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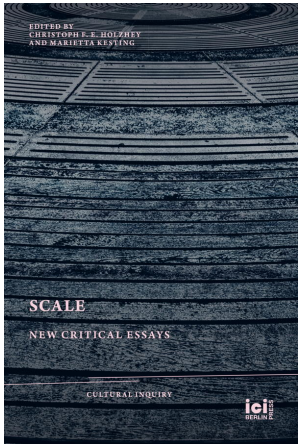

Scale: New Critical Essays, ed. by Christoph F. E. Holzhey and Marietta Kesting, Cultural Inquiry, 40 (ICI Berlin Press, 2026) <https://doi.org/10.37050/ci-40>

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Introduction

CITE AS:

Christoph F. E. Holzhey and Marietta Kesting, 'Introduction', in *Scale: New Critical Essays*, ed. by Christoph F. E. Holzhey and Marietta Kesting, Cultural Inquiry, 40 (ICI Berlin Press, 2026), pp. 1–24 <https://doi.org/10.37050/ci-40_hk>

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ABSTRACT: The concept of scale has become ubiquitous in the humanities, and yet it remains ambivalent, with frequently contradictory effects. While scale refers to scientifically defined measures, it is a shifting, relational term and requires a fluid mode of inquiry and manifold analytical approaches such as reduction and expansion, zooming and focusing, dislocation and recontextualization. The introduction sketches how the contributions to the volume *Scale: New Critical Essays* have come out of sustained conversations across multiple fields — including artificial intelligence, anthropology, philosophy, literary studies, art, and queer theory — and establish a network of relations crossing the local and cosmic, individual and social, human and non-human, and modern and pre-modern.

KEYWORDS: scale; scalability; scalarity; planetary scale; expansion; reduction; scale invariance; Anthropocene; postcolonialism; situated knowledge; politics of scale; diminutive; marginal

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Introduction

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Scales are used to quantify properties such as length and temperature, or to measure popularity and affect. But as Alice discovers in Wonderland, a change of scale can also have dramatic qualitative consequences, disrupting customary ways of perceiving, acting, and being — Alice's changes feel as 'queer' to her as a caterpillar's metamorphoses.[1] Helped by the arguably inextricable intertwinement of different meanings and aspects of scale, Alice's experiences continue to provide apt metaphors for the disorienting importance and effects of scale and scaling at a time of hyperglobalization and of the so-called anthropocene.

Scale is indeed a highly ambiguous notion, even if one only considers the meanings deriving from the Latin or Italian *scala* (ladder). It simultaneously denotes the whole ladder, one of its steps, and the relation between two steps: the scale of a cartographic map is the ratio between a distance on the map and a distance on the ground, but any particular length also defines a scale, and the range of scales from the

1 Lewis Carroll, *Alice in Wonderland: Authoritative Texts of 'Alice's Adventures in Wonderland', 'Through the Looking-Glass', 'The Hunting of the Snark', Backgrounds, Essays in Criticism*, ed. by Donald J. Gray, 2nd edn (Norton, 1992). Alice is first 'shutting up like a telescope' (p. 11) and then 'opening out like the largest telescope' (p. 13), growing small and large after ingesting magical drink and food. On page 41, Alice is only three inches tall and in conversation with the caterpillar after having changed her size several more times. On page 43, she is finally her usual size again.

subatomic to the planetary is part of the spatial scale. Paradoxically recursive, scale combines and helps mediate quantity and quality, as well as subjective perception, objective material properties, and contingent construction.

The ladder has been criticized as a metaphor for the arrangement of scales insofar as it implies a vertical hierarchy. Other metaphors have been proposed, such as concentric circles, rhizomatic networks, or musical scales.[2] However, if hierarchy is problematized for privileging a scale to which all others can be reduced, the privileged scale is in fact ambiguous and depends on the field in question. Geographers, for instance, who have long discussed the social construction and politics of scales like the 'national' or the 'global', tend to worry that the large-scale is constructed as an imperturbable monolith, determining underlying scales and making local interventions or worldings futile.[3] Physicists and biologists, by contrast, regard small scales as more fundamental and generally explain large-scale phenomena by reducing them to phenomena at smaller scales.

If scaling — working with, at, or between any particular scale(s) — necessarily implies reduction, what does such reduction enable and what does it impede? What may be gained by shifting or jumping between scales, even if this enacts further reductions? How can binaries such as the local and the global, the particular and the general, the private and the public be made more fluid and entangled by situating them on a continuous (not necessarily hierarchical) spectrum of scales? And how can one also mediate between materialist and idealist, ontological and epistemological understandings of scale?

2 See Andrew Herod, *Scale* (Routledge, 2010), especially the section 'Metaphors of Scale', pp. 45–56 <https://doi.org/10.4324/9780203641095>; and Richard Howitt, 'Scale as Relation: Musical Metaphors of Geographical Scale', *Area*, 30.1 (1998), pp. 49–58 <https://doi.org/10.1111/j.1475-4762.1998.tb00047.x>.

3 For a critical discussion of scale in geography, see, for example, Sallie A. Marston, 'The Social Construction of Scale', *Progress in Human Geography*, 24.2 (2000), pp. 219–42 <https://doi.org/10.1191/030913200674086272>; Sallie A. Marston, John Paul Jones III, and Keith Woodward, 'Human Geography without Scale', *Transactions of the Institute of British Geographers*, 30.4 (2005), pp. 416–32 <https://doi.org/10.1111/j.1475-5661.2005.00180.x>; and, more recently, Joe Blakey, 'Scale', in *Introducing Human Geographies*, ed. by Kelly Dombroski and others, 4th edn (Routledge, 2024), pp. 33–47.

Increasing the distance reduces the apparent size of things, while optical instruments like the magnifying glass, microscope, or telescope make things larger or bring them closer. Such devices, which dramatically expanded the observable spatial scale, played a prominent role in the history of early modern science and also informed early speculative fiction narratives like Jonathan Swift's *Gulliver's Travels* (1726) or Voltaire's *Micromégas* (1752), which explore the fascinating, defamiliarizing, and critical potentials of scaling.[4] They could be called 'scale-shifting technologies', as long as one remembers that they change only an object's apparent size, not its actual physical dimensions. Similarly, time-lapse and slow-motion cameras shift perception along the temporal scale without accelerating or slowing down processes.

In Charles and Ray Eames's film *Powers of Ten* (1977), a so-called cosmic zoom presents a fascinating journey through scales, from the human up to the cosmic, down to the subatomic, and back to the human.[5] The cosmic zoom is often faulted for seducing the viewer into believing that things can actually be smoothly scaled up or down.[6]

4 Jonathan Swift, *Gulliver's Travels: A Voyage to Lilliput. A Voyage to Brobdingnag* (J. B. Lippincott, 1918); Voltaire, *Micromegas: Philosophical History*, trans. by Peter Phalen (Project Gutenberg, 2021) <https://www.gutenberg.org/ebooks/30123> [accessed 11 July 2026]. Contemporary literature continues to be fascinated by scaling procedures; see, for instance, Will Self's short story 'Scale', in Will Self, *Grey Area* (Bloomsbury, 1993), pp. 89–123.

5 *Powers of Ten*, dir. by Charles and Ray Eames (USA, 1977) <https://www.eamesoffice.com/the-work/powers-of-ten/> [accessed 11 July 2026]. Both its prototype, *A Rough Sketch for a Proposed Film Dealing with the Powers of Ten and the Relative Size of Things in the Universe* (dir. by Charles and Ray Eames, USA, 1968), and the film *Cosmic Zoom* (dir. by Robert Verrall, CAN, 1968 <https://collection.nfb.ca/film/cosmic_zoom> [accessed 9 September 2026]) were inspired by the book Kees Boeke, *Cosmic View: The Universe in 40 Jumps* (John Day, 1957) <http://www.vendian.org/mncharity/cosmicview/> [accessed 9 September 2026]. For a critical re-enactment, see, for instance, the performance *Superpowers of Ten* by the architect Andrés Jacque and the Office for Political Innovation, presented at MEXTRÓPOLI 2016, Museo Jumex, 4–7 March 2016, documented on Vimeo <https://vimeo.com/162905806> [accessed 9 September 2026]; and the project *A Variation on Powers of Ten* by Futurefarmers (Amy Franceschini and Michael Swaine), documented on Futurefarmers <https://futurefarmers.com/powersoften/> [accessed 9 September 2026] as well as in the book *A Variation on Powers of Ten*, ed. by Futurefarmers (Amy Franceschini and Michael Swaine) (Sternberg Press, 2012).

6 See, for example, Vittoria Di Palma, 'Zoom: Google Earth and Global Intimacy', in *Intimate Metropolis: Urban Subjects in the Modern City*, ed. by Vittoria Di Palma, Diana Periton, and Marina Lathouri (Routledge, 2009), pp. 239–70 <https://doi.org/10.4324/9780203890059>; Derek Woods, 'Epistemic Things in Charles and Ray

Disembodied vision — vision not situated in a body that provides the scale to measure distances through the parallax of stereoscopy or body movement — indeed cannot tell the difference between scaling actual objects and changing the scale of their appearance by moving or zooming in or out. This incapacity plausibly relates to the sense of power associated with playing what Donna J. Haraway calls the 'god trick' and enacting a 'conquering gaze from nowhere': one is led to believe that objects actually shrink when one moves away, or at least that they could be scaled to a manageable size.[7] But things do not scale as easily as one sees and imagines. More generous readings of the film take it as stressing this point, showing how differently things look and behave at different scales, how nature (and culture) seems to consist of separate and autonomous levels, requiring very different disciplines and methods for their understanding.

At times, scale differences also get short-circuited when some microscopic scales visually resemble macroscopic ones. The film thereby conjures up the scale invariance and self-similarity of fractals, which in the last quarter of the twentieth century elicited much excitement, not only on account of their aesthetics but also for their link to complexity and chaos theory and the cross-scalar butterfly effect.[8]

The possibility of small, local changes having huge global effects has always been as much a promise as a threat. With the anthropocene and its disjunction between the spatio-temporal scale of human action and that of its consequences, the threat has come to dominate. Also, the prospect that increasing connectivity, information, and interaction

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Eames's *Powers of Ten*', in *Scale in Literature and Culture*, ed. by Michael Tavel Clarke and David Wittenberg (Springer, 2017), pp. 61–92 <https://doi.org/10.1007/978-3-319-64242-0_3>; Bruno Latour, 'Anti-Zoom', in *Scale in Literature and Culture*, ed. by Clarke and Wittenberg, pp. 93–101 <https://doi.org/10.1007/978-3-319-64242-0_4>; and Zachary K. Horton, *The Cosmic Zoom: Scale, Knowledge, and Mediation* (University of Chicago Press, 2021).

7 Donna J. Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, 14.3 (1988), pp. 575–99 <https://doi.org/10.2307/3178066>.

8 See, for example, James Gleick, *Chaos: Making a New Science* (Viking Books, 1987); and Heinz-Otto Peitgen, Hartmut Jürgens, and Dietmar Saupe, *Chaos and Fractals: New Frontiers of Science* [1992], 2nd edn (Springer, 2004) <https://doi.org/10.1007/b97624>.

in the World Wide Web and big data would lead to self-organized emergent properties now appears more ambivalent. Instead of leading to the emergence of a higher swarm intelligence, machine-learned artificial intelligence, or noosphere, scaling up the human and its communication data risks exponentiating rather than fixing structural biases and injustices, and may well lead to a regressive, hallucinating, or deeply fake subject, or to something altogether different, like an assemblage largely composed of more-than-humans.[9]

In other words, scalability, a notion that is curiously biased towards growth, is the exception rather than the rule, as in the case of scalable businesses that can grow exponentially without changing their organization, or scalable research projects that can apply to ever larger scales without changing their framework. As Anna Lowenhaupt Tsing emphasizes, 'scalability is not an ordinary feature of nature' but requires a lot of work and often violent reductions of diversity. If the scalability of the colonial sugarcane plantation provided a model of expansion for factories during industrialization, scalability has also become for her the 'hallmark of modern knowledge' and a demand of 'most of modern science'.[10] While Tsing calls for a theory of non-scalability to resist and counteract the ruinous lure of upscaling, this volume also explores other forms of scale, scaling, and scalar practices.

The question of how things and their properties scale goes beyond the binary alternative of non/scalability. While some properties scale linearly, others may just scale differently. For instance, a tenfold increase in length implies a thousandfold increase in volume and mass when the same proportions and material are retained. Upscaling objects therefore eventually makes them collapse under their own weight. Interestingly, Galileo Galilei addresses this at the very beginning of

9 See, for example, Derek Woods, '"Terraforming Earth", or Climate and Recursivity', *Diacritics*, 47.3 (2019), pp. 6–29 (especially p. 10) <https://doi.org/10.1353/dia.2019.0024>.

10 Anna Lowenhaupt Tsing, 'On Nonscalability: The Living World Is Not Amenable to Precision-Nested Scales', *Common Knowledge*, 18.3 (2012), pp. 505–24 (pp. 507, 522) <https://doi.org/10.1215/0961754X-1630424>; and Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press, 2015), p. 38. Tsing had already written on scalar relations and procedures before, for instance in the chapter 'Natural Universals and the Global Scale' of her monograph *Friction: An Ethnography of Global Connection* (Princeton University Press, 2005), pp. 88–112.

his *Two New Sciences*, which draws on the expertise of artisans at the Venetian Arsenal, a large-scale industrial complex that developed methods for mass-producing ships.[11] He highlights: 'For every machine and structure, whether artificial or natural, there is set a necessary limit beyond which neither art nor nature can pass.'[12]

Conversely, downscaling may open new possibilities. Gravity becomes irrelevant, for instance, together with its hierarchical verticality, allowing insects to walk as easily on walls and ceilings as on floors. Strategies of close reading and thick description bracket the general and universal to give space to the singularity and particularity of cultural works and practices. Queer practices and aesthetics often engage with the downscale, small, and 'cheap' as forms of resistance against the normative, grand, upscale, and large. All these attempts evoke humbler, marginal perspectives that risk getting lost in macro-political templates, but — rather than veering towards parochialism — they share a potential for larger social transformation of the kind that Gilles Deleuze and Félix Guattari theorize with their notions of the 'minor' and 'micro-politics'.[13]

If different disciplines, discourses, and dispositives each have their privileged scales to which they tend to reduce others, what may be gained by thinking them together, acknowledging both the relative autonomy of particular scales — each with their own affordances, limitations, rules, even laws and ontologies — and their interdependence — each affecting and being affected by other scales? What is the critical purchase of developing multiscalar architectures or patchworks of scale-specific, mutually inconsistent and irreducible descriptions,

11 The Venetian Arsenal nowadays hosts one of the most expensive — and in that sense 'upscale' — art exhibitions, the Venice Biennale. For this meaning of 'upscale' as 'relating to, being, or appealing to affluent visitors *also*: of superior quality', see the entry 'Upscale', in Merriam-Webster Dictionary <https://www.merriam-webster.com/dictionary/upscale> [accessed 8 July 2026].

12 Galileo Galilei, *Dialogues Concerning Two New Sciences* [1638], trans. by Henry Crew and Alfonso De Salvio (Macmillan, 1914), p. 3.

13 See Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature*, trans. by Dana Polan (University of Minnesota Press, 1986); and Gilles Deleuze and Félix Guattari, '1933: Micropolitics and Segmentarity', in Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* [1980], trans. by Brian Massumi (University of Minnesota Press, 1987), pp. 208–30.

theories, and models? How might the tensions be made productive where they overlap or come into contact?

These questions ended the description of the research focus 'Scale' that the ICI Berlin had formulated as part of its long-term core project 'Reduction' in the call for the 2024–26 fellowship programme. Twelve fellows were appointed, with projects both individually and collectively covering several disciplines, including art history, Black studies, critical, legal, and political theory, cultural, migration, and religious studies, literary and media studies, philosophy, psychoanalysis, publishing history, queer theory, and science and technology studies. During their fellowship, they dedicated themselves not only to their individual projects, but also to a joint research project, which took shape through weekly research colloquia, a lecture series, as well as numerous workshops, symposia, and conferences mostly conceptualized by smaller subgroups of fellows.

The project description was the starting point for the common project, and some readings within the rich literature on scale in science, geography, and anthropology helped to develop a shared understanding of the manifold and often ambiguous senses in which notions of scale as both noun and verb are used and critiqued within and across different disciplines.

For instance, Tsing's critique of scalability as deeply tied to colonial and capitalist expansion, exploitation, and ecological devastation was well taken, but its scope and basis remained rather ambiguous. The clarification that 'just because something is nonscalable does not mean that it is good' is helpful,[14] but does it suggest that, likewise, 'just because something is scalable does not mean that it is bad'? Or is it rather that nonscalability is a necessary but not sufficient condition for something to be good? Furthermore, is the devastating critique of scalability limited to the 'technical meaning of the term', that is, to 'projects […] that can expand without changing',[15] or does it extend to other upscaling projects, which may well rely on the presence of tipping points at which new properties emerge? Should it also extend to downscaling projects, even if the (guarded) preference for nonscal-

14 Tsing, 'On Nonscalability', p. 521.

15 Ibid., p. 507.

ability seems to go along with a certain valorization of remaining small, diverse, and minor?

Associating scalability with the world's 'amenability' to 'precision-nested scales' suggests a further extension and radicalization of scale critique, namely to the very use of scale, even just for descriptive purposes. Here, at the latest, it is helpful to introduce another term, such as 'scalarity'. In some broad and rather minimally defined sense, nonscalability attests to the realization that things have a characteristic scale and therefore cannot be scaled easily, that is, they cannot be expanded or compacted without doing violence to them. This sense of nonscalability is related to, but different from, nonscalarity, where already the attribution of scale is in question and may be seen to limit and reduce possibilities, introduce distortions, and require force and coercion.

Scale most readily applies to spatial extensions — lengths, areas, and volumes — as well as time, especially insofar as it tends to be conceived as spatialized (as Henri Bergson famously objected in favour of an intensive conception of *durée* or duration).[16] More abstractly, scaling entities in the sense of placing them on a scale (rather than changing their scale) arguably presupposes or imposes a total order such that any two entities are either of the same scale or one is larger than the other. Intensities or intensive quantities are already scalar in this sense even as they are invested with great potential, virtuality, and qualitative difference.[17] However, scale is usually thought of in extensive terms as also involving a metric that makes different entities commensurable and their differences quantifiable.

Much about scale is clearly conventional, open to historical contingencies and arbitrary decisions, and there is no reason that everything should have a scale. But what makes scale so contested in many contexts is that the total order it implies is seen to function as a hierarchy in value and/or power. The notion of nonscalarity helps to dramatize the social construction of scale and the political dimension of all

16 Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness* [1889], trans. by F. L. Pogson (Dover Publications, 2001).

17 See the workshop 'Quantities without Scale and the Thought of Novelty', ICI Berlin, 2 March 2026 <https://www.ici-berlin.org/events/quantities-without-scale-and-the-thought-of-novelty/> [accessed 8 September 2026].

scalar projects. However, seeking to resist hierarchies by insisting on a nonscalar ontology appears itself ambivalent. Sallie A. Marston, John Paul Jones III, and Keith Woodward, for instance, call for a 'human geography without scale', following their argument that 'complexifying scale', in which the field has engaged for some time, is insufficient: a hierarchical scale, such as the global–local, functions like a 'classic case of form determining content',[18] and always imposes itself, even when it is augmented by other concepts, dialecticized in its verticality, and hybridized with horizontal network relations. At the same time, after presenting some notes for a 'flat ontology' inspired in parts by Deleuze's concept of the virtual and his preference for problematizing over solving, Marston, Jones, and Woodward conclude with just such strategies of complexification: against the overwhelming significance attributed to the global, they seek 'to recover the local as a site of significant practices' as well as 'the politically transformative potential of social reproductive practices', and thereby to fulfil 'the possibilities of dynamism and efficacy in everyday practice.'[19] As in the case of nonscalability, putative nonscalarity seems curiously associated with the low and the small even if the local is understood to be inextricably bound up with the global, and the everyday with the reproduction of the totality of capitalism.

Pushing this tension further, it would seem that scalarity is presupposed by nonscalability as much as by scalability: How could something be said to expand without comparing its initial and final scales? Conversely, how could something be said to resist scaling or be distorted by it if it doesn't have a scale of its own? Yet, paradoxically enough, the sciences of complexity and, more recently, the life sciences have developed a particular interest in phenomena that could be described as combining hyperscalability with nonscalarity: the scale invariance characteristic of so-called critical phenomena implies that an entity or system resembles itself and is essentially unchanged as its

18 Marston, Jones III, and Woodward, 'Human Geography without Scale', p. 422.

19 Ibid., p. 427. Among many other sources, the section 'Complexifying Scale' refers to Marston, 'The Social Construction of Scale', where Marston shows how discussions on the social construction of scale are preoccupied with 'capitalist production (and the role of the state, capital, labor and nonstate actors)' at the expense of any 'serious attention to the relevance of social reproduction and consumption' (p. 219).

scale is changed. While this sounds like an extreme case of scalability, the idea is not simply that an object retains the same shape and structure at a larger scale, but rather that at this very peculiar point, which is far from general and expected, the system contains the same kinds of shapes and structures at all scales, so that a change of scale does not change anything: the system is nonscalar insofar as it has no characteristic scale that could distinguish it from a rescaled version of itself. Somewhat more metaphorically, recent propositions for a 'scale-free biology' bracket scalarity in an attempt to integrate different biological subfields that historically have defined themselves through a focus on a characteristic scale, from the molecular via evolved species to the planetary.[20]

Thus, insofar as it denies a characteristic scale, such as the human scale, which would situate perception, experience, and knowledge, nonscalarity paradoxically promotes a certain universalism and a version of the 'god trick' or disembodied view from nowhere that is often associated with scalar views such as those in *Powers of Ten*. The self-declared 'nondisciplinary' scale theorist Joshua DiCaglio turns this paradox into a defining feature of scalar views:

> Scale confuses the notion of the god trick because scale relates a perspective dislocated from the human body with the perceptual form of that body. Thus, scalar views ['such as satellite imagery and Google Earth'] are both situated and not; more properly, they are situated dislocations.[21]

The paradoxical formula of 'situated dislocations' has proved productive in discussions throughout the project as it suggests scale's critical potential of mediating between contrary poles, such as maintaining

20 See the ICI Berlin symposium 'Scales of Life: From Basal Cognition to Planetary Intelligence', ICI Berlin, 14–15 May 2025 <https://doi.org/10.25620/e250514>; and the work of Michael Levin, who participated in the symposium — for example, Chris Fields and Michael Levin, 'Scale-Free Biology: Integrating Evolutionary and Developmental Thinking', *BioEssays*, 42.8 (2020), article 1900228 <https://doi.org/10.1002/bies.201900228>.

21 Joshua DiCaglio, 'Scale Tricks and God Tricks, or The Power of Scale in *Powers of Ten*', *Configurations*, 28.4 (2020), pp. 459–90 (p. 463) <https://doi.org/10.1353/con.2020.0021>. The formula of a 'situated dislocation' produced by scale is also highlighted in his book *Scale Theory: A Nondisciplinary Inquiry* (University of Minnesota Press, 2021); see, for example, pp. 32, 35, 121, and 137.

a certain anthropocentrism implied by an insistence on situated, embodied knowledges at the same time as decentring — dislocating — the subject and/or the human. 'Dislocation' here refers not just to a change of location in physical space, moving closer or farther, and changing the apparent size of things, with 'scale' indicating the magnification or reduction factor. It is also understood as a displacement and disruption within a more abstract order, including the total order implied by scale. That is, DiCaglio's formula effectively identifies scale with interscalarity and its own disruptions: with scalar shifts, jumps, collapses, and mismatches.

Many of the issues raised by the initial readings were picked up and developed further as the fellows' individual projects were discussed and smaller clusters formed: 'The New Cosmists', 'The Marginals', 'The Everyday', and 'The Escalation Committee'. Moving across scales was important for most, even as some look more towards the large — such as the planetary and cosmic, or militant escalations — and others towards the seemingly small — such as the everyday and the marginal.

The New Cosmists, for instance, explored possibilities of decentring Western Man through notions of the planetary and planetary intelligence, through Sylvia Wynter's account of the co-constitution of the 'human' and the 'global' in modernity, or through alternative cosmologies in the work of Déborah Danowski and Eduardo Viveiros de Castro.

The Marginals were particularly interested in form, which is arguably nonscalar, if not small, while enabling scalability without ends (as the experiment with a voluminous hundred-page reader performing questions of margins and the format of the book vividly demonstrated). If hierarchical scale is a 'classic case of form determining content',[22] the Marginals were rather concerned with form's potential to unsettle from the margins, through internal gaps and intervals, and from what lies invisibly off-screen.

The cinematic notion of an invisible off-screen could also provide a metaphor for the gendered dynamic of social reproduction in the everyday, which Marston has foregrounded, albeit in an ambiguous gesture, as a solution to the problem of the formative power of hierarch-

22 Marston, Jones III, and Woodward, 'Human Geography without Scale', p. 422.

ical scales. Also interested in experimenting with form, the Everyday cluster explored the ambivalent ways in which everyday experience relates to scalar processes such as globalization. They were stimulated by, among others, the book *Border as Method*, in which Sandro Mezzadra and Brett Neilson highlight that globalization processes of the past decades have proliferated rather than diminished borders, making geographical scales less stable but no less influential: 'at stake is the tendency for scale to become at once more volatile and determining — the intensification of its contradictory capacities to contain social activity and to shift and mutate as a result of social activity.'[23]

The strong connection between the different clusters and their scales is evidenced by the fact that the everyday of unrecognized female social reproductive labour was actually introduced by the Escalation Committee through the report 'Grassroots Women Learning to Count their Unwaged Work' by Guyanese socialist feminist and political activist Andaiye, who was associated with the Global Women's Strike, among other groups and movements.[24] The Escalation cluster explored activist practices intensifying towards militancy, a strand of critical political economy conceiving growth through sabotage, and the conjuncture of activism and mysticism in the writings of Simone Weil.

New constellations and another form — that of the atlas — were explored in the second year with the workshop 'Scale: A Fragmentary Atlas for the Humanities', which was composed of the panels 'Space', 'Time', 'Form', and 'Spirit'.[25] Many contributions to the present volume emerged from papers presented at this workshop. Others come out of other workshops and related activities that informed the research colloquium.

The Scale Lecture Series enriched the collective project by providing further depth and breadth to the discussions. While the talks are all

23 Sandro Mezzadra and Brett Neilson, *Border as Method, or, the Multiplication of Labor* (Duke University Press, 2013), p. 63.

24 Andaiye, 'Grassroots Women Learning to Count their Unwaged Work: Summary Report on a 2001–2002 Trial [2009]', in Andaiye, *The Point Is to Change the World: Selected Writings of Andaiye*, ed. by Alissa Trotz (Pluto Press, 2020), pp. 117–20 <https://doi.org/10.2307/j.ctvzsmdr2>.

25 See the workshop 'Scale: A Fragmentary Atlas for the Humanities', ICI Berlin, 6–7 October 2025 <https://doi.org/10.25620/e251006>.

available in the ICI's video archive,[26] we are glad to be able to include interviews with two of the lecturers, Joshua DiCaglio and Lisa Messeri, in this volume.

A reading group dedicated to the work of Georges Bataille, which was initiated and guided by the fellows Angelica Stathopoulos and Verónica Stedile Luna, turned out to be very inspiring and productive for the two-year-long reflections on scale. One of the ways in which Bataille's writing engages with scale is through its persistent reversal of hierarchies and values, from his notion of general economy, which foregrounds the problems of excess and expenditure rather than scarcity and need, to the eroticization of the base and abject, such as the 'big toe'.[27] His formal reflections and experiments were also of particular interest, such as the short piece 'Formless' and the *Critical Dictionary*, which contains it alongside entries such as 'Dust', 'Eye', 'Mouth', and 'Spittle'. Bataille, the readings, and communal discussions have informed many essays in this volume, but the group also decided to put forth a small collective glossary. The critical dictionary of the secret society Acéphale served as a source of inspiration for this glossary, where the concrete and the abstract, the base and the ephemeral converse, with the effect of dimming the self-certainty of those very coordinates. The title 'Lipglossary' conjures up such conversations, as lips are involved in speaking and eating, smoking and kissing, and much more.

From 3 December 2025 to 21 January 2026, the ICI Berlin Library hosted the exhibition 'The Everyday in Dramatic Closeness', which was curated by several fellows and staff and presented photographs and paintings by fellows and staff exploring the social, political, and aesthetic implications of scale in daily experience. Some of the works are included in this volume, especially in the essay by co-curator Claudia Peppel.[28]

26 See 'Scale Lecture Series 2024–25', ICI Berlin <https://www.ici-berlin.org/series/scale-lecture-series-2024-25/> [accessed 8 September 2026]; and 'Scale Lecture Series 2025–26', ICI Berlin <https://www.ici-berlin.org/series/scale-lecture-series-2025-26/> [accessed 8 September 2026].

27 Georges Bataille, 'The Big Toe', in Bataille and others, *Encyclopædia Acephalica*, ed. by Robert Lebel and Isabelle Waldberg, trans. by Iain White and others (Atlas Press, 1995), pp. 87–93 (p. 92).

28 Some images also appear in the essay by Jasmine Clotilde Pisapia, 'Dust, Death, and the Body of the Earth: Notes on the Scales of Ecological Disaster', in this volume, pp. 405–27.

Many more activities, workshops, conferences, and symposia have informed this book in one way or another,[29] but to conclude this introduction we will return to the diagrams with which the volume opens. As mentioned in the 'Notes' on the 'Diagrams', many contributors have found the use of diagrams important. In terms of scale, the reason is both that diagrams are helpful to illustrate aspects of scale, such as scaling practices or interscalar relations, and that — similar to models and perhaps also maps — there is something doubly scalar about the medium of the diagram itself: it reduces the complexity of its putative referent, but as an intermediary between imagination and knowledge, image and text, it can also expand what is known and gesture towards an insight that cannot be formally grasped, at least not yet. As Gilles Châtelet poetically stated:

> A diagram can transfix a gesture, bring it to rest, long before it curls up into a sign, which is why modern geometers and cosmologists like diagrams with their peremptory power of evocation. They capture gestures mid-flight; for those capable of attention, they are the moments where being is glimpsed smiling.[30]

In a series of workshops guided by Filippo Bosco and on one occasion also by artist and scholar Patricia Reed, contributors experimented with diagrams for their individual projects as well as for the collective volume as a whole. As already mentioned in the 'Notes' on the 'Diagrams', using several diagrams as alternative tables of contents is meant to evoke the manifold ways in which the essays, emerging out of two years of intense conversation, relate to one another without settling on the form of a single scale — a form that would establish a 'total order' of linear succession and possibly further nesting through the introduction of sections that mediate between the scalar levels of essay and volume.

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29 For a full list of events related to the project 'Scale' at the ICI Berlin, see 'Scale: ICI Focus 2024–26', ICI Berlin <https://www.ici-berlin.org/projects/scale/> [accessed 8 September 2026].

30 Gilles Châtelet, *Figuring Space: Philosophy, Mathematics, and Physics* [1993], trans. by Robert Shore and Muriel Zagha (Kluwer Academic Publishers, 2000), p. 10. This quote was also used in the announcement of the symposium 'Diagrams: Between Gestures and Spaces', organized by Filippo Bosco and Yuri Di Liberto, ICI Berlin, 22 June 2026 <https://doi.org/10.25620/e260622>.

While it is difficult to avoid a sequential order in a printed book, an alphabetical order was chosen to arrange the outcome of the two-year conversations on scale. It is perhaps less ironic than telling for the critical, ambivalent function of scale that this arrangement connects several conversations even as it seeks to sever such connections: the Marginals chose the alphabetical order for their hundred-page reader in reference to a quote from Roland Barthes, which turned out to come from the Bataille reading group, namely from Barthes's introduction to 'Outcomes of the Text', which assembles his fragments on Bataille's text 'The Big Toe':

> These fragments will be in a more or less emphatic state of severance with each other: I shall not attempt to link, to organize these 'outcomes'; and in order to be sure of frustrating any liaison (any systematizing of the commentary), in order to avoid any rhetoric of 'development', of the developed subject, I have titled each of these fragments, and I have put these titles in alphabetical order — which is, of course, both an order and a disorder, an order stripped of meaning, the degree zero of order. It will be a kind of dictionary (Bataille supplies one at the end of *Documents*) which will deal obliquely with the sustaining text.[31]

While the alphabetical order of the Lipglossary follows titles (as it does in Barthes and Bataille), the volume at hand follows last names. However, in presenting a short overview of the essays, we will follow the reading sequence suggested by Diagram 1 (p. v) and seek to connect their abstracts accordingly.

Diagram 1 can be read as placing the contributions on a single strip that both folds back on itself to form a closed loop and touches itself to form two ellipses. As the 'Note on the Diagrams' insists, the differently sized ellipses corresponding to smaller and larger scales should not be read as strictly nested, but rather as porous and open to crossings. In addition to the intersecting dotted loop for the Bataille-related essays, such openings are suggested by the contact zone of the ellipses veering ambiguously between the intersection or bifurcation of a single strip and the tangentiality of two strips, as well as by the possibility of seeing

31 Roland Barthes, 'Outcomes of the Text', in Barthes, *The Rustle of Language*, trans. by Richard Howard (University of California Press, 1989), pp. 238–49 (p. 238).

the strips as non-orientable Möbius strips, akin to the Klein bottle evoked by Diagram 3 (p. vii).

While closed loops have no beginning or end, the diagram does single out the point of contact or bifurcation between smaller and larger scales as an obvious starting point. Addressing 'The Pleasure of the 1:1 Scale', the interview with science and technology anthropologist Lisa Messeri touches upon the limits of scale. In a sense, the 1:1 is unscaled: neither enlarged nor reduced. At the same time, it most literally corresponds to the formula 'situated dislocation', which DiCaglio indeed coined in response to Messeri's work on putatively situated planetary knowledge. As the pleasures of real-life simulations or reproductions — whether to experience being on the surface of Mars or being in another body through virtual reality (VR) technologies — indicate, simulated dislocations are far from indifferent even if they involve no change in scale. At the same time, and especially as the more terrifying use of artificial intelligence (AI) surrogates for doing research on human subjects makes clear, 1:1 simulations can also be understood as the limit case of massive upscaling: the world presented by VR may look the same physical size as the real world, but it will invariably prove limited when explored, and for AI surrogates, 1:1 would suggest that they could not be distinguished from humans in their abilities. However, even the largest AI models will at best approximate human laboratory participants, which Messeri argues to have themselves become 'simplified simulations' or 'purposely downscaled humans'.

Moving clockwise along the outer ellipse, José Antonio Magalhães's essay explores another conflict between the scalar and nonscalar. Titled 'Scale and World-Orders: An Effort at Diplomacy between Prometheans and Gaians', it problematizes scaling discourses from a South American position informed by Viveiros de Castro's writings on perspectivism. It employs the conceptual figures of 'Gaian' bricoleurs and 'Promethean' engineers to think through contrasting approaches to scale: the Gaians proceed by examples and are associated with small scales and nonscalability, whereas the Prometheans construct models to apply and upscale them. Rather than theorizing these cosmopolitical tendencies as political and aesthetic binary opposites, Magalhães explores their interfaces in order to limit scalarity to contingent world-orders.

A quite different kind of mediation is at issue in Federica Di Blasio's essay. Rather than recasting upscaling and downscaling tendencies in terms of incommensurable (but similarly all-encompassing) world-orders, she explores the 'Affects of Multiscalarity' that a 'Rhetorics of the Too Big and Too Small' generates. Insisting on the dramatic gap between the small and the large, she argues, can lead to a form of scalism that consists in a loss of resolution and disorientation at the intermediate scale. This applies, for example, to Fredric Jameson's use of the local/global binary, which the essay places in the historical context of geographical scale debates. Invoking Dipesh Chakrabarty's distinction between the global and the planetary in terms of their ability to either centre or decentre the human, Di Blasio shows that this form of scalism and affective disorientation cuts across both and risks implying a dismissal of genuinely political scales from the bodily via the national to the global.

Instead of mobilizing intermediate scales against a disorienting dramatization of scalar oppositions, Franco Costantini's essay is interested in scalar collapses such as occur when a subject is said to unite with the divine through a mystic vision. Titled 'The Scale of Love', it brings medieval treatises into dialogue with poetic texts in vernacular languages (mainly Dante's *Paradiso*) through the concepts of analogy (Simone Weil) and 'human cosmo-morphism' (Max Scheler). The essay demonstrates the capacity of lyric poetry to convey a heterodox ontology and disrupt the hierarchical order of the *scala naturae*. An open space is instead configured in which angels and flowers, human souls and animals coexist on the same ontological plane.

Mysticism also plays a role in the next essay in the diagram, labelled 'universe' and entitled 'Solar Figuration: Thinking the Human at the Scale of the Universe with Georges Bataille'. The vision presented by Kirill Chepurin is, however, considerably bleaker, with a flat ontology appearing as an entropic final state rather than as a promising starting point. Chepurin resists the 'common image of Bataille as a thinker of transgression for transgression's sake' and reads him instead as a thinker of thresholds, crossings, and ephemeral solar forms. His essay traces figures of chance in Bataille's writing, from the wildflower to the volcano to humanity as a planetary and cosmic movement. Dwelling with terms such as 'figuration', 'precipice', 'threshold', 'sig-

nal', and 'voiding', it probes what provisional obstacles and cross-scalar mediations can briefly refract or delay the Bataillean pull towards dissolution.

One impetus for the ICI Fellows to conduct an interview with Joshua DiCaglio after hearing his talk in the lecture series at the ICI, reading his texts on scale, and discussing them in an internal seminar, was his fascinating and in many ways unexpected discussion of mysticism and contemplative practices. DiCaglio notes in the interview that contemplative philosophies highlight the need to resist both dislocations from the here and now and an overemphasis on experience, identifying the pull in either direction with the ego. Nonetheless, the stress seems to lie on promoting situatedness — in particular, on the now that contemplative philosophies emphasize 'as the kind of zero point of conscious attention' — and dispelling the dislocations associated with the risk of distraction and overreaching one's scale of action. Cautioning against scalar assumptions in demands for political practice — such as conceiving it in terms of an emergent larger-scale aggregate that can be managed and controlled — DiCaglio suggests that contemplation in relation to political practice would 'be about letting go of the managerial assumption, of allowing the larger reality to enter, to yield to the higher power (which is not a political structure) beyond human control'. The interview furthermore reflects on how framing scale as a 'situated dislocation' can help reorient our preconceived notions of 'agency' and 'the human', as well as of science in its scalar division into different disciplines and its relation to alternative epistemologies.

As if responding to DiCaglio's suggestion concerning the contemplation of the political, Yuri Di Liberto's essay is interested in larger-scale processes that are beyond human control but affect human actions. Titled 'Scale and Discourse: On the Seismographic Connections between Processes', it examines relationships between processes of different scales — especially time scales — such as economic or climatic processes on the one hand and specific, individual acts or discursive events on the other. The macro-micro relationship decentres the human, dislocates agency, and even amounts to a desubjectivation insofar as Di Liberto attributes agency to the material, larger-scale processes in facilitating, constraining, or preventing specific human

acts. Significantly, it is not a case of being fully determined by larger-scale processes: what appears to the individual an intentional act is rather understood as the result of a statistically determined chance occurrence within a larger and longer-scale process.

Moving away from spatiotemporal scales, Magdalena Krysztoforska critically examines the measuring scales used for the evaluation of artificial intelligence (AI) technology. As her essay 'The Measure of Generality: On the Scalar Dynamics of AI Model Evaluation Practices' notes at the outset, the notion of 'generality' has featured prominently in recent discourse around AI, where the technology is increasingly presented as general-purpose, or as showcasing general intelligence. In order to interrogate the purported scientific basis for such claims and their rhetorical currency, Krysztoforska examines practices of model evaluation and benchmarking in AI through the critical lens of scale. In particular, she conceives of generality as 'scalar politics' (involving, for instance, the widespread but contested belief that scaling up AI models will make them more general, which has material consequences and makes companies invest in larger models), as 'scalar synecdoche' (using, for instance, narrowly defined tasks to gauge very broadly conceptualized capabilities), and as 'scalar collapse' (homogenizing, for instance, a wide spectrum of measured capacities into a single scale).

Cat Dawson's essay '"A Subtle System of Feints": Gender, Medical Photography, and the Essential Void of Sex' is labelled 'system' in the diagram. It engages with the system of sex and gender, which is general and large-scaled in a rather different sense than in the two preceding essays. While this system cannot be properly situated in space, time, or scale, its differential effects on human individuals are certainly enormous in scope — even if it results, as Dawson highlights, from an incoherent series of effects constructed across multiple scales. The essay takes the visual practice of the pioneering sexologist Magnus Hirschfeld as a concrete example to illustrate Foucault's notion of the essential void lying at the core of representation in general and of regulatory projects related to sex and gender in particular. Unfolding the shifting and mutually inconsistent categorizations of sex and gender across multiple scales, from the molecular (such as the hormonal) via the embodied human scale to the juridical scale, Dawson explores how

strategies to curtail trans life and rights can be appropriated to not only redress transantagonisms but also to contribute to broader struggles for justice.

Struggles against large-scale systems of injustice are also the explicit subject of Tobi Haslett's essay, which investigates 'writing' as a motif in Frantz Fanon's heterogeneous textual oeuvre. From the critique of *négritude* and of Jean-Paul Sartre in *Black Skin, White Masks* to the figure of the native intellectual in *The Wretched of the Earth*, Fanon's writing both possesses an elevated class character and dramatizes the antinomies of racial existence. The native petty bourgeoisie, equipped with 'intellectual and technical capital' bestowed upon it by the colonizer, must redirect those capacities towards emancipatory ends. Fanon's own texts, which synthesize psychiatry, existentialism, phenomenology, political economy, and literary criticism, issue from precisely the petty bourgeois stratum that he subjects to ruthless examination. Starting with Fanon's private resignation letter during the Algerian Revolution, Haslett shows how Fanon's writing performs its own historical predicament, as well as the various spatial and temporal scales at which anticolonial revolt transpires.

Titled 'Fanon Degree Zero', Haslett's essay is placed close to the point where the outer and inner ellipses touch. The focus on writing indeed resonates with the interest in form that characterizes many of the essays in the inner loop. While writing manifests itself on a small scale, it seems to have no proper scale and to be, for that very reason, highly scalable: a choice of form that can characterize an author's entire oeuvre.

Returning to the 1:1 scale and bifurcating from it into the inner ellipse, the first essay, by Filippo Bosco, explores the marginal and critical function of spatial representations drawn to scale in art and architecture. Titled 'The Hurricane in the Room: Drawing, Marginality, and Scale in Monica Bonvicini's *75 mph*', it focuses on the drawings Bonvicini made for her installation consisting of two fans blowing air at an unbearable speed in a white-cube space built within a commercial gallery. Bosco proposes that the drawings provide a way of reading the strategies of expansion, compression, and multiscalarity in Bonvicini's installation. Featuring collages of advertisements, standard architecture manuals, and critical texts, they deploy scalar frictions

and manipulations of figurability that reverse outside and inside, visibility and exclusion, perspective and opacity. Invoking Carl Linfert's understanding of architectural drawings as hybrid spatial representations situated at the margins of both architecture and painting, Bosco develops a broader notion of 'marginal drawing': if drawing is traditionally perceived as the authentic origin within a linear sequence from project and planning to realization, it now provides scalar disjunctures, disruptions, and detours with respect to the spatial work it addresses. Furthermore, setting Bonvicini's work in dialogue with theories of gender and domesticity, Bosco highlights her non-dominant and deconstructive approach to space and architecture.

In a similar vein, but moving back from the visual and spatial to the textual, Angelica Stathopoulos's essay 'sweet nothings' meditates on the relation between minoritarian beings and minor forms. By way of thematically engaging minor points — the i, the tittle, the dot, the period, the atom — Stathopoulos argues that small things can unveil and deconstruct large structures. They furthermore contend that queer, racialized, feminine, and other minoritarian beings profess a privileged relationship to minor forms and often tend towards smaller cases rather than accept the premises of the capital 'I'. Aligning form, content, and subject, the essay sketches a diminutive ethics modelled on diminutive life.

A particular state of diminution is at the centre of Marietta Kesting's essay: sleep and related states of reduced activity, consciousness, and metabolism, when life is effectively suspended. Titled 'Scaling Sleep: Modes of Suspension, Reduction, and Intensification', it explores fictional and real, historical and current experiments with intensities, variations, and durations of sleep in humans and animals. Starting out with an analysis of the potent trope of 'Sleeping Beauty', of one hundred years of sleep or suspension, the essay inquires into the connections between sleep experiments and assumptions about certain bodies and the actual vulnerability of sleepers in semi-conscious or unconscious states. While capitalist societies and the military have considered sleep a useless and passive state to be downscaled or eliminated, Kesting highlights the increasing interest in extending sleep. In particular, the ability of some mammals to hibernate during periods of cold temperatures and scarce food conjures up the possibility of enacting

interscalar jumps between animal and human scales, and using hibernation as a model to reduce energy consumption on crewed interstellar flights.

A different kind of suspension — by typographical and rhetorical rather than medical means — is at issue in the essay by Nicolas Helm-Grovas, who, like Stathopoulos, explores the nexus of form, content, and subject in a minor key, while taking it in a different direction. Titled '(subject in parentheses)', the essay takes the figure of brackets or parentheses as a starting point for reflecting on links between form, social relations, and the subject. Beginning from a minor detail of textual infrastructure, it thinks across scales, from the grammatological one of the tiny mark to discursive, psychological, and social scales. Written in dialogue with Rebecca Comay, Hollis Frampton, Yvonne Rainer, Ian White, Theodor Adorno, Jacques Derrida, Doris Lessing, Roland Barthes, Georges Bataille, Marina Vishmidt, Theresa Hak Kyung Cha, Alex Farrar, and others, the essay is an extended formal experiment that seeks to enact and perform its content through its form. Not only is the title placed in parentheses, as in some of the works discussed, but so are long, italicized paragraphs, which often cover several pages and offer meta-reflections on parentheses, punctuation, gaps, and infrastructure, as well as on metalanguage itself and the question of its verticality and bracketing of the subject.

Verónica Stedile Luna closely links the form of writing to the material production of books as she asks what insights small-scale publishing projects can bring into the conditions of contemporary large-scale publishing. Developing the notion of 'editorial writing', where 'editorial' is intended to include its Spanish meaning of 'publishing', her essay 'Editorial Writings from a Scalar Perspective: Reduction and Expansion as Publishing Procedures' analyses a series of recent Latin American artistic publishing projects that develop scalar operations of expansion and reduction in relation to both the book as a material format and writing itself. Her case studies, which include Oficina Perambulante, DocumentA/Escénicas, and *Líneas Móviles*, show how procedures of enlargement and miniaturization, excess and scarcity can be understood as active responses to contemporary conditions of overproduction and destruction in the publishing industry.

The final two essays explore scalar paradoxes of the everyday, which seems small-scale only as long as it remains barely perceptible in its overwhelming ordinariness. Claudia Peppel's essay presents some of the manifold questions that the contradictory experience of the everyday elicits and that account for the interest the everyday has received in twentieth-century avant-garde art and theory. Asking how the perception of the everyday changes when it is presented from an unusual perspective through scalar shifts, Peppel explores the effects and potential transformation of common domestic objects as their size is enlarged or reduced in relation to the viewer. Titled 'The Everyday in Dramatic Closeness', the essay presents a selection of works from the aforementioned exhibition of the same name, held at the ICI Berlin, and shows how they question perceptions and expectations of everyday life. In particular, Peppel highlights how the works presented produce uncanny moments in which the everyday is perceived as unfamiliar or weird.

The final essay, Jasmine Clotilde Pisapia's 'Dust, Death, and the Body of the Earth: Notes on the Scales of Ecological Disaster', explores the paradoxes at the heart of the everyday and of situated perspectives by examining the everyday of dust, from regular domestic dust to toxic fallouts from hazardous steel factories and volcanoes. It follows dust as a way of moving across scales — spatially, from particulate matter to volcanic magnitude, and temporally, from the slow accumulation of toxic exposure to the sudden force of catastrophe. Through a wide constellation of images, texts, and ethnographic encounters, the essay reflects on how different timescales of disaster come to coexist in zones of environmental crisis. Drawing on long-term anthropological fieldwork in southern Italy's toxic and volcanic environments, it follows the relations between the slow sedimentation of environmental violence and moments of catastrophic rupture, and the paradoxes of inhabiting unstable worlds. Dust becomes the medium through which these relations emerge, moving between satellite views of industrial landscapes, flash-lit digital photographs, gravediggers' testimonies, archival images of eruption, and the unsettled worlds opened by André Masson's volcanic painting and Georges Bataille's writings on dust and the subterranean abyss. Here, particulate matter emerges at the threshold

between the living and the dead, the visible and the invisible, the infinitesimal and the cosmic.

As is evident from this final description alone, there is a dense web of connections between the essays, which emerge from an intensive, two-year long collaboration. Readers are invited to explore the manifold links by reading the essays in any order, but may refer to Diagrams 2 (p. vi) and 3 (p. vii) for further orientation and guidance.

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Christoph F. E. Holzhey and Marietta Kesting, 'Introduction', in *Scale: New Critical Essays*, ed. by Christoph F. E. Holzhey and Marietta Kesting, Cultural Inquiry, 40 (ICI Berlin Press, 2026), pp. 1–24 <https://doi.org/10.37050/ci-40_hk>

REFERENCES

Andaiye, 'Grassroots Women Learning to Count their Unwaged Work: Summary Report on a 2001–2002 Trial [2009]', in Andaiye, *The Point Is to Change the World: Selected Writings of Andaiye*, ed. by Alissa Trotz (Pluto Press, 2020), pp. 117–120 <https://doi.org/10.2307/j.ctvzsmdr2>

Barthes, Roland, 'Outcomes of the Text', in Roland Barthes, *The Rustle of Language*, trans. by Richard Howard (University of California Press, 1989), pp. 238–49

Bataille, Georges, 'The Big Toe', in Georges Bataille and others, *Encyclopædia Acephalica*, ed. by Robert Lebel and Isabelle Waldberg, trans. by Iain White and others (Atlas Press, 1995), pp. 87–93

Bergson, Henri, *Time and Free Will: An Essay on the Immediate Data of Consciousness* [1889], trans. by F. L. Pogson (Dover Publications, 2001)

Blakey, Joe, 'Scale', in *Introducing Human Geographies*, ed. by Kelly Dombroski and others, 4th edn (Routledge, 2024), pp. 33–47 <https://doi.org/10.4324/9780429265853-5>

Carroll, Lewis, *Alice in Wonderland: Authoritative Texts of 'Alice's Adventures in Wonderland', 'Through the Looking-Glass', 'The Hunting of the Snark', Backgrounds, Essays in Criticism*, ed. by Donald J. Gray, 2nd edn (Norton, 1992)

Châtelet, Gilles, *Figuring Space: Philosophy, Mathematics, and Physics* [1993], trans. by Robert Shore and Muriel Zagha (Kluwer Academic Publishers, 2000)

Deleuze, Gilles, and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* [1980], trans. by Brian Massumi (University of Minnesota Press, 1987)

—— *Kafka: Toward a Minor Literature*, trans. by Dana Polan (University of Minnesota Press, 1986)

Di Palma, Vittoria, 'Zoom: Google Earth and Global Intimacy', in *Intimate Metropolis: Urban Subjects in the Modern City*, ed. by Vittoria Di Palma, Diana Periton, and Marina Lathouri (Routledge, 2009), pp. 239–70 <https://doi.org/10.4324/9780203890059>

'Diagrams: Between Gestures and Spaces', symposium, ICI Berlin, 22 June 2026 <https://doi.org/10.25620/e260622>

DiCaglio, Joshua, *Scale Theory: A Nondisciplinary Inquiry* (University of Minnesota Press, 2021) <https://doi.org/10.5749/j.ctv22fqc19>

—— 'Scale Tricks and God Tricks, or The Power of Scale in *Powers of Ten*', *Configurations*, 28.4 (2020), pp. 459–90 <https://doi.org/10.1353/con.2020.0021>

Fields, Chris, and Michael Levin, 'Scale-Free Biology: Integrating Evolutionary and Developmental Thinking', *BioEssays*, 42.8 (2020), article 1900228 <https://doi.org/10.1002/bies.201900228>

Futurefarmers (Amy Franceschini and Michael Swaine), eds, *A Variation on Powers of Ten* (Sternberg Press, 2012)

Galilei, Galileo, *Dialogues Concerning Two New Sciences* [1638], trans. by Henry Crew and Alfonso De Salvio (Macmillan, 1914)
Gleick, James, *Chaos: Making a New Science* (Viking Books, 1987)
Haraway, Donna J., 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, 14.3 (1988), pp. 575–99 <https://doi.org/10.2307/3178066>
Herod, Andrew, *Scale* (Routledge, 2010) <https://doi.org/10.4324/9780203641095>
Horton, Zachary, *The Cosmic Zoom: Scale, Knowledge, and Mediation* (University of Chicago Press, 2021) <https://doi.org/10.7208/chicago/9780226742588.001.0001>
Howitt, Richard, 'Scale as Relation: Musical Metaphors of Geographical Scale', *Area*, 30.1 (1998), pp. 49–58 <https://doi.org/10.1111/j.1475-4762.1998.tb00047.x>
Latour, Bruno, 'Anti-Zoom', in *Scale in Literature and Culture*, ed. by Michael Tavel Clarke and David Wittenberg (Springer, 2017), pp. 93–101 <https://doi.org/10.1007/978-3-319-64242-0_4>
Levin, Michael, 'Diverse Embodied Intelligence: Detecting and Communicating with Unconventional Beings', ICI Berlin, 15 May 2025, video recording, mp4, 01:04:42 <https://doi.org/10.25620/e250515-0>
Marston, Sallie A., 'The Social Construction of Scale', *Progress in Human Geography*, 24.2 (2000), pp. 219–42 <https://doi.org/10.1191/030913200674086272>
Marston, Sallie A., John Paul Jones III, and Keith Woodward, 'Human Geography without Scale', *Transactions of the Institute of British Geographers*, 30.4 (2005), pp. 416–32 <https://doi.org/10.1111/j.1475-5661.2005.00180.x>
Mezzadra, Sandro, and Brett Neilson, *Border as Method, or, the Multiplication of Labor* (Duke University Press, 2013) <https://doi.org/10.1215/9780822377542>
Peitgen, Heinz-Otto, Hartmut Jürgens, and Dietmar Saupe, *Chaos and Fractals: New Frontiers of Science* [1992], 2nd edn (Springer, 2004) <https://doi.org/10.1007/b97624>
Powers of Ten, dir. by Charles and Ray Eames (USA, 1977) <https://www.eamesoffice.com/the-work/powers-of-ten/> [accessed 8 September 2026]
'Quantities without Scale and the Thought of Novelty', workshop, ICI Berlin, 2 March 2026 <https://www.ici-berlin.org/events/quantities-without-scale-and-the-thought-of-novelty/> [accessed 8 September 2026]
'Scale: A Fragmentary Atlas for the Humanities', workshop, ICI Berlin, 6–7 October 2025 <https://doi.org/10.25620/e251006>
'Scale: ICI Focus 2024–26', ICI Berlin <https://www.ici-berlin.org/projects/scale/> [accessed 8 September 2026]
'Scale Lecture Series 2024–25', ICI Berlin <https://www.ici-berlin.org/series/scale-lecture-series-2024-25/> [accessed 8 September 2026]
'Scale Lecture Series 2025–26', ICI Berlin <https://www.ici-berlin.org/series/scale-lecture-series-2025-26/> [accessed 8 September 2026]
'Scales of Life: From Basal Cognition to Planetary Intelligence', symposium, ICI Berlin, 14–15 May 2025 <https://doi.org/10.25620/e250514>
Self, Will, *Grey Area* (Bloomsbury, 1993)
Swift, Jonathan, *Gulliver's Travels: A Voyage to Lilliput. A Voyage to Brobdingnag* (J. B. Lippincott, 1918)
Tsing, Anna Lowenhaupt, *Friction: An Ethnography of Global Connection* (Princeton University Press, 2005) <https://doi.org/10.1515/9780691263526>
—— *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press, 2015) <https://doi.org/10.1515/9781400873548>
—— 'On Nonscalability: The Living World Is Not Amenable to Precision-Nested Scales', *Common Knowledge*, 18.3 (2012), pp. 505–24 <https://doi.org/10.1215/0961754X-1630424>

'Upscale', *Merriam-Webster Dictionary* <https://www.merriam-webster.com/dictionary/upscale> [accessed 8 July 2026]

Voltaire, *Micromegas: Philosophical History*, trans. by Peter Phalen (Project Gutenberg, 2021) <https://www.gutenberg.org/ebooks/30123> [accessed 11 July 2026]

Woods, Derek, 'Epistemic Things in Charles and Ray Eames's *Powers of Ten*', in *Scale in Literature and Culture*, ed. by Michael Tavel Clarke and David Wittenberg (Springer, 2017), pp. 61–92 <https://doi.org/10.1007/978-3-319-64242-0_3>

——'"Terraforming Earth", or Climate and Recursivity', *Diacritics*, 47.3 (2019), pp. 6–29 <https://doi.org/10.1353/dia.2019.0024>