Making Things Public
Atmospheres of Democracy

Assembling or Disassembling?

Which Cosmos for Which Cosmopolitics?

The Problem of Composition

From Objects to Things

From Laboratory to Public Proofs

The Great Pan Is Dead!

Reshuffling Religious Assemblies

The Parliaments of Nature

edited by Bruno Latour and Peter Weibel

"Back to things!" – This is the new motto of what Bruno Latour and Peter Weibel call an "object-oriented democracy." For the more than 100 writers, artists, and philosophers assembled in this groundbreaking editorial and curatorial project, politics is not just a profession, sphere, or system, but a concern for *things*. Yet though the very word "republic" (*res publica*) is already full of "things" – things *made* public – it is these same things that are always forgotten. Through more than 900 illustrations and over 100 essays, this collection searches for democracy beyond the official sphere of professional politics, and explores public assemblies too often left out of a narrowly-defined discourse: laboratories, assembly lines, supermarkets, trade rooms, courts of law, bureaucratic institutions, churches, and natural resources such as rivers and climates.

This collection itself presents a significant public assembly, joining such prominent thinkers as Richard Rorty, Simon Schaffer, Peter Galison, and Peter Sloterdijk with the likes of Shakespeare, Swift, La Fontaine, and Melville. Ranging from the distant past to the troubled present,

New Political Passions?

A Search for Eloquence

Parliamentary Technologies

The Political Aesthetic of Reason

What's Political in Political Economy?

Follow the Paper-Trails

Which Assembly for Those Assemblages?

this collective effort examines the atmospheric conditions in which things are made public, and reinvests political representation with the materiality it has been lacking. This book, and the ZKM show that it accompanies, aims to trigger new political passions and interests in a time when people need, more than ever, new ways to have their voices heard.

Bruno Latour and Peter Weibel were the curators of ZKM's *Making Things Public*, and editors of the MIT volume *ICONOCLASH: Beyond the Image Wars in Science, Religion and Art.*

ZKM | Center for Art and Media Karlsruhe

The MIT Press
Massachusetts Institute of Technology
Cambridge, Massachusetts 02142
http://mitpress.mit.edu

0-262-12279-0

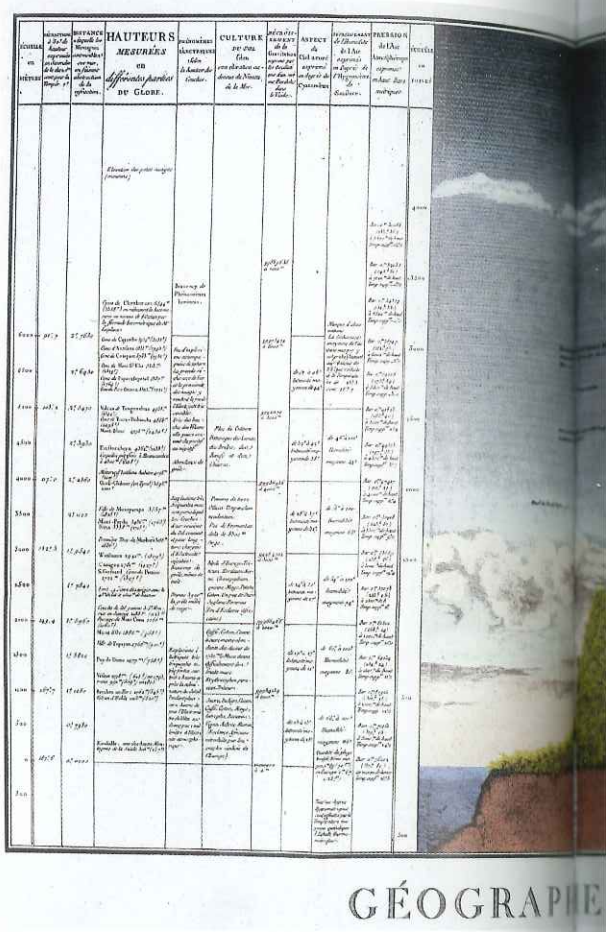
¡Viva la República Cósmica!

or The Children of Humboldt and Coca-Cola

John Tresch

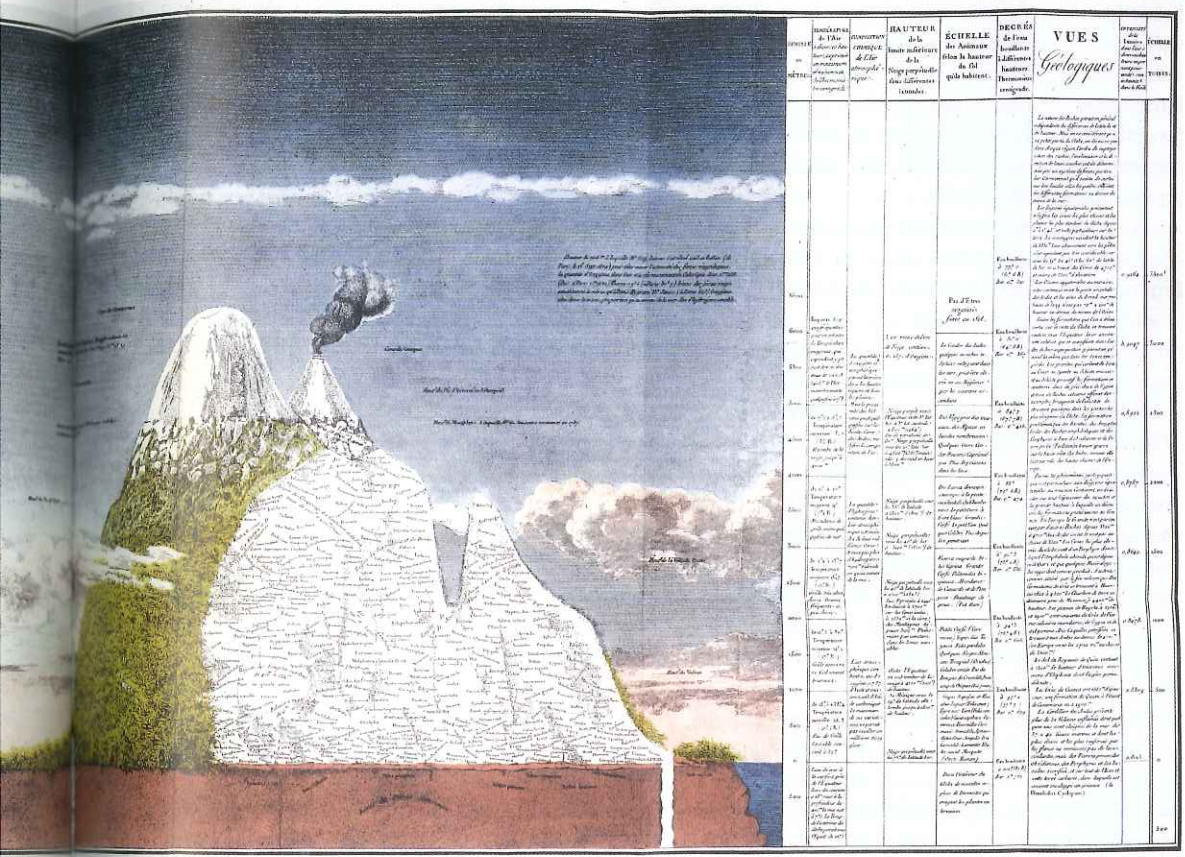
What does the cosmos look like? How do people – scientists, artists, politicians – represent the entirety of what is, in a way that we can relate to? Most of the "cosmological" images in recent years show us very large, very distant, very alien places. Physics tells us gnarly mathematical fables of superstrings and antimatter and the "first microseconds of the universe"; in the popular versions, we get Carl Sagan in *Cosmos* perched casually against a buttress of his interstellar cathedral as he zooms past nebulae or Stephen Hawking launching into hyperspace in his turbo-wheelchair at the end of *A Brief History of Time*. Science fiction sometimes gives us a little more to hold on to, or at least more of a plot, but Hollywood most often shows us outer space (the favored location for current thinking about cosmology) as rife with aggressive, hard-to-kill non-citizens. All of this seems very remote from us (except when the spaceships blow up the White House). And when things get "cosmic" in the post-Jungian, psychological, *inner*-space sense, we get thrown into psychedelic *mises-en-abyme* like the finale of *2001: A Space Odyssey*, annihilating all that's made into special effects and a purple haze: "Freaking *cosmic*, man!"

Obviously, the cosmos is a difficult "thing" to make public. First of all, it's big. Also, since it can mean the entire contents and basic principles of order of the universe, it includes *us* as part of it; if we wanted to draw it, we'd also have to draw our own hand drawing, or some other M.C. Escheresque convolution. Talking about the *universe as a whole*, once we include ourselves in the equation, inevitably leads us back to thinking about our place within it: how we know it, how much of it we can change, what responsibility we have toward the rest of it. Maybe those are some reasons the cosmos has been so hard to represent: When we try, we fall so easily into either unsatisfying banalities (does anyone really feel like the "big bang" explains anything at all?) or embarrassing extravagancies (like Doug Henning's plans to build a Disney-style Maharishi theme park in Toronto) (uh oh, it's magic).[1]



A single book, published back in the middle of the nineteenth century, is probably responsible for

1 On Henning's plans for Veda Land, see "Theme Parks: Veda Lost?," in: *The New York Times*, February 22, 1998, Section 6, p. 15.



Alexander von Humboldt, *Géographie des plantes équinoxiales*, illustration from *Essai sur la géographie des plantes, accompagné d'un tableau physique des régions équinoxiales*, Fr. Schoell, Paris, 1807, photo © The Newberry Library

putting the word "cosmos" back into common circulation for the first time since the Greeks. The book was called *Cosmos*, and as its subtitle tells us, it aimed at *A Sketch of the Physical Description of the Universe*.[2] But it made a point of pairing flat physical facts of nature taken from the cutting edge of physics, geology, biology, meteorology and astronomy with descriptions of the ways these facts were gathered, along with wonder-filled exclamations about the overall harmony of the picture of the cosmos it drew. Its author was the explorer and naturalist Alexander von Hum-

2 Alexander von Humboldt, *Cosmos: A Sketch of the Physical Description of the Universe*, 2 vols., Johns Hopkins University Press, Baltimore, 1997 (first published 1845 and 1847).

boldt, and if you've ever lived in the Americas west of the Appalachians you've probably lived on, in, or near a Humboldt street, park, drive, or county. You get the impression that Humboldt is everywhere; that's because he traveled everywhere, or he had friends in those parts of the world he hadn't been to. He set these friends up in observatories, to observe the weather, measure air pressure and temperature, note atmospheric effects (he had a thing for the *aurora borealis*), and study the ups and downs of magnetic needles. These new networks made of Humboldtian observers created Earth science as we know it today: Their internationally-distributed precision instruments tied together natural phenomena and scientific fields around the planet.

Then Humboldt showed how it all fit together. That's what *Cosmos* was about: It was a guided tour of reality, led by a superhumanly enthusiastic, gay Prussian guide who not only took you through narrow mountain passes before presenting you with panoramic vistas but also told you clearly what you should be feeling along the way. "The Different Degrees of Enjoyment Presented by the Contemplation of Nature" was the name of one chapter. Humboldt could look up at the heavens and send you out into the distant reaches of the solar system, past the fermenting nebulae just then being picked up by gargantuan telescopes, before dropping you back to the edge of an Andean volcano; but whether in outer space or at Cotopaxi, he made sure you knew how it felt to be where you were. He addressed the reader in the second person plural, with Technicolor descriptions and lots of atmosphere; it was an interactive, user-friendly cosmos, where the overall order and meaning of the universe depended on the concepts and tools by which it was known.

Humboldt thought that training people to experience nature this way, with both the facts *and* the feelings, would help make them better citizens. Experiencing nature scientifically and artistically (through concrete descriptions, elegant diagrams and gorgeous tableaux like the one on the previous page) would make us more intelligent, more moral and more free.

That might sound wacky. Or it might not. At any rate, he wasn't the only one to think such thoughts. He got a lot of his ideas about art's power to transform society from the playwright and poet, Friedrich Schiller, whom he'd met hanging out in Jena with his older brother, Wilhelm von Humboldt, and Goethe. The younger Humboldt scattered Schiller's words throughout his scientific writings. In fact, we can see Humboldt's project for a definitive modern cosmology, where the totality of knowledge about the physical world was combined with a recognition of the central place of humans' inner life and activity in constructing that knowledge, as a scientific version of Schiller's *Letters on the Aesthetic Education of Mankind.*

Schiller thought that great works of art brought human nature's conflicting drives into a charged, creative balance. One part of us craves the chaos and sensory stimulation of *matter*; another part longs for abstract order and the realm of pure *form*. What Schiller called the "aesthetic state" taps into a third drive, halfway between these two: the *play drive*, which oscillates between sense and abstraction. Fine art brings us there, by combining inner reason and morality with sensuous details and desire and putting them into physical objects through which they can be shared: Art makes things public, by making public things.

According to Schiller, aesthetic experience makes us *free*: By overcoming the specialization of modern society, it allows us to experience the totality of our nature, as individuals and as members of a community. Likewise, it sets *nature* free. Science, Schiller thought, murders its objects by analyzing them into their component parts and seeing them only as means to our ends. When we experience plants, animals and other humans aesthetically, they become self-sufficient agents in a harmonious, interlocking totality: "In the Aesthetic State," Schiller said, "everything – even the tool which serves – is a free citizen, having equal rights with the noblest."[3] But this freedom isn't a cacophony of contradictory wills. Freedom means recognizing one's true nature, and that means acknowledging one's duty toward and dependence on others. He penned the lyrics for the chorale in Beethoven's Ninth Symphony, a poem now known as "Ode to Joy" but originally called "Ode to Freedom" (which the EU surely knew when they chose it for their anthem):

3 Friedrich Schiller, *On the Aesthetic Education of Man, in a Series of Letters*, trans. Elizabeth M. Wilkinson, L. A. Willoughby (eds), Oxford University Press, Oxford, 1986, p. 219.

"Thy magic reunites those
Whom stern custom has parted;
All men will become brothers
Under thy gentle wing.
[...]
All the world's creatures
Draw joy [freedom] from nature's breast;
Both the good and the evil
Follow her rose-strewn path."[4]

Schiller's poem, especially with Ludwig Van's orchestration, paints an exuberant picture of a universe in which each element plays a joyful, independent part but all together form a harmonious, dynamic whole. These days, when some want to identify freedom with isolated cowboys, patriotic missiles and abundant consumer goods, it might be hard to grasp that for Schiller, *freedom* depended on the multiple and fragile *connections* among humans and between humans and nature.

Humboldt adapted to *science* Schiller's view of *art* – the external object that mediates between humans and nature and in the process makes both of them free. The new mediator was the *scientific instrument*, the place where the abstract, formal categories of our minds fuse with external matter and sense data. Instruments were Humboldt's calling card, his hobby horse, the obsession into which he initiated his legion of correspondents. In works like *Cosmos* he combined their findings into a view of the *whole* that closely resembled Schiller's aesthetic state, which the poet had compared to a dance in which all move in synch, gliding from partner to partner: "Everything fits so skillfully, yet so spontaneously, that everyone seems to be following his own lead, without ever getting in anyone's way. Such a dance is the perfect symbol of one's own individually asserted freedom as well as of one's respect for the freedom of the other."[5] Humboldt understood his cosmos in the same terms. He wanted to depict the "general equilibrium which reigns among disturbances and apparent turmoil": living beings and their milieus at all levels, forming systems of systems in complex interaction, yet with each part doing its own thing.[6] Weaving through this dance were Humboldtian natural scientists and their free but disciplined instruments.

Look at Humboldt's famous painting, reproduced here, from his *Essay on the Physiognomy of Plants*. It shows the distribution of plant species and atmospheric qualities at different altitudes near the equator in Latin America, where his views of freedom helped spur his young friend Simon Bolivar to revolutionary action. It beautifully captures his understanding of the relations that make up nature and the place of humans' knowledge and activity within it. It makes the cosmos public. Every column traces one kind of atmospheric phenomenon – humidity, temperature, magnetism, luminosity – as registered by its appropriate instrument. Now turn the picture on its side, 90 degrees to the right: You can read it as an orchestral score moving from left to right, with ascension in altitude taking the place of progression in time.

Humboldt was composing a cosmic symphony and gathering the instruments to perform it. Rather, it was more than a *symphony*, where a range of *sounds* work together; it was a *symphenomenony*, a vast natural chorus of phenomena brought into conceptual harmony by standardized but sensitive geophysical instruments. This nineteenth-century image of the cosmos, or *cosmogram*, aimed at overcoming the tension between collective duty (or general law) and individual freedom (or local particularity). Humboldt helped found ecology, environmental science and the green movement by presenting humans as part of the community of nature. After voyaging for decades, he brought the cosmos home; he showed what it means to live not just as a member of a city or a state (*polis*) but how to be a *citizen of the universe* – to be truly *cosmopolitan*.

Is a project like Humboldt's conceivable now, when science and society seem to be fractured by so much more complexity, incommensurability and conflict? What forms does the cosmos take today – Bloomberg machines, satellite images of

4 Friedrich Schiller, "Ode to Joy," parallel German/English text at http://en.wikipedia.org/wiki/Ode_to_Joy. Schiller's original text, at the end of the second stanza quoted here, read, before the censors got to it: "Thy magic reunites / What custom's sword has parted / Beggars become princes' brothers / Under thy gentle wing."

5 Friedrich Schiller, letter to Körner, February 23, 1793, in: Friedrich Schiller, op. cit., p. 300.

6 See Michael Dettelbach, "Global Physics and Aesthetic Empire: Humboldt's Physical Portrait of the Tropics," in: *Visions of Empire. Voyages, Botany, and Representations of Nature*, David Philip Miller, Peter Hanns Reill (eds), Cambridge University Press, Cambridge, 1996, pp. 258-292.

the "whole Earth," the World Social Forum? The last time I heard Beethoven's hymn to freedom, joy and harmony on the radio, it was being compared with another, more recent global mega-hit:

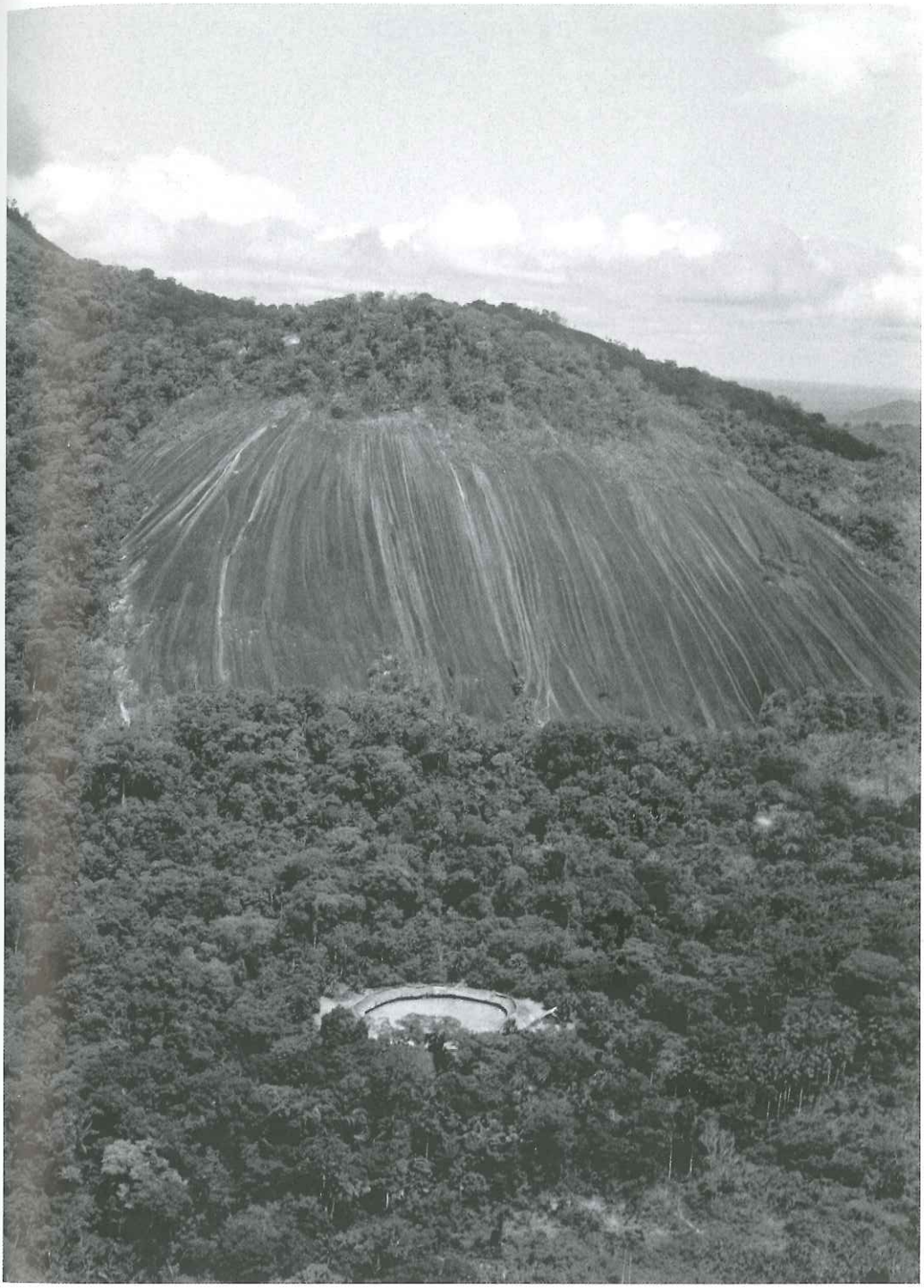
> "I'd like to teach the world to sing
> In perfect harmony
> I'd like to buy the world a Coke
> And keep it company
> That's the real thing."[7]

The jingle is disturbingly catchy, but of course it's wrong; carbonated brand-fetishism isn't going to get us to utopia. But in one sense it's right. The place occupied by Coke here – that of the connection, the tool, the concrete mediation that makes a community possible and visible – that *is* the real thing.[8] Following Humboldt, we might look to the multiplicity of public objects through which we connect ourselves to one another and to nature. From those concrete starting points, we might begin to imagine, depict and make *real* a cosmic republic: a world we recognize as our responsibility and one in which, to quote another of Schiller's readers, "the free development of each is the condition for the free development of all".[9]

7 National Public Radio, September 10, 2004, *All Things Considered*: "Remembering Billy Davis, Coca-Cola Pitchman," http://www.npr.org/templates/story/story.php?storyId=3912400

8 Bill Backer, the ad's producer, later wrote about his inspiration: "[I] began to see the familiar words, 'Let's have a Coke,' as [...] actually a subtle way of saying, 'Let's keep each other company for a little while.' [...] So that was the basic idea: to see Coke not as it was originally designed to be – a liquid refresher – but as a tiny bit of commonality between all peoples, a universally liked formula that would help to keep them company for a few minutes." Bill Backer, *The Care and Feeding of Ideas*, Times Books/Random House, New York, 1993.

9 Karl Marx, *The Manifesto of the Communist Party*, in: *The Marx-Engels Reader*, Robert C. Tucker (ed.), Norton, New York, 1972.



Raymond Depardon, *Brésil. Amazonie. Les Indiens Yanomami*, 2002, b/w photograph, 60 x 90 cm, photo © Raymond Depardon / Magnum Photos