


Designing The City of Awe



Tim Beatley



A group of people, including children and adults, are looking upwards with expressions of awe and wonder. They are outdoors, with trees and a stone wall visible in the background. The scene is dimly lit, suggesting dusk or dawn. The text is overlaid on the image.

“Awe is what we feel during or after an encounter with something unexpected, and stimulates a sense of vastness and possibility, such as hearing thunder, listening to a moving piece of music, sensing the infinite during prayer or meditation...” –Rich Louv, *Our Wild Calling*

A Constellation of Terms/Emotions

Wonder

Discovery

Curiosity

Wildness

Magic

Humility

Empathy and

Compassion

Awe

Awe Expands People’s Perception of Time, Alters Decision Making, and Enhances Well-Being

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Abstract

When do people feel as if they are rich in time? Not often, research and daily experience suggest. However, three experiments showed that participants who felt awe, relative to other emotions, felt they had more time available (Experiments 1 and 3) and were less impatient (Experiment 2). Participants who experienced awe also were more willing to volunteer their time to help others (Experiment 1) and showed greater life satisfaction (Experiment 3). Mediation analyses revealed that these changes in decision making and well-being were due to awe’s ability to increase subjective experience of time. Experiences of awe bring people closer to their own origins and bring them a greater sense of meaning and purpose, which may help them to adjust their perceptions, influence decisions, and make life feel more satisfying than it would otherwise.

Keywords

awe, time perception, well-being, decision making, prosocial behavior

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“Time is the thing everyone complains about,” people in modern life. Recent polls of more than 1,000 Americans find that nearly half (47%) felt they lacked enough time in daily life (2010). “Time famine” (Perlow, 1999)—the feeling of not having enough time to do it—or “time famine” (Perlow, 1999)—has become a widespread problem. It is associated with stress, sleeplessness, and health problems (Lehto, 1998; Mackovic, 1999). When asked, what can be done to shift people’s perception of how much time is available? One possibility is to cultivate awe, the emotion that arises when one encounters something so strikingly vast that it provokes a need to update one’s mental schemas (Keltner & Haidt, 2003), can expand perceptions of time availability. Additionally, we investigated whether feeling awe, through engendering the sense that more time is available than perceived otherwise, can alter prosocial decisions concerning time, consumption preferences, and well-

Perceived Time Availability?

But does awe have the potential to increase perceived time availability? Prior research suggests that it does. Experiences involving awe, such as optimal athletic performances (Ravizza, 1992; Shiota, Campos, & Keltner, 2003) and powerful emotion (Keltner & Haidt, 2003) have been shown to increase perceived time availability (Keltner & Haidt, 2003). First, awe involves perceptual vastness, which is the sense that one has encountered something much greater than oneself (e.g., a massive mountain or star bearing (e.g., fame, authority)). Second, awe stimulates a need for awe to expand one’s understanding of the world (Keltner & Haidt, 2003). These two processes are intertwined, so that events that expand one’s usual frame of reference (e.g., natural disasters), personal transitions (e.g., childbirth), or unfathomable structures (e.g., the Grand Canyon)—stimulate new mental models.

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Awe Expands Time Perception

Awe involves perceptual vastness, and alters one’s understanding of the world...

Results: “we predicted and found that experiencing awe, relative to other states, caused people to perceive that they had more time available (Experiments 1 and 3) and lessened impatience (Experiment 2). Furthermore, by expanding time perception, awe, compared with other states, led participants to more strongly desire to spend time helping other people (Experiment 2) and to partake in experiential goods over material ones (Experiments 3). A small dose of awe even gave participants a momentary boost in life satisfaction (Experiment 3). Thus, these results not only have implications for how people spend their time, but also underscore the importance and promise of cultivating awe in everyday life.”

—Rudd, Vohs, Aaker, 2012

Awe = Generosity, Kindness, Prosocial Behavior

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Awe, the Small Self, and Prosocial Behavior

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Matthew Feinberg
University of Toronto

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Figure 5. View of the eucalyptus trees used to induce awe (left panel) and the adjacent building used for the control condition (right panel) in Study 5. See the online article for the color version of this figure.

“Our investigation indicates that awe, although often fleeting and hard to describe, serves a vital social function. **By diminishing the emphasis on the individual self, awe may encourage people to forego strict self-interest to improve the welfare of others.**

Future research should build on these initial findings to further uncover the ways in which awe shifts people away from being the center of their own individual worlds, toward a focus on the broader social context and their place within it.” –Paul Piff et al

Biophilic Cities Are Cities
That Work to Expand and
Maximize Moments of Awe

How?



Teaching Awe



San Diego BioBlitz

Making Awe in Cities Visible?



“Pier Into the Night”
Gig Harbor, Washington





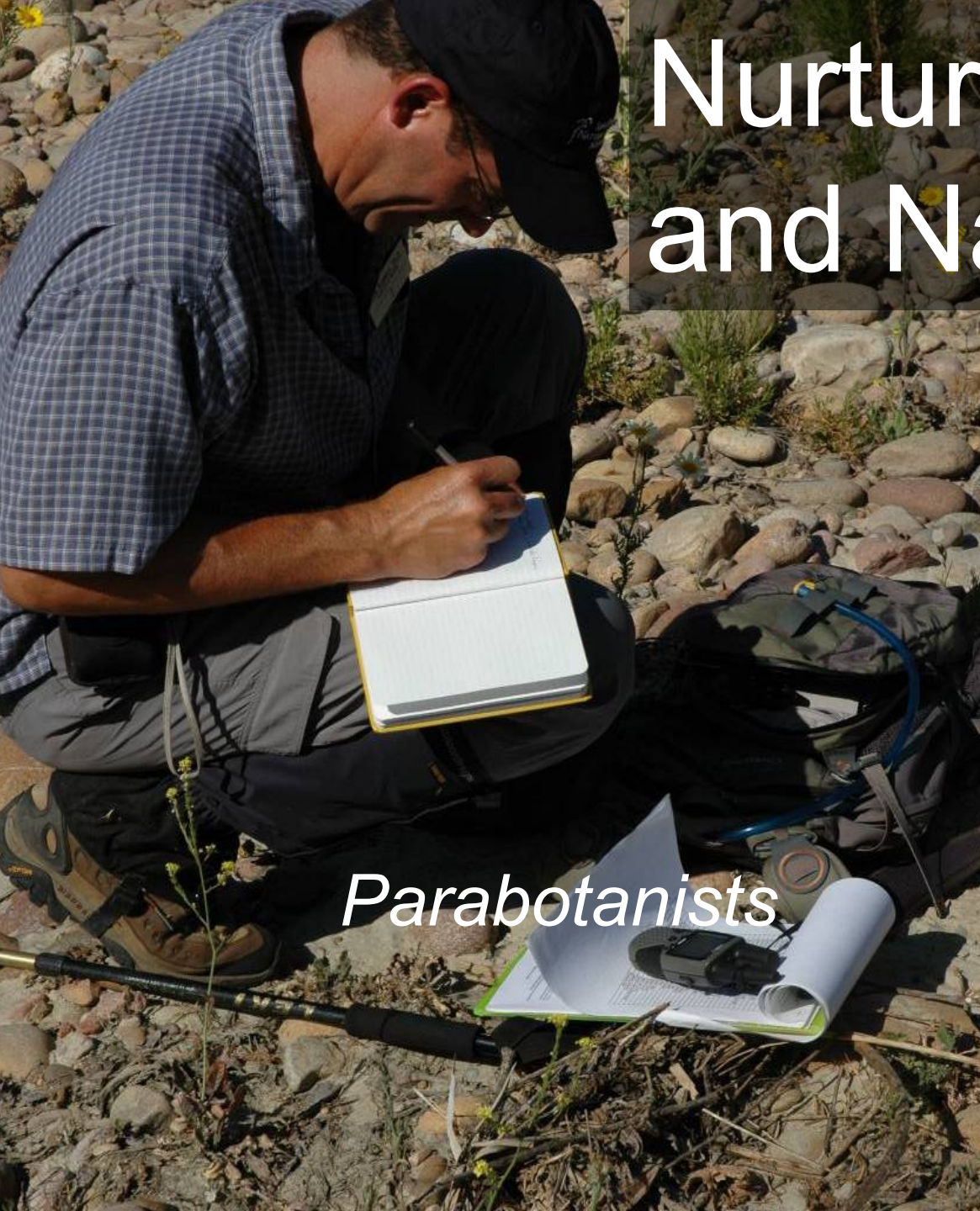
Island Bay Marine Education Centre
Wellington, NZ

Opportunities for Hands-On Ecological Restoration



Burrowing Owl Habitat Restoration Phoenix

Nurturing Citizen Science and Nature Mentors



Parabotanists



connecting WITH NATURE

IN THE City of St. Louis

The mighty Mississippi River was foundational to the history and development of St. Louis. From the city's earliest settlers to modern-day commerce, the river and its tributaries are both economically important and recreationally inviting. From the Chain of Rocks Bridge and North Riverfront Park, to the renowned Jefferson National Expansion Memorial, Belle Reve Park and Mary Meachum Freedom Crossing, the links between St. Louis, its residents and the Mississippi River are as important to its future as its past.

- 26%** URBAN TREE COVERAGE IN THE CITY OF ST. LOUIS
- natural areas rich with natural habitat and native species
 - greenspace parks and structured landscape
 - large public monarch gardens
 - naturescapes
 - MSD rain gardens
 - major highways
 - community gardens
 - tree farms
 - trail heads
 - CRG bike paths



EVERY DAY IS A NEW ADVENTURE



DAILY
see which plants grow and animals visit your backyard or the outdoor spaces near your school or business

WEEKLY
take a walk or bike on new trails weekends take no seasonal and what bloom

MONTHLY
venture out farther and visit a state park, nature reserve or wildlife refuge to encounter

ANNUAL
explore national parks or be a tourist and experience a place with plants animals ecosystems different from home

Magical Maps

Thank you to the Urban Vitality & Ecology Center and the many organizations that support us.

Engaging the Imagination

Engaging the Imagination

Kids in the Canyons





Monetizing Awe



Helena Klangemo
Nature Guides, Stockholm



Common Swift



Designing Awe Into the Places We Live and Work



A New Wildlife-Friendly Development
Kingsbrook, in Buckinghamshire, UK



Residents of Aldea de Sante Fe, NM,
working to save the Juniper Titmouse



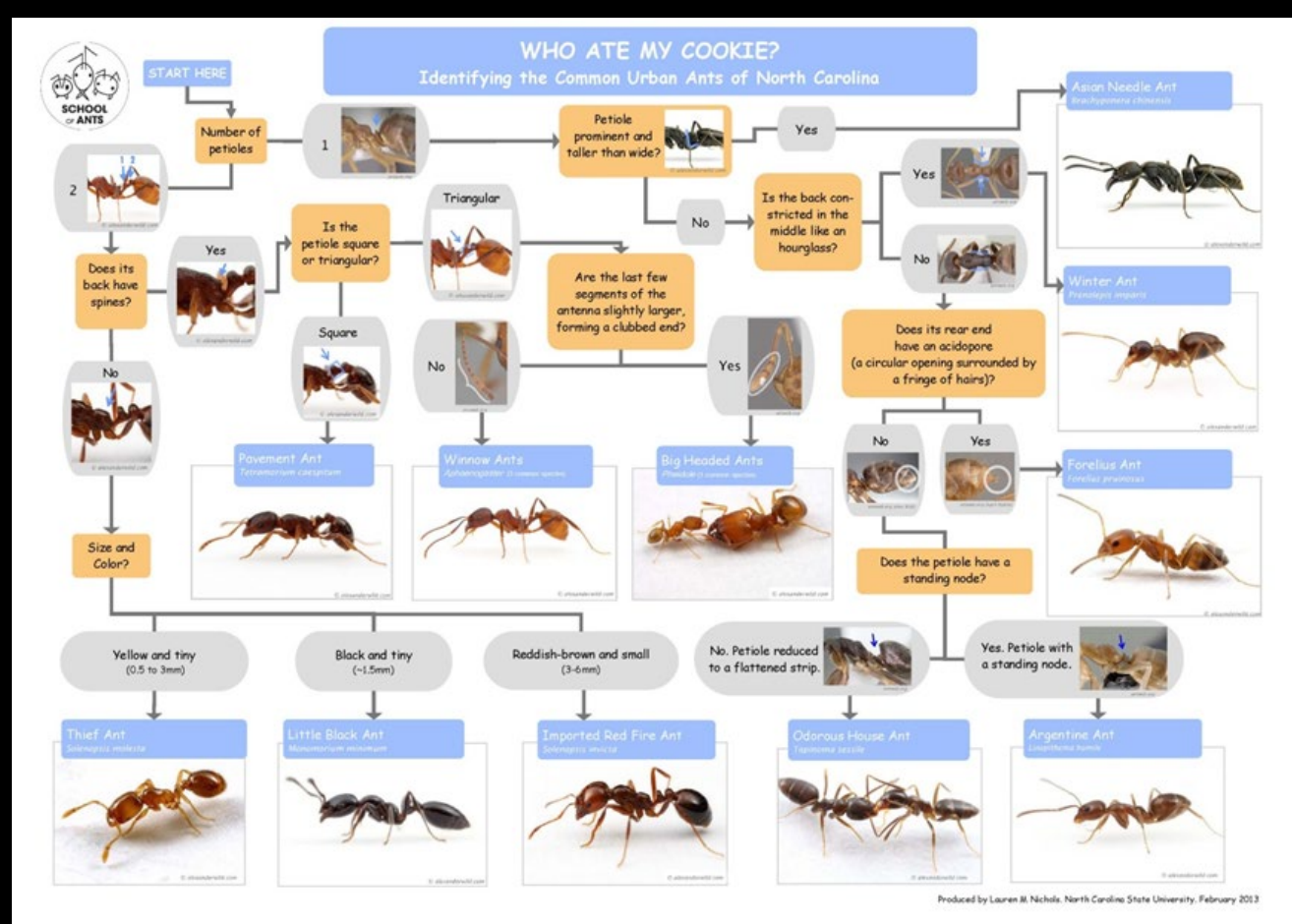


Images: Artie Raslich





Amy Savage, Rutgers



“Miracles of Minuteness”



Cultivating Habits and Practices of Awe

Ant Playing Cards—Collect Them All!

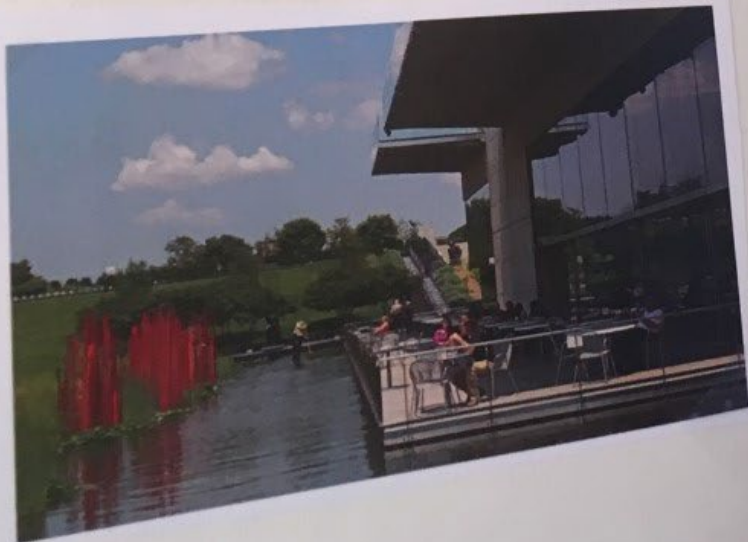
Awe Requires Deep Observation

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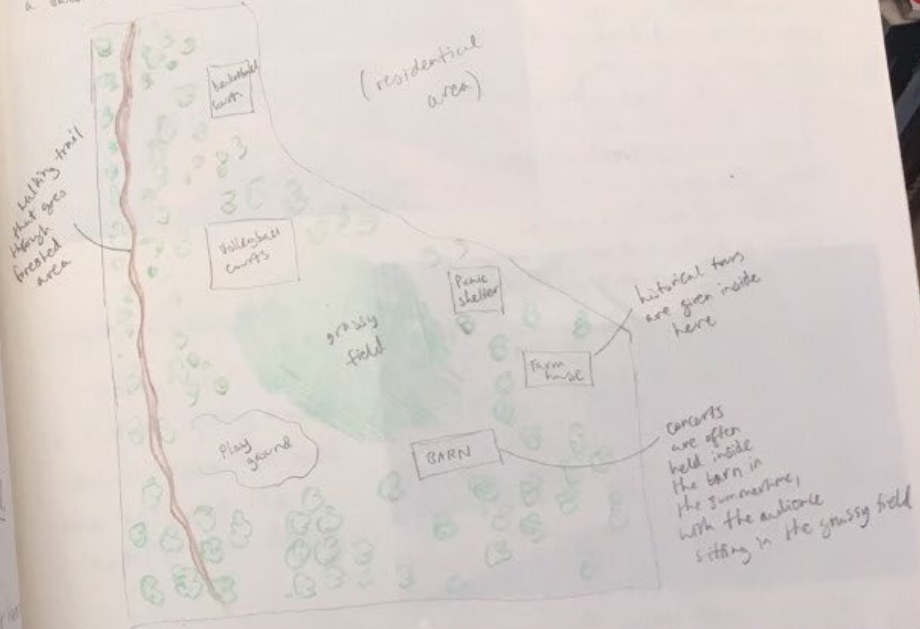
Carolina Chickadee
my grandparents' bird
while I was visiting them

Cafe at the Virginia Museum of Fine Arts in Richmond



14 April 2018

Below is a map of my favorite park in my hometown (Falls Church), Cherry Hill Park. I think it fully exemplifies what a great park should be, in terms of a balance between manmade and natural elements.



To the right is another park in Falls Church, the Howard Korman Stream Valley Park, which incorporates the naturally occurring stream with native plantings and a wide footpath.





Native to Nowhere

Sustaining Home and Community in a Global Age

Timothy Beatley

Every Home Gets an Ecological Owners Manual

February 1st-7th.

- * Ring tail possums have babies in the pouch.
- * Planets visible on the eastern and western horizons at night.
- * *Angophora costata*, (smooth barked apple) "gumauts", litter the ground.
- * Sunshine wattle in bloom.
- * Huntsman spiders lay their eggs.
- * Harvester ants collect Golden Wattle seeds.

BLACKBUTT, *Eucalyptus pilularis*. The "blackbutt" refers to the rough bark on the lower part of the tree that remains charred after a bushfire, distinguished from bloodwood by having rough, scaly bark on its lower half only, the upper half being smooth. (The rough bark persists for a long time.)

The blackbutt is a koala food tree, providing shelter for house finches and other birds. A blue-green dye can be had from the wood chips. On good soil it grows to a height of 60 metres. Most aboriginal canoe tree scars occur in this area on blackbutt trees.



Coast rosemary flowers most of the year. The flower is white with orange dots, having a long narrow throat, suggesting that they may be pollinated by moths. The grey-green leaves are recurved and in whorls of 4.

PEEWEE,

Grallina cyanoleuca. Looking a lot like miniature magpies these black and white birds stick to their territory. They like to be near permanent water and their nest is made of mud and plant fibres. In asserting their territory the male and female perch side by side and alternately cry *pee-wee, pee-wee*.



Found all over Australia this insect-eater is also known as the magpie lark. They spend a lot of time on the ground where they walk with their head jerking back and forth in time with their legs. Watch out for them on the side of the road in Newcastle.

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FORKED SUNDEW, *Drosera binata*. One of the largest sundews, it grows up to 60cm tall. A carnivorous plant, it lives only in wet places and traps insects for extra nourishment. The sticky blobs on the end of short 'hairs' are both the bait and the trap. The plant is best viewed with the sun behind it.

Looking over this plant you will find various insects stuck, or in a state of decay. These sticky hairs fold around any insect that lands on the plant. In the summer a cluster of small white flowers grow from a stem that emerges from the base of the plant.



MOSQUITO. The Aboriginal name is *Dooping*. Hot days and warm nights are a mosquito's paradise. Nelson Bay has plenty of mosquitos. The larvae of one species, *Aedes australis*, lives in saline water in rock pools above the normal high tide level. The *Anopheles* larvae live on the top film of water while other kinds of mosquito larvae hang from the surface film and filter the water around them with their mouth brushes.

The larvae of *Monsonia* mosquitos extract air from aquatic plants by inserting their breathing syphons into the stem, thus saving them the need to make a daily trip to the surface.

Mosquitos will breed in tree hollows, rock pools, ground pools, drains, gutters, and freshwater swamps. The larvae feed on any minute particle of organic matter, like algae and bacteria. The female of most mosquitos suck blood and the males feed on nectar. Most feed at night when their host is likely to be asleep, or at least unable to see them. Male mosquitos will gather in swarms and emit sounds, making it easier for the female to find them.

The mosquito that hides behind your picture frame and bites you at night is the *Culex fatigans*. Another domestic species is *Aedes aegypti*, a proven vector for dengue fever. Other mosquitos carry malaria, Murray Valley encephalitis, myxomatosis, yellow fever, Ross River fever and filariasis.

Mosquitos lay eggs on the surface of water. Within a day the eggs hatch into larvae, which have a breathing tube at one end and a moustache-like feeding apparatus at the other. Larvae are preyed upon by fish, dragon flies and water beetles. After a week of wriggling the larva is mature. The lighter-than-water pupa spend three days turning into mosquitos. Floating on the water the pupa case splits and the mosquito emerges, dry. The male lives only a few days as a vegetarian. The "blood-thirsty" female can live for eight months. There are 27 species of mosquito living in this area.

The Black one, *Aedes vigilax*, is the most common (57%). The big Hexham grey is *Aedes alternans*.



LONG-NECKED TURTLE, *Chelodina longicollis*. wandering about in the middle of the day. Drive on the road, or Stockton Street for this amphibian. It feels like to drive over water, but after a sickeningly slow start, it proves to be a now delectable tortoise. The top of the shell is a dark blackish-brown, the underside is a creamy yellow. The shell is 25cm long. Always a popular pet, in captivity, it always waddles about and nibbles at anything it can get its little white beak on. A harmless scrap of A sometimes found under

The long-necked turtle in the bank of its favourite stream. It emerges 2-3 months later and short claws for

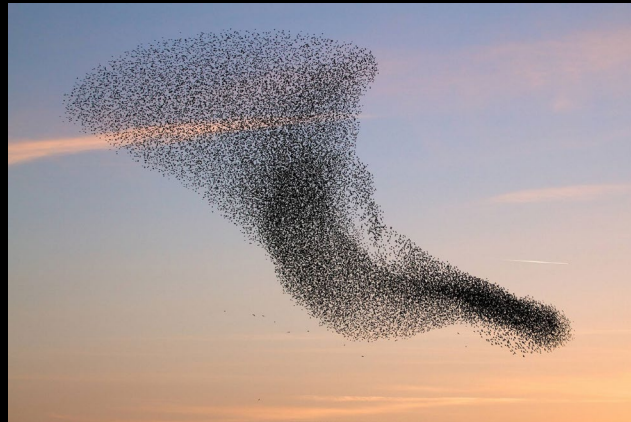


BUSHFIRE. can wallabies, dingoes and other climbers scurry from burning or as dwelling reptiles, insects with stupefied bats, b

Wombats and other echidnas, snakes, ants and the blaze. Fire annihilates the antechinus. It will take the normal population to recover from the fire.

Do We Need a New Language of Awe?

Murmuration



Spy-hopping



Woodpecker Drumming



Mackerel Sky



Do We Need New Nature Words?



Bark Scooting?



Mullet Soaring?



Skip-Feeding?



Pelican Patrolling?



Totemic Cities?: Choosing To Love



Noel Nannup, Noongar Elder



Bronzewing Pigeon



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A Global Journal of Innovation in Urban Nature Vol. 3/No. 1 November 2019

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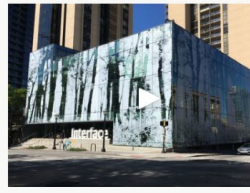
Welcome to Biophilic Cities



The Nature of Cities



Chattahoochee Hills Charter School Nature Based Edu...



Catio Tour, Portland, Oregon



Chattahoochee Hills Charter School Nature Based Edu...



Catio Tour, Portland, Oregon



Chattahoochee Hills Charter School Nature Based Edu...



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