

RESEARCH

Far from Thoreau? The struggle for environmental justice in Portugal during the first Liberal period

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The thought and works of Henry D. Thoreau have been interpreted in the reactive context of industrialization and the values underpinning it. The late diffusion of his ideas in Portugal seems to correspond with the modernization process, marked by the limited and belated industrialization that accompanies this awareness of environmental problems. This essay clarifies this interpretation and presents a picture of the early environmental consequences of economic development in Portugal by identifying a set of environmental conflicts that occurred in different contexts since the middle of the nineteenth century. Those conflicts were related to large-scale mining, metallurgical and chemical industries, practices of overfishing, commercial farming and the privatization of common land. Direct action in the form of sabotage, property invasions, and riots were frequent forms that accompanied parliamentary activity and recourse to the courts right up to the end of the republican period. Archival research have consistently shown that these conflicts were reactive and motivated immediately by the damage caused by pollution to health and incomes and which also involved the destruction of collective goods or the appropriation of community resources. This historical approach seeks, therefore, to identify the patterns of collective action in defence of the environment in Portugal.

Keywords: Civil Disobedience; Environmental Conflicts; Environmental Luddism; (Portugal, 19th to 20th century)

O pensamento e obra de Henry D. Thoreau têm sido interpretados no contexto reactivo à industrialização e aos valores que a sustentam. A difusão tardia do seu pensamento em Portugal parece corresponder ao seu processo de modernização, marcado por uma industrialização limitada e tardia que acompanha a tomada de consciência pelos problemas ambientais. Este ensaio matiza esta interpretação e apresenta o quadro das consequências ambientais do seu desenvolvimento económico, através da identificação de conflitos ambientais desde meados do século XIX. Esses conflitos relacionaram-se com a grande mineração, as indústrias metalúrgicas e químicas, com práticas de pesca predatória, a agricultura comercial e a privatização de bens comunitários. A acção directa através da sabotagem, da invasão de propriedade e do motim constituíram formas frequentes que acompanharam a actuação parlamentar e o recurso aos tribunais até ao final do período republicano. A investigação em arquivos mostrou, de forma persistente, que estes conflitos foram de natureza reactiva e tiveram como motivação imediata os danos na saúde e nos rendimentos resultantes da poluição, e que envolveram também a destruição de bens colectivos ou a apropriação de recursos comunitários. Esta abordagem histórica procura assim identificar padrões de acção colectiva em defesa do ambiente em Portugal.

Palavras-chave: Desobediência civil; Conflitos ambientais; Ludismo ambiental; (Portugal, séculos XIX e XX)

Introduction

In 1845, Henry David Thoreau withdrew from society to live on the banks of Walden Pond, two kilometres from Concord, an industrial town with a population of around 2,000 according to the 1850 US census. There he immersed himself in a spiritual experience, living in communion with nature while developing a radical critique of the emerging industrialisation and its supporting culture. From this experience, which lasted until 1847 (interrupted by his imprisonment in 1846 for refusing to pay local taxes), he published *Resistance to Civil Government (Civil Disobedience)* in 1849 and *Walden: or, Life in the Woods* in 1854. Regarded as a pioneer of North American conservationism, efforts to understand the context in which his critique appeared have focused on the conflicts that developed between industrialists and farmers in Boston during the 18th century concerning the use of resources and construction of dams, and the emergence of a new consciousness that reduced the individual's relationship with nature to its mercantile utility (Steinberg 1–30; Newman). Thoreau's critical narrative thus underwent an essential change in the relationship between man and nature inscribed in capitalist industrialisation, which was based on idolising the right to private property (right of appropriation and of subsequent use, abuse and alienation by the individual) and freedom of initiative (Carlton, Reginald et al.) The affirmation of the possibilities of spiritual discovery and enlightenment by living in nature to be found in Thoreau and the Transcendentalists (1836–1860) would have been inseparable from the cultural change preceding and accompanying the first stage of industrialisation (Jamieson et al. 51–74). From this perspective, transcendentalism and new forms of appreciation in language, through aesthetics and literature, would be no more than a reaction to the hegemonic cultural attitude that was essential for the expansion of industrial capitalism (Rees, pp. 74 ff.).

Nothing could be further from the Portuguese experience and its cultural references than Thoreau's texts. Portugal was mostly represented, both in foreign tourist guides and by the elites in political discourses, as being separate from modern industrial civilization. For instance, on the eve of the Republican Revolution of October 1910, one Irish woman fleeing financial problems with her husband, discovered a shadow paradise in Portugal, a place where the cost of living was low (Sale 1911). It was their Walden, or so she called it, a place of refuge from the civilization they left behind and where they experienced the ecstatic beauty of "natural" landscapes and humanized environments that evoked thoughts, far from the harsh reality of the life they lived. It is significant that *Civil Disobedience*, published by Estúdios Cor in 1972, was the only work of Thoreau to be published in Portugal before the 1974 Carnation Revolution.¹ This late introduction to Thoreau marked the entry of Portuguese social movements into the Age of Environmentalism, expressed in the anti-nuclear movement and symbolised by protests against the construction of a nuclear power station at Ferrel, near Peniche.² Indeed, the debate among the Portuguese elites since the end of the nineteenth century had stressed Portugal's agrarian vocation, of a country in which industrialisation remained limited. More than a dilemma of the choice between agrarianism and industrialism, we are faced with a positively promoted fate, as expressed by Eça de Queiroz in *The City and the Mountains*. It is interesting to note that it was at the end of the 19th century that trekking and vegetarianism began to be taken up and that the Portuguese figure closest to Thoreau in his critical evocation of the landscape and nature appeared. Jaime Magalhães Lima (1859–1936) lived in Aveiro and was a student of the Russian anarchist Leo Tolstoy (1828–1910).

The purpose of this text is to find possible contacts between rapidly changing Portuguese contexts and the industrial universe of which Thoreau was so critical. It is not so much the identification of possible influences in his thinking that is at stake as the revelation of popular behaviour in reaction to environmental changes brought about by mercantile ambitions and the newly institutionalised relationship with the "natural environment". In sum, this text highlights, in the Portuguese case, the conflictual context of modern industrial development about the environment. Emerging struggles for environmental justice involved both the weakest sections of society and some sectors of the political and economic elites. While some environmental conflicts affecting Portuguese agriculture and fisheries during the second half of the

¹ The second reprint, by Antígona, dates from 1987, which also published *A Plea for Captain Brown*. It should be noted that a collection of texts was published in Rio de Janeiro in 1964, *Walden* in 1968, and, in São Paulo, *Civil Disobedience and other Essays*.

² Luddism (a British movement from 1811–13 in which weavers destroyed power looms) is associated with the critique of emerging industrial civilisation and the ideology of progress (see Cardonna and the "classic" article by Hobsbawm). By analogy, we call it environmentalist Luddism, with all kinds of direct action aimed at halting activities altering the environment and that have changed as the main motivation for this behaviour. An example of this is the destruction of the foundations of the nuclear power plant at Ferrel after April 1974. The contributions of Soromenho-Marques, Guimarães & Chaves, 2016, 19–63 and the recent article by Barca and Delicado on the anti-nuclear movement in Portugal have concern environmental struggle in Portugal since the 1970s.

19th century have been identified, our attention focuses on the mining sector and, mainly, in the pyrites and cassiterite mining industries.

Regional contexts: mining and the environment

In the case of pyrites, the country's geology dictated that two of the more economically and socially progressive areas at that time, Alentejo and Beira Litoral, were also where the most technically advanced mining and industrial holdings integrated into the global economy were located. Republicanism had gained a secure footing within the agrarian and commercial bourgeoisie who, while not having a direct share in its profits, suffered the environmental burden and gave a voice in parliament to the people's complaints against the damage being caused by pollution from the mines.

The pyrites were harnessed to extract copper, lead and other metals. Sulphur became increasingly important to 19th-century industry: first because of the demand from factories employing the Leblanc-Solvay process, then with the appearance of superphosphates and copper sulphates used in agriculture. The metallurgical process first developed at the end of the 18th century and used by most mining operations in the south of the country combined roasting ores in furnaces with leaching. The roasted cores were then placed in water to obtain copper-rich concentrates (wet method). Once extracted, the ore was crushed then ground and sent for primary metallurgical treatment in facilities close to the mines. During the first phase, the ore was burned in furnaces, releasing sulphurous gases that precipitated in neighbouring areas, burning the vegetation or causing acid rain.³ In the second phase, tanks full of acidic water were regularly emptied into the water network. The discharge of extremely damaging acidic water and gases into the environment caused direct damage across wide areas, harming peasants, rural workers, farmers, fishermen and landowners.

In addition to galena, in Aveiro, the pyrites contained arsenic, the atmospheric release of which added a further burden onto the region's peasants. In the Alentejo, the discharge of acidic waters affected the region's main rivers (Sado and Guadiana) and the reservoirs from which the farmers took the water – which was always scarce in the summer – for themselves and their livestock.

In the western part of the Iberian Pyrite Belt, the recognised deposits are sometimes highly developed, but the content of copper and other metals is generally low. Given the transportation costs and the depreciation of these ores in the British market, the expansion of this activity after the Regeneration period depended on treating the pyrites locally. The economic viability of these mines relies on the scale of the operations and the ability of companies to develop technically adequate solutions to produce metal concentrates (cement). This made the use of closed furnaces economically unviable, leading to pyrites being burned in open furnaces (*telleras*). As a result, most of the sulphur was released into the air, forming a deadly acid mist covering hundreds of kilometres.⁴ This procedure was mainly used up until the 1880s in the southern mines: Caveira (Grândola), Juliana (Beja), Algares and São João (Aljustrel) and São Domingos (Mértola). However, most of these mines closed around that time, and the companies went out of business. The hydrometallurgy process was developed in São Domingos at this time. While this dispensed with the need to burn ore, it required large quantities of water that was then released into the Chança river, a tributary of the Guadiana.⁵ Just as smoke-free alloys were being developed in the United Kingdom, and the first effective anti-pollution measures were being introduced, in Portugal there was an increase in the treatment of these poor ores in producing areas that were left to support the greater environmental damage caused by the process.

The Braçal mine in Aveiro district began operations in the 1840s, treating the galena with German furnaces and technology for the export of lead, silver and copper. During the 1860s, the metallurgy workshop began receiving ores from other mines in the region.

These establishments received state protection. In addition to the mining concessions, the rights to use common goods and their extension to nearby activities, these companies also received tax exemptions on imported equipment and a very favourable fiscal regime. The mines were visited by royals, and their owners received honours and titles. Significantly, the metallurgy workshop at Braçal was named after King Fernando, while the manager and mining capitalist James Mason and his son, also James, who succeeded him, were granted noble titles. The former also received the Order of Agricultural, Industrial and Commercial Merit created during the Regeneration period.

³ See Juan D. Pérez's article with the author of this text for more about ore pollution (Pérez Cebada, Juan D. and Paulo E. Guimarães. 2017).

⁴ The history of the Rio Tinto mine, one of the largest in Europe, in the Spanish province of Huelva, near the Portuguese border, is the most paradigmatic example of environmentally-aggressive development in this period. See Harvey 148 ff.

⁵ See João Garcia and Guimarães 2001 141–160.

An expansion of the industry to extract cassiterite, an ore found in large quantities on land, riverbeds and alluvial soils, took place at the start of the 20th century with the use of dredgers. This signalled the end of the production of tin, which had been freely obtained and traded. The use of dredgers also destroyed the land and contaminated fluvial soil.⁶

Interpretations and meaning

The expansion of pyrites extraction gave rise to environmental struggles around the world, including Japan (Martinez-Alier 153–170). These conflicts were reduced to problems with pollution and until recently have been neglected in the historiography and social sciences, but which are now being included as examples of “rural protest” or “environmentalism of the poor” (González *et al.*, pp. 48–77; Martinez-Alier, 1995). We believe several facts have made this type of struggle historically important. First, they result from the contradictions inherent to the expansion of industrial capitalism: the system of regulating disputes between social groups over the use of natural resources destined to be normalised via institutions and the law ceased to be effective at a certain point: it led to the mobilisation of repressive forces and proved incapable of preventing the outbreak of open struggle.

Within the liberal framework, the monetary compensation offered via judicial routes did not prevent the appearance of collective protests, clearly demonstrating the unequal power relationship and the limits and contradictions inherent to the mercantile concept of life and its economic theories of value. The hypothesis supporting the idea of “environmentalism of the poor” lies in the fact the groups least susceptible to these compensation mechanisms, and which did not have a contemporary ecological consciousness or discourse, were more determined in their opposition to the industrialisation of nature. Just as the expansion of industry led to labour struggles because of differences between the interests of capital and labour and the mediation of their relationship by the market, social conflicts also resulted from the commercialisation of nature and transfer of environmental costs from business to society.

The “environmentalism of the poor” and “rural protests” often involved other actors and transcended the changes to the public order driven by conflicts of interests and problems of pollution. During the period studied, peasants, rural labourers and fishing communities were particularly vulnerable to the damage caused by mining activities that directly threatened their means of subsistence and radically altered their livelihoods and communities. In addition to the loss of income, environmental damage affected soil fertility and access to and the quality of water that, were they to be fully compensated, would jeopardise the profitability or viability of these operations. Access to justice and the ability of the affected groups to be heard was practically non-existent with technicians, scientists and state employees generally ruling for the mining operations. While landowners and farmers (agricultural businessmen) could negotiate compensation from the mine owners, they were willing to engage in direct action – or “environmental Luddism” (which at the time was a criminal offence “attack on property”). The persistence of struggles and environmental degradation led to the intervention of trained mediators who gave a political voice to victims in the name of environmental justice. As Pedro Silva shows in his study of dredging in the Guarda region, interest in these struggles is not because they were forms of “rural protest” but instead because they were ways to mobilise various actors in a complex web of events and solidarity relationships.

Environmental struggles cannot be reduced to just problems with pollution or environmental management deficiencies – although these could be the immediate cause of the struggles for environmental justice. They are included *in processes of irreversible social and environmental change*. The hydrometallurgy ore extraction processes involved the construction of vast reservoirs and the appropriation of soil and water-courses, giving rise to a process of environmental expropriation that directly impacted the livelihoods of rural communities. In the Aveiro region, the miner was generally a someone recruited from within the region; in the south, however, the mines mainly attracted people from the Alentejo and Algarve, creating such a demand for labour and animals that there were not enough left to work the land. The environmental changes caused by profound changes to the technology used in mining had an unexpected impact at the São Domingos mine where the adoption of hydrometallurgy resulted in outbreaks of malaria that were a serious public health problem for years after. Environmental struggles were marked by social and environmental changes that could be identified on a micro scale over a more extended period resulting from global processes (integration of the “location” into the global economy).

⁶ See Pedro Silva on the conflicts around the dredging in the mining industry.

There are many sides to the struggle for environmental justice, with the cultural and ideological aspects translating into the appearance of techno-scientific “experts” as the main authorities in the decision-making process, along with contempt for common knowledge, long before they were recognised by political sociology (Brint 129–148).⁷ These struggles deserve our attention because of the change in the “bottom-up” rhetoric in the legitimisation strategies pursued by businesses and the emerging ideologies shaping modern social life. Here we are thinking of the separation of public and private health into distinct fields of knowledge and regulation and in the appearance of the techno-scientific political discourse (Pérez Cebada 45–68; 77–83). Finally, unlike disputes between groups for access to resources, obtaining income from their exploitation and reparations or options around different incompatible uses important to history and political science, or the management of resources, environmental struggle before the “Ecology Age” is interesting because of the insights it offers towards a historical narrative on the creation of global unsustainability.

From this perspective, we must identify reactive forms of collective action resulting from mining and industrial activities in Portugal that were repressed by the authorities in the years between the Regeneration period and the New State in the name of upholding public order.

Types of environmental justice struggle

We identified nine cases in the districts of Aveiro, Beja and Guarda with higher production levels, more workers and more technically advanced machinery (**Table 1**) in mines operated by British, Luso-Belgian, German and American companies.

The types of direct action identified by the authorities were: (1) invasion of the mining camp by people from the surrounding areas, almost always nocturnally (São João do Deserto 1855; Braçal 1862; São Domingos 1875); (2) rioting (unauthorised gathering of protesters), frequently involving (3) verbal and physical aggression; and (4) the collective destruction of machinery and tools (environmental Luddism) in a furtive and (5) selective manner (sabotage). While these last actions were intended to stop or slow production, it is difficult to ascertain the motivation: was the fire that destroyed the windmill at São Domingos shortly after it was installed in 1875 labour- or environment-related? Was it intended to protect the jobs of those who operated the smaller mills, as was the case with the acts of sabotage on the railway probably triggered by mule drivers in 1863? Or was it intended to affect the environmental costs of increasing extraction? Similarly, in 1880, a few years after the Caveira mine near Grândola opened, a fire broke out in the galleries and burned for two years, closing the mine until the start of the 20th century – was it set deliberately? To this extent, then, our list should be read cautiously.

Table 1: Markers in the struggle for environmental justice in Portuguese mines (galenas, pyrites and cassiterites), 1855–1926.

Date	Mining operation	County	Marker
8 August 1855	São João do Deserto	Aljustrel	Break-in, physical and moral attack
15 August 1862	Braçal	Sever do Vouga	Environmental Luddism
August 1866?	Braçal, Palhal and Telhadela	Sever do Vouga, Albergaria	Environmental Luddism (frustrated)
1875	São Domingos	Mértola	Camp break-in, destruction of ore and of burning of windmill
1884–7.	São Domingos	Mértola	Protest, Luddism
20 May 1917	Talhadas	Sever do Vouga	Environmental Luddism
April 1922	Aljustrel	Aljustrel	Destruction of railway
28 June 1924	Vale do Gaia	Guarda	Environmental Luddism
26 July 1926	Freguesia da Pega	Guarda	Riot, attacks

Source: Laboratório Nacional de Energia e Geologia (LNEG), Archive, Processos de concessões mineiras, série POL. (pollution).

⁷ See “The Sado valley: Industrialisation delayed” in Guimarães (2001).

The struggles identified emerged in a context very different from earlier anthropogenic changes. The Iberian mines were worked intensively in ancient times, and the red acidic rivers gave 19th-century prospectors clues to the presence of interesting veins. In São João do Deserto, Aljustrel, these acidic waters were used to treat common skin ailments and fevers. The riot of July 1855 took place at night when a group of people invading the mining camp and attacked workers and the British manager. This followed the inadvertent rupture of an underground watercourse supplying the spa caused during the opening of a new gallery. This incident demonstrated society's readiness to accommodate older and more environmentally-disruptive mining operations. Freire de Andrade, an amateur archaeologist and mining engineer with the Luso-Belgian company operating at Aljustrel in the 1950s, appeared before the authorities and attempted to justify the discharge of acid waters and minimise its importance by reminding them the "purple river" was anthropogenic in origin.

At Braçal (Sever do Vouga), the underlying conflict caused by metallurgical activities resulted in a riot in which the camp was attacked, and machines and buildings destroyed on 15 August 1862. Locals blamed "the vineyard sickness" and soil sterilisation on the burning of ores, an argument attributed to their ignorance. The mine owner subsequently received state compensation. The expansion of metallurgy activities to other mines in the region (Malhada and Coval da Mó) in the years that followed resulted in legal action and the intervention of deputies in parliament, with the company forced to provide farmers with lime to compensate the reduction in soil fertility.

The working of two mines on the outskirts of Aljustrel – São João and Algares – led the Companhia de Mineração Transtagana to make substantial investments from 1870. The burning of ores at Algares was abandoned after 1875 due to the pollution it caused, with the company purchasing land some distance away and building a connecting railway. The British owners of the mine at São Domingos started burning ore in 1868 but soon stopped, afraid of the reaction of their neighbours who had raided the mining camp on at least one occasion to put out burning furnaces (Guimarães, 141–160). The discovery and development of hydrometallurgy led the company to purchase several properties and resort to a series of expropriations that continued right up to the start of the 20th century. Throughout this period the company increased the size of its private militia. The underlying conflict that dragged on until the end of the First Republic was expressed in complaints published in the regional press, petitions to the authorities, legal actions and punitive damages against the company. Tensions reappear periodically with the discharge of acidic water into the river Chança, a tributary of the Guadiana, which had a significant impact on the river and the fisheries at Vila Real de Santo António.⁸ Representations and outbreaks of malaria in 1878 forced the state to intervene, and Mason & Barry was forced to take several measures, including planting eucalyptus trees. The new forests around the dams mark these mining landscapes.

The reopening of the mines at Aljustrel in 1898 caused the reappearance of tensions in the Sado valley, including complaints to the authorities five years later and debates in parliament in 1912 about mining pollution and its impact on agriculture. On 20 May 1917, people from the Vouga valley, in Beira Litoral, destroyed barrels of ore and railway material on the quay at Águeda, set fire to the warehouse and threatened to attack the Talhadas mines. In April 1922 saboteurs derailed an ore train following the renewed expansion of the Societe Anonyme Belge des Mines d'Aljustrel. There were popular actions in Pêga (Guarda) in June 1924 and July 1926, including the destruction of ore, riots and attacks on employees of the American company operating the tin mines (Silva).

Values and Civilisation

Behind the anti-mining movement was a system of values rejecting the idea of nature as merchandise. It is only by accident that we hear the voices from below in the old mining districts. Here the interpretation of technicians and administrators about "pollution" prevailed. However, we can find approximations to Thoreau in other records.

A survey of the texts collected as "traditional Portuguese literature" to offer an insight into the relations with the humanised environment show it is marked by very strong affectivity. Nature is represented as a threat to humans, a place arousing fear (like the forest) or as a space offering valuable lessons requiring protection. According to Ana Guimarães, "one can even speak of an art of living well *rooted* in nature, *with and as nature*" (38). Briefly, "traditional texts show a human being who is not the central of nature, who does not live on earth but lives with the earth; a condominium human being *on earth*" (40).

⁸ See João Garcia and "O Chança and Guadiana" in Guimarães (1989).

However, some of the affective traits identified in “popular tales” on the representation of humanised nature can also be found in the interventions of deputies defending the people in the 19th-century and republican parliaments (Guimarães, 161). Pedro Silva examined letters and petitions sent to the authorities in the immediate aftermath of the 1974 Carnation Revolution. The economically-based argument (loss of soil fertility and resources required for agriculture, regional impoverishment) was associated with the environmental enhancement created by the labour of men as a family and community heritage and with the demonisation of the destructive technology represented by the dredger (302). Here there are very powerful points of contact with emerging values in anti-mining texts published in the region’s newspapers in the early 1920s. In both cases there is an extreme emphasis on an aesthetic aspect, with the described as “an authentic garden” (1978), “the wooded slopes make this one of the most beautiful, most fertile and richest valleys in Portugal”, “olive trees are the essence of the village”, etc.

Conclusions

This text has sought contextual approximations to the universe of Thoreau, marked by early industrialisation and the values of capitalism, through the struggle for environmental justice in mining areas. We identify some common features in these struggles. First, the social groups likely to be involved in Luddite activities (and the sources are not always accurate in identifying them) included peasants, rural workers, farmers and fishermen who opposed the actions of mine owners and their local agents. They were motivated by the destruction of crops, loss of soil fertility and the pollution of rivers and the sea.

Second, the impact of contemporary mining in the Alentejo extended to the two main rivers, the Sado and the Guadiana. In the coastal north, the Mau and Vouga rivers were also affected, while in the Guarda district, the Mondego and Gaia valleys suffered more localised impact (Silva 291–311).

Third, the struggles for environmental justice took place over a “long” period, in some cases carrying on through the Regeneration period, the Republic and the New State, with some even extending to the democratic period. Forms of direct action, such as riots, sabotage (of tools and equipment), destruction of machinery, equipment and stored production (Luddism) were the exception. These violent eruptions almost always signalled events that had taken place over a period of heightened tension. During this period, we find forms of legal struggle, such as the mobilisation of public opinion through the local or regional press, petitions to local authorities and the intervention of parliamentary deputies. In the end, peaceful means for resolving disputes, such as recourse to the courts, payment of compensation and expropriation for public use (by mining companies) were insufficient to stop such activities. The preventive mobilisation of the armed forces and the militarisation of these locations became necessary to ensure public peace.

Another trait of these conflicts before the Ecological Era is that they were reactive, developing during the period of industrial expansion and motivated by reductions in income due to the loss “environmental services” and of hunger and health due to pollution. Far from pursuing “radical” goals, mediators sought to negotiate, repair and minimise outsourced company costs rather than eliminate the material source of the problem. In this context, the strategies used in defence of mercantile action included the mobilisation of specialists (engineers, scientists, physicians), influencing the government and elites (who shared the ideology of progress and civilisation) and, when necessary, expropriation for public use and use of the armed forces.

Finally, returning to Thoreau’s critical universe, these struggles for environmental justice preceded and/or accompanied key moments of change in the “framework” of pre-existing communities that were absorbed, to a greater or lesser extent, as mining and industrial labour, eventually agonising over emigration, ageing and desertification. It was during this evolutionary stage that Pedro Silva was able to capture the voices of those whose voices did not reach the mine archives, referring in the end to an aesthetic discourse on a humanised landscape. At stake for the people of the village of Gaia during their tenacious struggle against the “demonic” dredger, was “the defence of our gardens” (Silva 303).

Competing Interests

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