Urban Amazonia: an Interview with Ana María Durán

Blanca Begert, MESc '20

scholar at YSoA and teaches a seminar on the history of cities in Amazonia. In a conversation last week, we discussed the urban character of Amazonia and the politics of resource extraction in the forest. The ful interview is available online at yalepaprika.com.

B: Brazilian geographer Bertha Becker called Amazonia a "foresta urbana," an "urban forest." Even knowing that there are over 33 million people living in Amazonia, it's still surprising to hear this region referred to as an urban forest. What do you think of this characterization? A: The first time I understood there were cities in the Amazon was when I went to Manaus when I was 15 years old. We stayed in a hotel at the edge of the city and that edge marked me. It's not like this everywhere in the city, but at that instance it was a manichaeic, hard edge of forest and city, brutally disarticulated from each other. Having grown up with this idea of Amazonia as a pristine wilderness, I was shocked. This was a huge city in the middle of Amazonia, full of industrial sites.

The urban history of Amazonia goes all the way back into pre-colonial times. One of the more recent chapters during which Amazonian cities prospered was during the first industrial revolution in England, when the demand for latex soared. The rubber tree is endemic to the Amazon and at the end of the 19th century Amazonia was the only area where latex existed. Imagine all tributaries of the Amazon basin suddenly becoming these hinterland economies that each have a system of cities in place, and an entrepot, a collection point for trade,

system, analogous to what is happening with other extractive systems now. It was brutal there. Indigenous communities everywhere were being enslaved to tap rubber. We're still living the same story. The resource is different, but you still have systems of slavery, immense violence, abuse, accumulation, the barons in Latin America, and the beneficiaries in other empires. Once the rubber plant was bio-pirated and taken by the British to the colonies in Southeast Asia, these economies in the Amazo

collapsed—but what a relief for Amazonians. In Jim Scott's Adrarian Societies class, we talked about how the state relies on simplified, knowable units to govern. Can you talk a little bit about the relationship between the state and Amazonia? A: Jim Scott's book Against the Grain has been so helpful for me in terms of understanding Amazonia and the non-panoptic vision. I think Amazonia has such a negative relationship with the state because you cannot control it. In order to apply visual control mechanisms, you have to destroy the forest. Bolsonaro has tried to do this. But if you destroy it, you fall down with it. The resource appraisals we do in Amazonia are all about our ability to see it from above with satellites. But the Amazon is non-Foucauldian. It's not a panopticon. Amazonia drives the state crazy. Any loophole the state creates is countered by some resistance, some structure that the state doesn't know how to deal with. It's the condition of the forest. The canopy is not a site for visual power. It's a place for sounds, spatiality, water, it's a different kind of place. There is a local knowledge of water routes that is beyond our access. Amazonia defies the West and our systems at every level, that's why we crack down there. B: We talk about informal cities and you refer to them in

that's not the case with these cities. Latin American scholars tend to prefer "auto-construido" which means "self-built:" the city that is built by all the people who have not been incorporated into the capitalist systems and are not part of the market or the state. Mike Davis calls them the "surplus" humanity. I'm not sure if I like that term, because he's looking at it from the center outwards, though of course he is using it in a very cynical, Marxist way, to critique capitalism. People refer to "frontier cities." Here I give credit to Susanna Hecht, who once said to me, "Frontier? From whose perspective?" We're advancing into Amazonia

quotes. Is "informal" not the right way to be thinking of

It's hard to name it. Informal means lacking form, and

so it's a frontier of extraction, the oil frontier, the soybean agribusiness frontier. But from the perspective of indigenous peoples it is not a frontier at all, it's

"Frontier" needs to be questioned as a concept urgently because it has to do with jurisdiction, land tenure, and security. Indigenous populations are being dispossessed once again because our ontologies don't take them into account. They don't have the same property system as us. We try to impose ours and kick them out. It's a continuous clash. So many people die in Amazonia every month due to land conflicts. In the abstract world, the market is this benign mechanism of exchange. On the ground, it has a brutal, violet, geopolitical side. Just look at the article by Judith Kimerling for the Vermont Law Review—the oil companies were throwing bombs from the air into Waorani settlements to open the

ground for extraction.

ON THE GROUND

Tuesday 2/18 At a "How to Start a Firm" panel, Carmel Greer advises students not to socialize with or date other architects in their free time. Anti-social members of the audience feel validated in not attending a 6on7 in two-and-a-half years.

Hours before the opening of In Memoriam, the new student-curated exhibit in the North Gallery, an all-school email hits inboxes looking for Erin Besler's 2'x2' "cookie-shaped" model which has

Lizabeth Cohen presents her "Saving America's Cities" lecture to a packed crowd in Hastings Hall. Cohen paints a rather rosy glow over the history of Ed Logue's Urban Renewal in New Haven (and sells autographed copies of her book at the

"Today is both Louis Kahn and Rihanna's birthdays. Can you imagine them being one continual karmic soul?" - Scott Simpson, M.Arch I 2021. (Co-incidentally we learned the 20th was Dean Berke's birthday as well).

Friday 2/21

Outlines hosts a "Queer Takeover" of 6on7, flooding the 7th Floor back pit with LGBTQ students from across Yale's Graduate Schools. Decorations include a groin vault of balloon arches, the stuctural integrity of which was questionable at best

Sunday 2/23

With a midnight deadline to submit resumés and work sample sheets for the career fair, a wave of melancholy spreads throughout the studios as students are forced to come to terms with their past work. Recalling the time, stress, and sleeploss involved, many are dumbfounded at how little they have to show.

Monday 2/24

With less than a day before BP presentations, first year students find themselves in model-making crunch time only to discover the hop closed due to a post-

lecture reception. Dismay, rage, and stress are met with a color-changing gin that turns from bright blue to magenta with a squeeze of lemon. An email from the university warns that the CDC has placed Italy at a Level 2 alert due to coronavirus. Rumors fly around the fifth floor that the administration is considering the viability of this

Second year students threaten to drop out of school at the suggestion of the reinstatement of the Brooklyn trip, and grit their teeth at the idea of sketch books filled

Welcome to the Dean's List: your weekly destination for Deborah Berke's most on-topic, off the beaten path rankings.**

Dean Berke: "My favorite mushrooms... Note that I do really like mushrooms of ALL kinds, especially sautéed in butter (in the winter) and raw in a salad of thinly sliced celery and fennel with vinaigrette (in the summer)."

Penthouse-Porcini 7th Floor-Portobellos 6th Floor-Morel 5th Floor-Cremini 4th Floor-Chanterelles Basement-Enoki Sub-Basement-Chicken of the Woods

**Discarded from the rankings: Matsutake, wood ear, Toad (of Nintendo's Super Mario fame), Psilocybe cubensis (magic mushrooms), and Amanita muscaria (Santa's reindeer mushrooms). Dean Berke: "Toad is cute, legal and mindlessly distracting. Psilocybe cubensis is definitely distracting and is only legal in the Bahamas, Brazil, Jamaica, the Netherlands, and Samoa."



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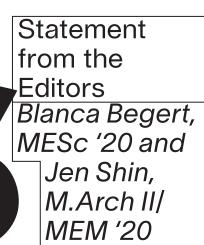
Coordinating Editors: Angela Lufkin Adam Thibodeaux Sarah Weiss Max Wirsing

Graphic Designers: Yuan Gao Wenwen Zhang

Publishers: Audrey Tseng Fischer Morgan Kerber Liwei Wang

Web Editor: Seth Thompson

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Humans have lived in intimate relationship with so-called "Wild" landscapes since time immemorial. But our current notion of Wilderness is a fabrication, an ongoing colonial project of cleansing under a racialized veil of purity.[1] It relies on a myth of nature without people, consecrating the

human-nature binary. The separation of nature and culture is a feature of the "one-world world," the Eurocentric vision that there is only one reality, which can be understood through the modern Western sciences.[2] The one-world world "present[s] itself as exclusive and cancels the possibilities for what lies beyond its limits."[3] It inscribes its ideas of who should be in the Wild, and what they should be doing there, on the landscape itself.

The production of Brandon Jacobs-Jenkins's Girls at the Yale Repertory Theatre this fall evoked a lush jungle. Plants in every shade of green glowed onstage, enshrouded in mist. Insects hummed in the background. In this Edenic, mystical forest, Deon, the Dionysius character in this riff on Euripides's *The Bacchae*, sets up a sound system Soon, the jungle transforms into The Clurb. Selfidentified "girls" flock to the forest to air their grievances against society and let loose. To the white, male law enforcement in town, these black, brown and queer bodies dancing in the forest are deviant and untamed, a threat to be controlled with violence. These people aren't supposed to be in this park, acting like this in the woods. Challenging a rigid, singular ideal, Girls teaches us to consider another kind of Wilderness, messy and impure, composed of a plurality of voices,

and realities. For this issue of *Paprika!*, we invited contributors to enter into a radical rethinking of Wilderness. We received a diverse cast of submissions some from architects, some from scholars in other fields—all searching for cracks in the artifice of the human-nature binary. Many of these contributions, themselves acts of optimism, experiment with ways to "relinquish our hold on the one-world world" and "embrace

relationships,

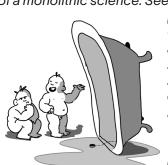
pluriversality."[4] With regards to the Western notion of "Wilderness," the point is not to throw the baby out with the bathwater, because, in fact, there is no baby to be found.[5] Instead, our contributors commune with archival mold, reframe the layers of the Camargue, orienteer the contradictions of the Guadalupe Mountains, reject Mars, reimagine land sharing, and encounter living rocks. In sum, they embrace multiple realities, co-existing and intersecting across space and time. As a practice, this type of work opens us up to new modes of thinking about our role here on earth. By engaging alternate methods of seeing and understanding the world around us as neither natural and wild, nor fabricated and controlled, we hope this issue serves as an entry point into the larger collective and ongoing work of reimagining our planetary relationships and opening spaces for abundant futures.[6]

1] Kosek, Jake. 2006. "Racial Degradation and Environmental Anxieties." 142-182. in Understories: The Political Life of Forests in Northern New Mexico, Durham, NC: Duke University Press. [2] Law, John. 2015. "What's Wrong with a One-World World?" Distinktion: Journal of Social Theory 16(1):

[3] Cadena, Marisol de la, and Mario Blaser, eds. 2018. A World of Many Worlds. Durham: Duke University

4] At this month's International Society of Tropical Foresters conference, Juanita Sundberg challenged he audience to "relinguish our hold on one-world world, which gives us so much authority, and embrace pluriversality, an openness to other ways of being and

[5] See Sandra Harding's introduction to Whose Science? Whose Knowledge?: Thinking from Women's Lives where she calls for the creation of diverse New Sciences rather than a complete overhaul of a monolithic science. See also our weekly cartoon.



[6] Collard, Rosemary-Claire, Jessica Dempsey, and Juanita Sundberg. 2015. "A Manifesto for Abundant Futures." Annals of the Association of American Geographers 105(2): 322–30. https://

llustration by Paul Meuser, M.Arch I, '22

Orientation to Life in Guadalupe Mountains National Park, A Protected Wilderness Two Hours into the West-Texas Desert from El Paso Claire Gorman, Yale College '20

Your home is marked by El Capitan, which is visible on the horizon from about 70 miles away. It is a sacred peak of the Mescalero Apache and a historic wayfinding sentinel that towers over salt flats scarred with tire tracks.

Your address is in Salt Flat, TX, but that's a technicality. Salt Flat is nothing more than an abandoned café on the side of the highway that now functions as a greyhound bus stop (though it still has a working vending machine outside). You live another half-hour past it, at the base of the mountains. There is no food or gasoline within 35 miles.

These mountains are the fossilized reefcovered banks of the Permian Sea. And the same geology that created the wilderness spectacle of the park has spurred the Permian Basin oil boom. From your porch you can look out into the endless flatness of ranch land and desert plains below—during the day it will appear completely empty, but at night you will see a mirage like a sprawling city, glowing with the flames of the oil flares. Here, you will follow a trail to its pine-covered peak, 1

engulfed in a cloud that masks 100-foot cliffs. You will not see a single person on this journey. You will drive through fifty miles of fracking and oil fields to get to the site where the radioactive byproducts of nuclear testing are stored in underground salt caves, so that you can

get your fingerprints taken in an office cubicle. You will descend hundreds of feet into the surreal, enormous, cold, glowing caverns at Carlsbad, and emerge blinded by clear sunshine when the elevator

You will drive every day past a prefabricated and fully furnished home, wrecked on the side of the highway from when wild grassland winds blew it off of a truckbed. You will watch it slowly be looted and dismantled, and one day speed by to notice only a pile of ashes.

You will hike across the blinding gypsum dunes of White Sands National Monument until a sign warning of the unexploded munitions of Alamogordo tells you to turn around.

You will rumble out to the preserved historic home of an early twentieth century petroleum geologist to reprimand the police force staying there for setting a bonfire on protected land.

You will load up a pickup truck with bottled water as the sun sets and bump along an unmaintained service road to rescue a tourist stranded in the desert after setting out for a day hike without a

You will swim in an inflatable firefighting water tank and play gritty sand volleyball with park rangers in the

You will hear that the most complex machine allowed for wilderness maintenance is a mule. If a tree falls across a trail, your park ranger roommate will tell you, a maintenance person must hike to it with a pack animal carrying water and a handsaw.

You will hear that the department of transportation has landed a helicopter on the peak of the sacred

And your boots will always walk on roughly cobbled trails, whose bedrock sides bear simultaneously the inscriptions of marine fossils and the scars of dynamite.

Usufruct Rhea Schmid, M.Arch L '20 and Maya Sorabjee, M.Arch I '20

Usufruct, n. The right to enjoy the use and advantages of another's property short of the destruction or waste of its substance. [1] Up until the North American Free Trade Agreement (NAFTA) was implemented in 1994, much of Mexico's border region was composed of ejidos, large swathes of communal agricultural land leased in usufruct by the government, on which groups of farmers grew crops and raised cattle. The word usufruct is built with two parts that describe what one can do with a given piece of land usus, the right to use and take pleasure, and fructus, the right to derive profit, or bear fruit. Usufruct excludes a

third element, abusus, the right to abuse or destroy land

which is a right reserved for full property owners.

While usufruct rights meant that Mexican farmers remained dependent on the state as the true owner of the land, it encouraged a condition of sustainable production — the capacity to live and work with the earth in a regenerative, nondestructive manner. Usufruct works against the pervasive dream of property ownership and requires trust in the benevolence of an entity that may not always be so. Its success is rare but its underlying principle might generate new alternatives to the present paradigm of the abused city versus the untouched wilderness. In Havana, for instance, urban farms called organiponicos have proliferated on sites leased in usufruct by the government, sometimes on small infill plots in the heritage district.

In anticipation of the manufacturing boom that would come with NAFTA, a 1991 modification to the Mexican constitution allowed the privatization of ejidal land. Factories have since sprung up by the hundreds, dumping their waste in the desert and polluting the water supplies of local communities. Privatization, though productive and lucrative for a few, has done away with the powerful concept of usus, fructus, but not abusus, allowing for years of environmental damage to compound and proliferate.

Thomas Jefferson wrote in a 1789 letter to James Madison that "the earth belongs in usufruct to the living." [2] Operating on a planetary scale, usufruct reminds us that the earth is not ours to own, but only ours to steward for the future humans and nonhumans that we share it with. In this sense, it could be deployed to cultivate a system of accountability that checks larger systems of ecological abuse. On an urban scale, it could alter the way buildings are constructed, incentivizing life cycles that facilitate the replenishment of the earth. On an individual scale, it could inculcate a basic sense of responsibility in every person calling the earth their home, with a simple ask: use, enjoy, but don't destroy. [1] Oxford English Dictionary

[2] Jefferson, Thomas. Letter to James Madison. 6 Sept. 1789. Princeton University Press, 1958.

The Voyeur's **Frame**

Linda Just, MDes '20, Harvard GSD

descend from a high-speed train from Paris to the paved platform n Arles is to confront a kind of cognitive dissonance. A barrage of cultural iconography and an aura of history hang thick in the air. A slight, mesmerizing shimmer signals heat in high humidity. It is a quiet weekday morning, after a season of festival weekends – hot, sleepy, and a little bit ordinary at first glance. Eventually other impressions form: the haunting aesthetic glamour cast by van Gogh and the Arles School photographers, the sacral mystiism which drew devout pilgrims, and the imperial presence of Augustus, whose aquiline profile graces everything from hotels to supermarkets there today.

But just as we should protest the judging of a person too quickly, the same must be true of place. The descriptions above figure compartmentalized associations of the region, seldom extending to a full dossier. Inevitable contradictions arise: one's intercomplementary or contrasting blend to a degree of surreality: mountains and sea, natural and synthetic, urban and rural, culture and industry, past and present, all collapse – not merely ayered but enmeshed.

When one experiences Arles—the city, its fringes, and the Camargue region — first-hand, the carefully framed depictions, romantically curated and cropped to showcase an attribute in isolation, begin to feel one dimensional. The writings of Anna Tsing regarding the 'leakiness' of life come to mind, about the bleeding of past, present, and future.[1] Stories should be told in 'rushes' to avoid dissociating and untangling the significant causal relations of the man-made and natural, the assemblages of persons, places, and things.

What is perceived as wild here – embodied in the regional symbols of black ulls, white horses, and pink flamingos is, in fact, highly cultivated, like the farm estates and nature preserves that host them. The boundaries between what is truly untouched and what is altered to appear a certain way are malleable, valenced, and subtle.

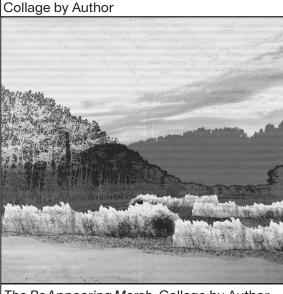
> If one were to construct an instrument like von Humboldt's cyanometer, it might afford an empirical reading of context by comparing the Camargue against other regional colors and vocabularies—of the abricated, the aestheticized, the ndustrialized, or the untouched. If one were to turn dials, one may then notice that there are elements of each condition in the ascending and descending layer—to borrow Tsing's term, a contamination. With such recognition, terminologies change, deepen. One may question, then, the definitions of the labels themselves: is wilderness nature, or a cultivation? What does it mean to be civilized? Is it only germane to cultural concepts, or does it include the industrial as well? Can you have one without

Salt fields, canals, and a rising sea prompt associations, and can perhaps be considered relationally. Roman ruins, urban sprawl, post-industrial sites, and the entropy of a town in economic transition may no longer appear picturesque or sublime when cut in a new sequence for the visiting camera's gaze. Acknowledging that the prevailing images are constructs reveals the human hand at work, capturing the non-human of the region as separate types of useful signifiers. The layers of the landscape then appear more like stage dressings for different episodes, rather than dynamic systems that impact one another. As an analogy for planning in the region, such compartmentalization has grim implications. This architecture, this artful capturing, rests upon land that was formed by shifts of tectonic plates, a drying and refilling of seas. It was marshy and periodically inhospitable — a territory long occupied in migratory cycles to avoid its more inclement seasons. The land was tamed to advantageous use, to suit a civilized and cultured concept. Its polished ruggedness now fits an acceptable depiction of ideal landscapes except when it doesn't. With increasing frequency, salinization complicates water management, heat waves scorch crops, flooding jeopardizes historic structures, and mosquitoes flourish, bringing back the malaria that once plagued the region's denizens. To ignore the realities of a complex place in favor of a stylized fantasy yields an apocalyptic plotline. In her text, Chaos, Territory, Art, Elizabeth Grosz muses on the potential of art and architecture

to frame, collapse, and reveal new sensations. [2] Montage and collage can produce imaginary landscapes to arouse critique, curiosity, and speculation. If one collapses the identities of Arles and the Camargue and performs the same kind of exercise – extracting elements from their contexts, introducing voids that frame other perspectives, and layering geographies in a physically impossible manner to provoke consideration of their distant, invisible, but critical relationships—something strange happens. A more realistic picture of the systems at work there emerges. An understanding surfaces, that a decision to focus on the urban, or the aesthetic, or the agricultural, while neglecting another reality, always changes the others. Perhaps not today, but in a future of indeterminate approach. Images may be further layered and further framed, following aleatoric patterns. But the resulting narrative remains the same: with a single change, the full picture is impacted, and the region will never again look as it did in those iconic photographs, paintings, or films - preserved like nostalgic butterflies in kill jars.

1] Lowenhaupt Tsing, Anna. 2015. "Part I: What's Left?" and "11: The Life of the Forest." The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Princeton: Princeton University Press. 11-43; 155-163 [2] Grosz, Elizabeth. 2008. "Chapter 1: Chaos, Cosmos, Territory, Architecture." Chaos, Territory, Art: Deleuze and the Framing of the Earth. New York: Columbia University Press.





The ReAppearing Marsh, Collage by Author Manhattan Schists

and Schisms (Rock encounters now and then) Lydia Xynogala, alos atelier, Doctoral Fellow, ETH Zurich, gta Institute

Saint Nicholas Avenue in Harlem follows an old Lenape trail which runs obliquely north-south from 111th Street to 193rd Street, breaking the grid. In a section near 131st Street, across from the row of tenement housing, Manhattan Schist lifts up. Like the City, which is constantly changing through the process of demolition and construction, this rock is metamorphic. Folded in steep anticlines and synclines,

Manhattan Schist contrasts with the orthogonal nature of the urban grid

Walking north toward 113rd street, Saint Nicholas Avenue suddenly becomes a canyon. The rocks rise 4-stories tall, a reminder of wilder times when continents collided, melted, and rose. Today, a landscape of basketball courts sits amid these tall grey rocks. Geos in Greek is "non-life;" geology speaks of inanimate things. Yet today's manmade transformations of the earth call into question this distinction. In Harlem, we confront an entangled existence with the "natural;" summertime basketballs and barbecues merge into one smoky, continuous, moving scene with the rocks. As Robert Smithson points out, "the manifestations of technology are at times less an extension of man than they are aggregates of elements. Even the most advanced tools and machines are made of the raw matter of the earth." [1]

A geologic continuum of old and new chemicals and minerals is present here: rocks, oil, gas, rocks. Each element possesses different forms, shapes, and sizes, like the chemically altered minerals in the Schist. The smell of burning coal, another sedimentary rock, emerges from iron minerals of the steel grill. The butyl rubber of basketballs, formed from either the thermal cracking of natural gas or lighter fractions of crude oil, bounce against the hot bitumen blacktop. Some elements come in manmade and some in natural formations. Water streams digest polystyrene Orangina-filled cups. Disposable barbeque trays from extracted aluminum accommodate the burned flesh of cattle. As Elizabeth Povinelli remarks in *Geontologies* "rather than focusing on the difference between Life and Nonlife...let's rethink the link between the geochemistry of Earth and the biochemistry of Life."[2] We will never witness the rock transformations of the great supercontinent Pangea. But here at West 133rd Street, through the summer afternoon smoke, we can catch a glimpse of new types of earthy transformations at play.

Manhattan Schist is a wrinkly, majestic bedrock. When Pangea was formed, the East Coast of North America collided with the floor of the Atlantic Ocean, pushing a layer of shale—a rock of clay and sand—into the earth's molten core. The result was Manhattan Schist, formed by heat, pressure, and chemical reactions in the water. In this rock, you find feldspar, hornblende, shiny slivers of quartz, and mica. These minerals point to the depths and degree of pressure from which this rock emerged. During heat transformations, minerals grow in sizes and shapes, and shift orientations. When fluids flowing through the rocks carry away or add elements, chemical compositions also change. These rocks, as still as they seem now, have a far-from-static life.

With the emergence of geology as a scientific discipline in the 17th century, rocks, minerals, and fossils were the means to reconstruct natural history and time. For the naturalist Georges Cuvier, "...man, to whom has been accorded only an instant on earth, would have the glory of reconstructing the history of the thousands of ages that preceded his existence, and of the thousands of beings that have not been his contemporaries!" [3]

In his fascinating dissertation from 1914, "The Manhattan Schist of Southeastern New York State and its Associated Igneous Rocks," geologist Charles Reinhard Fettke uncovers the history of Manhattan's geological knowledge, stating "the region underlain the Manhattan Schist was explored and settled long before the science of geology had begun to attract any attention in this country."[4] Earliest geological references [5] to Manhattan Schist appeared in 1816, five years after the 1811 imposition of a grid upon all of Manhattan's terrain irrespective of topography. The intense construction of the City brought accidental knowledge of its ground. Today, in the Manhattan landmass, the Rock only appears in certain moments in an outcropping in Central Park or other peculiar instances anchored in the urban fabric.

Basketballs and barbecues, bodies and their sweat, cooked flesh and minerals, portable speakers, smoke and music fuse together wit hese metamorphic rocks into one new assemplage of the Wild.

] Smithson, Robert, Jack D Flam, and Nancv Holt. Robert Smithson: The Collected Writings. [Revised and Expanded ed.]. The Writings of Robert Smithson. Berkeley [etc.]: University of California Press, 1996: 101 [2] Povinelli, Elizabeth A. Geontologies: A

equiem to Late Liberalism. Durham: Duke Jniversity Press, 2016: 43 3] Rudwick, Martin J.S. Bursting the Limits of Time: The Reconstruction of Geohistory in the Age of Revolution. Chicago: University of Chicago Press, 2005: 509 [4] Fettke, Charles R. "The Manhattan Schist of Southeastern New York State and Its Associated Igneous Rocks," Annals of the New York Academy of Sciences. v. 23, Pp. 193-260. New

York: New York Academy of Sciences, 1914: 197

collecting 1530-1799". Mineralogical Record, 25

[5] Wilson, W.E. (1994) "The history of mineral

The Archives Need to Breathe Chanelle Adams, Writer, Scholar, Translator

Where there is moisture, there is often mold. The culture of a multicellular microbe thrives in the deep and dark, the secretive and undisturbed. It spreads rapidly, though its speed is always indeterminate, by forming spores that germinate to grow more spores, producing a slinking effect. The scientific word for mold propagation is to colonize. A colony is technically when many hyphae of the same mold grow together in a network. Any historical library extensive in surface area is terra nullius for the competition and coexistence of mold settler colonies. The French national archive of activities in its overseas possessions are

discreet, modestly housed in dank storage reserves. Traces of undisclosed and unspeakable colonial conduct are reassembled by the attentive, but it is impossible to measure the incommunicability of what is missing.

Mold does not produce its own food; it is heterotrophic. Archive mold feeds on sources, citations, bibliographies, all organic materials. The daring, reaching hyphae, or flaments, are characteristic of fungus, of which mold is a subtype with over one hundred thousand species. Hyphal growth pierces through exterior veneers in its search for nutrients. The extending structures inject degrading substances to make material more digestible—a slow, seasonal feast, sometimes leaving a colorful mess, other times just gray Repeated exposure to mold, and inhalation of noxious mycotoxins, can be harmful to humans in close proximity, causing allergic reactions, asthma, and chronic lung irritation. rance is considering throwing out a large portion of its archives. only keeping what the state and cultural departments determine

as essential. Funds for staff upkeep and storage space are limited. The archives, many of which have never been opened, are time-consuming and expensive to protect and preserve because of the mold, among other threats. A friend tells me professors are now asking students to propose PhDs with long lists of potential archives to lay claim to the unopened boxes, in an effort to demonstrate their worth to future research. I wonder where the organic material goes once it is deemed inessential, and all that might sprout from a composted mound of colonial and bureaucratic rot. Jurisdiction over biotic resources, trash or treasure, extends beyond the ethics of recycling paper trails of colonialism. Exploitation of natural resources of former, overseas territories continues. These operations are justified by the paradoxical logic that resources must be extracted, catalogued, and named in order to conserve them. Madagascar, with highly coveted precious stones and endemic flora and fauna, is subjected to this colonial approach to global resources in which claims to natural world expertise seem to answer for unchecked access to land

exploitation by unelected managers. Conservation

of an archive is different from land conservation,

however. Archival preservation seeks to protect

patrimony from the natural process of the degradation

of organic matter-paper, dead plant material-deny-

ing the fibrous cellulose pulp its ceremonious return

to soil. Like a pastoral forest or a bog, its identity in

its present form is already overdetermined and too

its surface, under threat.

dust from Mars.

politically valuable to be eaten by fungus. It is entirely

The fungus-fighting staff and the very architecture

of the space tries to keep it inhospitable to growth,

keeping it a clean, airy, and stable environment. In

the natural world, mold spores are everywhere. In

the archive, elements are controlled to minimize

but mold is not visible to the human eye until it is

already thriving. Early mold detection can salvage

and stabilize a collection through careful execution

of practiced techniques, all of which take time and

care. Means of disarming the fungal threat include

isolating the objects, deactivating, or removing the

dead and dry mold, cleaning, and monitoring. Perso-

nal protective gear worn in a mold outbreak looks like

The threat of nature and its boundary-crossing into

the human sensorium has always figured into colonial

relationships. In Western and European visions of

the world, a nature-culture divide necessitates the

relation. In this view, culture in all of its industrial

and contained. This inverse, symbiotic, mutually

existence of nature and therefore always calls it into

iterations is in tension with nature, its complement and

detriment. Nature needs to be controlled, disciplined,

an astronaut suit. Colored blooms cause stains that

cannot be removed and sometimes look like

their presence. It requires diligent surveillance,

einforcing relationship between distinct nature and distinct culture makes nature a protagonist or antagonist, sidekick, or crush, or nemesis in any story the West tells itself about itself. It also contains the counter-narrative which would destroy its entire self-conception, the decay of its original meaning. When nature protests being made property, it can be as large-scale as a water crisis or a noxious sentence—at best a slowleaking nuisance. After foods and disasters, mold is ubiquitous. In the aftermath, mold is another threat, an opportunistic, slow thief, often in conditions where concerns are more pressing han dampness and decay.

In the documents I consult at other archives, colonizers always wrote about the weather. Complaints about heat, rain, humidity, and wind-fueled waves occupy large parts of the travel journals of missionaries, scientists, and administrators. As much as tempests were blamed for the white man's discontent, the conditions were also seen as potential challenges with high rewards. Mosquitoes, flash floods, sapphires, carnivorous mammals, volcanoes: each holding a potential conquest. This reverence for nature, simultaneous adoration and fear paired with imperial thirst, encouraged "experts' and hobbyists alike to database, catalogue, and sample for exploitation once control could be secured. These experts amassed millions of objects and sent them back to Europe. There, they placed these under scrutiny before forgetting about them, many falling into disrepair, nany tucked into bags and boxes, envelopes and pieces of cloth that have not since been opened. Once the world has been named, it can be properly managed. But according to whom and with what permission?

When mold degrades, uncontrolled, there is some remainder it never fully digests. There is no foretelling which boxes, chapters, phrases, or letters might hold after the fungi have done their work. Mold destroys and degrades. Or so we are led to think. In the midst of its presumed destruction, it generates new worlds. The hyphae edge through empire ruins toward a promise of post-colonial rebellion. As mold moves through space in unpredictable ways, what can and cannot — what will and will not —be preserved, if anything at all, is unknowable.

This essay is excerpted from Chanelle Adams's 2018 essay "The Archives Need to Breathe," originally oublished in HUMANxNATURE. The full text is available online at yalepaprika.com

A Plot of Land Sammy Feldblum, Geography PhD Candidate, UCLA

in the wilderness. Southeast of Albuquerque, developers envisioned a complex fit for 100,000 residents. By the time visited, seven years after construction began and with only a few hundred homes completed, development had stalled. The and surrounding the sleepy homes had been leveled, parceled, and abandoned. les of bricks and overturned buckets recall the zone's time as nearly humanized. Instead, jackrabbits and coyotes slink through the scrubby grasses. The wilderness was to be subdivided and buried under exurbs; left to pasture, it was again a sort of wilderness. Then again, the area is hardly wild if merely awaiting better prospects for financial return on its development. The fence separating the distant mountains from the tamed lands closer at hand sits bundled and inert. No telling where the one stops and the other begins.



Wild at Heart Elias Scheer, PhD Candidate, The Rockefeller University

Nild at heart I lift my wild wings Do I dare dip my tips In yon dark puddle Or bark at snarky poodles Echoing ectoplasm from glib ditches Disinterested bitches, beckon

Thank you mon cheval The statue of you, that Polish King in Central Park I'll never tell

I promise no one a shady glen promise no remediation Birds diving for quaaludes This is where we live

I'll settle for less, the best Chicos in ivory casings

I'll take it any day over Mars