Enough: Reading notes from media studies

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by Maria A. Vélez Serna, Judith Keilbach, Michał Pabiś-Orzeszyna, Toni Pape, Alejandro Pedregal, James R Price / Iago ap Rhys, Becca Voelcker

Introduction

In 2023, the NECS Sustainable Media Workgroup initiated a reading group on the topic of 'degrowth'. We took a piece by Judith Keilbach and Michał Pabiś-Orzeszyna (2021) in this journal as a starting point, where questions of overproduction, sufficiency, and justice emerge as part of a call for an ecocritical reorientation of media studies. This annotated bibliography continues that discussion in response to this issue's invitation to think with the concept of #Enough. Co-created by reading group members and intrigued scholars, it captures a moment in our collective thinking and engagement with a complex area of scholarship and public discourse. It does not claim to be a comprehensive or systematic review of literature. Instead each of us brought to the discussion themes and sources we can see from our plural standpoints. This is a map of our multiple views, which allowed us to share sources and critical discussions through the series of conversations that have led to this piece.

There are already numerous bibliographies of the broader context (for instance, the International Degrowth Network's 'Degrowth Papers Explorer [https://docs.google.com/spreadsheets/d/1C8zZHAx5Nuf gid=1605820271#gid=1605820271] ', or, for more field-specific approaches, the 'Foundations' in Architecture is Climate [https://architectureisclimate.net/foundations/#position] and this Places journal reading list [https://placesjournal.org/reading-list/degrowth-energy-sobriety-low-tech-towards-an-architecture-of-conviviality/] by Mireille Roddier), but by favouring eclecticism over comprehensiveness we have tried to represent our own paths into the field. Historical and contemporary examples challenge the claim that there is no alternative to ecocidal and unjust ways of living, and offer visions of post-extractivist media futures. We trust this serves as an invitation for anyone interested in critical media studies.

We present and discuss a selection of readings that we have found useful to consider what #Enough may mean in the context of media studies, divided in four sections. The first section sets out some of the broader terms of the discussion drawing on other areas of scholarship, such as economics, philosophy, and politics. The second section then shows how alternative economies of the moving image, those outside financialised and growth-driven models, have been articulated into media practice. This section draws out connections between an eclectic range of historical media movements and manifestos, exploring divergent political and aesthetic positions in relation to resources, limits, and tactics of scale. The third section turns towards critical approaches to media industry practices in contemporary scholarship, tracing some of the

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debates around ‘green’ initiatives within the broader area of ecocinema and ecocriticism, though a deeper engagement with these thriving fields is beyond our scope. The fourth section looks to digital technologies and their materiality, focusing on emerging concerns about the acceleration of data overproduction, storage, and transmission.

The choice of sources followed different criteria for each section. Some of the most influential pieces have been included, but also lesser-known ones that pose a different provocation or a specific instantiation of an idea. By drawing on different types of literature, emerging across different times and places, and across political, aesthetic, or critical projects, our discussions are brought together by the question of how to live well on this finite planet. Media, as a set of material practices that weave social relations, cannot stand outside that enquiry, and we share this exercise in that spirit.

Political and economic approaches to #Enough

In the political economy texts we start with, the idea of #Enough refers to a material threshold at which certain needs are met. In most cases, sufficiency is appreciated as a value that supports conviviality with the non-human world, and is positioned in contrast to the externalities of overproduction and overconsumption. For media industries, this perspective urges divestment from Hollywood’s wasteful production models and critiques accelerated production cycles and planned obsolescence.

However, depending on their theoretical backgrounds, authors differ in their understanding of #Enough and the political and economic measures required to achieve a world in which

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‘flourishing for rich multispecies assemblages that include people will be possible (Haraway 2015). Ecomodernist approaches, for instance, consider the possibility of decoupling economic growth from carbon emissions or to address inequality within existing economic systems. Such positions are held by writers across the political spectrum, including Marxist thinkers. This is unsurprising given that growth has an important place in many historical and recent socialist or emancipatory paradigms, even if they propose a redistribution of its proceeds, for instance, in so-called ‘progressive neo-extractivism’(see Gudynas 2010, Svampa 2019). We have focused instead on sources that argue for more radical change, including those associated with ecosocialist and Marxist approaches, degrowth, social ecology, and more-than-human approaches of buen vivir.

Inequality and limits

> Hildyard, L. Enough: Why it’s time to abolish the super-rich. London: Pluto Press, 2024.
>
> Robeyns, I. Limitarianism: The case against extreme wealth. New York: Astra House, 2024.

Due to neoliberal reforms and economic crises, economic inequality has been growing. In recent years, critical responses to this issue have increasingly focused on the super-rich. Published in 2024, Luke Hildrard’s Enough and Ingrid Robeyn’s Limitarianism critique the institutional and legal frameworks that lead to growing inequality, especially tax systems. Robeyns and Hildyard robustly critique excessive wealth and its deleterious effects on economy (corruption), society (political apathy), and the environment (carbon emissions, extractivist habitat destruction, pollution). Research has extensively

demonstrated the important links between social inequality and carbon emissions in the neoliberal era (see Chancel & Picketty 2015 and Chancel 2022). With their focus on the super-rich, the question of sufficiency and limits in Robeyns and Hildyard is: How much is enough for one person or household? In other words, these texts do not provide a critique of growth-based economies as such. Extreme personal wealth is also linked to corporate conglomeration, and hence to the question of organisational scale and structure. The idea of limits to wealth also addresses debates about the 'right size' of companies and networks, seeking to enable democratic control and autonomy (Gibassier & Parrique 2024, Doctorow 2024).

> Raworth, K. Doughnut economics: Seven ways to think like a 21st-century economist. London: Penguin, 2017.

Kate Raworth's 'doughnut economics' argues that a socially and ecologically viable economy must reside within an outer circle of environmental limits and an inner rim of social wellbeing. For Raworth, social and ecological considerations are inseparable, as illustrated in soil health, which affects both people and the planet. While GDP measurements of economic growth reward financial activity that is often anti-social and environmentally damaging, diverse alternative metrics do exist. It is these other forms of growth that Raworth counts, including a resurgence in wildlife and biodiversity, a proliferation of cultural engagement, a flourishing of communal greenspace, and increased ecological and political literacy.

For an experiment in applying doughnut economics as a heuristic for film analysis, see Hayward 2020.

Ecosocialist approaches

While focusing on excessive wealth is proposed as a correction to the excesses of capitalism that ultimately preserves it, ecosocialist and Marxist scholars foreground a broader sense of class struggle as a basis for a social reorientation towards #Enough. Given the working classes' asymmetrical relation to capital's hunger for infinite extraction and exploitation, it is them who stand to suffer more during the difficult but inevitable transformation of the global economy. In this context, these books address other economic mechanisms (besides growth) that support rampant inequality and environmental destruction such as primitive accumulation, enclosure/externalisation, (neo)colonialism, imperialism, and underdevelopment.

These discussions have important precedents in works by sociologists, economists, and philosophers who prepared the ground for the ecosocialist and ecofeminist debates, such as Carolyn Merchant, Enrique Leff, Ariel Salleh, James O'Connor, Maria Mies, Vandana Shiva, John Bellamy Foster, Paul Burkett, or Michael Löwy, to name a few.

> Huber, M. Climate change as class war: Building socialism on a warming planet. London-New York: Verso, 2022.

The book's title summarises that struggle over climate and environment is a class issue in at least three ways: 1) private and accumulative ownership of the means of production leads to environmental deterioration; 2) the climate movement is (ineptly) led by the professional class whose 'smart' policy-making is out of touch with the working class; and 3) an adequate response to the climate crisis requires a 'mass popular

movement'. The working class is defined ecologically by its lack of direct access to the means of life/livelihood, most importantly the land.

Huber's focus on ownership of means of production and the professional class leads to a consideration of workplaces (sites of production) as key sites of environmental destruction and carbon emission. This is a welcome addition to the focus on wasteful consumption behaviours, e.g. in the critiques of excessive wealth. Huber critiques the 'incessant focus on consumers and consumption' for feeding a logic of climate guilt and, ultimately, of austerity. As an example, Huber cites the degrowth movement (see ch. 4; see LaVenia Jr. & Busk 2024 for a response to Huber's critique). Huber, by contrast, affirms a 'politics of more' that has something to offer to the working classes.The analytical chapters cover various sectors of production, including agriculture, education, energy, and unions.

> Malm, A. Fossil capital: The rise of steam-power and the roots of global warming. London: Verso Books, 2016.

Malm's breakthrough text was this historical analysis of the emergence and entanglement of fossil fuel use and capitalism, with a focus on the British industrial revolution. Malm's analysis of how coal supplanted the promise of renewable waterpower argues that Capital obstructed the adoption of 'flow' technologies to pursue the mobility and accumulation offered by coal. Fossil fuels provide capitalists with a 'stock' they can own, sell, and trade, an appeal that continues to undermine the possibility for a renewable technology transition. With renewable energies, Malm argues, once the infrastructure is in, the

only thing left to sell is maintenance and upgrading, which are unattractive to Capital.

It is illuminating to regard material analyses of the histories of moving image technologies and production economies and ecologies (Lovejoy 2023, Jancovic 2025) alongside Malm's work. Cinematic technologies, birthed in the same context of industrial and imperial capitalism, mirror Malm's observations with their ever-deepening enmeshment in fossil fuels, shifting from the bioplastic celluloid to acetate and then to digital. It is intriguing to contemplate the extent to which media economies are similarly tied to capitalist logics which undermine their transition to post-extractivist forms.

> Ajl, M. A people's green new deal. London: Pluto Press, 2021.

Ajl's book critiques 'Green New Deals' (GNDs) as largely reformist, arguing that they offer limited solutions that ignore capitalism's inherent social and environmental harms. Drawing on dependency theory, Ajl highlights these GND shortcomings and, in contrast, proposes a People's Green New Deal emphasising food sovereignty, labour reorganisation, re-peasantisation, and decentralised, decarbonised housing and transport. Ajl also advocates for demilitarisation, decolonial politics, and re-localisation of production. He underscores the importance of national governments in pursuing reparations and autonomy, referencing Samir Amin's concept of delinking from Northern capital's demands. Ajl's vision includes small-scale, community-driven models like municipalism, aligning with ideas from thinkers such as Bookchin.

> Barca, S. Workers of the earth: Labour, ecology and reproduction in the age of

climate change. London: Pluto Press, 2024.

While Huber's book sometimes reads as if the working class is an unruly force that the professional class cannot afford to ignore, Stefania Barca's Workers of the Earth suggests that, historically, the working classes have a keen understanding of ecological thinking and organised resistance to environmental degradation. The book wants to break with capitalist discourses that co-opt workers into a depoliticised consumer stance. Instead, Barca suggests that a stronger consciousness of one's class position as a worker can go hand in hand with a recognition of one's interrelation with the earth. Unlike Huber's polemical resistance to degrowth, Barca suggests that labour organising and degrowth are compatible if workers are dealienated from their work. In studying the 'nexus between industrial labour and ecology' (p. 9), Barca advocates for a 'broader conception of work as a (gendered and racialised) mediator of social metabolism' (p. 15). Importantly, this definition includes reproductive labour, which Barca folds into her argument through feminist thinkers of care as resistance.

Degrowth

Degrowth is the broad name for an intellectual and political movement that asks for a critical assessment of growth-based economies and their underlying ideology of expansion and intensification. As an emerging school of thought, degrowth maintains a foundational link with ecological economics, as well as with other heterodox currents linked to ecosocialism. Muraca and Schmelzer date the emergence of #Enough ideas back to the 1970s, The Club of Rome's famous 'The Limits to Growth', or the writings of Nicholas Georgescu-Roegen and André Gorz, to

name a few (see Muraca & Schmelzer 2017) [https://www.zotero.org/google-docs/?9Xj7In] . The ecological economics work of authors such as Robert Constanza, Joan Martínez Alier, or José Manuel Naredo, among others, is an important precedent.

Degrowth approaches usually include a critique of national GDP as the sole or main indicator of a society's prosperity, and instead argue for more holistic accounts that consider social well-being, ecological regeneration, and democratic participation. Degrowthers criticise the notion that GDP growth can be decoupled from the growth of carbon emissions, resource depletion, and other environmental impacts. In sharp contrast to green growth advocates, degrowthers do not believe that absolute decoupling is possible (cf. Parrique et al. 2019, Hickel & Kallis 2020).They argue that, since economic growth is intrinsically linked to environmental destruction, economic degrowth is the only way out of the climate catastrophe. It is worth noting that there have been many recent efforts to theoretically integrate degrowth and ecosocialism (see Löwy et al. 2022, Pedregal & Bordera 2022, Foster 2023, and de Kadt 2023).

> Saitō, K. Marx in the anthropocene: Towards the idea of degrowth communism. Cambridge: Cambridge University Press, 2022.

Saitō interprets Marx' concept of the 'metabolic rift' as the capitalist disruption of the natural cycles of resource replenishment and ecological balance, arguing that in his late work, Marx moved toward an anti-growth position, envisioning a sustainable future between human societies and nature. Saitō's 'degrowth communism' is proposed as a solution to the current ecological crisis, by

restoring social metabolism and prioritising collective well-being over capital accumulation, profit, and material wealth. Critical of mainstream eco-modernist and green growth positions, Saitō advocates for local production, community control, shorter working hours, and a slower pace of life, in contrast to the frenetic pace of capitalist production and consumption. Degrowth communism includes reclaiming and protecting. Saitō uses Marx's analysis of primitive accumulation to argue for the protection of the commons against their capitalist enclosure, calling for a cooperative and collective management of natural resources. Saitō has also written a more accessible book on these ideas published in English as Slow Down: The Degrowth Manifesto.

> Schmelzer, M., Vetter, A., and Vansintjan, A. The future is degrowth: A guide to a world beyond capitalism. London: Verso Books, 2022.

The Future is Degrowth offers an in-depth exploration of degrowth as a necessary alternative to capitalism's pursuit of infinite economic growth which, the authors argue, is both socio-ecologically unsustainable and harmful. It advocates for a radical reorientation of social priorities toward ecological sustainability, social justice, and collective well-being over profit and consumption. The book calls for political, economic, and cultural transformations, promoting reduced production and consumption, democratic decision-making, and more localised, cooperative forms of living. By distinguishing degrowth from austerity, it presents practical solutions for creating a more just and sustainable future. Among other currents of degrowth, the authors highlight 'sufficiency-oriented' degrowth (pp. 183-185). For the theoretical grounding of

this aspect of degrowth, the authors draw on Giorgos Kallis' critical reading of Malthus (see next entry).

> Kallis, G. Limits: Why Malthus was wrong and why environmentalists should care. Stanford: Stanford University Press, 2019.

Kallis' book Limits gives a historical and theoretical introduction to the notion of economic limits. It analyses what economists do with limits or how they operationalise them. The first and most important limit that Kallis discusses in detail is scarcity. Classical and neoclassical economic theories postulate that there is a logically/structurally inescapable scarcity – or 'never enough' – of the means or time necessary to fulfil individuals' unlimited needs and wants. Once this logic of inescapable scarcity is established, the solution to this problem becomes self-evident: only a growing economy can supposedly meet the ever-growing needs and wants of a population. Through an insightful reading of Malthus, Kallis questions this assumption. Most importantly, he rejects the Malthusian assumption that people's wants are unlimited. 'It is not our nature but the system that wants us to want without limits' (p. 50). In turn, 'nature is scarce only if there are excessive wants' (p. 52). Following Cornelius Castoriadis, Kallis advocates self-limitation as a form of autonomy, one that can enable well-being instead of thwarting it and, ultimately, sustain a sense of abundance. In chapter 4, Kallis outlines a 'culture of limits' which can be connected to notions of 'alternative hedonism' (Soper 2020), the 'joy of less' (Steiner 2009), and the 'good-enough life' (Alpert 2022).

> Hickel, J. Less is more: How degrowth will save the world. London: Penguin, 2021. [https://www.jasonhickel.org/less-is-more]

Less is More argues that degrowth must be part of a decolonial project of climate justice. This claim is grounded in a critique of capitalism as dependent on growth/excess, which requires extraction or, in the case of primitive accumulation, dispossession, warfare, and genocide. An important point of departure is that economic growth has costs, and that some types of growth cost economies more than they contribute. Hence, Hickel argues that degrowth can benefit global human welfare instead of harming societies. An important step in this process is to replace aggregate GDP measures with more differentiated assessments of particular industries, focusing degrowth proposals on unsustainable ones (plastics, cars, real estate, meat, flying) and in particular regions of the world. Chapter 5 of the book elaborates on many concrete policy proposals, including ending planned obsolescence, supporting 'right to repair' legislation, cutting advertising to curb overconsumption, enabling collective public ownership of technology, ending food waste, decommodifying public goods and expanding the commons, and cancelling debt.

The notion of planned obsolescence is particularly important for an adequate understanding of media industries' participation in environmental degradation and destruction. Media technologies and services that are designed for short life-cycles and fast throughput require and foster intensified consumption. Degrowth literature analyses consumption of material and immaterial goods in terms of metabolism: as a high-velocity, wasteful, self-destructive metabolic disorder. In practical terms, this argument calls for a shift in how humans participate in the planet's metabolism. It calls for a revalorisation of earthly matter/material reality as well as maintenance

and care activities, also in relation to media and their technologies (see below).

> Dietz, R., O'Neill, D., and Daly, H. Enough is enough: Building a sustainable economy in a world of finite resources. San Francisco: Berrett-Koehler Publishers, 2013.

Dietz' and O'Neill's Enough is Enough advocates for a steady-state economy, generally defined as a 'prosperous yet non-growing economy' (p. 11). This project is sympathetic to and explicitly compatible with degrowth: 'Degrowth is a process of transition, and the ultimate goal of this process is a steady-state economy' (p. 53). As a result, the policy proposals in this book – neatly listed towards the end of each chapter – overlap with those previously mentioned. It is worth adding that this book often thinks at a planetary scale, for instance when it considers population growth or economic and political unilaterialism.

Buen Vivir and social ecology

Frameworks centred around the fundamental interdependence between human and non-human worlds, including contemporary interpretations of Indigenous knowledge, also offer valuable understandings of #Enough. These approaches are generally characterised by holistic, relational, non-hierarchical ontologies and aim to integrate social and ecological well-being as inseparable goals. The most important strategies for achieving this goal are communal governance, ecological stewardship, and equitable resource use. In addition to challenging the extractive mindset of growth economies, these approaches promote alternative visions of prosperity grounded in respect for biodiversity, community empowerment, and environmental ethics. Further examples in this vein include theories of

bioregionalism, ubuntu, Bhutan's Gross National Happiness, and Ecological Swaraj in India.

Kothari, A., Salleh, A., Escobar, A., Demaria, F., and Acosta, A (eds). Pluriverse: A post-development dictionary. New Delhi: Tulika Books, 2019.

Cuestas-Caza, J. 'Sumak Kawsay is not Buen Vivir', Alternautas, vol. 5, no. 1, 2022: https://doi.org/10.31273/alternautas.v5i1.1070 [https://doi.org/10.31273/alternautas.v5i1.1070] (accessed on 8 November 2024).

'People's Agreement of Cochabamba'. World People's Conference on Climate Change and the Rights of Mother Earth, 24 April 2010: https://pwccc.wordpress.com/2010/04/24/peoples-agreement/ [https://pwccc.wordpress.com/2010/04/24/peoples agreement/] (accessed on 8 November 2024).

The Latin American tradition of critique of development, leading to theories of 'post-development' political economy, have long engaged with the question of sufficiency in a context where many people's material needs are not met, due to dispossession rather than scarcity. 'Buen vivir' emerged ostensibly as a translation of Andean Indigenous concepts like Sumak Kawsay (Kichwa) and Suma Qamaña (Aymara), but it has become an influential idea in Western academia through the prolific work of Alberto Acosta, Arturo Escobar, and Eduardo Gudynas, and through the incorporation of the idea within legal frameworks in Ecuador and Bolivia. This already hints at some of the tensions that underlie this formulation. Cuestas-Caza identifies the post-development definition of 'buen vivir' as a 'postmodern collage' that incorporates 'elements

of Andean thought' alongside degrowth, ecofeminism, post-extractivism, and other related currents. What 'buen vivir' borrows from Indigenous worldviews is an ecocentric and relational way of understanding and being, founded on reciprocity and non-separation between people, nature, and territory. A crucial text that invokes 'living well' in a programmatic argument against developmentalist agendas is the 'People's Agreement of Cochabamba' (2010). The text argues that while 'all countries need to produce the goods and services necessary to satisfy the fundamental needs of their populations', the disproportionate footprint of rich nations vastly exceeds the Earth's regenerative capacity and hence the possibility of living in harmony.

> Bookchin, M. The next revolution: Popular assemblies and the promise of direct democracy. London: Verso Books, 2015.

Sitting between eco-anarchist, pluralist, and eco-socialist approaches to political ecology, Bookchin's earlier work Post-Scarcity Anarchism (1971) might seem more apposite for review in an #Enough bibliography, but it is his twenty-first century work on Social Ecology, Municipalism, and Communalism, after his disavowal of Anarchism, which carries most influence today, most notably in the de facto autonomous administration of Rojava, Syria. Bookchin shares degrowth's challenge to the capitalist pursuit of growth, advocating instead for community self-governance grounded in principles of sufficiency and ecological responsibility. Through popular assemblies and decentralised political structures, Bookchin advocates for societies where collective decision-making reflects an ethic which resists extractivist logics that prioritise profit over

community well-being. ‘Social ecology is an ecology not of hunger and material deprivation but of plenty; it seeks the creation of a rational society in which waste, indeed excess, will be controlled by a new system of values; and when or if shortages arise as a result of irrational behaviour, popular assemblies will establish rational standards of consumption by democratic processes’ (p. 25). Bookchin’s social ecology invites a reimagining of media production and consumption, suggesting that sustainable cultural practices are not merely about resource use but involve reshaping cultural values toward growth. Bookchin’s emphasis on popular assemblies resonates with participatory media forms and production structures that value community voice, responsibility, and accountability.

Alternative histories

If current discussions of limits to growth can be traced back to at least the 1970s, these early formulations only incidentally tackle art, media, and cultural production. However, one can identify a plethora of statements, manifestos, texts, and initiatives that explored modes of sufficiency in the realm of the creative labour at the time or earlier. These include some classic invectives against capitalist cinema. Julio García Espinosa’s manifesto ‘For an Imperfect Cinema’ (2019 [orig. in 1969]) posits an art form that strives for its own annihilation, by dissolving the distinction between artist and audience; Solanas and Getino’s ‘Towards a Third Cinema’ (2014 [orig. in 1970]) similarly calls for a proletarianisation of the filmmaker. In both cases, a revolutionary cinema is open-ended, made with whatever tools are available, and opposed to ‘the fully-rounded film structured according to the metrics imposed by bourgeois culture’ which is allied to consumerism,

imperialism, and alienation (see also Mimura 2019, Pedregal 2023).

Such critiques of spectacle emerge out of contexts of relative material scarcity, so their resourcefulness is more tactical than motivated by a reflection about limits. However, they contain some other elements that connect them to other sources in this section. Here we have chosen less well-known primary or secondary sources that preconfigure today's practices and debates, first materially and then institutionally. Movements centred on photochemical, 'handmade' films are a site of resistance to the acceleration and proliferation of images. Democratically organised media practices also offer an alternative to profit-driven competition and its wastefulness. Alongside self-imposed formal limitations and experiments, the traditions highlighted here tend also to foreground a social embeddedness of media practices and an unfinished, processual aesthetics.

Materiality: Formats, infrastructures

> Thoms, A. 'Hand-Made Films Manifesto', Cantrills Filmnotes, no. 2, 1971.

Cultivating a sense of media materiality has been at the core of many cameraless practices (MacKenzie & Marchessault 2019) [https://www.zotero.org/google-docs/?a3AROq] . Following from earlier experiments such as those by Len Lye or his own work in the Ubu Films group, Thoms advocated for low-tech, artisanal sufficiency, stating that 'any scrap of film can be turned into a hand-made film at no cost' (p. 76). The frugal mode of non-camera practice leads to the rejection of standards. It unlocks the emergence of art that is open and popular, with a tinge of post-anthropocentrism, since 'a film

scratched inadvertently by a projector is equal to a film drawn explicitly by a genius' (p. 77). Abandoning photographic high technology displays the materiality of the dispositif, democratises the process, and enables embeddedness as a mode of experience, by exhibiting hand-made films 'as environments, not to be absorbed intellectually, but by all the senses' (p. 77).

> Elam, J. and Kleinhans, C. 'Small Gauge Manifesto (USA, 1980)' in Film manifestos and global cinema cultures: A critical anthology, edited by S. MacKenzie. Berkeley: University of California Press, 2014: 87.

While in the 1960s and 1970s Ubu Films and other Australian co-ops explored non-alienating labour with 16mm film materialities (scraping, painting, melting, etc.), a decade later JoAnn Elam together with Chuck Kleinhans praised the community-building potential of the regular 8 and Super-8 low-cost and low-threshold technologies. The Chicago Filmmakers group members distributed 'Small Gauge Manifesto' in 1980, arguing that slight and inexpensive low-tech equipment fosters social bonding during both shooting or exhibition. 'Light and unobtrusive' cameras invite deep and flexible connectivity with the environment. 'Small scale viewing' enables communication between filmmaker and protagonists, and other participants, so that 'filming and viewing events can be considered as part of the editing process' (p. 87). Such downscaling and prolonging the artwork's lifecycle constitutes a pathway to inclusive sufficiency and social embeddedness. For Elam and Kleinhans the value of media practice lies somewhere else than in the extracted surplus:

‘Small gauge film is not larger than life, it’s part of life’ (p. 87).

> Kleinhans, C. ‘My Aunt Alice’s Home Movies’, Journal of Film and Video, vol. 38, no. 3/4, 1986: 25-35.

Six years after ‘Small Gauge Manifesto’, Kleinhans published an auto-ethnographic essay on Alice Worthen’s amateur film practice. In ‘My Aunt Alice’s Home Movies’ he highlights the collaborative authorship of family-processed films that often tinker with the topoi of mass culture, ‘slyly insisting on the use value over the exchange value of popular culture products’ (p. 33). Humble technology and small-scale efforts unlock both non-market pleasures and a ‘reaffirmation of people, things, and values’ (p. 27). Drawing on the work of Lucy Lippard, Kleinhans emphasises the importance of interweaving feminism with the thread of community maintenance, since it ties small-scale filmmaking with circularity and care economies.

> Pick, A. and Dymond, C. ‘Permacinema’, Philosophies, Vol. 7, no. 6, 2022: 122; https://doi.org/10.3390/philosophies7060122 [https://doi.org/10.3390/philosophies7060122] (accessed on 8 November 2024).

> Voelcker, B. ‘Field work: Ogawa Productions as farmer–filmmakers’, Moving Image Review & Art Journal, Vol. 10, no. 1/2, September 2021: 41-71; https://doi.org/10.1386/miraj_00063_1 [https://doi.org/10.1386/miraj_00063_1] .

The materiality of small-scale, hand-made photochemical film practices has led some filmmakers to reflect on their environmental impact and to seek less extractive, more regenerative ways of working. Pick and Dymond

find examples of a ‘degrowth cinema’, one which can ‘rediscover abundance and pleasure within the confines of the earth’ (2022, p. 122). Some of these include experiments with plant-based photochemical processes, drawing out alliances between filmmaking and farming, and dwelling on relational ontologies of interdependence. Voelcker discusses an extension of this approach in the rural way of life of Japanese collective Ogawa Productions, as they learned how to grow rice and documented the process in a suite of films made in the 1970s and 1980s. This and other practices are discussed in Voelcker’s forthcoming book, Land Cinema in an Age of Extraction (University of California Press, 2025).

Film cooperatives, community, and slow media

The cooperative is often seen as a mode of labour that transforms current extractivist relations of production. The ‘democratic ownership of business’ that is small in power, size, and scale incentivises the change in priorities: from the pursuit of profit to the values of autonomy and care (Parrique 2019, pp. 544-552) [https://www.zotero.org/google-docs/?mVVBhL] . Film history is particularly rich in co-ops or similar forms of organisation that united experimental filmmakers exploring the alternative patterns of collective creativity (Clayton & Mulvey 2017) [https://www.zotero.org/google-docs/?d457Pz] . These are some of them.

> Zarząd Stowarzyszenia ‘Start’. ‘Film polski na bezdrożach. Między nakazem kasowości a nakazem sztuki. Produkcja spółdzielcza drogą do filmu artystycznego’, Głos Stolicy, no. 87, 4 December 1932: 15. (reprinted in Kinofilia zaangażowana Stowarzyszenie Miłośników Filmu Artystycznego „Start” i upowszechnianie kultury filmowej w latach

30. XX w., edited by Ł. Biskupski. Łódź: Wydawnictwo Przypis, 2017: 111-112.)

In 1932 the Polish Association of Art Cinema Lovers 'Start' published a diatribe against the profit-driven movie industry that manufactures 'box office successes with nonsense plays' (n.b. we translate 'Miłośnik' as 'cinema lovers', to differentiate from 'kinofil'/cinephile) (Zarząd Stowarzyszenia 'Start' 1932, p. 15) [https://www.zotero.org/google-docs/?it2jph] . According to the authors this 'very method of producing films as robbery objects' relates to the quest for 'maximum profit with minimum effort and money' (p. 15). Their criticism of robbery as the base of media production resembles today's accounts of the capitalocene and 'cheap nature' (Patel & Moore 2017) [https://www.zotero.org/google-docs/?nuvYHF] . More importantly, Start makes clear that the cooperative is the best subsoil for the emergence of non-financial values; it is for such a creative labour output that makes use of the promises of the medium and is 'in accordance with the social conscience of the authors (in case they do have such)' (p. 15). Ironically, some of the authors went on to co-create the postwar vertical mediascape: heavily centralised, scaled-up, and industrialised Polish film culture.

Association of Cinematograph, Television and Allied Technicians (ACTT). Workshop Declaration. London, 1984. https://www.fourcornersarchive.org/archive/view/C [https://www.fourcornersarchive.org/archive/view/((accessed on 8 November 2024).

Launched in the depths of Thatcher's Hayekian neoliberal revolution, the ACTT Workshop Declaration of 1982 creatively interpreted Channel 4's foundational governmental mandate

to ‘encourage innovation and to experiment in the form and content of programmes’ (1980 Broadcast Act, p. 3), using it to create infrastructure which supported radical, non-profit filmmakers. The workshop movement that emerged demonstrated the viability of an economy of state-enabled yet highly autonomous film and video practices, which were non-commercial and democratically controlled by workers. Liberated film and television practices, allied with third cinema, came to the fore, including the Black Audio Film Collective, Leeds Animation Workshop, Sankofa, Four Corners, and Amber Films. As output was limited by a quota, the working week kept at 35 hours, and all gains had to be reinvested, these collectives effectively operated outside industry incentives for growth.

> Mattelart, M. and Mattelart, A. ‘Social Communications for Development in Mozambique. A Tentative Evaluation’, Report for the United Nations Children’s Fund (UNICEF), Maputo, 1980: http://www.cf-hst.net/unicef-temp/Doc-Repository/doc/doc481793.PDF [https://eur03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.cf-hst.net%2Funicef-temp%2FDoc-Repository%2Fdoc%2Fdoc481793.PDF&data=05% (accessed on 8 November 2024).

In 1977 the socialist Government of Mozambique launched the New Paradigm for Social Communications, designed to foster decentralised audiovisual media lifecycles. This experimental program involved installation of infrastructure for bottom-up broadcasting in dozens of self-managed villages. Michèle and Armand Mattelart did a participatory observation of these developments, working on behalf of UNICEF and

the Mozambique Ministry of Information. The goal of the network of Social Communication Centres was to employ 'small' technologies for the work 'towards replacing communication provided on behalf of the people by communication provided by the people, for the people' (Mattelart & Mattelart 1980, p. 6) [https://www.zotero.org/google-docs/?VFe7F6] . An 'in-depth questioning of the vertical nature of existing models for technological communication' (p. 6) can unlock the use value of media (solving local problems, and flourishing in a self-governed, conscious way) so that the material features of small media empower sufficiency. However, this depends on establishing 'a network of decentralized social organization' (Mattelart & Mattelart 1982, p. 75) [https://www.zotero.org/google-docs/?5gBQBo] .

Michiel, H. 'Towards a Slow Media Practice', GIA Reader, Vol. 13, no. 3, Fall 2002: https://www.giarts.org/article/towards-slow-media-practice [https://www.giarts.org/article/towards-slow-media-practice] (accessed 8 November 2024).

_____. 'A Mosaic of Practices. Public Media and Participatory Culture', Afterimage, Vol. 35, no. 6, 1 May 2008: 7-14; https://doi.org/10.1525/aft.2008.35.6.7 [https://doi.org/10.1525/aft.2008.35.6.7] .

De Michiel published one of the first pleas for slow media, connecting alternative agriculture with localised artmaking through their small scale, circularity, longevity, and deceleration, against the destructive metabolism of agri- or media culture (for a later iteration of the term, see Rauch 2018) [https://www.zotero.org/google-docs/?TelCbj] . De Michiel praises the sufficiency and frugality of

artists who ‘share the ability to do a lot with little’, building alternative value chains. In a later account of the Gender Chip Project documentary process, De Michiel explores how distributed ownership and co-authorship redefine value chains in media practices. She emphasises ‘the practice of “community-building” with collaborators and partners – from the creative inception to its “long tail” of distribution’ (de Michiel 2008, p. 7) [https://www.zotero.org/google-docs/?WRSrH2] . This is a form of ‘embeddedness that involves longitudinal, iterative caretaking’. Such interdependent, ‘open-source’ mediamaking dismisses both the ‘myth of individual risk-taking indie filmmaker’ and the throwaway culture of movies. Here, the environmental metaphor of community-based media as ‘biodiverse habitats’ emphasises the non-plantational richness of hyperlocal media ecologies (de Michiel 2010) [https://www.zotero.org/google-docs/?JQfm0V] .

> ‘JOLLYWOOD MANIFESTO (Haiti, 2008)’ in Film manifestos and global cinema cultures: A critical anthology, edited by S. MacKenzie. Berkeley: University of California Press, 2014: 320-320; https://doi.org/10.1525/9780520957411-092 [https://doi.org/10.1525/9780520957411-092] .

An inspiring assemblage of humble-tech DIY culture, inclusive mode of production, and community-caretaking values is to be found in The Jacmel Ciné Institute, established in 2008 by David Bell in Haiti. In the ‘Jollywood Manifesto’ Bell advocates for the technological frugality and shortening supply chains for equipment. His vision of working ‘within a cultural context’ implies

simplicity and locality of storytelling and aesthetics. Cooperation with non-professional actors contributes to the development of sustainable communities.

Contemporary media industry discussions

In their contribution to the #Futures issue of NECSUS in 2021, Keilbach and Pabiś-Orzeszyna already identified the promising directions and contradictions of environmental scholarship within media studies, and proposed that media scholars 'need to start addressing which kind of technologies and content we want to spend the planet's decreasing resources on' (p. 111). This section retraces some of these pathways, highlighting the emergence of approaches that pay attention to the materialities of media production and consumption. As both academia and industry attempt to quantify carbon emissions and other impacts, methodological questions lead to political ones, between the gradual 'decoupling' promised by industry initiatives (the 'environmentalism of the rich') and the more urgent actions that climate change and global injustice demand.

Accounting for the materiality of media

> Bozak, N. The cinematic footprint. Lights, camera, natural resources. London: Rutgers University Press, 2011.

Bozak's influential book brings together analyses of films and filmmaking modes from different times and contexts that serve as critical touchstones to illuminate a polarity of 'access' and 'excess'. The concepts of 'resource' and 'waste' provide the materialist framework for discussions of form, alighting on historical practices that are economical by necessity, shaped by limitation. Weighing the relative impacts of analogue and

digital cinema, Bozak associates terms like carbon-neutral, proto-solar, shoestring, unplugged, and second-hand cinema to the idea of scaling back. Within these Second or Third Cinema examples (and even more in Fourth Cinema ones) there are ethical choices of austerity and circularity. However, these are not challenges to the broader culture of obsolescence and limitlessness boosted by digital media.

> Vaughan, H. Hollywood's dirtiest secret: The hidden environmental costs of the movies. New York: Columbia University Press, 2019.

While more focused on the material footprints of specific productions, Vaughan addresses the 'politics of spectacle' as a sociocultural contract that rewards excess and waste: 'the Hollywood spectacle is not to be limited by the frugality of nature' (p. 90). Arguing that 'greening' initiatives are too fragmentary, Vaughan proposes a 'relational-values approach' (p. 167) to the political economy of production.

> Maxwell, R. and Miller, T. Greening the media. New York: Oxford University Press, 2012.

Maxwell and Miller trace a history of global communications technologies, their corporate ownership, and extractive entanglements, which is necessarily high-level though rich in data. It also centres resources (such as minerals and data centre energy), obsolescence, and waste (particularly e-waste), but their ethico-political project is more overt: they identify 'growth ideology' as a key driver of media technologies' role in the ecological crisis. Therefore, they ask media scholars and citizens to consider 'How much media technology is enough? […] Should existing media institutions be sustained in their

present size and reach or shrunk to ecologically sound dimensions?' (p. 164). This sense of 'enough' corresponds to 'how much media technology is socially necessary' (p. 7). In an eco-centric ethics, the pleasures of tech consumerism would be replaced by a 'reenchantment' of low-tech culture and nature. These discussions are applied to a specific piece of technology in How green is your smartphone? (Maxwell & Miller 2020). See also the interview with Richard Maxwell and Toby Miller in NECSUS (Kooijman 2013) and with Miller in this issue.

> Cubitt, S. Finite media: Environmental implications of digital technologies. Durham: Duke University Press, 2017.

Cubitt's materialist approach connects mediation to different forms of enclosure, thus participating in the alienation of people from the environment and from the means to live well, with consumerism as a paltry substitute. Like Bozak and Maxwell & Miller, Cubitt draws on extensive research to show the materiality that underpins media communications and that make media 'finite' against ecomodernist promises of immateriality. Cubitt argues that 'overproduction and waste are essential to the growth model of capital' (p. 195), and they are also a function of enclosure. This dispossession is traced as a historical process that continues today in the privatisation of ideas and data. Against this foreclosure of possibility, Cubitt advances an 'eudaemonistic politics': the search for the good life through political aesthetics and towards a 'sustainable commons' (p. 113).

> Banks, M. 'The Unanticipated Pleasures of the Future: Degrowth, Post-growth and Popular Cultural Economies', New Formations, No. 107-108, 2022: 12-29; https://doi.org/10.3898/NewF:107-

8.01.2022 [https://doi.org/10.3898/NewF:107-8.01.2022] .

Critiques of excess and waste in media production generally lead towards a privileging of small-scale, local practice. This makes certain forms of media, such as high-end popular film and television, difficult to justify. In his challenge to progressive degrowth proponents, Banks highlights the risk of losing important dimensions of creativity and joy to a dogmatic austerity, which can easily overlap with an elitist disdain of popular culture.

Policy alternatives

Kääpä, P. and Vaughan, H (eds). Film and television production in the age of climate crisis: Towards a greener screen. Cham: Palgrave Macmillan, 2022.

This is an important collection focusing on policy and practice at national scales. Due to this, several of the chapters focus on industry-led initiatives seeking to 'green' production and to introduce 'sustainability' as a value. However, as several authors note, these efforts are often a means to continue business as usual, with some initiatives serving to bolster the power of big tech through the supposed benefits of digitalisation, 'an end game governed by the principle of optimised efficiency and maximised profit margin' (Kääpä & Vaughan 2022, p. 14). The focus on quantifying and monitoring serve a tech industry that values 'innovation and growth, not environmental sustainability and social equality' (p. 15). Instead, they argue for approaches that recognise on-the-ground realities and practices.

Within this book, Sørensen & Noonan show that European screen agencies have adopted a funding model that 'emphasises neoliberal elements like

growth, efficiency and competition' (p. 76), restricting the scope of their environmental initiatives. From a ground-up approach, Keilbach & Spoler point out that time pressure and limited budgets obstruct film workers' efforts to act on 'sustainability' values, as they come into conflict with the production of ever more, bigger films. As a point of contrast, Mette Hjort offers a discussion of sustainable, 'values-based' film training through interviews with filmmakers in Palestine, Burkina Faso, and Zanzibar, which serves to foreground 'the environmental virtue of limited resources' (p. 98). In these contexts Hjort finds a lot less waste, also slower and more community-based ways of working.

> Sørensen, I. and Noonan, C. 'Production, Policy and Power: The Screen Industry's Response to the Environmental Crisis', Media, Culture & Society, Vol. 44, no. 1, 2022: 172-184; https://doi.org/10.1177/01634437211065697 [https://doi.org/10.1177/01634437211065697] .

Sørensen & Noonan argue that 'the financial models which underpin screen production seem to be at odds with an ecologically sustainable way of operating' (p. 177), such as the privileged funding for transnational production. They also flag up the limitations of footprinting efforts, treated as 'boxticking' and leading to piecemeal mitigations.

> Pasek, A., Vaughan, H., and Starosielski, N. 'The World Wide Web of Carbon: Toward a Relational Footprinting of Information and Communications Technology's Climate Impacts', Big Data & Society, Vol. 10, no. 1, 2023: 20539517231158994; https://doi.org/10.1177/20539517231158994

[https://doi.org/10.1177/20539517231158994]
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If policy interventions often centre on measuring environmental impacts, Pasek et al. show how 'footprinting methodologies are a key site in which politics are practiced' (p. 2). Through a review of literature, they argue that generalised, abstracted policies are mired in the uncertainties and contradictions of the data (such as footprint accounting), but that more local and 'relational' approaches can yield more pragmatic solutions, 'in the context of vast regional asymmetries of power and technical capacity' (p. 3). The authors' approach is more geared towards applied solutions rather than degrowth, but it links the technical problems of footprinting with the bigger question of the proportionality of impact.

Arcila Calderón, C., Barranquero, A., and González Tanco, E. 'From Media to Buen Vivir: Latin American Approaches to Indigenous Communication', Communication Theory, Vol. 28, no. 2, 2018: 180-201; https://doi.org/10.1093/ct/qty004 [https://doi.org/10.1093/ct/qty004] .

This review of Latin American approaches to Indigenous communications provides a useful summary of relevant bibliography, highlighting its positioning against hegemonic models of 'communication for development'. As mentioned above, the positioning of Sumak Kawsay in relation to ideas of economic growth and development is disputed, in part due to how it was written into the Ecuadorian constitution of 2008 and claimed as a basis for government policy. These policies, including those supporting film and media, have tended to interpret Sumak Kawsay as compatible with developmentalist ideas.

Puga, M. and Fernanda, M. 'Cinema and Ecuador's Buen Vivir: Negotiating Coloniality in the Community' in Ecuadorian cinema for the 21st century, edited by M. Fernanda and M. Puga. Cham: Springer, 2023: 153-183; https://doi.org/10.1007/978-3-031-40989-9_6 [https://doi.org/10.1007/978-3-031-40989-9_6] .

Continuing a focus on policy interventions, Miño Puga problematises the adoption of Buen Vivir in the film sector in Ecuador. While Buen Vivir/Sumak Kawsay claimed to support 'counter-hegemonic and participatory forms' of cinema, it still aims for growth, measured in the number of films made and released (2023, p. 156). Critics of the official framing of Buen Vivir would instead advocate either for 'alternatives to development' where media industries may grow in new decolonial directions, or for 'imperfect' film practices not tied to an aim of industry growth (Puga 2023, pp. 158-159). This includes community-based practices that constitute what Diana Coryat calls 'emergent eco-territorial media cultures', which 'mobilize postdevelopment imaginaries' (2023, pp. 245-246). These media cultures tend to centre 'small' media spaces organised around reciprocal care (Andrango et al. 2023). Nevertheless, filmmakers and communities still negotiate the mechanisms of the market, non-profit funding, or state support to sustain their activities.

Digital degrowth

This section addresses ongoing developments in digitisation and artificial intelligence, which require vast amounts of storage space, energy, and produce e-waste. As previously highlighted (see Cubitt, Miller & Maxwell), the perceived

immateriality of digital technology facilitates overproduction and overaccumulation. In ICT sectors, critical alternatives such as digital sufficiency (Santarius et al 2022), digital 'sobriety' (The Shift Project 2019), or data minimalism seek to go beyond the techno-optimist focus on efficiency.

For our context, we were interested in whether and how digital technologies are discussed within a degrowth framework. In particular, we came across texts that addressed this topic in relation to Artificial Intelligence, as AI requires large datasets for training machine learning models. Marion Meyers, a scholar in science and technology studies, analyses the appropriateness of specific machine learning applications for degrowth and computational linguist Michaela Regneri advocates for data-minimalism in the context of e-commerce.

> Marks, L. and Przedpełski, R. 'Bandwidth Imperialism and Small-File Media', Post45 (blog), 13 April 2021: https://post45.org/2021/04/bandwidth-imperialism-and-small-file-media/ [https://post45.org/2021/04/bandwidth-imperialism-and-small-file-media/] (accessed 8 November 2024).

In their blog post Laura Marks and Radek Przedpełski discuss the idea of the Small File Media Festival and reflect on the aesthetics of the submissions. Based on the observations that high-resolution video streaming is only possible in countries with a robust media infrastructure, and addressing its high environmental footprint, the festival that Laura Marks founded invites media makers to submit films 'of no more than five megabytes in size and five minutes in duration' (2021). Experimenting within limits resulted in a

multitude of alternative ways of making film. The article discusses the aesthetics of various submissions that expose, for example, the ecological impact of AI and VR, and art that claims to raise environmental awareness by using only a few pixels.

Meyers, M. 'Artificial Intelligence in a Degrowth Context: A Conviviality Perspective on Machine Learning', GAIA – Ecological Perspectives for Science and Society, Vol. 33, no. 1, 2024: 186-192; https://doi.org/10.14512/gaia.33.1.13 [https://doi.org/10.14512/gaia.33.1.13] .

____. 'A Degrowth Perspective on Artificial Intelligence – Analysing the Appropriateness of Machine Learning to a Degrowth Context', MA thesis in Science, Technology and Policy, ETH Zürich, 2023: https://www.research-collection.ethz.ch/handle/20.500.11850/622669 [https://www.research-collection.ethz.ch/handle/20.500.11850/622669] .

Stating that the critique of the growth paradigm has barely addressed 'its vision on technology' (2024, p. 186), Marion Meyers' article aims at 'shaping a degrowth perspective on technology' (ibid.). She assesses the appropriateness of AI to degrowth by using frameworks based on Ivan Illich's Tools for Conviviality (2009 [orig. in 1973]), translated into a 'Matrix of Convivial Technologies' to assess the application of machine learning (ML) for 'predictive maintenance' in manufacturing. Predictive maintenance could prevent environmental damage due to leaks, reduce production waste, and prolong the lifetime of machines. However, Meyers remains doubtful if ML tools are actually relevant for 'degrowth-

aligned infrastructures and sectors or whether they are only beneficial within today's unsustainable infrastructures' (2024, p. 192). A similar approach appears in Meyers' assessment of 'adaptive control' applications in her Masters' thesis, which concludes that a degrowth perspective on AI 'must begin with the opposition against applications of AI which act as growth-accelerators' (2023, p. 70) and argues for 'refusal as a political practice' (2023, p. 71).

> Regneri, M. 'Less Is More: Why a Data Diet Can Benefit Artificial Intelligence', Sustain, no. 1, 2022: 26-29; https://algorithmwatch.org/en/wp-content/uploads/2022/06/SustAIn_Magazine_2022 [https://algorithmwatch.org/en/wp-content/uploads/2022/06/SustAIn_Magazine_2022 (accessed on 8 November 2024)
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> Bender, E., Gebru, T., McMillan-Major, A., and Shmitchell, S. 'On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜', Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency, Association for Computing Machinery, New York: 10-623; https://doi.org/10.1145/3442188.3445922 [https://doi.org/10.1145/3442188.3445922] .

Based on her experience as product manager for business intelligence analytics in e-commerce, Michaela Regneri reflects on the value of data that a shopping platform processes. In contrast to the tendency to use as much data as possible, she argues that data sets can be made much smaller by including only those that contain important information. Drawing on applied research in which she has tested how well an algorithm worked when half or even two-thirds of the data were left

out, she explains that a system improves when a ‘bad data point’ is omitted.

This argument is in accordance with approaches in computer science where data hungry large language models are problematised, leading to calls for ‘assembling datasets suited for the tasks at hand rather than ingesting massive amounts of data from convenient or easily-scraped Internet sources’ (Bender et al. 2021, p. 618). In their paper on different systems that are trained on prediction tasks, Bender et al. demand to consider ‘research time and effort a valuable resource, to be spent to the extent possible on research projects that build towards a technological ecosystem whose benefits are at least evenly distributed or better accrue to those historically most marginalized’ (ibid.) – a call that resonates with degrowth approaches in other areas.

Coda

As we bring this record of our collaboration to a close, knitted together in snatched moments over several months, the comment threads on our shared document bloom with ideas and paths not taken. We have not included enough ecofeminism or ecocinema, and Indigenous media practices only appear briefly in some sources cited. Post-development and anti-extractivist perspectives are only hinted at. The commons is a connecting thread that remains mostly implicit. There are many more manifestos from media movements around the world, across the decades, that sparkle with defiant autonomy or joyous resourcefulness. Experimental filmmakers, media artists, and educators have built shared forms of abundance and communal luxury that remain beyond our scope. Research on digital sufficiency, including low-carbon computing and data minimalism, is increasingly visible, though overwhelmed by the

avalanches of AI boosterism. But we trust that this exercise of thinking together and in public is – for now – enough.

We have gathered these and many other sources as a Zotero collection and aim to continue adding and commenting on new examples. The collection can be consulted here: https://www.zotero.org/groups/5596353/enough_bibliog [https://www.zotero.org/groups/5596353/enough_bibliog

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Authors

María A. Vélez Serna teaches film and media at the University of Stirling. She studied at the Universidad Nacional de Colombia and the University of Glasgow. She is the author of Ephemeral Cinema Spaces (Amsterdam University Press, 2020) and has also written on early film distribution and showmanship, and on Colombian films and audiences. Her current work focuses on the uses of audiovisual media in facilitating and contesting extractivism. She is on the editorial board of NECSUS.

Judith Keilbach works in the Media and Culture Studies Department at Utrecht University. Her research focuses on media technologies and infrastructures. She is working on a project about transnational media events in television history and is interested in media and sustainability, with a particular focus on film and television production cultures and digital media distribution and preservation.

Michał Pabiś-Orzeszyna is Assistant Professor in the Department of Film and Audiovisual Media at University of Lodz. Since 2019 he has been researching immersive media and environmental media (as co-leader of the NECS Sustainable Media Workgroup and Extended Cinema Workgroup). His most recent publication is: 'Polish Perspectives on Netflix COVID Relief Funds' in Media Industries in Crisis: What COVID Unmasked, edited by Vicki Mayer et al. (2024, pp. 91-101).

Toni Pape is a cultural theorist and media scholar at University of Amsterdam. His books include The Aesthetics of Stealth (2024), Figures of Time: Affect and the Television of Preemption (2019), and the co-authored Nocturnal Fabulations (2017). He is on the editorial board of NECSUS_European Journal of Media Studies and an editor of the 3Ecologies imprint at Punctum Press.

Alejandro Pedregal is Research Council of Finland Fellow in the Department of Film and Television at Aalto University, Finland. He has been a Researcher at the Spanish National Research Council (CSIC) and Lecturer at the University-Wide Art Studies (UWAS) of Aalto University. He has published in journals including Monthly Review, Alphaville, Journal of Labor and Society, Agrarian South, Third Text, Kamchatka, Re-

Visiones, and Ecología Política, and is the author, among other books, of Evelia: Testimonio de Guerrero (2019) and Tres incendios (y otro fuego posible): Apuntes para una crítica ecosocial del capitalismo inflamable (working title, Verso, forthcoming in 2025).

James R Price / Iago ap Rhys is an artist-filmmaker and filmmaking lecturer based in Tyneside. His AHRC-funded research in anti-extractivist documentary filmmaking and its education takes place between the universities of Bristol and Aberystwyth, situated in the commons of documentary film, political ecology, and education for eco-social change. He is the founder of the Ffilm School, which aims to support a filmmaking of good relations.

Dr Becca Voelcker lectures in art and film history at Goldsmiths, University of London, specialising in anticolonial and ecofeminist representations of land since the 1970s. She earned her PhD at Harvard University in 2021. Her first book, Land Cinema in an Age of Extraction, is forthcoming with University of California Press. The book is a cross-cultural history of eco-political cinema based in ten locations including Wales, where she grew up, and Japan, where she lived as a young adult. Voelcker also writes for Sight & Sound and is a BBC New Generation Thinker 2024, with regular appearances on BBC Radio.

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