



Deposited via The University of Sheffield.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/238464/>

Version: Published Version

Article:

Powis, A. (2026) Architecture as the practice of accountability: extractivism, externalities and alternatives. *Journal of Architecture*. ISSN: 1360-2365

<https://doi.org/10.1080/13602365.2026.2623501>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:

<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



Architecture as the practice of accountability: extractivism, externalities and alternatives

Anthony Powis

To cite this article: Anthony Powis (26 Feb 2026): Architecture as the practice of accountability: extractivism, externalities and alternatives, The Journal of Architecture, DOI: 10.1080/13602365.2026.2623501

To link to this article: <https://doi.org/10.1080/13602365.2026.2623501>



© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 26 Feb 2026.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

Architecture as the practice of accountability: extractivism, externalities and alternatives

This paper explores architecture's relations with extractivism, drawing on both recent scholarship and practical examples to seek new modes of action which disentangle those relations and move towards accountability. The vast bulk of architectural production is both dependent upon regimes of extractivism and complicit in their expansion—the networks of materials, knowledge, and labour that produce architecture rely on the *production of externalities* in the form of sites, networks, and epistemologies that are unaccountable. In the face of climate and ecological breakdown, such externalities become impossible to hold apart from the work that architects do, as the effects of violent extractivism reassert themselves. The first section gives a summary of the condition of extractivism, its history, and how its continuation is challenged by climate breakdown. Drawing on decolonial and psychoanalytic perspectives, it argues that the ideology of extractivism is built on infrastructures of ignorance, the operation of which is rife within the built environment. The second section further considers how architecture is implicated and bound up in extractivism, including ways in which alternative forms of architectural practice are already offering other modes of action, which emerge from unpicking those existing relations. The conclusions summarise these modes in terms of an approach to *architecture as the practice of accountability*, which emerges both from activist practices and a fuller acceptance of the challenge of climate.

Anthony Powis 

*Sheffield School of Architecture and
Landscape*

*The University of Sheffield, UK
a.powis@sheffield.ac.uk*

ORCID 0000-0002-3530-9329

Introduction

This paper explores architecture's relations with extractivism, drawing on both recent scholarship and practical examples to seek new modes of action which disentangle those relations and move towards accountability. The term extractivism is used in this paper to refer to the violent ideology of appropriation underlying much of late capitalism. It is more than just a physical process, and includes not only resources, land, and infrastructure but also the seemingly less-material conditions of knowledge, labour, culture, policy, and economy. These are conditions fundamentally bound up with architectural production,

© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.



but which — with important exceptions — are too often dismissed as being outside of the realm of architectural practice. This denial of architecture's deep relations with extractivism, and therefore of implication in its consequences, gets straight to the core of the issue of extractivism itself — that its continued operation relies on the *production of externalities*. Externalities are blind spots, things outside of an established area of concern, the ignorance of which allows violent acts to continue. Such externalities need to be constantly (re)produced to avoid being seen; Alberto Acosta calls this the 'well-programmed amnesia' that is at the heart of all capitalist economies.¹ Reducing architecture to fetishes that keep extractivist systems intact therefore leaves architecture as an enabler of continuing violence.

The vast bulk of architectural production is both dependent upon regimes of extractivism and complicit in their expansion; the systems that produce architecture rely on the production of externalities in the form of sites, networks, and epistemologies that are unaccountable. Inside and beyond this form of architecture, though, there is both a demand and an opportunity for another — *architecture as the practice of accountability* — to emerge in its place. In the face of climate and ecological breakdown, externalities become impossible to hold apart from the work that architects do, as the consequences of extractivism reassert themselves in unexpected places, as a toxic by-product of mining rising to the surface many years later in South Africa, chlorinated pesticides identified in breastmilk from mothers in India, or adhesives, flame retardants, and surface coatings that disrupt our bodies' endocrine and reproductive systems.² Distances collapse; time coils and unwinds. Sometimes these consequences are the direct result of apparently noble aims, from enabling greater efficiencies in food production to reducing energy use in buildings via new oil-based insulation products and sealants. Reliant on separation and the production of externalities, these solutions create as many problems as they solve. Architecture — in this context of the emergence of unexpected consequences — must begin to repair, rather than continue to deepen, the supposed divisions upon which so much of the discipline is constructed.³

The following set of arguments about architecture and extractivism has been developed as part of a larger, collective research project, *Architecture is Climate*.⁴ The project started from the position that architecture's entanglement with(in) climate breakdown is as much to do with deeply ingrained ways of thinking as it is to do with technologies and materials. A direct cause of climate and ecological breakdown may be greenhouse gases, but so therefore are the practices that release these gases into the atmosphere, and (more so) the paradigms or ways of thinking that lie behind our modern ways of being in the world, which allow such practices to continue. Extractivism is a product and mechanism of capitalism's need for growth and is perpetuated via the erasure of the material basis, and consequences, of that growth.⁵ Since architecture is fundamentally bound into the project of growth via the same economic model, architecture is fundamentally bound to extractivism, and the production of climate breakdown. Despite calls to somehow suspend politics and simply deal with the immediate challenges of climate breakdown via technical solutions, it is impossible to divorce those aspects that are entirely material from those that are entirely

social or political. Facing climate breakdown means being critical of the conditions that have created and constituted the breakdown and dealing with those conditions, not just the effects.

This paper therefore joins others in responding to the need to address the profound indifference of much architectural research to root questions of climate.⁶ It argues that disentangling architecture's deep relations with extractivism requires not only material and technical progress. Change requires facing up to the ways of thinking and acting that maintain, entrench, and reproduce destructive practices — and how these are bound up with disciplinary norms and culture. It aims therefore to contribute to ongoing debates and actions around reimagining architectural practice in the face of climate breakdown. Crucially, it does this not only via theory but by learning from ways in which people and groups are already doing architecture differently — existing practices which both challenge the extractivist assumptions of much of architectural practice and at the same time build alternatives.

The first section gives a summary of the condition of extractivism, its history, and how its continuation is challenged by climate breakdown. Drawing on decolonial and psychoanalytic perspectives, it argues that the ideology of extractivism is built on infrastructures of ignorance, the operation of which is rife within the built environment. The second section further considers how architecture is implicated and bound up in extractivism, including ways in which alternative forms of architectural practice are already offering other modes of action, which emerge from unpicking those existing relations. The conclusions summarise these modes in terms of an approach to *architecture as the practice of accountability*, which emerges both from activist practices and a fuller acceptance the challenge of climate.

The ideology of extractivism

Extraction is a primal pursuit, a business of wresting raw materials from the earth that can be converted into value. From pits, wells and mines, raw geology is liquidated into energy and money, a double alchemy at the heart of the modern capitalist economy.⁷

In its simplest form, extraction — from the Latin *extrahĕre* meaning to draw [*trahĕre*] out [ex] — refers to the removal of something and someone claiming it for utilisation elsewhere. Extraction typically refers to material things, from rock, ore, minerals, oil, and gas, to water. Almost everything we do, build, and consume is linked in some ways to processes of extraction. Growing food, building shelter, and clothing ourselves are all material-extractive processes (Fig. 1).

This already implies other, seemingly less material forms of extraction, which are of energy, labour, time, value, and/or knowledge, and can be human, non-human, or non-living. The sites of extraction and utilisation might be geographically distant or within a localised network. Eduardo Gudynas, in his description of the difference between the basic practice of extraction and the ideology of extractivism, writes that the 'destination of the appropriated natural resources is a key issue, since it allows us to understand that activities



Figure 1.
Quarry in Northern Italy,
photographed by the author, 2014

such as those of a peasant do not represent extractivism'.⁸ If *extraction*, at some level, is essential to the maintenance of life, it becomes *extractivism* — a violent operation — with scale and disconnection, with an uneven balance of power, and with exploitation. This is the difference between meeting a need (material as something immediately useful) and the generation of value (the consideration of material as an abstract commodity).

Extractivism as a form of violence applies a certain logic across the world. It is not enough to say that extractivism is anthropocentric — it is *capitalocentric*. Extractivists, capitalists, and colonists share the same ideology of exploitation. Extractivism's assault on the planet is a method practiced and developed through histories of European settler colonialism that saw certain sites, materials, peoples, and their knowledges as ripe for appropriation or conversion into capital. In *Capitalism in the Web of Life*, Jason Moore describes how capital is fundamentally reliant on the exploitation of cheap natures. Capital reorganises 'planetary natures' through systems of value, established by 'the *technics* of global appropriation [...] a new way of seeing and ordering reality'.⁹ This reality redefines nature as resources, in terms of abstractions which 'enable

capitalists and empires to construct global webs of exploitation and appropriation, calculation and credit, poverty and profit, on an unprecedented scale'.¹⁰ In this ideology, limits to growth are not absolute, but barriers to be overcome, by technology, frontier expansion, and/or displacement. Moore's 'four cheaps' of labour power, food, energy, and raw materials are grounds of appropriation conceptualised as outside of society — though they include both human (domestic and slave labour) and extra-human natures (nature as resource). At heart, this conceptualisation of nature is an intervention into ecological relations.

If climate breakdown has its roots in this colonial ideology, then to many, the breakdown of climate is nothing new:

Climate injustice, for Indigenous peoples, is less about the spectre of a new future and more about the experience of *déjà vu* [...] part of a cyclical history situated within the larger struggle of anthropogenic environmental change catalysed by colonialism, industrialism and capitalism.¹¹

Nor did the end of a certain form of colonialism mean the end of its ideology of extractivism. Extractivism took on new guises: in regulatory and fiscal policies, neocolonial instruments and institutions, 'soft' imperialism, and economic dependency. Neoextractivism — where postcolonial states replicate colonial models of resource extraction — means trading social and environmental resources for financial power, where 'environmental destruction is accepted as the inevitable cost of achieving development'.¹² The financial imperative neatly avoids any scrutiny of underlying problems. Extractivism operates primarily through the construction and maintenance of these exploitative systems of relations, reshaping the world socially, politically, and economically — both for its own ends and to conceal its workings — and is as much about the production of the devalued, or waste, as it is about the production of value.¹³

The colonial operations that underpin extractivism hinge on the subjugation of certain forms of life via the intellectual invention of 'Nonlife' — a distinction between things that are lively agents in the world and things that are inert material.¹⁴ Such acts of classification and objectification are central to the mastery of nature, and both human and more-than-human nature can be labelled Nonlife. Amitav Ghosh, in *The Nutmeg's Curse*, describes European modernity as 'the project of reducing the Earth to a clockwork mechanism in which every kind of being was brutishly mute, except for European elites and Euro-descended colonists'.¹⁵ This is the construction of a subject, *we over here*, in relation to a distant object, *that/them over there*; or the separation of parts based on what matter is deemed to matter, paving the way for detaching effects from causes:

Extractivisms are only possible if Nature on the whole is viewed in a fragmented and disconnected way, as separate living beings and non-living organic and inorganic components.¹⁶

The appropriation of nature requires its definition as a resource for exploitation, both as a tap from which material and energy can be supplied and as a sink to

which unwanted waste can be sent.¹⁷ But whilst extractivism continues apace via the intellectual reconstruction, and material appropriation, of externalities, climate breakdown dissolves these separations and dispels us of the illusion of the external. The mining of bauxite — a key component of Aluminium — in Jamaica has devastated agricultural production, polluted air and water, deforested land, and displaced residents, driving migration along the same route as the exported material (to the USA) and stoking political tension. The dredging of sand and aggregate in the UK's coastal waters for use in concrete and groundwork dramatically affects marine habitats, water quality, and coastal ecosystems — whilst the material itself is used in sea defences and offsetting beach erosion. Acid rain generated by burning fossil fuels for energy — much of it relating to the production of new buildings — not only harms soils and vegetation but accelerates the destruction of existing buildings in distant locations by literally dissolving their surfaces. In contrast to the hierarchies of extractivism, climate breakdown increasingly presents itself as the collapse of categories and boundaries, demanding an equal shift from thinking through separation to thinking through interconnection. So how are extractivism's required hierarchies maintained?

Infrastructures of ignorance

Ex-traction, ex-ploitation, ex-propriation, ex-pulsion. Extractivism relies upon the production of ex-ternalities — of what is ex-ternal to life, of what is beyond consideration, cast out. This is a powerful form of denial, which Sally Weintrobe — a psychoanalyst whose work explores the mental (un)reasoning behind climate change denial — describes as the 'culture of uncare' which is 'driven by a powerful underlying phantasy [...] that the earth is an indestructible breast/toilet mother, there solely to provide endlessly for us and to absorb all our waste'.¹⁸ The formulation is specific (as opposed to uncaring culture) in that it highlights the active reproduction of this culture, which is based upon infrastructures of ignorance maintained through distancing and disavowal. Disavowal, Weintrobe insists, goes beyond simple denial, and is characterised by active strategies to obfuscate, which are deeply embedded in culture, as bell hooks also notes:

It is apparent that one of the primary reasons we have not experienced a revolution of values is that a culture of domination necessarily promotes addiction to lying and denial.¹⁹

Disavowal operates historically as well as in the present. Michel-Rolph Trouillot, in *Silencing the Past*, used the Haitian Revolution as an example of an event that has been silenced by the powerful writing their own history.²⁰ The example of the West's refusal to acknowledge the mass revolt of former slaves is an example of the 'silencing' power of narrative, or how history also operates through the production of silences — things not only forgotten, but deliberately erased from record because their inclusion in the account would threaten the continuation of other practices.

There are strong similarities between Trouillot's argument and the ways in which extractivism functions; the continuation of extractive practices relies on denying the damage these industries wreak upon the earth. As this paper states, extractivism can *only* continue to function alongside such denialist narrative production, i.e. the construction of distances and the production of externalities. Wilfully blind to its effects, extractivism not only impoverishes nature but simultaneously wreaks 'epistemicide', erasing the memory of the act.²¹ In turn, these acts of denial are reinscribed in cultural, academic, and linguistic structures. Trouillot describes how enlightenment philosophy was used to justify the continuation of slavery and imperialism. The terms of the narrative begin to foreclose any real possibility of producing the world differently.

Such an operation now reinscribes extractivism within our modern ways of living as well as the structures of forgetting on which it relies. Extractivism relies on externalising others not only spatially but also in relation to time. 'But in the era of global warming, nothing is really far away'; despite efforts to distance and separate, we live in a time of ever greater interconnection, reliance, and dependence.²² Eating maize breakfast cereal, drinking coffee, reading news on a tablet computer, sitting on an Ikea chair in a one-room flat in a concrete tower block in central London, I am entangled in innumerable webs of resources, capital, and power. These webs span time as well as space. Likewise, the consequences of extractivism draw links across times and spaces that extractivists would prefer to draw boundaries around, by refusing to be confined to specific periods and places. Our addiction to extraction is now challenged by new limits — limits that Moore suggests are epochal rather than cyclical. There are fewer outsides left, and they refuse to remain outside. But in the face of this, rather than change course, extractivists double down. Architecture is inevitably drawn into the web and implicated in it.

The pervasiveness of infrastructures of ignorance within architectural production was horrifically apparent during the public inquiry that followed the Grenfell Tower fire. On the morning of 14 June 2017, fire had spread rapidly through external cladding installed during the recent refurbishment of the residential tower in West London, killing 72 people. Despite the fire service's immediate description of the fire as 'completely unprecedented', there had in fact been a number of almost identical fires in residential buildings in previous years, including one that killed three adults, two children, and a newborn baby at Lakanal House in Southwark in 2009.²³ They had, apparently, already been forgotten. The Inquiry put into the spotlight not only the consequences of deregulation (of vital aspects of building control and materials testing and certification) but also of the ways in which those involved seek to avoid accountability, pass blame, and ignore consequences.

The Inquiry clearly showed how a culture of denial and hubris is endemic within the construction industry, perhaps best characterised by the 'The Web of Blame' presented by the counsel to the Inquiry, Richard Millet QC, on the final day of evidence in 2022. The illustration shows not only the key actors (architects, engineers, contractors, product manufacturers, regulatory bodies, the government, and even the enquiry itself) but more importantly, an arrow

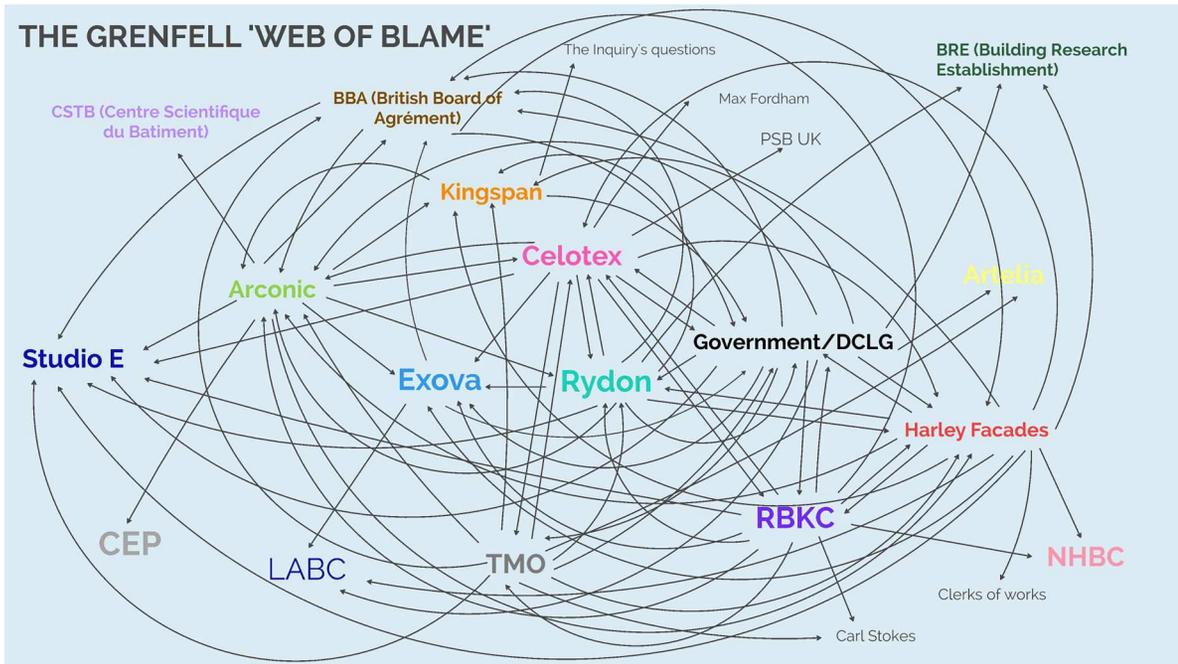


Figure 2.
'The Grenfell Web of Blame', in
'Counsel to the Inquiry's Closing
Presentation: Hearing on 10
November 2022', The National
Archive, 'Grenfell Tower Inquiry',
archived on 20 March 2025
<<https://web.archive.nationalarchives.gov.uk/ukgwa/20250320033758/https://www.grenfelltowerinquiry.org.uk/evidence/counsel-inquiry-s-closing-presentation>>

for every time one actor has tried to evade culpability by blaming another (Fig. 2). The arrows blur into a mesmerising field signifying the web of disavowal operating within and around the interlinked professions — or how the concept of an infrastructure of ignorance operates within and across disciplines.

Show Me the Bodies: How We Let Grenfell Happen, written by the housing journalist Peter Apps and drawing heavily on the enquiry's evidence, contains much first-person detail of everyday acts of disavowal, including in correspondence between senior staff at insulation manufacturers Kingspan and Celotex. Both were shown to have been fully aware of the combustible nature of their products, attempting (and succeeding in) to hide poor and fraudulent performance tests via a 'carefully planned, carefully concealed and long-running deception' and 'a dishonest scheme to mislead its customers and the wider market'.²⁴ These specific actions are shocking, but the purpose of the book, and of this paper, is not to create monsters. The universal 'we' of the title is perhaps crucial here: *we* let this happen, via aspects of *our* shared society and culture. This is a call to acknowledge the pervasiveness of infrastructures of ignorance across both architecture and politics but also that we have the power to change one via the other.

Extractivism and spatial production: ten tactics

Material production is fundamental to the operations and ideology of extractivism. Space is a consequence of such production. Architecture is the (re)pro-

duction of territory but also the financialisation of space; the built environment is central to the transformation of materials and labour into energy and capital. Foregrounding exploitative or violent forms of extractivist practices as a core element of spatial production is about resisting the kinds of boundaries and externalisation that are typical of the architectural project. The following section introduces practical examples which confront these boundaries, exposing architecture's entanglement with extractivism and working through and beyond it to other modes of action. They are presented across ten interlinked tactics which start to describe actionable frameworks for architectural accountability.

Implicate, don't absolve

Deen Sharp discusses in this journal the implication of concrete giant Lafarge in crimes against humanity in Syria via their financing of terrorist groups, a charge since upheld in the French court of appeal.²⁵ Such judgements rely on organisations such as Sherpa, a legal NGO that brought the case together with the European Center for Constitutional and Human Rights (ECCHR).²⁶ Sherpa's specific remit is to address economic accountability and to remove the impunity that derives from international actors' distancing of their own operations: 'to make parent and instructing companies accountable for their subsidiaries and subcontractors, particularly when their activities result in human rights abuses and environmental damage'.²⁷ Similarly, the project 'Who Builds Your Architecture?' (WBYA?) was established to expose human rights abuses in the building industry, to explore the lack or insufficiency of existing ethical codes, and to propose ways in which architects might collaborate on improving labour conditions. WBYA? documents global supply chains and architecture's reliance on labour, depicting labour conditions and confronting the profession with its complicity and responsibility. Countering Zaha Hadid's comments after reports of workers' deaths during her project for the recent football World Cup in Qatar — 'I have nothing to do with the workers'²⁸ — Kadambari Baxi, a co-founder of WBYA? said:

It's very easy for architects to think that they have nothing to do with the workers. That it's the subcontractors, or the sub-subcontractors, who really hire them [...] Part of our mandate is to show these connections and links — to show that we do have something to do with this.²⁹

Just as climate camps use direct action to expose society's broader reliance on fossil fuels, organisations such as Sherpa and WBYA? trouble the neat veneer of architectural practice by making connections between and beyond what is apparent to what lies underneath. In this way, they show that practicing accountability is not about detaching from consequences as an attempt to absolve oneself of blame but starting from the position that we are all implicated within these processes.

Measure better

An important aspect of the production of externalities, which deliberately obscures these connections, is the use of forms of measurement that permit, even encourage, blind spots—such as by allowing sustainability to be equated with overproduction. Several authors have identified the awarding of the Stirling Prize to Foster and Partners' Bloomberg HQ in London in 2018 as the final death knell of orthodox sustainability³⁰—referring to the kind of sustainability that is powered by denialism, spin, and creative accounting. Net measurements—totals based on the subtraction or offsetting, transactional measures rather than absolute ones—do not require the exercise of responsibility, only counterbalancing. So green architecture in one place can be a product of environmental destruction in another, offshoring the dirty part of production and presenting the clean, tidy version as sustainable.

At the core of a report co-authored by the RIBA and engineers Buro Happold in 2021 are a set of proposals for moving away from net measurements to more absolute forms of accounting for climate impacts. For example, most global greenhouse gas (GHG) measures are based on emissions from *production*—irrespective of who is the beneficiary.³¹ The report proposes instead a shift to *consumption*-based carbon accounting, placing the burden of responsibility back on the countries that have deindustrialised simply by displacing their dirty industry abroad. Similarly, the report argues for an emphasis on absolute emissions reductions over net reductions—removing the possibility of offsetting and re-exposing the scale of the impact of building practices.³² These proposals are reinforced by the report's quietly-radical opening gambit, 'the built environment is a system', which emphasises interconnectivity and the central importance of 'considering how we are organised and the ways that we all influence and impact each other'.³³

Affirm a global commons

Moving away from the isolating smokescreens with which the built environment surrounds itself, though, will require not only better metrics but separation from the paradigmatic nature of carbon modernity.³⁴ Glossy, future-focused projects such as India's Smart Cities Mission are built upon an enormous 'backstage' of human suffering.³⁵ Far beyond workers who die on construction sites every year, chronic and long-term illness derived from exposure to environmental hazards is an accepted cost of progress. Reflecting on such aspects of various green new deal strategies which tend towards 'undemocratic and unjust techno-solutionism', Jon Goodbun writes how these supposedly green projects fail to reverse or counter the trend of extractivism, operating instead as a 'Green New Colonialism'.³⁶

Other definitions of sustainability, though, which 'affirm the Earth as a global commons', thinking with and for others, and work with the consciousness of a shared habitat, exist both within and beyond architecture.³⁷ What differentiates projects such as the 'Internationalist Green New Deal' is that it recognises the ways in which such ecomodernist projects leave intact extractivist structures and continue to rely on the production of externalities.³⁸ *Sweet Water*

Foundation, operating in Chicago's South Side, works to undo structures of exclusion (financial inequality, absentee property owners, racist legislation, and otherwise discriminatory urban policies)—both addressing and redressing the social and ecological damage done when both communities and ecosystems are deprived of the means to repair themselves by seeking forms of collective healing and re-growth. Its ecologically-driven approach to neighbourhood transformation, based upon collective infrastructures and shared support systems, fights back against the language of 'blight' or urban decay on its own terms. Since blight itself hinges on the question of 'value' (what is or is not valued), this question is central to the Foundation's work, which operates through art, architecture, agriculture, education, and culture to redefine what is valuable beyond the norms of the market. This is a paradigm shift in ways of thinking about sustainability—towards nurturing personal, social, and planetary health, and redefining the purpose of architecture as something to sustain life in its broadest, common sense.

Rethink value

The idea of value—and specifically the value that designers bring to a project—is further challenged by the work of Estudi Martí Franch (EMF) in the fringe landscapes of the city of Girona. Through a collaboration with the 'Brigada Municipal' (maintenance workers), EMF saw their role not as designers but as strategic connectors—resource use is intentionally limited and spatial conditions are generated through cultivation. The project operates not through the creation of the new, but by the accumulation of knowledge and biodiversity over time—and so inverts not only a conventional design process but also notions of value. Rather than appearing in a rush of capital expenditure and resource extraction, the project emerges through deep involvement and experimental practice. Such an investment requires new forms of architect-client relationships, contracts, and projects that value maintenance and intervene in labour structures based on such value rather than extract the existing capacities of people and ecologies.³⁹

Build new tools

Extractivism permeates all aspects of practice, including the tools of architectural production: 'Laptops, mobile phones, CAD modelling, rendering software, artificial intelligence, 3-D printing, measuring instruments, and GPS-led caterpillars' are the very things that offices use to detach 'the image of a sanitized product and its material reality'.⁴⁰ Acknowledging the capacity of such tools to construct distances between designers and the human and material implications of their decisions, WBYA? proposed a number of alterations including redesigning Building Information Modelling (BIM) systems—the software used by many architects and other designers working on large-scale projects—to account for the labour involved in producing buildings.⁴¹

Foreground the hinterlands

Depicting material hinterlands as integral parts of an architectural project is something artists have been doing for some time. The work of the On-Trade-Off arts/research collective seeks to reconnect the promise of green energy in the Global North with its material realities in the Global South — particularly in relation to commodities such as lithium and copper that are so fundamental to energy networks — by highlighting the increasing dependence that belies the supposed separation of developed and developing economies. More directly, the public artwork ‘Every Increased Possession Loads Us with New Weariness’ by Revital Cohen and Tuur van Balen (Fig. 3) takes materials used in the construction of the surrounding large-scale office development (in Croydon, Greater London) and reverses their supply chains, sending building components back to their global suppliers’ factories to be unmade and recast into an ‘artificial mineral’ of concrete, glass, stone, and metals. In its dual reach — backwards to the source of materials and forwards to the ways in which humans reshape geology — it confronts the surrounding development with its own extractivist materiality.

Collapsing the distance between specifier and end producer, or between architectural foreground and material hinterlands more generally, has significant implications for the profession. Sophisticated reuse projects that subvert the unidirectional nature of extractivism — such as upcycling secondary materials to produce new building components, seeing buildings themselves as material banks, or designing for deconstruction — represent a shift in architectural practice towards recognising and actively intervening in the material and other networks within which architecture is embedded.

Redesign professional cultures

But how to make this shift? There are broadly two ways of approaching the entanglement of architecture and climate. The first looks *inside* to the things over which architects have a degree of control, considering how they can be done better, or at least less badly. The idea is to keep architecture fundamentally unchanged, but find ways of presenting it as part of the solution rather than the problem by emphasising technical expertise. This fails on its own terms; architecture is ‘lagging behind all other sectors’ in decarbonising, and reductions in GHG emissions via efficiencies in design, technologies, materials, and processes are far outstripped by overall increases in production of new buildings globally.⁴² Rather than trying to hold things together as they are, for designers to rethink the fundamental structures of their practice could therefore be more significant. ‘Designing Economic Cultures’, a project conducted by Bianca Elzenbaumer as part of the design practice Brave New Alps, is grounded in feminist critiques of narrow economic measures. It asks, ‘how can designers, who have a critically engaged practice, keep on developing this practice without selling themselves off or being crushed by the market?’ The aim of the work is not to ‘stabilis[e] precarious design practices as they are’, but rather to ‘creat[e] conditions in which it is possible for designers to imagine and actuate what they could become when not pressured by



precariousness to conform to the needs of the market'.⁴³ It further suggests that the reproduction of livelihoods is not only an individual task — as in the competitive economic relations of capitalist economies — but a shared one.

A second way of approaching the entanglement of architecture and climate looks *beyond* traditional professional boundaries to recognise the ways in which architectural practice is throttled by its increasingly narrow sphere of influence and looks to ways in which architects can exercise agency otherwise. In the UK, the Architects Climate Action Network (ACAN) is an example of how groups of architects and other professionals are organising beyond professional bodies. Launched in 2019 through a series of public meetings and assemblies, ACAN employs a fleet-footed, bottom-up approach inherited from activist groups. Its tactics include political campaigning (significantly in relation to building regulations relating to embodied energy) as well as protest, direct action, and public engagement. Another group, Architects Declare, began as a network including several high-profile commercial practices before the apparent contradictions of its members continuing to design new airports led to rifts and reorganisation.⁴⁴ Their current work is particularly focussed on ideas around systems thinking and regenerative design, and their *Practice Guide*, published in 2021, is split into practical ways in which architects can enact

Figure 3.
Every Increased Possession Loads Us with New Weariness, by Revital Cohen and Tuur van Balen, 2017, sculpture made of steel, concrete, glass, aluminium, copper, cast iron, and Caithness stone, courtesy of Revital Cohen and Tuur van Balen

change in both their own practice and through their projects.⁴⁵ Architectural unions such as United Voices of the World's Section of Architectural Workers (UVW-SAW) grew out of workers' inquiry into conditions of overwork, bullying, stress, and depression, and preceded to wider challenges to the discipline including a will 'to address the climate crisis not only through building to better standards [...] but also to address the social aspects [of the climate crisis]'.⁴⁶ Operating both inside or outside existing professional boundaries (and frequently between the two), all these projects are moving professional cultures to new places.

Work on what lies beneath

Looking towards policy, in the knowledge that technologies alone cannot solve building's carbon addiction, RetroFirst is an example of using campaigns to leverage government instruments such as tax, policy, and procurement, in this case to transform building norms by incentivising retrofit over demolition and new construction. The campaign advocates not only material and technological processes, but a cultural shift in construction that moves away from extractivist modes of production and consumption to prioritise climate and social needs. Targeting the systems that perpetuate extractivism, RetroFirst shows why this is essential both for social justice and decarbonisation.

Such work has links to community-oriented economics such as the Preston Model, a community wealth building strategy aimed at keeping money in the local economy. Public contracts at several anchor institutions were deliberately designed to be more accessible to small businesses, and policies incentivised local spending. With hundreds of local authorities in the UK declaring a state of climate emergency, community wealth building offers a path for moving away from extractive economic structures by harnessing local reinvestment as the central strategy behind delivering both immediate local benefit in creating stable, well-paid jobs and pathways to more climate-resilient futures, including more democratic and resilient local energy systems. It is a transitional programme towards a complete restructuring of the economy based on divesting from global systems that harm both quality of life and climate:

If there is anything we are trying to protect ourselves against, it's shareholders [...] who live hundreds, thousands of miles away and just extract value from our community.⁴⁷

On another scale, Fairhold, a project by Open Systems Lab (OSL), is based in the idea that land ownership entrenches existing race- and gender-based inequality by creating a structure of owners who have the legal rights to extract rent from tenants. Emerging from an enquiry into the housing crisis, Fairhold assumes that we cannot change our built environment without first changing the underlying systems that determine it. This way of working—common to OSL's sibling companies Dark Matter Labs and Architecture 00—relies on a form of analysis that involves looking at societal problems in terms of underlying root-causes.

Keep it complex

Architects have always looked to ways of doing things in other societies for clues; for instance, the portrayals of vernacular building in Paul Oliver's *Dwellings* and Bernard Rudofsky's *Architecture Without Architects* continue to influence climatic design. Now many look to broader Indigenous ways of being and knowing for clues to how to build but also how to live in the face of climate and ecological breakdown. This trend is common across many academic fields as well as in politics as the supposedly developed world struggles with its position as the driver of breakdown and looks to other ways of living as potential routes out of crisis.

In one sense, appeals to Indigenous knowledge are a recognition of the ways in which modern modes of being in the world are revealed to be insufficient, meaning that we need new models. These appeals reflect a struggle to replace the separation of humans and nature with a more ecosystemic approach to design. On the other hand, there is something unsettling about the apparent inevitability of such calls and the seemingly unchallenging ease with which they are integrated into every sector of the existing capitalist economy whilst retaining its foundations.⁴⁸ One of the most successful of the recent tranche of theses on Indigenous architecture is Julia Watson's *Lo—TEK: Design for Radical Indigenism*.⁴⁹ 'TEK' here stands for 'Traditional Ecological Knowledge', and the book is a survey of practices which, by deploying the tools of architectural representation — careful line drawing in plan, section, and elevation — attempts to make these practices applicable to modern, capitalist societies, that we might utilise 'their knowledge' as 'an essential part of the solution'.⁵⁰

Generalised appeals to Indigenous knowledge, which pose Indigenous people and cultures as humble bearers of solutions (as well as the claim of those solutions' transferability), are soon revealed as continuations of colonial extractivism. They replicate the gaze of a nineteenth-century anthropologist, constructing a position as an objective outsider, without recognising and accounting for the uneven distribution of risk arising from climate breakdown or its origins. In the end, a thoroughly homogenised version of Indigenous thought has been incorporated into western academic thought and into design discourses that remain euro-centric despite their appeal to the global margins for help.⁵¹

Contrast, for example, the imagery selected by Watson with the visual language of Sámi artist/architect Joar Nango, whose 'Indigeneity Project' focusses on traditions of resourcefulness and ingenuity that are integral to indigenous architecture. Avoiding the exoticised and romantic imagery of *Lo—TEK*, which contrasts the bad developed world with the pure and natural ways of living it depicts, Nango's architecture is one of finding ways of living *within* a world that is messy and broken, which responds to but also dismantles and repurposes the systems and objects of the capitalist world. Watson's project seeks to define and describe — using the tools of the architectural profession — what Indigenous architecture is (and must remain), whilst Nango's project is emancipatory, allowing space for what 'Indigenous architecture or Sámi

architecture can be, could have been, or was never allowed to be'.⁵² Nango's foregrounding of resourcefulness as 'an attitude more than an aesthetic' is not about fetishising a culture outside of the disaster of climate breakdown, but rather one which has the potential to emerge from its ruins.⁵³

Nango's work shows us that, rather than approach the question of climate with a longing for what *was* — a nostalgic or imagined idea of the past — we should approach it with a longing for what *might be*. Whilst it is easy to contrast a modern imaginary with other ways of knowing and being in the world, the search for alternatives is not about seeking binary contrasts in the form of outsides. Instead, what if we consider these alternatives as *insides* — to think of how openings are already here, and how these openings, if given support, might disrupt, fissure, and break open the present? Their power comes precisely because they are *not* separate, but negotiations and critiques of and within existing complex systems (Fig. 4).

Dwell in the discord

Decolonial scholarship and activism more widely offers an important lens through which to construct resistance to extractivism precisely because it seeks to deconstruct those systems of oppression which keep extractivism intact. Decolonial work does not exist in a world separate from, but rather takes place in, a *conscious* and *antagonistic* relation with the colonial, capitalist, and patriarchal structures of extractivism. *The Red Deal*, first proposed by The Red Nation in 2019 and further outlined in a series of publications in 2021, is an example of such work.⁵⁴ It sees the root of environmental collapse not in the symptoms of extractivist economies, but in the structures that continue them. A manual for decolonisation, it recentres the relationships of people to land as the key question of environmental activism. Violence, deterritorialisation, criminalisation, and incarceration are issues that link social and environmental justice.

The central tenets of abolitionism and divestment that run through *The Red Deal* are a declaration that a just transition cannot take place under unjust systems of discipline that keep people 'in a state of perpetual uncertainty and precariousness'.⁵⁵ Where a form of accelerationist green capitalism might leave intact the extractivist structures, *The Red Deal* sees in these structures the root of the problem and demands their dissolution, lest any real progress be made. Making clear the relations between forms of knowledge and material practices of extractive capitalism is a means to avoid continuing those projects through other means. It does not attempt to project a sense of harmony, but dwells in the discord of the present while projecting alternatives.

Conclusions: architecture as the practice of accountability

Decolonial practices not only construct alternative worlds but, in doing so, work to dismantle existing 'structures of unsustainability' — to use Arturo Escobar's term for the ways in which established modes of design maintain the modern



Figure 4.
Joar Nango, 'Girjegumpi: The Sámi
Architecture Library', Nordic
Countries Pavilion, 18th
International Architecture
Exhibition, La Biennale di Venezia,
2023, photographed by the author

extractivist status quo.⁵⁶ These ten tactics start to describe actionable frameworks for architectural accountability. They describe a form of practice which is both critical — in its identification of the roots of the present crisis in specific practices — and affirmative — in its imaginary potential for an alternative future. They are both *oppositional* and *propositional*. They force open the present rather than seek escape from it.

This paper ends with a brief reflection on the concept of accountability, which proposes that a particular reading drawn from social movements of accountability as 'something just short of a program' offers a way forward for architects entangled in extractivist structures — a useful counter to extractivism, yet one which goes beyond binaries.⁵⁷ Accountability as a concept has a long history within social movements, and regained attention recently in the wake of the

2020 Black Lives Matter movement. As noted by the collective Pinko in their reflection, *After Accountability*, accountability was invoked during this period ‘usually in the form of its declared failure’ (of internal structures to protect people from abuse and keep them safe).⁵⁸ In the face of such failure, the concept of accountability represented the distance between the utopian ideals of a movement and the disappointing reality of everyday activism. Reading this, many architects seeking alternative forms of practice will reflect on an equal distance between their ideals and the structures they find themselves within.

Discussing and reflecting on past periods of political activism through a series of interviews, Pinko finds ways in which to redefine accountability — as an acknowledgement of relations but also of the power of structure in conditioning those relations. In the case of one activist, reflecting on the move from accountability as a mechanism of implication and punishment to one of acknowledgement and responsibility enabled them to understand accountability as a platform for exploring the relations between people, communities, practices, and situations at different scales:

Decentering the impulse to punish revealed the interconnectedness of all relationships, which led them to recognize limits to accountability in people’s material or social situations. Their work became a practice of creating a space for the perpetrator to simply begin communicating in a responsible way, to be vulnerable, because what they discovered was that such spaces were nowhere to be found. At this point their politics had evolved past being a subordinate affiliate of the survivor’s group to something that had its own position, which was more committed to abolition and *transformation of not only the perpetrator but their community*.⁵⁹

This indicates the usefulness of the concept of accountability in both exposing and remaking unsustainable practices and structures — emphasising the need to transform not only oneself but also one’s community and acknowledging the limits to accountability that are particular to situations. What, then, are the aspects that might be foundational to architecture as the practice of accountability? First, it is *relational*. Accountability means acknowledging interconnection, collapsing distances between *we* and *they*, *here* and *there*, *nature* and *architecture*. If extractivism is fundamentally an act of severance, then accountability is about reconnecting those severed pieces because they were never truly severed in the first place. Second, it is *structural*. To avoid repeating the wilful blindness that the continuance of extractivism requires, accountability needs to go beyond material and technical repair to think about changing systemic patterns through organisational frames — doing the repair work of broken social, economic, and political structures, investigating all aspects surrounding the production of the built environment. Third, it is *confrontational*. Accountability cannot be done separately from harm, in brand-new structures or by escaping from the past, but only by facing, exposing, and reconfiguring damaged relations.

The purpose of this paper has been to link architectural practice with extractivism — the amnesiac ideology of late capitalism — to indicate ways in which architecture needs to engage critically with its own processes of knowledge

production, cognisant of the ways in which current disciplinary norms are tied to a specific form of modern, imperialist capitalism. This includes knowledge beyond the discipline and going beyond architecture's position within the construction (and deconstruction) industry. The continuing re-production of knowledge systems that enable extraction is just as important in thinking about extractivism as the physical processes. It is these knowledge systems which constitute the production of externalities since 'any system of knowledge is also a system of unknowns as well'.⁶⁰

The ideology of extractivism, as it operates in and through architecture, is the result of deeply ingrained modes of thought that have material consequences but also work to distance those consequences. Drawing out architecture's relations with extractivism — not only as a related function but as an ideological position that is deeply ingrained in architectural production — is a starting point for real alternatives. These alternatives already exist in many existing practices that face up to the specific conditions of extractivism from which they emerge, showing how identities formed during extractivism can be transformed afterwards, within and through architecture. Learning from decolonial scholarship and social movements, moving towards architecture as the practice of accountability demands fundamental acts of reimagination to dismantle the infrastructures of ignorance currently surrounding architectural production.

Acknowledgements

How can the author of a journal article practice accountability? The reviewers say there are too many citations, but there are at least as many more names (some of which you might know, some of which you will not) that remain unacknowledged. Others have dealt with the politics of citation far better than I can here. Suffice to say: my work is not my own but shared with many others. Thanks to Jeremy Till for reading and commenting on an early draft of this paper, which emerged from the literature review process at the beginning of *Architecture is Climate*. Thanks to Tatjana Schneider for raising the keyword 'extraction' in one of our first meetings. Thanks to Christina Serifi and Becca Voelcker for their critical friendship during that project. Thanks to current and former colleagues, students, friends, and family.

Funding

The work for this paper was conducted as part of *Architecture after Architecture: Spatial Practice in the Face of the Climate Emergency*, a research project funded by the Arts and Humanities Research Council and the Deutsche Forschungsgemeinschaft.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes and references

1. Alberto Acosta, 'Extractivism and Neextractivism: Two Sides of the Same Curse', in *Beyond Development: Alternative Visions from Latin America* (Quito: Fundación Rosa Luxemburg, 2013), pp. 61–86 (p. 62).
2. See Lindsay Bremner, 'The Political Life of Rising Acid Mine Water', *Urban Forum*, 24.4 (2013), 463–83; Annamalai Subramanian, Masako Ohtake, Tatsuya Kunisue, and Shinsuke Tanabe, 'High Levels of Organochlorines in Mothers' Milk from Chennai (Madras) City, India', *Chemosphere*, 68.5 (2007), 928–39; and Aleksandra Fucic, 'Endocrine Disruptors in Building Materials', in *Challenges in Endocrine Disruptor Toxicology and Risk Assessment* (London: Royal Society of Chemistry, 2020).
3. 'Man above nature is fundamentally linked to the idea of modern Architecture.' See Elke Krasny, 'Architecture', in *Connectedness: An Incomplete Encyclopedia of the Anthropocene*, ed. by Marianne Krogh (Copenhagen: Strandberg Publishing, 2020), pp. 52–5.
4. See Anthony Powis, Tatjana Schneider, Christina Serifi, Jeremy Till, and Becca Voelcker, *Architecture is Climate* (Barcelona: dpr, 2025); and MOULD, 'Architecture is Climate', 2024 <<https://architectureisclimate.net/>> [accessed 21 January 2026].
5. Jason Hickel, Christian Dorninger, Hanspeter Wieland, and Intan Suwandi, 'Imperialist Appropriation in the World Economy: Drain from the Global South through Unequal Exchange, 1990–2015', *Global Environmental Change*, 73.102467 (2022), 1–13.
6. Deljana Iossifova and Doreen Bernath, 'What Matters?', *The Journal of Architecture*, 27.1 (2022), 1–5.
7. Gavin Bridge, 'The Hole World: Scales and Spaces of Extraction', *New Geographies*, 2 (2010), 43–9 (p. 43).
8. Eduardo Gudynas, *Extractivisms: Politics, Economy and Ecology* (Rugby: Practical Action Publishing, 2021), p. 6.
9. Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), p. 190.
10. Ibid.
11. Kyle Powys Whyte, 'Is It Colonial Déjà Vu? Indigenous Peoples and Climate Injustice', in *Humanities for the Environment: Integrating Knowledge, Forging New Constellations of Practice*, ed. by Joni Adamson and Michael Davis (London: Earthscan, 2016), pp. 88–104.
12. See Acosta, 'Extractivism and Neextractivism', p. 62; and Samantha Hargreaves, 'Neo-Extractivism', in *Pluriverse: A Post-Development Dictionary*, ed. by Ashish Kothari and others (New Delhi: Tulika Books, 2019), pp. 62–4 (p. 64).
13. 'Capitalist production, therefore, only develops [...] by simultaneously undermining the original sources of all wealth—the soil and the worker.' See Karl Marx, *Capital Volume 1: A Critique of Political Economy*, trans. by Ben Fowkes (London: Penguin, 1976), p. 638.
14. For an extended discussion of the separation of Life and Nonlife, see Elizabeth Povinelli, 'Can Rocks Die? Life and Death Inside the Carbon Imaginary', in *Geontologies: A Requiem to Late Liberalism* (Durham, NC: Duke University Press, 2016), pp. 30–56.
15. Amitav Ghosh, *The Nutmeg's Curse: Parables for a Planet in Crisis* (London: John Murray, 2021), p. 235.
16. Gudynas, *Extractivisms*, p. 64.
17. Max Liboiron, *Pollution Is Colonialism* (Durham, NC: Duke University Press, 2021).
18. Sally Weintrobe, 'The New Imagination in a Culture of Uncare', in *Architecture and Resilience: Interdisciplinary Dialogues*, ed. by Kim Trogal, Irena Bauman, Randal Lawrence, and Doina Petrescu (London: Routledge, 2019), pp. 158–67 (pp. 158–9).
19. bell hooks, *Teaching to Transgress: Education as the Practice of Freedom* (London: Routledge, 1994), p. 28.

20. Michel-Rolph Trouillot, *Silencing the Past* (Boston, MA: Beacon Press, 1995).
21. Boaventura de Sousa Santos, *The End of the Cognitive Empire* (Durham, NC: Duke University Press, 2018).
22. See Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago, IL: The University of Chicago Press, 2016); and Moore, *Capitalism in the Web of Life*, p. 12.
23. Peter Apps, *Show Me the Bodies: How We Let Grenfell Happen* (London: Oneworld, 2022).
24. 'Part 3 – The testing and marketing of key products', in 'The Grenfell Tower Inquiry: Phase 2 Report', vol. 2, September 2024.
25. Deen Sharp, 'Concretising Conflict', *The Journal of Architecture*, 27.1 (2022), 6–12.
26. Claire Tixeire and Anna Kiefer, 'Corporate Complicity in Crimes against Humanity: The Lafarge Case', Business & Human Rights Resource Centre, 10 March 2022 <<https://www.business-humanrights.org/en/blog/corporate-complicity-in-crimes-against-humanity-the-lafarge-case/>> [accessed 21 January 2026].
27. 'About Us', Sherpa, n.d. <<https://www.asso-sherpa.org/mandate>> [accessed 8 January 2024].
28. 'Zaha Hadid defends Qatar World Cup role following migrant worker deaths', *The Guardian*, 25 February 2014 <<https://www.theguardian.com/world/2014/feb/25/zaha-hadid-qatar-world-cup-migrant-worker-deaths>> [accessed 21 January 2026].
29. Kadambari Baxi, Jordan H. Carver, Laura Diamond Dixit, Lindsey Wikstrom Lee, Mabel O. Wilson, Tiffany Rattray, and Beth Stryker, *Who Builds Your Architecture?: A Critical Field Guide* (New York, NY: www.whobuilds.org, 2017).
30. See Barnabas Calder, *Architecture: From Prehistory to Climate Emergency* (London: Pelican, 2021); and Sarah Ichioka and Michael Pawlyn, *Flourish: Design Paradigms for Our Planetary Emergency* (Axminster: Triarchy Press, 2021).
31. A report published by Carbon Brief in October 2021 with the aim of overturning the idea that developed nations have greater historical responsibility for GHG emissions made the clever trick of 'not including overseas emissions under colonial rule'. See 'Analysis: Which Countries are Historically Responsible for Climate Change?', *Carbon Brief*, 5 October 2021 <<https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/>> [accessed 21 January 2026].
32. Maria Smith, Joshua Apperley, Alex Couling, Martha Dillon, Andrew Forth, and Phoebe MacDonald, *Built for the Environment: Addressing the Climate and Biodiversity Emergency with a Fair and Sustainable Built Environment* (London: Royal Institute of British Architects, 2021).
33. Smith, Apperley, Couling, Dillon, Forth, and MacDonald, *Built for the Environment*, p. 10.
34. This is 'a continuous cultural and material foundation for building and form'; see Elisa Iturbe, 'Architecture and the Death of Carbon Modernity', *Log*, 47 (Fall 2019), 10–23.
35. Shruti Hussain, 'India's Dramatic Smart City Construction Boom Ignores a Huge Migrant Workforce Toiling Backstage', *Failed Architecture*, 7 May 2020 <<https://failedarchitecture.com/indias-smart-city-fuelled-construction-boom-ignores-a-huge-migrant-workforce-toiling-backstage/>> [accessed 21 January 2026].
36. Jon Goodbun, 'There Isn't Just One Green New Deal', in *Making Futures*, ed. by Markus Bader, George Kafka, Tatjana Schneider, and Rosario Talevi (Leipzig: Spector Books, 2022), pp. 75–9 (p. 76).
37. 'Affirm the Earth as a Global Commons', *New Frame*, 2 September 2019 <<https://www.newframe.com/the-earth-is-a-global-commons-not-private-privilege/>> [accessed 17 January 2023].

38. 'Field Notes Toward an Internationalist Green New Deal', n.d. <<https://internationalistgreennewdeal.org>> [accessed 21 January 2026].
39. Martí Franch, 'Drawing on Site: Girona's Shores', *Journal of Landscape Architecture*, 13.2 (2018), 56–73.
40. Charlotte Malterre-Barthes, 'The Devil Is in the Details: Who Is It That the World Belongs To?', in *Non-Extractive Architecture: Designing without Depletion*, ed. by Space Caviar (London: Sternberg Press, 2021), pp. 94–6.
41. Baxi, Carver, Diamond Dixit, Wikstrom Lee, Wilson, Rattray, and Stryker, *Who Builds Your Architecture?*.
42. Jennifer Hahn, 'Architecture "Lagging behind All Other Sectors" in Climate Change Fight Says IPCC Report Author', *Dezeen*, 6 April 2022 <<https://www.dezeen.com/2022/04/06/ipcc-climate-change-mitigation-report/>> [accessed 21 January 2026].
43. Precarity Pilot, n.d. <<https://precaritypilot.net>> [accessed 21 January 2026].
44. Tom Ravenscroft, 'Leading Architects "Clearly Contravening" Climate Pledges Says Architects Declare', *Dezeen*, 25 November 2020 <<https://www.dezeen.com/2020/11/25/architects-declare-studios-contravening-declaration/>> [accessed 21 January 2026].
45. UK Architects Declare, 'Practice Guide', 2021 <<https://uk.architectsdeclare.com/practice-guide>> [accessed 21 January 2026].
46. 'UVW Architectural Workers Join Tenant Unions at COP26 Protests', UVW, 5 November 2021 <<https://www.uvwunion.org.uk/en/news/2021/11/uvw-architectural-workers-to-join-tenant-unions-on-cop26-protests/>> [accessed 21 January 2026].
47. Aditya Chakraborty, 'In 2011 Preston Hit Rock Bottom. Then It Took Back Control', *The Guardian*, 31 Jan 2018 <<https://www.theguardian.com/commentisfree/2018/jan/31/preston-hit-rock-bottom-took-back-control>> [accessed 21 January 2026].
48. David Chandler and Julian Reid, *Becoming Indigenous: Governing Imaginaries in the Anthropocene* (London: Rowman & Littlefield, 2019).
49. Julia Watson, *Lo—TEK: Design by Radical Indigenism* (Cologne: Taschen, 2020).
50. *Ibid.*, p. 27.
51. Zoe Todd, 'An Indigenous Feminist's Take On The Ontological Turn: "Ontology" Is Just Another Word For Colonialism', *Journal of Historical Sociology*, 29.1 (2016), 4–22.
52. Reanna Merasty, 'Joar Nango', *ICON*, 207 (Spring 2022), 156–64 (p. 157).
53. Merasty, 'Joar Nango', p. 163.
54. The Red Nation, *The Red Deal: Indigenous Action to Save Our Earth* (Brooklyn, NY: Common Notions, 2021).
55. Nick Estes, 'A Red Deal', *Jacobin*, 8 June 2019 <<https://jacobin.com/2019/08/red-deal-green-new-deal-ecosocialism-decolonization-indigenous-resistance-environment>> [accessed 21 January 2026].
56. Arturo Escobar, *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds* (Durham, NC: Duke University Press, 2018), p. 7.
57. Pinko, *After Accountability: A Critical Genealogy of a Concept* (Brooklyn, NY: Wendy's Subway, 2023), p. 11.
58. *Ibid.*
59. *Ibid.*, p. 23, emphasis added by the author.
60. De Sousa Santos, *The End of the Cognitive Empire*, p. 40.