

laba orientation

URBAN NATURE

A topographic map of a valley. The map shows a central river valley with a river flowing through it. The valley floor is mostly white, indicating a flat or low-lying area. The surrounding hills are shown with contour lines. On the left and right sides, there are urban areas with buildings and roads, colored in shades of green, yellow, and red. The river is shown in blue. The overall map is oriented horizontally.

EPFL ENAC LABA
PROF. HARRY GUGGER



PARK CITY, LONDON 2007-08



CITY RECYCLING, ATHENS 2010-11



URBAN UNDERGROUND, SWITZERLAND 2013-14



LANDSCAPE METROPOLIS, GENEVA 2008-09



URBAN SEA, BARENTS SEA 2011-12



INDUSTRIAL LANDSCAPE, ICELAND 2014-15



URBAN DESERT, BAHREIN 2009-10



LAND DENSIFICATION, SWITZERLAND 2012-13



INDUSTRIAL NOSTALGIA, VENICE 2015-16



laboratoire bâle

Laboratoire Bâle (laba) is an architecture and urban design studio of the École Polytechnique Fédérale de Lausanne (EPFL), based in Basel. laba is devoted to the investigation of spatial design at the interface between urban processes and architectural objects. It is laba's conviction that design is both an intellectual and artistic product that takes place on all scales of the urban, and therefore, laba's projects span from territorial planning to architectural detailing.

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the pervasive nature of the urban

*The word urbanization was introduced by . . . Ildefons Cerdà . . . in his 1867 book *Teoría general de la urbanización*. . . . Cerdà legitimized his invention of urbanization as elucidating the emerging “conceptual features” of a paradigm. This paradigm was the condition of limitlessness and the complete integration of movement and communication brought about by capitalism, which Cerdà saw as the unprecedented “vast swirling oceans of persons, of things, of interests of every sort, of a thousand diverse elements” that work in permanent reciprocity and thus form a totality that cannot be contained by any previous finite territorial formations such as the city.¹*

Città diffusa, metapolis, postmetropolis, global city, space of flows, generic city² – these are some of the recently invented concepts that try to name and define the new kind of urban phenomena that have come to asymmetrically blanket the globe. While each has its own particular standpoint, they all address (directly or by implication) the demise of the humanist city³ and that of its analogous dichotomy, city/countryside. Engulfed by “junkspace”,⁴ city-as-object and rural-as-background no longer exist. What is left now is an ambiguous and hybrid condition that has no genetic code and is impossible to describe in typological terms.

Ultimately, all architecture colonizes space for human appropriation, defining a boundary of domination set against a background of wilderness and chaos – in other words, nature (the excluded leftover of the architectural inside). The classical city, one could argue, did the same thing on a communal scale: it contained the agglomeration of civilized inner public spaces segregated from the outer (extramural) countryside. The city wall drew the limit between the two worlds, with the cultural object in the foreground, contained and framed against the backdrop of wide-open land. The industrial (modern) city blurred and irreparably damaged this once-stable opposition. Social polis merged with bucolic arcadia in infinite, site-specific combinations and bred a succession of “transgenic landscapes”⁵ that we now generally refer to as “the urban”. The territory lost friction and changed in more or less awkward ways to the point at which “the urban” itself became a kind of all-pervading (mostly chaotic) cultural background – one might say, a kind of nature.



BING MAPS, AERIAL VIEW OF FRESNO, CA, USA

the artificial production of the natural

Air, water, wood: all are enhanced to produce . . . a parallel Walden, a new rainforest. Landscape has become Junkspace, foliage as spoilage: Trees are tortured, lawns cover human manipulations like thick pelts . . . , sprinklers water according to mathematical timetables.⁶

Nature is a mystified anthropocentric ideal, one evoked well by Caspar David Friedrich's 1818 painting of a man poised on the edge of the abyss, contemplating its vastness and projecting onto it an extension of his own inner grandiosity. Man, the conscious cultural being, sets himself against the world of natural things: civilized artificiality versus original wilderness. This idea of "artificiality" has its root in the Latin word *artificium*, which means "art, craft or skill" and eventually also acquired the meaning of "inauthenticity", thereby coming to encompass the common associations of "truth" with nature and "deceit" with culture. However, nature in the sense of something non-artificial, unaltered by human activity, hardly exists any more. Even those places we call nature reserves (maintained in order to preserve fragile ecosystems and biodiversity) are paradoxically unnatural, since the act of conservation itself can only ever result in something man-made. Human design (biotech agriculture, plastic surgery, beach resorts, rural tourism, greenhouse tomatoes, hypoallergenic cats) makes so-called nature take on an artificial authenticity. Preserved/protected nature is always a sanitized, tamed and overall more human-friendly version of the real thing – a domesticated, hyper-natural version that is little other than culture in disguise. Ironically, the more we learn to control nature, the less nature we have, and the more we change nature, the more complex, strange and unknowable it appears.

In the light of such ambiguity, one might propose replacing the culture/nature binary with that of the controllable versus the autonomous, whereby culture would be that which we can control and nature all that we cannot.⁷ According to this new classification, greenhouse tomatoes and nature reserves would belong to the cultural category, while computer viruses, traffic jams and "the urban" (in all its all-pervasive autonomous anarchy) would be considered natural.

the ecology of artificial earth

A Styrofoam cup will take about 500 years to degrade. Radioactive waste deposited beneath mountains has an average harmful life-expectancy of about 100,000 years (for it can endure between 10,000 and one million years), three times longer than the time spanning back to the Chauvet Cave paintings executed by Palaeolithic humans. At the beginning of the nineteenth century, the world's population was one billion, but it is now seven times that, and by 2050 it is predicted to surpass nine billion. Atmospheric CO₂ concentration has more than doubled since 1950 and is causing global warming. Human debris dumped into the oceans has been accumulating in patches known as the Pacific trash vortex. Polymer plastics (found, for instance, in the common plastic shopping bag) does not biodegrade as much as degrade, breaking down into increasingly smaller pieces (microplastics) until it eventually enters the food chain:

For some time we may have thought that the U-bend in the toilet was a convenient curvature of ontological space that took whatever we flush down into a totally different dimension called Away, leaving things clean over here. Now we know better: instead of the mythical land Away, we know the waste goes to the Pacific Ocean or the wastewater treatment facility. . . . There is no Away on this surface, no here and no there.⁸

We live in an age of ecological panic masked by the cynicism of ideological denial. In the scheme of the five stages of grief,⁹ after denial follow anger, bargaining and depression, until we eventually reach the point of acceptance. What we are grieving is the death of the idea of nature and the loss of our anthropocentric world view.¹⁰ This is an uncanny era in which human history has collided with geological time, giving rise to strange and vast phenomena that are impossible to categorize in terms of the opposition of the human versus the natural (global warming, mass extinction, pollution). Geologists have come to call this era the Anthropocene, meaning literally the "human era". Earth in the age of the Anthropocene is an artefact – Spaceship Earth, an artificial object travelling through time and space and steered by Earthiens.¹¹



NASA APOLLO 8, EARTHRISE, 1968



LUDWIG HILBERSEIMER, *HIGH-RISE CITY*, 1926

abstract environments

The end of the world [nature] has already occurred. We can be uncannily precise about the date on which the world ended. . . . It was in April 1784, when James Watt patented the steam engine, an act that commenced . . . the inception of humanity as a geophysical force on a planetary scale.¹²

Modernism has been the history of Western culture's progressive path toward abstraction – from Courbet to Cézanne to Picasso; from Kandinsky to Rothko to Frank Stella; from Brancusi to Sol LeWitt to Robert Smithson – and this pattern in the visual arts was a response to, as well as a reflection of, the growing abstraction of social relations in modern industrial society. "To abstract" comes from the Latin *abstrahere*, literally "to draw away from", which means to uproot something essential out of its totality in order to define generic frameworks rather than specific (concrete) solutions. Abstraction was, in fact, the grand project of modernity – to detach thinking from tradition and myth and to seek a universal rationale that is both generic and all-inclusive: "Abstract art does not appeal to the emotions but to the mind."¹³ It shies away from the representation of ideology and/or the subjective pathos of the author, becoming what Umberto Eco has called an "Open Work", that is, a piece of art whose meaning is somewhat indeterminate and incomplete, and thus admits a myriad of contingent interpretations (carried out by the performer or the viewer) without fear of adulteration.¹⁴ Abstraction produces forms with flexible, indeterminate content. Correspondingly, modern industrial society has also been the process through which the formal city has disintegrated into the abstract process of urbanization, the generic habitat of absolute individualism based on the ideology of incommensurability and infinite growth propelled by constant movement and production:

[Urbanization] has blurred for good some of the dualities upon which previous subjects built their world, first and foremost the distinction between public and private, and, subsequently, the triad labour-work-vita activa. . . . Oppositions between work and otium, private and public, inside and outside cease to have any meaning, as the spaces we live in become increasingly hard to label as belonging to one definite sphere: work mingles with living, private with public, production with reproduction.¹⁵

Ludwig Hilberseimer's 1924 project for the Hochhausstadt (High-rise City) reveals this ethos by endlessly repeating the same generic building type across an abstract grid. The result is a hybrid of blocks



EDWARD BURTYNSKY, *TANGGU PORT, TIANJIN*, 2005

and slabs in which all civic activities, such as production, living and commerce, are superimposed rather than being isolated into specifically appointed zones. Hochhausstadt is a city of “anywheres” whose motors are movement, change and flexibility, and in which architecture has been reduced to pure abstraction: the lack of formal hierarchy stands for the lack of social representation,¹⁶ so the city is reduced to its reproductive conditions and form is detached from content. Hilberseimer realized and drew upon the fact that industrial Earth is “a world that no longer depends on the ‘real’ or ‘natural’ time or space”.¹⁷ Things like electric lighting, air conditioning, the division of labour and communication technologies have contributed to making “abstraction the hallmark of our experience of space and architecture, or lack thereof”.¹⁸ Networks, landscapes, globalization, junkspace, città diffusa, metapolis, postmetropolis, global city, space of flows, generic city – all of these concepts evoke a certain aesthetic of industrialization in their implicit praise of an ideology of infinity achieved through endless repetition and non-compositional seriality.

Abstraction is a result of the loss of referentials after the disappearance of the city/countryside dichotomy, the artificial-versus-natural world order. Abstraction is a by-product of the end of nature and the total pervasiveness of the urban. It is a symptom of artificiality. From a pessimistic viewpoint, it encourages a removal of the sense of place and its specific meaning, memory or message. But viewed positively, its indeterminacy can suggest a sense of openness and flexibility that allows other non-human points of view to be acknowledged. When perceived as an “open work”, abstraction can be the device that turns architecture into the background, causing it to switch places with “nature” and thereby reveal the non-human world. In other words, abstraction can be the aesthetic that causes domesticated design objects to abdicate their role as significant anthropocentric landmarks or symbols of human colonization in order to become minimalist background sculptures that enhance and interact with the geological designs of mountains, glaciers, fjords, lava fields and other such earthly things. Abstraction does not tell us about our special place in the world; it does not foster a sense of familiarity. On the contrary, it is ambiguous, it eludes, it raises questions. There is something uncanny about this aesthetic, but precisely for this reason it counters the objectification of nature, because it involves and implicates us in it as actors who can no longer be mere observers. Abstraction creates dark environments just as a film noir does with the detective who thinks he is investigating an external situation from a supposedly neutral point of view but then finds himself dramatically implicated in the story’s narrative.¹⁹

industrial earth

Artificiality is now a precondition of life on industrial Earth: a “world” of domesticated nature and wild urbanization well illustrated by J.M.W. Turner’s Impressionistic painting *Rain, Steam and Speed*, which portrays an eerie landscape of urban infrastructures dipped in sunset light and industrial mist. If the Neolithic Revolution gave birth to “the city”, then the Industrial Revolution gave birth to “the urban”, and if the first altered the natural environment, then the second abolished the concept of nature altogether. We live in an urban-industrialized civilization but at the same time pretend to ourselves that our real home is in the wilderness, in that “Nature” with a capital N. The trouble with this belief is that nature quietly expresses and reproduces the precise values that it pretends to reject: it acts like an oasis in the junkspace, which due to its exceptionality ends up perpetuating and endorsing the banality and dullness of that very junkspace. In other words, the aesthetics of Nature – rolling hills and unspoiled greenery – is what hides the fact that Earth in the age of the Anthropocene has become globally dominated by industrial exploitation.

In response to this ideological paradox, this research project aims to contribute to the development of a formal architectural language that goes beyond the aesthetics of nature and to an industrial aesthetics that goes beyond its classic opposition to nature – as Percy Bysshe Shelley once said, “We want the creative faculty to imagine what we know.”²⁰ We want to imagine an “ecology without nature”,²¹ where clean energy and environmental management embrace human and non-human needs in ways that go beyond an economy of preservation in terms of “visual impact”. We want to imagine post-anthropocentric landscapes in which human impact might be seen as a responsible act of cultivation rather than an embarrassing mutilation of the supposedly pristine wilderness. We want to imagine industrial buildings that interact with climate and its changes, collaborating, as Robert Smithson put it, with geology’s entropy and the massive scale of the landscape.²² We want to design non-polluting industries whose production loops recycle natural resources and abolish the concept of waste by creating buildings that do more than just exploit the environment by actually helping to cultivate it – “Waste equals food.”²³ In forwarding this approach, we hope to re-establish an integral non-aggressive relationship to living cycles of production and consumption whereby land “development could tend toward a sensuous culture . . . [and] labour would be diverted to the construction of an aesthetic rather than a repressive environment”.²⁴



J.M.W. TURNER, *RAIN, STEAM AND SPEED*, 1844

text notes

1. Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge, MA: The MIT Press, 2011).
2. These terms were coined and defined, respectively, by Bernardo Secchi, François Ascher, Edward W. Soja, Saskia Sassen, Manuel Castells and Rem Koolhaas.
3. Alberti said that "the city is like a large house and the house in turn is like a small city"; quoted in Peter Eisenman, "Introduction", in Aldo Rossi, *Architecture of the City* (Cambridge, MA: The MIT Press: 1982), p. 9.
4. The term was coined by Rem Koolhaas; see Koolhaas, "Junkspace", in OMA and Rem Koolhaas, *Content* (Cologne: Taschen, 2004).
5. The term was coined by Álvaro Domingues; see Domingues, *Vida no Campo* (Porto: Dafne Editora, 2011), p. 39.
6. Koolhaas, "Junkspace", p. 170.
7. Koert van Mensvoort, "Real Nature Is Not Green", *Next Nature* (6 November 2006), consulted online at <http://www.nextnature.net/2006/11/real-nature-isnt-green/> (accessed 15 July 2015).
8. Timothy Morton, *Hyperobjects, Philosophy and Ecology after the End of the World* (Minnesota: University of Minnesota Press, 2013), Kindle e-book.
9. According to the Kübler-Ross model, there are five stages of grief: denial, anger, bargaining, depression and acceptance.
10. Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (London and Cambridge, MA: Harvard University Press, 2007).
11. Buckminster Fuller, *Operating Manual for Spaceship Earth* (Baden: Lars Müller, 1969).
12. Morton, *Hyperobjects, Philosophy and Ecology*. Note that the "end of the world" here means the "traumatic loss of coordinates" that happens when humans are removed from the centre of the universe.
13. Robert Smithson, "The Pathetic Fallacy in Esthetics", in idem, *Robert Smithson: The Collected Writings*, edited by Jack Flam (Berkeley and Los Angeles: University of California Press, 1996), pp. 337–38.
14. Umberto Eco, *The Open Work* (London and Cambridge, MA: Harvard University Press, 1989), p. 4.
15. Pier Vittorio Aureli et al., *Rome: The Centre(s) Elsewhere* (Rotterdam: NAI, 2010), p. 56.
16. Aureli, *Possibility of an Absolute Architecture*.
17. Peter Halley, "Abstraction and Culture", in *Tema Celeste* (Autumn 1991), pp. 56–60.

18. Aureli, *Possibility of an Absolute Architecture*, p. 56.
19. Timothy Morton, *The Ecological Thought* (London and Cambridge, MA: Harvard University Press, 2010), Kindle e-book.
20. Percy Bysshe Shelley, "A Defence of Poetry", in idem, *Essays, Letters from Abroad, Translations and Fragments*, By Percy Bysshe Shelley, edited by Mary Shelley (London: Edward Moxon, 1821).
21. Morton, *Ecology without Nature*.
22. Robert Smithson, "Entropy and the New Monuments", in idem, *Robert Smithson: The Collected Writings*, edited by Jack Flam (Berkeley and Los Angeles, CA: University of California Press, 1996).
23. William McDonough and Michael Braungart, *Cradle to Cradle* (London: Vintage, 2009).
24. Herbert Marcuse, *An Essay on Liberation* (Boston: Beacon Press, 1969), p. 90.

recommended reading

- AURELI, Pier Vittorio, 2011. *The Possibility of an Absolute Architecture*. Cambridge, MA: The MIT Press.
- BRAUNGART, Michael and McDONOUGH, William, 2009. *Cradle to cradle*. London: Vintage.
- DESCOLA, Philippe, 2013. *Beyond Nature and Culture*. Chicago and London: University of Chicago Press.
- LATOUR, Bruno, *The Politics of Nature: How to Bring Sciences into Democracy*. Cambridge, MA: Harvard University Press.
- MARCUSE, Herbert, 1964. *The One Dimensional Man: studies in the ideology of advanced industrial society*. Boston: Beacon.
- MCKIBBEN, Bill, 1989. *The End of Nature*. New York: Random House.
- MORTON, Timothy, 2013. *Hyperobjects, Philosophy and Ecology after the End of the World*. Minnesota: University of Minnesota Press.
- MORTON, Timothy, 2010. *The Ecological Thought*. London and Cambridge, MA: Harvard University Press.
- MORTON, Timothy, 2007. *Ecology Without Nature: rethinking environmental aesthetics*. London/Cambridge, MA: Harvard University Press.
- SMITHSON, Robert and FLAM, Jack, ed., 1996. *Robert Smithson: The Collected Writings*. Berkeley/Los Angeles, CA: University of California Press.

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