



**An
Anticipatory
Theory
of Ruin
Ecology**

By Jason Rhys Parry



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the new natives
of an altered nature**

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Ruins

“Though they may not like to dwell on the fact, architects are walking, talking, ruin-making machines.”

As the geography of the habitable earth shifts in response to drought, extreme weather events, and rising sea levels, ruins are increasingly the architectural default rather than the exception, says Jason Rhys Parry. With this in mind, he argues architects should adopt a less anthropocentric approach to architecture and anticipate their buildings as “neoreugia” for wildlife – biodiversity hotspots of the future.

Nestled at the foot of one of the restored stone walls of Ljubljana Castle, the medieval fortification that towers over the Slovenian capital, one can find a small, rocky patch of earth. In the February chill, only a few strands of unassuming grass peek out above the soil, taking sips of the intermittent sunshine. But a plaque near this patch of soil hints at a rich botanical history. The text of the plaque, written in Slovenian and English, reads: “Fleischmann’s parsnip is our endemic plant, which can no longer be found in a natural environment. Andrej Fleischmann (1804-1867) discovered it on the Castle Hill and transferred it to the Ljubljana Botanical Garden. In 2011, the Fleischmann’s parsnip was again transferred to the Ljubljana castle.”

Thus, among the sparse green buds of this inconspicuous patch of soil rest the roots of a rare parsnip, unknown to science until its discovery by Fleischmann, who worked for decades as a gardener in Ljubljana’s botanical garden. The parsnip, which now bears Fleischmann’s name, *Pastinaca fleischmanni*, sparked such intense interest from botanists seeking specimens for their collections, that some scholars blame their acquisitive zeal for its eventual disappearance from the castle grounds. Luckily, the parsnip’s descendants lived on at the city’s botanical garden before being reintroduced to the castle where it now thrives once more.¹

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Previous spread:
house in the historic suburbs of Linz, Austria (2016).
Image: Liberaler Humanist
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¹ Nada Praprotnik, Jože Bavcon and Blanka Ravnjak, *Fleischmann’s Parsnip / Fleischmannov Rebrinec* (Ljubljana: University Botanic Gardens Ljubljana, 2017), p. 53.

“The Fleischmann parsnip is a native of an altered nature. It is a child of the Anthropocene.”

2 Ibid.

3 Oli Lewis and Naama Shilony, “Bats Occupy Israeli Army Ghost Bunkers,” *Reuters*, January 27, 2012, [reuters.com/article/us-israel-bats/bats-occupy-israeli-army-ghost-bunkers-idUSTRE80QO-NI20120127](https://www.reuters.com/article/us-israel-bats/bats-occupy-israeli-army-ghost-bunkers-idUSTRE80QO-NI20120127) (accessed April 24, 2020).

4 Charlie Gates, “Urban Bird Colony in Ruins of Former Office Block in Christchurch,” *Stuff*, November 5, 2019, [stuff.co.nz/the-press/news/117183089/urban-bird-colony-in-ruins-of-former-office-block-in-christchurch](https://www.stuff.co.nz/the-press/news/117183089/urban-bird-colony-in-ruins-of-former-office-block-in-christchurch) (accessed April 24, 2020).

5 Saeb Rawashdeh, “Wildlife Thrives in Jordan’s Ruins – Scholar,” *Jordan Times*, October 29, 2018, [jordantimes.com/news/local/wildlife-thrives-jordans-ruins---scholar](https://www.jordantimes.com/news/local/wildlife-thrives-jordans-ruins---scholar) (accessed April 24, 2020).

Architects can learn a lot from this parsnip, as well as from the castle in which it evolved. Although the survival of a rare root vegetable may seem somewhat inconsequential in an age of mass extinction, the story of the Fleischmann parsnip hints at a new potential role for architecture in the restoration of the biosphere.

The architecture of Ljubljana Castle created the conditions for the preservation of a unique genetic mutation. As such, the plant poses a conundrum for traditional methods of botanical taxonomy. Following convention, the plant is listed as “extinct in the wild.”² But this classification is misleading. As far as we know, the plant never lived in the wild. While the classification “extinct in the wild” is typically used to denote those species that are kept alive in non-natural habitats after being driven from their native homes, the Fleischmann parsnip is a native of an altered nature. It is a child of the Anthropocene.

In ruins across the world, we can see a similar dynamic unfolding. Buildings originally constructed for human occupants are finding second lives as dwelling spaces for endangered species. Crumbling military bunkers dotting the stretch of land between the Dead Sea and the Sea of Galilee shelter species of bats facing extinction elsewhere.³ An abandoned office block in Christchurch resounds with the squawking of the world’s most threatened seagulls.⁴ And at the feet of weathered columns lining the ancient city of Gedara, situated in modern Jordan, vulnerable Greek tortoises chew on abundant wildflowers.⁵

As these examples demonstrate, endangered animals have wide-ranging aesthetic tastes. From their perspective, the merits of architecture are largely tangential to any question of style. Rather, their attraction to ruined buildings has more

Archifutures

to do with the microclimates produced by their materials, the ability of extant walls and fences to fend off predators, and the capacity of lintels and rooftops to serve as functional substitutes for tree canopies and nook-filled cliff faces.



By adopting a nonhuman perspective on architecture, we can perhaps begin to move past some entrenched debates in architectural theory. In an age of imminent ecological collapse, well-rehearsed disputes about the politics of form – about the totalitarian or emancipatory potential of competing aesthetic tendencies – seem increasingly ancillary to the real political decisions facing architects: decisions, ultimately, about what kinds of beings architecture might help survive a swiftly changing environment. The discovery of ruined buildings that operate as de facto biodiversity hotspots hints at a role for architecture in mitigating the worst losses of the ongoing extinction crisis. But developing this capacity

Granulose orange lichen (*Caloplaca granulosa*), a near-threatened species growing in Corfe Castle's ruins in Dorset, UK, a sanctuary for lichens. See: [news.bbc.co.uk/2/hi/uk_news/england/hereford/worcs/7155780.stm](https://www.bbc.com/news/uk-news-england-hereford-worcs-7155780) (accessed August 03, 2020).
Image: EOL Learning and Education Group, CC BY 2.0

for architecture to preserve nonhuman life will require a reorientation of architectural thinking. In short, we need less intradisciplinary critique and more study of plant and animal metabolisms, trophic networks, and niche construction for other species.

Opening architectural practice to these considerations will also require some humility, particularly on the part of architects perhaps unaccustomed to viewing the act of building as an act of deferred ruin production. Despite surveys of the service lives of buildings revealing that most edifices continue functioning for less than half a century on average, architectural theory remains in thrall to what Jane Jacobs and Stephen Cairns have called a “natalist fantasy” – a preoccupation with freshly finished buildings and a denial of architectural mortality.⁶ This fixation is clearly evident in the noticeable discrepancy between the actual lives of buildings, which, if they survive demolition, will spend most of their existence as ruins, and the glossy renderings of architectural magazines showing bright unweathered buildings that seem to stand outside of time. Architecture’s tendency to focus on novel designs looks increasingly at odds in the face of a growing profusion of ruins worldwide. In the United States, hundreds of shopping malls and millions of homes have been abandoned.⁷ In countries as distant as Italy and Japan, policymakers and politicians are struggling to arrest the terminal decline of depopulated towns and villages.⁸ Climate change further threatens to spur mass ruination events, as the geography of the habitable earth shifts in response to drought, extreme weather events, and rising sea levels. Ruins are increasingly the architectural default rather than the exception.

One might (and many do) bemoan the ephemerality of contemporary buildings and contrast the relative

6 Stephen Cairns and Jane Jacobs, *Buildings Must Die: A Perverse View of Architecture* (Cambridge: The MIT Press, 2014), 29. For a review of average building service lifespan by country see: John Storey, “Designing for Durability,” in *Design for Sustainability: A Sourcebook of Integrated, Eco-logical Solutions*, ed. by Janis Birkeland (London: Earthscan, 2002), pp. 46–49.

7 Richard Florida, “Vacancy: America’s Other Housing Crisis,” *CityLab*, July 27, 2018. citylab.com/equity/2018/07/vacancy-americas-other-housing-crisis/565901 (accessed April 24, 2020).

8 For statistics on abandoned villages in Japan, see: Jenna Wang, “Waiting For The End In Japan’s Terminal Villages,” *Forbes*, July 31, 2019, forbes.com/sites/jennawang/2019/07/31/waiting-for-the-end-in-japans-terminal-villages/#5ba785ea1e03 (accessed April 24, 2020). For similar figures for Italy, see: Silvia Marchetti, “Italy’s Rural Villages are Dying Out,” *Politico*, April 28, 2015. politico.eu/article/italy-ghost-towns-emigration (accessed April 24, 2020).

impermanence of modern construction methods and materials with the more enduring practices of previous ages. But the short lifespans of today's buildings present something of an opportunity. Across the world, efforts are being made to "rewild" ecosystems – a practice generally intended to return ecosystems to some earlier, more biodiverse state.⁹ It may seem at first as if architects have little to contribute to such initiatives. After all, would not rewilded environments ideally be devoid of such blatant anthropogenic intrusions as buildings? But the ability of human ruins to function as animal habitats raises the possibility of architectural practice facilitating rewilding programmes.

By identifying those features of ruins which make them attractive homes to endangered species, it should be possible to construct buildings with these features built in, so to speak – to design wildlife refuges in waiting. Ecologists studying the diversity of animals and other organisms thriving in ruins even have a term for these peculiar environments: "neorefugia."¹⁰ This term applies to small, newly-created areas able to support organisms that cannot be found in the surrounding landscape. The particular utility of ruins in establishing such neorefugia stems from their ability to concentrate a variety of ecological niches within a relatively confined space. One study of endangered molluscs discovered dwelling in medieval castles across the Czech Republic found that the tops of castle walls support one set of species while the shaded corners where the walls meet harbour yet another.¹¹ Different species can be found on the sheltered and exposed sides of towers, where different patterns of material accumulation and rainfall deposition create slightly different soils. By studying these instances and other similar ones, architects can learn how to maximise the number of potential habitats hidden, latent within their buildings. Furthermore, by attuning

"Climate change further threatens to spur mass ruination events."

⁹ Dolly Jørgensen, "Rethinking Rewilding," *Geoforum* 65 (2015): pp. 482–488.

"It should be possible to construct buildings with these features built in – to design wildlife refuges in waiting."

¹⁰ Jeffrey Nekola, "Paleorefugia and Neorefugia: The Influence of Colonization History on Community Pattern and Process," *Ecology* 80 (1999): pp. 2459–2473.

¹¹ Lucie Juříčková and Tomáš Kučera, "Ruins of Medieval Castles as Refuges for Endangered Species of Molluscs," *Journal of Molluscan Studies* 71, no. 3 (2005), pp. 233–246.

their buildings to local ecological conditions, architects can customise these pre-emptive strategies to accommodate the needs of certain species. We can imagine whole towns that anticipate their own rewilding – blooming into islands of biodiversity as their former human occupants depart.



Abandoned synagogue in Romania. Image: Romain Thiery

What I am suggesting is the conceptual inverse of the Nazi architect Albert Speer's "theory of ruin value."¹² Speer endeavored to create buildings whose ruins would serve to glorify the German empire that built them. Against Speer, let me posit an anticipatory theory of ruin ecology. With this theoretical approach, we can begin to build environments that actively participate in the restoration of the biosphere by serving as scaffolds for rewilded ecosystems.

¹² Albert Speer, *Inside the Third Reich* (New York: Simon & Schuster, Inc., 1970), p. 56.

The writer Geoff Manaugh describes plant species that can indicate the likely presence of archeological sites underground.¹³ By examining these plants, one can detect traces of past human activity. But what if the reverse were possible? What if examinations of buildings could reveal the likely future existence of profusions of plants and animals? Upon examining these buildings, one may begin to discern the kinds of species for whom the structure might one day become a home – tracing the slow arc from building to ruin to neorefugia.

Although we tend to associate ruins with dystopian futures, the theory of ruins I have outlined here is guided by a profound optimism. The living ruins established by means of the kind of intentional design practice I have proposed would not be artifacts of a broken culture, but a healing one. Though they may not like to dwell on the fact, architects are walking, talking, ruin-making machines. This need not be a bad thing. Indeed, it can be a wonderful thing for biodiversity. And, in this respect, an anticipatory theory of ruin ecology can help. ■

13 Geoff Manaugh, "Detection Landscapes," *Bldgblog*, November 21, 2011, bldgblog.com/2011/11/detection-landscapes.