Grassroots Ecologies of Value: Environmental Conflict and Social Reproduction in Southern Italy

Antonio Maria Pusceddu

Instituto Universitário de Lisboa (ISCTE-IUL), Centro em Rede de Investigação em Antropologia (CRIA), Lisboa, Portugal

Avenida das Forças Armadas, Edifício I

1649-026 Lisboa, Portugal

ampusceddu@gmail.com

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Abstract

In this article I examine socio-environmental conflicts through the category of value. Drawing from a single case study, an industrial city in southern Italy, I address the revaluation projects underpinning the conflict around socio-ecological arrangements that are considered unfair, unsustainable and detrimental to life. Focusing on the trajectory of local environmentalism and the specific case of a women group, the paper shows how the intensification of the socio-ecological crisis prompted the shift of environmental conflicts from the sphere of production to the broader relations of social reproduction. I propose to analyse this shift through the concept of grassroots ecologies of value, which outlines a framework for thinking about how people deal with the socio-environmental contradictions in which they live, and their struggles for dignity and worth.

Keywords:

industrialization, social reproduction, socio-environmental conflict, southern Italy, value

Introduction

In this article, I analyse socio-environmental conflicts through the category of value. Drawing on a single case study, that of Brindisi, an industrial city in southern Italy classified by national authorities as "high environmental risk area" since the late 1980s (Portaluri 2012; Ravenda 2018), I address the "revaluation projects" (Collins 2017) underpinning the conflict around socio-ecological arrangements that are considered unfair, unsustainable and detrimental to life. Environmental issues in Brindisi are a telling example of "ecological distribution conflicts" (Martinez-Alier 2002) in contemporary Italy and, at the same time, the legacy of the spatial history of capitalist development in the peninsula, with the main network of oil-based industries having been located in the peripheral southern regions. Indeed, southern Italy provides a relevant case to address the nexus between uneven development and environmental inequality, and for mapping a paradigm shift of environmental struggles in areas historically targeted by heavy industrial development projects (Barca and Leonardi 2018; Greco 2016). Focusing on the trajectory of local environmentalism, I suggest that the intensification of the socio-ecological crisis is reflected in the shift of environmental conflicts from the sphere of production to the broader relations of social reproduction. This shift can be linked to the increasing severity of environmental issues (especially in sites of heavy industrialization, due to hazards deriving from greater exposure to CMR – Carcinogenic, Mutagenic and Reprotoxic substances) and the restructuring of social reproduction (see Katz 2001) with the decline of the male-earned family wage and the augmented pressure upon (female) reproductive labour, in ways that have made the intersection of social and ecological issues for life-sustaining practices more visible. Rather than viewing production and reproduction as separate processes, I suggest that socio-ecological conflicts have expanded beyond the confines of relations within the factory to the broader socio-ecological relations upon which the productive operation of the factory relies. Following Salleh (2010:212), I conceptualize these relations as the "meta-industrial labour" which is not directly implicated in the production process – on the

contrary, it is marginalized as unproductive – but is essential in sustaining the reproduction of life and its ecological integrity.

I argue that this shift is also underpinned by a broader understanding of the production–reproduction nexus, that is, of how economic processes and livelihood needs are being reframed beyond the narrow economicist framework of production ("capitalocentric" according to Gibson-Graham 2006:56–57) and pragmatically linked to social reproduction – the fundamental process of sustaining life – daily *and* inter-generationally (Katz 2001:711; Mingione 1990:123–145; Narotzky 1997:167–177). In this respect, the Brindisian case resonates with similar examples of broad-basis mobilizations in Italy and elsewhere, in which reproductive struggles emerged as decisive terrain where the intersection of environmental and social issues could be disclosed (Bonatti 2015; Di Chiro 2008; Salleh 2019; Zabonati 2015) and where revaluation projects could be envisioned that were based on "the value of life" (Salleh 2010:210).[1]

In this article, I take the case of a short-lived female environmentalist group as one paradigmatic example of the shifting grounds of environmental struggles. The Red Stroller (Passeggino Rosso) movement (as a matter of fact, barely a dozen women activists) was born out of a broader mobilization begun in the mid-2000s, which found in sensitive local environmental issues (such as the impact of emissions from coal-burning) a suitable ground to operate connections and intersections between different subjects, groups and movements under the label of the commons (*i beni comuni*). Even though the movement as such remained active for only a few years (from 2012 to 2015), it nonetheless proved a seminal experience in expanding socio-environmental struggles towards sectors of local society that were detached from militant activism (e.g. housewives, parish church groups, etc.), managing to create a meaningful experience of community "groundedness" (Di Chiro 2008).

I propose to analyse this shift through the concept of "grassroots ecologies of value", which I conceptualize as the lived experience of and reaction to the socio-ecological contradictions generated by the tension between capitalist value and non-capitalist valuation frameworks; between the logic of

accumulation and the fulfilment of human needs. Grassroots ecologies of value are based on a twofold relational conceptualization of value. On the one hand, the dominant form of value, which drives the logic of accumulation and, on the other, the value that underpins social reproductive strategies, in terms of what is thought of and pursued as worth living for – for themselves and for future generations (Narotzky and Besnier 2014). Whereas the Marxist category of value informs my overall perspective, I also draw on wider discussions of value within anthropological scholarship (Graeber 2001). By stressing the relational dimension of value and the plural reality of its historically specific determinations (grassroots ecologies), my aim is to outline a framework for thinking the agentive element in the processes that shape the ways economy/ecology interdependences are experienced and understood in socially and geographically specific contexts.

This article is based on ethnographic materials collected during long-term anthropological fieldwork in Brindisi (15 months between 2015 and 2016), a city of 88,000 inhabitants along the southern Adriatic coastline, home to oil- and coal-based industries. The research was part of a broader collective anthropological project that investigated livelihood practices, conceptual frameworks and social reproduction strategies among working-class households during the European austerity crisis, with the aim of exploring how the interaction between experts and lay economic models shaped the vision and experience of economic realities. The early outline of the research project did not have an explicit focus on environmental issues. I set out to explore the links between practices of making a living and the moral and conceptual frameworks that underlie the social and material worlds of working people in a crisis-ridden context. However, since the start of the fieldwork, the recurrent intersection of social and environmental concerns revealed how they were bound up in the same conflictive field. Environmental issues had become the contentious ground where residents opposed each other – in favour of, or against living with and living alongside gigantic industrial plants. In this scenario, the Red Stroller group had taken a resolute public standpoint by employing the intimate language of care and claiming to be "on the side of the children" (*dalla parte dei bambini*) against corporate interests.[2] In this article, I draw

from interviews with activists and founders of the Red Stroller group, as well as from fieldnotes on participant observation and informal conversations during regular attendance at weekly political meetings and other events in which the same activists were involved. Moreover, a broader range of information about the perception of socio-environmental issues was collected during interviews with factory workers and union delegates. Likewise, participation in charity activities and church organizations provided further insights on how discussions about labour (and lack thereof) and making a living in Brindisi intersected with concerns about environmental degradation and quarrels over the "real" impact of industrial plants.

In the first section I provide a description of how Brindisi has come to be perceived and experienced as a sacrifice zone. In the second, I develop the theoretical underpinnings of the grassroots ecologies of value. In section three, I analyse the historical dynamics of capitalist appropriation of nature (and labour), showing how the dialectics of value and "waste" (Gidwani 2012) created the South as an undervalued space, thus laying it open to capitalist valuation processes. In the fourth and last section, I analyse ecologies of value as reactions to the experience of being turned into waste – the "garbage dump" for the impacts of industrial development projects (see Franquesa 2018) – and as the groundwork for advancing an effective revaluation project that lays claim to fairer socio-ecological arrangements.

Sacrifice Zone

The Trans Adriatic Pipeline (TAP) is a pipeline project that is being built across three countries: Greece, Albania and Italy. It is part of the Southern Gas Corridor, a major energy infrastructure project supported by European institutions that is intended to supply Western European countries with natural gas from the gas fields in Azerbaijan. The south-eastern Italian region of Apulia has been chosen as the point where the underground pipeline should enter Europe, and connect to the European network, after crossing the Adriatic Sea. The entry point, however, remains a contentious matter. Local populations

oppose the construction works, fearing damage to the local tourist industry and the rural landscape from coastal excavations and the uprooting of centuries-old olive trees. In the attempt to find a way to the reduce the opposition of local populations, in March 2017 the regional governor of Apulia proposed shifting the entry point further north, to the industrial area of Brindisi. The governor argued that Brindisi was "already damaged territory" (*territorio già compromesso*).[3] The proposal was received with irritation in Brindisi, a city already burdened by the cumbersome presence of heavy industries.[4] Reframing the governor's proposal in the language of the environmental justice movement, one can say that Brindisi had been designated as "sacrifice zone" – an area whose residents are exposed more than others to the environmental risks related to heavy industry, pollution, toxic waste and contamination (Lerner 2010; see also Barca and Leonardi 2018:7). As a matter of fact, local environmentalist groups, echoing a broader common-sense discourse, often mobilized the view that the "troubled history" of local industrialization had made the area a suitable site for plants and infrastructures with severe pollution and other impacts, implying that the area had been sacrificed a long time before. When the proposal to shift the TAP connection to the industrial area of Brindisi was reiterated a year later, local environmentalist groups denounced the recurring attempt to consider the area as the "natural garbage dump (*ricettacolo naturale*) for everything damaging and polluting".[5] Only ten years earlier, a massive protest had opposed another big infrastructure project. In 2002 a subsidiary of the British Gas (Brindisi LNG Ltd) obtained authorization for the construction of a regasification terminal in the port of Brindisi. The project was opposed by the mobilization of civic and environmental associations, supported by local institutions and even the left-leaning union confederation CGIL. The project was first interrupted by a corruption scandal in 2007 and eventually abandoned in 2012.[6]

Between the two episodes – the demonstrations against the regasification terminal and the indignation over the governor's proposal to shift the gas pipeline project to Brindisi – a new wave of activism revamped protests against the two most representative industrial plants: the coal-fired power station of the public electricity company Enel and the petrochemical complex, mostly owned by a corporation

under public control (Eni). Within this movement that witnessed the participation of a new generation of young activists, numerous associations and groups merged into a single united opposition "against coal" (Ravenda 2018). Behind the straightforward demand for stopping existing plants carrying on polluting, there was an attempt to articulate a "liberation narrative" (Barca 2014) that aimed at moving forward from the oil- and coal-based heavy industrialization "imposed" on the city in the early 1960s. There was no clear outline of alternative economic projects, besides generic references to sustainability and the often nostalgic idealization of the pre-industrial past. Yet, the narrative promoted by this new environmentalist wave expressed the resolute demand for a "diverse economy" (Gibson-Graham 2006) revolving around the idea of care, and against the subordination of society and the region to the demands of high-impact industrial production. The "coal moment" in local mobilizations – as emphatically recalled by a leader of the movement[7] – sustained the rise of a new "living environmentalism" (Di Chiro 2008), as a result of which people became more responsive to environmental campaigns when they addressed the consequences of heavy industrial production for everyday life. As the same leading figure put it: "There was a moment [in 2009–10] when everyone, even those not taking part in demonstrations and mobilizations, everyone in the city was talking about coal."

Inside the mobilizations of a movement soon to be identified as No al Carbone (No to Coal; NAC hereafter), in 2012 a group of women started presenting themselves as Mamme No al Carbone (Mothers against Coal).[8] As one activist explained:

> inside No al Carbone, doing that stuff like organizing demonstrations, you could only reach a certain population. Talking with my [female] comrades (*compagne*), we thought instead that it was right to get the mothers involved, because they have children's health close to their heart, and that obviously the style of NAC was not adequate to what we wanted to do and the style we wanted to create.[9]

The group was soon renamed as the Red Stroller movement, which "symbolizes the protection of children, red because of our alarm for their health put at risk […] by the smokestack [industries]" (Silvestro 2014:29).[10] The novelty of their positioning was not solely marked by the "motherly" call for the protection of children's health – which in fact mobilized a rather conventional gender role (see Bonatti 2015). They aimed at politicizing life through the concrete elaboration of new strategies of communication and interaction that were able to reach social contexts that otherwise often remained cut off from mobilizations, or where people were even suspicious of environmentalist groups. Their goal was explicit: "that is, we wanted to reach another fraction of the population that until then was never reached." In fact, the *ambientalisti* (environmentalists) were often addressed (in the press, by unions and generally in local common sense) as those who wanted to shut down the factories and throw the workers and their families on the street (see Di Chiro 2008). This was clear to the founders of the Red Stroller:

> we wanted to do something more, something different that could involve women more softly, something less shouted and aggressive that tried to inform on the effects of pollution […] We wanted to get those women involved who could not come at meetings after 7 p.m., women who don't have a job [housewives] and can only participate in the morning.

Besides launching initiatives in public spaces, the Red Stroller activists managed to organize meetings in parish churches – often with the support of priests themselves, meetings through children's school networks, in apartment buildings and everywhere that environmentalism and political activism might be met with mistrust. Overall, they reached a fraction of the female working-class population who were allegedly suspicious of politics, but proved receptive to a discourse that posed the industrial question in terms of the threat to their children's health.

The Red Stroller movement was born out of a group of women who were already active in a newly formed left-oriented local political platform (Brindisi Bene Comune), which stood in the mayoral elections in 2012. According to an activist, the Red Stroller was also a way to overcome the suspicion they felt was aroused when they presented themselves as members of a political group, and hence was a way to broaden the basis of their mobilizations addressing issues "in the face of which nobody could say: 'no, I don't want to join in'". Following successful campaigns for "concrete things" – such as the national referendum against the privatization of water resource management (2011) and the petition demanding an epidemiological study to assess the effect of the population's exposure to industrial pollution (2012)[11] – the Red Stroller's strategy aimed at "enlarging the struggle" (*ingrandire la lotta*). A difficult task, for the people they reached were familiar with the livelihood dilemma of seeing heavy industries as the only reliable source of jobs in a context characterized by structurally high rates of unemployment,[12] where even a precarious job in subcontracted plant maintenance work could represent a valuable source of income. Without a doubt, the job blackmail argument was hard to deal with in the attempt to articulate a liberation narrative that made it possible to question the trade-off between work and health as well as the ideological dichotomy between labour and the environment (Curcio 2014); a narrative that was also capable of rephrasing the terms of the relationship between production and reproduction through a patient and careful "politics of articulation" based on the intersection of socio-environmental and reproductive issues (Di Chiro 2008). This is what the Red Stroller pursued by envisioning the possibility of an uncompromising and yet persuasive narrative which aimed at asserting the primacy of reproduction over the imperative of production at any cost. Their initiatives, then, were not only aimed at campaigning on the effects of industrial pollution but also addressed a broader range of reproductive concerns, such as medical assistance, welfare provisions and services within a more general discourse of collective welfare. The experience of the Red Stroller provides an empirical illustration of how the sphere of reproduction can become a privileged arena for environmentally oriented "value struggles" (De Angelis 2007). Before detailing the historical background of this shift in

the locus of environmental struggles, it is important to sketch out the theoretical framework that helps contextualize the thrust of my argument.

Grassroots Ecologies of Value

In a recent contribution on the labour theory of value, Jane Collins (2016, 2017) pointed out how feminist and environmental Marxists expanded the theorization of value in ways that encompassed unwaged work and the contribution from nature in the analysis of the overall process of value formation (Bhattacharya 2017; Burkett 2014; Caffentzis 2013; Collins and Gimenez 1990; Kenney-Lazar and Kay 2017; Mies 1986; Moore 2015; O'Connor 1998). Marxist green thought has drawn attention to the ecological implications of the use value/exchange value contradiction, addressing the planetary ecological crisis as "a more general culmination of the fundamental contradiction between production for profits and production for human needs" (Burkett 2014:13, 107ff). At the core of this principal contradiction is the fact that, under capitalism, humans' metabolic relations with nature are mediated by capital's value form. Marxist feminist engagements with social reproduction, gender domination and labour exploitation have proved the most effective in disclosing the linkages and intersections between social and ecological issues, by tracing their interdependences in the "fleshy, messy, indeterminate stuff of everyday life" (Katz 2001:711; see also Di Chiro 2008; Floro 2012; Mies and Shiva 2014; Salleh 2019). From the often neglected standpoint of social reproduction (Katz 2001), livelihood dilemmas unfold not only in connection with the need to ensure social and material well-being for present and future generations but also in relation to the very preservation of health and – ultimately – of life. This aspect emerges with clarity in the Red Stroller's campaigns, as activists denounced the disruptive effects of large-scale industrial production on the health and vulnerable existence of local children (e.g. giving rise to congenital cardiac malformations). The experience of the "corporeal rift" exposes the effects of industrial productivism on the social metabolism of disposable communities, and their reproduction as both "social and physical beings" (Foster and Clark 2018:10).

Grassroots ecologies of value aim to grasp this fundamental reproductive dimension of socio-environmental struggles, as that is how they can link concerns about sustaining life on a daily basis *and* inter-generationally to the ecological understanding of the nexus between production and reproduction. The double temporal entanglement of social reproduction – the "indeterminate stuff of everyday life" and the long-term inter-generational dimension of care – provides the necessary basis to think ecologies of value through the temporal agency of social reproductive practices and their entanglement with capitalist value and worth (see Kalb 2017).

The grassroots ecologies of value framework builds upon the varieties of "popular ecologies" (Martinez-Alier 2002) and a twofold relational conceptualization of value which highlights how socio-ecological relations are shaped by tensions and contradictions between the logic of accumulation and varieties of "valuation practices" and "value struggles"; and how such value practices and struggles are closely related to livelihood contingencies and dilemmas, temporal agencies and strategies of social reproduction (Collins 2017; De Angelis 2007; Martinez-Alier 2009). Grassroots ecologies of value can, therefore, incorporate notions of socio-ecological worth as a component of social metabolism and make them visible within the larger dominant relations mediated by capitalist value.[13] Finally, the framework addresses the plural forms through which the inner logics of capital accumulation can be contested and questioned by valuation practices grounded in the dilemmas of working people regarding their livelihoods and social reproduction. In this respect, my argument is receptive to a long-standing tradition of labour environmentalism (Barca 2012b; Stevis, Uzzell and Räthzel 2018) and more recent elaborations of a Working-class Community Ecology approach, which views working people in industrialized areas as "intrinsically ecological subjects" capable of standing up for projects of socio-ecological transformation (Barca and Leonardi 2018:3).

In the context that I investigate, linking health issues to corporate profits defines the framework for mobilizing a critique of the socio-ecological relations that are identified with heavy industrialization; that is, a framework for asserting reproductive claims and rethinking the production–reproduction

nexus through a different "language of valuation" (Martinez-Alier 2009). Environmental and social degradation are understood as strongly intertwined in the form of subordination implied in subcontracting chains, labour exploitation, petty corruption and clientelistic relationships. The ecologies of value framework, in brief, allows space for socially situated understandings and reactions to the rifts and disruptions of heavy industry. On the ground, things are much less schematic, more nuanced and contradictory than those sketched out in this interpretative model. However, the ambiguous logics that drive actual economic practices – highlighted by economic anthropology (Narotzky 1997) and contrary to the dominant economic model of rational choice – may confirm the twofold relational conceptualization of value that I propose (see also Kalb 2017). Ecologies of value, in this respect, are also an attempt to outline a framework for thinking about how people deal with the socio-environmental contradictions in which they live, and their struggles for dignity and worthiness (Franquesa 2018; Narotzky 2016). In the following section, I show how the dialectics of value and "waste" (Gidwani 2012) turned the South into a region of "cheap nature" (Moore 2015) open to capitalist valuation processes, and how local ecologies of value responded to the experience of being turned into the "garbage dump" of high-impact industrial development projects.

Like a Stone Thrown in a Pond

In the early 1960s, Brindisi was targeted by a state-driven process of industrialization through the growth pole strategy, with aim of sparking the socio-economic transformation of the wider region (Barbagallo 2013:145–170; Ginsborg 1990:229–231). The localization of the industrial growth pole on the southern coastline profoundly reshaped urban profile, rural hinterlands and the overall relationship with the sea in the region. The (at the time) biggest national petrochemical complex occupied an area four times larger than that of the city. Spatially proximate and yet set apart from the urban fabric, the petrochemical complex replaced a vast rural area that had recently been transformed by the implementation of the agrarian reform in the early 1950s. An old documentary film, commissioned and

produced by the chemical company Montecatini to document the birth of the giant industrial complex, depicted an empty space, a silent wasteland, the unproductive immobility of which was broken by the bustle and noise of modern machines.[14] This was a conventional narrative that was employed to popularize big industrial development projects across the South. Starting in 1950 with the creation of a special state fund, the Cassa per il Mezzogiorno, the "extraordinary state intervention" for the development of the South continued in 1957 with the direct industrialization programme (Barbagallo 2013:145–170; Ginsborg 1990:210–233). The extraordinariness of public intervention followed on from the main assumption of the "Southern Question," that is the long-standing view of the South as a problem, metonymically exemplified by its exemplarily rural backwardness and underdevelopment (Ferrari Bravo and Serafini 1972; Schneider 1998). In this respect, the long story of the racialization of Italian southerners (Forgacs 2014; Teti 1993) and the marginalization of the South as a racialized space in the moral geography of the Italian state were effective ways of producing and appropriating an undervalued and "cheap nature" (Moore 2015), which could be open to capitalist valuing processes (see Smith 2010 [1984]).

In the 19th century, Brindisi, then a depopulated and swampy port town with a golden past at the end of the ancient Roman Appian way, underwent profound transformations following the post-Napoleonic changes in land tenure regimes and modern infrastructure development (railway, port recovery and land reclamation projects), which connected the expanding agricultural production of the hinterland with international markets (Salvemini 1989:149–209). Price rises and increasing demand for grapes triggered foreign land investments and the rapid expansion of the area given over to vineyards. The development of agriculture also benefited from increasing activity at the port, which made the harbour an important hub connecting to the Eastern Mediterranean and beyond, following the opening of the Suez canal in 1869.[15] Wine production factories increased until the early 20th century, sparking the development of subsidiary machinery and barrel production industries. Mechanical workshops and shipyards were needed for the repair and maintenance of the increasing number of ships involved in the

port traffic. This, along with the creation of a seaport base in the 1910s, laid the ground, for the later development of the aeronautics industry in the 1930s. The agrarian crises between the late 19th century and the inter-war period negatively affected wine production. Industrial activities were also seriously exposed to and dependent on the two world wars; shop-floors expanded rapidly as auxiliaries for military production but faced a deep crisis in both post-war periods. When the monopoly chemicals company Montecatini "chose" Brindisi as the location for its petrochemical complex, the city was still struggling with the slow process of post-Second World War recovery, further complicated by the inflow of peasant migrants from the hinterland.

Industrialization in the South has meant the construction of heavy – steel- and oil-based – industries.[16] The capital-intensive industrialization that was being undertaken had a limited impact in terms of providing jobs for the abundant local labour force. The main beneficiary turned out to be the northern-based capital, which was granted fiscal facilitations for setting up new industrial complexes in the South.[17] Also, the localization in the South of basic industries for processing semi-finished products had a positive import-replacement effect for northern manufacturers (Barbagallo 2013:156–170).

Brindisi was chosen for logistical reasons since it provided a safe coastline, abundance of space and railway connections. On top of this, in the province of Brindisi the cost of labour was among the lowest in Italy at the time, according to the salary zone system (*gabbie salariali*) that was abolished only later (1969), after intense workers' struggles (Bianchi 1979).[18] "Like a stone thrown in a pond" – as the prime minister put it at the time – the new petrochemical plant would generate multiple "circles of wellbeing" (Russo 1964:114). Yet, the effects of the expanded industrial area remained self-contained. The prospect of life-long wage employment in the industrial sector was confined to a small fraction of the (predominantly male) workforce. In the 1970s, the peak decade for employment, the overall petrochemical area provided jobs to 10,000 employees (direct and indirect), half of whom came from the surrounding towns and provinces (Greco 2002). Urbanization intensified as soon as industrialization got under way,[19] widening the gap between the formation of a surplus labour force and

the production labour demand. Substantial segments of the working class were absorbed by the informal economy (Mingione 1988:573) and illicit activities, such as cigarette smuggling, tolerated by the state until the early 2000s.[20] Besides the ebbs and flows of the construction sector, other forms of precarious employment started to increase in the service sector (formal and informal) in the 1980s.[21] The promises of industrial prosperity heralded by the short-lived southern Fordist experiment waned with the 1970s oil crises. In Brindisi layoffs and downsizing were facilitated by a serious plant accident in December 1977, which destroyed the core plant of the industrial complex, killing three workers and injuring around fifty. This event marked a turning point in local perceptions of industrial hazards;[22] it also marked the definitive decline of industrial employment opportunities in the petrochemical factory (Greco 2002:113–117). To partially compensate for layoffs and tackle unemployment, the 1981 National Energy Plan (PEN) approved the construction of a new coal-fired power station in Brindisi.[23] The construction of the power plant was contentious and faced fierce opposition from a broad environmentalist front, ranging from Church institutions to Legambiente (a green national association close to the Italian Communist Party, founded in the early 1980s), up to various groups of the extra-parliamentary left and the anti-nuclear movement (Prato 1993). Unions and industrial workers – until then the backbone of environmentalist struggles *within* the factory – strongly supported the project, finding themselves in anti-environmentalist positions *outside* the factory. Chemical workers' organizations had played a fundamental role in bringing health issues to the fore of the workers' movement struggles, carrying out an intense information campaign on the noxious effects of chemical productions (see Barca 2012a).[24] However, the restructuring phase of the late 1970s and early 1980s,[25] and the uncertain prospects of petrochemical production, made the preservation of jobs a primary concern for the labour movement, and this was eventually achieved with the construction of the new plant. Conflicts around the new power plant took place in the heated climate of debates over energy issues following the 1970s energy crisis, and discussions of the National Energy Plan. Outside the factory, a heterogeneous environmentalist coalition started to oppose the invasive presence of gigantic

industrial complexes in favour of green approach to local development options. As I show in the following section, this shift echoed a broader trajectory of transformation in the international ecological movement, from labour environmentalism – with male blue-collar workers and unions in the leading role – to a variety of green movements detached from labour issues. This transformation was also a reflection of the international crisis of labour movements within the complex restructuring and tertiarization of labour markets in the industrial economies of advanced capitalism (Barca 2017).

Liberation Narratives from the Factory, against the Factory

Belinda, a founding member of the Red Stroller, explained how her mother's death of cancer (aged 68) triggered her environmentalist commitment, reminding how the loss of a beloved person was a common motivation for many activists (Silvestro 2014; see also Ravenda 2018:74–77). In spite of the fact that the protection of health in the workplace had been a central demand of industrial workers' struggles (see note 24), the environmental impact of industrial activities *outside* the factory became gradually and increasingly spoken about only in the 1990s. The increasing number of cases of cancer among the first generation of workers in the petrochemical factory, who were then retiring, drew attention to the consequences of noxious substances and working conditions in the petrochemical area. In the mid-1990s, investigations into the executives of the leading national chemical companies (Allen 2012), charged with the death of 157 workers and environmental disasters in the petrochemical area of Porto Marghera (Venice), were extended to Brindisi after a retired worker – who was diagnosed with cancer – reported the working conditions in the Brindisi plant to the Venetian judiciary. Investigations in Brindisi were eventually dismissed because the causal link between the workers' death and their exposure to noxious substances in the industrial production process (in particular the VCM – vinyl chloride monomer) was not acknowledged.[26] Finally, in 1997 Brindisi was included among the Sites of National Interest (SIN – Siti di interesse nazionale) – that is, contaminated areas in urgent need of site clearance and soil decontamination.[27]

As the power station entered full operation in the 1990s, concerns about the consequences of industrial emissions began to shape explanations for the death of cancer of people who had never entered the factory. This "intimate inventory" of death, illness and toxicity (Vasudevan 2019), in addition to the stories of relatives, neighbours and friends who contracted cancer after working in the petrochemical factory, contributed to enhancing the perception of the "slow violence" (Nixon 2011) that exposure to polluting emissions entailed (Curcio 2014; Ravenda 2018). This perception was particularly painful when linked to children's diseases, as recalled by a Red Stroller activist:

> in my daughter's classroom there have been two cases of lymphoma, one when they were 10 years old, at primary school […] then it happened again few years ago, at 18 years old […] when I learnt about it, I was talking to a friend from Mamme No al Carbone, and we said that we wanted to do more, to be more effective (*incisive*).

Institutional responses were slower than popular epidemiologies in addressing the issue and the first official reports were released only in the early 2010s (Loiacono et al. 2012), providing evidence of the high rate of cancer and respiratory diseases among the population, above the regional and national averages (see also Mangia et al 2015; Portaluri 2012).

By that time, the increasing evidence of the noxious effects of industrial emissions had further complicated the relationship between industrial workers and environmentalist groups. The dispute around coal started to redefine environmentalist narratives, not only *outside* the factory but *against* the factory, providing an indication of the changing relationship between the factory and the city. During the difficult years of industrial restructuring in the early 1980s, there were massive demonstrations in support of the factory workers in defence of their jobs. Two decades later, thousands of people took to the streets to oppose the construction of a regasification terminal and to protest against air pollution from industrial facilities, thus intensifying the friction between environmentalists and workers and their

unions. This was made more acute by decades of corporate restructuring and workforce downsizing (Greco 2002:106–129). The loss of bargaining power pushed unions closer to corporate positions, while increased outsourcing widened the gap between permanent workers and the precarious workforce in the subcontracting companies. In spite of this and the growing mistrust of the main union confederations, blamed for gaining power from their brokering position with the companies, workers often maintained cautious attitudes, thus finding themselves forcibly silenced with regard to unsafe working conditions (e.g. labour protections, presence of asbestos, etc.).[28] The safeguarding of jobs overcame any other concern. A tacit consensus took shape around the assumption that environmental issues were a technological problem that had to be tackled with technological solutions. The union leaders I interviewed expressed this position by pitting workers' real environmentalism, based on their direct experience and knowledge of the industrial production process, against the alarmist slogans of the *ambientalisti*, who did not have any realistic idea of "how things work" and that in the long run could harm the local economy by scaring away potential investors. By drawing this line between experts and lay people, they were reasserting the socially meaningful boundary between the factory and the city; between the skilled domain of production and the everyday contexts of reproduction.

The reproductive concerns underpinning the environmentalist movement – and the Red Stroller in particular – questioned that separation, addressing the thick web of interconnections between production and reproduction and demanding a fairer integration of the former into the latter. This entailed a revaluation project that reversed the order of priorities, and which claimed non-negotiable limits in the face of the demands of industrial production. The call for a fair and sustainable nexus of production and reproduction, one that was not detrimental to life, resonated with concerns expressed privately by some workers. For instance, some metal-mechanical workers I interviewed complained about the presence of asbestos along the pipeline paths in the petrochemical area, recalling how they brought asbestos home with their work overalls, which they unknowingly put in the washing machine along with their children's clothes (see Vasudevan 2019:9). A similar image of the factory spilling out

noxious substances into the reproductive sphere, to the detriment of the most vulnerable beings – the children – had been mobilized also by the Red Stroller in a successful communication campaign in collaboration with Greenpeace at the start of a trial of Enel power plant managers in 2012, which involved allegations of "soiling" (*imbrattamento*) the cultivated fields alongside the conveyor belt transporting coal from the docks. Big billboards placed along the main streets portrayed the activists' children near the smokestacks, with the caption: "The coal-fired power plants of your city have new filters: the lungs of [child name]."[29] This message conveyed a powerful counter-discourse to the technical expertise claimed by workers' organizations and corporate executives, rephrasing the environmental issue in terms of caring for the defenceless children.

The Red Stroller articulated their discourse within the broader struggle for reducing polluting emissions, with aim of bringing into the open the silenced anxieties regarding environmental injustice – as directly experienced by workers and their households. In doing so, they opted for a less aggressive and confrontational type of activism, which was nonetheless rigorous in addressing the dangers polluting industrial facilities posed for reproduction. In fact, some activists were quite clear in pointing out that increasing tension and confrontation with industrial workers had turned environmentalist protests into a masculine fight, something of which they disapproved. Pointing to a straightforward and well-informed discourse on the effects of pollutants on children's health, they aimed rather at widening the front against industrial pollution – "to enlarge the struggle" – without creating further cleavages among working-class people. In this respect, their activity can be read as the search for a common ground from which to articulate a liberation narrative that emphasized the primacy of reproduction over production, and addressed the relevance of the reproductive sphere for people's livelihoods. By doing so, they were rephrasing the socio-ecological conflict along the lines of reproductive struggles, connecting to similar experiences of women's activism (Armiero 2014; Barca and Leonardi 2018; Di Chiro 2008; Zabonati 2015). Making visible distinctive valuation practices in the face of the perceived inevitability of the labour–health trade-off – a framework in which health, environment and the

children's vulnerable existence are not negotiable – they were also trying to envision and pursue a collective revaluation project (Collins 2017) capable of redefining value relations to the benefit of social reproduction and long-term collective well-being (see Franquesa 2018).

Conclusions: Towards a Revaluation Project

The narrative articulated by the environmentalist movement in Brindisi configures a grassroots ecology of value that prioritizes the redefinition of local social arrangements, which had been shaped and affected by the presence and activity of heavy industry complexes. The rejection of the technological fix – which is, on the contrary, an option positively pursued by other segments of the population (industrial workers and unions, above all) – in favour of a radical change is a telling example of the significance of the revaluation project under way in the city. Looking at the trajectory of the local environmentalist movement, the article has suggested that this revaluation project unfolds within the fundamental shift from production to reproduction, as the expanded realm of socio-environmental struggles. The shift from production to reproduction does not entail a dichotomous separation of the productive and reproductive spheres. Instead, it exemplifies changing ways and temporal agencies of re-orienting the conflict within the overall process of social reproduction, thus demanding a different articulation of the production–reproduction nexus, which prioritizes collective well-being over the economic calculations of the productive sphere. At the same time, the divisive impact that environmental conflicts can have on the local society should not be neglected, and its effects on the social cohesion of labouring people. I have argued that this strife within the working class population echoes a broader transformation characterized by the complex restructuring and tertiarization of labour markets in the industrial economies of advanced capitalism, which has affected the relationships between conventional labour subjects and the variety of green movements that began to appear from the 1970s onwards.

I proposed analysing the unfolding of reproductive underpinnings in the current socio-environmental struggles through the concept of grassroots ecologies of value, which provided the framework for thinking how the emergence of geographically and historically specific ecologies is shaped by tensions between the dominant form of value and other valuation practices (Collins 2017; Martinez-Alier 2009) that are related to livelihood contingencies and strategies of social reproduction.

In a previous section, I recalled how feminist and eco-Marxist critiques contributed to expanding our understanding of the formation of value by bringing into the picture the contribution of unwaged work and nature. Taking this expanded understanding of value as the starting point of my analysis, I have illustrated how environmental conflicts have shifted from the point of production (materially and metaphorically: the factory) to the point of reproduction, emphasizing how this shift can be tracked along the socio-spatial move from *within* the factory, where the main subjects were the blue-collar workers, to the broader social space in which a multiplicity of subjects coalesced around a common struggle against industrial pollution and environmental dispossession; against the fatalistic perspective of being "an already damaged territory" and the "natural garbage dump for everything damaging and polluting." Far from being a simple spatial opposition, the inside-outside revolving around the factory represents the experience of a more profound contradiction within the duality of value, which manifests itself in a twofold experience. First, it unfolds as the livelihood dilemma of the conscious acceptance of environmental and health risks in exchange for jobs. Second, it manifests itself as a concrete contradiction in processes of social reproduction, between production in the sense of profit-making activity, on which jobs are thought to depend, and reproduction in the sense of the fulfilment of basic human needs and future expectations of well-being. The scale of this contradiction is better exemplified by the concentration of big corporations and profitable (capital-intensive) industrial activities in a separate area that looms over a city facing a critical socio-ecological situation. The struggle waged by the women of the Red Stroller movement addressed this contradiction not in compensatory terms – "more jobs" – but on the more radical ground of claiming the unquestionable primacy of reproduction

against the imperative of profit-making; the necessity and urgency of being "on the children's side." The experience of the corporeal rift in the reproductive sphere was central to the rise of socio-ecological concerns. At the same time, the strong motivation provided by the direct experience of the negative effects of industrial productions fuelled a broader environmental justice discourse, which transcended the local interests (in terms of getting rid of polluting plants) to pursue trans-local connections with similar movements and liberation narratives. The Red Stroller movement, a short-lived experience which now lives through the metamorphosis of local activism and politics, proved the potential and significance of an ongoing revaluation project.

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1 . See Zabonati (2015) for a mapping of "active mothers" environmentalist groups in Italy. The women's Environment and Health Committee of Cornigliano (Genova) was an important Italian antecedent. In the mid-1980s the committee managed to build a broad-based mobilization that led to the negotiated closure of the steel mill in 2005 (Alfonso and Avagnina 2006).

2 . This phrase was used during a city council meeting in defense of a scientific study on the effects of industrial pollution, which was characterized by the national electricity company Enel – owner of the power plant – as "biased" (*di parte*). See: https://www.youtube.com/watch?v=6nCR2za3arg (accessed 26 April 2019).

3 . "Emiliano e i sindaci no Tap: spostare il gasdotto nei territori 'già compromessi'", 29 March 2017 (http://www.brindisireport.it/economia/Emiliano-vuole-lo-spostamento-del-gasdotto-Tap-tra-Lecce-e-Brindisi.html – accessed 15 April 2019).

4 . "Levata di scudi contro il gasdotto a Brindisi riproposto da Emiliano", 29 March 2017 (http://www.brindisioggi.it/levata-scudi-gasdotto-brindisi-riproposto-emiliano/ – accessed 15 April 2019). The industrial area includes metal-mechanical productions (especially aeronautics), pharmaceuticals, LPG gas storage facilities, waste disposal plants and a sugar refinery. The Brindisian area is a major national site of energy production. Besides two power stations (one built in the 1960s and shut down in 2012), two other power-generation facilities are located in the petrochemical area and in the sugar refinery.

5 . Statement issued by the Forum Ambiente Salute Sviluppo in July 2018: "Tap a Brindisi, idea fissa di Emiliano che offende la città" (http://www.brindisireport.it/economia/tap-a-brindisi-idea-fissa-di-emiliano-che-offende-la-citta.html – accessed 15 April 2019). In 2014, the Red Stroller expressed a similar view by describing Brindisi as a "discriminated city" (https://passegginorosso.wordpress.com/2014/05/13/brindisi-citta-discriminata/ – accessed 19 April 2019).

6 . "Brindisi, scandalo rigassificatore: Arrestato l'ex sindaco: corruzione", 12 February 2007: (http://www.repubblica.it/2007/02/sezioni/cronaca/brindisi-rigassificatore/brindisi-rigassificatore/brindisi-rigassificatore.html – accessed 27 May 2019).

7 . Recorded interview, 20 November 2016.

8 The NAC started as an informal group in 2009. For a chronicle of their early activities see (Ravenda (2018:43–51, 69–77).

9 . The direct quotations on the history of the Red Stroller are taken from interviews recorded in November 2015. Information is also drawn from fieldnotes about meetings and informal conversations that took place at different stages of fieldwork, between June 2015 and November 2016.

10 . See also "Brindisi, le donne guerriere del Passeggino rosso" (https://nelpaese.it/salute/item/124-brindisi-le-donne-guerriere-del-passeggino-rosso – accessed 15 April 2019).

11 . The epidemiological study (Forastiere et al. 2017), carried out by a research group supported by the regional government, was eventually presented in May 2017. The results confirmed the correlation between the concentration of specific atmospheric pollutants, mortality and the anomalous incidence of cardiovascular and respiratory diseases, and (certain types of) cancer,

as well as congenital malformations.

12 . Between 2015 and 2016, the local job centres recorded that 30% of the active population was in search of employment.

13 . The ecologies of value, in this respect, resonate with Macarena Gómes-Barris' "submerged perspectives" and her concept of social ecologies as "network of relationality" (Gómes-Barris 2017:2).

14 . Giovanni Cecchinato, *Quattro volte Brindisi* 1964, 18 min. (https://www.youtube.com/watch?v=9nBddeMzr7g).

15 . From 1870 to 1913 the British Peninsular and Oriental Steam Navigation Company operated the transnational London to Bombay route through Brindisi.

16 . Two-thirds of new steel plants and 40% of new petrochemical plants built in Italy after 1960 were located in the South (Barbagallo 2013:157).

17 . Law 29 July 1957, n. 643, "Provvedimenti per il Mezzogiorno." In order to attract private investments, the state gave companies non-repayable grants and subsidized loans (Ginsborg 1990:229).

18 . The salary zone system, commonly known as *gabbie salariali*, was a system of wage determination based on parameters such as the cost of living, corresponding to different indexed salary zones (13 in 1948 and 7 in 1961). Although the salary zones were not territorially defined, the zones with lower indexes corresponded mostly to southern regions. In the 1960s Brindisi was classified as Zone 6, with the lowest salaries (Peccerillo 2010).

19 . In 1936 Brindisi had 41,699 inhabitants. The population expanded rapidly in the post-Second World War decades: +39.8% in 1951 (58,313), +21.2% in 1961 (70,657), +15.9% in 1971 (81,893). The city reached its peak size in 1991 (95,383) and gradually decreased to the current 87,534 (2017) (ISTAT Statistics).

20 . Cigarette smuggling expanded rapidly from the late 1970s to the1990s. In 2000, following the death of two police officers in a car chase, a massive police operation led to the definitive dismantling of cigarette smuggling networks. A report of the Parliamentary Antimafia Commission (2001:58) estimated that in the mid-1990s, in the province of Brindisi (nearly 400,000 inhabitants), cigarette smuggling provided the main source of income for around 5,000 families.

21 . In 1961, workers in the industrial sector (including the construction sector) were 31.04% of employed population; in 1971 they reached the peak in both percentage terms (34.14%) and absolute numbers (8,243), starting to decrease in 1981 (29.54%) to the 23.21% recorded in the last national Census 2011 (ISTAT). The service sector, in contrast, has grown steadily: 42.69% in 1961, 58.70% in 1981, up to 70.10% in 2011. For a regional comparative outlook see (Pasetto, Sylos Labini 2002).

22 . This accident followed the explosion in a section of the ammonia production plant in the petrochemical complex of Manfredonia (northern Apulia), in September 1976 (Barca 2012a).

23 . A nuclear power station was planned, but never built as the national referendum in 1987 banned nuclear energy production.

24 . This information is drawn from interviews with retired chemical workers and union leaders. Some of the interviewees allowed me to access to their personal archives, containing statements, articles, leaflets and other materials concerning the protection of health within the factory.

25 . In the five years following the 1977 accident, 30% of the plants were dismantled and 4.600 jobs in the petrochemical industry were lost (Randazzo 1984:29).

26 . On the mortality rate among workers exposed to VCM in Brindisi, where the production of VCM was definitively suspended in 1999, see Portaluri (2012:7). On the dismissal of the case in Brindisi see "Morti Petrolchimico il gip di Brindisi archivia l' inchiesta", 4 June 2008: https://ricerca.repubblica.it/repubblica/archivio/repubblica/2008/06/04/morti-petrolchimico-il-gip-di-brindisi-archivia.html (accessed 19 April 2019).

27 . Legislative Decree 22/1997.

28 . See workers' anonymized accounts in (Curcio 2014).

29 . See coverage in the national press: "Enel, parte il processo al carbone a Brindisi i manifesti shock," (https://bari.repubblica.it/cronaca/2012/12/12/news/enel_brindisi-48595351/ – accessed 27 April 2019). For a detailed examination of the trial, see Ravenda (2018:101–146).