Revisiting Easter Island’s Mysterious Past

Terry Hunt
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Friday, 17 February 2017, 7:30pm,
Room 100 Willamette Hall, UO Campus
Terry Hunt’s early life was spent in California and Hawai‘i. While in high school in Hawai‘i he became interested in the early history of the islands in the Pacific Ocean. Most of what was available to him, however, had to do with the Europeans in Hawai‘i, which meant he was reading about missionaries and their interactions with the Polynesian culture. He wanted to learn more about the earlier times. In a bookstore in Hilo Hunt came across a book on archaeology and immediately realized that was what he was after. At that moment, still a high schooler, he knew he wanted to become an archaeologist.

Hunt went to the University of Hawai‘i-Hilo for his undergraduate work, majoring in anthropology. From there he moved to New Zealand to study at the University of Auckland for his MS, also in anthropology. During his three years there he did research on Fiji, concentrating on the Lau Islands, a remote group accessible only by sail, where the inhabitants maintain traditional lifestyles.

For his doctoral studies Hunt chose the University of Washington both because of its location and its reputation of excellence in anthropological research. In the beginning of his doctoral research he continued to focus on Fiji and Samoa, but ended up working on inter-island trade among the Bismark Islands of Papua New Guinea.

In 1988, in the beginning stage of writing his PhD dissertation, he stopped in Hilo as he was travelling between Papua New Guinea and Seattle. He met one of his former professors, who asked him if he was writing up. Sensing an opportunity, Hunt allowed as how he was almost done. “Good,” the guy said, “because we’re thinking of offering you a position.” And so began Hunt’s 24-year career at the University of Hawai‘i-Hilo, where he served a multitude of roles with distinction, and continued his archaeological research program. Hunt’s talents were recognized repeatedly by the school. His ability as a teacher earned him the Presidential Citation for Meritorious Teaching in 1991 and the Regents’ Medal for Excellence in Teaching in 2005. His research prowess was also feted, with a College of Social Science Excellence in Research Award in 2008, and also in 2008 the Regents’ Medal for Excellence in Research, a system-wide award.

Until the year 2000 Hunt did his research primarily in the Fijian islands but also in islands of Hawai‘i, Samoa, and Papua New Guinea. There were multiple military coups in Fiji that year, and the resulting dangerous situation led the University of Hawai‘i to cancel the archaeology field school there. So Hunt took a trip to Easter Island. While there he met a former student of his—a non-traditional student who was older than Hunt. This man was a native of Easter Island and had been its Governor. He told Hunt “You should come work here.” Hunt took up the challenge, establishing a field school there in 2001, and working there almost every year since.

At the outset he and his co-worker Carl Lipo accepted the current stories about the history of Easter Island. Jared Diamond, in his book Collapse, said the island’s demise was “the clearest example of a society that destroyed itself by overexploiting its own resources.” Hunt and Lipo thought whatever they managed to uncover would back up this view, that they might add a few details to what was known already, but not much more.

Gradually they realized the accepted story was simply that: a story with no firm foundation, which was mostly if not completely wrong. Their 2006 Science paper, in which they showed that the island’s colonization by Polynesians began around 1200AD and not hundreds of years earlier as per then-accepted wisdom, ruffled some feathers but provided them considerable credibility, allowing them to advance their own, evidence-based explanation of the island’s prehistory. In subsequent reports they have presented compelling evidence for this explanation. The title of one such report provides a taste of what has been a very public disagreement. In the 2009 book edited by McAnany and Yoffee, Questioning Collapse: Human resilience, ecological vulnerability, and the aftermath of empire, Hunt and Lipo have a chapter entitled Ecological catastrophe, collapse, and the myth of “ecocide” on Rapa Nui (Easter Island).

The scholarship of Hunt’s research team has been made widely available to the lay public. Since Europeans first saw the huge, fierce stone statues looking out to sea, many heads have been scratched and theories advanced as to how they got to their final locations, the ahu platforms along the shores of the island. In the cover story in the July 2012 issue of National Geographic, Hunt and his team showed how the massive statues that are so intimately tied to our mental images of Easter Island could have been easily moved from the quarries from which they were born to the coastal vistas that were their final destination. The story was further shared in a Nova-National Geographic TV documentary that aired on PBS in November 2012. Also in 2012 Hunt and Lipo’s book The Statues That Walked: Unraveling
Peat Matters by Reida Kimmel

The late winter sun still barely peeks over the hills enclosing our narrow valley, but it is time to plant seeds in the greenhouse. I’ve always used a commercial planting mix to guarantee a healthy start to the sprouts, but this year is different, and I’ll tell you why. Look at the label on a bag of commercial potting soil. The chief ingredient will almost always be “Canadian peat moss.” Wonderful stuff—light, fluffy, superbly water retentive without compacting—what better medium to get delicate seedlings off to a healthy start!

Sphagnum is the genus name for about 380 species of mosses that are the dominant plants in Northern Hemisphere bogs. Sphagnum is often called ‘peat moss’ because the old dead plants on which the living sphagnum grows form layers of peat. Each plant has a main stem with branches, two or three spreading branches and two to four hanging branches. Clusters of young branches cover the top of the plant and the stem has leaves too. These stem leaves have two kinds of cells, small green living cells and large clear structural cells with a tremendous capacity for holding water. This characteristic both creates and maintains the bogs in which sphagnum lives. Even in dry seasons the sphagnum plants can thrive, and, slowly, spread into areas not previously part of the bog. At the center of some bogs, called raised bogs, the surface is higher than at the edges and the peat older and deeper, because the sphagnum started at the center and spread outwards. Some bogs are as old as the end of the Ice Ages, and others, particularly in Northwestern Europe, formed as the post-glacial climate became colder and wetter at the end of the Neolithic and during the Bronze Age. Whenever moisture exceeds evaporation, bogs develop. Some are extremely acidic with a PH of 3.5 to 4. These infertile bogs result from rainwater that does not drain. The bog plants live on the slowly decaying remains of past generations of their own kind or other wetland plants, and they cannot reach the underlying mineral soil. Other bogs—fens they are called—are watered by surface water carrying minerals from elsewhere. Few fens remain. Being rich in nutrients they are very fertile when drained. The former fens of Holland and Eastern England are some of Europe’s most productive farmland. But farming peat soil is ultimately not sustainable. Crops literally consume the mineral-free soil. It blows away or simply disappears. England’s Fenland farms, cultivated for three centuries, have dropped meters from their original surfaces, leaving houses high above the surrounding farmland.

The acidic bogs where sphagnum is king support an incredible array of life. Many bog plants are highly specialized, rare and endemic, but cotton grass is always present. Canada’s bogs feature bog Solomon’s seal, creeping snowberry, sedges and bristly club moss. Orchids, carnivorous plants, bog asphodel, butterwort, and ericaceous plants including heathers, make Scotland and Ireland’s bogs wonderful places to walk. Wildlife, butterflies, dragonflies, and birds utilize the bogs. Ontario’s Alfred Bog boasts black-backed woodpeckers, gray jays, palm warblers, northern hawk-owls, sedge wrens, Wilson’s warblers, and sometimes sandhill cranes.

Peat, formed over the centuries by the compacted remains of sphagnum and other bog plants, is a most remarkable material. It can be up to sixty feet deep in an undisturbed bog, but most bogs in Europe and southern Canada have been disturbed. In the British Isles and Ireland, from ancient times until the present, peat was hand-harvested with special shovels that cut...
into a bank of peat and produce brick-shaped cakes called turves to be stacked, dried and carried home for fuel with which to heat the cottage, cook the meals, and dry the barley. Sometimes peat diggers found the remains of people and their artifacts buried in bogs for centuries. Wheels and axles, millennia-old fabrics, household tools—much of what we know about Bronze Age Europeans has come from bogs. The use of peat for domestic fuel continues to this day. The smoke may be smelly, but the home fires burn bright and warm in the villages. As for other uses, peat—sterile and absorptive—was used for surgical dressings during World War One. In the early days of Canadian railroads, peat fueled the locomotives. To this day, Finland, Scotland and Ireland harvest peat on an industrial scale to use in power stations. But for decades, the chief use of peat, both in Europe and America, has been horticultural. The huge demand is met by enormous peat mines. Long, deep drainage trenches dry the exposed peat. Then trucks and trains remove it to the depth of the underlying mineral layer. So far, after this treatment, it has proved impossible to restore an original bog. The bog becomes scrubland, or sometimes a lake.

If beauty, the importance to wildlife, and the historical importance of bogs were not enough to convince you that they should be protected, their crucial importance to our planet is overwhelming proof that peatlands should not be destroyed. About three percent of earth’s surface is covered by peat bogs. But peatlands store on average ten times more CO2 than any other ecosystem. A 2007 United Nations estimate stated that Earth’s nine hundred eighty-eight million acres of peatlands store two trillion tons of CO2, which is equal to a century’s worth of fossil fuel emissions. Conserving peatlands may be the best and least expensive way to slow the rise of CO2 in the earth’s atmosphere. When peatlands are drained or burned, CO2 and often methane are released into the atmosphere. We associate peat bogs with damp northerly places, but there are peatlands all over the planet. The greatest threats to peat and Earth’s climate are the modern agricultural practices of South Asian nations like Indonesia and Malaysia where peat is drained, burned, plowed and converted into oil palm plantations. Producing one ton of palm oil grown on drained peatlands emits twenty times more CO2 than burning a ton of gasoline. Wetlands International states that the annual peatland emissions of Southeast Asia far exceed fossil fuel contributions from major polluting nations like the United States and China. Annually, Indonesia alone creates two billion tons of emissions from its peatland destruction. If these emissions were factored in with the country’s fossil fuel emissions, Indonesia would be the world’s third largest emitter of greenhouse gases.

Protest with your wallets! If you use potting soil, you can buy suitable peat-free mixes like Down to Earth’s own potting ‘soil’. Other coir-based (coir is coconut fiber) mixes are available on the WEB. Encourage nurseries you visit to make the switch to coir. Most of all, when shopping, read labels and avoid buying any food or cosmetic product that contains palm oil. This isn’t easy, but if the Girl Scouts can do it, so can we!

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**Even in February**

by Tom A. Titus

In late January, irony was oozing from every pore. The new administration pulled a blackout curtain over the Environmental Protection Agency, and the very next day Oregon Public Broadcasting aired a two-hour special on the life of Rachel Carson. Nearly everyone reading this column knows that in 1964 Carson published *Silent Spring*, a monumental environmental book that created a paradigm shift in the way people, and by extension the government, viewed the chemical and agricultural industries. Beginning in the 1940s, the chemical industry was considered the savior of the human world, exterminator of mosquitoes carrying malaria and yellow fever, slayer of agricultural pests that curtailed food production deemed necessary for “feeding a hungry world.” *Silent Spring* questioned all of that, and the outcry launched the modern era of environmental regulation.

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After watching the OPB show, I wanted to write about Rachel Carson’s life: her struggle simultaneously to hold down real work, care for her extended family, and write beautifully and meaningfully, and her heroism in surviving cancer just long enough to see *Silent Spring* through to publication. I was saved from this daunting task by Maria Popova, who recently published a beautiful blog post about Rachel Carson at Brain Pickings (*The Writing of “Silent Spring”: Rachel Carson and the Culture-Shifting Courage to Speak Inconvenient Truth to Power*).

Instead, I’d like to shift the focus to something that was also dear to Rachel Carson—beauty. From childhood Carson was a writer smitten by nature, and later she became a professional biologist. My timing might be off because most folks are not smitten by February. I understand. A few days ago I was riding to work under a steely high overcast, pedaling directly into the teeth of a cold north wind, a
Utterance of yet more freezing rain. If you are tired of our winter weather, join the legions in the Tired-of-It Club. Moreover, we can’t even call this “late” winter. We are smack dab in the middle of winter in a year when winter has been unkind in ways too numerous to mention. Nevertheless, I have this childlike faith that when things get ugly, beauty becomes our refuge.

Regardless of dates on a calendar, February has always struck me as the end of winter. We now experience an extra one hour and fifteen minutes of daylight! Those of us who commute by bicycle can almost make it home without bike lights. Yes, we could all move to some equatorial place where day length and season remain relatively constant. But then we would become unaware of those enduring natural cycles of light dictated by the earth’s tilt, rotation, and orbit around the sun. These enduring cycles are beautiful, and February seems a good time to celebrate them.

The changing photoperiod causes an eruption in the quiet soundscape of December and January. Along the waterways, red-winged blackbirds are flashing scarlet wing patches and besieging us with their raucous gurglechurrurrr. Bewick’s wrens unleash their frenetic burble from hedges and wild rose thickets. In the forests along Ridgeline Trail, varied thrushes use their bipartite syrinx to whistle wheezy harmonics. And of course male Pacific chorus frogs are trilling in their months-long quest to mate with as many females as possible. Here in the so-called “dead of winter,” silence is becoming an ever rarer commodity. The prospect of the silent spring that drove Rachel Carson to complete her book in the face of daunting challenges has not come to pass. Yet. If only she could know this.

Of course there is more. Have you noticed how water glistens on the chocolate fur of a muskrat, even on an overcast morning, or seen the shiny black nose on that skinny blacktail doe now carrying within her the pink embryos of a new generation? The silvery powder puff tail of a western gray squirrel seems outrageous as it flies through bare branches of a filbert orchard. Contrast and context are everything.

Consider the pending eruption of plant life. Tawny salmonberry canes sport green leaf buds. For me, an annual ritual is harvesting newly sprouted nettles from a roadside patch, their leaves so laden with light-capturing pigments that they appear nearly black. The phallic dangle of yellow-green hazelnut catkins is almost embarrassing. There is a window ledge next to my third-floor elevator door, where burgeoning mosses and ferns are pushing their way across nonliving concrete. Therein lies hope. And if you were still in doubt about the beauty that plants bestow in February, watch for those first osoberry flowers with drooping clusters truly as pure as the wind-driven snow.

Experiencing the natural beauty of February requires that we turn off the television, look up from the morning paper, or disconnect from various social media spewing from our smart phones. These days there is a hue and cry for resistance. In many cases, saving what we have requires committed acts of resistance. Rachel Carson published Silent Spring as an act of resistance. But remember also that Rachel Carson took time to revel in the beauty of the Maine coastline and the loveliness of meaningful human relationships. So I implore you to remember beauty in the world. Beauty is your refuge. Beauty will sustain you. Even in February.

Announcements

1. A good place to park for our meetings is the Physical Plant lot: turn north (left) from Franklin onto Onyx, go about a block and you will be in the lot. After 6pm it’s open to the public.
2. Early heads-up: our annual field trip will occur on 1-4 June, in Southeastern Oregon. We’ll be staying at the Malheur Field Station, south of Burns. There’ll be an upper limit on number of attendees. More detail next month.

Events of Interest in the Community

Lane County Audubon Society

You can find the results of the 2016 Eugene, Florence, and Oakridge Christmas Bird Counts in the February 2017 issue of The Quail. Here’s the link: http://www.laneaudubon.org/sites/default/files/quail_pdf/Feb2017_Quail.pdf

Saturday, 18 February, 8am-noon. Third Saturday Bird Walk. Site and leader will be determined by interesting bird sightings posted to OBOL and other pertinent information available before the day of the walk. Details will be posted on the LCAS Facebook page (facebook.com/pages/Lane-County-Audubon-Society/330177413824?ref=hl) and on the website (laneaudubon.org). All ages and skill levels are welcome. To carpool, meet at 8am at the South Eugene High School parking lot, corner of 19th and Patterson. We plan to return by noon. Remember that it’s not a good idea to leave valuables or your
vehicle registration in your car if you leave it at the lot. A $3 donation is appreciated to help support Lane County Audubon’s activities. FMI: Jim Maloney at 541.968.9249 or jimgmal@comcast.net.

**Tuesday, 28 February, 7:30pm. Birding Oregon: Bringing it all back home.** Dave Stone has been photographing professionally since 1988. He has been published by National Geographic, National Audubon Society and numerous local and regional publications. He offers photo trips, workshops and private lessons covering many aspects of photography. His class titles include: Nature Photography, Bird Photography, Travel Photography, Making Friends with your Digital Camera, and Photoshop. He spends his spare time traveling and photographing landscapes, wildflowers, birds and anything else that needs to be photographed. He asks us to join him for a tour of our Pacific Wonderland and all the places to see birds. 1645 High St., Eugene.

**Mt. Pisgah Arboretum**

**Saturday, 18 February, 10am-noon. Lichens Walk.** Join Daphne Stone on this popular walk through the Arboretum exploring lichens, their habitats, and ecology. Learn a few names and enjoy the moist winter air that makes the Pacific Northwest such a great place for lichens to grow. Rain or shine. Meet at the Arboretum Visitor Center (AVC). Don't forget your parking pass. $5, members free.

**Sunday, 19 February, 9am-noon. Winter Bird Walk.** Julia Siporin and Joni Dawning lead the monthly bird walk intended for people with all levels of birding experience. We’ll use vocalizations, habitat, and behavior clues for identification of our winter and year-round residents. Come discover the Arboretum’s avian diversity. Please bring binoculars. Option to continue the walk until noon for those who are interested. Rain or shine. Meet at the AVC. $5, members free.

**Saturday, 25 February, 10am-noon. Flies and Flowers Walk.** Explore with Arboretum Interpretation Coordinator August Jackson the important role of flies in the pollination of our early wildflowers. Learn about the process of pollination, learn the names and ecology of some of our colorful native flies, and learn to identify our early spring wildflowers. Rain or shine. Meet at the AVC. Don't forget your parking pass. $5, members free.

**Saturday, 4 March, 1-3pm. Aquatic Amphibians Walk.** Mount Pisgah has great habitats for breeding Willamette Valley amphibians. Join Tom Titus, biologist and author, for a talk and walk through our riparian areas and learn about the unique assemblage of amphibians that rely on healthy aquatic habitats for reproduction. We'll listen for Pacific chorus frogs, watch for roughskin newts in amplexus (mating), and search for egg masses of the Northwestern salamander. Bring rubber boots. Rain or shine. Meet at the AVC. $5, members free.

**Friends of Buford Park and Mt. Pisgah**

**Monday Morning Regulars. 9am-noon.** Contact volunteer@bufordpark.org for more information.

**Tuesdays and Thursdays, 9am-noon. Nursery Work.** Meet and work at the Native Plant Nursery at Buford Park. Enter Buford Park from Seavey Loop Road. Turn LEFT after crossing the bridge and drive 1/4 mile to the nursery.

**WREN (Willamette Resources and Educational Network)**

**Tuesday, 14 February, 9-11am. Wetland Wander at Willow Creek.** Join WREN this Valentine's Day for an exploration of Willow Creek Natural Area! Managed by the Nature Conservancy, Willow Creek spans over 500 acres of native wet and upland prairie. The land provides essential habitat for a number of threatened and endangered species, particularly the Fender's blue butterfly, which relies on the remnant upland prairie's lupine plants--the primary food source for the butterfly larvae. This walk will be guided by Nature Conservancy employee Matt Benotsch, who will offer insight into the restoration and management of this key habitat. Directions to Willow Creek Natural Area: Follow 18th Street west of Bertelsen. Please park in pullouts on the north side of the street. Look for WREN staff.

**The University of Oregon’s Museum of Natural and Cultural History**

**Exhibit Hours: Tuesday through Sunday, 11am-5pm**

**Native Plant Society of Oregon, Emerald Chapter**

**Thursday, 16 February, 7pm. Oregon Native Plant Pollination Biology.** Brian Dykstra will explore the diverse interwoven stories of native plants and native plant pollinators. He will discuss his own research on the rare serpentine endemic, the golden inside-out flower, *Vancouveria chrysantha*, and highlight many other interesting pollination stories in Oregon. Meeting location: upstairs in the Stellaria Building. 150 Shelton-McMurphy Boulevard, Eugene.

**North American Butterfly Association, Eugene-Springfield Chapter**

**Monday, 13 February, 7pm. To the Point.** Jon Perry, Artist & Founder of Stated Clearly, says, "If you've ever been stung by a honey bee you were probably amazed at how effective a weapon it is.” He will address the evolution of the honey bee’s highly complex stinger with its multiple moving parts and a venom gland loaded with pain-causing enzymes. Eugene Garden Club, 1645 High Street, Eugene.

**Nearby Nature**

Saturday, 4 March, 6-8:30pm. Treefrog Tunes Nature Quest. Enjoy a treefrog tunes walk in Amazon Park! Learn about—and listen for—Pacific treefrogs with ecologists Peg Boulay and Bruce Newhouse. Meet at the Amazon Park Playground. Members free, non-members $5/family. Pre-register: 541-687-9699 or visit: http://www.nearbynature.org/pre-registration

Wednesday, 8 March, 6:30-8pm. New Volunteer Orientation. Love nature? Enjoy kids? Learn all about leading school nature walks in Alton Baker Park this spring as well as other Nearby Nature volunteer opportunities—including gardening, restoration work, special events, and summer daycamps. No experience is needed; training will be provided. Eugene Public Library, Tykeson Room. Questions? Call Nearby Nature at 541-687-9699 or email info@nearbynature.org.

Cascade Mycological Society
Go to http://cascademyco.org/category/events/ for information about upcoming events.

Hendricks Park
Sunday, 5 March, 1-3pm. Moss Walk. Led by moss wizard Dave Wagner. It’s free. Meet at the picnic tables at 1pm.

ENHS welcomes new members! To join, fill out the form below. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of Nature Trails. Our web address: http://biology.uoregon.edu/enhs

MEMBERSHIP FORM
Name
Address__________________________
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E-mail (if you want to receive announcements)________________________
I (we) prefer electronic copies of NT rather than paper copies. ___Yes ___No
If yes, email address (if different from the one above):________________________
ANNUAL DUES: Family $25.00
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Make checks payable to:
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Annual dues for renewing members are payable in September. Memberships run from September to September. Generosity is encouraged and appreciated.
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Schedule of Speakers and Topics for 2016-2017
17 Feb. – Terry Hunt – Revisiting Easter Island’s Mysterious Past
17 Mar. – William Cresko – Sea Horses and Sea Dragons
21 Apr. – Svetlana Maslakova – Pythons of the Sea: Natural History of the Nemertean Worm
19 May – Ed Alverson – Southern Willamette Valley Natural Areas Through the Seasons

Two photos of moai on Easter Island, taken by Terry Hunt