

Postdigital (Non)human Databiocentrism

Teaser

From Noah's Ark to *The Jungle Book*, from the *Three Little Pigs* to Martian aliens: LAVA's *Life Hamburg* and *Forest City* projects evoke in the author rather surprising, non-digital associations of mere whimsical flashes of childhood memories. What if these were potentially genuine allusions to a potentially different, postdigital rapport between architecture and nature?

Nature, Oh Yes!

LAVA's mission statement seems to be characterised by two terms: 'architecture' and 'nature', both used five times.¹ Unsurprisingly so, since the practice commits to finding 'inspiration from nature'. A disciplinary stance with a rich heritage, whereby one of the most conflicted metaphors in the history of architecture.

In generic terms, architect Richard Coyne detects several 'discursive uses of the term "nature" in the context of architecture, landscape architecture and the built environment'. In *Network Nature* he explains how the older, somehow romantic approach sees nature as the 'metaphor of balance, harmony and beauty to which we must be attuned', whilst the more recent use diverges into two different metaphors. The analogical metaphor draws 'on parallels between biology and architecture in terms of shape, form, and process'; it now depends 'on algorithms, big data, and [...] at home with the idea of digital networks, mobile computing, social media and sensory feedback from the environment'. The evolutionary metaphor makes itself 'evident in the improvements of classes of artefacts over time' and is related to a 'salutogenic discourse [...] that encourages antagonism between the natural and the artificial'.² It is not difficult to identify all these rapports between architecture and nature in the way LAVA's projects are visualised, digitally modelled, and computed: a bit of romantic biocentrism here, some digital biomimicry there, but with a concerned eye on the natural as being under threat, and therefore integrated in their design agenda. This attitude, which resonates well with other equally grownup experimental 'digital' practices, is apparent in their *LIFE Hamburg* and *Forest City* projects.

However, these two projects evoke two rather surprising, 'non-digital' associations in me. Most probably mere whimsical flashes of childhood memories. Or, perhaps, alternative metaphors for, and potentially genuine allegories and allusions to, a hypothetical 'postdigital' rapport between architecture and nature. The first project reminds me of Noah's Ark, the second of an exotic, almost cartoonish Southeast Asian temple complex like Angkor Wat. Both accounts, one on a mystical boat and the other on Mowgli's jungle, refer to two divergent architecture-nature connexions: the ark as closed system to separate from nature, and the jungle temple as open system that allows nature to grow and propagate.

An Ark, Again!

Most readers will be familiar with Noah's Ark – as narrated in the Bible's *Genesis*, as well the Quran, and rooted in older Mesopotamian stories:

*'So make yourself an ark of cypress wood; make rooms in it and coat it with pitch inside and out. This is how you are to build it: The ark is to be three hundred cubits long, fifty cubits wide and thirty cubits high. Make a roof for it, leaving below the roof an opening one cubit high all around. Put a door in the side of the ark and make lower, middle and upper decks.'*³

Built as a large 135 meters long, 23 meters wide and 14 meters tall timber structure, the ark was commissioned by no less than the Lord himself to spare Noah, his family, and all the world's animals from the great flood. But no plants! Today we may agree that the story may be scientifically inaccurate: a recent study of 2021 estimates approximately 8.6 million animal species⁴, with over 99.9% of all species that ever lived on Earth (over 5 billion), already extinct.⁵ Nevertheless, the idea of the ark seems rather appropriate these days. It implies an artificial and built stronghold for biodiversity, which is drastically shrinking, particularly caused by human impact and the Holocene extinction; simultaneously a means to withstand extreme and adverse climate conditions, since sea levels are rising once again threatening vast inhabited areas.⁶

¹ <https://www.l-a-v-a.net/about-lava/>

² Richard Coyne, *Network Nature. The Place of Nature in the Digital Age*. London: Bloomsbury Visual Arts, 2018, p. 24.

³ <https://www.biblegateway.com/passage/?search=Genesis%205%3A32-10%3A1&version=NIV>

⁴ 'The vast majority of the 8.7 million are animals, with progressively smaller numbers of fungi, plants, protozoa (a group of single-celled organisms) and chromists (algae and other micro-organisms). The figure excludes bacteria and some other types of micro-organism.' <https://www.bbc.com/news/science-environment-14616161#:~:text=The%20natural%20world%20contains%20about,take%20more%20than%201%2C000%20years.>

⁵ <https://en.wikipedia.org/wiki/Biodiversity>

⁶ Furthermore, as an architect, one might easily consider the ark a pitched roof building that was designed to float, rather than a boat itself.

It is indisputable that humanity had and still has a profound negative impact on the planet. In the 1980s, cultural historian Thomas Berry named this new era, in which humans have changed the chemistry, the bio-system and the geo-system of the planet, 'Ecozoic'.⁷ More recently the term 'Anthropocene' emerged, coined in 2000 by atmospheric chemist Paul J. Crutzen and limnologist Eugene F. Stoermer to describe the present condition of irreversible geological alterations by human activities, whereby 'not a formally defined geological unit' yet.⁸

A Temple, Stone and Plastic!

Most readers will also be acquainted with the Cold Lairs, that abandoned city of temple ruins in Rudyard Kipling's 1894 *The Jungle Book* and inspired by the great archaeological site of Angkor Wat in Cambodia:

'Trees had grown into and out of the walls; the battlements were tumbled down and decayed, and wild creepers hung out of the windows of the towers on the walls in bushy hanging clumps.

*A great roofless palace crowned the hill, and the marble of the courtyards and the fountains was split, and stained with red and green, and the very cobblestones in the courtyard where the king's elephants used to live had been thrust up and apart by grasses and young trees.'*⁹

If the ark represents mankind's triumph to withstand nature with some serious help from the Heavens, the overgrown temple in the jungle signifies nature's resilience to overcome artificiality. Some of us might have watched the 2008-10 History Channel series *Life After People*, that speculates how the planet might change if humanity suddenly disappeared. Eventually, very little would remain of all human artefacts on Earth. It would take about 10,000 years for the last structures to decay: the last remaining ones would be the Great Wall of China, the Pyramids of Giza, the Hoover Dam and Mount Rushmore. After that, it is mostly plastic that would survive for another 50,000,000 years, before only fragments of stone structures and fossilised bones will remain.¹⁰

Ergo, if some fellow architects would like to build 'for eternity', only two materials hit the target: stone, and plastic. The first, indicating analogue nature, would be a predictable choice, since we know that only the third of *The Three Little Pigs* houses, that was made of bricks, survived the Big Bad Wolf's blows. Plastic, archetypically artificial and synthetic, comes more as a surprise: is it not one of the most concerning pollutants in the world? According to the Environmental Protection Agency, there are '8.3 billion tons of plastic in the world', '6.3 billion tons of that is trash', or approximately '55 million jumbo jets'.¹¹ Consequently, architects may now have to consider plastic as comparable to local stone. Any attempts to recycle and upcycle it into new (sustainable and ecological) building materials, for example through large scale 3D printing, might be a 'postdigital' way forward. Even more so if designed and deployed in the way of the jungle temple to accommodate nature's flora and fauna.

OOO, Nature Bye Bye!

Because time favours nature over architecture, it is therefore futile to think of the latter as more powerful than the first. It is insignificant whether one is designing and building with an ark or a jungle temple in mind. Nature is not a static entity! In fact, as I have argued elsewhere¹², throughout Earth's approximate 4.5 billion years lifespan, its climate, environment and hence nature have changed dramatically. 'Catastrophes are part of natural history', writes celebrated philosopher Slavoj Žižek in 'The End of Nature'. If nature 'is no longer a stable order on which we can rely,' continues Žižek, 'then our society should also change if we want to survive in a nature that is no longer the good caring mother, but a pale and indifferent one.'¹³ The list of catastrophes sounds scary indeed: earthquakes, famines, impact events, limnic eruptions, wildfires, avalanches, blizzards, floods, landslides, heat waves, storms, tornadoes, tropical cyclones, tsunamis, volcanic eruptions and so on.¹⁴ Imagine the amount and size of these cataclysmic natural disasters that occurred to transform for example, a coral reef into the Dolomites.

Humans, as we have heard, also matter tremendously when nature is at stake, despite the fact that scientists estimate a ratio of insects to humans of 200 million to one¹⁵, 10 quintillion (10,000,000,000,000,000,000) individual insects alive¹⁶, and all bacteria on Earth combined to be about 1,166 times more massive than all the humans¹⁷. Be reminded of writer Herbert George Wells' ending to *The War of the Worlds*, which saw germs and bacteria annihilate the Martian alien invaders.¹⁸ Alas, a hope for humanity, but not

⁷ <https://www.ecozoicstudies.org/ecozoic/2014/naming-a-new-geological-era-the-ecozoic-era-its-meaning-and-historical-antecedents/>

⁸ Working Group on the 'Anthropocene', 'What is the "Anthropocene"? – current definition and status', online at <https://quaternary.stratigraphy.org/workinggroups/anthropocene/>

⁹ <https://www.gutenberg.org/files/236/236-h/236-h.htm>

¹⁰ <https://lifeafterpeople.fandom.com/wiki/Timeline>

¹¹ <https://recyclecoach.com/resources/7-revealing-plastic-waste-statistics-2021/#:~:text=Globally%20to%20date%2C%20there%20is,how%20much%20plastic%20exists%20here.>

¹² Marjan Colletti, Peter Massin eds., *Meeting Nature Halfway. Architecture Interfaced between Technology and Environment*. Innsbruck: iup, 2018.

¹³ Slavoj Žižek, 'The End of Nature', Dec. 2, 2010, in The New York Times, online at <http://www.nytimes.com/2010/12/02/opinion/global/02iht-GA12zizek.html> accessed 26.10.2-17

¹⁴ Wikipedia: 'List of natural disasters by death toll', online at https://en.wikipedia.org/wiki/List_of_natural_disasters_by_death_toll

¹⁵ <https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=877>

¹⁶ <https://www.si.edu/spotlight/buginfo/bugnos#:~:text=Recent%20figures%20indicate%20that%20there,for%20every%20pound%20of%20humans.>

¹⁷ <https://www.vox.com/science-and-health/2018/5/29/17386112/all-life-on-earth-chart-weight-plants-animals-pnas>

¹⁸ 'For so it had come about, as indeed I and many men might have foreseen had not terror and disaster blinded our minds. These germs of disease have taken toll of humanity since the beginning of things--taken toll of our prehuman ancestors since life began here. But by virtue of this natural selection of our kind we have developed resisting power; to no germs do we succumb without a struggle, and to many--those that cause putrefaction in dead matter, for instance--our living frames are altogether immune. But there are no bacteria in Mars, and directly these invaders arrived, directly they drank and fed, our microscopic allies began to work their overthrow. Already when I watched them they were irrevocably

much of a relief now that for the past two years a virus has taken control over our lives.¹⁹ Undeniably, this astonishing sum of life forms has shaped the planet, too.

Object-oriented ontology (OOO) and anti-anthropocentrism philosopher Timothy Morton reminds us that 'we drive around using crashed dinosaur parts', and that iron and oxygen are 'mostly a by-product of bacterial metabolism'.²⁰ Along with Morton, fellow OOO philosophers Graham Harman, Ian Bogost and Levy Bryant propose a view of a denaturalised nature. In OOO, all objects – real and/or fictional, natural and/or artificial, human and/or nonhuman – are mutually autonomous and interlocked to each other. They therefore oppose correlationism and its 'anti-realist trajectory', which bases all philosophy on the mutual interplay of human and world, and anthropocentrism, which privileges 'humans as "subjects" over and against nonhuman beings as "objects"'.²¹ Harman alleges:

*'The more radical way of avoiding scientific naturalism is to realize that nature is not natural and can never be naturalized, even when human beings are far from the scene. Nature is unnatural, if the word "natural" is meant to describe the status of extant slabs of inert matter.'*²²

'Mother Nature is not good', proclaims Žižek; 'it's a crazy bitch'.²³ 'What we need', he maintains, 'is ecology without nature, ecology that accepts this open, imbalanced, denaturalized, if you want, character of nature itself.'²⁴ 'Strange as it may sound', approves Morton, 'the idea of nature is getting in the way of properly ecological forms of culture, philosophy, politics, and art [...] for it is in art that the fantasies we have about nature take shape – and dissolve.'²⁵ We may add: in architecture. As already mentioned, it has had a long-term relationship with nature as a metaphor, yet recently, it has engaged more profoundly with 'ecology' as a more relevant and critical agenda. As the famous BBC broadcaster, natural historian and author David Attenborough stated: 'It's surely our responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth.'²⁶

Datacentrism/Biocentrism, Both Actually!

The most attentive readers may have noticed that I have spent valuable real estate in this short essay to discuss an animal-centric architecture (the animal ark, the jungle temple) and animal-centric nature (bacteria, insects, extinct species). Animals play different roles in the abovementioned stories. If in the *Genesis* they are passive and in captivity, King Louie and the monkeys are active and the inhabitants of disused architecture, whilst the *Three Little Pigs* proudly build their own houses (with more and less successful strategies, as we know). The hybrid vision of a world overpopulated by insects and saved by bacteria with an artificial fantasy animal-ruled world, from *Aesop's Fables* to *Walt Disney's* universe with over 800 animal characters²⁷, from the intelligent non-human hominoids in the *Planet of the Apes* to the anthropomorphic mammal citizens of *Zootopia*, does not sound too unnatural then, especially once we acknowledge the concept of a denaturalised nature as in OOO.

In such denaturalised nature, bio-based and data-based entities are equal. Consequently, biocentrism and datacentrism no longer describe juxtaposed concepts. Coyne writes:

*'Biocentrism emphasizes nature, life and life processes rather than culture. It moves away from an anthropocentric world view and supports the agency and unity of all life, with an emphasis on flux, change and impermanence rather than stasis.'*²⁸

Datacentrism, we may add, may do the same. This is one of the potential narratives of a 'postdigital' understanding of nature. It picks up where the digital ended: with the obsession with user data, from individual biodata to collective big data. The 'postdigital' blurs these boundaries even further, but with more respect towards privacy and a decentralised strategy to democratise digitality. Consequently, denaturalisation and decentralisation might lead to the merger of biocentrism and datacentrism. Perhaps the super-artificial hyper-digital mega-dynamic 'postdigital' Metaverse, with zero nature and zillion human and nonhuman avatars and entities, may turn out to be the theoretically most ecologically viable human habitat, if we disregard for a moment the practical

doomed, dying and rotting even as they went to and fro. It was inevitable. By the toll of a billion deaths man has bought his birthright of the earth, and it is his against all comers; it would still be his were the Martians ten times as mighty as they are. For neither do men live nor die in vain.' <https://www.lehigh.edu/~amsp/2005/07/opening-and-closing-of-war-of-worlds.html#:~:text=And%20here%20is%20the%20paragraph,ancestors%20since%20life%20began%20here>.

¹⁹ Viruses occupy a special taxonomic position and are not considered animals. <https://www.britannica.com/science/virus>

²⁰ Timothy Morton, *The Ecological Thought*. Cambridge, Massachusetts and London, England: Harvard University Press, 2010, p. 29.

²¹ Wikipedia, 'Object-oriented ontology'.

²² Graham Harman, *Guerrilla Metaphysics. Phenomenology and the Carpentry of Things*. Chicago and La Salle, Illinois: Open Court, 2005, p. 251.

²³ 'Slavoj Žižek, 'Wake up and smell the apocalypse'', interview by Liz Else - New Scientist, 9/01/10, article originally appeared in New Scientist online at <https://io9.gizmodo.com/5627925/slavoj-zizek-wake-up-and-smell-the-apocalypse>

²⁴ Slavoj Žižek, 'Ecology without Nature', Athens 2007 (4/6), lecture online at <https://www.youtube.com/watch?v=NyzTif1QJJA>

²⁵ Timothy Morton, *Ecology Without Nature Rethinking Environmental Aesthetics*. Cambridge, Massachusetts, and London, England: Harvard University Press, 2007.

²⁶ <https://www.wwf.org.au/news/blogs/10-best-nature-quotes-from-sir-david-attenborough>

²⁷ <https://www.buzzfeed.com/audreyworboys/how-many-disney-characters-can-you-name>

²⁸ Coyne, *Network Nature*, p. 27.

problems of carbon emissions produced by data. However, we still must wait to truly understand what the architectural consequences to this trajectory may be.

For architecture, it may be very exciting. Its core expertise is the design of a habitat – meaning the choreography of human behaviour but also of nonhuman behaviour, i.e., the performance of materials, forms, spaces, things, objects, forces, plants, animals, simulations, virtualities, data etc. It hence may be avant-garde again, securing ground in advance of the rest. But it remains clear that it is us humans that must change our attitude to save the planet, and not all other nonhuman agents. LAVA's statement that 'above all the human is the centre of their work' is therefore still valid to me.²⁹ But beware: this human can no longer be the lazy and irresponsible 'digital' consumer of architecture and nature, but the spirited and conscientious 'postdigital' architect of both these wonderful resources. Perhaps Earth will then again be able to be equally ark and temple of both architecture and nature, whatever they may be.

About the Author

Architect Dr. Marjan Colletti is Tenured Professor of Architecture, Building Technology and Postdigital Practice. Academic achievements include co-directing the Architecture MArch, the professionally accredited postgraduate programme at The Bartlett UCL London; founding REX|LAB, the robotic experimentation lab at the Institute for Experimental Architecture, which he chaired since 2013 at the University of Innsbruck; guest-professorships in Los Angeles California and Arlington Texas in the USA and in Vienna Austria. An award-winning architectural designer and renowned advocate of the openness, transdisciplinarity and hybridity of architecture, he acts as scientific reviewer for several major funding bodies and scientific consortia in the EU, UK, USA, UAE, Australia, Canada, Russia, Switzerland etc. He has exhibited approx. 100 times in international venues and lectures regularly on the contemporary paradigms of design-research and research-led education. Major published books include the 80th anniversary issue of *AD Exuberance* (Wiley), the authored *Digital Poetics* (Routledge) and *Interfaces|Intrafaces* (Springer Wien/NewYork), and the edited *Meeting Nature Halfways* (iup).

Photo (also attached)



²⁹ <https://www.l-a-v-a.net/about-lava/>

Illustrations

ARK:



<https://www.alamy.com/the-noahs-ark-on-mount-ararat-1570-artist-de-myle-simon-active-ca-image66581063.html>
or



<https://www.alamy.com/stock-photo-detail-of-painting-the-ark-ca-1700-by-lodewijk-tieling-33915508.html>

TEMPLE:



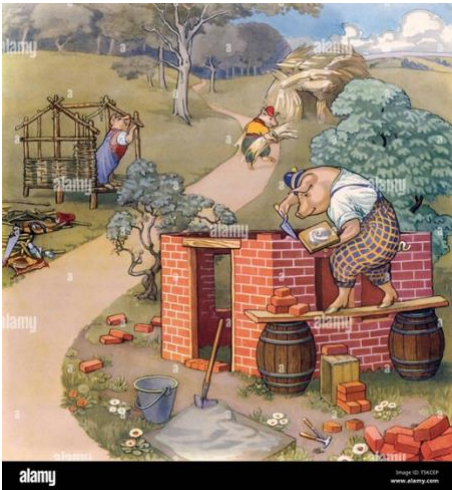
<https://www.imdb.com/title/tt0110213/mediaviewer/rm1221890561/>

or



<https://www.alamy.com/stock-photo-the-jungle-book-year-2016-usa-director-jon-favreau-neel-sethi-key-105618760.html>

PIGGIES:



<https://www.alamy.com/three-little-pigs-building-their-houses-in-a-1920s-illustration-image244445342.html>

AESOP:



<https://www.alamy.com/the-hare-and-the-tortoise-the-fables-of-sop-and-others-translated-into-hum-w-kent-co-london-1857-the-hare-and-the-tortoise-image-taken-from-the-fables-of-sop-and-others-translated-into-human-nature-designed-and-drawn-on-the-wood-by-charles-h-bennett-etc-originally-publishedproduced-in-w-kent-co-london-1857-source-12305g11-opposite-18-language-english-author-aesop-bennett-c-h-swain-j-image226871188.html>

ZOOTOPIA:



<https://www.alamy.com/stock-photo-release-date-march-4-2016-title-zootopia-studio-walt-disney-pictures-103869975.html>