In the same area were documented human chromosomal alterations caused by environmental damage (De Felice et al 2012) and contamination of breast milk from dioxins, with concentrations directly depending on the age of the mother, the place of residence and the exposure to toxic fires (Giovannini et al 2014; Rivezzi et al 2013). A comprehensive literature review of scientific studies on health effects of waste exposure and human biomonitoring in Campania by Triassi et al (2015) evaluated seventeen papers published between 2001 and 2014. Despite the difficulty of an overall synthesis because of the variety of approaches and the multiple effects investigated, it concluded that the "findings suggest a possible role for waste in the increasing cancer rates detected in the Region (…) Further studies are needed to confirm the early effects detected in response to the exposure to waste burning and dumping" (1230).

Triassi et al (2015) highlighted the difficulties of scientifically demonstrating a causal relationship between precise contaminants and specific tumors and deaths, given the multi-factorial origin of diseases, the presence of confounding elements and the limited knowledge on the composition of waste illegally disposed. Such concerns, typical of sound scientific research, have been utilized by representatives of the Ministry of Health to deny *tout court* a causal link between waste and health problems in Campania, dismissing the fears among the local population and delaying the cleaning up of polluted sites (Cantoni 2016; Bonatti 2015). Indeed, for the Italian government, the 'waste crisis' officially ended in 2009 with the inauguration of Acerra's waste incinerator. In fact, the trash in the streets had been the only concern of public institutions in charge of solving the waste emergency, overlooking more than two decades of uncontrolled hazardous waste disposal. As D'Alisa and Armiero (2013:2) argue, ''the government's obsession with urban waste and clean-up operation have been instrumental in concealing the actual contamination caused by toxic waste''. It would take the marches and demonstrations by Campania's grassroots movements between 2012 and 2013 to force the central government to take seriously the threats to public health posited by waste territorialisations in Campania, which resulted in the issuing of the Land of Fires Law in 2014.

Genealogy and progression of popular environmentalism: from committees to coalition

Multiple, yet fragmented, reactions by associations and activists in Campania to the misuse of regional landfills and to the illegal disposal of hazardous waste emerged already at the inception of such malpractices towards the end of the 1980s. In 1988, a letter from the local communist party in Casal di Principe (the stronghold of the Casalesi clan) to all officers responsible for public order at the territorial level denounced the improper filling of sand quarries with hazardous waste materials on municipal land (P.C.I Casal di Principe 1988). In 1989, Neapolitan students and residents, along with the association *Lega per l'Ambiente* (precursor of the NGO Legambiente) and the local Communist Youth Organization, performed several demonstrations against illegal dumping in the areas bordering Ercolano and Terzigno, next to Mt. Vesuvius (De Stefano 1989). In 1988, a journalist and a group of young activists documented the arrival of trucks from outside the region that disposed wastes of various kinds in the landfill of Bortolotto, near Caserta (Personal communication from Capacchione). They filed charges accompanied by photographs of the trucks' license plates. Other civil society reactions were met by retaliation. Two camorra homicides are emblematic: first, the murder of Domenico Beneventano, a communist municipal counsellor in Ottaviano, who was killed on November 7, 1980 for having opposed land speculation for the construction of a landfill; and second the one of don Cesare Boschin, a priest of Borgo Montello in southern Latium who organized demonstrations against illegal disposal of toxic waste and was killed on March 29, 1995. These and other stories – scattered in activists' archives, in newspaper articles and in the memory of those who witnessed or participated[42] – show that part of the population was rising against the processes of waste 'colonization' since their inception: a history of unheard early warnings from grassroots initiatives that still needs to be written.

However, more sustained and wider mobilizations only emerged in Campania during the 'emergency era', when the socioecological frictions of previous decades were exacerbated by authoritarian rule and persistent toxic threats.

[42] Armiero and D'Alisa (2012) and De Rosa (2012) collected some of these stories in the form of oral histories. Angelo Genovese, a longtime environmental activist, made public his online archive of documents and reports that cover the early resistance against waste mismanagement, available at http://www.angelogenovese.it/rifiuti_campania/index.htm (accessed 31/3/2017).

The everyday life of hundreds of thousands of inhabitants was unsettled, spurring the self-organization of resistance practices. From about the year 2000, groups of citizens from the municipalities targeted by the government's waste management policies and/or residing in areas affected by the illegal waste-related business, organized campaigns against the localization of landfills and incinerators on their territories and took a stand against the illegal dumping. They rarely called themselves environmentalists; instead personal reasons that linked health concerns with the loss of control over the environment, the perception of being abused and the knowledge of potential yet overlooked alternative waste management schemes, acted as mobilizers more than the will to 'protect the nature' (Armiero 2008). The sensuous perceptions of detrimental environmental changes – materialized by imposed waste facilities, toxic fires and illegal dumps – foregrounded the work of continuous collective self-formation and knowledge generation over the causes and the effects of urban and hazardous waste flows and disposal (cf. article 4). Through the organizational tool of *comitati popolari* (grassroots committees) activists and ordinary people begun investigating waste and their rural and urban environments. This led the committees to politicize biophysical change by linking it to spatial restructuring, technological and scientific discourses, governance methods and waste flows. In particular, the hegemonic discourse of government and media that framed incinerators, landfills and processing facilities – in brief, the industrial urban waste cycle – as the only solution for a 'modern' waste management became the target of continuous critiques and demystifications coupled with the accumulation and spreading of knowledge around alternative management schemes.

The social composition of the grassroots mobilizations in Campania has been striking for its heterogeneity: radical activists from *Centri Sociali* (social centres) cooperated with ordinary citizens and farmers; local politicians from the left and right marched with football fan groups and religious associations; a marked presence of women on the frontlines was a constant sight. Even though participation has had a 'variable geometry' (in the words of an activist) and there was indifference or even sabotage by sectors of civil society toward the mobilizations, these have transcended socioeconomic boundaries, involving working class, middle class and intellectuals in the same struggle. The lack of a centralized directorate of the mobilizations did not mean that the committees acted in isolation from each other: pacts of mutual assistance and support flourished since the early demonstrations, up until a regional coalition was established in 2013 based on increased cooperation. Strong divides also affected the movements; endless discussions

and ruptures arouse over whether or not to engage in dialogue with government institutions or whether or not to trust the judicial system.

The focus of the articles that constitute this thesis are the eco-political performances of the committees. However, it is important to keep in mind that the actions and discourses of some committees did not always represent forms of progressive and inclusive politics. Different committees in Campania were characterized by harsh ruptures and deployed diverse, and at time contradictory, tactics. Even within single committees, when carrying out agreed upon initiatives, consensus was very hard to achieve. These divergences, shortcomings and even self-defeating, exclusionary or blatantly racist positions, show the inherent complexity of grassroots organizing against hegemonic formations and debunk any potential impression of an entirely coherent and homogenous front of people mobilizing. On the other hand, the benefit of prolonged observation has allowed me to detect the ways some of these drawbacks were discussed between different committees and were eventually overcome. A section below dramatize one of these controversial aspects of grassroots environmentalism in Campania.

To embrace the entirety of the heterogeneous and varied socio-environmental mobilizations in Campania of the last 15 years linked to waste is beyond the scope of this chapter. Rather, the following four sections aim to highlight the main disputed issues and the relevant turning points that clarify the background of the analysis of specific features and strategies contained in the articles. In particular, the first two sections draw a synthetic chronological progression of grassroots environmentalism in Campania from 2000 to the beginning of 2015. Then, a section about a specific movements' shortcoming gives an exemplary story. Finally, a concluding section presents the words of activists and committee participants that were gathered during the encounter between them and me. I have organized the selection of quotes based on the themes coded from the analysis of interviews to offer the reader a glimpse of the field and to expose some of the relevant data that could not be included in the articles for reasons of space.

First wave: 2000 – 2011

Throughout the recent history of Campania's waste conflicts, I identify two main periods of popular environmentalism. The first runs from 2000 to 2011: eleven years of 'waste wars' during which the State's plans for dealing with urban trash encountered the steady opposition of local communities.

Grassroots committees built up coordination units and regional and national networks for resisting against what they perceived as an authoritarian governance of waste not concerned with environmental and human safety and as a technocratic project primarily geared at private profiteering. Starting from Acerra, a town 15 km north of Naples unilaterally chosen for placing a 600,000 ton per year waste incinerator with energy recovery, the mobilization quickly spread to the other towns selected by the Commissioner and his technicians to accommodate the urban trash by opening storage areas and landfills in areas often socio-economically deprived and already polluted. From 'the battle of Acerra', at least 37 other localities directly confronted the government plans (Festa 2012; Martone 2012). Major events occurred in Chiaiano, Pianura (2008), and Terzigno (2010), where the conflict became harsh, including guerrilla actions and roadblocks that continued for days. The committees who arouse in this period grew around the local perceptions of environmental degradation and dispossession. They were primarily organized as tools of self-defence. Some political representatives rode on the momentum of the protests for mere calculus at election times: indeed, by walking with the activists, politicians on the left could connect with their base against incinerators, and politicians on the right could undermine the centre-left coalition running the region, the province and the city of Naples between 2000 and 2010 (Pasotti 2010). However, the uprisings were not really elicited, let alone controlled, by mayors, councillors or parliamentarians. Rather, as Franco, a core activist of the Acerra's committee, told me in an interview "*we managed to bring thousands people in the streets, and when people flooded the streets, the politicians followed; after repression, when the number of people demonstrating dropped, politicians took distance from us, locked themselves in the offices, started to talk about deals and to consider the monetary compensations for accepting waste facilities*".

With the increase of repression and the proliferation of front lines, activists implemented coordination efforts between local committees, leading to more structured movements with national and international scopes. Since 2003, two networks came to represent the majority of the committees: the Campania Network for Environment and Health (RCSA, in Italian), built around an anti-capitalist discourse, and the Waste Regional Coordination (CO.RE.RI., in Italian), grouping civil society, religious organizations and intellectuals (Armiero and D'Alisa 2012).

The grassroots environmental politics of this first season of mobilization can be synthetized as follows:

- The ‘industrial’ waste project was contested on the basis of the viability of alternative waste management practices formulated by activists through exchanges and affiliations with national and international networks (like Zero Waste Alliance). The priorities posited by GEMs were reduction, re-use, sorting and recycling of garbage. The consolidation of international partnerships and the strengthening of the knowledge base of alternative waste management procedures culminated in the organization of the Fifth Zero Waste International Alliance Conference in Naples at the beginning of 2009.
- New narratives concerning the local history of pollution and health impairments were produced through investigations of past and present contaminating activities and the collection of personal life stories of sickness.
- Through the involvement of experts in disagreement with the government’s technicians, participants in GEMs realized the uncertainties and the biases of scientific knowledge, thus valorising the historical perceptions of environmental change experienced by lay people.
- Some of the committees born in the wake of a single protest became stable political subjects, building alliances with social movements at regional, national and international scales.

The physical repression deployed by the State crushed the resistance most of the time. Besides violence, the delegitimization of the movements was built and reinforced through discursive formations drawn from a repository of enduring stereotypes (Petrillo 2008; Festa 2012), based on the characterization of Southern Italian people as ‘primitive’, ‘mafia associates’ and ‘uncivil’ (cf. article 2). National media reports and political statements dismissed the alternative proposals of waste management and blamed Campania people for the recurring collection crises. The paradox of this way of dealing with social unrest has been that organized crime and corrupt officials continued, in the heat of the events, with their practice of illegal dumping of toxic waste.

Second wave: 2012 -2015

With the official end of the emergency regime, the national and regional institutions settled the management of urban waste within a fragile cycle that incorporated the environmental injustices imposed by force in previous years. Despite numerous arrests and seizures of companies involved in the illicit traffic of toxic waste, illegal disposal practices continued. With the environmental pollution and the health concerns never really addressed by the State, the grassroots movements remained alert. The physical repression experienced by people contributed to the outflow of mass participation, but the core groups of activists kept on organizing campaigns and monitoring the environmental conditions.

At the church of *Parco Verde* (Green Park) in Caivano, a town at the outskirt of Naples in the summer of 2012, the priest Don Maurizio Patriciello began organizing a series of public meetings where concerned citizens and representatives from the grassroots committees started to gather. The call from the priest to reinvigorate public participation against the unresolved issues of environmental contamination (particularly visible in Caivano because of the toxic fires occurring daily) lead to the cooperation of experienced activists involved in the waste conflicts of previous years. From those meetings the *Coordinamento Comitati Fuochi* (Coordinator of Committees against Fires, hereafter CCF) took form, a network group of more than fifty local committees and associations. They based their strategies on four main axes: first, the systematic filing of complaints to the judiciary for failures of the local, regional and national institutions in removing and preventing illegal disposal; second, the monitoring, reporting and archiving of evidence of illegal landfills and of failures to comply with regulations while lobbying for media attention; third, the organization of public meetings with experts and activists about the health risks connected to waste-ecosystems interactions; and fourth, the nurturing of initiatives beyond the waste issue and geared at remaking local communities (farmers' market, critical mass, artistic festivals, concerts, etc.).

The ability of CCF to elicit growing social participation relied on the capacity of framing the relations between waste, ecosystem contamination and human health in immediate personal terms. The narratives of the central government, which attempted to minimize pollution, delay land remediation and dismiss the hypothesis of linkages between contaminants and harm to residents' health, lost legitimacy thanks to the work of CCF. The issue of health, indeed, became the main vehicle of grievances. The insistence of the CCF

and of local churches on the links between pollution and health became a general cry articulated in marches and art performances[43]. The unusual deaths of children caused by rare tumours led to the formation of an association of mothers: *Vittime della Terra dei Veleni* (Victims of the Land of Poisons), who shared their testimonies to social assemblies (Iengo and Armiero 2016). Banners with photographs of the loved ones killed by cancer appeared during demonstrations and silent marches. The strategy of collective mourning functioned as a strong agitator, working on the emotional disdain of people perceiving the exploitation in their bodies, even though it risked disempowering the committees themselves through a rhetoric focused on death. Indeed, the accounts depicting an apocalyptic condition offered the political establishment a side for co-opting the demonstrations in the name of extraordinary measures and for quashing once again a real democratic debate on the causes of, and the solutions to, the disaster. However, by blurring the separation between public and private sphere through the linking of political causes and private mourning, an enlargement of the ranks of activists was achieved. It is through the merging of the emotional charge with a proper political one that co-optation was avoided. This has happened through cooperation established with other two important grassroots networks.

Two pre-existent grassroots networks, the *Cittadini Campani* (Campania's Citizens) and the *Rete Commons* (Commons Network) joined an alliance with the CCF. Their collaboration brought them to the forefront in terms of coordinating inputs, nurturing actions, formulating proposals and receiving institutional recognition. These networks differ from each other significantly in terms of member's class belonging, geographical location and political attitude. Campania's Citizens is made up of people from the well-off neighbourhoods of Naples and from the city´s middle-class. With strong belief in science and rational argumentation, their main path of intervention has been institutional lobbying and the attempt at influencing government decisions through democratic means. *Rete Commons* (Commons Network) is a group of committees that embrace several popular movements that emerged

[43] Campanian activists have used art since early demonstrations. Local characters from the regional folklorist tradition, like *Pulcinella*, 'participated' in marches and road blockades. More recently, art performances inscribed in the urban space the symbolizations of the socioecological catastrophe in powerful ways. In 2013, an art collective referring to the CCF, *Work In Progress*, disseminated in the town of Casapesenna one hundred fifty transparent mannequins made from plastic bottles that contained inside them black clusters representing tumours. The aim was to shape the perceptions people have of themselves and of their environments in deep and emotional ways, and to spur reactions (https://www.youtube.com/watch?v=EQ-zPTtGhSo, accessed 23/6/2017).

in the northern part of Naples, with the core activists belonging to the social centre *Insurgencia,* located in Chiaiano (the setting of a harsh battle around a landfill), that has a radical leftist and anti-capitalist agenda. *Rete Commons* has been very explicit in connecting capitalist mode of production, waste accumulation in Campania and organized crime. Finally, the CCF is the most recent and bigger coalition organized by activists, involving many ordinary citizens with no previous direct political experience, scientists, farmers, associations, and it has strong ties to the Church.

Between 2012 and 2015, these three networks jointly organized fifteen marches to urge government action against contamination, where thousands of people took part. Moreover, they have also been the core organizers and coordinators of the biggest demonstration that had ever happened in Campania to denounce contamination, corruption in waste management and for reclaiming socio-environmental justice and equality, on November 16th 2013. During the assemblies and campaigns preparing the demonstration, a broad alliance of committees and networks was formalized through the creation of the *Coalizione Stop Biocidio* (Stop Biocide Coalition, CSB). The programmatic platform of the CSB tackled the multifaceted mechanisms of the socioecological exploitation suffered by Campanians. The first point of the platform was the request for real democracy, considered as the basis for addressing all the other inequities concerning urban waste management, toxic waste disposal, special laws, health prevention, agricultural sector and public participation in the decisions on how to allocate and manage common resources.

Following the marches and the Naples' demonstration at the end 2013, the government issued the Land of Fires Law, considered by the movement to be just a first, timid and still insufficient recognition of the concerns raised in the years of mobilizations. History of course never stops, and from early 2015 onwards, when the main data gathering for this research ended, many important events, transformations, other victories and other defeats were faced by changing social formations, new and old committees and novel emerging coalitions. However, the analysis and conceptual developments proposed in the articles of this thesis fall within a temporal horizon that stops at the beginning of 2015, therefore the contextual and historical narrative presented in this chapter will terminate here as well. Nonetheless, I want to highlight that at the time of submitting this thesis (June 2017) activists in Campania are gathering in yet a new network – the *Rete di Cittadinanza e Comunità* (Network of Citizenship and Community) – that is facing the

recrudescence of toxic fires, is struggling for land remediation and for resources to address the health concerns, keeps on monitoring the implementation of urban waste management (advocating for Zero Waste practices) and brings forward old and new community-based projects (from social cooperatives to grassroots mapping). The history this thesis has traced is somehow contained in the present metamorphosis of the struggle. And yet, the task I tried to fulfil with this thesis has been the preservation and critical assessment of the recent past so that the committees could continue the struggle with more awareness.

A tale of misdirected fury and renegotiated values

The residents of the towns in the plain between Naples and Caserta have lived with high columns of smoke rising from the neighbouring countryside and with the pungent smell of chemical stench for many years. The Land of Fires is, for those who live within it, a very concrete sensuous experience, one that is also at the basis of the political activation of many of the participants in the Campania GEMs (cf. article 4). But the Land of Fires has also been a litmus test for whether or not Campania's grassroots environmental movements could be considered examples of progressive and inclusive bottom-up politics, or instead conveyors of particularism and discrimination against the weakest social targets. In the following, I draw insights into this potential contradiction through a particular storiy, and on how it was effectively overcome.

Among the material perpetrators of fires, some of them are the most poor and marginalized in the area: immigrants, petty criminals and Roma people living in self-built camps (floating in normative 'holes') disseminated in the countryside. The Roma people are especially stigmatized in Italian popular culture. The fact that individuals from the Roma communities have been implicated in the waste fires has turned some participants of Campania GEMs against them. These reactions are indicative of how the complexity surrounding the waste issues in Campania has been dealt with by some committees through oversimplification and scapegoating. However, a particular chain of events I witnessed showed me how such controversies could develop internal debates, self-critique, negotiation of shared values and reorientation of common sense. I was present as a researcher and as a companion one day in May 2014 to a visit organized by the CCF at a Roma camp on the outskirts of the town of Caivano. The purported reason for this

meeting, arranged with some of the Roma elders, was to *involve* them in the denunciation of waste fires that were witnessed by some activists next to their camp.

The group of about 50 people coming from outside (mostly mothers and women from nearby towns, attendants of Caivano's church and young activists) and few men representing the thirty families (about 150 people) residing in the camp, gathered in assembly under the shadow of a vine tree. The confrontation initially unfolded pacifically. The CCF representative said that the group had come to seek cooperation with the Roma, to inform them of the denunciation to the institutions and of the collection of signatures. After a short while, however, the atmosphere changed and became more tense: some of the guests wanted to make it clear to the Roma that they had to stop burning trash too, that "everybody knows you melt electric cables tire to take the copper", accusing them of seeing the trucks of the camorra unloading trash and not denouncing it. The Roma men said they did not know who was burning the garbage and that they were not responsible for what happened outside their camp. Moreover, they pointed out how the life in the camp was hard, how the promises of the municipalities of sending a school bus for children and of collecting the garbage never materialized; they explained to be in need of support by the 'Italians' and by the activists to claim their rights. The Roma men also told the group of outsiders that the control of the zone was under the authority of the Moccia family, a camorra clan that authorized whatever happened in the area. The discussion heated up: the people of the committee did not want to listen to the problems of the Roma and started to openly accuse and command them either to do what they were told or go away. At that point, the assembly broke up, some people called the police, others looked for evidence of the Roma's involvement in the toxic fires in the camp. The Roma families left to their self-built homes and house-containers. Even though the assembly ended abruptly discussions continued between small groups, until the darkness of the night covered the camp and all the outsiders left with a mix of bitterness and hopelessness.

This event was just one demonstration of how the legitimate struggles for health and environment could derail into an unequal fight between 'the last of society' – those coexisting with toxic fires – and 'the last of the last' – the Roma people, suffering the fires plus and endless list of privations and discriminations. However, this event also spurred a serious reflection within CCF. In particular, during an assembly following the visit to the camp, an activist said loud and clear that the Coalition could not direct their rage

towards the Roma people as the source of fires, because they *knew* who were the real perpetrators, so "why aren't we going to the homes of camorra affiliates, of criminal entrepreneurs and of corrupted politicians?" he said.

It is interesting to note how the grassroots knowledge generated around the phenomenon of toxic fires made it clear for activists that the Roma people, even when involved in the final phase of the fires, were not the producers of the garbage to dispose illegally and were not the beneficiaries of the eco-crimes, a part from the few euros they would get. By 2014, the movement already had a relatively 'long' past that had established a deep awareness of the root causes of the illegal disposal. Furthermore, the Coalition had formulated a broad plan of social, political and ecological change in which racist tendencies and explanations could not be part of their activist' practices. After reflexive assemblies, the committee of Caivano, the CCF and others from the Coalition came back to the same Roma camp. A mass was celebrated, and people ate together to consolidate the alliance with the Roma families. This did not end the discrimination against Roma people in Campania, but it was an important moment for negotiating collectively the values defended by the grassroots committees.

Voices from the field

The exploration of GEMs' ways of knowing, spatial interventions and outcomes relied mostly on interviews, oral histories and participant observation. In interviews with participants of GEMs, my initial concern was to understand the motivations behind joining a local committee or taking part in a demonstration. It soon became clear that, rather than any ideological reason, the direct confrontation with authoritarian urban governance and with the materiality of waste invading the everyday life – both nurturing the perception of being abused and the fear for one owns' health – were the main triggers of participation:

Franco (January 11, 2014, Acerra): *The interest in environmental issues was born almost by chance. One evening, it was the end of 1999, we met among friends to discuss the news of the incinerator to be built in our town. The media presented it like a big opportunity, but no one had given us concrete information. So we began to read. It was the beginning of the internet and we used it a lot. We found writings of experts and scientists telling about experiences with incinerator in other areas. And we discovered the cycle of waste, the role that incinerators have within this cycle and especially we*

entered in contact with other committees in Italy dealing with the same issues. One day we went to Florence, in a social centre where some environmental committees gathered, especially from Tuscany, we were the only 'intruders'. Everything started there.

Mauro (February 12, 2014, Casal di Principe*): [I became interested in environmental issues] because from my house I could see the toxic fires. When they ask me, I always show a photo from my balcony. How can you not become interested in the environment when every night you smell the stink, or if you walk the suburbs, the countryside of your town and you see an unimaginable shit, especially when you have lived somewhere else, so it is even worst to compare. You tell yourself, it's impossible! This shit remains here forever, asbestos, toxic fires, industrial waste. This is why we get sick!*

Egidio (January 30, 2014, Naples): *I am part of the generation that was born amid trash. Mountains of trash are a recurring sight since I remember. From 1996-97 there was already trash in the streets. Every turning point of my life there was trash in the streets. I am from Mugnano, when I was a child we were playing in the countryside and I remember barrels, asbestos, and a lot of trash we were playing with. The getting used to the waste crisis, and the sense of guilt this generated, is finished for me thanks to the participation in the No Global movement.*

Lucio R. (March 18, 2014, Naples): *I work as a sales representative, so I travel a lot. It has been shocking to see that our region was the only one where trash and toxic waste were disposed of everywhere, where territories were so devastated, and where toxic fires were rising. All this started to bother me; I asked myself why we had to be different from the rest of the world. And I didn't justify it by telling myself that it is because we are ugly, dirty and bad. From that point on, I met so many people living in Campania that felt the same as me. What pushed me to join a committee was precisely the realization that people didn't want to live in this shit, so there was some other reason behind the disaster. And this is how I started to hang out with the committees.*

The grassroots committees emerged as tools of 'self-defence' against urban waste facilities imposed through physical and symbolic repression and against illegal waste disposal. However, once the mystification of the protests and the invisibility in the public discourse of the concerns felt by the inhabitants became clear, the committees began generating their own knowledges, through a merging of expert science and popular perceptions, and by devising concrete tools, like the grassroots mapping of the

countryside. Moreover, the urge of knowing the status of the public health against the inaction of the government institutions led to experimentation with popular epidemiology as well.

Egidio (January 30, 2014, Naples): *I lost many relatives because of cancer. Especially many friends. I live in an area where people die too early; this is a fact. Then they should explain me why. We tried to make a cancer register autonomously. It costs 10.000 euro and the funding is still blocked by the municipality. The registry office refuses to give us data… on the one hand, there is obstruction and on the other indifference. And indifference is even worse than obstruction, because it shows that the people who administrate don't give a damn to know a truth on their territory. So, we involved the doctors on the territory. They are comrades; they participated in protests and demonstration. Together with them, we built a questionnaire to understand the life style of the person who died of cancer. We did it with the families of people that died of cancer from 2009 to today. Through the questionnaire, we also collect a geo-localization. So, in the end we produced data that may not be relevant for classic epidemiology, but that give us a base on which we can reflect. If the Local Health Units would do it together with the family doctors, it would be faster. But with our questionnaire we can still produce relevant information. For example, we can discover if people that worked in the same factory or lived in the same street have died of the same cancer.*

Pina (March 7, 2014, Naples)*: We tried to make a historical reconstruction of [illegal toxic waste disposal]. Today it seems obvious that we had to know what was going on, but back then, in 2008, it was not so obvious. Our knowledge comes from several trials, some finished some ongoing, but also from witness accounts. This story tells us that behind the 'waste emergency' there is again the attempt to induce a shock to make space for a specific entrepreneurial sector and for a specific economy. I live under emergency since I was born, the earthquake emergency, the reconstruction emergency, the cholera emergency… The post-earthquake reconstruction completely transformed Campania's towns and cities, and powerful economic actors decided how the land was to be used, through building speculation. And when the earthquake emergency closed its cycle in the beginning of the 1990s, it started the illegal disposal of industrial waste. Camorra established an administrative class in the municipal councils to influence variations in the master plans. And there a piece of the camorra, of the armed entrepreneurship, of armed industry, produced its political power through the economic hegemony it achieved in the region, becoming a trustworthy*

interlocutor. This camorra negotiated a role within the Italian economy, and it started to dispose waste. This is our reconstruction.

A practical tool of knowledge generation was devised through the coordinated mapping of the countryside to detect and localize sites of illegal disposal (detailed in article 1). Grassroots mapping begun in 2013, following the call by several committees to organize "Denunciation Days" to make visible the illegal dumping of waste in the face of the denials of the central government. Initially, the documentation of illegal disposal was instrumental to gather the evidence for filing complaints and for denouncing the mayors of the town most hit by the phenomenon:

Mauro *(February 12, 2014, Casal di Principe): we decided to coordinate together with committees and associations, and our main campaigns were against the toxic fires and waste abandoned in the countryside. We printed banners and leaflets saying 'Stop Toxic Fires', distributing them in the province. We decided that the first action had to be a collective denunciation, with a lawyer following us from beginning to end. We realized the need for a detailed documentation of the dumping sites. Then we collected signatures, and it was not easy for ordinary people to denounce their mayors. We collected 25000 signatures, mostly for omission in public acts; we denounced 42 mayors, the regional administration, the municipal administrations of Naples and Caserta. We were simply saying, the waste is there and now everybody knows where.*

This practice evolved into an instrument for reinforcing complaints through visual evidence, and it was systematized in the following years through EU funding, becoming part of the COHEIRS - *Civic Observers for Health and Environment: Initiative of Responsibility and Sustainability.* Today the COHEIRS coordinate more than 200 'civic observers' in Campania. They denounce toxic fires and wild dumping in the name of the precautionary principle[44]. The collaboration with experts on a horizontal basis has informed the generation hybrid knowledges that could become a shared heritage outside and against the official knowledge spread by the elites:

Marco (January 13, 2014, Naples): *I think the contribution of experts has been fundamental. On the one hand, because experts overturned the common*

[44] A core of experienced activists from the Stop Biocide Coalition coordinate the Campania COHEIRS today. Their website is reachable at http://www.osservatoricivici.it/campania/index.php?option=com_content&view=category&layout=blog&id=9&Itemid=101 (accessed 10/4/2017).

sense on the issue, and supported the popular reappropriation of knowledge and the re-framing of the debates, also legitimizing the theories of the grassroots movements, of those who protested. On the other, because some experts have also gone in novel directions in their studies, towards a non-dominant direction, of contraposition to power. Something that should make researchers think: without this contribution we would not have reached such an advanced phase in the struggle for environmental justice in Campania. It is necessary to bring these knowledges more firmly into in academia, because we are still weak there. Especially in local universities.

The struggle was also about changing the common sense, the shared knowledge of the population, about the reasons for protest against the government and the need to mobilize for adverting illegal disposal and contamination:

Lucio I. (May 7, 2014, Naples): *The mark that this coalition wants to leave is the basic principle that we are no longer willing to have on our territory facilities and plants that are imposed from above without a confrontation with the local population, and that are only geared to exploit the territory. We want to change the normality of illegal disposal by making the people aware.*

Claudio (April 3, 2014, Naples)*: Our work in the schools is essential. From primary school to university. It is there that one changes society, changes the future. The goal is to make projects in the next school year, together with individual association of the territory. It is important to teach the kids what has happened and what should be avoided in the future.*

Lucio R. (March 18, 2014, Naples): *We have to be able to make the Århus convention a shared heritage, that means, we have to be able to form a community that demands, at the administrative level, mechanisms of participatory democracy: participatory budgeting, assemblies, city councils, an urban plan that must be studied and approved in a public meeting, public consultation processes for deciding how to use resources.*

The strength arising from uniting the forces of committees, associations and networks of active citizenship is recognized by participants in the CSB as a fundamental tool to regain control over local environments:

Pasquale (February 27, 2016, Ottaviano): *We are experimenting that, if you manage to keep the coalition united, you can influence projects of territorial development. Any project. The coalition must enter in the project phase, as we tried to do with Zero Waste principles to influence urban waste*

management. If we keep the coalition united and strong, we will determine the local politics. If we don't do this, if we separate and go alone, we will get nowhere.

However, the challenge of working together from many different backgrounds should be managed wisely and turned into a strength:

Lucio I. (May 7, 2014, Naples): *We started as a coalition from the event of November 16th 2013* (the mass demonstration in Naples, ndr)*, to which all the environmental grassroots of Campania contributed, in their huge heterogeneity, diversity and different positioning, which is detectable in what? Although we all have the same goal, there is a diversity of modes of action, of relations with the institutions, and therefore diversity of practices. In the struggle, there are very heterogeneous groups: the church, the left wing radicals, the anarchists, and that's the beauty of the coalition.*

Enzo (January 30, 2016, Orta di Atella): *Each one has his or her profile, his or her identity, and we have to make these various identities and differences a wealth for everybody. This means that we do not have to utilize differences and identities to divide. We cannot pretend to be all the same, because we are not. Each one has a different relation with life. The beauty is precisely in this: utilize the differences among us, put them together, because together these differences are explosive. Many didn't understand this. They utilize the differences for dividing, without realizing that in this way they do the game of the power and of those who want us divided. And somehow this helps who wants to speculate and to continue to make profits over life.*

Controlling space has been both a technique of self-defense and a tool of reappropriation. When opposing waste facilities imposed by the Commissioner, occupation and blockades were widely utilized. Through the progression of the struggle, the rooting in space of alternatives became a strategy to prevent further speculation, increase popular control on the environment and experiment with alternative economic initiatives grounded on alternative socio-environmental relations.

Egidio (January 30, 2014, Naples): *When they came to impose the dump in Chiaiano, we built one of the most important experience of the history of the movement in this city. On the one hand, for the quality, even the political quality, the ability to experiment with new practices that involved thousands of people. On the other, the durability. After six years, the picket against the dump in Chiaiano is still there, where we built it in May 2008. It's there materially, it's a point of reference. People in Chiaiano and Mugnano are*

still able to mobilize. From there, several experiences of reappropriation have risen: a self-managed park, and a land confiscated from camorra where today works a social cooperative. (...) We tried many techniques to oppose the dump: we tried to involve people through the 'soft walking' with cars, by blocking the highway with one hundred cars going at 20 km/ph. Then we did one by walking, blocking the traffic in the city. We occupied any place there was to occupy. It lasted for years, we remained there also when the landfill was built. We were repressed. And the repression hurts. Tthere were restrictions put on the freedom of me and other comrades. And we answered with more mobilizations.

Pasquale (February 27, 2016, Ottaviano): *What happened on our territories was the result of a vacuum. After we blocked the dump in Terzigno, we realized that the space had to be occupied permanently to avoid the risk of them coming back. And I say we must plant trees, a massive reforestations, so to occupy the land. If the land is occupied they cannot eradicate the plants. But if they find the vacuum, soon or later they will come to fill it with trash.*

Marco (January 13, 2014, Naples): *If the farmer cannot sell products anymore, he will sell the land. When the farmer leaves the countryside, a sentinel checking that the field remains clean is gone. If the land is abandoned it becomes object of speculation: they make malls, parking lots. Or it becomes a dump. This is why we created an agricultural cooperative: there are all these abandoned plots of land, all these empty spaces, and all these young people like me without a job. So, why not work the land? This would be a way to defend and organize ourselves, because on the one hand we have the institutions that do not protect us, and on the other, we have the camorra. We are squeezed in between, in the center there is us and our territory. We must ally with the territory, take it back, and defend it, also through agriculture.*

The alliance with farmers and collaboration with social cooperatives on land confiscated from camorra, became a strategy pursued by Campania's GEMs, part of their project of territorial reappropriation from below.

Lucio I. (May 7, 2014, Naples): *In the beginning, farmers were against us. We had to work hard to make them understand that we are on their side. We want to defend the interests of consumer, who of course want a safe product, and they are willing to pay a little more if that product is certified. So we understood that we could find a common path, and it is a path we are trying to walk together with the self-certification. With the farmers, we cooperate from the bottom up, through a community-check: with the self-certifications,*

farmers give the guarantee of a safe product and we in turn help them to create a circuit of Km-0 economy through solidarity purchase groups, so they can sell their products.

Egidio (January 30, 2014, Naples): *Agriculture can become the basis for an alternative model of territorial production. Besides representing the possibility of developing cooperatives. I work on a land confiscated from camorra doing agriculture. It is a difficult road but it must be pursued. It is true that not all the territories are polluted (...) We have to find a way to collaborate with farmers, because they are a healthy piece of the local economy. Now they feel under attack, but they suffered economic damages and many are leaving the activity. This must be a problem that Stop Biocide takes, that all of us must feel responsible for. On the one hand, because agriculture can become a way to build alternative models. On the other, because farmers are victims of the same problems, because their products have been boycotted and because economic resources are not spent to safeguard the sector. Today the aim should be the absolute valorization of Campania products, and probably we will have to develop this autonomously. The movement has to take these stances. Those who want us divided from the farmers are against the movement. Because we talk with them and together we increase our strength. Let's not forget the past processes of speculation happened through subtracting land to agriculture. That is the sector to sacrifice for speculation.*

The legacies of the GEMs span from the local to the national sphere. Multiple achievements, also beyond the issue of waste, show how social cooperation is a force of emancipatory change and progressive political transformation.

Virginia (May 10, 2014, Acerra): *To have urban waste recycling has been one of our victories. Through the recycling scheme, we created the basis for an alternative waste management model. The control of territory, the denunciations are other achievements that didn't exist before. Then there is the awareness of what camorra represents: there has always been an ambiguity on camorra, especially in the Left, but to have unearthed the role of camorra in the process of capitalist exploitation has meant to write in history a big truth. Today camorra is the enemy of everybody, maybe ten years ago it was not so clear.*

Enzo (January 30, 2016, Orta di Atella): *We obtained victories. The Land of Fires Law, for example. Right, it does not challenge the root of the problem, but it says important things: the law legitimize the existence of the Land of Fires. It admits that there is a problem. Another victory: the law on*

environmental crimes, that we were waiting for 30 years, and no one managed to get approved... this movement achieved it. If some parliamentarians managed to put this law on the table, it has been thanks to the movement. The movement proposed changes to the law and we influenced the path of the laws. Before the prefect, the environmental commission of the senate, the ministries, were not listening to us. Now they invite us to ask for our contribution. If then they don't do what we say, we denounce it and we protest. But we need to participate, so they cannot say they didn't know. If we don't do it, they will utilize this against us. Today there is an entire country in revolt, communities in uprising, in Abruzzo, in Basilicata. Isn't this a victory? A few years ago, we were very not so many. Today is not like this anymore. In Abruzzo 60,000, people marched and involved the regional administrator to promote a national park where the State wants to drill for oil. People made the law. And the State had to go against the regional administrators. Isn't this a victory? This happened because now there are communities that are aware. Strong communities. That speak and scream. We have to encourage all this. Make it grow.

Finally, the mobilizations left a widespread awareness of larger significance: the struggle against waste is today a struggle of reappropriation and for broad changes.

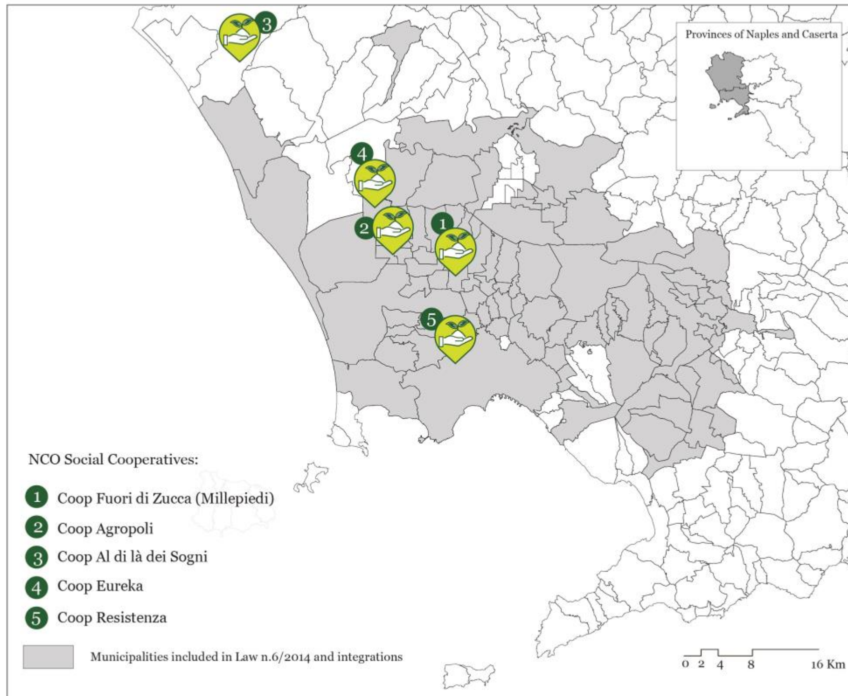
Egidio (January 30, 2016, Naples): *We realized that the change of the status quo, the necessity of overall alternatives, the enlargement of the concept of sustainability to everything and everybody, were the only solutions. Because otherwise you can win a dispute, a litigation, but there is not real change. We try to advance collectively through processes that involve everybody, that valorize the horizontality we experimented with during assemblies for organizing the protests, attempting to apply it to the general plan. The path is still long, but now we are aware and organized.*

6. Overview of the articles

In this section, I go through a summary of the articles included in the thesis. In different ways, they speak to and build upon the concerns presented so far while also trying to deepen particular features of GEMs' knowledge generation and spatial interventions.

The **first article** is the result of a co-design developed 'on the field' with Monica Caggiano. Our aim was to address debates on how bottom-up social cooperation can halt and reverse processes of environmental and human degradation, dispossession and impoverishment. We display an empirical account of the collaboration developed between grassroots environmental movements and social agricultural cooperatives working on lands confiscated from *camorra* in Campania. The article proposes a reading of their joint practices of resistance to (socio-environmental) inequalities and constitution of social economies as attempts at *synchronizing* political pressure with territorial reappropriation through acts of commoning. We show how a promising path of transformative politics lies in the coupling of grassroots resistance with collective engagement in shared forms of resource management. Rather than merely constituting a given pool of resources collectively owned, we argue, commons should be seen as emergent processes of *acts of commoning*, stemming from struggles aimed at increasing the self-organization of social-reproduction through addressing material and symbolic dimensions of socioecological emancipation.

Map 4. Location of social cooperative on lands confiscated from camorra (map by Cesare Cascella)



The **second article** was inspired by an exchange of ideas between myself, Prof. Felipe Milanez and Prof. Stefania Barca that included visits to the sites of each other's fieldwork. The article questions the colonial mechanisms and the decolonial strategies at play in contemporary socio-environmental conflicts. It expands on the environmental justice approach, arguing for the inclusion of indigeneity and decoloniality as fundamental dimensions of subaltern resistance that expose the coloniality embedded in capitalism, all the while sustaining alternative life-worlds. We attempted to overcome analytical distinctions between North-South and West-non West grassroots environmental mobilizations by showing how in two different geo-historical contexts – the Tapajós area in the Brazilian Amazon and Campania in southern Italy –similar colonial and decolonial dynamics are at play that are made visible by socio-environmental conflicts. Through the lens of *necrocapitalism* we expose the racialization and delegitimization of protesters that ground the degradation and dispossession of livelihoods in

both contexts, ultimately leading to *death worlds* functional to the working of capitalism. Subsequently, by linking decolonial praxis to ecological processes, we explore empirically the movements' knowledge generation and territorial politics. We find that decolonial ecologies are pursued by both movements through instances of defence of life (linking relationally human and non-human entities), epistemological disobedience (rejecting the top-down imposition of qualifications and solutions) and the constitution of alternative life-worlds (practically reorganizing socio-environmental relations from a decolonial standpoint). Ecological decolonization, we argue, can become the conceptual and political thread for novel global anti-capitalist alliances.

The **third article** deepens the spatiality of Campania's conflicts through a territorial perspective. Theoretically, I deploy a conversation between the UPE approach and the conceptualizations of territory from political geographers to analyse the land use changes linked to the waste business in Campania. Furthermore, by integrating in the discussion the perspectives of Arturo Escobar and Alberto Magnaghi on territorial politics from below, I propose to read the grassroots environmental movements' spatial interventions as counter- and re-territorializations. The concept of *competing territorializations* brings these phenomena together: the making of networked and enclosed spaces of waste management and disposal by various actors and the attempts at increasing control over spaces by activists, confront each other through conflicting socioecological projects embodied by alternative land uses and imaginaries, all taking place in a field of unequal power relations.

The **fourth article** – developed and written with Prof. Marco Armiero – contributes with a methodological reflection and three specific methods recommended for researches addressing the politicization of bodies and environments. We call for a more systematic inclusion of sensorial experiences, of smell in particular, in the research designs of scholarships that inquires socioecological relationships and socio-environmental conflicts. We then show how the stench from waste and toxic fires has acted as a politicizing device for ordinary people who were turned activists in the course of Campania's conflicts. Smells exposed individuals to 'metabolic fractures' (Loftus 2012) in their daily life, linking contaminated surroundings with visceral reactions and fears of diseases, thus triggering the will to engage politically with unjust socioecological configurations. Through the appreciation of smells, the body is recognized as a fundamental space of

political awakening and resistance. In order to access these experiences, we developed three methods: walking interviews concerned with sensations; oral sensorial histories; and 'toxic tours'. Building on the method proposed by Evans and Jones (2011), we complemented the walking interview with the detection of noxious smells while traversing rural spaces of illegal disposal guided by activists. Oral histories were traced more firmly to the body that told the story by inquiring, during interviews, into the links between memories of smells and changes in attitudes, thus providing insights into processes of collective and individual symbolization of sensorial experiences. Finally, toxic tours have been a practice developed in conjunction with grassroots movements during our stay in the field. These served to make public, to journalists, politicians, researchers and representatives from other movements, the state of the environment from the point of view of the activists. Local knowledges were valorised and grassroots movements built solidarities across places.

7. Synthesis of the findings

In this chapter, I present the key findings of this research by answering the questions that oriented the generation and analysis of the data. The following exposition thus synthetizes but also complements the contributions of the articles. As specified in the previous pages, each of the four articles included in the thesis constitutes a particular intervention that proposes theoretical and methodological developments grounded in the overall frameworks and concerns of the thesis. The articles both answer the main question(s) of the research, albeit somewhat implicitly, and provide further insights linked to the specific theoretical angle, conceptual reflection and empirical focus occasioned by each.

In order to answer the main question of the thesis, *How do grassroots environmental movements experience, contest and counteract processes of waste accumulation and socio-environmental degradation?*, I broke it down into three sub-questions. First, I needed to get a clear picture of the political economy and ecology of waste accumulation in Campania. This was necessary for reviewing and retelling the history of waste (mis)management and trafficking with a critical eye towards mainstream explanation of the 'crises'. Therefore, attention was devoted to the processes and relations implicated in the production of spaces of waste management and waste accumulation together with their socio-environmental entanglements, primarily by examining the urban and hazardous waste movement and disposal informed by the concept of metabolism as proposed by UPE. In the articles, these themes are treated in some details especially in the third one, where waste metabolisms are approached from the perspective of territorialisation (cf. article 3), while in the other articles they mostly stand as the background for the analysis of grassroots environmental politics.

Second, in order to grasp how and what GEMs know about waste and the environment, how they disrupt waste accumulation and how they produce their own spatialities, I carried out an engaged ethnography with participants to grassroots committees and the Stop Biocide Coalition. Interviews and observations allowed for insights into the reasoning behind the actions

carried out by Campania's GEMs. The meaning making processes around the issues at stake in the waste conflicts were a main concern in interviews, together with personal experiences of mobilization, perceptions of place and environment, the strategies utilized and the aims given to the grassroots organizing. My first-hand attendance at some of the spatial interventions of the GEMs (blockades, mapping and cooperative farming) integrated the interviews. These sources provided the empirical base for delineating, theoretically and politically, the project of Campania's movements as a reclamation of territory from below. The different facets of the GEMs' eco-politics are expounded in the articles through the specific case each makes. This way of proceeding gave me a relative freedom in the development of conversations between the findings, my overall theoretical framework and the literatures on commons, on coloniality/decoloniality and on territorialisation that I engaged with to build my argumentations. This eclectic movement between diverse readings of socio-environmental dynamics and theories of subaltern politics has been fuelled by the attempt at broadening the relevance of the Campania's waste conflicts through engaging different debates in critical social sciences, and by the conscious work of conceptual elaboration to make theory relevant for real struggles and to provoke Campania activists' self-reflexivity. In what follows, I first present the findings on waste metabolisms before delving into the GEMs dynamics.

Waste metabolisms in Campania as profit-driven territorialisation of toxic socionatures

In order to understand how the political economy and ecology of waste management, accumulation and disposal have been produced and organized in Campania, I examined the policies, the mechanisms and the relations underlying the economic valorisation of waste, their transposition in space and their embeddedness within socio-environmental changes. The *urban* waste management project was tackled by deepening the rationale of the plan and the factual execution of it. The analysis of the public bid, of the project and of the interactions between government, Commissioner, corporation and organized crime during fifteen years of official 'emergency', shows that the main drive sustaining these processes has been the enactment and maintenance of the economic profitability of the project for the contractor, against and above the technical and substantial concerns raised by experts

and grassroots committees. Even when the project put forward by Impregilo derailed, the Commissioner persisted on the same path. A system that was programmed to stall, causing periodic spilling of garbage on cities and the frenzy search for places to turn into storage sites and landfills.

The main elements through which this particular metabolism of urban waste has been organized are:

- Regulations and dedicated schemes for Campania that turned the urban waste produced in the region into a source of profit through processing (into RDF) and burning in incinerators, presenting such choices as 'modern solutions' and not prioritizing reduction, reuse and recycle as advocated by GEMs
- The imposition of waste facilities on places already compromised by previous pollution outside democratic negotiations during a fifteen year-long 'emergency' that suspended ordinary laws and constitutional guarantees
- A public discourse that criminalized protests and marginalized the alternatives proposed by GEMs, relying on the racialization and inferiorization of southern populations (as detailed in article 2) and on the accusation of NIMBYism to activists, thus legitimizing the physical repression of social mobilizations.

Such arrangements of urban waste metabolism resulted in the undemocratic production of spaces of waste management that exercised extensive pressure on environmental matrixes and locked-in management away from recycling and reduction schemes. Moreover, the creation of bounded areas of waste management and the proliferation of storage sites and other connected facilities, resulted in the territorialisation of a specific socioecological project unfolding through a re-writing of the landscape that affected the land market, accumulated contaminants in already stigmatized and polluted areas and altered socioecological relations beyond the boundaries of each site, as deepened in article 3. Importantly, these socio-environmental transformations were sustained by social structures of meaning associated with modernity. The power of persuasion of the rhetoric of incineration as the best solution for handling garbage was grounded in, and legitimized by, the modernist rationality maintaining that technology can solve all problems connected with urban life. Moreover, the hegemonic representations of the 'unruliness' of southern populations were constructed precisely in opposition to ideas of modernity, becoming tools to rule over them by delegitimizing their capacity

of meaning making and by silencing the violence they suffered (cf. article 2). This is why environmental conflicts in Campania can be seen as clashes of rationalities of nature and society, fundamentally at the base of conflicting agendas for organizing metabolism. Not just the material outcomes were contested, but the entire rationality behind specific ways of organizing metabolisms and territorial configurations.

Ultimately, the State in its various articulations became the sponsor of the corporation's interests by supporting its project through legislative interventions, by curbing opposition through police battalions and finally by protecting waste facilities with the army. Furthermore, the lack of procedural transparency and the concurrent centralization of decisions into the CWE caused the proliferation of patronage, corruption and the squandering of public money in the lack of strict accountability. One of the rationales of the 'emergency' regime was to withhold waste management from organized crime. Ironically, exactly the opposite happened: indeed, companies controlled directly by camorra clans or allied with powerful criminal groups built landfills, transported waste, managed storage sites and even provided 'security' to some of the waste facilities. Today, the processed urban garbage accumulated during the years of the 'emergency', the *ecoballe,* still stands piled in mountains inside the 'temporary' storage sites disseminated in the region. Besides occupying fertile lands that could be put to other uses, its existence and uncertain fate continues to weigh on public finances. The business revolving around the industrial cycle of urban waste management – dependant on continuous streams of garbage and therefore thwarting the transition towards circular economies – is still flourishing in Campania. However, recycling schemes are on the rise in big and small municipalities of the region, thanks to the pressure of GEMs.

The illegal *hazardous* waste trade and disposal has been tackled in this research by examining the long trail of judicial proceedings it engendered, the government and NGO reports, and the scientific studies around contamination and health impacts of pollution from waste. The dynamics of this business uncovered by the analysis show the cooperation of organized crime, legitimate business firms, public officials and industrial owners in the practical unfolding of the many steps that lead to the illegal and improper disposal in Campania of around 10 million tons of hazardous waste in 22 years (Legambiente 2013). Both the large-scale system of disposal of massive quantities of industrial and other toxic wastes and the micro disposal and fires of waste in the countryside were investigated, integrating in the analysis the

grassroots knowledges on both phenomena. As with urban waste metabolism, in this case the production of spaces of illegal disposal was linked to the economic gains made along the chain of illegal management by the multiple actors participating. The shifting of the costs of production onto the ecologies and bodies of Campanian people through illegal disposal configured a process of accumulation by contamination (Demaria and D'Alisa 2013), realized through the territorial and economic power of organized crime, the widespread corruption of controllers and due to the inaction of government institutions. However, the analysis reveals that a main driver of these eco-crimes was the search for cheap disposal procedures by legitimate business and unregistered manufacturers. The networks of illegal disposal simply offered a 'service'. What is relevant is that they found an immediate positive feedback from legal entities of the productive sector, even though the latter could claim, in the majority of cases, to ignore that they had been dealing with criminal groups when interrogated by investigators. The socioecological outcomes of the illegal waste trafficking and disposal caused the spreading of contaminants throughout local environmental matrixes, threatening ecosystems and public health. Against the mystification of the 'waste crises' as solely an issue of urban waste and public order by the several governments ruling over the country in the last twenty years, the GEMs of Campania were able to bring the issue of illegal toxic waste disposal to public attention. Against the 'normalization' of living amongst trash, contaminants and increased risk of various diseases, they forced authorities to sharpen legislation on eco-crimes, to devote economic resources for land remediation and health security, and to take into account the knowledges of the GEMs for devising solutions.

The metabolic interactions between humans and non-humans – the processes and relations linking waste movements, contaminants and socioecologies inherent to both the urban trash management and the illegal toxic waste disposal – configured a space of conflict. In Campania, waste has been remade into a means of profit making and rent extraction through its commodification: the urban waste via regulatory frameworks creating favourable conditions for the managers of facilities; the hazardous waste through its trading for 'cheap disposal' supporting the cost-cutting drive of the productive sector. Crucially, both processes subsumed human and non-human natures in the transformation of waste into a moneymaking commodity. The conflict thus emerged from the encounter between waste metabolisms, human and non-human bodies and the will to resist processes of slow death – of *Biocide* – performed by organized groups of local inhabitants.

Indeed, the GEMs intervened by politicizing the enactments of legal and illegal waste metabolisms. Their environmental politics has been concerned with remaking material relations and in reimagining cultural meanings tied to the land, as it will be explored in the next section.

Grassroots environmental politics as symbolic and material reclamation of territory

Confronted with the authoritarian imposition of a project of urban garbage management and with the proliferation of toxic dumping, people with and without previous political experience constituted *comitati popolari*, grassroots committees, as tools of self-defence formed on territorial basis and quickly linked into networks of mutual support. They were since the start also centres of knowledge generation around the socio-environmental issues unleashed by (potential and actualized) waste territorial occupation and contamination. The *saperi popolari* (popular knowledges) through which the committees grounded their environmental politics were the result of the hybridization of expert knowledge and lay perceptions of socio-environmental changes. The critique to the *urban* waste management plan of the CWE and the corporation was contested on the basis of alternative waste management proposals developed in collaboration with movements and committees engaged in similar struggles in Italy (especially from Tuscany) and with the scientific support of the international NGO Zero Waste, itself an organization made by activists and experts. Indeed, the Zero Waste principles became the model for designing household garbage management schemes advocated by all GEMs in Campania. This advocacy work, and the benefits for local communities in ecological, social and economic terms, made today the Zero Waste principles an official management strategy in 28 municipalities of Campania (232 in Italy)[45]. Waste incinerators were not only criticized for potential harmful effects but also for feeding and reproducing an unsustainable model of consumption (and, therefore, of resource use and production), given the competition between incineration and reduction/reuse/recycling of garbage. The proliferation of storage sites for

[45] Covering almost five million people, see http://www.zerowasteitaly.org/comuni-rifiuti-zero/ (accessed 29/6/2017).

hosting waste to burn and of landfills during the years of the emergency only seemed to confirm the conclusions of the GEMs.

The GEMs' knowledge of *hazardous* waste illegal disposal was generated in two ways. On the one hand, by retracing the history of the links between territorial changes and eco-criminal networks through judicial proceedings, deposition of former camorra members and activists' archives. On the other, by exploring the countryside, surveying spots of illegal dumping and toxic fires, and filing complaints to the authorities. Sensorial perceptions and internet platforms were the main tools, as explored in articles 1 and 4, until this practice was systematized in 2014 thanks to EU funding, becoming part of the *Civic Observers for Health and Environment: Initiative of Responsibility and Sustainability* (COHEIRS). Today, a core group of activists coordinates more than 200 officially recognized 'civic observers' in Campania, engaged in the filing of denounces of toxic fires and wild dumping in direct cooperation with investigators[46].

The synthesis of the GEMs knowledge is reflected in the concept of *Biocidio* (Biocide, literally the killing of life), deepened in article 2. Biocide acts as an explanatory device that articulates the relationships between political-economic processes and their complex interplay with ecosystems and bodies. By connecting the production of deadly ecologies to multiscale strategies of profit making, it conceptualizes society and nature relationally. This allowed the GEMs to frame contamination as the result of processes outside the control of local communities and as the effect of exclusionary policies, positing at the centre of the political work the very making of socionatures – including humans and non-humans and their interrelations mediated by specific arrangements of socioecological metabolisms. To speak of Biocide also spurred the transition from a merely defensive plan to that of the re-appropriation of direct services and rights, embracing the many dimensions of life as a general terrain of struggle. Grassroots movements in other Italian regions and environmental NGOs picked the Biocide concept and adapted it to their contexts, laying the groundwork for a universalization of its potential to make visible and politicize structural mechanisms of socioecological exploitation.

[46] Their website is reachable at http://www.osservatoricivici.it/campania/index.php?option=com_content&view=category&layout=blog&id=9&Itemid=101 (accessed 10/4/2017).

The strategies put forward by GEMs and the CSB to disrupt such mechanisms in Campania have had a decidedly spatial dimension. Both the resistance and the proactive remaking of socio-environmental relations unfolded through interventions in space. During the urban waste emergency, and still today when needed, lands occupations and blockades represented the main grassroots practices to hamper the transformation of lands into dumps, storage sites and incinerators. These *presidi* (the garrisons or encampment on lands at the centre of litigations) were the place where protesters recreated the links between people and their surroundings, where knowledges were shared and imaginaries of desired futures formulated. In brief, these garrisons functioned as generators of both *community* and *place*, besides testing the tactical ability of disruption through direct action. The shift towards proactive and transformative spatial interventions – treated in articles 1 and 3 – is visible in the building of social economies in the heart of the Land of Fires and in the emphasis on occupying lands with bottom-up projects geared at social wellbeing conveyed by the CSB platform and resulting from the interviews. The collaboration between networks of activists and social cooperatives on lands confiscated from camorra increases self-organization through shared resource management schemes – *acts of commoning* that embody the reorientation of values away from mafia-culture and towards the care for territory. Experiences like the NCO network (cf. article 1) configure counter-territorialisation projects that ground alternatives and prevent land speculation: physical barriers against dumping and camorra exploitation, and places to experiment subaltern political ecologies.

So, how do the practices described so far configure a *reclamation of territory from below*? It should be clear by now how the conflicts delineated in this thesis do not revolve simply around waste. These are struggles for autonomous knowledge of, and direct control over, socioecological metabolisms. The GEMs and the CSB propose transition strategies addressing a multiplicity of crises. They thus go beyond contestation. What they do is to re-examine the hegemonic rationalities leading them to suffer the negative outcomes of projects presented as 'necessary development' and to reformulate the conditions of a worthy life. Indeed, Campania's GEMs have been concerned in reimagining and rediscovering their own approach to life, that is, their own ideal of wellbeing, of economy, of land use and of social relations. Mobilizations defended not only the right to health, but organized the reappropriation of the right to life from a situated and grounded positionality, coinciding with the territory not as a physical space they

possessed, but as a multidimensional socioecological and cultural matrix from which they come into being.

Similarly to the 'differential geographies' described by Castree (2004) in relation to the kind of spaces pursued by Indigenous people's movements, the Campania GEMs and CSB fight to (re)make their own places, rather than have them made for them. They embrace place interdependency while defending local specificities. They do not have much choice but mobilize place-based identities, engage in translocal networks, enact a politics of boundary making and attempt to secure control over their territories. These territories are messy, globalized, socially heterogeneous and definitely not 'pure', 'authentic' or essentially linked to specific people. They are *geographical fictions*, like all the representations of local-global relations, but alternative to those imposed by the hegemonic rationality of society-nature relations. They envision a "world where many worlds can fit", as the Zapatistas say, i.e. a world of differences where it is not the authority of capitalist 'modernity' and 'progress' that designs socio-environmental configurations from the local to the global. The geographical imaginations brought forward by grassroots environmental movements should be recognized as a site of potential progressive politics. Indeed, a form of territorial politics that draws boundaries is not necessarily regressive when coupled with an appreciation of the relational constitution of place. In practice, this means that a place-based politics can avoid becoming regressive, reactionary and essentializing by recognizing the interconnectedness with others. Such politics points to the building of national and international coalitions of territorial movements engaged in re-establishing the conditions for cultural and physical survival through alliances of inhabitants and producers. A task that is today more urgent than ever.

8. Conclusions

This thesis has argued that grassroots environmental movements in Campania are contributing to emancipatory projects of progressive political change by opening up sites of radical questioning of hegemonic socioecological configurations. Moving from contestations of waste metabolisms, they generated autonomous and hybrid knowledges of the processes turning landscapes into waste receptacles and intervened directly in space to reclaim local places. Campania movement demonstrate that self-organization on the ground of local inhabitants can elaborate and implement novel socioecological and territorial relations that are more just and equal. This has been possible through the deployment of collective efforts at re-inhabitation that weaved patterns connecting bodies and ecologies, the present to the past and to the conditions of possibility of the future. The grassroots defence of territory and life in Campania, this thesis has found, has engendered struggles for alternative socioecological worlds that are irreducible to the instrumental modern rationality and instead express ways of thinking/doing socioecological relations that are grounded in direct experience and in dialogues of knowledges. Based on the analysis of the Campania case, I maintain that grassroots environmental movements in the global North have the potential to support epistemological shifts that politicize supposed divisions between humans and all other forms of life policed by mainstream techno-science, replacing it with relational perspectives.

I want to stress clearly that this is not an acritical celebration of the local. As the previous pages have shown, I am aware that the local is always partly created by extra local linkages. Moreover, activists' in Campania have continuously engaged in exchanges across multiple scales, in mutual support with far away allies and in advocacy work at institutional levels from municipal mayors to the European Parliament. Rather than a naïve defence of localities, my aim is to spur reflections around place and territorial politics based on the findings of this research, which show how the 'local' can become an important stage for progressive politics; therefore it should not be considered as essentially reactionary and be left to right wing political

projects. A question looms large: how to address the hijacking of localism by the far right? How to implement grassroots political projects embedded in the everyday life of local people that are also radically inclusive and geared at remaking socioecologies in egalitarian and relational ways? Some potential tools of how such politics could look like have been presented in the previous pages and are condensed in the articles of this thesis.

Approaching the end of a research that in many ways coincide with my life is not easy. More than a research topic, the waste conflicts in Campania have been for me an obsession, a curse, a mission, an inspiration and a desperation. In what I was doing, I tried continuously to remind myself that the aim was not only to advance knowledge, but especially to nurture a broader struggle through rigorous research, continuous questioning and sympathy for the life of humans and non-humans near and far from me. Now that I am going to become a father in some months, the idea that the world is turning more and more inhospitable and that the main people responsible for the destruction and the impending collapse continue to practice their business as usual, make me think that it is no more possible, if it ever was, to ignore our responsibility as academics and scientists. If objectivity in science has been rightly resized by advancements in knowledge, it is now time to abandon the conjecture of neutrality and the habit of scientists of focusing attention only within the narrow limits of their experiment or case. There is not an action without consequences, and there is not a place floating outside the relations with all the rest. This is a call to join the struggle. We must change the change so that the world does not keep changing without us. So that it does not become, in the end, a world without us.

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Appendix I – List of interviews

Participants to grassroots committees

1. Mauro, *CCF* committee, male
2. Enzo T., *CCF* committee, male.
3. Lucio I., *CCF* committee, male.
4. Lucio R., *Campania Citizens* committee, male
5. Annamaria, *Campania Citizen* committee, female.
6. Claudio, *Campania Citizens* committee, male
7. Egidio, *Rete Commons* committee, male.
8. Virginia, *Women of 29th August* committee, female
9. Marco, Nola, male.
10. Angelo G., Naples, male
11. Rosalba, Ottaviano, female
12. Pasquale, Ottaviano, male
13. Franco, Acerra, male
14. Eustachio, Acerra, male.
15. Angelo O., Naples, male
16. Anna Maria, Naples, female.
17. Lucia, Giugliano, female
18. Carmine, Acerra, male
19. Pina, Chiaiano, female
20. Luca, Acerra, male

Members of social cooperatives on lands confiscated to camorra

1. Peppe, cooperative *NCO*, male
2. Mirella, cooperative *Eureka*, female
3. Simmaco, cooperative *Al di lá dei sogni*, male
4. Giuliano, cooperative *Fuori di Zucca,* male
5. Ciro, cooperative *Resistenza*, male
6. Roberto V., cooperative *NCO Le terre di Don Peppe Diana*, male
7. Roberto F., cooperative *NCO Le terre di Don Peppe Diana*, male

8. Sergio, cooperative *Al di lá dei sogni,* male
9. Nicola, cooperative *Resistenza,* male
10. Luisa, cooperative *Resistenza,* female

Experts and institutional representatives

1. Antonio Giordano, oncologist, president and director of the Sbarro Institute for Cancer Research and Molecular Medicine at Temple University in Philadelphia, Pennsylvania, male
2. Massimo Fagnano, professor of agronomy at the Federico II University of Naples, coordinator of the project ECOREMED, male
3. Marcello Chessa, union leader of the Italian General Confederation of Labour, male
4. Donato Cafagna, prefect, special Commissioner to toxic fires in Campania from 2012 to 2016, male
5. Luigi De Magistris, current mayor of Naples, male
6. Isaia Sales, professor of history organized crime in southern Italy at the University Suor Orsola Benincasa of Naples, male.
7. Rosaria Capacchione, journalist and senator of the Republic, female.

Farmers

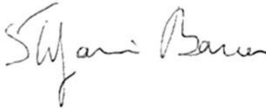
1. Filippo, Acerra, male
2. Lino, Sessa Aurunca, male
3. Sebastiano, Brusciano, male
4. Antonio, Caserta, male

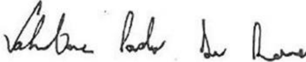
Appendix II – Co-authors declarations

Copenhagen, 28 June 2017

To whom it may concern,

The authors hereby certify that the paper entitled "*Decolonial Ecologies. Necrocapitalism and Territorial Struggles in the Lower Tapajós (Brazil) and Campania (Italy)*" is based on 60% / 20% /20% contributions by the respective authors De Rosa / Barca / Milanez.





Salvatore Paolo De Rosa

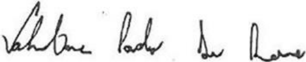
Stefania Barca

Felipe Milanez

Copenhagen, 28 June 2017

To whom it may concern,

The authors hereby certify that the paper entitled "*Political Effluvia: Smells, revelations, and the politicization of daily experience in Naples, Italy*" is based on 50% / 50% contributions by the respective authors De Rosa / Armiero.



Salvatore Paolo De Rosa

Marco Armiero

Article I

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RESEARCH ARTICLE

SOCIAL ECONOMY AS ANTIDOTE TO CRIMINAL ECONOMY
How social cooperation is reclaiming commons in the context of Campania's environmental conflicts*

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ABSTRACT: This article contributes to ongoing debates on how bottom-up social cooperation can halt and reverse processes of environmental and human degradation, dispossession and impoverishment, by proposing a synchronization of resistance and of commoning practices. The article moves from the empirical case of social and ecological conflicts currently unfolding in the so-called Land of Fires, an area in Southern Italy infamous for the socio-environmental impacts of two decades of waste disposal, mismanagement and contamination. Within this context, a coalition of grassroots movements is struggling to resist livelihoods degradation through an alliance with anti-Mafia social cooperatives. We provide an in-depth analysis of emerging social and economic networks that connect the strategies of grassroots movements for environmental justice with the work of social cooperatives that reclaim lands and assets confiscated to Mafia. The interests of environmental activists meet the interests of social cooperatives at the crossroad of territory reclamation with the spheres of social and economic production and reproduction. Framing the case as a cultural and physical re-appropriation of territory, we provide an analysis of strategies and limits for a symbolic and practical project of social re-appropriation of the commons (De Angelis 2012).

KEYWORDS: Commons, Organized Crime, Social Cooperatives, Social Movements, Socio-environmental Conflicts

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* Salvatore Paolo De Rosa's contribution to the article is 70% (sections 2, 3, 4, 5); Monica Caggiano's contribution is 30% (section 6). Both contributed equally to the introduction, section 7 and the conclusions.

1. Introduction

In the current European conjuncture of uneven economic recession, top-down directives for public spending reviews and attempts to restart growth, we witness frequent clashes between the priorities of local communities and those supported by international and national political economic institutions. Increasingly, groups of people in different contexts, while counteracting processes of exclusion and degradation, are also organizing themselves to regain control on local resources and to revive popular participation in the political process (Martinez-Alier 2002; Anguelovski 2013). On these premises, this article contributes to ongoing debates on how bottom-up social cooperation can halt and reverse processes of environmental and human degradation, dispossession and impoverishment. By focusing on the cooperation and the mutual strengthening of resistance practices and social economies in a contest of environmental conflict, we provide an analysis of strategies and limits for a symbolic and practical project of social re-appropriation of the commons.

Rebuilding connections within communities and between people and environments is a grassroots work that echoes the writings of Gregory Bateson, from whom we learn that "everything is connected". Bateson invites us to look at the patterns that connect because “what can be studied is always a relationship or an infinite regress of relationships. Never a thing” (Bateson 1972). In this paper, we investigate the connections developed within local communities facing social exclusion and widespread contamination. We focus on networking and partnerships that trigger cultural changes and nurture emancipatory patterns, both on social and individual level. Through these connections, local communities seek to organize and resist processes of contamination, dispossession and impoverishment, and to free themselves from Mafia rule, developing a sense of belonging to "the patterns that connect"(Bateson 1972). The coordination between grassroots environmental movements and social cooperatives, we argue, is putting the basis for a social recreation and re-appropriation of the commons, that is, a bottom-up cultural and political reorientation of the ownership and management of resources through shared acts of making-in-common (De Angelis 2012).

The communities we engage with live in the so-called Land of Fires, an area in Southern Italy infamous for the power wielded by organized crime and for the socio-environmental impacts of waste disposal and mismanagement. In this context, we provide an in-depth description and analysis of emerging social economies networks, involving cooperatives who work land confiscated to Mafia, environmental activists, citizens associations and private actors. In an attempt to decolonize their imaginary both from Mafia values and from economic imperialism, they try to integrate individual and

community wellbeing in novel socio economic structures, to reconnect people with land, agriculture with welfare, environmental struggle with social justice, ethic with economy. In doing so they seem to adopt Bateson's *wider perspective* through acts that radically change both the material reality and the ways they understand this reality and themselves within it. The joining of resistance to inequalities and self-organization of social reproduction through practices of commoning that we discuss is a promising path for enhancing the democratic participation in the making of our present and future societies. The task is to turn the challenges we are facing in opportunities for novel socio-environmental arrangements to emerge. The experience of Campania's activists points to a way that can inspire similar struggles in other contexts.

2. Methodology

We conducted an ethnographic study of the grassroots environmental movements and of the social cooperatives in Campania between February and May 2014. The methods used for collecting data are individual semi-structured interviews, oral histories, participant observation and documents reviews. We collected twenty interviews to activists involved in environmental struggles and ten interviews to members of social cooperatives. The interviews were transcribed and coded in order to detect common themes and meaning-making processes. We refer to several documents from press, official sources (trials and police investigations, government projects and reports), institutional bodies (national statistic institutes) and unofficial documents (grassroots movements' reports).

3. Commons Movements and Social Movements

Nowadays, we witness a renovated interest for the study and the practice of commons (Bollier and Helfrich 2012; Bollier 2014; Shaw 2014). The "language of the commons" is gaining momentum again as an emergent array of "commons movements" in urban, rural and digital settings around the world is producing, re-appropriating or recreating commons. In terms of the targeted resources and organizational practices, these emergent commons have multiple and varied declinations, such as indigenous' and peasants' collective management of forests and agricultural lands; urban guerrilla gardening; occupations of empty public buildings for social revitalization and so on.

In the classical formulation provided by Elinor Ostrom (1990), commons are defined as a paradigm of governance and resource management. The term referred to the norms, rules and institutions that enable the shared management of common pool resources (CPR). The work of Ostrom, and of the group of researchers she coordinated, was a reaction to the belief, widely held until the 1980s, that CPRs could only be managed by the State or the market through private property. CPRs scholars instead showed that groups of resource users at the local level could jointly create institutions to sustainably manage those resources over long periods. Advancing the work of Ostrom, further studies around commons have pointed out the influence of exogenous political economic factors on the ways CPRs are managed (Peluso 1992; García-López 2013). Shifting the gaze from the conditions that ensure the sustainability of the common pooled resource to the actual social practice that turns resources into commons, other practitioners and researchers prefer to talk about commoning as a verb rather than a noun, to highlight the emergent processes of shared stewardship about things that a community possess or manage in common (Linebaugh 2010; Helfrich and Bollier 2012)

Our interpretation of commons relies on the work of Massimo De Angelis, particularly on his analysis of the relations between social movements and commons movements (De Angelis 2010, 2012). For De Angelis the need to think about the current relevance of the commons comes from their potential for reconfiguring social relations and for articulating new social systems of production in common. In his definition, commons are the manifestation of a social force that addresses "the various needs of reproduction of different communities by mobilising the natural and creative resources at their disposal or that they are able to identify and reclaim from other social forces" (De Angelis 2012, p.4). As a social force, acts of commoning are forms of collective self-help solutions to the problems of social reproduction faced by communities. The social forces implementing commons always organize vis-à-vis external social forces that constantly threaten to co-opt their efforts. The possibilities for the flourishing of acts of commoning are based on the achievements of previous struggles or rely on the creation of new self-organized spaces, in a constant bargaining with systemic forces (such as the State and Capital) that attempt to absorb their subversive charge. In order to resist dispossession, co-optation and enclosure, the commons movements need social movements. While there is an inherent connection between commons and social movements (they both presuppose one another to a certain extent), they also have different sequences and act at different levels. Social movements move from a *clash* with other social forces, in order to resist the dispossession of rights and to achieve some form of redistribution. Commons movements instead act on the basis of the available

possibilities (what De Angelis calls available *deals*) to foster the self-organization and collective management of resources. A process that aims to transform the balance of systemic forces, therefore, "must seek ways to couple social movement and commons, to *synchronize* their respective sequences, to make more clearly the subjects of movements commoners and make commoners protestors" (De Angelis 2012, p.18).

In this light, we advance an interpretation of the collaboration between social cooperatives and grassroots environmental movements as an attempt to synchronize commoning practices with strategies of political pressure. The enhancement of self-organization brought forward by the social cooperatives strengthens the organizational base of grassroots movements and their ability to promote real changes. On the other hand, the work of grassroots movements attempts to challenge the power imbalances, to increase the democratic space and to enlarge the condition of possibilities for the flourishing of commoning practices. In addition, social movements stimulate cooperatives to remain constantly vigilant and reflective on the risk of co-optation. In the case we analyse, their joint actions are emerging in a context of conflict. Far from being a limiting factor, the ruptures created by conflicts represent openings towards radically different paradigms of managing and organizing life in common. How the social forces of commoning and social movements in Campania have emerged, and which kind of conflict they are facing, is described and explained in the next sections.

4. The Land of Fires and the criminal economy

Our research field is located in the Northern part of Campania region in Southern Italy and corresponds to the area labelled by local activists, and recently mainstreamed by Italian media[1] and politicians[2], as the "Land of Fires". The area comprises the provinces of Naples and Caserta, a large and complex urban/rural system that is the most densely populated area in Italy while having the lowest GDP pro-capita (ISTAT 2014). The presence of rooted criminal organizations (the so-called *Camorra*) had historically a great impact on the regional economic and socio-environmental changes. *Camorra* groups are armed organizations whose main will is to maintain power positionalities through a complex interplay of territorial control, service provision, political patronage,

[1] All Italian major newspapers have recently picked up the term in their reports on Campania socio-environmental situation (e.g. cfr. La Repubblica, Corriere della Sera and Il Mattino from January to March 2014).

[2] The law drafted in February 2014 as a government response to the social mobilizations of Campania people, has been labelled by politicians and media the "Land of Fires law".

violence and the spreading of specific cultural values (Santino 1995). Their aim is the maximization of profits through a predatory economic behaviour, pursued even at the cost of social legitimacy. Moreover, criminal capitals circulate constantly between legal and illegal realms of economy, supporting processes of accumulation coherent with the imperatives of global capital (Arlacchi 1979). Indeed, in its contemporary manifestations, criminal economy can be seen as an extension or an extreme form of capitalist accumulation, providing legal companies and the State with the channels, the instruments and the territorial control suitable for boosting economic performances, for cutting costs and for creasing social unrest.

During the last two decades, two intertwined, multi-scale processes have had a remarkable influence on the socio-environmental and economic systems of this area, leading to the transformation of *Campania Felix*[3] into Land of Fires. The first process is the implementation of the regional urban waste cycle, supervised and managed by a special government agency and carried out by private firms, operating under the legal framework of the “urban waste emergency”. In a non-transparent and controversial way, the government agency assigned to a partnership of private companies the task of dealing with all the urban waste daily produced in Campania. The private firms opted for an industrial plan based on two waste-to-energy plants and seven waste processing facilities. Within the framework of the emergency, the companies were granted complete freedom to decide on the location of the infrastructures according to their needs, thus avoiding negotiations with the local communities and environmental impact assessments. The factual realization of the plan entailed the dispossession of municipal land, the deployment of “technological fixes” for dealing with waste and the financialization of waste as the guarantee of revenues for the banks loaning the money to the companies. When the garbage was flooding Naples and other municipalities of Campania, causing an eco-social catastrophe with worldwide media coverage, the government agency used its powers to impose the opening of landfills and storage sites in rural areas already jeopardized by previous pollution, causing social unrest.

The second process is the illegal dumping and burning of hazardous waste in unsuitable landfills and in rural areas accomplished by a complex network of entrepreneurs, state officials, industry managers, landowners and organized crime groups. Since the early nineties, million tons of hazardous waste travelled to Campania through networks provided by stakeholders, often belonging to organized crime, whose main role was to connect industry managers willing to cut the costs of correct waste disposal procedures

[3] Ancient Romans used to call the region *Campania Felix* (Happy Campania), to indicate the mild climate and the fertility of the soil. Cfr. The famous sentence "Hinc felix illa Campania est" of *Pliny The Elder,* a well-known naturalist lived in the 1st century AD.

with the routes and the places where their waste could be accommodated at lower costs in illegal ways (Massari and Monzini 2004; Legambiente 2007; Iacuelli 2008; Pecorella at al. 2013). Corruption of public officials, political protection and patronage, and the lack of credible deterrents by the State, have made this business one of the main revenues for criminal groups and allowed legal as well as illegal businesses to socialize the costs of production while privatizing the profits.

These two processes have complex interrelations that blur the demarcation between legal and illegal practices of waste management. The common factor that best exemplifies their functioning is the profit-driven logic of what has been termed, following Harvey (2003), accumulation by contamination: the process whereby the capitalist system socializes costs through successful costs-shifting strategies, which degrades the means of existence and bodies of specific groups in order to find new possibilities for capital valorization (Demaria and D'Alisa 2013). The dimension of the *bios*, of life, becomes thus embedded into market mechanisms, even though unaccounted, turning life itself into an accumulation strategy. In Campania, the arrangements required to carry out this process implied an unequal distribution of power, which manifested itself in the shrinking of the democratic space of negotiation on environmental management issues and in the loss of the fundamental rights to health, to safety and to self-determination for the local communities (D'Alisa, Walter M., Burgalassi D. and Healy H. 2010; Armiero and D'Alisa 2012).

The socio-environmental impacts of these intertwined processes have slowly shown their magnitude. According to surveys of the Campania Regional Agency for Environmental Protection, there are today 2551 contaminated sites in all of Campania, with the majority of them clustered in the area between Naples and Caserta. The pollutants found are mostly coming from urban and industrial waste incorrectly disposed (ARPAC 2008). Several scientific studies connect the higher rates of cancer diseases among the population of this area to the presence of pollutants from waste (Senior and Mazza 2004; Comba et al. 2006; Fazzo et al. 2008; Martuzzi et al. 2009).

The stigma attached to the people and to the land, reverberates on the agricultural sector. Local agriculture, already impoverished by the economic crisis and by the deregulation of imports, suffers the exclusion from consumers' choice for the fear of contamination. Many small-scale, family owned farms are on the brink of failure, even when they can certify their products as contaminants-free. Finally, the decline of the local agricultural production system weakens further the control of local residents on their territory and resources (ISMEA-Unioncamere 2014).

5. Campania's Grassroots Movements: from resistance to re-appropriation

Alongside the continuous "waste emergency" and the illegal dumping of noxious waste, a complex constellation of grassroots movements emerged on the toxic fields of Campania. Local committees of concerned citizens organized campaigns against the localization of landfills and incinerators on their territories and took a clear stand against the illegal dumping. They rarely called themselves environmentalists: personal reasons linking health concerns with the loss of control over the environment acted as mobilizers, more than any supposed will to "protect the nature" (Armiero 2008).

The sensuous perceptions of environmental changes unsettled the experience of everyday life and foregrounded the work of continuous, collective self-formation by active citizens that begun investigating the causes and the effects of waste flows disrupting rural and urban environments. Local committees produced autonomous forms of environmental knowledge through the merging of sensuous perceptions and scientific expertise (Armiero 2014). The influence of unequal power relations at work in the rearranging of the landscape became the focus of activists. This led to the politicization of the processes linking biophysical change, spatial restructuring, technological and scientific discourses, governance methods and waste flows. From the specific issue of waste and contamination, the scope of the grassroots movements grew to embrace the dimensions of local economies and public participation in the making of cities, fostering the emergence of a grassroots environmental politics focused on building new relations between territories and communities, through both self-organization and political lobbying.

The social mobilization in Campania has been striking for its heterogeneity: the mobilizations have cut through the social fabric involving people from economically deprived areas, middle class and scientific community on the same side of the conflict. Strong divides also crossed the movements: on the strategies to adopt, on the degree of cooperation to maintain with public institutions, on the priorities to address. However, what began as a form of engagement by disconnected local movements, evolved into a recognizable regional coalition that linked with other national and international movements in a common struggle for environmental and social justice.

Throughout the recent history, we can identify two main periods of popular environmentalism in Campania. The first wave of mobilization runs from 2000 to 2011: eleven years of "waste wars" during which the State's plans for dealing with urban trash encountered the steady opposition of local communities. Throughout these conflicts, the involvement of organized crime in the waste business emerged as a systemic issue, especially in the light of investigators reports and of trials to *Camorra* affiliates,

politicians and entrepreneurs. These findings became then widespread thanks to activists' independent reports. The second wave runs from 2012 until today, representing a shift of Campania grassroots movements from the fight against toxics to the physical and symbolic re-appropriation of territories, extending at the same time the political agenda and the areas of intervention.

Between 2000 and 2011, thousands of people from the poor neighbourhoods of Naples and from the municipalities of the plain felt threatened and dispossessed by the waste policies implemented under the emergency regime. The most proactive among them built up local coordination units through the organizational form of "grassroots committees", opposing what they perceived as an authoritarian governance of waste not concerned with environmental and human safety. In at least 37 localities, grassroots committees directly confronted the government plans (Festa 2012). The committees aroused in this period grew around the local perceptions of past and present urban degradation and land dispossession, and they had a prominent defensive stance. With the increase of repression and the proliferation of front lines of the conflict, activists implemented trans-local coordination efforts between local committees, drawing a geography of mutual support and concerted efforts. The government's waste policies were contested on the basis of alternative waste cycles projects formulated by the movements through knowledge exchanges and affiliations with international networks (like Zero Waste Alliance). The elaboration of alternatives, focused on reduction, recycling and redesigning of materials, became the most powerful critical instrument for contesting the top-down waste policies based on incineration and commodification of waste. New narratives concerning the local history of pollution and health impairments were produced through the investigation of past and present contaminating activities and by collecting personal histories of sickness. With the involvement of experts in disagreement with the government's technicians, movements politicized the uncertainties and the biases of scientific knowledge, thus valorising the historical perceptions of environmental change experienced by lay people. The physical repression deployed by the State crushed the resistance most of the times, imposing the companies' plan through the force of police batons. Besides violence, the delegitimization of activists was built and reinforced through discursive formations drawn from a repository of enduring stereotypes (Petrillo 2009, Festa 2012), based on the characterization of Southern Italian people as 'primitive', 'Mafia associates' and 'uncivil'. National media reports and political statements dismissed any alternative proposal of environmental management and blamed Campania people's lifestyle as the main cause of their cancer diseases. The paradox of this way of dealing with social unrest has been that organized

crime and corrupted officials continued, in the heat of the events, with their practice of illegal dumping of toxic waste.

The second wave of mobilizations runs from 2012 until today. With the official end of the "emergency regime" in 2009, the national and regional institutions settled the management of urban waste within a fragile cycle that incorporated the environmental injustices imposed by force in previous years. Moreover, the legacy of the emergency are between 6 and 7 million tons of trash packed into waste blocks and amassed in "temporary" storage sites located amidst the cultivated fields of several municipalities in the provinces of Naples and Caserta. Despite numerous arrests and seizures of companies involved in the illicit traffic of toxic waste, illegal disposal practices have continued and the grassroots movements remained alert. The physical repression experienced by people contributed to the outflow of mass participation, but the core groups of activists kept on organizing campaigns and monitoring the environmental conditions.

In the most recent years, we identify three main coalitions of Campania's local committees that came to the forefront in terms of coordinating inputs, nurturing actions, formulating proposals and receiving institutional recognition. These coalitions differ from each other for member's class belonging, geographical location and political attitude. *Cittadini Campani* (Campania's Citizens) groups mostly people from the richer neighbourhoods of Naples and from the city´s middle-class. With strong belief in science and rational argumentation, their main path of intervention is the institutional lobbying and the attempt at influencing government decisions through democratic means. *Rete Commons* (Commons Network) is a coalition that embrace the several popular movements emerged in the northern part of Naples and the core group of activists also belong to the social centre *Insurgencia,* located in Chiaiano (the theatre of a long battle between activists and the State), that has a radical leftist and anti-capitalist agenda. *Rete Commons* has produced probably the most penetrating critiques of the connections between capitalist mode of production, waste colonization in Campania and the role of organized crime. They also work on several social and agricultural projects. *Coordinamento Comitati Fuochi (*Coordination body of Committees against Fires) is the most recent and bigger coalition organized by activists. It groups more than one hundred local committees from the municipalities of the plain. It involves many ordinary citizens with no previous direct political experience, scientists, farmers, associations, and it has strong ties with the Church. It was able to organize several marches in recent years to urge government action against contamination, where thousands of people took part. At the same time, it is a highly differentiated coalition, with several ongoing socio-ecological projects addressing education, agriculture, grassroots map-

ping, popular epidemiology, the formulation of alternative local development paths and political lobbying.

These three coalitions have been at the forefront of the current resurgence of Campania's grassroots eco-politics. We locate in their cooperation a shift compared to the past mobilizations in terms of the political scope, and we argue that their current coordinated projects signal a shift in terms of eco-political performances. In the fall of 2013, they created a common regional coalition with the name of *Fiume in Piena* (Raging River) that formulated a shared platform to frame the problems and to advance the alternatives. Despite their divergences, the coalition constructed a single document that tackled the multifaceted mechanisms of the socio-ecological exploitation. The most important point of this document is the request of real democracy, considered as the base for addressing all the other inequities concerning urban waste management, toxic waste disposal, special laws, health prevention, agricultural sector and public participation in the decisions on how to allocate and manage common resources.

Thanks to the work of the coalition, the Land of fires was imposed to the national political agenda. However, government institutions involved only marginally the activists in the drafting of potential countermeasures, failing to implement the first request of the movements: direct involvement and consultation in every step. The channels opened with State institutions represent a field of the struggle on which the coalition is still actively pursuing its shared agenda.

While engaging with the socio-ecological inequality inscribed in urban and rural environments, activists in Campania dealt with the material and conceptual reconstruction of the spatial relations of their places. According to Latin American political ecologists Escobar (2008) and Leff (2012), an effective grassroots political strategy has to entail the re-appropriation of knowledge and space through the reinvention of cultural identities and through the reshaping of territories. The connection of symbolic, material and structural dimensions (Turco 1998) is assumed as a distinctive element of the processes of place based development enhancing community resilience and self-organization (Magnaghi 2010). In Campania the experience of conflict is producing a bottom-up culture of socio-ecological relationships linked with practices of commoning that open up possibilities for a transformative politics. These grassroots critical spatial practices influence the eco-social nexus by framing, acting and organizing alternative representations of reality and alternative ways of providing goods, services and safety. Our findings bring evidence of how the strategies recently deployed by the movements combine physical rearrangements of the urban-rural relations with the articulation of new imaginaries. The struggle against toxics revealed to the activists the interconnectedness of waste colonization with the loss of community control on their environ-

ments. The exclusion of community supervision and involvement in the forms of local and regional economic development had left to private multi-national companies backed by the government and to criminal groups a space to exploit ruthlessly the land according to the rules of exchange values over use values. Through formulating a notion of *territory* that signifies the interdependence of communities' wellbeing with the care of their surroundings, Campania activist are today performing practices of reappropriation of knowledge and space aimed at improving self-organization while developing an anti-Mafia culture critical with the effects of capitalist economy.

The mapping of territories enacted by activists is one of these strategies. Using simple technological devices and internet platforms, activists had begun monitoring the environmental conditions of their places already ten years ago. The main reason to produce autonomous maps was the need to make visible the degradation of land in the face of the denials of the central government. From the "visualization of the bads" to the "perception of the goods", the step has been a political one. Activists reformulated their practice of mapping by including in their searches also all those elements that they considered as common resources and means of identification, often finding "beauty" surrounded by degradation: *"Recover the beauty means to reappropriate space, territory, liveability for all, and if the liveability and the rediscovery of beauty becomes the cultural heritage of all of us, then we have valorised everything."* (Interview to L.I., Coordinamento Comitati Fuochi). This shift signals a reworking of the representations of space and subjectivities: besides and connected to the resistance against unwanted land-use, activists feel they have to intervene in their environments to reclaim them for community use.

The partnership between grassroots movements' coalitions and farmers' associations is another of the strategies deployed, closely related to the first. This cooperation attempts to provide both an alternative food provision chain and a territorial control against further exploitation. Besides the creation of networks with already existing local small farms, groups of activists begun taking care of small portions of private or public lands formerly left abandoned, to turn them into cultivated fields. This practice is flourishing, drawing knowledge and means of identification from the rooted local agricultural tradition. Sticking to their land, refusing to go away, activists are working today on a deeper level compared to the previous years of mobilizations. The aim is to recuperate local agricultural knowledge and to merge it with the social movements' objective of constructing strong multi-scalar networks of cooperatives, inspired by similar examples like the c*ommunity-supported agriculture* (Grasseni 2014). Farmers are joining the activists into consortia that self-certify the safety of their products. The certification procedure is grounded in personal relations of trust built between move-

ments and ordinary citizens. Moreover, as emerged in interviews, activists believe that by rooting social cooperatives on their territories these can function as “dams” against further dispossession and contamination. To re-appropriate lands for common use works by creating protective bastions as in a “war of position” with top-down attempts at restructuring spaces in unequal ways, nurturing a participatory political project aimed at the preservation and recreation of the commons. In the words of L.I: *“The future is in the commons. The future is in a new, widespread culture of care of the commons. I mean people have to understand that without the respect, protection and care for the commons, the primary good is destroyed. If this way of thinking does not increase, there is not future for the community, no future for the principles of socialization and sharing of being a community. So, it is important to put in motion many mechanisms that serve to promote the spreading of the culture of the beauty of the commons”*. Very interesting among these mechanisms is the experience of the NCO consortium that we analyse in the following section.

6. NCO – Social Economy Network

The NCO (*Nuova Cooperazione Organizzata* – New Cooperation Organized) is a consortium, founded in 2012, involving five so-called ‘social cooperatives’[4] that share common interests, principles, and the same vision of their community[5]. The consortium ironically takes the acronym of the *Nuova Camorra Organizzata* (New Organized Camorra known as NCO), a powerful Mafia organization founded in the late 1970s by Raffaele Cutolo to renew the old rural Camorra and create a real business organization. The vision of the consortium contends that it is necessary to organize people and to build networks for joining forces in order to fight against the Mafia while also struggling against the prejudices referred to disadvantaged people. The cooperatives begun to collaborate together within the Christmas initiative "Let's give Camorra a gift"[6], a joint selling including the products of several cooperatives, associations and private

[4] In Italy the law 381/91 recognises the social cooperatives as private non-profit enterprises finalised “at the human promotion and social integration of citizens“. Social cooperatives produce social services (type A) and manage different kinds of activities providing work integration of disadvantaged people (type B). They are the most common type of social enterprise in Italy. It is an important economic actor constantly growing and increasingly playing a key role within the national economy (Andreaus et al. 2012).

[5] Formally, only 4 cooperatives join the consortium (Al di là dei sogni, Eureka, Agropoli, Millepiedi), but in our analysis we also include the cooperative Resistenza whose adhesion procedure is relatively advanced.

[6] The name ironically refers to the popular Neapolitan expression "*fare un pacco*" (give a package/gift) that means to cheat.

companies that denounced racketeering or that were involved in the fight against criminal organizations. After this success, some cooperatives decided to commercialize their products together under the umbrella brand NCO to increase consumer awareness and improve visibility. Progressively, the strategic alliances among cooperatives reached organizational and productive assets, developing common log frame and working plan that facilitated knowledge exchanges and that affected the partnering organizations' performances. Considering only the four cooperatives formally members of the consortium, they develop a total turnover of approximately € 2,500,000 and employ about sixty people. Furthermore, there are several seasonal contracts and voluntary workers, for instance one of the NCO cooperative employs about thirty seasonal workers for three months a year in order to manage the educational farm.

Each cooperative arises in the 2000s thanks to the effort of a strongly motivated small group of people attempting to develop innovative experiences of community welfare and social inclusion of disadvantaged people (prisoners, former drug addicts, the mentally, psychologically and physically disabled on so on). "*A red thread running through all the cooperatives is our support to the Democratic Psychiatry and specifically the "Basaglian revolution" as a prism to look at the mental illness*[7]*. The Basaglian reconfiguration of psychiatry as a mean for the well-being of the entire society is the paradigm that frame our work. We take as a starting point the potential of people who are deemed mentally ill or psychologically/socially different, rather than focusing on their limitations"* (Interview to S.P, Coop. *Al di là dei sogni*).

This attitude prevents coops from moving on a merely medical therapy terrain, fostering a more comprehensive social rehabilitation and empowering role. The care is based in the integration of disavantaged people into the social, economic, ecological and community framework. In other words, the fundamental rights of citizenship are assumed also as the most significant determinants of social health. This "care-for-the community", or community welfare, is not simply performed on individual problems, but it has intrinsic effects on the entire local community, since it aims to address the social causes of the disorder: *"the fight against the Mafia culture as well as the fight against social and environmental injustice, are the natural consequence of seeking the community wellbeing"* (Interview to P.L., Coop. Millepiedi).

[7] The Democratic Psychiatry Movement in 1978 also led to the so-called `Basaglia Law' (Law180) that established a gradual shutting down of psychiatric hospitals and assigned prevention, care and rehabilitation in mental health to new community-based services. An important feature of this reform was the shift from a national health service toward a decentralized system based on local health districts. However its implementation is still in progress and the reorganization differs strongly from region to region.

The legislation of Campania region's health services has supported the social cooperatives development by allowing them to manage health, social and educational services and other activities (agricultural, industrial, commercial and service) aimed at helping vulnerable persons, thanks to special agreement with the local Department of Mental Health that define personalized care programs with specific budgets. These innovative collaborations, establishing a co-management of health services, present a great challenge (for both social cooperatives and public authorities), but they are able to produce very positive impacts for users and for local communities, and they represent cost effectiveness and budget savings measures respect to public spending (Hassink et al. 2007; Sempik et al. 2010). Towards the end of the decade, the NCO began to link agricultural practices and care services and to implement different *green care* activities, including elements of healthcare, social rehabilitation, education or employment opportunities for various vulnerable groups. The choice to practice agriculture combines the strong potential of agricultural activities to involve and integrate "problematic people" (Di Iacovo at al. 2006), with the objective to promote community well-being: *"for us agriculture is a tool to create social relations and improve community awareness about environmental problems"* (Interview to C.C., Coop. Resistenza).

The cooperatives cultivate lands confiscated to Mafia. These lands were granted by the State through a free loan, according to the law 109/96 on the social reuse of the property confiscated to the criminal organization. This law establishes the allocation of assets and illicit profits to those (associations, cooperatives, municipalities, provinces and regions) that are able to return them to the citizens, through services, job, promotional activities and social work. It allows cooperatives to have important symbolic value in the fight against Mafia culture. Indeed, at the beginning nobody wanted to cultivate the Mafia lands. *"This land were seized in 1991, confiscated by the State in 94 and transferred to the Municipality in '98. We made an application to have them only in 2005, whereas before no one had ever noticed their existence"* (Interview to S.M., Coop. Al di là dei sogni). However, it has also a very important material value: it represents an innovative way to unlock a strong constraint on access to land (and other productive assets) by young people.

Above all, cultivating these lands has great symbolic and material importance in the practice of commoning supported by the cooperatives: "*We don't consider this as our land, but we claim that people have a common right to use it*" (Interview to C.C., Coop. Resistenza). "*We made this confiscated good available for anyone, for every association or individual who wants to contribute to the community life"* (Interview to S.P., Coop. Al di là dei sogni).

The cooperatives assume agriculture as the focus of a new approach to build fairer and healthier relationship with the environment at different dimensions: physically, mentally, spiritually and politically, engaged as they are in practices of Food Activism. As emerged from interviews, the aim of NCO coops is not only to break the mechanisms of the criminal economy, but also "to challenge the agro-industrial food system and its exploitation of people and resources" (Counihan and Siniscalchi 2013). In those areas marked by unemployment and by irregular and exploited work, especially in the agricultural sector, they promote fair and horizontal work relations, including marginalized people. They practice mostly organic agriculture, minimizing and recycling the farm waste making compost as fertilizer. The cooperatives also try to regenerate and use local seeds and plants, sometimes in cooperation with a regional research institute, becoming both users and custodians of biodiversity in connection with local knowledge and farming communities in a way that preserves these resources as commons. This *land use* involves a cognitive and cultural re-orientation that assumes a non-purely instrumental relationship with environmental and territorial resources, with labour force and with consumers. This agricultural value is not only measured in economic terms but also in social value provided *for and with the community*. *"Our strategies are always built from the community perspective, for example, we fought to get local agricultural certified production systems, as* certifications *to assure food safety and quality involving the whole area and not our individual farms or the consortium"* (Interview to F.E., Coop. Agropoli).

Over the time, the NCO cooperatives have reached closer relations with local communities. In some cases, these relationships are formalized with the official participation in local committees or associations that fight against Mafia culture, such as the Don Peppe Diana committee (an association nurturing the legacy of a famous anti-Mafia priest killed by Camorra in 1994). These formal or informal links, at local and national level, have been very relevant in supporting cooperatives in hard times, when, for instance, they suffered intimidations and damages by Camorra. Their projects have faced many problems, particularly in the start-up for the rehabilitation of managed assets, due to the lack of funds and the difficulty in getting loans from banks, with the consequent unavailability of technical equipment. In addition, at the beginning, the cooperatives did not have agricultural technical knowledge and experience. Practicing organic farming has been a major challenge, as the area lacks the specialized advisory services as well as a supply chain capable of transforming organic products.

Despite the difficulties, NCO cooperatives achieved many results, producing positive externalities for the local community through innovative actions in different areas, such as the rehabilitation of several disadvantaged people, in the creation of jobs, the

requalification of derelict properties and land, the promotion of organic agriculture and the prevention of illegal waste disposal in rural areas. Very relevant is also the work carried out by NCO cooperatives to spread the anti-Mafia culture, to raise citizen awareness and to support a collective cultural shift necessary in the construction of commons. They try to raise awareness and engage citizens both in the care of collective resources and in the fight against crime. To this end, they organize projects with schools, volunteer work camps and other public events. However our field observation reveals that their more effective "awareness strategy" lies in the daily work and in the whole-hearted commitment of the coops together with their ability to build relationships with the local community, cooperating jointly and effectively with several stakeholders: public (such as Municipalities, health services, etc.), private (farmers, local entrepreneurs, etc.) and citizens associations.

There are also ongoing attempts to institutionalize the NCO network through the ambitious project of "*RES – Rete Economia Sociale*" (Social Economy Network). The project, founded with € 889.200 by the *Fondazione con il Sud* (a bank foundation), involves a network of 31 public and private organizations with the main objective to promote and implement social economy sector chains (food, tourism and social communication) through the use of property confiscated to the mafia in eight Municipalities of Caserta province. The project is still in the start-up phase that results extremely slow and complex due to numerous actors involved.

The revolutionary challenges outlined are still in progress, and leave room for debate. Specifically we would like to point out some critical limits/risks inherent in these processes. The NCO cooperatives are small-scale economic entities not very competitive, their current challenge is to gain economic self-sufficiency on the market, while actually their main source of income are the public contributions received from health care for their rehabilitation activities. These public revenues are problematic because they are not continuous, and too often the payments are delayed. A critical key point is how to be economically sustainable without distorting the project in the face of capitalist economy, considering that they provide *community value* and services, some of which are not accounted and/or not accountable through market indicators. A related problem is how to get out of a niche maintaining full adherence to ethical principles and to the vision of community wellbeing. Indeed, the change of the institutional setting requires the growth and consolidation of these experiences. However, cooperatives are often confronted with a trade-off between ethics and market and in addition there is a risk of being turned into a subsidiary welfare designed by the State to deflect its responsibilities. There is also a risk that capitalist production systems encloses these experiences, and tries to exploit their symbolic power, reducing the subversive poten-

tial of subjectivities engaged in activism or using them as an escape valve of a general system that remains unchanged. As the famous article of Porter and Kramer suggests creating "sharing value" is also a way to reinvent and revitalize capitalism (Porter and Kramer 2011), but without questioning its dynamics and injustices, in fact "*addressing social concerns in a company's business practices is not counter-intuitive to profit but instead can contribute to profit maximization*" (Scanlan 2013).

This is why we see the cooperation with grassroots movements' coalition as a potential strategy to keep high internal and external awareness and to exercise continuous political pressure in order to change the broader economic and institutional arrangements. Resistance to inequalities, informed by a wide and multi-scalar critique of the status quo, and coupled with material organization of social reproduction, is a promising path for improving self-determination of communities, but not without risks.

7. Highlights

The interests of NCO cooperatives met the interests of grassroots movements' coalitions at the crossroad of territory reclamation with the spheres of social and economic production and reproduction. Formal and informal ties between the actors facilitate the connection between cooperatives and movements. For instance, some grassroots committees establish the locale of their meetings in the cooperatives, or cooperatives members are themselves part of committees. In addition, the grassroots movements consider the NCO cooperatives as a concrete step toward *"the realization of another model of development against the Mafia-State, for asserting new spaces of democracy, building new institutions of the commons and reclaiming control on our territories"* (Interview to E.G., Rete Commons*)*.

As evident from the interviews, the action of NCO cooperatives and environmental activists is rooted in a common vision: they share a paradigm shift. By acknowledging that they belong to the same *pattern that connects*, they propose a transition from the *logic of exploitation* to the *logic of care,* exploring socio-economic and ecological systems in relation to social equity. They reject the view of nature as a resource to dominate, to control and to exploit according to a profit-driven logic that belongs both to Mafia culture and to the capitalist system. Instead, they propose a new ethic of economic, ecological and social relations, based on social cooperation and on the recognition of the interdependence of society and nature. Their engagements with a transformative politics do not originate primarily from utopias, neither from critical theories of social change or environmentalism, but rather from lived experiences of struggle,

environmental change, social exclusion, contamination and Mafia rule. *"We share the same health risks; we are victims of the same social injustices. This creates a common ground, increasing the partnership between citizens, social movements and cooperatives"* (Interview to F.E., Coop. Millepiedi).

NCO cooperatives and grassroots movements matured through time a critical consciousness, making connections with the social, economic and ecological contradictions in society. By searching for solutions moving from different paths, they realized these were not particular accidents but structural problems. They joined forces through what Paulo Freire calls praxis: "reflection and action upon the world in order to transform it" (Freire 1970). This paved the way for an increasing politicization of their common struggles, questioning the existing power relationships making them passive objects. NCO cooperatives' members and environmental activists are both engaged in a process of community empowerment. They reclaim real democracy and the right to self-organize, aspiring to develop a *proximity democracy* that would allow communities to participate directly in how local resources and services are planned and delivered. Moreover, they tend to assume a more proactive role in the management of common property resources through collective actions, based on the available spaces of manoeuvre granted by past achievements (the *deals* on Mafia's assets social reuse, the health budget available for agricultural projects, and so on) . These collective actions take place in the social networks involving cooperatives, associations, individuals and public actors, acting at local, regional or national level. Alliances built by the actors are more or less mutable and they include a broad spectrum of issues and aims, such as knowledge exchanges (to foster the social economy), alliances for influencing the institutional arrangements, mapping of resources, provision of services, community events and social valorisation of traditional ties with the land. The connection with other environmental conflicts and with other experiences of social economies signals the interdependence and the multi-scalar dimension of the activists' project. These networking processes enhance the reproduction of "ethical social capital" and anti-Mafia culture, opposing the negative social capital produced by the networks through which is nourished the power of organized crime (Cayli et al. 2010).

NCO cooperatives and environmental movements promote in more or less explicit way mutually reinforcing activities for a cultural and physical re-appropriation of territory (Escobar 2008), by connecting symbolic, material and structural dimensions (Turco 1998). *"For us it was clear that the first thing to do was and is a cultural change. We need to involve the community with the aim to reverse the criminal values. The Camorra is first of all a cultural operation based on three elements: individualism, indifference, suspicion. You can try to counteract it pointing on common goods and investments for*

community wellbeing" (Interview to F.E., Coop. Agropoli). These groups are engaged in a real process of revitalization and co-production of *place*, according to the vision of territory as a set of relationships, a relational space, instead of a mere physical space or geographical area (Dematteis 1985).

"This land belongs to the community; it is available for anyone who wants to cultivate it. Our goal is to revitalize the area, to create social relations. This has become a real and symbolic space for sharing, learning, and democratic participation, a platform to discuss the problems of eco-Mafia and to propose common solutions" (Interview to C.C., Coop. Resistenza).

The alliance between these groups aspires to define and share a new local community's self-narration, together with the implementation of new practices of commoning and the settlement of an ethical, cultural and institutional framework. These processes create a robust basis for a *place awareness* (Magnagni 2010) able to promote an innovative local path of territorial development grounded on the care of commons and on the autonomous self-organization of communities.*"All our activities aim to demonstrate that together we can do it: we can promote the transition from criminal economy to social/ecological economy"* (Interview to S.P., Coop. Al di là dei sogni).

8. Conclusions

In this paper, we described and analysed how networks of activists belonging to grassroots movements and social cooperatives are increasing community-control over territory through social cooperation. We showed how, within the context of Campania's environmental conflicts, loosely connected grassroots mobilizations have passed from an initial struggle focused on resistance against unwanted land-uses to a proactive engagement with the making of spatial relations. By producing autonomous knowledge and by engaging in the practical re-appropriation of their territories, the coalition of movements emerging from the waste conflicts, works today on several levels: from pedagogical and agricultural projects, to the mapping of places, to constant political pressure towards local, regional and national institutions. On the other hand, we provided a description of the social cooperatives' work on lands confiscated to Mafia, highlighting their role in nurturing social economies that increase self-organization with novel resources management schemes while also promoting a cultural shift in the relations between communities and environments. Increasingly, these two experiences of social cooperation in Campania are collaborating in the production of a bottom up politics aiming to re-appropriate territory for the benefit of local communities against the

arbitrary practices of mobsters, corporations and the State. Their coordination is for us an instance of the *synchronization* between movements and commons that De Angelis identifies as the path for the transformation of the balance between systemic forces. In this light, acts of commoning represent the active collective engagement in producing shared forms of resource management: they not only create community, but they also create the commons out of a struggle to increase the self-organization of social reproduction. How much space of manoeuvre will have the practices of commoning also depends on the outcome of negotiations and conflicts with State institutions and other powerful actors. While the creation of a *commons society* is still far beyond the horizon, the strategies we presented could inspire groups of activists in different contexts to reclaim their own environments through the coupling of self-organization of social reproduction and political pressure via social movements.

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Article II

Decolonial Ecologies. Necrocapitalism and Territorial Struggles in the Lower Tapajós (Brazil) and Campania (Italy)

Salvatore Paolo De Rosa, Stefania Barca and Felipe Milanez

Abstract

Indigenous peoples' movements and decolonial worldviews are increasingly recognized as crucial for the global environmental justice movement. However, analytical distinctions between EJ mobilizations in the global North and South, and between Indigenous and non-Indigenous peoples, are still maintained. We challenge such distinctions by unearthing convergences between two EJ movements from radically different geo-historical contexts: one in the Brazilian Amazon and one in a suburban area of southern Italy. Framing racialization processes within national boundaries in both contexts as manifestations of necrocapitalism, we apply the approach of decolonial political ecology to reveal their commonalities. We find that both movements define their struggle as defence of life grounded in particular socio-ecological territories, perform indigenization as reappropriation of places through epistemological disobedience, and bring forward subaltern life-projects. We propose ecological decolonization as a novel conceptual and political thread that can bring together anti-capitalist and anti-colonial perspectives of EJ movements across the West/non-West divide.

Keywords: political ecology; territory; indigenization; epistemological disobedience; racialization

The past few years have seen an increasing recognition of the roles that Indigenous people play in contesting a variety of environmentally controversial projects in different parts of the world, a resistance that continues to be met with escalating violence[1]. Opposition to what self-recognized Indigenous people experience as dispossession and destruction of their livelihoods is embedded in longstanding conflicts for sovereignty, autonomy and self-determination (Powell 2015; Tomiak 2017; Ulloa 2011), which are often articulated within a translocal indigenist agenda (Castree 2004; Niezen 2000). More recently, these "Indians in movement" – as the *Indio* Brazilian writer Ailton Krenak terms them (Krenak 2015:220) - and the decolonial worldviews they bring forward, have acquired greater recognition as constituent elements of a global environmental and climate justice movement. This configures the possibility for potential alliances between insurgent constituencies that are thus far unconnected, based on conceptual common grounds within a shared anti-capitalist and alter-globalization platform (Blanco 2013; Coulthard 2014; Escobar 2016; Klein 2014; Salleh 2010). Taking the above perspective, this article aims to broaden our understanding of environmental justice (EJ) in order to incorporate indigeneity and decoloniality as fundamental components of a global opposition to what we term, with Banerjee (2008), *necrocapitalism.* In our view, an EJ widened in this way would support theoretical and political linkages between all those struggles that, in different contexts, are advancing the defence of life in its territorial – i.e. relational, "transcorporeal" (Alaimo and Heckman 2008) and transgenerational – dimensions.

[1] Global Witness (2016) recorded 185 murders of environmentalists across 16 countries in 2015: among them, 40% were self-recognized Indigenous people. According to CIMI (2014), 70 Indigenous activists were killed in 2014 in Brazil.

Whereas territorial defence has often been associated with place-bound and regressive politics, Indigenous, rural and urban EJ movements worldwide are reclaiming their relations and ongoing engagements with territories as the source of the basic material and cultural conditions for the reproduction of life (Anguelovski and Martínez Alier 2014; Escobar 2008). This is happening through forms of radical politics that address multiple scales and disrupt essentialized identities. In many Indigenous cosmologies, territory expresses non-dualistic conceptions of natureculture (Adamson 2012) that include people's relations with material entities inhabiting the landscape (mountains, rivers, graveyards) and with immaterial beings (ancestors, memories, knowledge, future generations) (de la Cadena 2010; LaDuke 1999; Middleton 2015). Indigenous perspectives were incorporated in the charter of Environmental Justice Principles[2]. Since then, EJ has become a global scholarly and activist paradigm, reaching out to a number of grassroots environmental groups worldwide. In a landmark study on the subject, Guha and Martínez Alier (1997) coined the term "environmentalism of the poor" to designate a form of environmental defence based on the material (metabolic) and immaterial (symbolic, religious, affective) relationships of common people with their environments. Indigenous communities figured prominently in the "environmentalism of the poor". Nevertheless, the analytical distinction between EJ mobilizations in the global North and South, rural and urban, and especially between Indigenous and non-Indigenous, has been largely maintained in subsequent studies. Challenging this distinction, we argue, is essential for the radicalization of the EJ perspective in a decolonial and anti-capitalist direction.

[2] http://www.ejnet.org/ej/principles.html

With this article, we unearth convergences between two EJ movements taking place in radically different geo-historical contexts – one in the Tapajós-Arapiuns region of the Brazilian Amazon, and one in a suburban area of Campania in southern Italy – putting forward an interpretative framework that brings to light two basic commonalities: 1) both movements stem from, and react to, the local declinations of a global history of colonization, inferiorization and racialization that constitutes the foundation for capitalist exploitation in their territories; 2) they both bring forward a praxis which we term *ecological decolonization*, meaning the struggle to defend *life* (the conditions for socio-ecological and cultural reproduction) through a process of self-emancipation from hegemonic epistemologies and via the affirmation of autonomous ways of knowing the world and performing life in common.

To broaden our understanding of EJ, we adopt a decolonial Political Ecology (PE) approach (Escobar 2008; Leff 2015; Middleton 2015) that allows us to look at grassroots environmental movements through the prism of the persistent and ubiquitous coloniality of power, in the attempt of decolonizing "ourselves, our communities, and our nations and their ways of being-in-relation within and between various living worlds" (Rocheleau 2015:71). We welcome this invitation to extend the decolonial perspective beyond what is commonly understood as "the Indigenous". Our case studies develop a non-essentialist view of indigeneity - reminiscent of the aphorism "everyone is *Indio*, except those who are not" (Viveiros de Castro 2006) - that frames it as performative (Ingold 2000) and based on self-identification and historical continuity (Clifford 2013), rather than dependent on genetics or external recognition. Such view, we claim, could lay the conceptual basis for trans-local alliances in the name of the global decolonial solidarity once

reclaimed by Fanon[3]. In fact, we believe it is now possible for the decolonial perspective to travel across the "abyssal line" (de Sousa Santos 2007) that divides the world into distinct spheres of experience - the "West" and the "non-West" - in order to expose the emergence of subaltern, and globally convergent, decolonial strategies and aspirations.

Responding to critiques of under-theorization or misrepresentation of the cultural aspects of resistance to neoliberal governance (Coombes et al 2014) and to calls for considering processes of subjectification and meaning-making as political through and through (Grove 2008), decolonial PE brings together a sensitivity to the political-economic processes cutting through the socioecological with the attention to the multiple worlds clashing within the colonial matrix of power (Burman 2016). A decolonial approach helps illuminate the hegemonic discursive formations and practices that construct subjects and environments as colonial, and thus manageable, objects. Consequently, it allows us to "undo" the academic canon of EJ intended as a claim for recognition and redistribution within a pre-established liberal democracy framework (Velicu and Kaika 2015), and to explore its emancipatory potential as a praxis of decolonization of ecological relations.

The method that informs our article is that of *thinking with* ecological decolonization movements. We consider ourselves members of that transnational community developed within and beyond PE research, weaving "theories and methods *about* social movements as well as *for* and *within* them" (Rocheleau 2015:72). Therefore, both case studies are grounded empirically on sustained collaboration with the

[3] "This huge task which consists of reintroducing mankind into the world, the whole of mankind, will be carried out with the indispensable help of the European peoples (...) To achieve this, the European peoples must first decide to wake up and shake themselves, use their brains, and stop playing the stupid game of the Sleeping Beauty" (Fanon 1963:106).

grassroots movements we analyse. In particular, to gather data for this paper, the first author did eight months of ethnographic research in Campania between 2014 and 2015, an analysis of media discourse and policy documents linked to the conflict, and 21 in-depth interviews with local activists. The second author did two months of ethnographic fieldwork with the Tapajós movement between 2010 and 2012, generated 16 in-depth interviews, and carried out an analysis of juridical documents from lawsuits on land disputes. Both authors have performed activist-oriented writing in independent and national media outlets during the two conflicts.

In the next section, we delineate a theoretical framework for reading grassroots environmental mobilizations in different contexts through a decolonial PE approach.

Environmental (In)Justice: a Decolonial Approach

On Racialization and Necrocapitalism

Scholars in EJ have looked at racialization as a *dispositif* of environmental injustice, responding to the need for capital to solve its accumulation problems through the devaluing of certain bodies, territories and knowledges, in order to legitimize dispossession and exploitation (Hornborg and Martínez Alier 2016; Pellow 2007; Pulido 2000). We understand racialization in non-essentialist terms, as the process of naturalizing differences and codifying them hierarchically. This goes beyond skin colour, and employs a variety of pseudo-scientific categories – such as the Lombrosian discourse of anthropological inferiority of Italian southerners (Festa

2014), or the otherization of mountain and rural populations with respect to urban modernity (Armiero 2011), as well as of immigrant populations in urban milieus (Anguelovski 2013). Our case studies show how racialization unfolds within nations, via processes of internal colonization by which sacrifice zones are created (Bullard 2000) where the disposable bodies of racialized subjects live (Barca 2014). Internal colonialism is premised on the political alliance between different sectors of the national elite, which serves the scope of incorporating further bodies and territories into capitalist value-producing processes via various forms of spatial reordering (Barca 2010; Bunker 1985), which devalue or tend to erase non-capitalist forms of life and labour – subsistence, care and social reproduction in general (Federici 2014; Hall 2016). This compels us to look at capitalism from the perspective of those forms of life that are systematically degraded and threatened by its functioning.

Bobby Banerjee's concept of necrocapitalism is useful in this respect. Applying the necropolitical lens of Achille Mbembe (2003) to the politico-economic sphere in post-colonial contexts, and focusing on transnational corporations and their alliance with states and intergovernmental agencies, the author argues that "necrocapitalism emerges from the intersection of necropolitics and necroeconomics, as practices of accumulation (...) that involve dispossession, death, torture, suicide, slavery, destruction of livelihoods, and the general management of violence" (Banerjee 2008:1548), thus resulting in the creation of death worlds. Drawing on Edward Said, Banerjee points out how necrocapitalism is operationalized through not only institutional and economic power, but also through discursive power that constructs certain territories and people as in need of domination by relying on "uncontested notions of 'development', 'backwardness', 'subsistence economies' [that disallow] other narratives from emerging" (1544).

A core concept in necrocapitalism is the Agambenian “state of exception”: “a zone where the application of law is suspended but the law remains in force” (Banerjee 2008:1544). States of exception are what grant impunity to the operations of necrocapitalism. Consequently, “a sovereign decision to apply a state of exception invokes a power to decide the value of life” (ibid). In other words, the hegemonic discourses that separate civilized and developed from uncivilized and under-developed produce states of exception, where the use of violence is justified by the supposed benignity of developmental reason. Marx already thought of violence and death as constitutive of primitive accumulation. Banerjee points out that in contemporary forms of accumulation the corporation becomes the most powerful actor, and “in conjunction with nation states, supranational bodies, and international agencies contributes to a necrocapitalist privatization of sovereignty”. Our case studies demonstrate how these mechanisms operate in internal colonialism**,** where corporations come to rule over certain territories with the complicity of the state. A necrocapitalist privatization of sovereignty is produced in Campania, where illegal practices of waste disposal are legalized through a militarized landscape; and in the Tapajós, where demarcation of Indigenous lands is denied and ILO conventions are not applied, while impunity for illegal logging and violence become functional to governmental plans of accelerated growth. Both the mafia-controlled territories of Campania and the undemarcated Indigenous territories of Tapajós face systematic, structural violence that results from (post)colonial states of exception functional to the logic of capital accumulation, with which the nation state is variously imbricated. The structural violence of necrocapitalism, in turn, is what produces environmental injustice in its different forms: as dispossession and threat to livelihoods in the Tapajós area, and as contamination and cancer epidemics in Campania. Opposing the death effects of internal colonialism in different contexts, we argue, EJ configures a process of ecological decolonization that challenges necrocapitalism

and offers important opportunities for grassroots movements' solidarity across the West/non-West divide.

Ecological decolonization

Coloniality refers to the alienation of the subalterns from their life experiences, memories, languages and categories of thought (Tuhiwai-Smith 1999), a process of capture of human differences within hierarchies functional to the workings of capitalism, as in the chief divide between modern/non-modern (Quijano 2000). Following Burman (2016), we maintain that "the coloniality of reality goes hand-in-hand with the commodification of reality (...) Modernity, coloniality, and capitalism produce a certain dominant reality within which certain subjectivities unfold" (92). Decolonial struggles are thus concerned with the generation of other realities "within which other subjectivities are allowed to unfold together with other social organizations of production and consumption" (ibid).

According to Walter Mignolo, decolonization starts "wherever the conditions are appropriate and the awareness of coloniality (…) comes into being" (2011:276). It unfolds through the subversion of the colonial epistemological order, what Mignolo calls the "epistemological disobedience" (2009) by which the subaltern subjects claim and implement what is good for them from the borders of the colonial matrix of power. Adding on to this perspective, we look at those performances of EJ movements that, besides challenging the coloniality inscribed in knowledge systems, address the ecological relations it produces. Building on Escobar's work, we define ecological decolonization as the turning of difference and situatedeness into "the basis for both a critique of dominant nature-culture regimes and a guiding tool for efforts at reconstructing socionatural worlds" (Escobar 2008:154). The ecological dimension of decolonization brings to the forefront the material articulations of both

coloniality (as necrocapitalism) and decoloniality (as defence of life). Without integrating the premise of the decolonization of knowledge with the tangible effort to increase subaltern agency over the local and extra-local socio-ecological relations that make up the conditions of possibilities for the reproduction of life, decolonization would amount to an abstract ideal. It is through a praxis combining physical and cultural reappropriation of territories that ecological decolonization grounds in place the social and epistemic reappropriation of nature by the subalterns (Escobar 2008).

With territory, Escobar refers to the "multidimensional space fundamental for the creation and recreation of communities' ecological, economic and cultural practices" (2001:162). In this view, territory is different from land as framed by peasants' struggles, and it does not correspond to the conception of territory within the perspective of the nation state. The function of boundary-making and of securing control over access associated to territorial politics (eg. Sack 1986) is reframed by Escobar into a subaltern strategy of localization in which territory is "the space of effective appropriation of the ecosystem (…) to satisfy community needs and for social and cultural development" (2001:162). Struggles in defence of territories by the subaltern thus imply ''the creation of a novel sense of belonging linked to the political construction of a collective life project'' (Escobar 2008:68). This perspective does not apply only to ethnic minority territories, but to all social groups and world areas, including urban dwellers in the West struggling for *alternative Wests* or subaltern forms of modernity. As Escobar writes "some of the current struggles in Europe over the commons, energy transitions, and the relocalization of food could be seen as struggles to reconnect with the stream of life [and as] forms of resistance against the dominant ontology of capitalist modernity" (2016:23).

Decolonial ecological commitments are consistent with a conception of indigeneity as performative rather than ascribed (Radcliffe 2015; Viveiros de Castro 2006). In this light, grassroots movements' territorial strategies appear instances of what we may term *indigenization*: an autonomous (re)generation of epistemologies and practices grounded in layered places of contested histories and overlapping spatialities. Both our cases exemplify processes of indigenization geared at achieving decolonized ecologies. The decolonial performances we identify address the socio-material and ecological entanglements of places and are generative of novel territories, subjectivities and political strategies.

Re-Territorializing the Amazon

Violent Progress

The recent expansion of raw material extraction in Brazil has been met by increasing local resistance and by a proliferation of socio-environmental conflicts (Acserald et al 2008; CPT 2016; Porto and Milanez 2009). The prioritization of extraction-based development and export of natural resources has accelerated ecosystem degradation and further marginalized Indigenous and traditional communities, "which see their rights to the environment and to their own future denied, as [they] are trapped and even exterminated" (Leroy 2016:103). Disputes over Indigenous lands in particular have been denounced as the main drivers of violence against local communities (CIMI 2014).

The Lower Tapajós river, at its confluence with the Amazonas, is one of these conflict areas in which the state has facilitated the opening of several commodity frontiers (such as soy plantations, bauxite and gold mining, commercial logging and

cattle ranching) with the aim of turning the Amazon into a "driver of development"[4]. In order to geographically organize the possibility for such development, the Brazilian government has put in place a plan called *Ordenamento Territorial:* "a combination of directives, laws, policies and programs that would re-zone, and in fact re-territorialize, the entire western half of the state of Pará" (Baletti 2012:574) to make it fit for capitalist development. Launched in 2006, and articulated around the "Sustainable BR-163 Plan" (*Plano BR 163 Sustentável*), this top down territorial reordering is threatening the livelihoods of different local groups, and producing environmental injustice and territorial dispossession (Baletti 2012; Castro 2008; Peixoto et al 2012).

In the attempt of halting this process, 13 ethnic groups comprising of 7000 people from 64 villages in the lower Tapajós are reclaiming their status as Indigenous (Fonseca 2015). This would allow them to pursue civil and land rights associated with the Indigenous condition as sanctioned by the Brazilian law. This movement of *ethnogenesis* (Vaz 2010) has been unfolding along other movements organized by peasants, *maroon* communities[5], rubber tappers and riverine communities[6] (Almeida 2004). Defined by the Brazilian legal system as "traditional" populations, these latter groups are entitled to live in areas within the National System of Conservation Units (SNUC) in a territory they perceive as a *common* (Leroy 2016). These heterogeneous movements share the goal of obtaining recognition of territorial autonomy on "lands

[4] *Folha de S. Paulo* (2011) Amazônia vira o motor do desenvolvimento. 16 August 2011. See also "The Amazon is the actual frontier of expansion for mining in Brazil", Plano Nacional de Mineração 2030. Brasília: Ministério de Minas e Energia.

[5] Also known as *quilombolas*, these are descendants from enslaved peoples with special land rights recognized in the Federal Constitution of 1988 (cfr Almeida 2011).

[6] Local "traditional" population living in the region since the *Cabanagem* revolt and the rubber boom, self-identified as descendants from enslaved people and rubber tappers (Harris 2010).

traditionally occupied" (Almeida 2004, 2011). The mobilization of ethnic identities is therefore part of their political strategy.

In Brazil, it is commonly accepted that the contemporary legal system has put an end to the national/colonial project of "de-indianization" and "whitening" of the country, by replacing the guiding principle of integration with that of self-identification (Cunha 2009; Viveiros de Castro 2006). However, loggers and agrarian capitalists, represented in the Brazilian Congress by the powerful bloc of so-called *ruralistas*, oppose reclamations of territorial autonomy. In their vision, the possibility of socioeconomic development necessarily implies the dissolution of "traditional" communities and their proletarianization. On the opposite front, local groups are reclaiming their indigeneity as a powerful instrument of defence of their autonomous life-projects. Rebuilding their history through the memory of the *Cabanagem* rebellion[7], Indigenous movements in the Tapajós have appealed to laws surrounding traditional land rights status for Indigenous communities in order to demand the enforcement of the right to consultation and land recognition processes. As Peixoto et al (2012: 2809) argue, "indigeneity as displayed by mestizo communities in the Lower Tapajós is referred to values that have to do with historical continuity, territorial inclusion, and not necessarily with biological heritage". Following the reordering plan, such historical and territorial continuity has been threatened by the creation of international export routes and by the mining activities of the Alcoa bauxite project in Juriti, associated with a hydropower megaproject in the Tapajós.

Local uprisings, however, organized within the *Movimento em Defesa da Vida e Cultura do Rio Arapiuns* (Movement in Defence of Life and Culture of the Arapiuns

[7] An uprising against slavery by Indigenous people, slaves and landless peasants in 1835-1840.

River, hereafter *Movimento*), turned the Tapajós into a place of "decolonial resistance" (Vaz 2010). As activist and writer Auricelia Fonseca writes: "we are the so-called resisting peoples, those who have been forced to deny their history, identity, language and culture. We survived, and today we are telling again our story of pain and sorrow, but also of pride and struggle, because it is not easy to be accepted by a society that has always denied us" (2015). Decolonial resistance in the Tapajós is inextricably linked to ecological resistance. As Fonseca explains: "We fight for our future, and for our descendants, against all the set of projects in our threatened territories that we call extermination, killing and disrespect" (2015).

Socially unsustainable territorial plans

In 2006, the Indigenous Council of Tapajós-Arapiuns (CITA) was formally notified by the National Indigenous Foundation (FUNAI) that no land would be demarcated in their region. In the aftermath of this decision, a series of mobilizations were organized by the *Movimento*, that adopted diverse tactics of resistance; like demonstrations, occupations, self-demarcation of land, civil disobedience and students' actions (Baletti 2012; Peixoto et al 2012).

A first performance was organized in 2007 with the self-demarcation of the Borari Indigenous land Maró, located in the Arapiuns River. The self-demarcation process was not only an act of insurgence against the state's decision not to recognize their land claim, but also a refusal to accept the settlement plan based on individual land rights as dictated in the *Ordenamento Territorial*. This (re)action reinforced communitarian bonds, marked by the collective work of *puxirum*[8], and empowered other villages along the river Arapiuns and Lower Tapajós to join forces against the violence and death threats from loggers and land grabbers. The political enthusiasm

[8] Puxirum, also known as *mutirão*, are forms of collective manual labour through unpaid mutual help.

for the birth of the *Movimento* led to the revolt of 2009: after ineffective denunciations of illegal logging, hundreds of members from a dozen different communities blocked two commercial ferries carrying timber for export to the city of Santarém (Milanez 2010; Peixoto et al 2012). The action lasted for a month, during which unsuccessful negotiations took place with state agents, until the insurgents set the two ferries and the timber they carried on fire.

In 2010, a public prosecutor filed a lawsuit against the Brazilian state demanding the recognition of the Borari territory, but a Court of First Instance ruled against the self-demarcation, challenging the principle of self-identification by stating that the Borari people would be “fake Indians”. This decision fuelled a new uprising in the region’s capital city of Santarém, which led to the occupation of the court in December 2014 (Milanez 2014). As different activists stated in interviews, the accusation of being “fake Indians” is a common racist idea employed against territorial movements in Brazil, in order to delegitimize their claims. Upon request to give a Juridical Opinion on this case, anthropologist Eduardo Viveiros de Castro (2014) argued that the issue at stake was not the real or fake identity, as claimed by the federal judge, but the rights of “traditional” collectives to defend their way of life against the “progressive” forces of capital. Finally, in 2011, FUNAI formally recognised the self-declaration of the Borari and Arapiuns peoples.

Following the recognition, the *Movimento* sprouted into multiple mobilizations, gaining increased visibility in formal political spaces by achieving a leadership position within the *Tapajoara Association,* an organization co-responsible with the Ministry of Environment for the management of the National Forest of Tapajós-Arapiuns.

Decolonizing Knowledge and Linking Struggles

The political consolidation of the *Movimento* was also due to the birth of a combative Indigenous students' movement based at the Federal University of Western Pará (UFOPA). The role of Indigenous students such as João Tapajós, Poró Borari and Auricelia Fonseca, as well as of Indigenous scholars such as Florencio Vaz, made a rich exchange of experiences and the building of new connections possible. The fight for territory erupted in the emerging academic circle in the city of Santarém, transforming both the university and the Indigenous subjects. Created in 2009 as part of the expansion of higher education in the rural hinterland promoted by former president Lula da Silva, UFOPA advanced a high pro-quota project for Indigenous and *maroon* students. For the first time in their history, more than 300 youths from these communities entered the university, out of a population of 2,627 self-declared Indigenous people living in Santarém (IBGE 2010). Once in the city and in academia, members of the *Movimento* experienced similar forms of stigma. As João Tapajós explains in an interview (while running in local elections), life in the city intensified the perception of "the everyday racism we have to face when we are out of our village". In the words of Dinael, one of the leaders of the *Movimento*: "when I say I'm Indian, the first question is usually why I wear pants".

Based on the experience of everyday racism, these young Indigenous intellectuals developed a novel perception of the effects of internal colonialism associated with the expansion of capitalism in their territories, and were able to bring this vision back to the riverine and hinterland communities where they came from. Defining themselves as "a movement that challenges both the colonizers and the colonized, and fights against institutional racism", the students created a Facebook page in which they shared open letters of protest, information and political campaigns.

The shifting terrain of mobilizations, from the rural hinterland to the city, allowed the movement to adopt strategies based on a clearer perception of how the problems faced by their communities were shaped by cultural and institutional racism in the Brazilian society, including the university system. This allowed the *Movimento* to enact new forms of decolonial self-defence, exemplified by the Munduruku protocol for consultation in scientific research. During the dam-building process in the Tapajós, the Munduruku people had faced a series of attempts by scientists to measure their territory for producing Environmental Impact Assessment reports. Their answer was to elaborate a protocol that set the terms of consultation with government and private companies, stating: "All and any information collected about us, should not be transformed into research data in the interests of development projects"[9]. One of the most important effects of this decolonial procedure of autonomously setting the terms of the relation with outsiders, has been to spur a new mobilization phase against the planned implementation of REDD+ schemes in the area. As Auricélia Fonseca states: "We don't want to sell our carbon (…) Nature is not for sale" (2015). By mobilizing in defence of shared ownership of land and of their collective work, and by adopting the universal anti-capitalist language of "not for sale", the *Movimento* has been undermining the necrocapitalist project of "developing" by de-valuing.

The *Movimento* was born out of the struggle of Indigenous and traditional populations against the expansion of capitalist development in their territories, because of the associated enclosure, dispossession and threat to their collective life-project. Since the uprising of 2009, the possibility of popular uprising against loggers and emissaries of development projects has become a permanent obstacle to the

[9] The protocol is available at http://amazonwatch.org/assets/files/2014-12-14-munduruku-consultation-protocol.pdf (last accessed 23/1/2017).

expansion of necrocapitalism in the Tapajós. By spreading awareness about institutional racism as a common history of inferiorization, the *Movimento* represents a successful attempt at unifying separate struggles around a decolonial perspective. What has helped different resistance movements to unite under a consistent political platform, however, has been the struggle for the recognition of territorial autonomy as a way to advance life-projects based on communitarian (social) reproduction work and collective access to land. This dimension of the struggle, as Henri Acserald has noted, asks for recognition while going beyond it (2010:14). Reclaiming Indigenous identities has allowed the *Movimento* to frame its struggle as inherently anti-capitalist, ie, against the imposition of individual property rights of the territorial reordering governmental plan, as well as recent projects of "green" development. In other words, this has been a struggle for the *common* (Leroy 2016), intended as a non-alienated form of social reproduction.

The Stop Biocide Coalition: from waste wars to territorial reappropriation

Waste Colonization and Resistance in Campania

Over the last twenty years, a suburban and agricultural area of about 3,800 square kilometers, with a population of approximately three million, in the northern part of Campania (Italy) became the setting of widespread social mobilizations against the socio-environmental impacts of various forms of urban and industrial waste (mis)management (Armiero 2014a; Armiero 2008). Since the early 2000s, ordinary citizens and activists between Naples and Caserta, organized into *grassroots committees*[10], have been opposing the regional waste management plan put into action an "emergency regime" declared by the central government in 1994 (and renewed until 2009). This plan, promoted by a special government agency through

[10] Popular form of self-definition of grassroots organizations in Italy.

a public-private partnership, revolved around an “industrial waste cycle” of landfills, waste storage sites and waste incinerators, to be built in locations unilaterally chosen by Impregilo, a multinational corporation.

Several judicial trials (cfr. Rabitti 2008) and parliamentary commissions (Pecorella et al. 2013) have shown how, between 2000 and 2009, the seemingly never-ending “waste emergency” was artificially reproduced in Campania because of the convergence of interests of public officials, entrepreneurs and organized crime, with the aim of extracting private wealth through legal and illegal practices linked to the waste disposal business. Meanwhile, the urban waste crises diverted public attention away from the trafficking of illegal hazardous waste – a two decade-long period during which significant amounts of toxic waste, mostly originating from Northern Italian industries who shifted their costs of production onto Campania’s ecologies via services provided by criminal networks, were disposed of illegally (Massari and Monzini 2004). This activity turned the Campanian countryside into a “Land of Fires”[11] and a “Triangle of Death”[12]. Several scientific studies have highlighted the links between soil and groundwater contamination around the dumping sites and the higher mortality and cancer incidence among people living in their vicinity (eg. Fazzo et al 2011).

From 2004 onward, spurred by health concerns and the lack of democratic participation in decision-making around waste disposal (D’Alisa et al 2010), social mobilizations increased. Radical leftist groups, students, immigrants, farmers, trade

[11] The ‘Land of Fires’ is the label given by local activists and the environmental NGO *Legambiente* to the plain between Naples and Caserta due to the widespread phenomenon of hazardous waste put on fire, coming mostly from unregistered manufacturing activities.

[12] The “Italian ‘Triangle of death’ linked to waste crisis” is the title of an influential scientific publication by Senior and Mazza (2004) positing a link, in the area around Acerra, Nola and Marigliano, between increasing cancer deaths and unsound hazardous waste disposal.

associations, church followers, local administrators and thousands of inhabitants (with a marked protagonism of women) united in unexpected alliances, and implemented a variety of resistance tactics: from road blockades, to media campaigns, legal procedures and even urban guerrilla. During years of struggle, by engaging in knowledge exchange with experts, NGOs and other environmental movements, grassroots committees increasingly framed their claims within an EJ agenda (Armiero and D'Alisa 2012; Capone 2013).

Besides fuelling resistance, the experience of mobilization triggered forms of grassroots politics beyond the issue of waste and the demands for justice, articulating forms of territorial reappropriation based on an autonomous reading of the necropolitical process that was colonizing territories and bodies. Epistemological disobedience emerged against continuous delegitimization of Campania's committees by the media and political elites, which framed the protesters as uncivil[13], affected by NIMBY-syndrome[14] or driven by the mafia[15], and their mobilizations as primitive outbursts liable of state violence (cfr Greco 2016). As we show in the next section, these qualifications relied on a set of racializing stereotypes, stemming from a national history of internal colonialism (Verdicchio 1997).

The racialization of southerners

In southern Italy, "the complex relationship between governance devices like special laws and states of emergency, and the formation of discursive orders, such as the inferiority of certain populations" (Festa 2014:191) has been a defining feature since

[13] *La Repubblica* (2008) Così lo Stato affonda tra rifiuti e violenza. 1 August.
[14] *La Repubblica* (2008) Rifiuti, ancora soghi e scontri. La UE minaccia sanzioni. 1 March.
[15] *The Economist* (2008) See it and die. 1 October.

the national unification process of the mid-19th century. During that period, terms like "barbaric" and "inferior" became common sense to refer to people from the south. For Festa (2014) such qualifications, recurrent in parliamentary debates, aimed to quiet the European public opinion towards the atrocities perpetrated by the army against the southern peasants, recalcitrant to annexation within the new state[16]. Between the end of the 19th and the beginning of the 20th century, the southern "anthropological novel"[17] became "science" via positivist geographers and anthropologists that fixated the Italian social hierarchies, further legitimizing discriminatory practices. The Italian southerners were described as a homogenous, inferior race, lacking moral sense and unfit for self-government (Niceforo 1898). This social hierarchy mirrored the relation of uneven development on the national scale upon which the industrialization of the north was carried out. As Gramsci pointed out (1999 [1926]), the economic unification of the country was premised upon a "historic bloc" between the industrial elites of the north and the agrarian elites of the south, assigning to the latter the role of providing cheap labour and primary resources. The entire Italian south was thus qualified as an internal frontier for capital accumulation.

This enduring discursive formation, the racialization of southerners as inferiors, has re-emerged periodically throughout Italian history to legitimize securitization and top-down control. For Mellino (2011), this is an effect of the colonial subconscious of national feeling structures: a peculiar form of orientalism in one country (Schneider 1998), in which the dichotomies of European colonialism are reproduced

[16] In 1861, Pietro Calà d'Ulloa, senior judge of the Supreme Court of Naples, asked: "did not do the same things the British in India, the French in Algeria? Had not acted with the same methods the Spanish in Mexico and Peru against the barbarians?" (quoted in Martucci 1999:294).

[17] The expression was coined by Napoleone Colajanni in 1898 to refer to "the perception and construction of a unitary southern reality, no longer composed of internal differences and local specificities, but as an extreme place of "otherness", of "primitive", of "archaic"" (Festa 2014:193).

in the national context through a localized social geography of depravation and rebelliousness, justifying the recourse to extraordinary governmental interventions functional to the necessities of capital. Indeed, such discursive formation was at work during Campania's waste conflicts of the 2000s. As Antonello Petrillo (2008) and Marco Armiero (2014b) have documented, both the mainstream media and the political class mobilized the repertoire of anti-southern stereotypes to frame Campania's activists as savage people. At the height of confrontations in 2008, protesters were described by the press as characterized by "local stickiness, ecological stupidity, and plebeian spasms" (quoted in Armiero 2014b); wild, irrational and led by "obsessed localisms" (quoted in Armiero 2014b); and pre-political and violent. The southerners' alleged "ancient vices, often picturesque and tolerable, became intolerable"[18]. The invocation of "force in the service of modern technology", with the "army, with emergency laws, with police arrests"[19], was the natural outcome of such characterizations of protesters. Based on alleged "collective interests", Prime Minister Berlusconi defined the activists "an organized minority of troublemakers"[20], while announcing the Law 123/2008 that militarized waste facilities and criminalized protests. The same symbolic apparatus informed the officials' rejection of the claims made by Campania's committees concerning a correlation between the toxic waste illegally disposed of and increasing cancer incidence and mortality among the local population. A report by Dr. Donato Greco in 2008, an epidemiologist working for the Italian Ministry of Health, rejected such a linkage as non-demonstrable, and blamed instead culturally motivated lifestyle choices and idleness as the causes behind statistically significant excesses of cancer

[18] *L'Espresso* (2008) Napoli maledetta. 10 January.

[19] *Le Repubblica* (2008) Democrazia uccisa dalla spazzatura. 4 January.

[20] *Corriere della Sera* (2008) Berlusconi: «Contro i blocchi antidiscarica userò la forza, basta con la deriva anarchica». 26 June.

morbidity - a script then rehearsed by two Ministries of Health in 2013 (Bonatti 2015).

Following the inferiorization and delegitimization of the protesters, “the emergency regime was presented as the efficacy of state reason against the reactionary attitude of the most backward part of the nation” (Petrillo 2009:36). However, as we shall see, Campania’s grassroots movements debunked this racialized identity through a symmetrical reclamation of local knowledge and agency.

Decolonizing Campania’s ecologies

Against this backdrop, the *Coalizione Stop Biocidio* (Stop Biocide Coalition, hereafter the *Coalition)* was formed in 2013. Emerging from assemblies and exchanges, the *Coalition* united about two hundred grassroots committees against processes of socio-environmental degradation. A demonstration consisting of 100.000 people that took place on November 16th 2013 in Naples, drew media and institutional attention to the *Coalition* and was integral in achieving the devolution of governmental funding for environmental monitoring, land remediation and health screenings in Campania with the promulgation of Law 6/2014 or the “Land of Fires Law”. Subsequently, the call to *Stop Biocide* continued to nurture resistance against contamination, while evolving into a platform that coordinated initiatives of grassroots territorial reappropriation beyond the waste issue.

As formulated by the *Coalition*, the concept of Biocide articulates the relationships between politico-economic processes, ecosystems and bodies: it relates them dialectically by connecting the “killing of life” to strategies of profit making. According to their shared platform “Biocide is the history and the outcome of the devastation that swept through our territories and our lives (…), the result of an

inhuman economy that considers people and things as just tools. An economy that dries up territories and poisons lands solely in the name of profit"[21]. This perspective allowed activists to conceptualize Biocide as the effect of a welding of organized crime and neoliberalism. As Virginia, an activist from Acerra, told us: "Today *camorra*[22] is the enemy of everybody, maybe ten years ago it was not so clear. This is the biggest movement against camorra that has ever happened, and at the same time, it is the biggest movement against neoliberalism. If we superimpose them, we realize they are the same". From this perspective, environmental degradation becomes visible in all its complexity: the socio-ecological metabolism connecting human and non-human life, as mediated by organized crime, politicians and private business, is posited as the central terrain of struggle. The perspective of Biocide, therefore, enables thought to re-engage politically with the complex entanglements of life. As activist Egidio, a young leader of the committee of Chiaiano, put it: "Death brought us together, the ultimate outcome of devastation (...) Biocide is the accumulation of profits through the absolute exploitation of a subaltern territory, of all the social, ecological, economic and political formations that the territory develops". In other words, the political target of the *Coalition* became necrocapitalism in its territorial articulations.

Resisting the devastation of a territory conceived as the *totality* of formations developed in and through it triggered the *Coalition*'s transition from a defensive plan one that involved reappropriation of agency. This shift was fuelled by a clearer perception of the process of devaluing to which people's bodies, lands and social identities had been subjected historically. By elaborating a liberation narrative, activists claimed the possibility to remake their own history. As Egidio states, "The

[21] From the platform of the *Coalition*, November 16th 2013.
[22] The mafia organization endogenous to Campania.

fight against the exploitation of territory makes us feel Indigenous. We reclaim culture and traditions, taking what is good from the past to make our future. The processes we're fighting are anti-historical, not us. On the contrary, history starts again with us. Valuing local people as producers of culture makes us exit the condition of subalternity". The meaning given to *territory* in activists' accounts points to something more than a space at stake. Egidio calls it "rootedness", and explains*:* "We live in this territory and we'll claim it until death. Therefore, it is fundamental to reimagine alternative models in contrast to the dominant ones, to claim back our history and the history of the place".

In the activists' accounts, the possibility for liveable futures in Campania is contingent upon the control by inhabitants over their territories. This allowed the *Coalition* to move away from the stereotyped role of "protesters" and to experiment with novel performances. From 2012 to 2014, the grassroots committee based in Caivano launched three calls to the *Coalition* for collective monitoring of environmental conditions aimed at gathering visual evidence against the government's denial that illegal waste disposal was still going on. During so-called "days of denunciation", hundreds of people walked the countryside surrounding the towns between Naples and Caserta. Using photo-cameras, GPS and internet platforms, participants updated online maps of spots of illegal waste disposal to trigger the administrators' reaction. Environmental monitoring actions have become a systematized practice: as we write, 259 "civic observers"[23] perform inspections to detect illegal waste fires and sites of wild dumping. In addition, the mapping process reconnected urban inhabitants to their rural surroundings, nurturing a collective will to engage with the materiality of places.

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[23]A self-organized activity subsequently formalized by the Italian state with EU funding (cfr http://www.osservatoricivici.it/campania/, last accessed 28/01/2017).

Novel physical and symbolic territorial relations are being produced today by the *Coalition* through the constitution of social economies, in collaboration with agricultural cooperatives, on lands confiscated by the mafia (De Rosa and Caggiano 2015). The *New Cooperation Organized* (NCO) network[24] is a group of six coops that support social integration of people with mental disabilities and people who were formally convicted through agricultural work. Former mafia assets, confiscated via judiciary sentences, are made productive through the valorisation of local traditional cultivars and techniques. The territory and the quality of social relations within it are posited as the source of long-lasting health and economic viability, literally inscribing in the landscape the prefiguration of a new model of shared management of resources against competing land-uses. As Peppe from the NCO told us: "the health of a territory comes from healthy relationships". The neighbourhood of Chiaiano best embodies this intermingling of social forces that work towards the reappropriation of territory. At the centre of a battle against the opening of a landfill in 2008, and in the grip of a powerful mafia clan, Chiaiano has hosted, since 2010, the cooperative *Resistenza*, affiliated with the NCO network, which produces wine and fruit over four hectares located at less than one kilometre from the landfill. These coops have become spaces of communal use where environmental activism, anti-mafia struggle and social valorisation of the land intersect and become productive of new relations and subjectivities.

The grassroots politics developed by Campania's activists moved from the local dimension to also engage in the multiple scales at which the political economic

[24] The acronym mocks the name of a camorra clan, the *Nuova Camorra Organizzata* (new camorra organized) active in the 1980s.

processes they face articulate, and through which alliances can be established. In their accounts, connections are made with struggles in other places. For Enzo, one of the leaders of the coalition, “to understand what happened here, look at Mexico, where multinational companies utilize violent methods for their business. Where gas or oil is under the ground, people must move, with good or bad manners. But every community is connected to a territory, they cannot just go. That’s why they are deported or killed. In Mexico they utilize the narcos, here they utilize the camorra”. The violence of dispossession and the connection between people and territory are seen as issues of global reach, triggering solidarity across places. For Egidio “with the Italian activists against mega-projects, or with the German activists against coal-burning, we understand each other immediately. We realize we are fighting against the same: the superimposition of a certain model on a territory”.

The reclamation and reconstruction of knowledge and selves has implied, for the *Coalition*, the deployment of a collective effort of re-inhabitation that weaves patterns connecting bodies and ecologies, reads the present through a reassessment of the past, and acts and thinks the conditions of possibility for the future from a decolonizing and territorializing standpoint.

Conclusions

We hope our case studies have demonstrated how EJ movements in radically different contexts, struggling in defence of life against necrocapitalism, share an ecological decolonization perspective. Both the Movement in Defence of Life and Culture of the Arapiuns River and the Stop Biocide Coalition of Campania have emerged within racialized and inferiorized territories, with the aim of defending the relationality of *life* in opposition to necrocapitalism, by reclaiming their autonomous capacity for meaning-making and place-remaking. Just as the Tapajós area has

become a site of extraction of raw materials and energy, parts of Campania have been turned into sinks for scraps from production and consumption processes. They represent two ideal ends of capitalist socio-ecological metabolism at national and international scales, expanding through the colonial matrix of power. In both contexts, local inhabitants experienced the unfolding of deadly projects of environmental destruction, cultural erasure and deprivation of liveable futures: in the Tapajós, through deforestation and environmental degradation associated with economic development; in Campania, via contamination from landfills, trash burning and hazardous waste that is wildly dumped. The underlying colonial logic in both contexts is manifested by the ways in which resistance to necrocapitalism is delegitimized: in the Tapajós, by dismissing the reclamation of Indigenous and traditional identities as "fake"; in Campania, by depicting protesters as barbaric, uncivil and affected by Nimbyism, based on the stereotyped racializing discourse engrained in national history.

We identify three interrelated moments of ecological decolonization performed by both movements. First, the insistence on defending life, conceived as healthy relationships between territories and bodies, and achieved by regaining local control over their metabolism. Second, the generation of novel subjectivities that reject the qualifications imposed on them by power, perform indigenization as reappropriation of places, and reconstitute epistemologies grounded in lived territorial relations. Third, the affirmation of narratives and practices that bring forward subaltern life-projects, materially and symbolically. Ecological decolonization thus emerges as the autonomous remaking of subaltern worlds in opposition to necropolitical processes that are legitimized through inferiorization and racialization.

In conclusion, we propose "ecological decolonization" as a novel conceptual and political thread that can bring together anti-capitalist and anti-colonial perspectives of EJ movements across the West/non-West divide. An urgent task, we believe, for nurturing alliances in defence of life on Earth.

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Article III

Competing Territorialisations.
The spatialities of waste conflicts in Campania, Italy

Salvatore Paolo De Rosa

"We cannot dump the toxic waste there, we're going to contaminate the underground aquifer!"
"Who cares, we'll drink bottled water"

Exchange between a camorra affiliate and a boss discussing illegal dumping of toxic waste[1]

1. Introduction

The above quote reveals a glimpse of insight by a waste trafficker while he arranges the improper disposal of hazardous materials in a camorra[2]-controlled area in the region of Campania, southern Italy. His dilemma – of seeing the land where he lives as a site from which to extract money by dumping waste and at the same time knowing that he and his family have biological links to that very land – comes from the visceral realization that certain uses of the environment hamper others: toxics and life do not go well together, and a perpetrator of eco-crimes is well positioned to grasp it. Interestingly, for the boss, if the local 'nature' will

[1] This conversation was referred to prosecutors by Gianfranco Mancaniello of Muzzoni clan of Sessa Aurunca, who heard it during a meeting for addressing the request by some entrepreneurs in the Italian Northeast of disposing a few tons of toxic waste (available at http://espresso.repubblica.it/palazzo/2007/06/04/news/ecco-i-padrini-dei-rifiuti-1.3800).

[2] Camorra refers to the wide array of mafia-like criminal groups, at times allied with each other and more often rivals, originating in Naples and other cities and towns of the Campania region but today widespread nationally and internationally (Sciarrone and Storti 2014).

become unsafe due to their ‘business’, he plans on just relying on commodified water coming from outside their region.

This conversation is just one fragment in the almost three decades long history of illegal trafficking and improper disposal of *hazardous* waste towards Campania. However, the problematic relations between waste, environment and living beings in this region are not limited to toxic materials. From 1994 to 2009, Campania has also been in the grip of the ‘emergency’ regime for the management of *urban* garbage. Against both of these processes of waste spatial occupation, or rather ‘colonization’[3], grassroots environmental movements of activists and ordinary citizens have risen to (re)claim alternative management schemes and uses of the land other than as a waste receptacle. The terms of this socio-environmental conflict exemplify more general and pervasive tensions between different users, uses and meanings of the land, and between the divergent socioecological outcomes these engender. In this paper, I argue that to inquire into such tensions – by dialectically linking issues of spatial control, regulation and contestation with ecological articulations and the distribution of power – can help us unearth dynamics that are at the core of many socio-environmental conflicts around land-use change.

Local environmental mobilisations like the one in Campania are ubiquitous and recurrent (Rootes 2007) and often involve subaltern groups struggling to (re)gain

[3] I do not use this term lightly. The coloniality of waste governance refers to the discursive construction by national political elites and mainstream media of people in Campania as uncivil, anti-modern and ‘the cause of their own ills’, while local places were framed as simply logistical nodes and ‘empty’ spaces for the localization of garbage facilities, and local bodies were internally marked by ecological occupation. In this way, the complexity of local socioecological worlds was reduced to the commodity of land (Polany 1944) by framing Campania as a social and physical ‘frontier’ (Rasmussen and Lund 2017) to tame (for a similar case of internal colonial dynamics in Europe see Milbourne and Mason 2016). The same colonial logic produced 15 years of state of exception for the management of garbage that ‘legally’ deprived local inhabitants of several constitutional rights, reinforced the disqualification of local knowledges (Armiero 2014) and racialized protesters through a reliance on stereotypes engrained in the national history (Petrillo 2008).

material and symbolic power over the definitions, uses and changes of a given space and the 'nature' in and around it (Moore 1997; Franquemagne 2007; Holmes 2014). Moving from these premises, I propose to read socio-environmental conflicts through the perspective of *territorialisation*. In broad terms, with territorialisation I refer to two socio-spatial phenomena and related analytical approaches. On the one hand, to the social strategy of creating bounded geographical areas for particular outcomes by classifying, regulating and enforcing certain uses of space, people and resources within (Rasmussen and Lund 2017; Sack 1986), thus seeing territories as *strategic* and *behavioural* phenomena (Murphy 2012). On the other, to the sets of relationships and situated knowledges performed by a social group to maintain a collective form of life (Escobar 2001; 2016) or life-project (Blaser et al 2004) grounded in place. In brief, from this perspective, territories are *relational* entities and *lived* realities (Raffestein 2012). In this contribution, I contend that an engagement of political ecology with these two approaches to territoriality can enrich its theoretical scope, enhance our understanding of environmental conflicts and provide strategic recommendations to grassroots environmental movements struggling for emancipatory and egalitarian socioecological worlds.

To illustrate my point, I apply a territorial perspective to an environmental conflict in Italy. This country is an ideal case because in recent years, there has been an upsurge in grassroots environmental mobilizations striving to influence the political processes that shape local territories (Bobbio and Danserio 2008; Boldo and Freschi 2014; Di Bella 2015). Consecutive Italian governing parties have instead drafted laws that increasingly centralize decision-making power in the

central government[4]. The result is that democratic debate and procedures over spatial and environmental governance have shrunk, foreclosing the possibility for local communities to interfere with the articulations of top-down development schemes, infrastructural works and the organization of basic services. The environment has thus become an arena of clashing priorities, addressed by the proliferation of *comitati popolari* (grassroots committees) concerned with people's and ecosystems' health at their intersection with land use change and resource extraction, with global flows of capital and commodities, and with political agency and the distribution of power.

By taking seriously the recent calls from Italian grassroots movements' to *defend and reappropriate territories*[5], I explore the theoretical and political potential of seeing power, space, nature and human and non-human agency over the course of environmental conflicts through a territorial lens. I do so by engaging in an ethnographic analysis of the controversies around waste (mis)management and contamination that are on-going in the region of Campania, where social struggles around waste metabolisms and their socioecological implications have indeed played out through the production and contestation of different socio-spatial

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[4] A consideration of relevant legislative interventions from 2001 warrants mentioning: first, the Law n.443 of 2001 by the Berlusconi government (centre-right), also known as *Legge Obiettivo* (Target Law), that established simplified procedures and financing arrangements for the implementation of major *strategic* infrastructures for the decade 2002 to 2013; second, the Law-decree n.133 of 2014, also known as *Sblocca Italia* (Unlock Italy) by Renzi government (centre-left), an assemblage of normative changes addressing a heterogeneity of sectors with the goal of "reduce bureaucracy, unlock the country's development, re-launch the economy"; and third, the Law n.124 of 2015, also known as *Legge Madia*, that reformed the public administration and assigned increased power of definition of administrative action to the Prime Minister's decrees. The outcome of such interventions goes in the direction of establishing the normative legitimacy for a regime of exception granted to any project considered *strategic* by the government, centralizing decisions despite the constitutional principle of subsidiarity (see Tribunale Permanente dei Popoli 2015, available at http://controsservatoriovalsusa.org/images/materiali/TPP-sentenza%20completa.pdf).

[5] Most recently: by the national campaign "stop to devastation and looting of territories" launched in October 2015 (cf. https://stopdevastazioni.wordpress.com/); by the grassroots network against drilling and extraction of fossil fuels No Triv (cf. http://www.notriv.com/) established in July 2012; and by the Stop Biocide Coalition of Campania in November 2013.

configurations. In the region's recent history, the land, its uses and its regimes of property, the regulative frameworks projected on it, the networks in which it has been enrolled and the imaginaries generated around it have interacted with flows and immobilizations of waste of various sorts. Different instances of territorial organization enacted by a plethora of actors have constituted spaces of profit making and rent extraction through waste metabolism. The unequal power relations at the basis of such spatial configurations have produced the conditions that allow for the circulation and accumulation of waste as circulation and accumulation of capital – for some – and as bioaccumulation and biomagnification of contaminants for the rest. By resisting the territorialisation of an economy revolving around waste, the strategies of grassroots environmental movements have focused on re-signifying and re-appropriating (portions of) the land by performing alternative socio-spatial configurations. Drawing on this case, I aim to show how fundamental dimensions of conflicts around socio-environmental change can become visible by looking at the territorial dynamics that trigger them and that they in turn produce. This perspective directs attention to the competing space-making practices through which different actors attempt to territorialize the arrangements and imaginaries that forward their agendas, (re)configuring in the process the socioecological relationships therein and at other scales.

Theoretically, I elaborate the concept of *competing territorialisation*s by integrating the approach of Urban Political Ecology (UPE) with perspectives from political geography and with cultural inflections of territory. UPE has provided compelling analyses of socio-environmental changes by theorizing the urbanization of nature as the outcome of socioecological processes of metabolic transformations and circulation, with particular attention to the scalar connections and the power relations producing unequal socionatures (Heynen et al. 2006).

Bringing territorialisation into the UPE analytical toolkit allows for a more grounded understanding of how the making and remaking of socioecological relations and metabolisms, their contestations and their symbolizations, inevitably, need to be *written on the land* (Lund and Peluso 2011). Territorial thinking devotes crucial consideration to the ways in which geographical areas are defined, defended and utilized – physically and discursively, formally and informally – in the course of environmental conflicts. Furthermore, to approach the grassroots strategies as counter-territorialisation efforts through meaning making and bottom-up control makes visible the importance of the proactive remaking of spatial relations by subaltern groups and social movements for advancing alternative socioecological projects (Escobar 2001; 2008).

The paper is organized as follows. After briefly delineating the approach of UPE, I present two perspectives on territorialisation and elaborate a synthesis of the two through the concept of *competing territorialisations.* I then explore the case of Campania through the concrete territorialisations brought about by the three main actors of this conflict – State, organized crime and grassroots movements – clarifying their socioecological outcomes and the activists' counter-territorialisation. Finally, I analyse the interactions between space-making practices, showing the relevance of this framework for unearthing the links between socioecological change and power over space, and the strategic potential of pursuing alternative counter-territorialisations for grassroots environmental movements.

Data for this paper was collected during ten months of fieldwork, carried out between 2013 and 2015, along the northern part of Naples' province and the southern part of Caserta's province. This is where most of the conflicts took place,

where there is the highest concentration of potentially contaminated sites and the highest risks to public health in the region, and finally where the territorial power of camorra clans is rooted. I collected and analysed data from official documents on urban waste management, parliamentary commission reports, scientific studies on waste pollution and on health of the residents, activists' reports and media accounts. I conducted 31 interviews in total: 21 with activists, 4 with local farmers, 3 with experts on contamination, public health and organized crime, and 3 with public officials involved at different moments in the waste issue. Additional data was gathered through participant observation during land occupations, marches, demonstrations and grassroots movements' assemblies.

2. The political ecology of competing territorialisation

Urban Political Ecology is a critical approach to the study of urbanization and socio-environmental change grounded in a Marxian reading of the unity and coevolution of nature and society (Foster 2000). Central in UPE is the concept of metabolism, intended to refer to the ensemble of political economic processes and bio-physical transformations that enrol human and non-human entities from across the globe in the production of the socioecological worlds we inhabit (Heynen et al 2006; Swyngedouw 2006). Metabolisms are defined through the social relations of production that mediate the necessary exchanges between humans and environments. UPE is thus concerned with the historical, material and geographical dynamics of the urbanization of nature driven by dialectical socio-metabolic processes and by the circulation of transformed nature in the form of commodities. The socio-material realities of cities are 'moments' in metabolic circulatory processes, embodying the tensions between abstract capitalist urbanization and socioecological conditions (Swyngedouw and Heynen 2003). Through

urbanization, the enhancement of 'sustainability' somewhere often undermines the stability of local ecologies in other places (Swyngedouw 2006), therefore the space of politics is located for UPE in the question of who gains from and who pays for particular trajectories of socio-environmental change articulated at several scales. Emancipatory urban politics resides for UPE in the acquisition by the subalterns and disenfranchised of the power to produce the physical and social environments in which they dwell.

UPE scholars suggest that urbanization can be viewed as "a process of de-territorialisation and re-territorialisation through metabolic circulatory flows" (Swyngedouw 2006:106). Building on this intuition, I aim to inquire more explicitly into the territorial dimensions embedded in socio-environmental change and conflicts. Territory as a concept is mainly associated with the claims and practices of control by modern States over a space and a population within clear borders (Agnew 2005), and is a fundamental notion in political geography (Newman 1999; Paasi 2003) and global politics (Elden 2008). Recently, there has been a proliferation of studies on territory and territorial politics (for reviews see Painter 2010 and Bryan 2012) reflecting the ongoing importance of conflicts over geographical space. Sack's (1986) seminal contribution understood human territoriality as any "attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area''(19) provoking a plethora of analyses from a variety of angles on the ways in which power works in and through space making.

In political geography, territory is in its most basic sense a "space that has had something done to it" (Cowen and Gilbert 2008:16), something that is "made" by State and non-State actors through a variety of practices that continually produce

and alter space throughout historical processes (Agnew and Oslender 2010). Joe Painter proposes that territory "should be examined (…) as the powerful effect of practices that make such spaces appear to exist" (2010:1116). For Painter, territory is best understood as the effect of *networked socio-technical practices* enrolling both human and non-human actors into the production of spaces. In other words, the territory-effect is generated by and depends on networked relations, echoing the assertion from UPE studies that scalar connections of metabolic circulatory flows materialize urban environments.

Vandergeest and Peluso (1995) formulated the notion of *internal territorialisation* to bring to the forefront the sub-divisions of territory operationalized by States within national boundaries through the defining and determining of territorial units. In their view, the making of internal territories unfolds through the creation and mapping of land boundaries, the allocation of use rights to private or public actors and the designation of specific resource uses within territorial boundaries (Corson 2011). Importantly, internal territorialisation allows States to justify coercing their own citizens. Under neoliberalism, the mechanisms through which State territorialisation takes place involve a variety of legal instruments, institutional alliances and agreements between State, non-State and parastatal institutions. Territorial units devised for specific functions by State interventions can become the source of profits or rents for those who become entitled (or have the power) to claim control over the economic gains from particular land uses and territorial relations. Enclosure and privatization as mechanisms of territorialisation establish fences – physical or institutional – around certain resources, securing access for the actors in control. Legalization and formalization of such enclosed and privatized spaces may stabilize control through State prerogatives. However, every act of territorialisation is configured in relation to previous territorialisations (Roth 2008;

Bluwstein and Lund 2016) and to competing territorialisations that influence the elaboration and consolidation of new territories.

The processes that actualize control within a geographical area can be defined as *acts of territorialisation* (Roth 2008; Corson 2011). Formal and informal practices of control over space produce 'bundles of powers' and mechanisms for restricting access (Ribot and Peluso 2003). Through boundary making, State and non-State actors can exercise their – *de jure* or *de facto* – authority over the objects and people within, and restrict access of outsiders. The resulting territorialized power may inflict violence on the populations accessing those lands or resources, establishing rule through terror and coercion, as it is often the case in contexts in which organized crime is present. The experience of violence, the threat of violence and the memory of it are major components in the making of territories. To summarize, from a political geography perspective, territorialisation can be seen as 'the creation of systems of resource control' (Rasmsussen and Lund 2017) by State and non-State actors that establish authority, create institutions, endow right to – or deprive rights from – people and transform nature into resources and commodities in the process.

According to UPE, the possibility for emancipatory politics resides "in acquiring the power to produce urban environments in line with the aspirations, needs, and desires of those inhabiting these spaces, the capacity to produce the physical and social environment in which one dwells" (Swyngedouw 2006:116). UPE is thus concerned with how those bearing the negative impacts of capitalist urbanization are able to produce different socio-environmental assemblages. The issue at hand is how to democratize the politics through which socionatures (like cities) are produced. Harnessing power over space is one of the ways in which the production

of emancipatory socio-environmental relations can be advanced. Increasingly, indigenous peoples, grassroots groups and social movements mobilize territoriality as a political strategy to ground alternative practices, imaginaries and cosmologies in space (Anguelovski and Martinez Alier 2014; Halvorsen 2012). Arturo Escobar has been crucial in making explicit the links between subaltern strategies of localization with the making of alternative cultural and ecological territories. He claims that Indigenous and socio-environmental movements constitute place as a setting of negotiation between different and often competing political projects, articulating a relational understanding of territory in terms of a collective sense of well-being (Escobar 2008). In particular, Escobar insists on territorial autonomy and control as fundamental conditions for the expression of alternative political identities. Socio-environmental and Indigenous movements' claims, he argues, are motivated by a desire to secure the space necessary to maintain a collective form of life (Escobar 2001), they are less about the defence of place as a physical location per se than about maintaining a set of relationships (Blaser et al 2004; Escobar 2016).

Escobar's ideas, elaborated by researching on and with social movements in Colombia, resonate with the territorialist approach of Alberto Magnaghi, one of the founders of the Italian Society of Territorialists[6]. According to Magnaghi, spatial relations in our times are mostly conceived of as possibilities for the development of the forces of production according to the capitalist system (Magnaghi 2005). This has turned places into "sites", i.e. nodes in networks of exchanges (of commodities, workforce, energy, waste) that ignore the constraints and the

[6] This society is a research and policy oriented non-profit association promoting "the dialogue between scientific disciplines that assume the central value of local assets in processes of transformation aimed at social welfare and public happiness (…) [developing] knowledge and social responsibility towards the territory as a common good" (http://www.societadeiterritorialisti.it/).

carrying capacity of the environments in which they rest, leading to processes of de-territorialisation (Deleuze and Guattari 1987). What is lost in the capitalist configurations of space are the series of principles and rationalities that allow for the self-representation and the self-design of territories' futures by local societies. In extreme cases of de-territorialisation, places become inhospitable, poor, degraded and exhausted. This motivates Magnaghi's call to reclaim places in order to re-establish the conditions for survival, through what he calls the *production of territoriality*, i.e. of environmental quality, of new municipalities and belonging, of growth of local societies, of valorisation of local and urban identities. According to Magnaghi, this can be achieved by developing a culture of self-government and care for territory through the reappropriation by the dwellers of the knowledge and power necessary for the production of environmental and territorial quality. Thus, the work of counter- and re-territorialisation is grounded in the revitalization of local environmental systems that implies the re-inhabitation of places and the care of them by those who live there.

The two perspectives on territorialisation presented above reflect two mutually enriching positionalities and foci: one more concerned with the workings of power in the making of territories, and one taking the point of view of those living a territory. They integrate UPE with an attention to the layered spatial histories in the course of conflicts, to the effects of scalar relations over local land-use changes, and with sensitivity to the cultural, political and socioecological drivers of grassroots defence of spaces. They elicit questions such as by whom and for whom specific territorial configurations are produced, and which kind of socionatures emerge through which kind of territorialisations. In this view, the 'production of nature' (Smith 1984) as arena and outcome of successive historical waves of re-

ordering of socio-natures (Swyngedouw 2006) is addressed in close relation to the ‘production of space’ (Lefebvre 1991).

Territorialisation is therefore both a powerful analytical tool to disentangle strategies of spatial control and a conceptual key to access the lived realities that link social groups to specific places. The notion of *competing territorialisations* represents a synthesis of these approaches. It highlights the *frictions* between acts of territorialisation pursued by different social groups and the contrasting socioecological projects that compete for existence in a field of unequal power relations. This framework considers the overlapping of boundary making practices, the contestations in the distribution and enforcement of rights and uses within territories, the networks and scalar relations implicated in the making of territories, and the imaginaries and narratives sustaining (or challenging) specific territorialisations. Competing territorialisation embodies the clashes between – imagined, pursued or actualized – bounded spaces, which are the result of dynamic interactions continuously in the making and contested. They therefore unfold as *patchworks* of conflicting spatial units and arrangements, the stability of which relies on the forms of social power that the actors are able to harness and to mobilize. In the case of Campania, to look at waste metabolisms and the social conflicts these generate through the lens of a political ecology of competing territorialisations helps link the circulation of waste-commodities to their spatial immobilizations, to the patterns of contamination of local environments and to the counter-territorialisation brought about by grassroots environmental movements. This is what I turn to in the next section.

3. Territories of waste and resistance in Campania

A historical look at the rise of the waste economy from a territorial perspective allows the unearthing of the genealogy of land use changes that paved the way for the present socio-spatial configurations. One fundamental driver of such changes has been the process of urbanization. In Campania, urban expansion increased dramatically since the Italian Unification in 1861, but it was from the 1960s onwards that the urbanisation curve shot up. Di Gennaro and Innamorato (2005) call this process 'the great transformation' of *Campania Felix*[7]. At a regional level, between 1965 and 2000, the agricultural surface dropped by about 365,000 hectares (a 38% decrease). Through the same period, urbanized areas got five times bigger, reaching 100,000 hectares in 2000, while the population grew only by 20% (di Lorenzo and di Gennaro 2008). These processes led to the current conurbation that stretches seamlessly between Naples and Caserta, comprising 130 municipalities and hosting in less than 15% of the regional territory almost three quarters of Campania's population, about 4 million people (di Gennaro 2012). At the beginning of the 1980s, a new bloc of social and political power formed by real estate property, local political elites and camorra clans arose around the urbanization boom (Martone 2014) facilitated by the lack of urban planning tools and controls[8]. In the aftermath of the devastating earthquake that hit Campania on November 23, 1980, the State's special policies[9] for post-earthquake reconstruction flooded the region with public money and were exploited by camorra groups to increase their influence (Anselmo 2009). In Caserta's province, the construction

[7] Campania was termed *Felix* (happy) by the Romans because of the fertility of the soil. This is one of the most important matrices of territorial identity and cultural history of Campania and southern Italy, in which rural landscapes have been shaped by 2000 years of agricultural practices (Andretta 2009).

[8] Indeed, in Naples's province in 1986 about 80% of local councils had not approved any town planning regulation (di Gennaro 2009).

[9] In particular, the law 219/1981 aimed at restoring damaged urban areas, and the law 80/1984, through which a flood of public money was assigned to often unnecessary public works and private restorations.

sector became a source of capital accumulation for the clan called *Casalesi*[10] that were able to monopolize the local market of concrete provision and land movement. The Casalesi became "stakeholders in the governance of the territory, taking a leading role in land planning" (Martone 2014:58). It was their penetration within municipal administrations that allowed them to influence the assignment of public works and services to companies they controlled. Subsequently, the emptied quarries from which the raw material for making cement had been extracted became the zero-cost disposal sites for the urban waste from municipalities (Parliamentary Commission 1997). Through intimidation and co-optation, small landowners and proprietors of landfills were integrated in the networks of disposal. The camorra's entrance in the business of urban waste disposal was therefore consequential to their previous monopolistic territorialisation of cement extraction, and laid the groundwork for their successive territorialisation of toxic waste disposal. As Rasmussen and Lund argue (2017:8) "the debris of the past shapes the current configurations of space".

At the end of the 1980s, several hazardous waste treatment facilities closed down in the north of Italy and the prices for special waste disposal from industrial activities rose dramatically (Vassallo and De Crescenzo 2016). To the increasing demand for special waste treatment service, corresponding offers were lacking. This provided the opportunity for the camorra's shift from urban to toxic/industrial waste disposal. The territorial organization for the management of urban waste was put at the service of industrial managers willing to save money through cheaper disposal. Entrepreneurs from all over Italy, owners of landfills in Campania, corrupt public officials and camorra clans cooperated in the territorialisation of the business of illegal toxic waste disposal. We can even locate the moment in which

[10] From the name of the municipality from which their territorial power irradiated, Casal di Principe

the *system* of illegal management was formalized. As recounted by several justice collaborators, in 1989 in Villaricca the agreements for establishing the networks and the places of disposal were made between camorra clans who were able to influence regional landfill authorizations, members of the masonry in touch with industrial owners, and several waste firms from Campania (Iacuelli 2008). This deal produced a 'territory effect' that designated Campania as the *trashcan of Italy* and materialized in at least ten million tons of illegally disposed of hazardous waste over more than twenty years (Legambiente 2013). The camorra's role was to link different actors and to ensure disposal sites[11], all the while collecting revenues on each shipment. Their *de facto* territorial control over towns and portions of rural areas allowed for the informal authority of demarcating illegal dumping sites. Early civil society reactions to the territorialisation of the toxic waste metabolism were met by retaliation[12]. The environmental NGO Legambiente recorded 82 judicial inquiries since 1991 on waste trafficking towards Campania (2013), showing how firms in the waste management sector, professionals, politicians and public officials participated, with mutual benefits, in the illegal disposal network (Massari and Monzini 2004). Formally, through authorizations granted to waste entrepreneurs via corruption of public officials and falsified documentation that accompanied the shipments, the business looked "clean" on paper. In reality, hazardous waste ended up in unsuitable landfills, in former quarries, on agricultural land, buried underground or burned in open air. These sites became the final destination of contaminants that travelled through the conduits established by

[11] «Organized crime's role is to provide the terminal of the traffic; it ensures the space where to illegally dispose waste: it can do so because camorra controls and manages every square meter of wide areas of Campania's region. In particular, the province of Caserta has areas controlled *manu militari* by organized crime, that even arranges patrols of streets and operates checks of unknown cars passing by in those areas" (Parliamentary Commission 1998, my translation).

[12] Emblematic are the homicides of Domenico Beneventano, a communist municipal counsellor in Ottaviano killed on November 7, 1980 for having opposed land speculation by the camorra for the construction of a landfill, and of don Cesare Boschin, a priest of Borgo Montello in southern Latium that denounced illegal disposal of toxic waste by the camorra and was killed on March 29, 1995.

the cooperation of a plethora of actors supervised and facilitated by camorra: territorialized toxic spaces linked to networks spanning throughout the country and beyond. Crucially, the fraction of toxic waste disposed illegally in urban waste landfills contributed to the exhaustion of Campania's authorized disposal sites thus triggering the urban waste emergency and the collection crisis of the 1990s and 2000s.

Territorialisation of urban waste management

The organization of the urban waste cycle in Campania has unfolded through the production of sites of waste management resulting from agreements between State institutions, a multinational corporation and a galaxy of subcontracting companies and landowners, some linked to organized crime. These spatial interventions brought about assemblages of interlinked territorial units that provoked contested socio-environmental impacts. Several levels of the State – from the central government to State agencies, to the regional and provincial administrations – had a prominent role in shaping the spatial configuration of urban waste management. The overall framework of these processes has been the 'emergency regime' declared by the Italian government in 1994. Its official rationale was the need to centralize managerial functions and to heighten controls around waste disposal. Ironically, the initial re-publicizing of all private landfills in Campania in an attempt to dissociate landfill management from organized crime was turned on its head when the entire waste cycle was entrusted to a private company that could perform subcontracting without strict accountability. By the end of the emergency in 2009, none of the initial objectives were achieved and further environmental burdens and uneven exposures to pollution instead had materialized.

The emergency allowed for the entrustment of special powers in the Commissioner, a government-appointed official in charge of realizing the regional urban waste management plan through a public-private partnership. The temporal dilatation of the emergency – 15 years – meant the establishment of 'permanent' state of exception, in which the criminalization of protests and shallow environmental safeguards were justified. The state of exception also enabled extraordinary regulatory and spatial interventions that supported the interests of the corporation entrusted to organize the waste cycle[13]. This allowed managing the entire area of Campania as a *blank space* for the localization of waste facilities. In 1997, the Commissioner delivered its plan based on the construction of two waste-to-energy plants, seven facilities for the production of refuse-derived fuel (RDF) and an unspecified number of landfills for managing about 2,500,000 tons of regional garbage produced annually. The realization of the plan entailed a *project financing* scheme that would be assigned to a private service provider through a public tender. In 2000, the contract was granted to a partnership of private companies led by the multinational corporation Impregilo, selected for the speed of realization and cost savings of their proposal, rather than technical and environmental criteria (D'Alisa et al 2010).

Before signing, Impregilo lobbied the Commissioner for specific contractual benefits to boost its profits from waste incineration (Rabitti 2008). First, Impregilo was given the right to store processed urban garbage before the construction of the incinerator, instead of disposing of it in other Italian facilities at its own expenses as initially planned. The corporation's reason for accumulating trash was the promise of public subsides granted in Italy to incineration with energy recovery,

[13] As reported by the final report of the Parliamentary Commission on Waste (2013:812-3): "We can certainly say that the administrative apparatus has supported substantially illicit interests (…) The environmental assessments were emptied from the inside and became functional to the penetration of purely economic interests".

considered a “renewable source”. This scheme, the so-called CIP6, has been the Italian way to renewable energy promotion that has mostly granted economic support to electricity produced from burning garbage[14]. Armiero and D’Alisa (2013) calculated that, thanks to CIP6, the monetary value embedded in the RDF stored by Impregilo in Campania amounts to more than one billion euros.

Second, the Commissioner allowed the corporation to decide unilaterally the localization of facilities through private deals and without prior consultation with local administrators and inhabitants of the municipalities targeted to host them. Such privatization of decision-making privileged the logistical needs of Impregilo. The logic behind the distribution of facilities on the map of Campania can be grasped from the motivation for localizing the 600,000 tons per year waste incinerator in Acerra’s countryside. According to Impregilo, in proximity of the chosen area of 16 hectares – surrounded by about 2000 hectares of agricultural land and more than 500 farms – there was “the lack of elements of environmental and social value (…) low population and no contradiction with nearby land use” (Caldiroli and Francisci 2003:133). Therefore, the private firm read the landscape merely as a logistical space for territorializing its project of profit-oriented management, an approach utilized for virtually all waste facilities and at the root of the social conflicts against the realization of the urban waste plan[15]. Acerra will indeed become the first frontline of this clash.

[14] According to official data (ISPRA 2012), the Italian Authority for Energy Services in 2012 supported incinerators with more than 1200 million euros, compared to 225 million euros for geothermal plants, 200 for hydro plants, 196 for wind power and 4 for solar plants. Therefore, the management of a waste incineration plant in Italy provides ample opportunities for profit (see Crivello 2015).

[15] Grassroots movements contested both the lack of democratic inclusion and the rationale of the waste plan based on incinerators, storage sites and landfills instead of privileging reduction, reuse and recycling of waste (see Armiero and D’Alisa 2012).

The realization of the corporation's plan disrupted the land market: as shown by judicial investigations, the designation of sites of waste management became a venue for land speculation. In one case, the corporation purchased several quarries located in Chiaiano from an intermediary who operated a seven-fold increase of the price compared to the market value (Parliamentary Commission 2013:247). In another case, for a site in Giugliano, the price of the land increased from 10,000 to 500,000 euros in the passages from the first owner, to the intermediary and finally to the corporation (Parliamentary Commission 2013:231). Similarly, for a transfer platform in Paestum, near Salerno, the company "Gea Construction" became tenant of a plot of land for ten years at a cost of 52,000 euros just six days before renting it to Impregilo at a price of 1,223,000 euros (Capone et al 2006).

Storing the RDF was fundamental to the corporation's plan of collecting revenues from incineration[16]. Such hunger for space led to the proliferation of rents capture by private landowners. Temporary storage sites arose in 16 places, ultimately accommodating between 6 and 7 million tons of RDF in the form of so-called *ecoballe*, waste blocks. Once these sites were included in the networks of territories of waste management, the owners could rely on a steady flow of rents payed for hosting trash on their properties. Some of these 'temporary' storage sites last since more than ten years. The profit-making potential of shifting land use from agricultural production to waste 'cultivation' was intercepted by the camorra. The *Taverna del Re* storage site, located between the municipalities of Giugliano (NA) and Villa Literno (CE), is a case in point. With its 130 hectares, it is the largest storage site of RDF in Campania. Inside, between 5 and 6 million waste

[16]Importantly, the RDF produced by Impregilo did not meet the requirements set in the Ministerial Decree of February 5, 1998 in terms of physical composition and heating power. Prosecutors seized all the waste blocks several times from 2004 onward. However, the central government, in the name of the emergency, intervened with Ordinance n.3657 in 2008 authorizing the burning of the 'outlaw' RDF and the CIP6 subsidies.

blocks are stacked, amounting to around 4.5 million tons, accumulated between 2001 and 2009. According to the deposition of former camorra affiliates, the Casalesi's boss Michele Zagaria managed the entire site from the supply of cement to the transport of waste blocks, to the collection of rents (Legambiente 2010).

In 2006, the government terminated the contract with the corporation, leaving a critical situation in which garbage could flood the streets of cities and towns at any time. The Commissioner took the responsibility to find suitable locations for landfills to alleviate the crisis, and drew maps of these designated sites. According to Armiero (2008), the Commissioner followed a 'path of least resistance' by targeting the most vulnerable and socio-economically deprived areas in Campania. However, every chosen spot was met by the insurgence of local communities. The central government answered to social opposition in 2008 with a law decree that *militarized* all waste facilities and designated ten new landfills[17]. From that point on, the sites for urban waste management became territorialized as military areas guarded by the army: inside, the suspension of ordinary law allowed for loose environmental safeguards and checks, while barbed wire and soldiers impeded public scrutiny. By the official end of the emergency in 2009, the territorialisation of the urban waste cycle appeared as a patchwork of enclosures of private wealth extraction within a neoliberal organization of urban waste management with extensive socioecological impacts.

[17] The decree n.90/2008, converted into law n.123/2008, also turned protests near waste facilities into penal felonies.

Socioecological implications of waste occupation

The accumulation of waste through the compounded acts of territorialisation by State, legal and illegal firms, landowners and organized crime, produced hybrid socioecological configurations throughout Campania in which contaminants defied formal and informal 'borders' and circulated within environmental matrices and through human and non-human bodies in unpredictable ways, with consequences that are still disputed. In 2005, the Regional Plan for Remediation of Polluted Sites of Campania Region recorded 2,507 potentially contaminated sites[18], the majority clustered in the southern part of Caserta province and the northern part of Naples province (ARPAC 2005). An update in 2008 brought the number to 3,733 (ARPAC 2009:333). In the latest Regional Plan for Remediation from 2012 (Regione Campania 2012), environmental reclamation works have been reformulated in relation to seven so-called *aree vaste* (wide areas), identified as portions of Campania in which the "environmental situation is particularly compromised due to the simultaneous presence, in a relatively limited territory, of several polluted sites" (68). One of the most thorough studies on localized environmental contamination from waste was carried out in the *area vasta* of Giugliano in 2010. A geological assessment commissioned by prosecutors during the *Resit* trial[19] for evaluating the pollution caused by six landfills on 210 hectares of municipal area, pointed out that toxic leachate had penetrated the underground aquifer and pollution would peak in 2064 (Balestri 2010). A 'sentinel' of

[18] The reference for the determination of a potentially contaminated site for this report was the Ministerial Decree of 16 May 1989, and subsequent integrations of Legislative Decree 22/1997 and Ministerial Decree 471/1999. A potentially contaminated site was designated where anthropic activities caused the spreading of polluting substances that represented a potential danger for public health and the environment. A contaminated site, instead, was declared when it exceeded the values of the tables of Acceptable Concentration Limits for a number of contaminants in the soil, subsoil and surface and groundwater.

[19] From the name of the landfill owned by the main suspect, Cipriano Chianese, sentenced to jail in 2015 together with 15 collaborators for environmental disaster, poisoning of water and mafia association.

environmental contamination have been the flocks of farm animals raised in the region. At the end of 2003, more than 12,000 cattle, river buffalos and sheep were culled for the levels of dioxin[20] in their milk (Perucatti et al 2006). In particular, the sheep grazing the fields of Acerra became (in)famous in the same year for the high levels of dioxin in blood and dairy products, causing visible malformations and unusual deaths[21] (Armiero and Fava 2016).

The assessment of the effects of waste pollution on human health has been a site of heated debate and controversies. Since the publication of the reportage by Senior and Mazza (2004) that posits a link between increasing mortality rates among the population and the dumping sites, the label 'triangle of death' to indicate the area between Acerra, Nola and Marigliano, has haunted the locals. In 2004, the Department of Civil Protection commissioned a study focused on cancer incidence and mortality within 196 municipalities in the provinces of Naples and Caserta (WHO et al 2007). The results found positive and statistically significant correlations between health and illegal dumping of toxic waste, with heightened levels of specific cancers and congenital malformations in sites where illegal dumping was prevalent. A literature review of scientific research on health effects of waste exposure and human biomonitoring in Campania by Triassi et al (2015) evaluated seventeen studies published between 2001 and 2014. Despite the difficulty of an overall synthesis because of the variety of approaches and the multiple effects investigated, it concluded that the "findings suggest a possible role for waste in the increasing cancer rates detected in the Region (…) Further studies

[20]Dioxins are a group of toxic chemicals that includes both polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs). Dioxins have been reported to be carcinogenic and to induce toxic and biochemical responses in the endocrine, reproductive and immune systems. They are not naturally present in the environment but result from certain manufacturing activities, municipal waste incinerators and burning of waste.
[21] Up to 50.65 pg of dioxin per 1 g of fat were found in the milk and in the fat of Acerra's sheep, compared to the tolerable threshold of 3 pg per 1 g (Marfella 2008).

are needed to confirm the early effects detected in response to the exposure to waste burning and dumping" (1230).

The difficulties of demonstrating a straightforward causal relationship between precise contaminants and specific diseases and deaths (given the multi-factorial origin of illnesses, the presence of confounding elements and the limited knowledge on the composition of waste that has been illegally disposed of) have been exploited by Italian health ministries to deny *tout court* a link between waste and health problems in Campania, dismissing the fears among local population and delaying the cleaning up of polluted sites (Cantoni 2016; Bonatti 2015). For the Italian government, the "waste crisis" officially ended in 2009 with the inauguration of Acerra's waste incinerator. In fact, the trash in the streets had been the only concern of public institutions in charge of solving the waste emergency, overlooking three decades of uncontrolled hazardous waste disposal. As D'Alisa and Armiero (2013) argue, ''the government's obsession with urban waste and clean-up operation has been instrumental in concealing the actual contamination caused by toxic waste''. It took the mass mobilizations by Campania's grassroots movements between 2012 and 2013 to force the central government to take the threats to public health posited by waste territorialisations in Campania seriously, with the issuing of the Land of Fires Law in 2014.

Grassroots movements' counter-territorialisations

Spontaneous, yet fragmented, reactions to waste territorialisation by civic associations, residents and activists can be traced back to the mid-1980s[22]. However, it is from the 2000 onward that more articulated and persistent forms of popular resistance emerged. Here, I propose a periodization that identifies two moments. First, from 2000 to 2011, during the 'emergency', inhabitants and activists established grassroots committees in each of the towns targeted to host landfills, incinerators and storage sites. At least 31 local revolts opposed the imposition of waste facilities with road blockades, land occupations and guerrilla actions, in some cases lasting for months and successfully preventing localizations. The social composition of protesters included the inhabitants, with a marked presence of women, local administrators, activists of urban movements (social centres and environmental associations), Catholic Church representatives and farmers' associations. The proliferation of frontlines led to regional alliances built between grassroots committees, mutual support pacts with social movements and international NGOs (like Zero Waste), and the generation and socialization of an autonomous knowledge of waste management that was critical of the regional plan based on landfills and incinerators instead of reduction and recycling of garbage. Moreover, the grassroots committees reassessed local ecosystems and unearthed the pollution caused by illegal waste dumping and unregulated urbanization, thus reinforcing local communities' rejection of additional environmental burdens. The second period of social mobilizations runs from 2012 to today. Following the end of the emergency, grassroots committees united under the banner of the *Coalizione Stop Biocidio* (Stop Biocide Coalition, CSB) and broadened the focus of engagement towards the politicization of land uses and related socioecological implications, requesting 'real democracy' and addressing the health concerns of

[22] Evidence of these attempts – scattered in activists' archives, in newspaper articles and in the memories of those who participated – show that part of the population opposed the processes of waste territorialisation since their inception: a history still to be written.

local communities. Between 2012 and 2016, fifteen marches and several public assemblies were organized throughout the provinces of Naples and Caserta. In particular, on November 16, 2013, the biggest environmental demonstration in Italian recent history was arranged by the CSB, in which more than 100,000 people flooded Naples' streets shouting 'Stop the Biocide!'. If, on the one hand, the aim of eliciting the State's support and resources to halt illegal dumping brought some results, on the other hand, the growth of the scope of the CSB promoted grassroots' practices and claims beyond the issues of waste and contamination, generating instances of what the activists themselves referred to as *territorial reclamation from below.*

The different spatial interventions performed by grassroots committees reflect the relation between changing forms of physical and epistemic violence and resistance, but also the progression of grassroots knowledges and strategies. During the first period, the priority was to prevent the localization of the imposed incinerators, landfills and storage sites and to force the Commissioner to open up negotiations on both the design of waste management and the distribution of facilities. The town of Acerra, designated to host an incinerator, was the first place where the State confronted firm opposition. A spatial strategy utilized in Acerra would become regular in Campania's environmental movements: the *presidio*, literally the garrison, a picket and land occupation on or next to the place at the centre of the litigation that, besides being an organizational tool and a physical barrier, grounded the permanent assemblies where a novel sense of community was shaped and political experiments of participation were forged (Armiero and De Angelis 2017). Between 2002 and 2004, the *presidio* of Acerra, on the land where the waste incinerator had to be built, became the embryo of the counter-territorialisation of the local community, as F. recounts: *"We occupied the land*

and built a park for kids there. Where the State, the banks and the lobbies wanted to build a tool of death, we wanted to bring life, represented by the children. We also built a soccer field and organized concerts, it became a place where the inhabitants were attracted. In some ways, the people reconnected with the countryside". Something similar happened in Chiaiano in 2008, at what is probably the longest existing presidio, as E. recounts: "*At the* presidio, *we managed to turn upside down the institutional roles: the local mayors were coming to the assemblies and we were taking decisions together. They were going back to the central government just passing what was decided into the assemblies. This level of direct democracy was really important, and because of it the* presidio *is still there".*

From 2013, the committees of CSB developed a strategy of grassroots mapping of illegal waste dumping spots to counteract the minimization by regional and national institutions, to provide the evidence for filing lawsuits and to help establishing an up to date image of the status of the countryside (Armiero and De Rosa 2017). The aim was to expose the waste territorialisation made through the micro disposal sites disseminated in the countryside and often put on fire, which had earned the entire area the name of Land of Fires. Such practice contributed to structure a sense of territorial belonging and to (re)discover elements of the landscape (archaeological sites, historical buildings, water basins, forest areas) worth preserving and often surrounded by trash. This spatial intervention was systematized in 2014 thanks to EU funding, becoming part of the *Civic Observers for Health and Environment: Initiative of Responsibility and Sustainability* (COHEIRS) that today coordinates more than 200 'civic observers' in Campania,

engaged in the filing of complaints of toxic fires and wild dumping in the name of the precautionary principle[23].

The grassroots alternative for Campania's land was formulated more fully in a collective platform issued by the CSB on November 16, 2013. In the platform, the agricultural economy is taken as pivotal for the social and ecological future of the region. "*Where the soils are not cultivated*", states the platform at point three, "*every destruction is possible*". The CSB's analysis stated that the reduction of active farmlands and the consequent lack of oversight over large portions of the countryside in the provinces of Naples and Caserta favoured the proliferation of land speculation, wild disposal of trash, toxic fires and micro-dumping sites. According to the coalition, the territorialisation of waste relied on the contraction of the social and economic value of local agriculture and of family-managed farms, on the disengagement by urban dwellers and civic associations concerning the fate of the environments surrounding towns and cities, and finally on the unchallenged encroaching of speculative and criminal interests over the land. The way to reverse such processes was to oppose the land use as waste deposits with alternative land uses more in line with the "desire, needs and aspirations" of local dwellers. P explained it in this way: "*What happened on our territories was the result of a vacuum. After we blocked the dump in Terzigno, we realized that the space had to be occupied permanently to avoid the risk of them coming back. And I said we must plant trees, a massive reforestation, so as to occupy the land. If the land is occupied they cannot eradicate the plants. But if they find the vacuum, sooner or later they will come to fill it with trash*".

[23]Their website is reachable at http://www.osservatoricivici.it/campania/index.php?option=com_content&view=category&layout=blog&id=9&Itemid=101 (accessed 10/4/2017).

The cooperation between grassroots environmental movements and social cooperative on lands confiscated by organized crime produced the most accomplished realization of the model of counter-territorialisation brought forward by the coalition. Five social cooperatives, united since 2012 under the *New Cooperation Organized* (NCO) network, became generators of territorial value by bringing together the fight against the camorra's cultural and material power, the inclusion of disadvantaged people, the environmental awareness generated by a decade of grassroots struggles and the nurturing of a social economy rooted in the agricultural tradition of the region. The collaboration between CSB activists and NCO Social Cooperatives configured processes of *commoning* (Caggiano and De Rosa 2015) that *created* the common resources (the lands collectively owned by each coops) and engaged local inhabitants, Municipalities, the health services, farmers, local entrepreneurs and citizens' associations in *becoming* communities. By coupling work on social reproduction and political pressure, such collaborations aspired to achieve a cultural and physical re-appropriation of territory by the inhabitants (Escobar 2008), a process of revitalization and co-production of *place* according to the vision of territory as a relational space. This has been both a strategy of defence and the proactive delineation of a project of counter-territorialisation, as M, an activist, told me: "*When the farmer leaves the countryside, a sentinel checking that the field remains clean is gone. If the land is abandoned it becomes an object of speculation: they make malls, parking lots. Or it becomes a dump. This is why we created an agricultural cooperative: there are all these abandoned plots of land, all these empty spaces, and all these young people like me without a job. So, why not work the land? We have to defend ourselves, because we have on one side the institutions that do not safeguard us and on the other the camorra. We are squeezed in between these two together with our territory. Therefore, we must ally with the territory, begin to retake it, to*

defend it. If we do agriculture we keep the land clean, we avoid waste dumping, we create jobs and social wealth. By defending the territory, we defend ourselves".

4. Analysis and conclusions: competing territorialisations in Campania

In Campania, municipal and hazardous waste have become means for the accumulation of profits and the extraction of rents. Following UPE, I presented the links between the political economy of waste monetary valorisation and the socioecological relations sustaining these processes. The integration of a territorial perspective puts emphasis on the ways through which the realization of the moneymaking potential of handling waste relies on the production of spaces of management. The empirical data shows that the current spatial units where waste is accumulated, transformed and dumped in Campania are related to previous territorialisations, shape specific socionatural configurations and give a certain direction to future local territorial developments. Crucially, these units are the outcome of authority over space stemming from unequal power relations that allow the State's regulations to legitimize violent repression of dissent and allow organized crime to penetrate the legal waste market while creating the (political, economic and social) infrastructure for the illegal one.

In the case of the system of illegal hazardous waste disposal, there is a continuity between the acquisition of previous power positionalities over geographical areas of the region by Casalesi clan and the successive establishment of a network of formal and informal disposal sites. Indeed, the outcomes of the physical process of cement extraction, monopolised by the Casalesi clan, provided the spaces for the incoming hazardous materials. Moreover, the constitution of multi-scalar conduits for moving the waste produced a 'territory effect' linked to networked socio-technical practices: the handling, transforming, smuggling and disguising of

hazardous waste necessary for the smooth transitions between each stage of the traffic. Local socioecologies thus became embedded in a business that, through violence, redefined not just the territorial units where waste was disposed of, but the entire area between the provinces of Naples and Caserta. In fact, the waste 'spilled over' physically and symbolically, causing measured, still unidentified and imagined contamination, impacting local bodies and resulting in a negative stigma for the entire region[24]. The organization of the urban waste management cycle relied on a patchwork of territorial units linking processing facilities, storage sites, landfills and the only incinerator the corporation managed to build. Thanks to the 'emergency' regime, within these territorialized management units, ordinary laws pertaining to environmental protection, contract allocation procedures and public negotiations were suspended. Instead, other regulations were activated. The corporation, the subcontracting companies and the many small private firms orbiting around the State agency of the Commissioner, enjoyed the State's protection and participated in the distribution of public works. The accumulation of packaged garbage nurtured the proliferation of rents for accommodating it in temporary storage sites. Finally, after 2008, all the sites of urban waste management became military areas, becoming alien spaces over which the municipalities hosting them had no authority.

Observing the unfolding of waste metabolisms in Campania through the perspective of territorialisation makes it clear that these projects are realized through a re-writing of the landscape that affects the land market and is based on power positionalities that allow the granting – or the taking – of special rights. Moreover, these are socioecological projects: accumulating trash and driving

[24] When the issues reached the national attention due to the activism of Campania's communities, the first countermeasure enacted by the government was the mapping of contaminated agricultural areas to discriminate clearly the polluted land-plots from the non-polluted.

contaminants towards specific places, alters entire ecosystems well beyond the boundaries of the territorialized spaces. Such massive re-orderings of socioecological relations must be taken into account when approaching the multiple social uprisings manifested in Campania in recent years, instead of explaining them away with a reference to a depoliticizing NIMBY syndrome. By taking into account the layered histories of land use changes and the actual processes behind the making of each territorial unit, the perspective of territorialisation deepens our understanding of socio-environmental conflicts' causes and stakes. However, it is by drawing together the different socioecological projects unfolding through mutually exclusive territorial rearrangements that the explanatory power of the framework of competing territorialisations makes fully visible the political nature(s) of spatial organization.

In the progression of grassroots committees from localized reactions against authoritarian waste governance to a regional coalition proactively engaging with the links between democracy, health and ecology, we can see the accumulation of learned practices and knowledges that led to the elaboration of a bottom-up project of counter-territorialisation. Starting in the *presidi*, the people that joined the political activation, triggered by tons of incoming waste and police armies, re-discovered the connections between them and their surroundings and between their environments and the political economic processes in which State actors, private firms and criminal groups were found to cooperate in the capitalization of waste metabolisms. The militarization of urban waste facilities made them hyper-protected areas, while just outside these fortresses the illegal disposal of hazardous materials continued. The State therefore seems not to hold an authority over the entire region, but to invest selectively in only some bounded (territorialized) areas with its power of regulation and control. Because of this 'strategic impotence' by

State institutions in considering and tackling the illegal dumping, participants in grassroots committees made it visible through self-organized mapping. This has been a way to spread knowledge about the localized effects of multi scalar relations that territorialized a waste economy in Campania, linking far-reaching networks, regional and Italian waste producers, local bodies and the accumulation of capital. To such de-territorialisation, according to Magnaghi's definition, the coalition formed in 2012 answered with an elaborate project of re-territorialisation. From interviews with activists, public statements and observations, it became clear that participants are struggling to democratize the power to define what happens with portions of the land and their contents, because of the clear socioecological outcomes at stake. Will a toxic landfill be remediated? How and by whom? Will the urban garbage accumulated be incinerated or recycled? Will uncultivated lands host buildings, waste facilities or industries, or will they be farmed again? These kind of questions imply an attempt to establish more direct participation by the local communities in the environmental governance and, more generally, in the management of cities.

In conclusion, the explanatory power of a political ecology of competing territorialisation is measured against its ability to unearth the layered spatial histories of a geographical area, the clashing interests over land use change and the socioecological implications of different projects of territorial organization, playing out in a field of unequal power relations. In this paper, I utilized this framework to disentangle the different trajectories of socioecological change influenced by the main actors of the waste conflicts of Campania. I clarified that the making of territories of waste management and accumulation relied crucially on power positionalities acquired through historical processes of violent appropriation, in the case of the camorra clans, and on the creation of special

regimes of regulation enforced through violence, in the case of the State. The outcomes of acts of territorialisation nurturing the waste economy materialize contamination and increasing health risks for the residents, whose bodies become occupied, or *territorialised*, as well by these complex schemes of profit-making from waste handling. The socioecological consequences of specific land uses go beyond the perimeter of the territorialized space; therefore, the control of what happens within a territorialized space is fundamental to govern broader socioecological dynamics. Finally, I have shown how the resistance of Campania's grassroots committees against top-down urban waste management and illegal toxic waste disposal grew into a relevant actor, capable of influencing and determining landscape governance by self-organizing an alternative and competing project of territorialisation. This project continues to be focused on cultivating crops instead of trash, and on growing communities instead of accumulating capital.

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Article IV

Political effluvia. Smells, revelations, and the politicization of daily experience in Naples, Italy

Marco Armiero and Salvatore Paolo De Rosa

1. A sense of smell

No matter how much one tries to seal windows and doors, or to close one′s eyes and ears, some things always find their way even into the most occluded lives. Naples, Italy, is the kind of city which does not leave you alone; sounds, perfumes, colors, and tastes stitch together the urban fabric as much as its architecture. Although always present in the city, garbage has become a cumbersome problem, especially since the late 1990s and early 2000s. With the streets flooded by garbage and people protesting, it is an issue that is hard to ignore. The stench of waste and the cries of people have even reached the academic world, literally entering through our office windows and awakening our senses. Solicited by this call from the world outside the university′s walls, we have attempted to make sensing a fundamental tool in our research. In this contribution, we present research methods that account for the relevance of senses for the politicization of people involved in the socio-environmental conflicts over waste mismanagement and illegal dumping in Naples and its surroundings. In the following pages, we first discuss the challenges of integrating sensorial experiences, and smells in particular, in both academic research and activists′ practices – and sometimes at the crossroad of the two. We then delve into the specific methodologies we have devised in our research: (i) walking interviews concerned with sensations, (ii) oral sensorial histories, and (iii)″toxic tours.″

Those who have visited a dump or passed through the so-called Land of Fires[1] know that it is an experience involving the whole body, where smells penetrate into the viscera, taking control of one's reactions, and impregnating clothes, hairs, and skin. In Naples, the smell of waste has come to occupy the mind, becoming a daily obsession, which changes everything one sees and consumes. As scholars, we are not trained to follow our senses, even less our emotions. Actually, for many of us the golden rule is "detachment," the further the distance between researcher and researched, the better will be the result. Some academics, maybe of the older generation, may still hear their supervisors list the dreadful consequences of becoming too involved with their object of study. Luckily enough, students do not always follow their supervisors' advice. Clearly, for those who identify as radical scholars, as we do, things are different; radical scholars take stances, and propose engagement instead of detachment. After all, it is not difficult to find inspiration and comfort in prestigious scholars who have followed that path, such as E.P. Thompson, E. Hobsbwam, H. Zinn, and D. Harvey. Today there might even be a return of the political. However, we think that the challenge of the senses goes beyond a political approach to research. The senses involve the body and its relationships with the surroundings and not only the positionality of the researcher within the geographies of political allegiances and social hierarchies.

Nonetheless, we do see a continuum between a political stance and sensorial research. We argue that the political is deeply embedded into the sensorial, even within the bodily experience of affected people. This awareness is already present in the work of Marx, whose insights on the political potential of situated sensuous experiences have been unearthed and discussed in recent years by several authors [2]. In particular, Alex

[1] The term refers to the area between the northern province of Naples and the southern province of Caserta, utilized by a network of criminal organizations and business owners as an open-air dump where hazardous and nonhazardous wastes are put on fire. This definition, coined by local activists, has been picked up by all Italian major newspapers in their reports on the Campania socio-environmental situation (e.g. cfr. La Repubblica, Corriere della Sera and Il Mattino from January to March 2014). The law approved in February 2014 as a government response to the social mobilizations of Campania people (law n.6/2014), has been labeled by politicians and media the "Land of Fires law".

[2] Foster J. B. (2000). *Marx's ecology: materialism and nature*. New York: Monthly Review Press.

Loftus[3] has taken the sensorial engagement of humans with the socio-ecological relations making up their environments as the point of departure for thinking through an emancipatory praxis of everyday life. Following urban political ecologists, he contends that the social relations of production and the unequal distribution of power organize the concrete manifestations of the appropriation and transformation of the external nature for societal needs. These processes of metabolic exchange make up the environments where we carry out our lives, and are experienced and mediated through the senses. Therefore, for Loftus, sensorial engagements shape the possibility for a politicized response to unjust metabolic relationships. Every time water does not come out of the tap, waste accumulates in the streets, air becomes unbreathable, food is contaminated, we are hit with thirst, impaired mobility, bad smell, and dangerous eating; but herein also lies the possibility for a politicization of the processes that produce specific assemblages of humans and non-humans. Senses allow for the detection of ″metabolic fractures″, and this consciousness becomes a precondition for rethinking the urbanization of nature and the making of the person in relation to it. Senses can even detect the penetration of capitalist relations in the body, its subsumption and its transformation into a commodity and a machine. Capitalism controls the very ecologies of the subordinate body, its cells, its cure and esthetics. In the face of the capitalist appropriation of the body, a revolutionary project of emancipation could pass through bodily awareness and sensuous engagement as the basis for engendering a transformative politics. We argue that the sensorial experience is part and parcel of the process of politicization of subaltern communities which, as Alf Gunvald Nilsen and Laurence Cox have stated, provides clues to understand the underlying structures of injustice beyond the particular features of daily oppression.[4]

Especially in environmental justice struggles, the body often becomes the first place of politicization, or we may say of subjectification; it literally becomes the space where

[3] Loftus A. (2012). *Everyday environmentalism: creating an urban political ecology*. Minneapolis: University of Minnesota Press.
[4] Nilsen A. G., & Cox L. (2013). What would a Marxist theory of social movements look like? In Barker C., Cox L., Krinsky J., & Nilsen A.G.. *Marxism and social movements*. Leiden: Brill, 73.

people experience the oppression of capitalist relations and the opportunity for building resisting communities. This is the case of indigenous people affected by extractivist capitalism, of workers exposed to industrial hazards, and of all the subaltern communities whose neighbourhoods become the dump sites for the wellbeing of elites. The centrality of the body challenges the alleged separation between economy and ecology, production and health, but it also questions the production and legitimation of knowledge. What happens to the body is a controversial issue; experts and government agencies claim to own the body, or at least to know the language to understand it. It is not up to workers or city dwellers to say if a factory or a neighbourhood is killing them. Our argument is that in challenging the expropriation of bodily knowledge, the senses play a fundamental role. In place-based struggles, people can re-activate the body in relationship to the external nature, choosing to listen to its signals. Unequivocally, the sick body speaks loudly, although not always in an understandable language. However, in this essay we will not focus on the sick body, but rather on the space where the body experiences the surroundings. Sometimes, senses have been consciously mobilized in experiments of countering official monitoring programs, noses and eyes vs. sophisticated technologies, to expose the contamination affecting the community. This is, for instance, the case of the Community Environmental Monitoring in Chennai, India. Here, an NGO has challenged the official truth about the contamination in the area by implementing a grassroots system of monitoring based on the bodily experience of affected people. As Shweta Naryan, the coordinator of the program, explains, the so called bucket brigades have been instrumental in forcing the government and the corporations to address the air pollution in the industrial district of Tamil Nadu.[5] Before people organized their own independent monitoring, Naryan said, ″even if the air smelled like rotten cabbage or eggs, local governments in India wouldn′t

[5] The Bucket Brigades are self-organized teams of residents who monitor air pollution with low-tech tools, including their own senses. On the bucket brigades see Ottinge G. (2010). "Buckets of Resistance: Standards and the Effectiveness of Citizen Science," *Science, technology & human values*, 35 (2), 244-270.

respond to public protests because protestors were considered liars, not scientists."[6] In her book, *Noxious New York*, Julie Sze has also illustrated how the bucket brigades have been instrumental in stimulating public intervention in poor neighbourhoods quantifying "bad smell" in air samples.[7] Jason Corburn has similarly described how grassroots organizations in New York have challenged the assessments of the Environmental Protection Agency, broadening dramatically the scale of observation in order to include the direct observations and sensorial perceptions of residents.[8]

In the above cases, the sensorial understanding of the environment has been somewhat systematized, and thereby made accessible for the work of scholars, including environmental historians and political ecologists. However, in most of the cases the sensorial experience is elusive to research, especially in its historical dimension. The paucity of sources, together with an ideological repulsion for the sensorial and emotional way of knowing, has almost impeded any research on the topic. Nonetheless, some scholars have tried to enter into the "smellscape", as Douglas Porteous has defined it.[9] In 1982 Alain Corbin published what still stays as the basic text for anybody who wants to explore smells in history.[10] Corbin came to smell from a classical social history background, proving once more the possible, though rather underdeveloped, connections linking smell to environmental history. Corbin focused mainly on the perceptions of smells and showed how smell as a field of interest and study has been progressively dismissed by the increasing authoritarianism of modern science. There was almost no room for the nose in the modernistic laboratory. But smell did not submit easily to science for two main reasons: on one hand, smell was too subjective, almost impossible to measure and catalogue. On the other hand, smell belonged to an idea of

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[6] Global Community Monitor, India, Chevron and monitoring pollution after toxic disasters, March 25 2013, http://www.gcmonitor.org/india-chevron-and-monitoring-pollution-after-toxic-disasters/ (accessed on October 21, 2015).

[7] Sze J. (2007). *Noxious New York: The Racial Politics of Urban Health and Environmental Justice*. Cambridge: MIT Press, 181.

[8] Corburn J. (2005). *Street science: Community Knowledge and Environmental Health Justice*. Cambrdige: The MIT Press, 173-199.

[9] Porteous J. D. (1985). "Smellscape," *Progress in Human Geography* 9 (3), 356-378.

[10] Corbin A. (1982). *Le miasme et la jonquille: l'odorat et l'imaginaire social XVIIIe-XIXe siècles.* Paris: Aubier Montaigne.

the world that kept together internal and external ecologies, thinking about the body and the environment as being in a continuous exchange. This was a concept that was difficult for modern scientists to comprehend. For them, smell spoke the language of effluvia, not that of bacteria or viruses.

The agency of smell as a highway placing in communication the body and the environment is central in the work done by the few environmental historians who have tackled that topic. Environmental historians' meager attention to smells has gone hand in hand with the poor understanding of the connections between bodies' ecologies and external nature. As a matter of fact, the environmental historians who have addressed the issue of smells are generally those who have been more attentive to the metabolic relationships between environments and people. Indeed, also in the empirical case at the basis of this chapter, the awakening of the nose is linked to a context in which health and environment blend in the toxic biographies of the affected people.[11]

2. Stories of odors

Since the early 1990s, Naples, the capital city of the Campania region in Italy, and its surroundings, have become the global icon of the urban ecological disaster: an area of 3.800 square km – the provinces of Naples and Caserta – inhabited by approximately four million people has turned into a huge trashcan. The synergy between government-sponsored urban waste management project and a complex network of mafia groups, industrial managers, corrupt white collar and public officials, has created a system of profiteering from the disposal of waste at the expense of local livelihoods. On the one hand, the authoritarian governance of the urban waste management for the entire region, framed by the government as an ″emergency″, has become an attractive

[11] Chiang C. Y. (2008). "The Nose Knows: The Sense of Smell in American History". *The Journal of American History*. 95 (2), 405-416; Nash L. (2006). *Inescapable Ecologies: A History of Environment, Disease, and Knowledge*. Berkeley: University of California Press; Bolton Valenčius C. (2002). *The Health of the Country: How American Settlers Understood Themselves and Their Land*. New York: Basic Books.

business for private investors who enjoy legal derogations and optimal contractual conditions for building waste facilities based on incinerators, landfills and storage sites. On the other hand, the infamous trafficking, haphazard dumping, open-air burning and illegal disposal of hazardous byproducts, mostly from industrial production, has turned every available hole in the region into a sink of toxic scraps. Both processes have shifted the environmental costs of industrial production and waste disposal onto communities and local ecologies. This has translated into a toxic environment for the local population, affected today by threats to health, the reduction of cultivable land and stigmatization. More than 2000 potentially contaminated sites were recorded in 2008 by the Regional Agency for Environmental Protection, and the complex links between those contaminants and the increasing cancer rates among the locals have been documented by several scientific studies. The hazards to public health have been recognized by the central government through the insertion of three wide areas within Campania in the national record of polluted sites in need of remediation, together with 50 other places all around Italy (SIN). Nevertheless, cleaning-up works are still minimal and the authoritarian governance of environmental management and land-use planning still dominates the regional landscape.[12]

Naples is a city that is literally on fire; for journalists looking for sensationalism and dark stories, Naples is the Promised Land. Images work well in the construction of the dark tale of Naples; what is better than photographs and videos to transmit the sense of an apocalypse? But although extremely powerful, images are unable to uncover the subterranean paths at play in the Neapolitan garbage drama. Although continuously evoked in all the analyses, the mafia has stayed invisible in these visual representations. One can guess its presence in the landscape or make a metonymic connection between an object and the entire criminal organization, but it is not self-evident. The mafia is part of an underworld that can become visible only through more complex narratives;

[12] On the waste crisis in Campania see: D'Alisa G. et al. (2010). "Conflict in Campania: Waste Emergency or Crisis of Democracy". *Ecological Economics* 70 (2), 239-249; Armiero M., & D'Alisa G. (2012). "Rights of Resistance: The Garbage Struggles for Environmental Justice in Campania, Italy". *Capitalism Nature Socialism* 23 (4), 52-68; Armiero M. (2014). "Garbage Under the Volcano. Fighting for Environmental Justice In Naples, Italy, and Beyond," in *A History of Environmentalism: Local Struggles, Global Histories*, eds. by Armiero M. and Sedrez L.. London – New York: Bloomsbury.

undoubtedly, Roberto Saviano′s Gomorra contributed dramatically to expose that reality to a wider public. The visual is also almost blind towards the toxic waste buried in many places in the region. By definition, this is part of the underworld, not visible on the surface. In other words, there are things, and even more processes, which cannot be expressed by the visual. The relationship of local people with waste, especially with toxic waste, is one of those processes which run under the skin of both land and humans.

3. Sensitive methodologies

During our fieldwork in Campania, once it became clear that the senses and physical perceptions are an important motivating factor in some people becoming activists, we begun to devise specific research methodologies that could account for the sensorial as political, and that could detect within life trajectories those turning points linked to sensorial experiences of metabolic fractures. The activists had their own methodologies for understanding the radical environmental changes happening around and inside them. One of these methods, enacted by several activist groups within more than fifteen years of social mobilizations in the region, was the mapping of the countryside surrounding the towns and the cities. Armed with simple technological devices, a GPS and a camera, activists crisscrossed rural areas, suburbs and brownfield sites documenting the places where waste was illegally discharged, abandoned, and, in some cases, put on fire. One of the most successful campaigns of this kind was promoted in 2013 by the Coordination Committee against Toxic Fires (CCF): in a single day of denunciation, they collected hundreds of photographs and geographical locations of dumping sites, assembling a map of the state of the countryside and turning it into a collective complaint to the institutions in charge.

Toxic tours have been another crucial tool employed by activists in order to expose the contamination affecting their communities.[13] The practice of toxic tours is rather common in environmental justice struggles; it empowers local people, recognizing their knowledge, and builds connections and solidarities to support local struggles. It was through a toxic tour in 2007 that activists were able to shift the public attention from the urban trash in the streets of Naples towards toxic contamination in the outskirts of the metropolis. It was a truly Copernican revolution in the understanding of the waste crisis in Campania through which activists revealed both the ecologies and the politics of contamination in subaltern communities. This revelation occurred not through the usual tools of scholarly interventions, the written text, but through an experiential exploration of places that appeals to intellectual, sensorial, and emotional understandings. Our participation in toxic tours has had a twofold meaning for our research; it has implied the need to open up the canon of knowledge production, renouncing any pretence of monopoly, as well as it has challenged a positivist approach to sources. While toxic tours were evidently crucial sources of information for our research, our participation cannot be reduced to a mere extraction of information. We have been instrumental in organizing toxic tours, involving international scholars, therefore, our sources were not just out there waiting to be mined, but we have actually contributed in creating the very sources we wished to use.

By performing these investigations several times, some of the most engaged activists developed a special sensitivity and were able to recognize the different kinds of waste, inferring their hazardousness from the smell. Our method of research to access the experiences in which perception was intertwined to political motivation and spatial

[13] Phaedra Pezzullo defines toxic tours as "noncommercial expeditions organized and facilitated by people who reside in areas that are polluted by toxins, places that Bullard (1993) has named "human sacrifice zones". Residents of these areas guide outsiders, or tourists, through where they live, work, and play to witness their struggle." In Pezzullo P. (2004). Toxic Tours: Communicating the Presence of Chemical Contamination in *Communication and Public Participation in Environmental Decision Making,* eds. by Depoe S. P., Delicath J. W., Aepli Elsenbeer M. F. New York: SUNY, 236. A wonderful experiment merging activism and scholarship is Pulido L., Barraclough L. R. & Cheng W. (2012). *A People's Guide to Los Angeles*. Berkeley: University of California Press.

focus, has been to elaborate further the ″walking interview″ devised by Evans and Jones.[14] In their pilot project with the walking interview, Evans and Jones utilized a GPS and a voice recorder to produce geo-referenced descriptions, or spatial transcripts, of local people′s connections to place during their walks with interviewees that were familiar with the area. They show how mobile interviews and rigorous design generate more place-specific data than sedentary interviews and produce ″a decidedly spatial and locational discourse of place, which is structured geographically rather than historically″ (p. 858). In five interviews with Campania′s activists, in which respondents were leading us on a route decided by them, we complemented the method of walking interview with sensorial data, by recording the detections of, and the reactions to, specific smells in the course of explorations in the countryside of two towns. In this way, we could highlight in the landscape zones of relevant sensuous engagement, often not recorded in official maps of contaminated sites. Andrea, a farmer in the town of Acerra, guided us in the no man′s lands between old factories and cultivated fields in the middle of the countryside, and just by following his nose, he uncovered a location where waste was habitually burned illegally. Mimmo, in his walk with us in the outskirts of a small town, Maddaloni, was continuously superimposing the memories of the past beauty of the land over the current disorder that surrounded us, offering an insight into the tension felt by the locals between a past of spring waters and woods, and a present of chemical puddles and unknown materials. For him, the memory of past smells, buried today under disturbing scents, was a constant encouragement to struggle for the reclamation of ″his″ land. The value of this method is not only to offer a spatialized account of people′s relation to place and sensorial reactions, but it could also act as a base for institutions to localize in the

[14] Evans J. & Jones P. (2011). "The Walking Interview: Methodology, Mobility and Place," *Applied Geography* 31, 849-858.

landscape areas in which to conduct deeper analysis and assessments of environmental monitoring.

While complementing the walking interview with sensorial detections helped us to deepen the geographical dimension of people′s reactions to perceived environmental threats, an attention to smells when collecting oral histories, or rather to memories of smells, informed our research to get insights in the ways experiences of environmental changes were symbolized into shared memories and acted as political triggers. In collecting oral histories, we gave particular importance to the relations linking sensuous experiences of specific places to the emotional attachment felt by the interviewees in different moments of their life. In this way, we were able to reconstruct the links between physical environmental change (when and how the environment was changing), sensuous perceptions (the moment in time when bad smells arose), emotional reactions (the shift from happiness to anger when going to specific places), and the emergence of the political will (when and why the interviewee decided to ″do something″). These oral ″sensorial″ histories allow for a specific focus on the space where people and their surroundings meet and are symbolized. Our role has been to create the stage for the interviewees to produce a narrative of their body′s sensitivity within specific environments, aiming to uncover the experiential base that feeds the activists′ motivation.

In order to undermine the dichotomy researcher/researched, we have also experimented with a laboratory of guerrilla narratives in which we have invited a group of women to write their own biographies of contamination and politicization.[15] Borrowing from the collective of Italian radical novelists, Wu Ming, we have argued that ″stories are axes

[15] Armiero M. eds. (2015). *Teresa e le altre*. *Storie di donne nella terra dei Fuochi*. Milano: Jacabook.

of war to be unearthed.″ In almost all the biographies we have collected − several also used in this chapter − the sensorial, bodily experience is crucial in mobilizing people, transforming victims into political subjects.

Our oral history project is packed with stories of people discovering the mysterious ways through which waste continuously cross boundaries and spills into personal lives. Lucia, for instance, recollected for us the episode that transformed her from a "normal housewife", borrowing the beautiful self-definition of Lois Gibbs, [16] into a *pasionaria*.[17] Lucia tells that while studying English in a public education program, a terrible smell erupted in the classroom coming from the nearby dumps, making it almost impossible to carry on with the class. Probably, the public-sponsored English program was part of some kind of plan to pursue equal opportunity in education, but the stench coming from the dump was a reminder that environmental inequalities will always find a way to reach everybody, maybe entering through the window. However, that odour did not stop Lucia and her friends from studying; maybe it stopped the English course, but they started studying life cycle energy, the effects of toxic waste on health, and the recycling and disposal of garbage. In Lucia's story, the smell performed a function of revelation; symbolically and materially, it broke through the barriers we always build to protect our lives from the "external". Smell proves that no barrier is thick enough to keep the flux of toxicity outside our bodies. As Alain Corbin has written, "The nose, as the vanguard of the sense of taste, warns us against poisonous substances. Even more important, the sense of smell locates hidden dangers in the atmosphere. Its capacity to test the properties of air is unmatched".[18]

We are tempted to argue that the nose makes visible what stays often invisible. Of course, we do not mean to say that the piles of garbage are invisible to the people living

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[16] The interview to Lois Gibbs is available online at http://www.youtube.com/watch?v=PrzqFPego4A (accessed on November 1, 2015).
[17] Interview in possession of the authors.
[18] Corbin A. (1986). *The Foul and the Fragrant: Odor and the French Social Imagination.* Cambridge: Harvard University Press, 7.

on the edge of dumps; however, we believe that smell is an immaterial bridge able to connect the space of normality and that of the extreme otherness, acting as a political trigger that unsettles everyday life, suggesting the possibility that waste can actually enter in the human body. In her autobiographical notes, Doriana explains how the blowing of the wind changed forever the secluded paradise she and her friends believed to have built for themselves just a few kilometres from downtown Naples.[19] The wind sweeping the beautiful house Doriana and her friends had bought on the slopes of the Astroni hill, brought the sickening smell of the Pianura landfill, the oldest dump in the region, active from the 1950s, to her doorsteps. The smell uncovered the illusion of seclusion and at the same time the radical ignorance of the city elites; apparently, Doriana and friends did not know that they bought their little corner of paradise in the neighbourhood which had swallowed their garbage for decades. Overwhelmed by the stench of the landfill, Doriana began her own politicization, which would bring her to become one of the leaders of the Pianura movement.[20] Sometimes the stench does not stay in the air; it does not stop at the nose of people. Nunzia recollects the sense of dirtiness soaking her entire body when she used to patrol the lands around Naples, deeply affected by the illegal disposal of toxics:

> As I was getting nearer to the fence, my throat was burning more and more, but not only the throat, also the eyes, the face, I felt pervaded by the stench, it was not anymore only an olfactory sensation. The smell was becoming more intense, the air more thick and cloudy, suffocating. It seemed as if I was not only smelling with the nose and the mouth, but also with my skin which was soaked with that stench, with those substances. I came back home and jumped in the shower, the smell was following me everywhere, I was soaked in that stench to the bones. I was scratching my skin with the sponge, trying to erase that smell which was pervading me, but it did not go away. I looked devastated, with my face red and eyes swollen with tears and then again that smell, still with me.[21]

[19] Sarli D. (2015). "Posillipo Pianura, solo andata," in Armiero M., *Teresa e le altre,* 102-103.
[20] Pianura is a working class neighborhood in Naples that was the theatre of a strong anti-dump movement between December 2008 and January 2009. On the Pianura case see the EJOLT Atlas at http://ejolt.cdca.it/conflitto/discarica-di-pianura (accessed on November 1, 2015).
[21] Lombardi N. (2015). "Il mio nome è Nunzia," in *Teresa e le altre*, 31.

In the case of Nunzia, the sickness that penetrated her body seems to confirm the permeability of the human ecosystem to external agents.

In the so-called Land of fires, odours and images figure in the making of an ecological hell. While the black smoke of the toxic fires colours the skies, the stench emanating from combustion is a familiar presence for the inhabitants. Father Maurizio Patriciello, the energetic priest who has become an environmentalist leader, described the night when the stench transformed his life:

> It was deep night. I woke up suddenly trying to breath. A disgusting stench had broke in through the window. It had invaded the room and stole all the air. Drowned in that smell, I reached the window (...) but there was no difference between the outside and the inside. (...) The stench changes your life. It is not Cogito ergo sum. Rather it is Olfacio ergo cogito. Sniff and get angry.[22]

Similarly, a life changing sensuous experience was the one that occurred to Chiara: to prepare food for her family was not the same anymore after she got involved in her town′s grassroots movement against illegal waste disposal. When they started mapping the countryside, looking for the dumping places utilized for the criminal discharging of toxic by-products, she saw the disorder of plastics, barrels, sludge and scraps popping up amidst cultivated fields, and she smelled the revolting odour of chemicals mixed with the fresh scent of leaves and earth. Knowing that many of the vegetables she could buy in her town came directly from those fields, made her suspicious of the food she was giving to her children. This fear could have become a source of despair and immobility, but luckily, it gave her the motivation to better understand the metabolism of contaminants within soil, plants and organisms, and the determination

[22] Demarco M. and Patriciello M. (2014). *Non aspettiamo l'apocalisse. La mia battaglia nella Terra dei fuochi*. Milano: Rizzoli, 51-54.

to fight back those processes turning ″her″ food into dangerous source of unknown threats.[23]

4. *Conclusions*

In this essay, we provide three methodological approaches that specifically address sensuous experiences and that make them an object of analysis for enriching the understanding of the links between environmental changes and social mobilizations. In the interviews we have thus collected, smell plays two basic functions. It performs the function of the revelation in hagiography; smell is an olfactory apparition which asks for conversion almost in a literal sense. In their stories, our informants explain how the smell changed their lives, pushing them to dedicate energies and time to the cause. The smell makes the miracle to transform a passive consumer into a rebellious subject. We argue that the power of stench lays in its "ability" to establish a bodily connection between the toxic landscape and the potential toxic body. The toxicity is not anymore only in front of the observer, as, for instance, in the piles of garbage spread everywhere in the landscape, but it enters into the body through the nose, reaches the viscera making people sick, sticks on the clothes, skins, and hairs. Smell is the passe-partout which opens the door of the body, revealing that the landscape is never only out there. Of course, as in every account of dramatic conversions, also this narrative might stress too much the apparition, the ethereal event which breaks into the normality and changes it forever. Many times it is not only the smell but a more articulated set of events, relations, books, meetings and much more. In addition, the stories we have included in this chapter offer a richer explanation of the political subjectification, which can never be explained only with an olfactory epiphany. Nevertheless, we claim that the smell is more than a rhetorical tool in the making of a rebellious self-narrative. Recognizing the centrality of the nose implies a bodily understanding of politics; the space of the political is not restricted to the mind or the mouth. The nose breaks with

[23] Interview in possession of the authors.

the usual way of acting the political, reminding us that the materiality of the body is not only the terrain for governmentalizing projects but also the very agent of resistance. The nose also blends the political and the personal overcoming a masculine practice of politicization which strongly separates feelings and sensations from political acts. By attending to smells and to other sensorial engagements with environments, researchers can integrate in their accounts and explanations a fundamental dimension of human experience often overlooked. We are aware that smells are rather intractable objects of analysis, and that they can open up complexities that are difficult to fit into a neat research design. However, we do believe that critical researchers should start taking seriously the ways ordinary people experience their surroundings and motivate their political activation. Nobody can really do science, or anything else properly for that matter, if surrounded by sickening smells. So, instead of trying to eliminate or ignore the smell, would it not be more ″scientific″ to start taking smell seriously and follow it? Indeed, as Arundhaty Roy has written, in order to understand history we need to ″smell the smells.″[24]

[24] Roy A. (2009). *The god of small things*. London: HarperCollins, 52.

Reclaiming Territory from Below

This thesis is an engaged ethnography of grassroots environmental mobilizations during and beyond the waste conflicts of Campania. It retraces the history of the urban and toxic waste 'crises' in the region and inquires the emergence, progression and legacies of popular environmentalism from 2000 to 2015.

Under siege of waste and contaminants, and struggling against physical and epistemic violence, the grassroots committees and the Stop Biocide Coalition of Campania strive to defend and reclaim their territories. Which kind of politics of society-nature relationships do their strategies and meanings outline? By interrogating the knowledges and the spatial interventions of grassroots movements, the dissertation elaborates conceptual contributions to political ecology based on a dialogue between activist and academic approaches. Popular environmental protests such as Campania, this thesis argues, deserve serious attention since they have the potential to progress into transformative political projects that challenge noxious socioecological configurations and perform alternative ones.

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