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Listening to Green Energy:
Towards Charming Anthropocenes

Dimitrios Bormpoudakis

There is an "odd hum" that people living within hearing distance of EDF's Dungeness nuclear power station in southern Kent, England often describe as soothing: "I don't think I would be able to sleep without that power station there… It's like a car ticking over, only very faint, I listen to it as I'm drifting off" (Harris 2012). Elsewhere, the "loud bangs" heard from EDF's Heysham nuclear station scared local residents and led to an EDF press release offering an explanation and promising to "eliminate this occurring to avoid [loud bangs] happening in the future."

The objectives of this essay are first to provide some insight into when and where energy infrastructure is audible. Second, heeding Laleh Khalili's (2021) call to think of (energy) infrastructures as not "always death-dealing," I explore whether infrastructures can be sensed differently – in ways that open up modes of living "with and alongside" them. I argue that studying how different communities, actors and stakeholders (*sensu* Rice 2013) listen or listened to energy infrastructures can add another layer of complexity to what infrastructure is: functional infrastructure might be sensed, or it might not. However, it is certainly sensed when it bothers, hurts or produces injustice as a consequence of its working. Drawing from two case studies – on the Greek island of Crete and in

South East England – I make the case that the sounds of particular infrastructures, such as offshore wind power, are like the Anthropocene and its landscapes: grim and hopeful at the same time.

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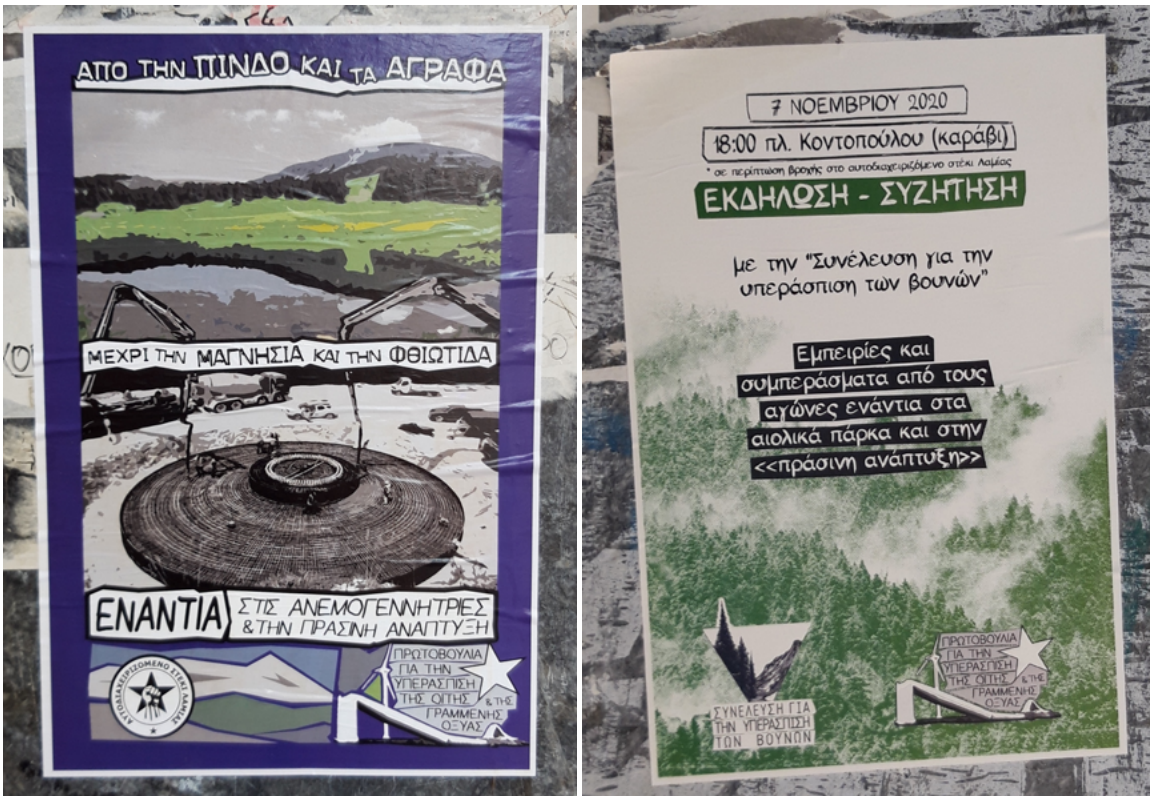
The global green energy rush (Riofrancos 2019) has reached Greece. The installation of wind energy capacity went up from 1,087 MW in 2009 to 4,114 MW in 2020, an increase of nearly four hundred percent in a decade. This crisis-enabled green energy proliferation has encountered significant backlash, inter alia for reasons of procedural justice (Siamanta 2019). Wind power has borne the brunt of this dissatisfaction, as communities resist what they often see as a "green scam" instigated by "investor-conquerors" (interview with activist; Heraclion, 2019). For the anti-green energy movement, there seem to be only two avenues: either large-scale offshore wind farms, or decentralized, low-output systems, focused on domestic and local scales. In Crete, the recent struggle against the installation of what are called by their detractors "industrial-scale renewable energy resources" (see also Siamanta 2019) and the transformation of the island into a "battery" (interview; Plakias, 2019) includes an interesting aural dimension.



Street posters from Lamia, central Greece. Left: "From Pindos and Agrafa, to Magnesia and Fthiotida, against wind turbines and green growth." Right: "Experiences and lessons learned from the struggle against wind parks and 'green growth'." Photos: Dimitrios Bormpoudakis, 2020.

In Cretan dialect, *zvuros* literally means a largish wasp that emits a buzzing and threatening sound, while metaphorically it refers to an annoying teenager who goes around on a modified scooter that produces an annoying, deafening racket from its exhaust. Making reference to the drone of a turbine when spinning, a vernacular name for wind turbines

in Crete is also *zvuros* (plural *zvuri*), commonly used among those opposed to their presence on Cretan mountains. Not only are the sounds of the turbines perceived as a constant and dangerous nuisance, but their installation is seen as a land-grabbing (*leilasia gis*) exercise with negative implications for land access, ecosystem health, biodiversity and rural (and urban) livelihoods that depend on agriculture and tourism. For instance: "instead of constructing new highways or increasing university funding, the government is building new *zvuri*" (SYRIZA, the previous governing party); or "in the beginning there were only two or three on a remote mountaintop; we would see them from far away and wonder what these *zvuri* are doing there" (anarchist squat Rosa Nera). The proliferation and increasing size (and hence noise emitted) of the wind turbines have made their sounds central to how their effects on human and animal communities are perceived:

> *[Zvuri] produce low-frequency sound that creates problems for the fauna and people.* (Rosa Nera)

> *[We want wind turbines] that respect nature, birds, animals… that do not create visual and sound pollution.* (Interview with activist against the installation of industrial-scale renewable energy; Plakias, 2019)

> *Why would someone leave Athens for this island, if more than half of it is an industrial zone? If when sitting on the main beach she sees the turbines and hears the drone and cannot take a stroll in the wild part of the island.* (Interview with member of affected community; Plakias, 2019)

In Crete wind turbines are installed on treeless mountaintops, areas that are important in two additional ways: as part of Cretan identity, in that these high-altitude areas symbolically went "un-conquered by Venetians, Ottomans and Germans"; and for tourism, as "Crete needs and lives from mass tourism" (member of affected community; Plakias, 2019). For their detractors, the drone or mechanical clang of the wind turbines, as sensed amidst insect sounds and birdsong in the summer or through the strong wind and rain of the winter, are an intrusion associated with a particular type of development which they reject: it is the noise of the "green scam" that threatens their identity and one of their most important sources of income.

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Now consider the visual similarity of the wirescape from the Crab and Winkle Way near Canterbury in South East England with the one that appears in *Power and the Land*, a documentary film from 1940. Directed by Dutch communist filmmaker Joris Ivens on behalf of the Rural Electrification Administration, the film documents and propagandizes the effort of the state during the New Deal era in the United States to bring electricity to rural areas. The voiceover stresses the extra-visual element of the wirescape, describing an idyllic frontier of the senses: "Now, wires ring out the country. Stretching out, long wires are reaching out were wires never went before. There is a tune as the wind blows through the wires…"

View of the Crab and Winkle Way, connecting the city of Canterbury with the coastal town of Whitstable.
Photo: Dimitrios Bormpoudakis, 2016.

Still from* Power and the Land, *the 1940 documentary by Joris Ivens.
Source: FDR Presidential Library under a CC0 1.0 Universal licence.

For white rural Americans of the New Deal era,[1] who were yearning for the modernization that was supposed to come with electricity, this low-voltage powerline wirescape produced – according to the narration – "a tune." To today's ears sitting on a bench by the Crab and Winkle Way, the sound of the high-voltage powerlines connecting the 175-turbine London Array offshore wind park to the national grid can – contingent on sociocultural background, atmospheric conditions or even mood – have a rather different effect/affect. For most, especially homeowners living next to the wires (Sims and Dent 2005), it is hardly a tune but more of a disruptive buzz, a jarring and sinister intrusion into the peaceful 'Garden of England' landscape for which rural Kent is known. Despite the visual similarities between Ivens' film and the wirescape of modern-day Kent, their sound worlds are quite distinct. The field recording from the bench is dominated by the buzzing sound of what is termed 'the corona discharge', the energy released as the electricity from the wires interacts with the air. The nature of the sound produced is modulated by the quality of surrounding atmosphere, whether it is foggy, windy or raining.

And yet, a different positioning of the microphone, a sunnier or less humid day, or even a different way of processing the recording, can all transform how we listen to energy infrastructures from the bench. In the second bench field recording, we can imagine and hear how we might live with and alongside infrastructure. Presumably, for the Crab and Winkle Line Trust the sound of infrastructure here is not just a buzz, and that is why they added a bench at this particular point in the path (there is only one more bench on the whole 6-mile path, next to an old cemetery near the University of Kent campus). Like the sounds that enliven it, such a notion chimes with the community assembled haphazardly around the bench: the wildflowers, birds, insects, pylons and wires, joggers, empty beer cans, walkers' voices and laughter, dogs, rolling paper packets, crisps and cookie wrappers. All these elements indicate a convivial assemblage of human and non-human animals, plants, technology and waste. This multi-species and multi-object assemblage does not point to a contradiction-free Anthropocene, but to the Anthropocene as a critical utopia as in Ursula Le Guin's *The Dispossessed* (1974).

Walkers' litter left behind the bench.
Photo: Dimitrios Bormpoudakis, 2016.

Reflecting on the fact that these particular wires carry electricity from one of the largest offshore wind farms in the world also makes us reconsider the sounds emanating from this renewable energy infrastructure: for the output of this farm is almost three times that of all turbines installed on Crete as of 2020 (approx. 630 MW versus 220 MW). The sounds of high-voltage renewable energy in this context might be a "tune," as was the sound of electricity for those impoverished, mostly white rural Americans of the interwar era, and unlike the noise of the *zvuri* in Crete. Here, sitting on a bench by a pylon in the Kentish countryside, we can sense the contradictory, sinister and hopeful affects of the Anthropocene.

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The global push for greener energy infrastructure is affecting communities – mainly rural ones – across the world, creating opportunities and injustices along existing and novel socio-spatial cleavages, such as by threatening land-based livelihoods and ecosystems both near and far away from their installation (Riofrancos 2019). Studying how different communities listen to energy infrastructure indicates that a possible future "charming Anthropocene" (Buck 2015) will not arrive free of contention or contradictions. The sounds of renewable energy infrastructures, key components in all scenarios for climate change mitigation and adaptation regardless of scale or voltage capacity, will surely be there to annoy and enchant us.

Notes:

[1] As Murphy (2020) notes, the "strict practices of racial segregation thwarted black participation."

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