DOWN TO EARTH: THE BIBLIOGRAPHY

of industrialism in the sense that we can aid or restore what we have lost control of. One can look at this phenomenon as a pursuit of reclaiming a lost controllability of nature. This very perspective of rescue within climate change has to be questioned, as its foundation lies in a philosophical framework that still opposes a relevant relational connection to selves, ourselves ... What if the architect made the choice to see the structure as an actual living entity within itself, what would this form of expression become? ... As architects we are within humanity design for humanity and often times play the negotiation role of connecting the languages of both political and spatial epistemologies to our fellow humans. just as the shaman communicates, and prepares medicine Architect as Shaman (2021) Yussef Agbo-Ola

We define the civic economy as comprising people, venture and behaviors that fuse innovative ways of doing from the traditionally distinct spheres of civil society, the market and the state. Founded upon social values and goals, and using deeply collaborative approaches to development, production knowledge sharing and financing the civic economy generates goods, services and common infrastructures in ways that neither the state nor the market economy alone have been able to accomplis

Compendium for the Civic Economy: What the Big Society hould Learn from 25 Trailblazers (2017) Timothy Ahrensbach

To mobilize flows of virtually anything - goods, money, labor energy information raw material - in order to sustain and expand accumulation, capitalism relies on infrastructural circuits that, as hidden provider of all services, are minutely inscribed in every weave of life. The circuits along which capital circulates are engineered to perform a multitude determining in their wake the structure of buildings and city regions, if not the transnational geography of the planet itself. For whenever infrastructure goes, urbanization is already well underway As ubiquitous as it is anonymous infrastructure has become so engrained in our lives as to steer the habits of collective behavior, becoming in this sense a 'conduit of conduct', or underlying logic of sociospatial relations, that perpetuates unchecked conventions of production and consumptio

Mirroring Effects: Tales of Territory (2019) Marc Angélil, Cary Siress

A Planet to Win: Why We Need a Green New Deal (2019) Kate Aronoff, Alyssa Battistoni, Daniel Aldana Cohen, Thea Riofrancos (eds.)

lunch. Firms and people will save money by adopting the cleaner technologies because research will have made them. so much cheaper ... Our sense is that there may not be that many free lunches. Mitigation through better technologies may not do the trick; people's consumption will need to fall ... This is not what our colleagues in economics like to hear ... Economists typically assume most people would not voluntarily sacrifice anything to affect the lives of unborn people or those who live very far away. But this is probably not true. for example, of you ... Or for that matter of most economists themselves. Many of us probably do care about a whole range of outcomes that don't affect us directly, even if we have a hard time assigning money values to them. Good Economics for Hard Times: Better Answers to Our Riggest Problems (2019) Abhiiit Baneriee, Esther Duflo

It is the end of a cycle that, in geological terms, was extremely short but that for us seemed to be the way things were t be forever and ever. It wasn't so: it was only the brief cycle of the period we call Anthropocene, where humans thought themselves masters of a whole planet. But the planet was plundered to the limit, and what we will be left with are only the ashes of a gigantic fire. We are leaving to our descendants. a heavy legacy in terms of radioactive waste, heavy metals dispersed all over the planet, and greenhouse gases - mainly CO₂ - accumulated in the atmosphere and absorbed in the oceans. The Earth will never be the same: it is being trans-

formed into a new and different plane Extracted: How the Ouest for Mineral Wealth Is Plundering the Planet (2014)

Succeeding the Holocene, a period of 11,500 years marked by a rare climatic stability, a period of blossoming agriculture. cities and civilizations, the swing into the Anthropocene represents a new age of the Earth. As Paul Crutzen and Will Steffen have emphasized, under the sway of human action 'the Earth currently operates in a state without previous analogy' It is our own model of development our own in dustrial modernity, which, having claimed to free itself from the limits of the planet, is striking Earth like a boomerang. The Shock of the Anthropocene (2013) Christophe Bonneuil, Jean-Baptiste Fressoz

The metabolism approach redefines the way we deal with spatial challenges in our urban age by analyzing the relationship between society and nature, and between city and landscap Now more than ever, we in fact live in huge urban landscapes complex and active systems that have become our natural environment. These systems are constantly working to provide for the needs of their occupants. We can describe them in organic terms. Just as a human body breathes, drinks, eats, uses its senses, and excretes waste, so can vital material flows be identified in the urban landscape. Think of flows such as energy, water, food, waste, biomass, goods, money, data, sediments, and people. If we analyze these flows and study them in coherence, it is possible to develop spatial interventions that proactively and productively utilize the metabolism, and thus to conceive more sustainable spatial development models

that make for a more resilient territory The Metabolism of Albania: Activating the Potential of the Albanian Territory (2016) George Brugmans, Marieke Francke, Freek Persyn (eds.)

forwardly-operative, metabolic, and intellectual regenerating system. Quite clearly, we have vast amounts of income wealth as Sun radiation and Moon gravity to implement our forward success. Wherefore living only on our energy savings by burning up the fossil fuels which took billions of years to impound from the Sun or living on the capital by burning up our Earth's atoms is lethally ignorant and also utterly irrespon sible to our coming generations and their forward days. Ou children and their children are our future days. If we do no comprehend and realize our potential ability to support al life forever we are cosmically bankrupt. Operating Manual for Spaceship Earth (1969)

R. Buckminster Fuller

De stem van de Noordzee: Een pleidooi voor vloeibaar denken (2020) Laura Burgers, Eva Meijer, Evanne Nowal

One of the deeper meanings of the commons is indeed as the etymology dictionary suggested, munia, a duty to the community. The struggle for the commons will be one of the most important struggles of the twenty-first century We need to explore the old and new the real and digital com mons. This is the way ahead: in each practice of commoning a spark of utopia is realised. Piecemeal utopias, experiments with the commons, from open source to urban farming, all these movements against the neoliberal globalisation are the utopian forces of our time ... The study of the commons could be called a 'Gaia Scienza': not just a cheerful or uplifting science - because those who dare to look at the world today threaten to fall into deep political melancholy - but also a science that with trial and error teaches us how to deal with Gaia with the biosphere Therefore the re-emergence [of the commons] is, could and should be one of the most promising events of our time.

Ending the Anthropocene: Essays on Activism in the Age of Collapse (2020)

Collapse: How Societies Choose to Fail or Succeed (2005) Jared Diamond

Upscaling, Training, Commoning: Constructing a Future

The Future We Choose: Surviving the Climate Crisis (2020) Christiana Figueres, Tom Rivett-Carnac

A true ecological approach always becomes a social approach it must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and Laudato Si' (2015

of culture, and thus of the imagination ... At exactly the time when it has become clear that global warming is in every sense a collective predicament, humanity finds itself in the thrall of a dominant culture in which the idea of the collective has been exiled from politics, economics, and literature alike To imagine other forms of existence is exactly the challenge that is posed by the climate crisis: for if there is one thing that global warming has made perfectly clear it is that to think about the world only as it is amounts to a formula for collective suicide. We need, rather, to envision what it might be. The Great Derangement: Climate Change and the Unthinkable (2016) Amitav Gosh

the other animals When humans domesticated fire they gained control of an obedient and potentially limitless force Unlike eagles, humans could choose when and where to ignite a flame, and they were able to exploit fire for any number of tasks. Most importantly, the power of fire was not limited by the form structure or strength of the human body. A single woman with a flint or fire stick could burn down an entire forest in a matter of hours. Humans had now a dependable source of light and warmth, and a deadly weapon against prowling lions. A carefully managed fire could turn impassable barren thickets into prime grasslands teeming with game. In addition, once the fire died down. Stone Age entrepreneurs could walk through the smoking remains and harvest char coaled animals, nuts and tubers. But the best thing fire did was cook. Foods that humans cannot digest in their natural forms - such as wheat, rice and potatoes - became staples of our diet thanks to cooking ... The domestication of fire was a sign of things to come

If you cut down a forest for timber, GDP goes up. If you extend

Less is More: How Degrowth Will Save the World (2020)

Fire also opened the first significant gulf between man and

Saniens: A Brief History of Humankind (2011) Yuval Noah Harari

the working day and push back retirement age. GDP goes up. If pollution causes hospital visits to rise, GDP goes up But GDP includes no cost accounting. It says nothing about the loss of the forest as a habitat for wildlife, or as a sink for emissions ... Lashed by the growth imperative, technology is used not to do the same amount of stuff in less time, but rather to do more stuff in the same amount of time. In a system

where technological innovation is leveraged to expand extraction and production, it makes little sense to hope that yet more technological innovation will somehow magically do

Jason Hickel

Naomi Klein

Capitalists (2018)

Naomi Klein

This is particularly true of movements that exist to deepe and grab the reins of history

Nieuwe Klimaatregime (2015)

While it is true that climate change is a crisis produced by an excess of greenhouse gases in the atmosphere, it is also, in a more profound sense, a crisis produced by an extractive mind-set, by a way of viewing both the natural world and the majority of its inhabitants as resources to use up and then discard I call it the 'gig and dig' economy and firmly believe that we will not emerge from this crisis without a shift in worldview at every level, a transformation to an ethos of care and repair Recause it isn't only the planet's life support systems that are unraveling before our eyes. So too is our social fabric ... There is simply no way to square a belief system that vilifies collective action and venerates total market freedom with a problem that demands collective action on an unprecedented scale and a dramatic reining in of the market forces that created and are deepening the crisis. Climate change is a collective problem, and it demands. collective action.

over the world, but are at home in Amsterdam-Noord, Our Jii hebt ons niet ontdekt, wii waren hier altiid al (2020

There is nothing inevitable about the built environment - the built environment is the product of human decision. We hope to shed light on how damaging some of these decisions have been. First and foremost, where you live has enormous mplications for who you are and what opportunities you'l nave. Because metropolitan regions are so uneven - because asic amenities like education, wealth, and wellness are found in some communities and not others. The Arsenal of Exclusion & Inclusion (2017)

The modern economy is structurally reliant on economic growth for its stability ... But question it we must ... No subsystem of a finite system can grow indefinitely - at least in physical terms. Economists have to be able to answer the uestion of how a continually growing economic system car fit within a finite ecological system ... We have no alternative but to question growth. The myth of growth has failed us. We must establish the ecological bounds on human activity We must tackle the systemic inequalities which undermine social progress. We must fix the illiterate economics of relent less growth ... A different economics is achievable. A better and fairer social logic lies within our grasp.

control. But the sociocultural capital was: we had developed

invisible systems, at least invisible to outsiders, that charac-

terized the neighborhood and kept it together. For example

a group of women with East African roots in the Vogelbuurt.

who put a certain percentage of their income into a communal

pot every month so that one of them could pay for a major

purchase or renovation, or pay off a large debt. Such as the

have much to spend to shop on credit. Such as entrepreneurs

who charge new, well-off residents a little more so that the

next less well-off customer has to pay a little less. Such as

other's children and look after each other, care and take care

the family bonds between neighbors who look after each

of each other's wellbeing, as if that were a matter of course.

that's what you do, isn't it? You look after each other, don't

community is our strength

Massih Hutak

Anyone who you ask about this says, almost surprised: 'But

you?' All these people who interact as a family have roots all

orhood supermarkets that allow residents who do not

Prosperity without Growth: Foundations for the Economy of Tomorrow (2016)

This Changes Everything: Capitalism vs. The Climate (2014)

Capital is fast. Unencumbered by democratic norms ... with no one to consult but accountants and lawyers. The trouble is that movements, unlike capital, tend to move slowly. democracy and allow ordinary people to define their goals The Battle for Paradise: Puerto Rico Takes on the Disaste

On Fire: The Burning Case for a Green New Deal (2019)

Right now, in the amazing moment that to us counts as the present, we are deciding, without quite meaning to, which evolutionary pathways will remain open and which will forever be closed. No other creature has ever managed. this and it will unfortunately be our most enduring legacy The Sixth Extinction: An Unnatural History (2014) Flizaheth Kolhert

It is wishful thinking to assume that growth will continue decade after decade, especially once the impact of ecological breakdown begins to kick in. It is equally wishful to believe that with enough money and technology in the nockets our descendants will be able to simply reverse cataclysmic events such as species extinctions, polar ice melt or the rampant speed of genetically engineered viruses. The Good Ancestor: A Radical Prescription for Long-Term Thinking (2020) Roman Krznaric

Op grond van samenwerking: Woningen, voedsel en trage wegen als commons (2019) Annette Kukh Dirk Holemans Pieter van den Broeck (eds.)

Redirecting attention from 'nature' toward the Terrestrial might put an end to the disconnect that has frozen political positions since the appearance of the climate threat and has imperiled the linking of the so-called social struggle with those we call ecological. ... Saying 'We are earthbound we are terrestrials amid terrestrials,' does not lead to the same politics as saving 'We are humans in nature.' Dramatizing somewhat extravagantly, let us call it a conflic between modern humans who believe they are alone in the Holocene ... and the terrestrials who know they are in the Anthropocene and who seek to cohabit with other terrestrials under the authority of a power that as yet lacks any political institution Down to Earth: Politics in the New Climatic Regime (2017) Bruno Latour

Oog in oog met Gaig: Acht lezingen over het Bruno Latour

Het parlement van de dingen: Over Gaia en de epresentatie van niet-mensen (2020) Critical Zones: The Science and Politics of

Die Menschheit schafft sich ab: Die Erde im Griff des Anthropozän (2016) Harald Lesch, Klaus Kamphauser

Bruno Latour

Landing on Earth (2020)

Anna Lowenhaupt Tsing

Mariana Mazzucato

Bruno Latour, Peter Weibel

Disturbance is a change in environmental conditions that causes a pronounced change in an ecosystem ... Disturbance is ordinary ... Whether a disturbance is bearable or unbearable is a question worked out through what follows it: the reformation of assemblages. Disturbance opens the terrain for trans-Assemblages are open-ended gatherings. They allow us to ask about communal effects without assuming them. They show us potential histories in the making The Mushroom at the End of the World: On the Possibility of Life in Capitalist Buins (2015)

Arts of Living on a Damaged Planet (2017) Anna Lowenhaupt Tsing, Heather Swanson, Elaine Gan Nils Bubandt (eds.)

Radical Nature: Art and Architecture for a Changing Planet (2010) Francesco Manacorda, Ariella Yedgar

The socioeconomic prosperity of nations and regions is highly the innovation ecosystem that they are part of, Given, however, that the innovation game can be rigged, it is crucial to inderstand not only how to build an effective innovation 'ecosystem' but also and perhaps especially how to transform that ecosystem so that it is symbiotic rather than 'parasitic' so that public-private partnerships increase the stake, commitment and return of all players investing in the innovation game ... One of the biggest challenges for the future will be to make sure that in building collaborative ecosystems, we do not only socialize the risks but also the rewards The Entrepreneurial State: Debunking Public vs. Private Sector Myths (2014)

Growth has not only a rate but also a direction - and that direction should have purpose ... A more purpose-driven government and a new relationship between public and private - i.e. capitalism - requires a new political economy founded on the co-creation and shaping of markets, not just fixing them. This requires rethinking value creation as a collect tive endeavor ... The idea is that if value is created collectively through societal effort, all actors should be getting their fair share in proportion to their risk-taking, input and creativity. Mission Economy: A Moonshot Guide to Changing Capitalism (2021) Mariana Mazzucato

It is the predicament of mankind that man can perceive the problematique, vet, despite his considerable knowledge and skills, he does not understand the origins, significance and interrelationships of its many components and thus is unable to devise effective responses. This failure occurs in large part because we continue to examine single items in the problematique without understanding that the whole is more than the sum of its parts, that change in one element means change in the others.

The Limits to Growth (1972)

Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, William W. Behrens III

Living successfully in a world of systems requires more of us than our ability to calculate It requires our full humanity our rationality, our ability to sort out truth from falsehood. our intuition, our compassion, our vision, and our morality ... As with everything else about systems, most people already know about the interconnections that make moral and practical rules turn out to be the same rules. They just have to bring themselves to believe that which they know Thinking in Systems: A Primer (2008) Donella H. Meadows, Diana Wright

When thinking becomes ecological, the beings it encounters

cannot be established in advance as living or non-living, sentient or non-sentient, real or epiphenomenal. What we encounter instead are spectral beings whose ontological status is un certain precisely to the extent that we know them in detail as never before. And our experience of these spectral beings is itself spectral, just like ennui. Starting the engine of one's car isn't what it used to be since one knows one is releasing greenhouse gases. Eating a fish means eating mercury and depleting a fragile ecosystem. Not eating a fish means eating vegetables, which may have relied on pesticides and other harmful agricultural logistics. Because of interconnectedness it always feels as if there is a piece missing. Something just doesn't add up ... The basic mode of ecological awareness is anxiety, the feeling that something creepy is happening. close to home. Through anxiety reason itself begins to glimpse what indigenous - that is, preagricultural - societies have known all along: that humans coexist with a host of nonhumans. Through reason we find ourselves. caught like longh in the whale of a gigantic object, the biosphere Dark Ecology: For a Logic of Future Coexistence (2016) Timothy Morton

an individual will matter. But what you did will have huge nsequences. This is the paradox of the ecological age. And it is why action to change global warming must be massive and collective What is global warming anyway? The correct answer is that it is mass extinction. Maybe it would make it more obvious if we stopped calling it 'global warming' (and definitely stopped calling it 'climate change', which is really weak) and started calling it 'mass extinction', which is the net effect Uncannily we begin to realize that we are somewhere. Not nowhere. And we may find ourselves living in an age of

Several thousand years from now, nothing about you as

Being Ecological (2018) Timothy Morton

We need to view the fragility of the planet and its resources as an opportunity for speculative design innovations rather than as a form of technical legitimation for promoting conventional solutions Ecological Urbanism (2016)

Mohsen Mostafavi, Gareth Doherty (eds.)

that might help to secure the livelihoods of the community's nembers, a focus for purposeful engagement, and the basis as the resource belongs equally to those who use it - for egalitarian relationships. It embeds people in the lives of others: sustaining the resource means cooperating with other people to develop rules, moral codes and means of enforcing them Thriving commons are I believe crucial components of a politics of belonging.

There is no reason to believe that bureaucrats and politician no matter how well-meaning, are better at solving problems than the people on the spot, who have the strongest incentive to get the solution right Governing the Commons: The Evolution of

Economics is the only lever we possess that's long enough to move the world. Do we have the courage to use it as an instrument of sacrifice? We know how to make people con sume less: charge them more. We also know how to reverse population growth how to produce energy without fossil fuel and how to restrain wasteful consumption. What we don't know is how to make ourselves do those things on a global or even a national scale, with all parties in approximate agreement; we certainly don't know how to make it all wor equitably, across the full range of global affluence levels.

Hijacking Sustainability (2012)

Flinor Ostrom

A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature and the Future of the Planet (2018) Rai Patel, Jason W. Moore

Without taxes, society has no common destiny, and collective action is impossible. This has always been true. At the heart Capital in the Twenty-First Century (2013)

A commons makes sense of community. It provides resources

Out of the Wreckage: A New Politics for an Age of Crisis (2017)

Institutions for Collective Action (1990)

The Conundrum: How Trying to Save the World is Making Our Climate Problems Worse (2012) David Owen

of every major political upheaval lies a fiscal revolution ... I democracy is someday to regain control of capitalism, it must start by recognizing that the concrete institutions in which democracy and capitalism are embodied need to be reinvented again and again ... To develop new forms of governance and shared ownership intermediate between public and private ownership is one of the major challenges for the century ahead

A systems perspective makes clear that the prevailing direction of global economic development is caught in the twin dynamics of growing social inequality and deepening ecological degradation. To put it bluntly, these trends echothe condition under which earlier civilizations - from the Faster Islanders to the Greenland Norse - have collapsed When a society starts to destroy the resource base on which it depends, argues the environmental historian Jared Diamond. it is going to be far less adept at changing its ways if it is also stratified, with a small elite that is quite separate from the masses ... Today's economy is divisive and degenerative by default. Tomorrow's economy must be distributive and regenerative by design ... Governments have historically opted to tax what they could rather than what they should and it shows ... The state's role is key to ending the business-as-usual of degenerative economic design. And it has many ways to actively promote a regenerative alternative, including restructuring taxes and regulations, stepping up as a transformative

investor and empowering the dynamism of the commons.

Doughnut Economics: 7 Ways to Think Like a 21st Century

We want to believe what we see Δs it is easier to see a structure than its consequences, we generally do not see its emissions. Thus, warning about the risks posed by something invisible might not be very compelling. Environmentally, we are all standing on a thin arch; we will only 'see' the consequen-

Kate Raworth

Cormac Bussell

Michiel Schwarz

Ilka Ruby, Andreas Ruby (eds.) The more you provide services for things that people can do for themselves, the more you diminish social capital Rekindling Democracy: A Professional's Guide to Working in Citizen Space (2020)

Commons are more than just the common ownership of goods. It is also a form of self-organization, of 'commoning'. This is also what distinguishes the commons from public property, where regulation and management are usually delegated to bureaucracies

The Materials Book (2020)

The End of the Megamachine: A Brief History of a Failing Civilization (2015) Fabian Scheidler

What distinguishes the new sustainist era from its modernist predecessor most is an altogether different mindset and ethos, one that is creating a collective culture which is more connected, locally-rooted, collaborative, respectful of the human scale, and altogether more environmentally and socially sustainable. A Sustainist Lexicon (2016)

schematic visions that do violence to complex interdependencies that are not - and cannot - be fully understood. Further the success of designs for social organization depends upon the recognition that local, practical knowledge is as important as formal enistemic knowledge Seeing Like a State: How Certain Schemes to Improve the

Centrally managed social plans misfire, when they impose

Condition Have Failed (1999) Our political arrangements today are collective organisms of consuming bodies in decentralized systems managed by

technicians for the profit of the few No matter how many people take to the streets in massive marches or in targeted direct actions, they cannot put their hands on the real flows Wealth (2019) of power, because they do not help produce it. They only Guy Standing consume ... No longer individual subjects or discrete object we have become vibrations, channelers, tweeters and followers ... Everybody already knows. The problem is that The key question is that of how research design can contribute the problem is us Learning to Die in the Anthropocene: Reflections on the End of a Civilization (2015)

We're Doomed. Now What? Essays on War and Climate Change (2018)

Boy Scranton

The urbanist has particular things to learn from the craftsmar about how to make a repair. In approaching a broken vase, a craftsman can follow three different strategies: restoration remediation or reconfiguration. These three strategies are just those a city can use if under attack from climate change or ruptured from within.

Building and Dwelling: Ethics for the City (2018)

For citizens, businesses and officials, we want to present the transition in energy and space as a social issue that is important and unavoidable difficult vet promising. By working out the energy transition in spatial terms, we turn this mega task, which is often only understood in abstract terms, into a concrete and visual task, and we do so on multiple levels of scale. We want to turn energy supply and energy transition into a cultural and spatial design challenge, much in the way that his has taken place in the Netherlands in terms of wate management over the past 30 years

Landscape and Energy: Designing Transition (2014) Dirk Siimons (ed.)

Wat aebeurde er in de 20° eeuw? (2016)

Peter Sloterdiik

Energy and Civilization: A History (2017)

The Age of Sustainability: Just Transitions in a Complex World (2019) Mark Swilling

Without a commons and commoning, there is no community The commons are public wealth. But they have no price. To neo-liberals this means that they have no value. So they can he used by commercial interests for free - Loss of the commons does not count. The commons ideally are an interrelated organism that balances production, reproduction, recreation and leisure, with emphasis on reproduction and sustainabilit f subject to commercialization or privatization, that balance is sacrificed; the pursuit of profit and short-term advantage rules out respect for the reproduction of resources and asset or support systems. This dislocation is even more pronounced when ownership passes to foreign capital which transfers stewardship of the values and functions of the commons to owners whose overriding interest is to make profits Plunder of the Commons: A Manifesto for Sharina Public

to creating a new socio-economic paradigm that establishes the city itself as a kind of lever for the optimum and sustainable social and economic performance of its residents Urban Metabolism: Sustainable Development of Rotterdam (2014) Nico Tilly, Eric Frijters, Olv Klijn, Judith Borsboom, Martin

Looiie (eds.)

Over the last twenty-five years, the cost per unit of renewable energy has fallen so far that you can hardly measure the price, today, using the same scales (since just 2009, for instance solar energy costs have fallen more than 80 percent) Over the same twenty-five years, the proportion of global energ use derived from renewables has not grown an inch. Sola isn't eating away at fossil fuel use, in other words, even slowly it's just buttressing it. To the market, this is growth: to human civilization, it is almost suicide. We are now burning 80 percent more coal than we were just in the year 2000 ... If, in the past, the promise of growth has been the justification for inequality, injustice, and exploitation, it will have man more wounds to salve in the near future; disaster, drough famine, war, global refugeeism and the political disarray it unleashes. And as a salve, climate change promises almost no global growth; in much of the world hit hardest, in fact, negative growth The Uninhabitable Earth: A Story of the Future (2019)

David Wallace-Wells

In this era of the Anthropocene, humankind will need to redefine the mythology of technology to include indigenous innovation. The indigenous cultures of the world need to be recognized as innovative rather than primitive and have their knowledge embedded in the thinking of our future ... Species extinction alone won't be the twenty-first century's greatest loss. The same forces that drive species extinction endange the indigenous technologies that may hold a key to humanity's groups most affected by climate change, and many of the activities that, in the name of progress, have precipitated if their knowledge is in fact an essential part of the solution. Lo-TEK: Design by Radical Indigenism (2020) Julia Watson