

Deutsches Museum



Das Anthropozän als Provokation und Herausforderung für Natur- und Kulturwissenschaften

Helmuth Trischler (Deutsches Museum und Rachel Carson Center)
Universität Passau, 5. Juli 2019





With history in a room filled
with people with funny
names 4 (gardens), 2017,
von Korakrit Arunanondchai,
Biennale, Venedig, 2019



Agenda

1. Das Anthropozän als geologisches Konzept
2. Das Anthropocene als kulturelles Konzept
3. Das Anthropozän als Provokation I:
neue Narrative, neue Temporalitäten
4. Das Anthropozän als Provokation II:
die Technosphäre
5. Das Anthropocene als „trading zone“ for
Inter- und Transdisziplinarität
6. Lessons learned
7. Slow Violence – Slow Hope



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© Wikipedia

Paul J. Crutzen, Atmosphärenchemiker
und Nobelpreisträger

„Considering these ... still growing impacts of human activities on earth and atmosphere, ... including global scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term ‚anthropocene‘ for the current geological epoch.“

Crutzen, Paul J. „Have we entered the ‚Anthropocene‘?“ *Global Change Magazine (Newsletter 41)* (2000)



© Deutsches Museum

- Georges-Louis de Buffon (1749-1789): originale versus zivilisierte Natur (1775)
- Antonio Stoppani (1824-1891): anthropozoische Ära (1871)
- Vladimir I. Vernadsky (1863-1945): Noosphäre (1913)
- Hubert Markl (1938-2015): Anthropozoikum (1986)

Schritte der Entscheidungsfindung in den Geowissenschaften

1. Working Group on the Anthropocene
2. Subcommission on Quaternary Stratigraphy
3. International Commission on Stratigraphy
4. International Union of Geological Sciences



Martin J. Head

Vorsitzender der Subcommision Vorsitzender der AWG

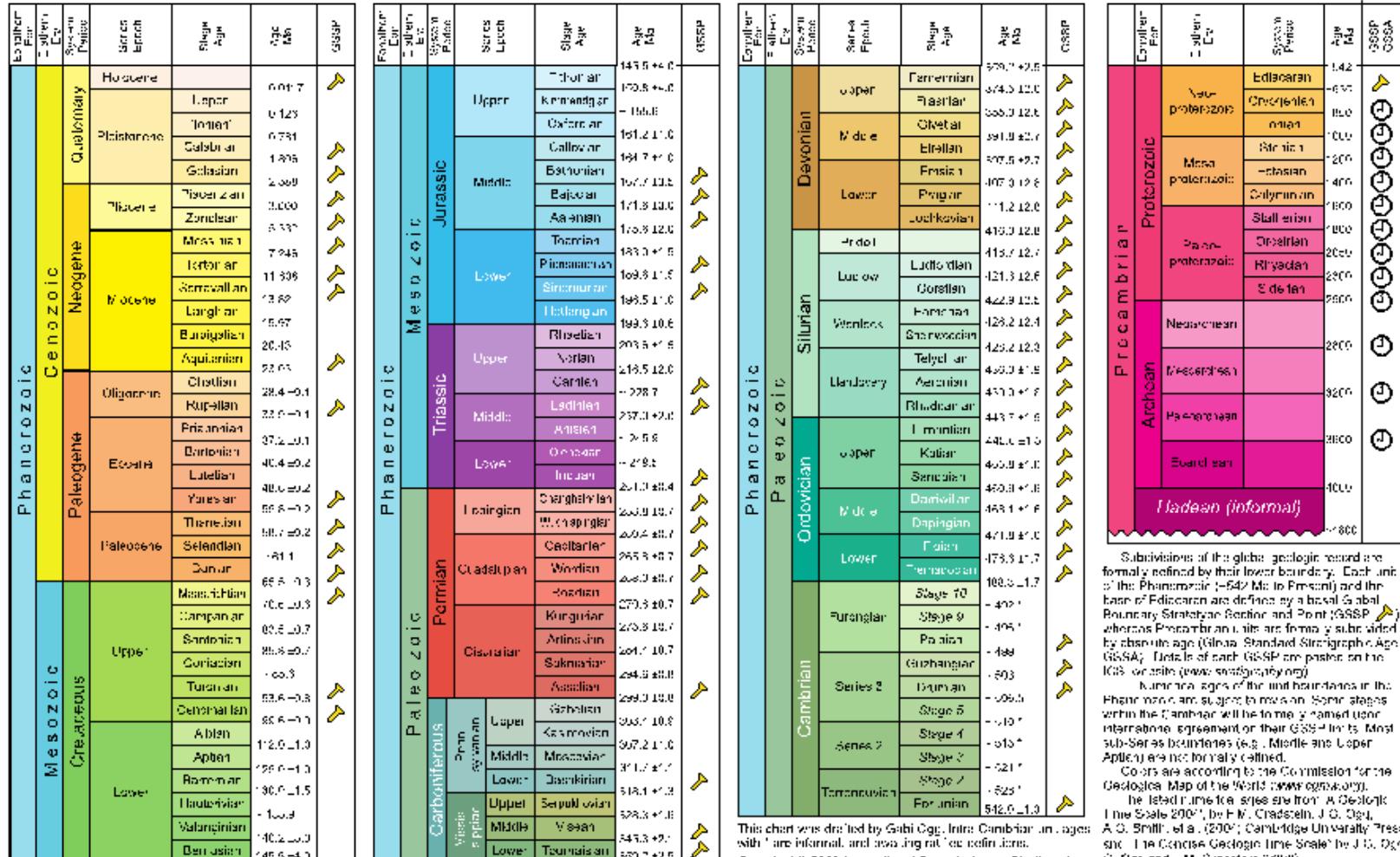


Jan Zalasiewicz



INTERNATIONAL STRATIGRAPHIC CHART

International Commission on Stratigraphy



This chart was drafted by Gabi Ogg. Intra-Cambrian ages with 'a' are informal, awaiting ratified definitions.
Copyright © 2009 International Commission on Stratigraphy

Subdivisions of the global geologic record are formally defined by their lower boundary. Each unit of the Phanerozoic (>542 Ma) in Precambrian and the base of Ediacaran are defined by a basal Global Boundary Stratotype Section and Point (GSSP), whereas Proterozoic units are formally subdivided by oblique age (Global Standard Stratigraphic Age (GSSA)). Details of each GSSP are posted on the ICS web site (www.stratigraphy.org).

Numbered ages of the unit boundaries in the Phanerozoic are subject to revision. Some stages within the Cambrian will be formally named upon international agreement on their GSSPs. Most sub-Series boundaries (e.g., Middle and Upper Aptian) are not formally defined.

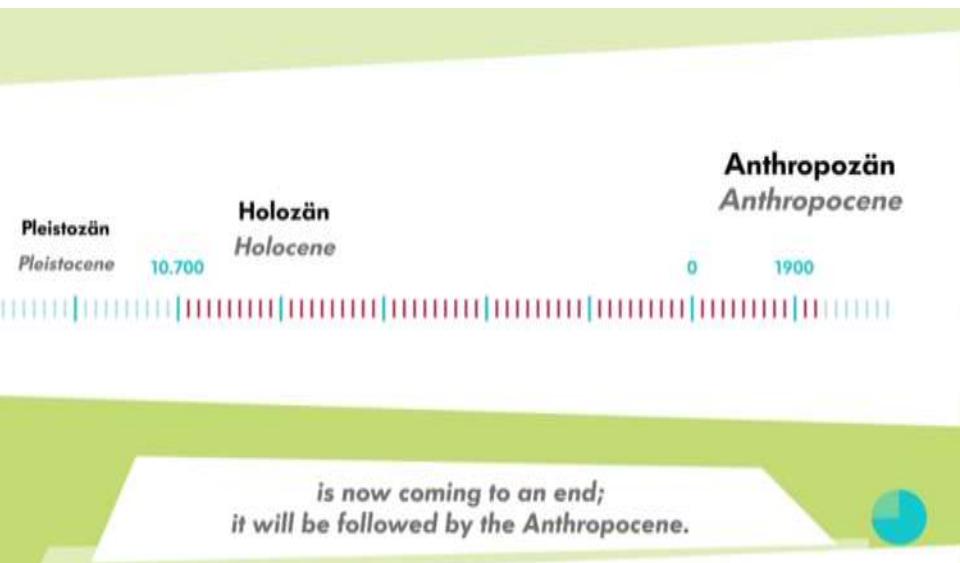
Colors are according to the Commission on the Geological Map of the World (www.cgmw.org). The IGS time scale series are from "A Geological Time Scale 2004", by F.M. Chadwick, J.G. Ogg, A.G. Smith, et al., (2004; Cambridge University Press); and "The Concise Geologic Time Scale" by J.G. Ogg and M. Glikson (in press).



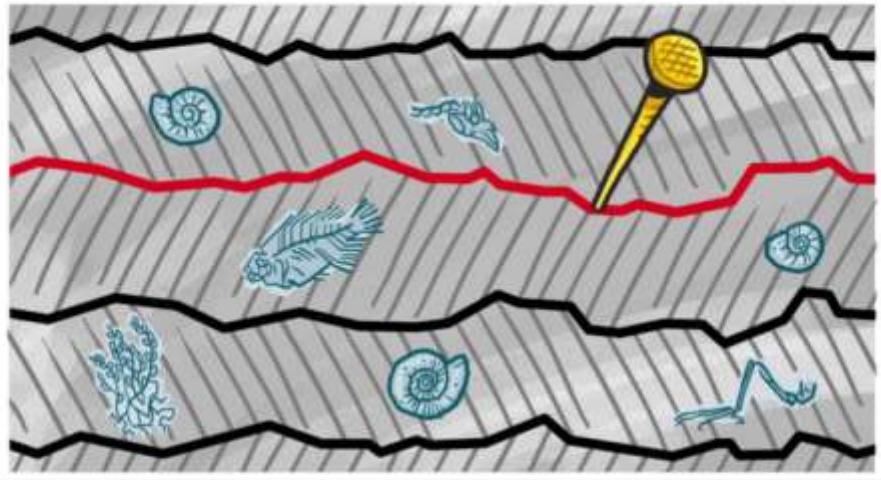
Eonothem Eon	Erathem Era	System Period	Series Epoch	Stage Age	Age Ma
			Holocene		0.0117
		Quaternary		Upper	0.126
			Pleistocene	“Ionian”	0.781
				Calabrian	1.806
				Gelasian	2.588

Periodisierungsvorschläge

1. Neolithische Revolution
2. Industrielle Revolution
3. Great Acceleration



© Deutsches Museum



Each time unit has a so-called "golden spike".



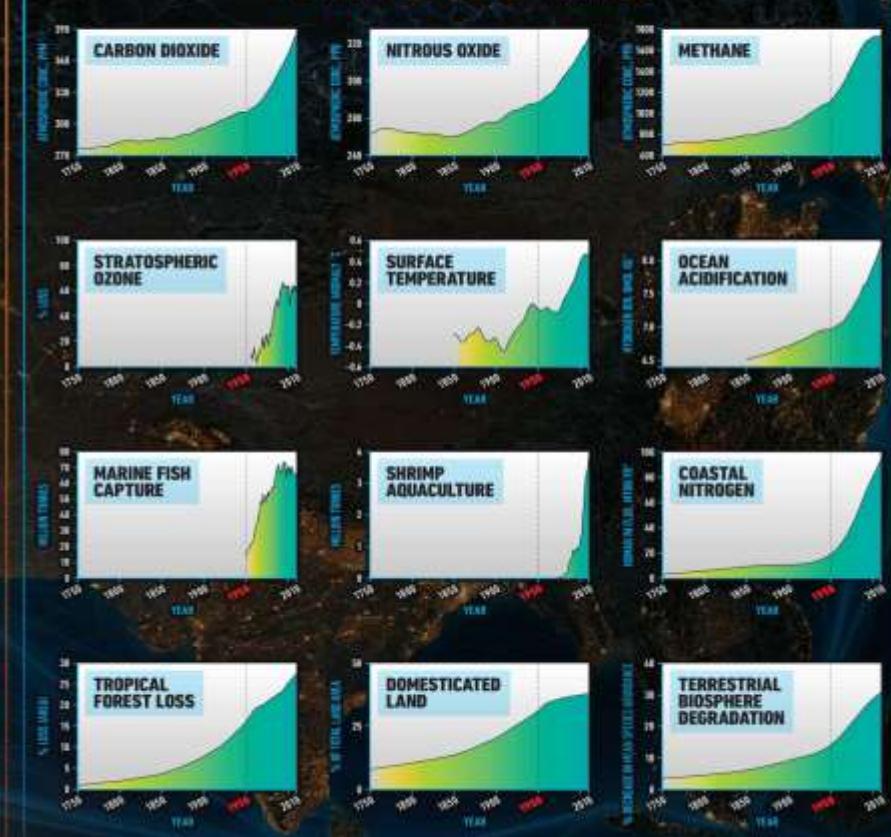


THE GREAT ACCELERATION

SOCIO-ECONOMIC TRENDS



EARTH SYSTEM TRENDS



Aktueller Stand der Diskussion in der AWG:

Anthropocene is stratigraphically real.

Anthropocene is sufficiently different from the Holocene to constitute a new unit of time.

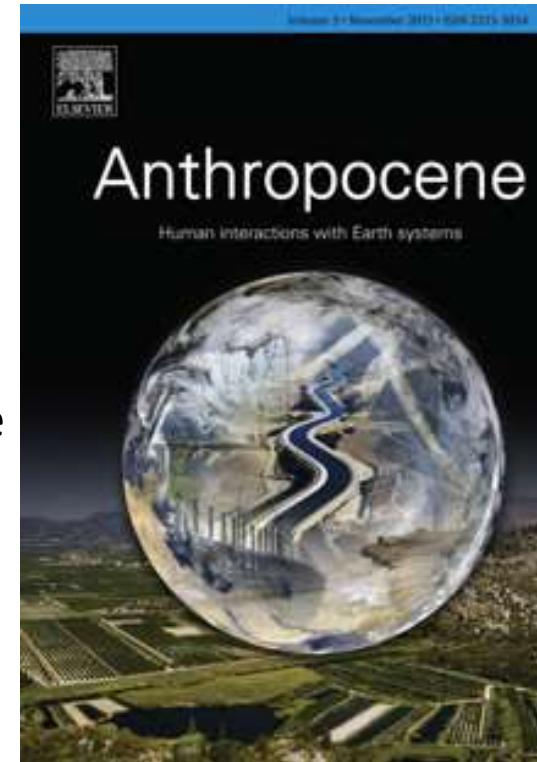
Anthropogenic radionuclides as primary marker.

Potential secondary markers include plastic, carbon isotope patterns and industrial fly ash.

Interne Abstimmung der AWG vom April 2019:

The Anthropocene should be treated as a formal chrono-stratigraphic unit defined by a GSSP (29 / 4).

The primary guide for the base of the Anthropocene should be one of the stratigraphic signals around the mid-twentieth century of the Common Era (29 / 4).

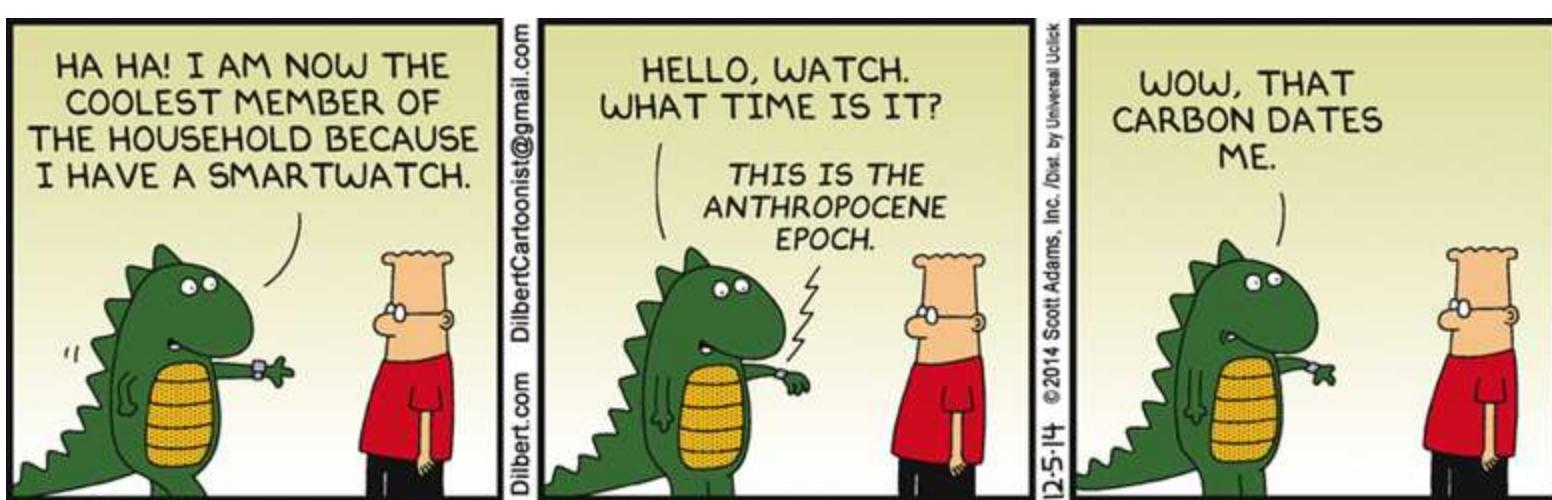


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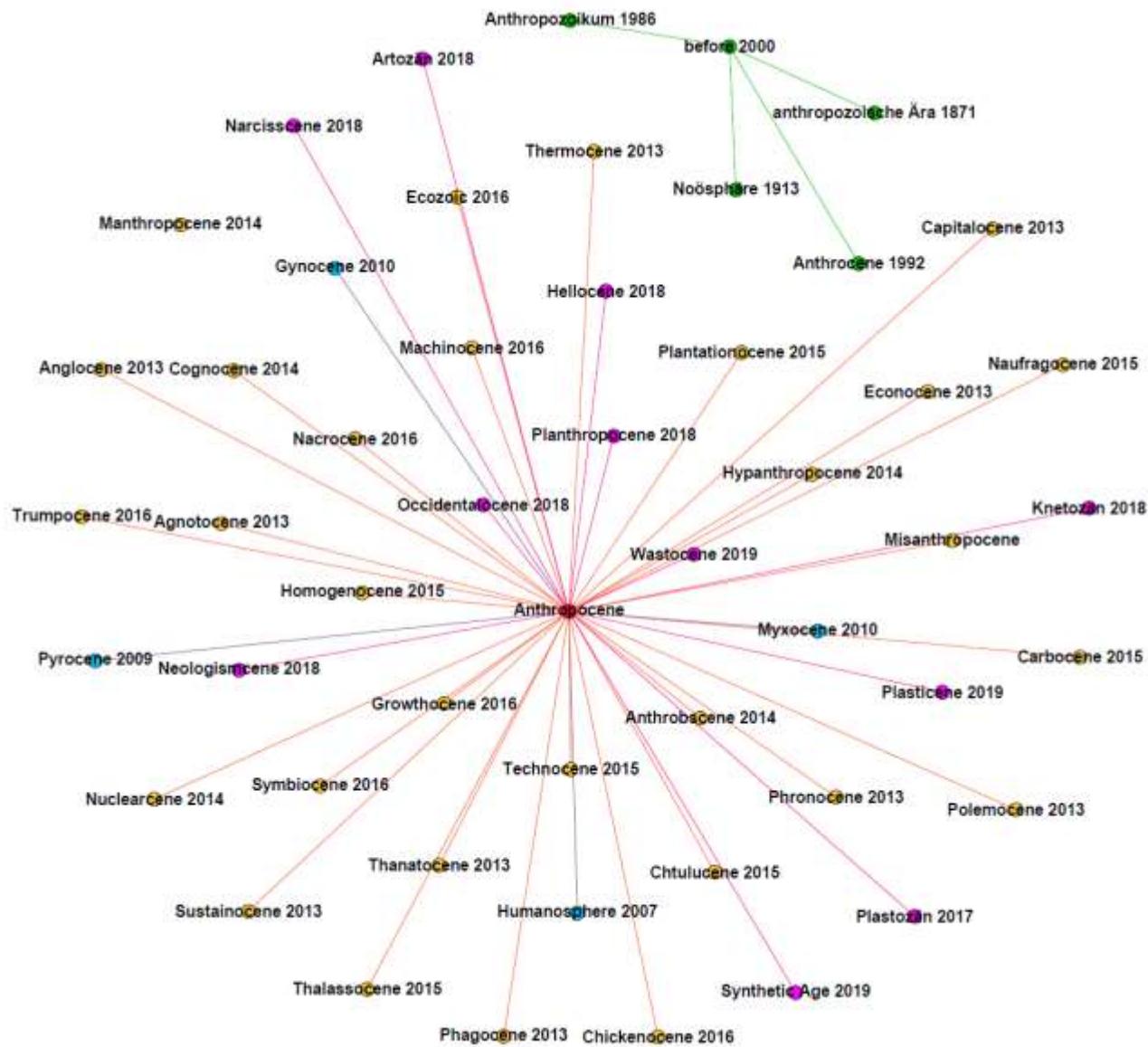
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DILBERT





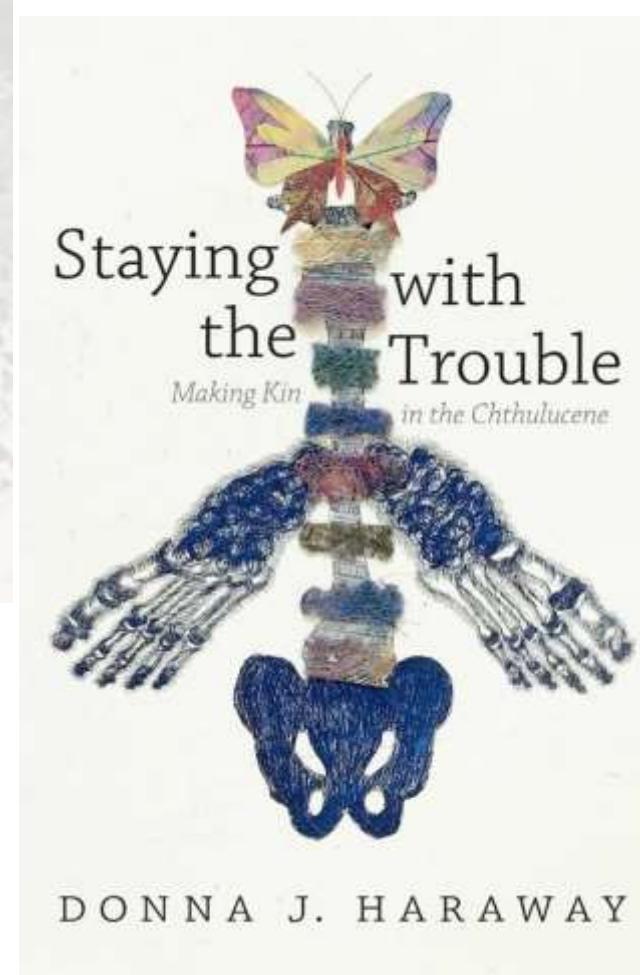
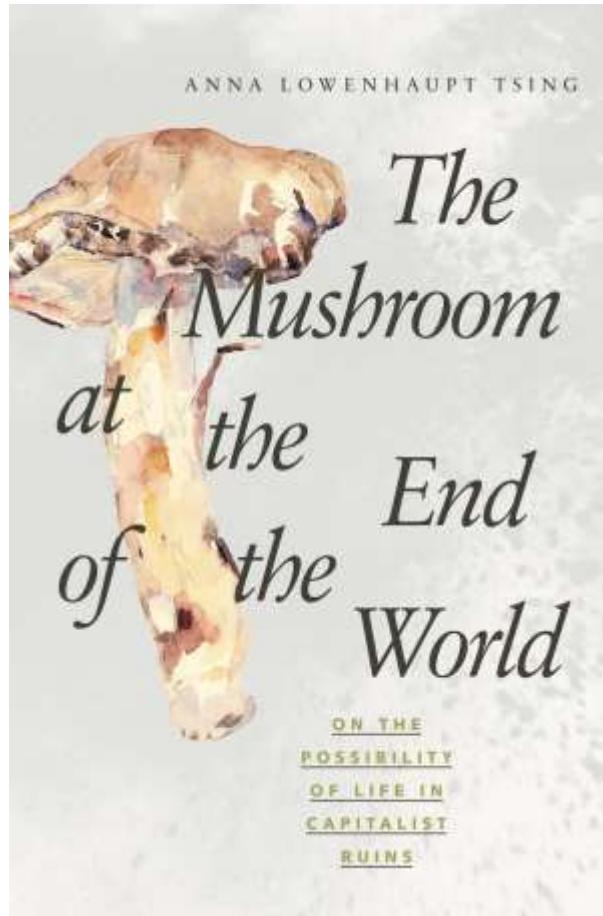
Anna L. Tsing (o)

Ursula K. Heise (l)

Donna J.
Haraway (r)



Deutsches Museum



Rachel Carson Center



Erle C. Ellis

John Asafu-Adjaye et al. 2015

AN

ECOMODERNIST

M A N I F E S T O

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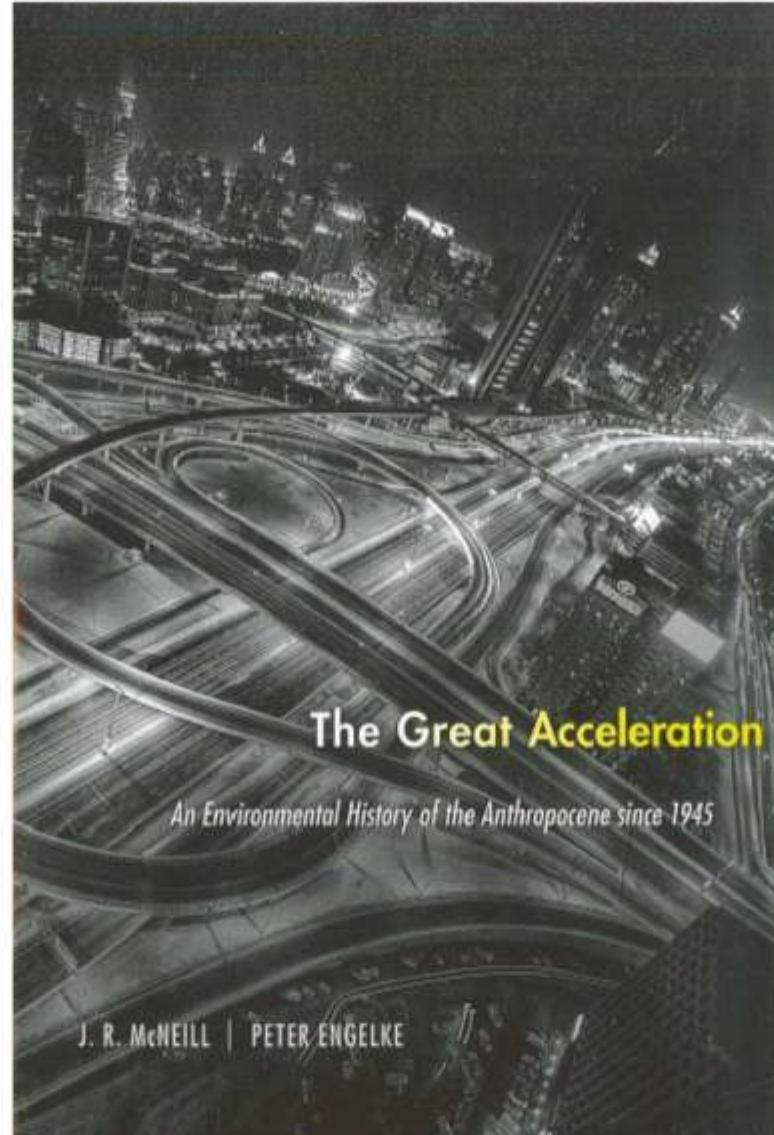
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John McNeill



Naomi Oreskes



Gabrielle Hecht:
„Interscalar Vehicles for an
African Anthropocene: On Waste,
Temporality, and Violence.“
Cultural Anthropology 33 (2018):
109-141

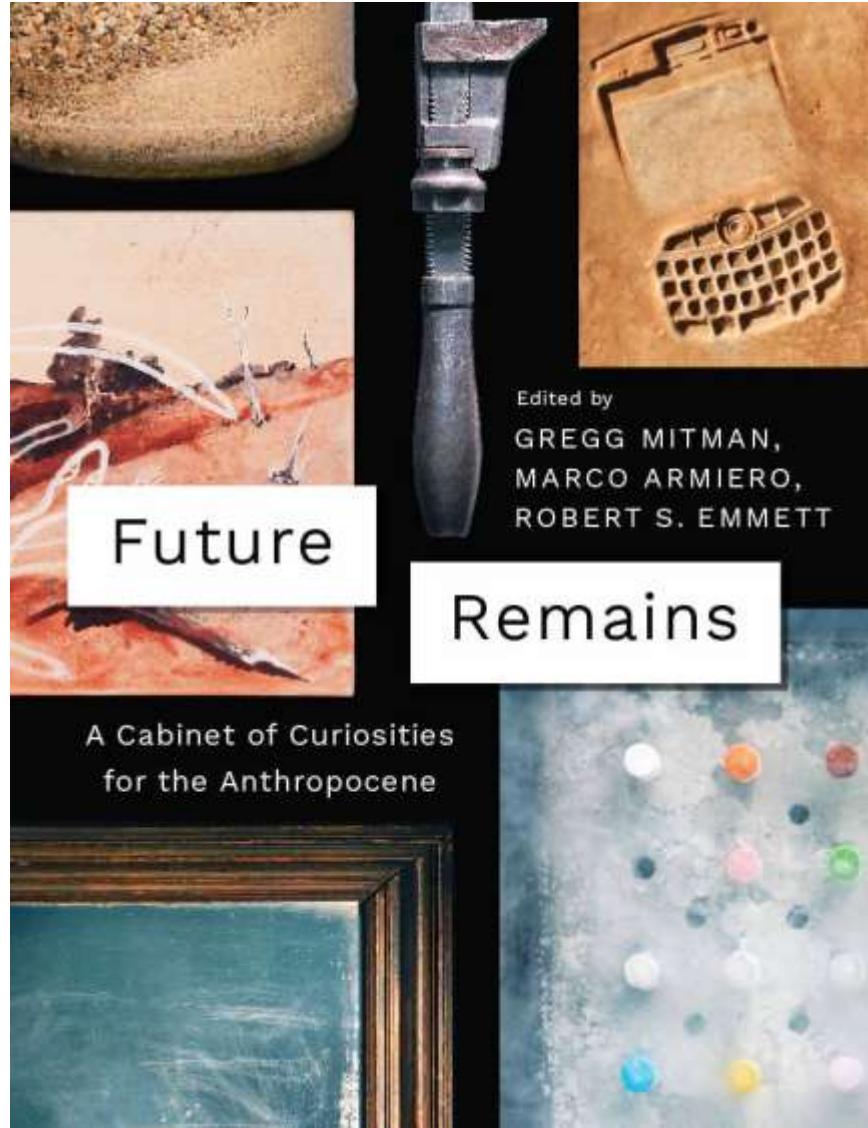




A Billion Black Anthropocenes or None

Kathryn Yusoff







THE HISTORY **MANIFESTO**

How should historians speak truth to power – and why does it matter? Why is five hundred years better than five months or five years as a planning horizon? And why is history – especially long-term history – so essential to understanding the multiple pasts which gave rise to our conflicted present? *The History Manifesto* is a call to arms to historians and everyone interested in the role of history in contemporary society.

Jo Guldi and David Armitage

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Peter Haff: Die Technosphäre als

als

autonomes
dynamisches
globales } System

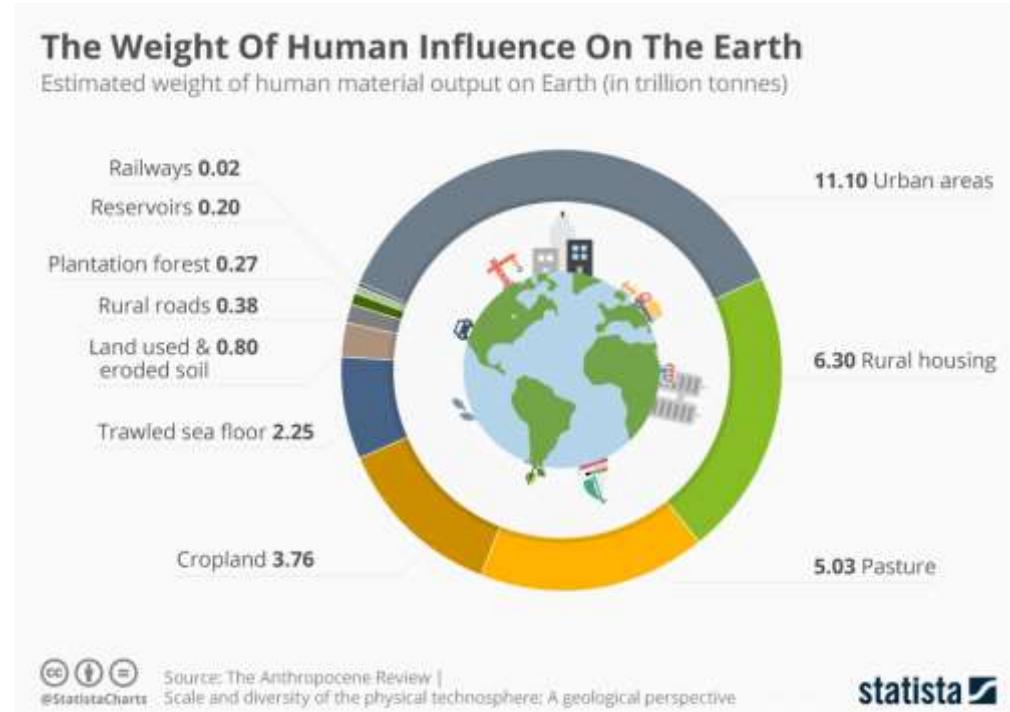


Geologische Sphären:

Atmosphäre
Hydrosphäre
Biosphäre
Technosphäre
Lithosphäre

Die Technosphäre des Planeten Erde

- 30 Billionen Tonnen: 100.000 x das Gewicht aller 7 Mrd. Menschen
- 50 kg je qm Erde
- 130 Mio. fossilierbare Arten von technischen Objekten > als die Zahl der (vermuteten) Organismenarten auf der Erde
- Technofossile Diversität übertrifft/ bzw. wird die biologische Diversität an Reichtum übertreffen

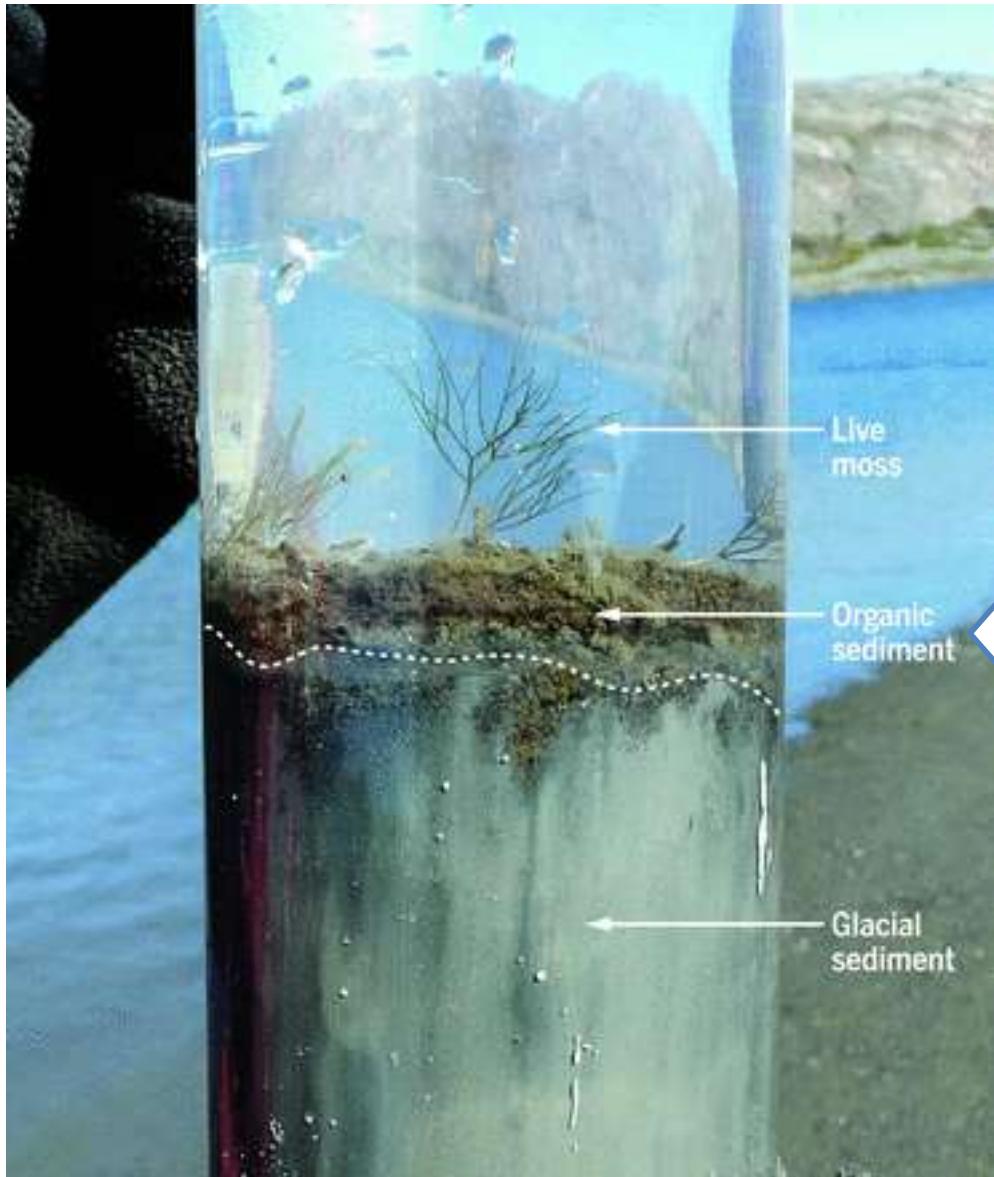


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Interdisziplinäre Projekte von Natur-, Sozial- und Geisteswissenschaften

Integrated History and Future of People on Earth, 2007ff.

Planetary Boundaries: Guiding Human Development on a Changing Planet, 2008ff.

The Anthropocene Project. Haus der Kulturen der Welt (HKW), Berlin, 2014-2016

The Anthropocene Curriculum I & II, HKW, Berlin, 2014 and 2016

The Anthropocene Cabinet of Curiosities, Madison, München und Stockholm, 2014-2016

The Technosphere: Berlin, Philadelphia, Mississippi, 2015/17/19

Crossdisciplinary Research Clusters „The Anthropocene“, Seattle 2017ff.

Anthropocene Network der Universität Wien, Wien 2019ff.



Jan Zalasiewicz

21. November 2019: RCC Tandem Lecture
gemeinsames Buch "The Anthropocene" (Polity Press)



Julia Adeney Thomas

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Anthropocene Observatory, HKW, Berlin

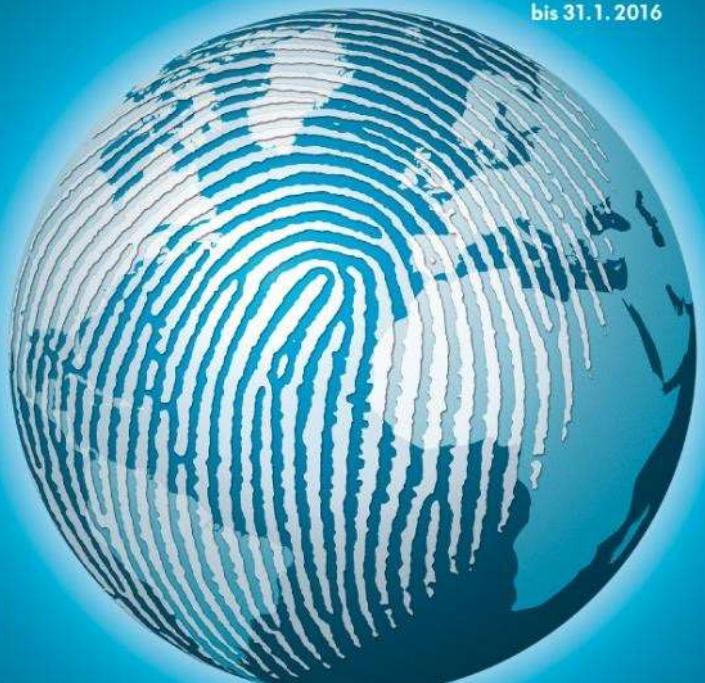


Birdland and the Anthropocene Exhibition, Peale Center, Baltimore, MD

Willkommen im Anthropozän

Unsere
Verantwortung
für die Zukunft
der Erde

5.12.2014
bis 31.1.2016



Rachel
Carson
Center

Deutsches Museum



Museumsinsel 1, München · Tel. 089/2179-1 · täglich 9–17 Uhr · www.deutsches-museum.de
Ein Gemeinschaftsprojekt mit dem Rachel Carson Center · www.carsoncenter.uni-muenchen.de

Mit freundlicher
Unterstützung von



bild der
wissenschaft



geförderter im Programm Fellowships
Internationales Museum des



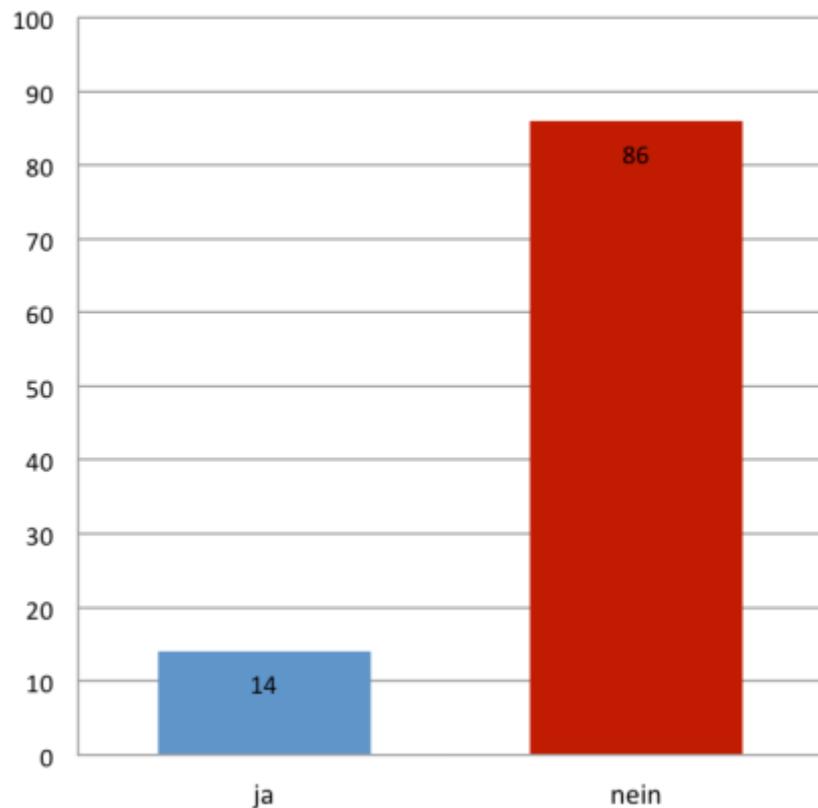
Eröffnung: 4. Dezember 2014
Verlängerung bis 30. September 2016

Kooperationsprojekt des Deutschen
Museums und des Rachel Carson
Center for Environment and Society

1.450 Quadratmeter
Weltweit erste große Ausstellung zum
Anthropozän
Partner: u.a. Haus der Kulturen der
Welt, Berlin

Zahlreiche „Spin-offs“, u.a. Cabinet of
Curiosities, Anthropocene Slam, Lyrik
des Anthropozän, Comic, etc.

*Kennen Sie den Begriff
„Anthropozän“?*



Wenn nein, was stellen Sie sich darunter vor?

„Bakterium oder Erdschicht“

„Altertumsforschung“

„Neue Art der Antriebskraft (kein Benzin, oder was mit Öl zu tun hat)“

„etwas Medizinisches“

„Medikament gegen Zahnstein“



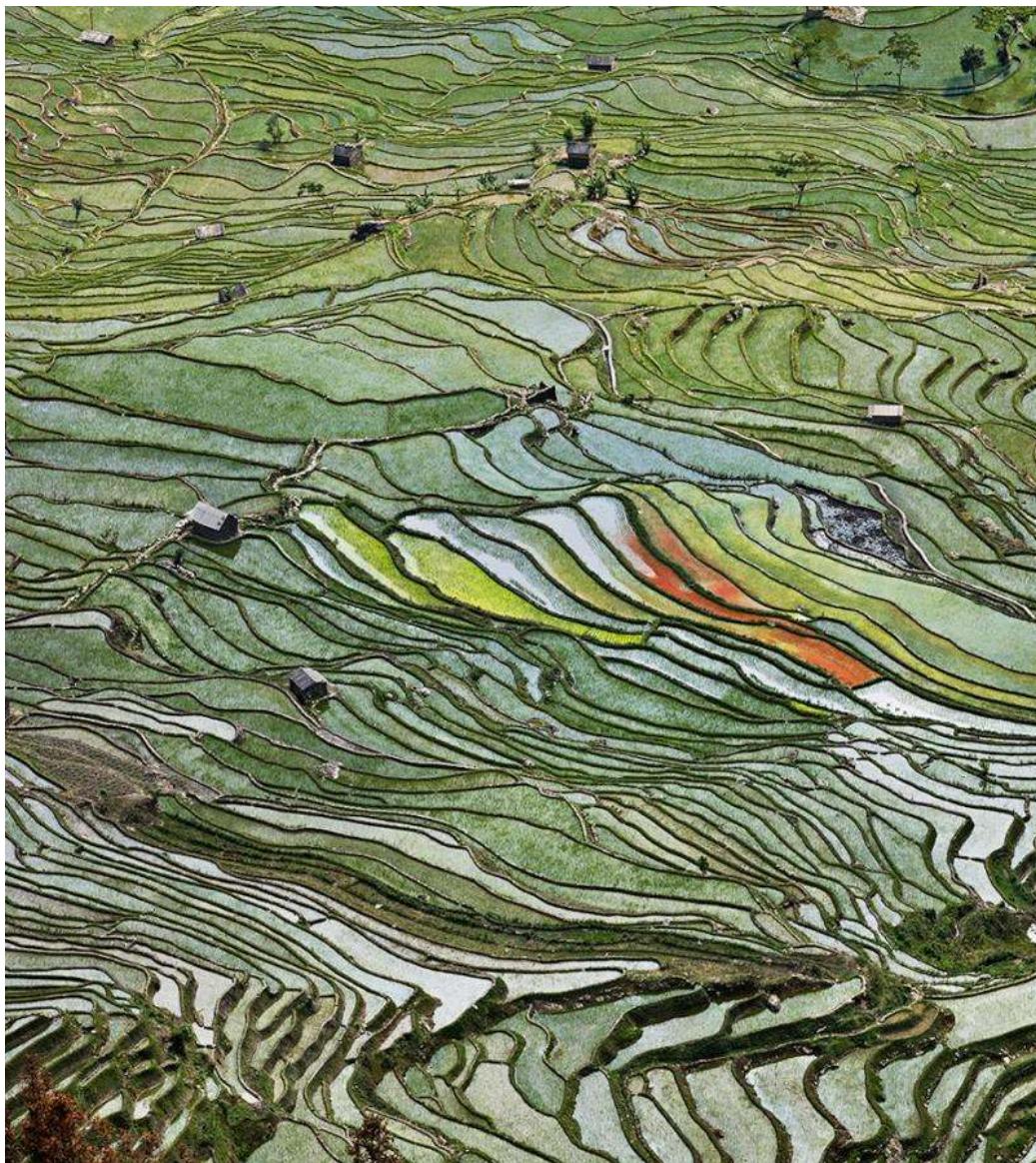


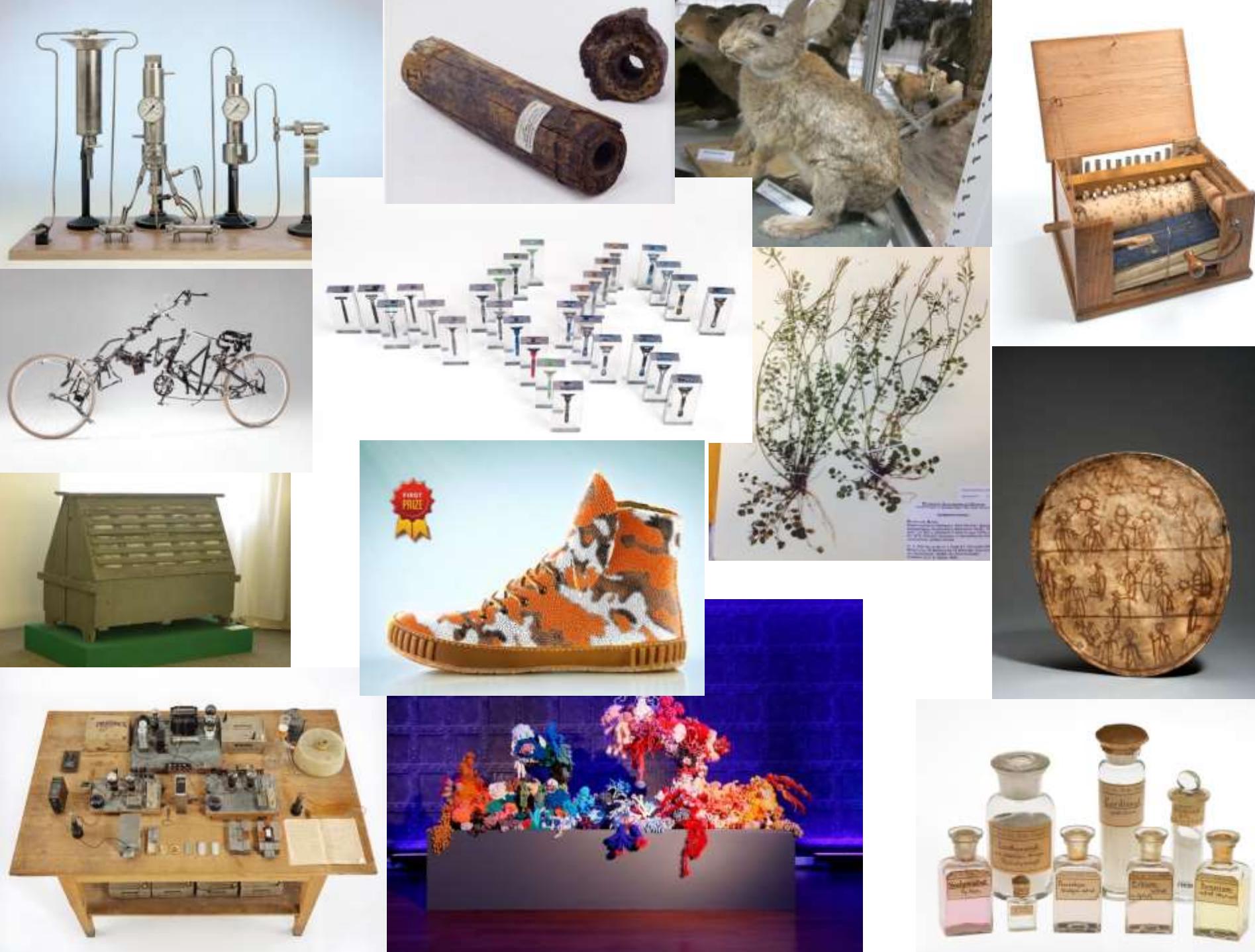


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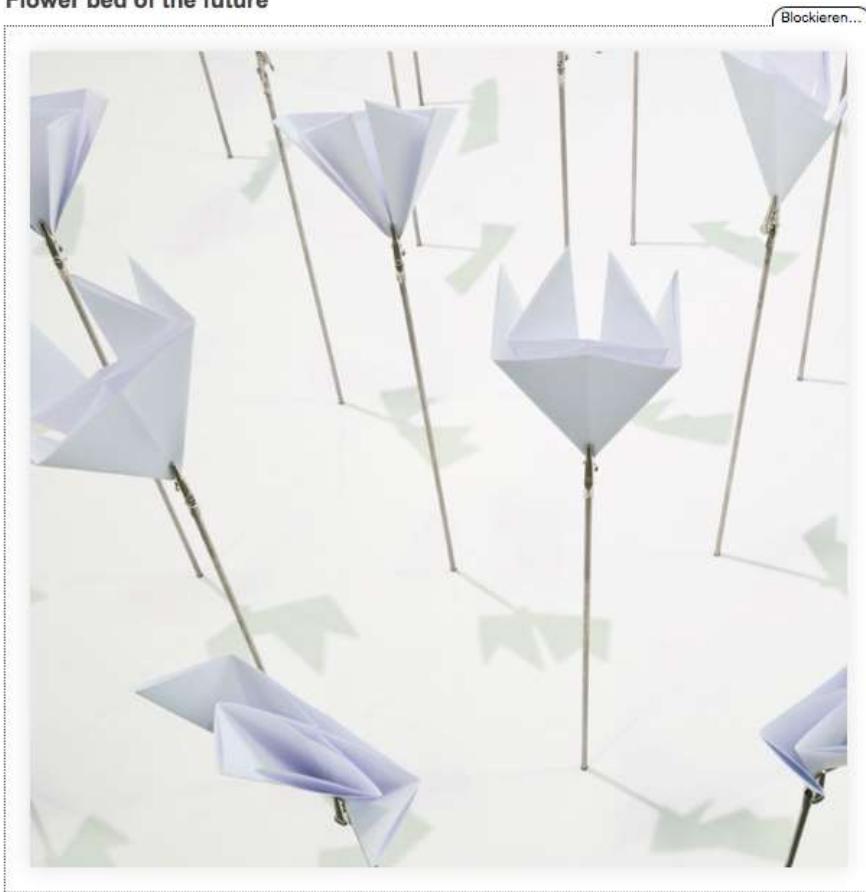
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Flower bed of the future

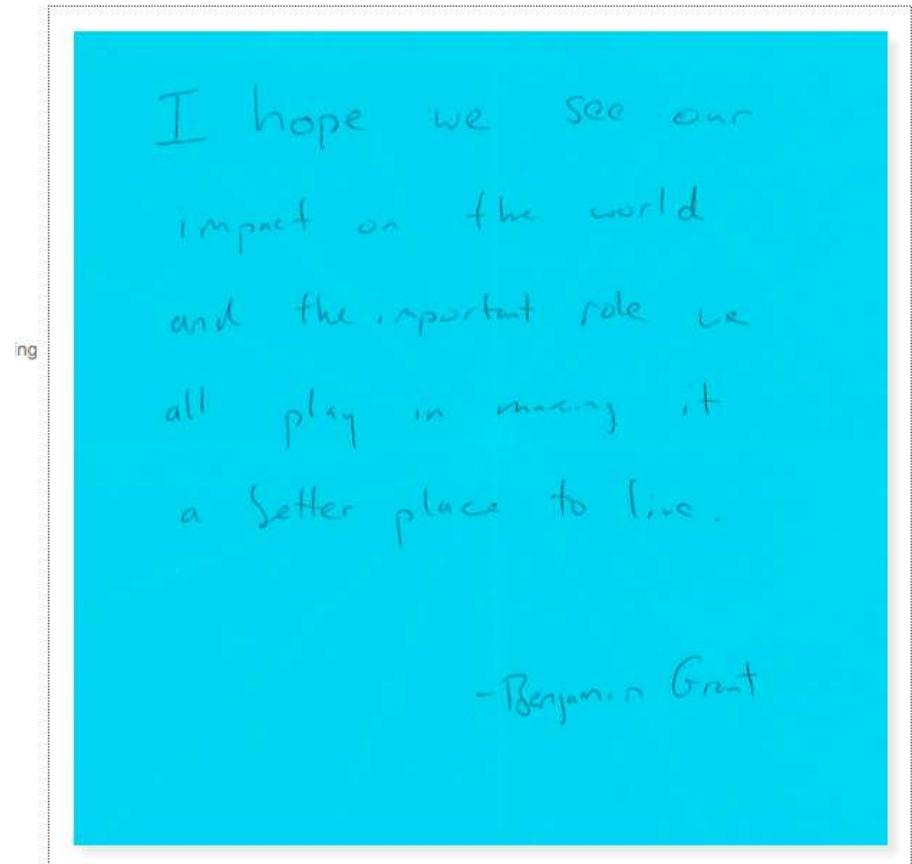


What will the Anthropocene look like in the future? What sort of future do you wish for? What dangers do you see, what motivations are there for change, what are you afraid of, and what are your hopes for the Anthropocene?

Visitors can take a sheet of paper and write on it their thoughts, wishes, fears, and suggestions. They fold the paper and place it on a vacant stem in the flower bed. The flowers planted by visitors during the course of the exhibition are being „harvested“ and presented here.

Click bottom right of presentation.

Flower bed of the future



*I hope we see our impact on the world
and the important role we all play in
making it a better place to live.
Benjamin Grant*

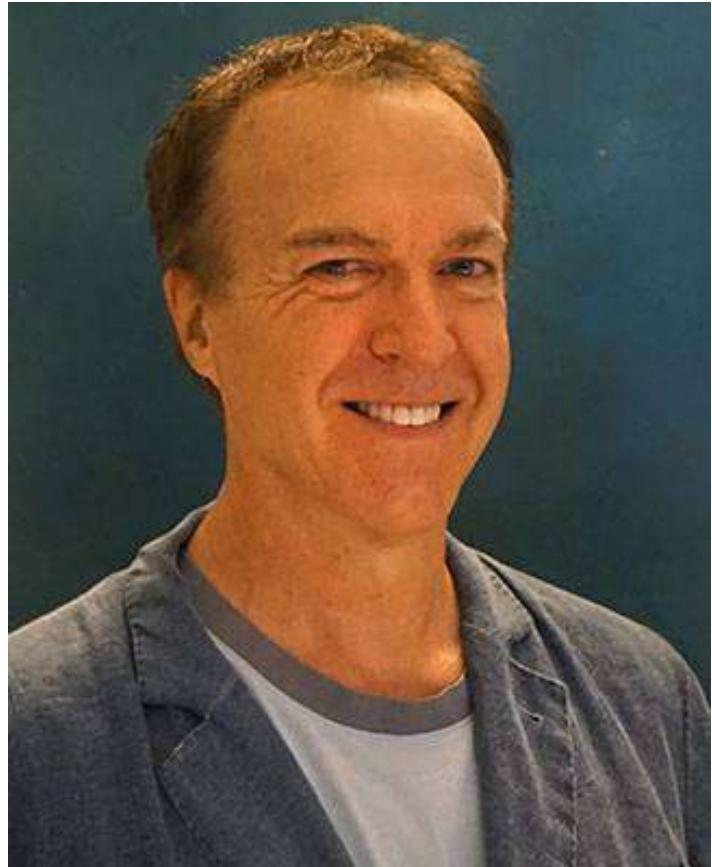
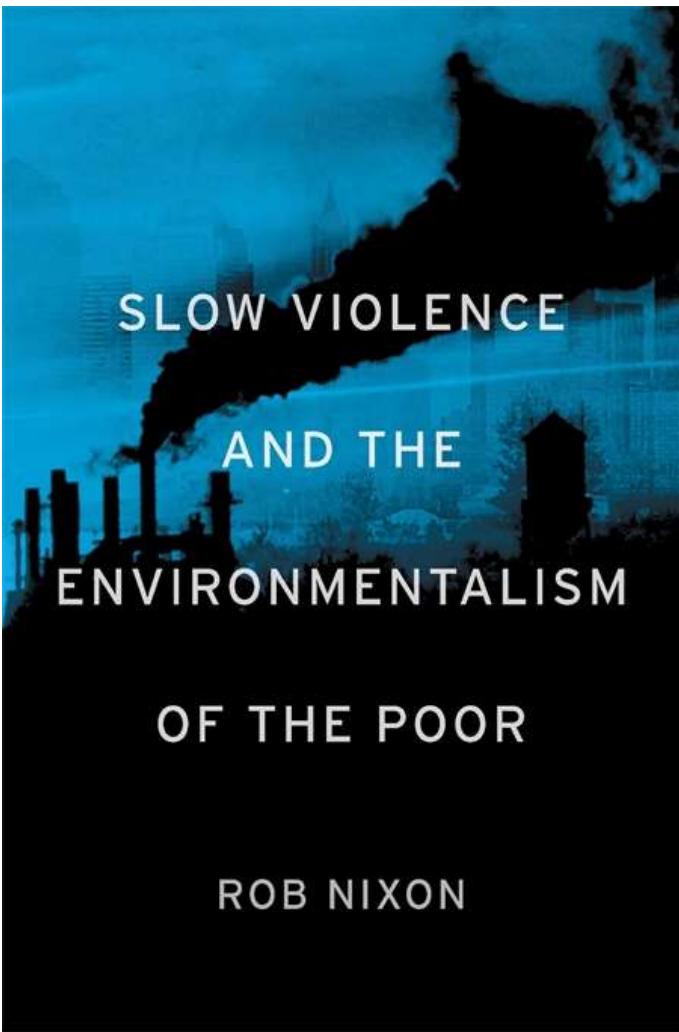
Lessons learned

- The Anthropocene concept stimulates both (great) interdisciplinarity and transdisciplinarity.
- The Anthropocene asks for new narratives and new temporalities.
- The Anthropocene forces both academia and museums to leave their comfort zones and to critically reflect upon established concepts, practices, and institutional arrangements.
- In the framework of the Anthropocene boundaries – also museum boundaries – become blurred, if not obsolete.
- The Anthropocene fosters inter-institutional collaborations.
- The public is not shying away from the complexity of the Anthropocene concept, if publics are addressed as responsible citizens.
- The Anthropocene can serve as a laboratory to experiment with new tools of communication and education in order to foster civic society and sustainability – it may even pave the way for a novel mode of knowledge production and communication.

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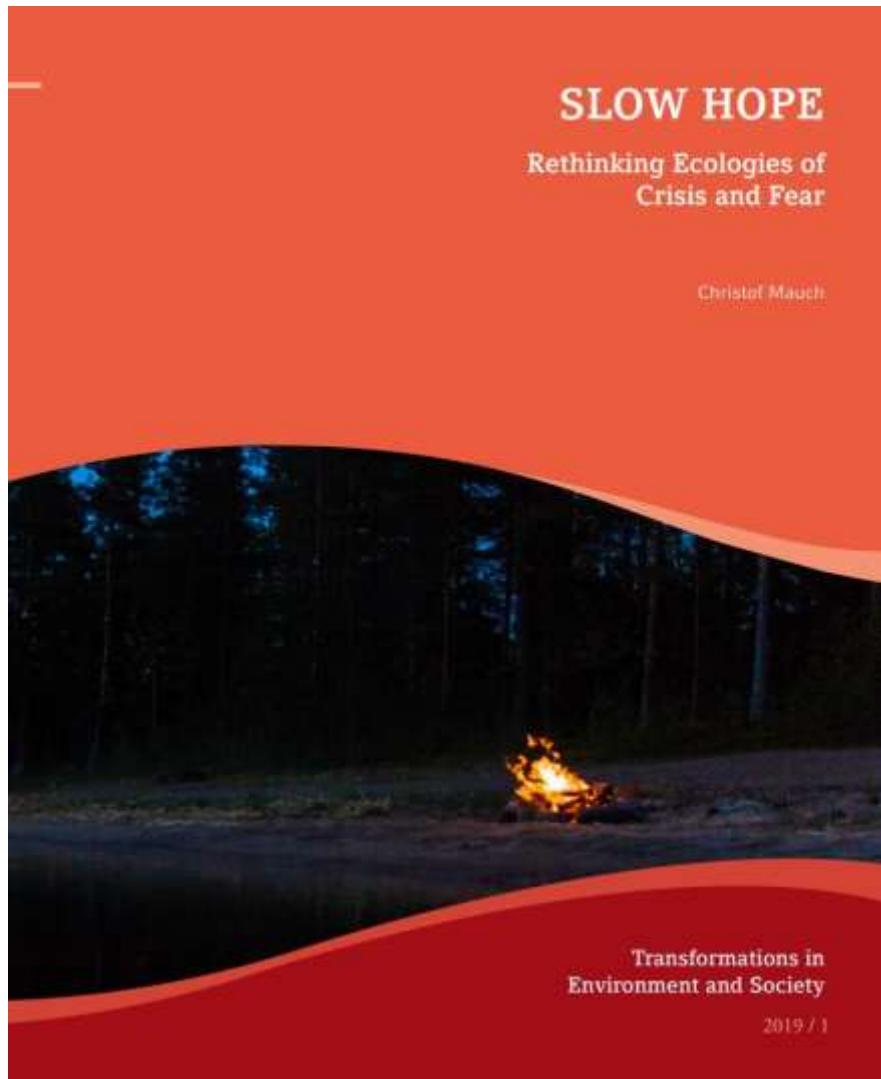




Rob Nixon
Barron Family Professor in the Humanities
and the Environment, Princeton University

Rob Nixon: Slow Violence and the Environmentalism of the Poor.
Cambridge, MA: Harvard University Press, 2011

- Emphasizes the gradual, almost invisible nature of much environmental damage, mostly for people who are vulnerable, poor, and disempowered.
- Violence that is neither spectacular nor instantaneous, but incremental – calamitous repercussions are postponed for years / decades / centuries.
- Type of violence that is often bloodless and sufficiently displaced that by the time the casualties are incurred, the original fatal actions have sunk into oblivion.
- Trope that highlights the paradox of our urgent, long-term emergencies in a straightforward, communicable way.
- Role of environmental justice movements and voices from in the Global South.
- Some creative strategies and productive alliances are arising from the current crisis.



Christof Mauch
Ko-Direktor des Rachel Carson Center und
Lehrstuhl für Amerikanische Kulturgeschichte
der LMU München

Christof Mauch: “Slow Hope: Rethinking Ecologies of Crisis and Fear,” RCC Perspectives: Transformations in Environment and Society 2019, no. 1.
doi.org/10.5282/rcc/8556

- Highlights the mostly untold stories of quiet but positive environmental change without downplaying the magnitude of current problems.
- Hopeful narratives as alternatives to stories of decline helping us to think creatively and act courageously in current times of converging ecological, social, and economic crises.
- Opens up Pandora’s forgotten box of hope coming from diverse cultures and initiatives, from thinkers and mavericks and communities around the world.
- Follows Ernst Bloch’s *Principle of Hope*, meaning that the generative power of hope has transformed our minds and our worlds throughout history.
- Stresses the crucial role of the Environmental Humanities in providing slow hope.



**Vielen Dank für Ihre
Aufmerksamkeit!**