

Here's a pronouncement that unites Joe-the-Plumber, Joe-the-CEO and me: "Depending on what we find during surgery, we'll remove your testicle." That's how my urologist explained the need for an abdominal incision as I fidgeted on the crinkly white paper covering the exam table. Why "we" (I presumed this would be him and somebody else, as I'd be unconscious) would find this approach preferable to slicing through my scrotum was not clear. The latter route seemed obvious to the guy who did my vasectomy and to the vet who fixed our cat. But I didn't ask, as I was more transfixed by the euphemistic medical phrase, "what we find.

Cancer had been my fear from the moment I discovered the pea-sized lump during a Joe-Six-Packish scratching bout as I rolled out of bed on Saturday, rather than in the course of a medically recommended self-exam in the shower. Following a mid-week ultrasound and exam, I now understood that next Tuesday I'd wake up in a hospital bed with either one or two fewer lumps in my scrotum—the larger of which I considered pretty damn important.

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To avoid perseverating about the upcoming "procedure" (sticking with the practice of not naming uncomfortable things, the nurse who handled scheduling didn't call it "surgery"), I went cross-country skiing outside of

Laramie with my wife over the weekend. Nan was plenty supportive and provided distracting conversation on the drive, but once we were on the trails I was alone with my thoughts. And my lump. As I tried to think about something—anything—else, my eyes wandered to the green-black pines, then my mind rambled to the beauty of nature, and that got me thinking about Gaia, and then I came full circle: If the earth is an organism, what are its testicles?

We conceive of forests as the planet's lungs, rivers as its circulatory system, wetlands as the liver or kidneys, and humans as the brain (not a very bright planet, eh?). But what are Gaia's gonads? The rhythmic striding-and-gliding along the tracks (classic technique, rather than that new-fangled skating, being the favored style for anachronistic types who value scenery over speed), led me deeper into this bizarre question. A solution began to crystallize as I stopped to catch my breath. The wind-sculpted cornices and icicles hanging from an exposed rock face provided the answer. The Earth's testicles are its polar regions. Think about it.

In simple geographic terms, the poles and one's testicles are physically isolated. What's more, they're paired and more-or-less the same size as one another (that is, the polar ice caps, not Antarctic and testicles). The north and south poles have, at least until recently, boasted about 15 and 18 million square miles of sea ice in the winter, respectively, while physicians tell us that the same proportional asymmetry between the left and right testicles would be entirely normal.

With respect to climate, ice caps and testicles exist in uniquely cool thermal conditions. The poles receive less solar heating than the rest of the planet, and testicles dangle beneath the abdomen because sperm production is optimal at a temperature lower than that of the body (hence the hazards of hot tubs and tight briefs for prospective fathers). For that matter, sperm donations are typically stored in medical clinics at an icy, -140°C . Furthermore, ice caps and testicles extend and recede with changing atmospheric temperatures. The analogy isn't perfect given that the poles recede when the heat is on and testicles recede when things get cool (as during a day of subzero skiing). But you get the idea.

In terms of global and organismal physiology, the poles and testicles share important features. Both store life-giving substances—sperm and fresh water. Most of a guy's sperm are found in his testicles and the majority of the world's fresh water is tucked away in the ice caps. Both sperm and the poles produce important effects that influence their respective systems. Testicles crank out testosterone which affects tissues throughout the body and the polar regions are instrumental in forming oceanic currents, without which London would have winters like Moose Jaw, Canada. Testicles and the poles are also valued largely for their function, rather than their form. That is to say, neither is particularly pretty but both are vital to the whole. And finally, both are sensitive to damage, which is why there is an international treaty protecting Antarctica and athletic cups for testicles.

The social and psychological similarities between ice caps and testicles should not be overlooked. We often ignore both of these entities—or we take them for granted (each gets less than a page in my respective textbooks on ecology and physiology). In addition, they are rather mysterious and rarely explored (despite the advice of climatologists and urologists that we pay attention to changes in their size). And to lose either is alarming—scientists can attest to the planet’s arctic ice, and I’ll vouch for the body’s nether regions.

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After returning home after our outing, I took a shower and checked my lump. Shit, still there (these things can go away, you know). I let the steamy water pound my back—showers being as good as ski trails for contemplation—and thought, “I’ve got two of ‘em, so what’s the big deal?” Bodies and ecosystems have lots of redundancy. I knew that things would still work with one testicle, just as they kept on humming when my wife had an ovary removed. Parts can be lost and the whole keeps going. We don’t need both of our arms or legs, we have extra fingers and toes, we can see out of one eye, we do fine with one kidney, and we can get by with a third of our liver. Likewise, North America doesn’t seem to require flocks of passenger pigeons, swaths of tall-grass prairie, or herds of bison, and Europe functions with a tiny fraction of its original forests. After all, according to Ronald Regan, “If you’ve seen one redwood, you’ve seen them all.” But I didn’t really believe any of this.

After toweling off and wiping the steam from the mirror, I confronted my image. At 48, I'm graying and sagging a bit, but I've become accustomed to my body. It wasn't like I was facing a mastectomy, but there was a cosmetic consideration. Not that I was considering a prosthetic testicle (believe it or not, nearly a quarter-million people have chosen to have the veterinarian insert a pair of pseudo-testicles into their pet's scrotum after he's been neutered—that's how vicariously vain our society has become). But aesthetics matter and the Earth wouldn't be as beautiful without an arctic ice cap (which may well be the case in less than a decade). However, my unease was about more than looks, which is good, because if beauty was the only issue then I didn't have much cause for anxiety.

There really is a difference between having one or two testicles. It's like the time I was headed along a very remote and rocky road into Wyoming's backcountry, and in the course of the morning I used both of my spare tires. When a plane's running on a single engine, a person is left with a single eye, or a community relies on a single aquifer, that one thing and its processes become precious. Even when there are still several things left, each can be terribly important, as Paul and Ann Erlich pointed out in their story about selling the rivets—representing species on Earth—that hold together an airplane wing; the first few are not worth much, but there's a point long before the very last rivet that each one becomes extraordinarily valuable. If I had a twin, there'd still be only one of me, and I think that's relevant (identical genetics doesn't mean that

two organisms are perfect duplicates; even the famously cloned kittens are distinguishable). I have two testicles, but only one left testicle—and it has only one anterior-most seminiferous tubule and so on. Maybe it's ones all the way down, at least for living beings. Perhaps that's what it is to be alive: To be a singularity, to have some unique quality and history (unlike electrons which physicists tell us are invariant, and each one's story is irrelevant to its properties). Of course we're all richly interconnected in complex ways, but that simply recognizes that new ones (Ken Wilbur calls these holons) emerge from other entities until, in the end, there is just One. But if an individual or an ecosystem is a whole that arises from the parts, and one of these elements is lost—then isn't the whole somehow changed? At least a little and maybe a whole lot? Are there really any extra organs, leftover limbs, spare species, or excess ecosystems?

Looking at my gut in the mirror reminded of something between 6-pack abs and Joe 6-pack, which took me back to the doctor's dire possibility—and the nature of men. Ecofeminists claim that the problem with western thinking is that we've equated nature with women and thereby justified the exploitation of the former via the oppression of the latter. Perhaps they're right. Maybe we need to lose this whole Mother Earth thing and perceive the planet in masculine terms. Like it or not (and I don't), men still have most of the power and make most of the decisions. Unless the powerbrokers are romantics (they aren't, trust me on this as I've met my share of them), then they won't be moved by

metaphors of nature which evoke damsels in distress. Saving virgin forests from the rape of chainsaws doesn't hit 'em where it counts. So let's re-frame Gaia for the guys—in terms that resonate with any Joe.

Here's how it is. The Earth is like your body and the poles are your nuts—without them things change dramatically and unpleasantly. Carbon dioxide is an ecological steroid. This chemical builds industrial muscle while shrinking your balls into shriveled raisins. You wanna keep your global gonads? Then quit putting that junk into your body.

With a bit of tweaking, this way of framing the consequences of climate change might even work locally. Take my home state of Wyoming, where 62% of citizens don't believe that climate change is human caused and our newly elected senator, John Barasso, contends that “the jury is out” (still think humans are the brains of the planet?). But here's the reality: without the melt-water from our state's gonads—the Wind River glaciers—late summer irrigation dries up and agriculture becomes impotent. Maybe we can store water for awhile in reservoirs, the sperm banks of hydrology. But both stagnant reservoirs and frozen gametes are stopgap measures. The state government is talking about cloud seeding, which is more expensive and less reliable than Viagra. Men of Wyoming, we don't want to lose our glacial gonads, do we? If ecologists had framed the situation in this way, we might've elected a different senator.

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It turned out that my lump was an innocuous mass of ruptured cells and disintegrating blood. The doctor said that such things are generally caused by trauma. I couldn't recall any acute trauma, and it seemed like the sort of thing a guy would remember. But my family and I had taken a long bike trip around Prince Edward Island a few months earlier. Maybe enough hours on the seat bounced and rubbed things in a way that added up to trauma without my noticing until long after the damage was done.

And that's the way it can go sometimes—with testicles and ice caps.