

ESC in the Anthropocene Education for Sustainability and Communism

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Résumé de l'article

Insofar as Education for Sustainable Development still represents a redemptive intervention, one according to the demands of a monolithic improvement agenda, its chances are greatly enhanced by the restoration of Grand Narrative initiated by the epochal turning. The much vaunted Anthropocene returns to the agents of change the opportunity to redirect the unified 'geostory' of 'biohistory' towards a steadier state. That is to say, the Anthropocene collapse of the 'human' and 'natural' spheres into each other's orbits restores to ESD its promise to heal the planetary condition. This paper proposes, though, that such a re-fertilisation of ESD can bear fruit only if its premises are radicalised, indeed revolutionised. Employing a red biocentric approach – a praxis which advocates communism without anthropocentrism – it is argued that education for sustainability under current conditions equates to teaching and learning towards collectivism, class-, species- and world-consciousness. Furthermore, it is suggested, such consciousness is meaningless without vehicles for its articulation and actualisation. This means organisation, activism, disobedience, and the emergence of the possibility of the mass Earth Strike. Education for Sustainability and Communism (ESC) is unsurprisingly an activity unconfined by classroom walls: the condition of its possibility is the real, material site of resistance and of spectacle. It is argued that in order to break the impasse between critique and transformation, ESC affords the only viable possibility for the evolution of education for development that is fit for the Anthropocene.

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Abstract

Insofar as Education for Sustainable Development still represents a redemptive intervention, one according to the demands of a monolithic improvement agenda, its chances are greatly enhanced by the restoration of Grand Narrative initiated by the epochal turning. The much-vaunted Anthropocene returns to the agents of change the opportunity to redirect the unified 'geostory' of 'biohistory' towards a steadier state. That is to say, the Anthropocene collapse of the 'human' and 'natural' spheres into each other's orbits restores to ESD its promise to heal the planetary condition. This paper proposes, though, that such a re-fertilisation of ESD can bear fruit only if its premises are radicalised, indeed revolutionised. Employing a red biocentric approach – a praxis which advocates communism without anthropocentrism – it is argued that education for sustainability under current conditions equates to teaching and learning towards collectivism, class-, species- and world-consciousness. Furthermore, it is suggested, such consciousness is meaningless without vehicles for its articulation and actualisation. This means organisation, activism, disobedience, and the emergence of the possibility of the mass Earth Strike. Education for Sustainability and Communism (ESC) is unsurprisingly an activity unconfined by classroom walls: the condition of its possibility is the real, material site of resistance and of spectacle. It is argued that in order to break the impasse between critique and transformation, ESC affords the only viable possibility for the evolution of education for development that is fit for the Anthropocene.



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Introduction: 'Sustainable Development' in the Anthropocene

As the epochal turning sees the restoration of the grand narrative, the preposition in 'education *for* sustainability' is also returned something of its redemptive capacity, the possibility of purposiveness. The embodied, activist pedagogy of the *Skolstrejk för klimatet* forms the starting point for a political engagement with education *for* not sustainability alone, but a world necessarily transformed. This article conjures the impossibilist spirits of past dreams and future hopes, to meet the erotic, the sensual and poetic pull of abandonment to the collective, the allure of the street, and the lessons of the mass strike, towards a vision of education for sustainability and communism.

In the interests of transparency, readers might find it helpful to know that the author currently teaches Education Studies in a UK university, whilst also engaging in trade union, environmental and political activism, prior to which I spent more than a decade as a state primary school teacher.¹ Like many other university educators, much of what I now teach is focused upon seeking to awaken within my co-learners an awareness of the possibility of a future which is livable for other-than-human animals and humans, and sustainable for Earth systems. Debates about sustainable development, *or not*, in Environmental Education (Jickling & Wals, 2008; Jickling, 2016; Bowers, 2003, 2018), discussions which couple 'development' with 'growth' in Education for Sustainable Development (ESD) (Bonnett, 2004, 2013), or which identify developmentalism in ESD with Western assumptions and an anthropocentric worldview (Bowers, 2005a, 2005b), these debates, whilst undoubtedly important, often seem stale and of little concern when raised with Extinction Rebellion activists or young people committed to change. Yet, time and again, as activist-educators strive to learn about what kind of action offers the possibility of sustainability, we necessarily consider the meaning of revolution today, and, this article contends, we must attend to the impossible. What this means in theoretical terms, is to dispense with talk of the emptiness of ESD (Moran & Kendall 2009) and to propose instead the imperative of continuing education towards revolutionary development – Education for Sustainability and Communism (ESC). This is argued from the position of twenty-first century, Anthropocene Marxism. The shorthand used here to capture the idea of communism without anthropocentrism is Red Biocentrism.



The United Nations' 2030 Sustainable Development Goals (UN HLPF, 2019) were published in 2015 as "an urgent call for action by all countries - developed and developing - in a global partnership" (UN, 2019), and now serve as the basis of an online course in sustainable development (eduCCate Global, 2019), used by teacher educators in many countries. Pre-practice teachers at the author's own Higher Education Institution are required to undertake this programme as part of their undergraduate study. The reader may agree that there can be little to object to in requiring accredited 'climate change teacher' status to form part of initial teacher education (ITE). Yet, if one takes these most mainstream seventeen goals as a basis for education for sustainability, I suggest that the questions that are begged of the UN's High-level Political Forum on Sustainable

¹ This article was written prior to the COVID-19 pandemic. During this period, and in the weeks leading up to the first lockdown in the UK, the author spent most of his time on the picket line in a protracted strike over the 'Four Fights': pay, workload, casualisation, and gender and ethnic pay gaps. The article makes no reference to COVID, and anticipates that, just as it did even during lockdowns, the physical presence of the mass of workers, infected both by new strains of coronavirus and the virus of capital that everyday wracks our bodies, will take to the picket line and streets again, undaunted by the sicknesses that our system visits upon us.

Development regard complex relations between, on the one hand ecosystemic sustainability, and on the other socio-economic sustainability. Specifically, it is suggested in this article that an important part of the radical educator's approach, missing in the UN online ITE in sustainable development, may be to consider how through our teaching, and to a still greater degree through our wider pedagogical activity, we might contribute to the strengthening of collective (proletarian) labour-sustainability. The UN SDGs may seem a rather sorry starting point. Those Marxist educators who have troubled themselves to analyze them have offered trenchant critique of their inbuilt growth imperative and unsurprising failure to name the source of the poverty and inequality they seek to eradicate (McClosky, 2018). But, they nevertheless play an increasingly prominent role in ESD discourses at all phases of education, and so some engagement on the part of radical educators will remain necessary.

It is argued that whilst Red Biocentrists could have no objection to aspects of SDGs such as "full and productive employment and decent work for all" and "justice for all and... effective, accountable and inclusive institutions at all levels" (UN HLPF, 2019), such slogans point up the unavoidable reality that to make sense of a pedagogy of justice and sustainability, set against even these goals, questions of the choice of *strategic action* adequate to the challenge of ensuring justice and productive work for all arise almost immediately.

This article places such choices within a philosophical frame of relational internality, and does so from a specifically Marxist *and* biocentrist standpoint. In other words, it proceeds on the basis that the relations between workplaces, communities and ecosystems are not external to these *nexūs*, but that each form part of a wider system as features of a complex of internal relations (Ollman, 1990, 2015). To be clear, this is to say that Red Biocentrism is a methodological and ontological approach which shares with some versions of both Marxism (Dietzgen, 1906a; Ollman, 2015, Pomeroy, 2004) and broadly 'green' theory (Bateson, 1980; Mathews, 1991) a *philosophy of internal relations*. What makes Ollman's orientation amenable to Red Biocentrism is the possibility of extending outwards fields of abstraction and so analysis, just as Marx does, from the particularities of material conditions in any given phase of capitalism to wider material movements, up to and including trophic, adaptive, and ultimately all biotic relations as internal to the whole system of capital-infected world ecology.

Whilst until recently one might rarely have heard industrial action strategies associated with environmentalism, and still less with 'sustainability' per se, the phenomenon of the Youth Strike for Climate Justice, and to an even greater extent the *Earth Strike concept* (Earth Strike International, 2019) bring to the fore consideration of the social and economic relations - the relations of production - begged by the SDGs. The preservation of *communities of labour* lies at the heart of the defensive strategy of the strike. The strike, and in particular the ideal of the *mass strike* to which we will return, functions by throwing a system into (almost) stasis whilst reconfigurations can occur which, potentially at least, preserve the possibility of the longer term survival of the revived system. The break in normal service which the strike provides offers a profoundly pedagogical opportunity, one wherein commitments can be born and deepened in the realisation of identification and solidarity. This is where Dean's (2016) and Ford's (2019) understanding of the Crowd is invaluable. Taking this further, and regarding the striking mass as a field of internal relations, rather than a collection of individuals, sets up a radical counterpoint to bourgeois education's individuation strategies.

Rather as was the case with my generation of Arts and Social Sciences students' experience of the ubiquity of 'the Postmodern' as undergraduates in the late 1980's, the 'popular

Anthropocene' has become a widely discussed frame for events as well as a helpful boost for academic publishers quick to profit from the zeitgeist. Like the postmodern, the *idea* of the popular Anthropocene will be rather quick to fade but, to a much greater degree than the significance of the postmodern, to the extent that the full meaning of the Anthropocene (Crutzen & Stoermer, 2000) is realised and felt in the life experience of the increasingly precariously-placed youth, it will not fade but amplify in those further generations which may, with concerted effort on the part of those living now, follow. I do not intend to spend time here discussing contrasting versions of the popular Anthropocene grand narrative. What is worth noting though, at out outset, is that, for the first time since the retreat of the postmodern moment, the 'geological turn' (Bonnieul, 2015) has provided the opportunity for the unexpected revival of the Grand Narrative, per se, and with it the return to relevance of a vision of education as a redemptive intervention – one that can be *in accord* or *at odds* with the story of the epochal turning.

The Red in Biocentrism

Increasingly, responses to the climate crisis appear to be re-dividing along new lines. As Heron and Dean (2020, p. 3) note, climate change denial served the environmental movement well in furnishing it with a point around which to rally its coalition of scientists, activists and proponents of social justice. However, where once there was a meaningful difference between deniers and believers, now that the former represent a dwindling band of flat-earth obscurantists, the latter are bifurcating into, on the one hand, *realists* and, on the other, *impossibilists*. The second of these terms is not intended to denigrate: far from it. To demand the impossible is to realise and live in that fundamental epistemological rupture between the comfortable capitalist consensus, and the set of affirmatives beyond the pale – that which polite discourse including the vast majority of mainstream academic literature occludes. Among environmental impossibilists, one might include for example, the great and growing Extinction Rebellion (XR) movement with its 'transitional demand' for an almost instantaneous (forty three months as I redraft this article) global reduction in carbon emissions to net zero and a halt to biodiversity loss²; those in the green anarchist tradition who call for a Future Primitive (Tucker, 2019; Zerzan, 2012); and perhaps also the deepest of deep green doom-mongers, the Deep Adaptationists (Bendell, 2018), seeking the eschatological road of relinquishment on the way to human extinction. Also amongst environmental impossibilists, perhaps, those within the ecosocialist milieu (Angus, 2007; Löwy, 2015; Kovel, 2019) who understand the supersession of the capital system to be a necessary condition for rapid, just transition, rather than collapse³. There is an honorable tradition of 'demanding the impossible' among Marxists of various hues, not only those explicitly identified as Impossibilist (Buick, 2005). So, to this lineage we must append the new, Anthropocenic forms of communism – the Red Biocentrist orientation.

Given the understandable unfamiliarity of many with emerging non-anthropocentric Marxism, it is necessary to propound, briefly, something of the philosophical basis for the Red Biocentrism to which I refer. Red Biocentrism is a materialist and monist view of the world, sharing a vitalist orientation with aspects of the fashionable new materialism (Wilson, 2018) and

² At the moment of redrafting, XR UK's Action Strategy 2021 was published, and entitled *Act for the Impossible!* (XR UK, 2021)

³ Perhaps there is an argument for including those who do advocate for collapse – disaster communists, such as the Out of the Woods Collective (2020) – among the impossibilists' number. In a sense, their hope against hope takes impossibilism to a new level.

panpsychism with some deep ecologists (Mathews, 2019). But it finds its roots far deeper in the traditions of Marxism than does the former – particularly in the traditions of Dietzgenism (Boxley, 2017, 2019a) and the legacy of the sensualist, naturalist-humanist Marx discussed below – and draws much more explicitly on ecosophical thinking.

Red Biocentrism does not claim to improve upon its forefather Marx, nor to go beyond his legacy. It is Marxism, as haunted by its ancestor's presence as its many cousins. As John Bellamy Foster illuminates, the circumstances of today are such that this Marxist legacy must re-turn towards the set of material relations which define the thinking of the naturalist-humanist Marx. This was the nexus of relations (between humans) which “was in fact a dialectical one in that it was an internal relation within a single totality” (Bellamy Foster, 2008, p.62). To re-emphasise, in the sense that Ollman very clearly defines (Ollman, 2015), Red Biocentrism is a philosophy of the whole, a ‘holomarxism’ (Boxley, 2019b) of internal relations.

As far as we humans are concerned, the *sensuous* basis of our experience of nature is at the heart of the experience of the internal relations which define our being as relational with others – with both other humans and with members of the whole vast plenum of more-than-human nature. Red Biocentrism grounded in ‘*human sensuousness*’ makes of our powerful, immediate hunger, of the urge to be in, to be with, to be part of other humans and living beings the basis for a praxis of collective activism. Like David Orton's (1991) earlier ‘socialist biocentrist’ formulation, Red Biocentrism is grounded in active opposition to injustice and inequality. But, in the light of theoretical developments such as those advanced by Jason Moore (2014, 2015a, 2017), it is held that to divide such injustices into those which are economic and those which are ecological is both invidious and, in the spirit of ‘popular Anthropocene’ theory as well as Moore's *World-Ecology* formulation, both meaningless and unhelpful. So, for this reason, Orton's earlier assertion that “*nature [is] ultimately more important than society*” (original emphases) (Orton, 1991, p. 97) must be redundant. As eco-womanist (Harris, 2017) and Common Worlds (Nxumalo, 2018, 2019; Nxumalo & Cedillo, 2018; Nxumalo & ross, 2019; ross, 2020; Taylor, 2017; Taylor & Pacini-Ketchbaw, 2020) pedagogies highlight, such formulations also offend against indigenous and decolonial epistemologies, bifurcating the world ecology into the Rousseauian ‘pure’ and unsullied nature – a wilderness void of indigenous presence – and the ‘civilized’. Red Biocentrism must surely reject such (settler-colonialist) logics.

Red Biocentrism and the Erotic

If Marx's naturalist-humanism is most clearly expressed in the 1844 manuscripts, it cannot be regarded as coincidence that so too is his “appreciation for sensuality that might, in today's language, be termed sex-positive” (Klotz, 2006, p.408). Whilst it might not seem immediately obvious that *ecosexual* theory might form a prominent element in the holomarxist educational response to environmental crisis, the claim of Red Biocentrism is that the shifting locus of communion with our wider Self, in the sense outlined in Deep Ecology (Naess, 1995), might move between the moments of sexual rapture, class consciousness and action, an ecological and bioregional consciousness and action, a species being and species consciousness, and ultimately a ‘world consciousness’. In a sense, the draw of each of these arises from a kind of *erotic impulse* and represents a level of *elevation of the self* into a wider frame of identification. In each case, the boundaries between that which is ‘I’ and that which is ‘not-I’ are blurred such that the pain or pleasure of the ‘other’ is not metaphorically but *literally* also a pain or pleasure to one's-Self. Marx himself makes this clear in his highly charged description in the ‘Private Property and Communism’ section of the 1844 manuscripts. Here at his most wonderfully radical, Marx's

abolition of private property envisions a phenomenological transformation in the human experience, a being-in the senses which frees them from acquisition, from the gaze that holds, from the touch that possesses, from the ear that owns the tune, for “[n]eed or enjoyment have consequently lost their *egoistic* nature, and nature has lost its mere *utility* in the sense that its use has become *human use*”. (Marx, 1992, p.352) More to the point here, not only one’s own sensuous being in the world, but the sensual enjoyment of *others* have become, in Marx’s propertyless vision, “my *own... social* organs are therefore created in the *form* of society; for example, activity in direct association with others, etc. has become an organ of my own *life expression*.” (Marx, 1992, p.352) The supersession of private property here insists on both sex without possession and the absolute collectivist solidarity of the direct action /strike because in each case the activity is the shared sensuous expression of life, not egotistical, but *natural* and whole. This “erotization of the entire personality” (Marcuse, 1969, p. 164), as Marcuse termed it, proposes a revolution in our sensuous experience of being in the world, where the “body in its entirety would become an object of cathexis, a thing to be enjoyed – an instrument of pleasure. This change in the value and scope of libidinal relations would lead to a disintegration of the institutions in which the private interpersonal relations have been organized.” (Marcuse, 1969, p. 164)

Marx’s writing in the *Manuscripts* of 1844 is of course steeped in Hegelianism, but even before this, and perhaps to an even greater extent, this relinquishment of Enlightenment rationalistic egocentrism and anthropocentrism can be found in his earliest writings. It can be illuminating to Marxists seeking to affiliate with biocentrism to remind ourselves of Marx’s youthful orientations. Still under the influence of Schelling and Fichte (and before his conversion to Hegelianism) Marx’s early Romantic onto-poetics represent a glimpse of a mode of thought, itself a product of a particular social milieu, which locates the aspiring poet’s cosmogony within the evolving German intellectual tradition at a point when *poetry itself* could be imagined as a means to unlock an erotically integrated social being. The clearest surviving expression of the philosophical development of Marx to 1837 can be found in his poetic experiments, such as the piece entitled simply *Poetry*, and that called *Awakening*. In the former, in increasingly impassioned verse, Marx endeavours with some success to achieve a shifting and blurring of subject and object, “I” and “it”; poetry binds the listener Marx into the song of nature, an awareness of the divinity of which evinces in him an erotic dissolution of finitude into the cosmic oneness of the “creator’s breast”:

I heard rustling, I saw it gleam,
 Distant heavens moved onward,
 Rose up, to sink down,
 Sunk down, to fly ever higher.
 As the inner battle now quieted itself,
 I saw pain and joy condensed in song.

Nestling next to the mildness of the forms,
 The soul stands firmly bound;
 Image swelled out of me,
 Out of you they were kindled.
 (Marx, 1979, p.229)

It is in the realisation of poetry itself that the poet achieves the Aeolian co-vibration in harmony of human and infinite tones. The theme is developed in *Awakening*,

Like the undulating tone of strings,
Which, bound to the lyre,
Musingly has slumbered,
Upward through the veil,
Of primeval night,
Then flash from above
Eternal stars
Lovingly inwards.

(Marx, 1979, p.231)

The awakening of the poet is the awakening of all Creation into a divine and erotic unity, represented at once as a swelling expansion of the self and as a sinking interpenetration into the “World-All”. The poetics of human and natural harmony carry the poet into a sensuous “abyss” of self-negating orgasm as with “quivering lips/ Reddened by ether,” nature opens to the “Flaming, eternal/ Lovekiss of divinity.” (Marx, 1979, p.231) The keening eroticism of the young poet’s desire for absorption into the trembling divine may suggest to us nothing so much as his adolescent frame of mind, rather than his nascent theory of being, but, nevertheless, allows Red Biocentrism another means of tentatively connecting the ancestral shadows of the imaginative attempts within forgotten corners of the Marxist tradition to think a universe made whole, with later ecological yearnings, and does so by virtue of an ontology of creativity, eroticism and holism. In developing this tradition, Lewis and Kahn speak, of an interspecific erotic imaginary that they term zoöphilia, that takes the lessons of the naturalist Marx to the world of more-than-human love, arguing that “any attempt to reconstruct a revolutionary love amplified by zoöphilia requires a cultural analysis of the erotism displayed for nonhuman animals by elements of the human population” (Lewis & Kahn, 2010, p.140), this ‘erotism’ of the more-than-human, and its human and other-than-human adherents, representing a Marcusean prefiguration of erotic explosion, “love of this monstrous terrain of unruly flesh, of the zone of indistinction between humans and animals, and in this sense...the quintessential act of love within the multitude.” (Lewis & Kahn, 2010, p.146)

As Marcia Klotz puts it, “if we take it [the argument of the 1844 passages] seriously, the erotic realm of bodily pleasures would certainly be one of the arenas of human experience - and of human production – most immediately transformed by doing away with private property.” (Klotz, 2006, p. 411) This and the youthful writings of the 1830’s place Marx squarely within the naturalistic tradition of sensuous connectedness that forms so strong a part of contemporary earth-based spiritualities, for though our circumstances may have changed significantly since Marx’s youth, as Christine Hoff Kramer puts it, “our anatomy and physiology have not. Many Pagan traditions center on sensory experience of the physical world and on the ecstasies that can be accessed through... sex, [the erotic, more broadly]... and other physical activities” (Kraemer, 2013, p.9), such that “the erotic is a divinely transformative force, both for personal development and for *social change*” (emphasis added) (Kraemer, 2013, p. 13). Red biocentrism unapologetically taps into these re-emergent – zoöphilic, panentheist, panpsychist, even Pagan – sentiments which are coming to the fore in the current period of ecological crisis. Such re-connections are at the heart of the pedagogical project for sustainability, which necessarily takes the form also of education for the new communism, ESC for the Anthropocene.

The Bio in Communism

But what of the *bio-* in red biocentrism? Does any of this escape the seemingly unavoidable trap of anthropocentrism which results from these being *my* senses, *my* hunger, *my* erotic energy? Marx addresses these questions in proposing that man “has *real, sensuous objects* as the objects of his being... *Hunger* is a natural need; it therefore requires a nature and an object outside itself in order to satisfy and still itself.” (Marx, 1992, p.390) Like erotic desire, hunger requires its object, yet that ‘other’ is necessarily also internal to its wider nature as part of an ecosystem; it is

the acknowledged need of my body for an object which exists outside itself and which is indispensable to its integration and to the expression of its essential nature... A being which does not have its nature outside itself is not a natural being and plays no part in the system of nature. (Marx, 1992, p.390)

The erotic, then, is a powerful starting place for a red *biocentric* pedagogy in that it is the yearning for another human presence which here serves as the ‘natural need’, and yet that nature, being also human, is a mirror of one’s own hunger, sharing in natural being. This is, in a sense, the first point of identification, witness, and the source of solidarity. It is the power of the mother’s presence, the power of the breast, of skin, which carries humanity through the erotic realm into the possibility of awareness of self as implicated in the order of internal relations (Ollman, 1979). Ecosexual holomarxism must insist on the dogmatism of *it before I*: the hunger, the yearning exists prior to the *I* in the actuality of the material relations which enmesh us, with our reflexivity and criticality emerging and occurring only secondarily. For Red Biocentrism, life’s erotic connectivity comes first. Red Biocentrism as a species of Marxism is a means of working through what the set of relations of which humans are a part means without positing ‘human’ as at its heart, and is dialectical in the manner in which Dietzgen’s (1906a, 1906b) monist materialism is dialectical: identifying contradictions between actually existing concurrent elements which contain each other, replacing the “common sense notions of ‘thing’, as something that... has external connections with other things, with... ‘relation’, which contains as part of what it is its ties with other relations.” (Ollman, in Foster, 2008, p. 68)

Red Biocentrism is communism for the Anthropocene: it learns from all those who live in the contradiction between the real and the impossible, and like Ford (2017b) and Rikowski (2018), finds the impossible within the real, now (Boxley, 2019b). In a world of mass migration, potential conflict over land and water, deep energy insecurity and increasing scarcity, a few of us, environmental impossibilists, have long seen the only alternative to chaotic collapse, mass violence, extinction and human death on an unimaginable scale to be a vast project of centralization of power into the hands of a complex and variegated system of world democratic proletarian government(s); the absolute transcendence of corporate, bourgeois states, and capitalist institutions; as yet almost unimaginable redistribution; contraction and convergence; meticulously organized rationing; the withering away of the wage system, and with it the emergence of the new forms of human subjectivation that Marcuse imagines. Impossible?

Pedagogy

Let us be honest and proclaim that the starting point for a meaningful pedagogy of sustainability cannot be the politics of business as usual, the politics of the possible. Such a politics takes the distorted form of theatrical disputes between contenders for the role of King of Bravado. Whether in the UK, USA, or elsewhere the part performed by the Regis is to most extravagantly present the case for *riding out the crisis*. Given that all solutions to fix the contradictions of

capitalism are *fictional fixes*, the *performance is everything*, whether Boris Johnson's, Biden's or Bolsonaro's. Now is the time for a pedagogy of the impossible. Derek Ford (2021) illuminates the ways in which the logics of such a pedagogy define its character as communist. That ESC requires shifts, changes in mode and register, which signal both its political and purposive nature (the 'for' in *Education for Sustainability and Communism*), and the various means by which learners might come to this teleological moment is difficult enough in itself. The claim here though takes the phase of 'inquiry' (Ford, 2021) out beyond the classroom into the realm of 'revolutionary fieldwork'. Like Marx's own inquiry, ESC's requires both its (often digital) equivalence of the hours spent ambling amongst the 'data' in the British Library, but also the mental fieldnote-taking of the communist ecologist / anthropologist, the unanticipated, revelatory debate on the picket line, political meeting, on the doorstep or the street.

Sustainability narratives cannot (any longer) satisfy themselves by echoing around in a secondary (or false) contradiction between realists and deniers, as was the case in the US presidential contest between Clinton and Trump (Badiou, 2019), or Trump and Biden. Such debates can occur *within* the school classroom and function as no more than a *performance of education* in that their ends are nothing more than their own performance. Education for sustainability which results in no more than its having been registered, done, checked, signed off in the form of certification – in the UK, a GCSE in geography, for example – is to what end? Of course, those stuck within the echo chamber can remain satisfied that something meaningful is happening whilst, outside, the real world dies. For Red Biocentrism, the task of ESC is to smash the echo chamber and return the protagonists languishing within to the primary contradiction, between the real and the impossible; that is, to the contradiction between an education for capitalism and an education for the planet. In order for this to take place, yes, the classroom must continue to decant to the street, as increasingly young people join the school strikes; but the necessary concomitant of this, the street must also come to the classroom. Sadly, many teachers who have not themselves taken place in Earth Strikes may not yet be bold enough to invite XR 'rebels' and Earth Strikers into schools, but as Richard Kahn (2005, 2010) rightly pointed out, today's primary environmental educators cannot be institutional (academic) figures at all, but direct activists such as the members of XR or the Earth Liberation Front who "are undoubtedly social educators in that they hold key knowledge about the world that few possess and they have accordingly organized a politics (and to some degree a culture) that seeks to build upon and inform that knowledge" (Kahn, 2005, p.4). Kahn, though, recognizes, in Marx's words, that "it is essential to educate the educator himself" (Marx, 1992, p.422), otherwise, we are left with a remote vanguard whose "key knowledge" of "Liberation Collective philosophy" (Rosebraugh, 2004, p.39) may serve only to alienate it further from the general population. Those analyses which challenge dominant anthropocentric impulses even within activist critical pedagogy are vital, and I include among these the revolutionary environmentalists (Best and Nocella, 2006) and critical animal pedagogues such as Best (2004), Nocella (2019) and Lupinacci (2019); but, for all their exhortations to violent resistance to speciesist oppression, which I support, there must also be a call to draw the eco-radical educators into dialogue with organized labour, including organized school-workers such that their activity does not wholly lose sight of the concerns of working class and student cadres. Worth noting in this context, perhaps, that XR has recently "taken on board the criticism that we appear to be a middle-class movement" and have issued a call for members of a new "XR Working Class Team" (XR Working Class Team).

Activist pedagogies have the potential to offer hope, but it would be naive to assume that any single strategy for mobilisation will be universally or even widely successful – stories of glue-

ons and road blockades, like the tree-spiking, sand-in-the-crankcase, monkeywrenching of the previous generation of direct activists will repel as many as they attract, and it is always sobering to recall the reality, no less true for the repetition, that many young people, including even plenty of Extinction Rebels, can more readily understand and imagine the end of humankind than they can the end of capitalism. It is, in truth, only the latter that can bring the hope of a world transformed, and only those educators who are brave enough to conjure its spectre for young people whose pedagogy is truly in the service of a sustainable future. Only the fundamental division between the dominance and protection of private property, and its opposite, the expansion and triumph of the commons (Hardt, 2010; Federici, 2019), presents a real alternative. This returns us to the only meaningful, impossible aim of education for sustainability: “the making in-common (hence the word “communism”) of everything concerning the great process of production and exchange.” (Badiou, 2019, p.24).

A note is necessary here too on why this activist pedagogy requires the *erotic*. By this I mean that real pedagogy for sustainability operates at the level of embodied selves as well as wider collective selves. The traces of the capital’s chemical modification of our nexūs are not only to be found in the sediments deposited in the geology of the new epoch, but, as Armiero and De Angelis explain, are also laid down in the “genetic strata of human bodies” (Armiero and de Angelis, 2017, p.347) that are subject to the internalization of the experiences of life on the choking streets, with all its epigenetic consequences, as so powerfully illustrated recently by London rapper, Drillminister (2019). So it is as bodies on the streets, embodied selves that we learn of our power as much as our subalternity. The draw of the street is libidinal, it is erotic, in the sense that we feel our embodied selves anew in the act of learning a different way to be, along with others: “Eros” said bell hooks “is a [pedagogical] force that enhances our overall effort to be self-actualizing... it can provide an epistemological grounding informing how we know what we know” (hooks, 1994, p.195). Pedagogy for sustainability, which will occur to an ever-greater degree in the activity of the strike, is an erotic coming-together: self-actualization as self-expansion (rather than actualization of the bourgeois ego-self). Such a process is necessarily voluntary rather than a matter of ‘seduction’ (Vlieghe & Zamojski, 2019), the product of enthusiasm rather than compulsion.

If one thinks of the embodiment of the strike, its multitudinous movement, the mass picket, the rally, the jostling, hungering, crowd, its form is necessarily structured by politics before and as it forms, and the communist-biocentrist struggles to determine these conditions, as and within the Party and the Union. As Ford (2019) and Dean (2016) compellingly explain, the capitalist, and specifically the neoliberal form of education calls out subjects as individuals, interpellating a form of subjectivity which ideally suits the political ends of capital. Collectivity is denied and the lived reality of communal identity is fractured. Red Biocentrism foregrounds the features of this individuation that enclose the human not only from the crowd, and the class, but from the more-than-human. As Ford argues in respect of the crowd, the *erotic power of soil, bark and warm fur also* engages us in a process of “joyful disindividuation that takes the form of an intense belonging” (Ford, 2019, p.29): a truly magical becoming.

Strategy

It should not be surprising that the UN’s current educational offering in ESD (eduCCate Global, 2019) goes nowhere near the indispensable questions of labour-ecosystem (internal) relations and the pedagogical role of the Earth Strike in moving systems towards sustainable ends. Communities of labour, functioning as they do within land communities, resist, adapt, survive to the extent that they build complex internal relations between interlocking systems. It is the

contention of this article that education for sustainability, such as that premised upon the well-intentioned and inclusive SDGs means little and can impact even less on the course of geo-history if it is not borne of the *activity of strategic resistance*, of the strike, the building of alliances and partisan militancy at the level of both communities of labour and land communities. The time when one could imagine real and meaningful education for sustainability occurring solely within the classroom is gone, if it ever existed.

The question of strategy arises at this point, so with it the question of what is possible and what is impossible. The hallmark of classic impossibilism was the immediacy of its demands, the transition from a market economy to a democratically planned and cooperative one, with the abolition of private property and the wage system as a *starting point* not a distant dream (Gambone, 2010). Next to such revolutionary enthusiasm, today's impossibilists in XR may look rather tame. However, a thread runs from the birth of "Impossibilism's child" (Gambone, 1995), One Big Union, to the syndicalist aspirations of the IWW-inspired *Earth Strike* movement which represents the current amongst today's environmental radicals most closely aligned with Red Biocentrism, and the deep tradition of Dietzgenism. Earth Strike (ES) is, in its own terms, "an international grassroots movement that demands action against climate change from governments and corporations through the tactic of a global general strike" (Earth Strike, 2019, p.3), and unlike XR (despite its recent toe-dipping in this territory), ES is explicitly anticapitalist, and crucially *class-based* in its analysis and activism.

However, the mass earth strike, it is imagined, will be "horizontally organized, decentralized" and relatively independent of the established organs of the working class, the federated trades unions. The syndicalism implicit in the Earth Strike (2019) formulation raises questions about both the form and becoming of the communism envisaged, which would need to be contested in discussions of the role of Party and State, and the author's own position on this more closely aligns with Heron and Dean's (2020) than Earth Strike's (2019).

The aspiration of ES is impossibilist, in the author's view, and of course in the current historical moment, it would be fanciful to imagine that the conditions of class struggle are adequate in *all* 'developed' nations to provide the basis for a *general* or *mass earth strike*. Nevertheless, the emergence of a new militancy amongst school students, a sector of workers as yet little organized by institutional trades unions, demonstrates a remarkable potential for transformation of the *Skolstrejk för klimatet* into wider conflagrations, sweeping up first education workers (Vernell, 2019; CACC-TU Group, 2019; UCU 2019) and parents and then wider layers of more or less organized citizenry in brief but enthusiastic labour-stoppages. This process of collective expansion only really began in the author's native UK in September 2019, but was seen much more clearly in the huge groundswell of militancy in Australia, with additional layers of activists from established trades unions, indigenous communities and many others drawn into the first real national *mass earth strike*, estimated at around 300,000 people (Henriques-Gomes et al, 2019). In the author's view, Heron and Dean develop a productive analysis in urging that we

[c]onsider the contrast between the widely popular Fridays for the Future protests and the mass strikes in France and India. The former attempt moral persuasion. The latter assert proletarian power as they interrupt capital's circulation and stand up against capital's state. What if electrical workers all over the world followed the lead of their French comrades and turned off the lights? What if all transport workers refused to drive or fly all vehicles that weren't zero-emission? What if the

global working class emulated the 250 million Indians who brought their country to a halt with their January 8, 2020 general strike? (Heron & Dean, 2020, p.13)

This is the call to study (“like a communist” (Ford, 2017a)) from and within the mass strike movements which will become increasingly shaped by directly and indirectly environmental concern. A most pressing imperative for educators today must be to devise an industrial pedagogical analysis, leading towards an educational strategy, understanding the objective conditions, but centered on the *subjective element* of the mass strike. This call is at the heart of the present article, but it is possible here only to begin to sketch what such a strategy would look like. It would ask of communities what is truly necessary to sustain their health and wellbeing; which features of mutual, cooperative, and statal infrastructure, held in common, meet human and more-than-human need? How does our environmental education, or education for sustainability, serve the end of developing, strengthening, sustaining and expanding common ownership and collective interest? When are such ends met in classrooms through the active contestation and appreciation of community and collective understandings, and when by taking to the street in the process of active subject-formation (‘interpellation’) through rebellion, disobedience, and ultimately the withdrawal of labour in the interests of land and labour communities? What is the motivation for participating in collective action, the eros that draws us onto the street?

How extraordinary, the reader might exclaim, to lurch back and forth from the erotic to the industrial. No, not at all. The key feature of the discussion here is the movement of the masses, beginning in the current case with the youth. Such general movements occur over and again, with a greater or lesser degree of spontaneity, but always as a constellation of activities that are not and cannot be *directed* by political leaders, even as they are so framed and analysed. To cite just a few examples, the mass strikes in Belgium, 1893, Sweden 1902, Russia, 1905, France, 2010, and China the same year, the UK, 2011, Brazil and South Africa, 2012; in October 2019 in Chile; the Indian general strikes 2020: these all to an extent swept up workers in a spasm of physical activity compelled by circumstance. I do not mean in any way to downplay the vast significance of the mass strike when I claim that its gravitational pull on those who take to the streets under its influence is erotic, is magical (Ford, 2017b). It is not merely empowering but life-affirming and self-actualizing to be so connected to other workers in struggle. The movement of groups of workers converging, comingling, starting together to each other’s defense is, as the flow of meltwaters, a tumbling inevitability. The mass strike is, in Luxemburg’s terms “absolutely impossible and sure to be defeated” (Luxemburg, 2004, p.171), whilst also and at the same time a historical inevitability, the triumph of which will be unquestionable!

It is not, therefore, by abstract speculations on the possibility or impossibility, the utility or the injuriousness of the mass strike, but only by an examination of those factors and social conditions out of which the mass strike grows in the present phase of the class struggle – in other words, it is not by subjective criticism of the mass strike from the standpoint of what is desirable, but only by objective investigation of the sources of the mass strike from the standpoint of what is historically inevitable, that the problem can be grasped or even discussed. (Luxemburg, 2004, pp.170-71)

The mass strike is a *pedagogical* moment in at least two fundamental respects. *Firstly*, its characteristics as defined by Rosa Luxemburg include its scale and coordination but also critically its effect on the political life of a country: the mass strike is a political event by virtue of its “widespread discussion in the media, by politicians and the public as a whole” (Novak, 2019,

p.46), i.e., its public-pedagogical impact. Secondly, mass strikes mobilise and engage large numbers of workers who were not previously class-conscious, such that participants “experience their collective power and receive a quick and groundbreaking form of political education.” (Novak, 2019, p.49). This is in essence, an erotic imbrication in the tide of collectivism as a ‘natural force’, the parallel at the level of class-consciousness of the ontopoetic absorption that Marx envisaged in his communion with divine nature, an embodied sentiment which was also beautifully captured by that other great poet of the revolution, Maxim Gorky. In *A Confession*, the most ‘Dietzgenist’ of his novels, Gorky (1910) contrasts proletarian collective consciousness with mystical union: in the latter, the protagonist Matve opines, “my mind was enraptured when I disappeared, as it were, from consciousness of self, and ceased to be” (Gorky, 1910, pp. 277-8), whilst, “in this communion with men [the proletariat], I did not abandon myself, but on the contrary grew and raised myself above myself” (Gorky, 1910, pp. 278) This is an “oblivion of the self” (Gorky, 1910, pp. 278) of a sort, but one which extinguishes only isolation and alienation, this “intimate communion” (Deida, 1995); an erotic surrender of the self to the collective, in angry love. To restate, the erotic in biocentric pedagogy cannot be limited to the sexual in an anthropocentric, heteronormative or cisnormative manner; in the spirit of Serena Gaia Anderlini-D’Onofrio (2011) and Christine Hoff Kraemer (2012) the eros of which we speak is subversive of dualisms, a life force which propels the impossible into the real, for “[w]hen we limit “erotic” to its sexual meaning, we betray our alienation from the rest of nature. We confess that we are not motivated by anything like the mysterious force that moves birds to migrate or dandelions to spring.” (Keen, 1985, p. 5) Eros brings together, strengthens the internal relations that bind us, and makes whole. It is the energy that powers the transformative street-pedagogy of the climate strike (as well as, for example, guerrilla gardening, ecotage, die-ins and other forms of direct activism for the earth). Its spontaneity is at the root of the mass strike moment.

Conclusion

We are now, only at the start of the rising tide of earth strikes, yet their remarkable potential for building collectivity and commonality in the interests of biospheric defense already present a turning point. No longer can the main focus of education for sustainability be said to lie in the classroom or lecture hall. The educational moment of mass action on the streets occurs ultimately, in an embodied sense of collective re-empowerment and un-alienation. In order to realise the revolutionary potential of this moment, educators for sustainability might learn with our students what it means to act in solidarity with the more-than-human, with the dying coral polyps and songbirds and all those species in the Amazon basin which will be extinct before we even give them names. Teachers for sustainability should, I have argued, learn again the meaning of biocentrism, and the *common* cause, and take that back to the school, college and university. The next step, the one that some among those in the Earth Strike movement have already made, is to bring this back to the primary contradiction between the system of capital, and its transcendence – turning common cause with the “lilies of the field” into common struggle, common ownership, communism. The red biocentrist perspective on this moment finds in the sensuous, educative capacity of the collective the possibility of a negation of despair at the prospect of the end of the world into its opposite: hope at the prospect of the end of capitalism. And, in turn, from this emerges ongoing education for sustainability and communism.

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