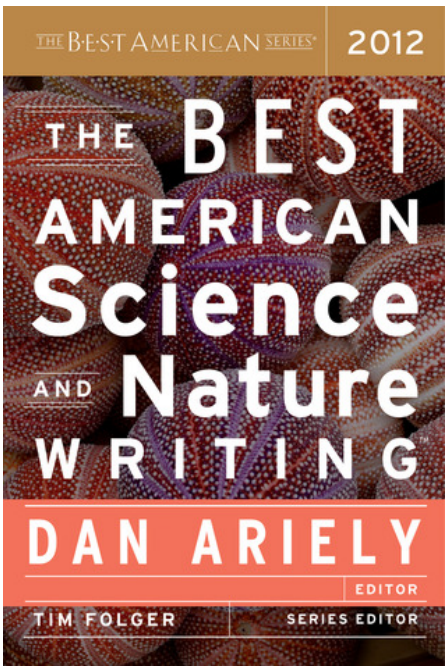

The Best American Science and Nature Writing 2012

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The Best American series is the premier annual showcase for the country's finest short fiction and nonfiction. Each volume's series editor selects notable works from hundreds of magazines, journals, and websites. A special guest editor, a leading writer in the field, then chooses the best twenty or so pieces to publish. This unique system has made the Best American series the most respected — and most popular — of its kind.

The Best American Science and Nature Writing 2012 includes

JEROME GROOPMAN, SY MONTGOMERY, MICHAEL BEHAR, DEBORAH BLUM, THOMAS GOETZ, DAVID EAGLEMAN, RIVKA GALCHEN, DAVID KIRBY, and others

The Best American Science and Nature Writing 2012 Details

Date	:	Published October 2nd 2012 by Mariner Books (first published January 1st 2012)
ISBN	:	9780547799537
Author	:	Dan Ariely (Editor) , Tim Folger (Editor)
Format	:	Paperback 352 pages
Genre	:	Science, Nonfiction, Writing, Essays, Environment, Nature

From Reader Review The Best American Science and Nature Writing 2012 for online ebook

Cara says

Ariely’s selections as Guest Editor for this 2012 Best American Series intrigue and electrify. Unfortunately, Ariely selected writing by three times as many men as women, which calls into question not the quality and quantity of science and nature writing by women today, but the objectivity of those in power in the field to publish and commend the best of it. The collection, arranged in six parts—Bacteria and Microorganisms, Animals, Humans (good and bad), Society and Environment, and Technology—intermixes contemporary concerns with futuristic possibilities. Essays such as Jerome Groopman’s “The Peanut Puzzle,” Sy Montgomery’s “Deep intellect,” and Michael Behar’s “Faster. Higher. Squeakier.” explore topics present in the national discourse, like the cause of allergies and their remediation, the extent of animal intelligence, and the role of performance enhancing drugs. Alongside these timely essays sit prescient pieces that beckon emerging discussions about cryptography and virtual but veritable currencies, the reach of artificial intelligence and the underexplored microbial world. Collectively, the 2012 selections present existential questions and ethical dilemmas without moralizing or answering the queries: Are we smarter than machines? What is unique about human intelligence? Can we feed the burgeoning population with lab-grown meat? Can we reverse the evolutionary process, and should we? This strong collection invites awe, begets wonder, and stimulates contemplation.

Rift Vegan says

Worst Sci & Nat anthology ever. Some, or even many, of the articles would have been interesting to read by themselves, but they were all very "human-centric" shall we say, with lots of hubris. The first 1/2 of the book had so many mice experiments I started marking them in the margins. So stupid: what century do we live in? And who thinks experimenting on mice has any relevance to anything other than proving the sadism of the scientist? And then, in the Animal section... huh, it was all about experimenting on animals.

I will probably continue to read this series. But gah, when will humans grow up???

Dee says

Three and a half stars, really. Consistently good writing but not consistently interesting to me, which is likely to happen with any collection of writing on science and nature. The essays that I enjoyed the most were the ones about octopuses and bitcoins.

Art says

Of the two dozen stories, seven deserve special attention. ... Two articles deal with cities and urban phenomena. Three articles deal with the human brain, another with that of the octopus.

Crush Point
— Crowds as part of urban life.
— Mob psychology, crowd surges, crowd management.

The City Solution
— What cities do well and right.
— City dwellers tread lighter than their rural and suburban counterparts.
— "Get the transportation right, then let things happen," said Peter Hall, planner and historian at University College, London. People in dense cities drive less.

Deep Intellect
— Octopus consciousness, exemplified by one at the New England Aquarium, Boston.
— Octopus and human intelligence evolved independently.

Sleeping with the Enemy
— All non-Africans carry between 1 and 4 percent Neanderthal DNA.
— One of the largest sites of Neanderthal bone remains was found a few miles from the painted caves at Lascaux. ...

Beautiful Brains
— The adolescent brain. The human brain reorganizes itself until age 25 or so.
— The adolescent brain values reward more than adults do.
— "We enter a world made by our parents. But we will live most of our lives and prosper (or not) in a world run and remade by our peers."

The Brain on Trial
— About behavior and why people violate social norms.
— Technology will lead to better measurement of problems in the brain.
— A pretense: That each brain responds the same to challenges, and that each person deserves the same punishment for violations.

The Teeming Metropolis of You
— You are mostly not you. Ninety percent of the cells in your body are microbes, not human cells.
— Two unrelated North Americans share only 10 percent of their intestinal bacteria.
— "We are just beginning to understand the role our biota plays in human health and disease."

Amanda Valenti says

I did not enjoy this selection as much as those from previous years but there were still a lot of interesting articles.

Emma Roulette says

I can't get enough of these books. As always, a fascinating selection of articles. Learned about the science of crowd catastrophes, people who compete in Turing test competitions, human pheromones, and turning on

certain genes in modern organisms to express ancestral traits. The most interesting piece had to be "The Brain on Trial", where David Eagleman dismantles free will and identity, showing how ambiguous and problematic it can be to make any sort of legal decision, and then discusses how we can use neuroscience to come up with more informed legal decisions. Of course I will be reading 2014's edition as soon as it comes out.

Charles says

Some thoughts. My computer has been broken for two or more months so I've been doing all my entries on a smart phone, which is a pain. So now it's fixed and I'm still typing on a phone

I had to go out of town the week before Christmas and had three days to get my act together before the day. Had a real nice visit with friends on the day, but on the two hour drive home I realized I was sick. The point of this is I had little time to read on my trip and too disoriented while sick to focus on a page.

Today I sat down to finish the last four pieces in this book, got distracted, read a review of another that's been in my slag pile for a year. It is a collection of writing from several genres. The reviewers tell me that two pieces are the best, so of course I immediately read them and I agree, but I have now even less interest in reading the rest. That qualifies, in my flu befuddled mind as a spoiler. I'm not usually warned off by knowing the twist, who gets the girl, or who the killer is. I'm usually told by the book jacket, a well meaning friend, a comment or a review in the papers. So I always think duh.

I intended to tell you which of the articles I liked from this years collection including their titles, but no more. Tomorrow when I feel less feverish ill discuss the subject matter a bit on my big boy computer.

Liz says

Interesting, mostly, and all well written; which is what one hopes for in scientific writing, but not what one always gets. Have to admit to having glazed over on both the technology articles.

James says

Fascinating! I like the way this year's editor, Dan Ariely, arranged the stories from those dealing with very small subjects to those tackling progressively larger-scale topics. If this one has a main theme, I'd call it consciousness and cognition in their varied forms, from hive intelligence to human psychology and neuropsychiatry to machine learning and artificial intelligence.
Highly recommended for anyone interested in the above topics, and what could be more interesting (I'm biased, being a cognitive entity myself)?

Melissa says

Well...this volume hits kind of a weird middle-space for me. Taken individually, the essays in this edition of

Best Science and Nature Writing are good pieces of journalism. Six come from *The New Yorker*, three each from *Scientific American*, *Wired*, and *National Geographic*, two each from *Outside*, *The Atlantic*, and *Discover*, and singles from *California Magazine*, *Popular Science*, and *Orion*. But together...somehow they strike me as lacking in breadth, if that makes sense.

After an introduction focusing in scientific paternalism, Ariely divided the essays into subjects: Bacteria/Microorganisms, Animals, Humans (the Good), Humans (the Bad), Society and Environment, and Technology. However, two of the bacteria/micro essays are about nearly the same thing (normal human microbiota and how that plays into immune response/chronic disease) while the third concerns new food allergy research and treatment. It's hard to determine what's "good" or "bad" about the human sections - I can't tell where the dividing line is ("Sleeping with the Enemy" is in the good section, yet is about how modern humans displaced/bred out the Neanderthal - and extincting species is something we seem to be good at, while "The Feedback Loop" - about how we can modify human behavior to combat speeding and medication non-compliance - is in the bad section). John Seabook's *New Yorker* article "Crush Point" (which I read in the original publication) is a good piece of human interest/courtroom reporting but doesn't seem to contain a lot of "science" regarding crowd dynamics. It probably would have been better to list the articles alphabetically by author rather than try to group them.

Many of the articles, no matter the scientific ground grown in from paleontology to neurobiology to computer science, apply the information therein to society as a whole. Lab-grown beef, knock-out genes in Mosquitos that could fuel reactions to GMOs, a hazy article about why humans have a connection with an auquarium (the Roberts article about Wallace J. Nichols was an odd one), urban sprawl, molecular gastronomy, an eccentric physicist and the real-world probability of a theoretical quantum computer, if we must defend our humanity from the likelihood a computer could pass the Turing Test/how to be a more "human" human - everything circles back to human or human-like behavior. Given that Ariely is a psychologist that's not surprising but it makes the collection very flat and more like a pet than a presentation of good scientific work across all disciplines.

Alan says

This issue of the anthology was another good one. Not every article was fascinating but most were interesting. There was a very good piece about Svante Paabo and his work on Neanderthal DNA and another about Wallace J Nichols, who does ocean conservation by appealing to people’s emotions instead of reason. One article began with a story of a teenager in jail for driving 113 mph, which inspired the author to explore how and when the brain reaches full maturity. Another brain story looked at the Texas tower killer who had a brain tumor, leading to an explanation of how brain abnormalities can lead to crime. Crush Point by John Seabrook looked at crowd behavior, beginning with the incident at a Walmart in 2009 in which shoppers crushed an employee on Black Friday. Walmart refused to pay the $9000 OSHA fine for insufficient crowd control training and preparation, lost the court case, and then appealed it, spending many millions to avoid taking the blame. The City Solution by Robert Kunzig began with a story of the Englishman who first wrote about “garden cities” (suburbs), continued with an explanation of how cities are better for the environment than suburbs, and ended with the same Englishman. Test Tube Burgers by Michael Specter explored an industrial park in Holland devoted to research on artificial meat, supported in part by PETA to end cruelty to animals. Several stories focused on biographies of scientists, including Mad Science about Nathan Myhrvold and his scientific cookbook; Dream Machine, a story about England’s David Deutsch, who wrote some of the first article about quantum computing and who believes firmly in the multi-universe theory; and The Crypto Currency, which explained the mystery behind Bitcoin and its inventor. The editors saved the best for

the last as the final piece, Mind vs. Machine, described a contest that does the Turing test to see if a computer can fool people into believing it is human. The author was a contestant and described the scene well, leading to startling conclusions – that what makes us human is not the logical thinking but rather the social, sensory and emotional parts of our consciousness.

Ann says

I love this series, but this edition was disappointing. It's simply wandering too far from its roots. When the first edition of The Best American SCIENCE AND NATURE Writing came out in 2000, David Quammen was the guest editor – an actual “science and nature writer”. The next year it was E.O. Wilson. Close enough. But the farther they get from the original hatching of the idea, the farther the guest editors get from the science and nature writing theme. This year? Dan Ariely, a behavioral economist. I don’t even know what that is but I can assure you his taste in science and nature writing is far more dry and human-centric than my own (and, I’m guessing, much of the readership for this series). I can excuse dedicating 82 pages to “Technology”, even though a couple of the articles were real clunkers. But to then dedicate only 57 pages to “Animals”, and within those few pages to include, for example, an article on the development of a human endurance drug simply because it is being tested on lab mice – is despicable. And then to follow it with an “Animals” article about fighting Dengue fever, qualifying because it involves genetically-modified mosquitoes - is pathetic. Dan Ariely, you promised your kids a pet and bought them a virtual goldfish, didn’t you?

To Tim Folger or whoever chooses the guest editors for this series: Do better next time. Please.

Sean says

Not all of this writing is really so great, especially the intro (cringe), but I liked it overall, and I like reading things like this in general

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Lisa says

This book was utterly, completely fascinating. I can't recommend it enough.

In case the title doesn't render it obvious, this is a collection of articles written on science and nature topics. Nearly all of it is written for a mainstream audience, so one need not be a scientist to comprehend the vast majority of it. (One article about quantum physics was over my head.)

I will admit - some of the articles I half expected someone to pop out of the woodwork and ask me, "Really? You believed that? You ACTUALLY believed that there are scientists out there working on reverse engineering dinosaur DNA from chickens? I mean, how gullible are you?!" Because, yeah, there is this fascinating article about just that. Similarly, an article about the advances in performance enhancing drugs used in mice - creating super-mice who need not exercise to build muscles both intrigued and frightened me even as I thought, 'This is a hoax, right?' And who knew octopuses (octopi?) were such intellectual creatures?

There are thought-provoking articles, and frightening ones. Articles about brain tumors and growths, and brain chemistry itself, affecting our fundamental personalities calls into question who we are are people. The article about people getting crushed to death in crowds (a la the Wal-Mart Black Friday crush some years back) was so interesting - but scary to me as I (no, really!) read it in line on my Kindle at a crowded amusement park. The article about air contamination, especially from unregulated parts of Asia, was downright frightening. The article about efforts to grow test tube meat was thought-provoking and has me half-convinced this is the way to go.

And I have to stop there, because otherwise I would just be listing every article in the book. Just...go read it. And then let's discuss it. And then next year's edition too.

Jonathan Peto says

The guest editor of the the 2012 volume of this series, Dan Ariely, lays out an interesting viewpoint in his introduction. His view of science is activist and centers on humanity, which makes sense since he's a professor of psychology and behavioral economics. He writes that, for him, "...one of the main goals for science in the years to come..." is "...to figure out the human condition and design our environment to reduce our tendency for error and maximize our potential." That affects his selections noticeably, I think, and though it did not bother me, I can imagine the focus might irritate some readers whose views, interests, or goals for science are broader.

One idea Dan Ariely promotes in his introduction that I think may be a hard sell is "science-based paternalism." There are people who seem to trust science as little as they trust government, so Ariely's statement that "we should use science as an input to help us understand which areas of life we should regulate to a higher degree and to come up with interventions that balance effectiveness with minimum impact on personal freedoms" is problematic. I don't disagree with the statement, but something about it makes me uneasy. Maybe because I'm somewhat scientifically literate, but am certainly not capable of verifying research and/or conclusions. I've waded out to my knees at best. When I encounter scientists, I can lob out two or three good questions before they lose interest in me (always the overzealous student).

Anyway, the articles in these volumes are written for general readers and first appeared in magazines such as Outside, Wired or National Geographic. If you're interested in science journalism, the profiles at the end of the book about the writers are probably food for thought. The articles in this volume were arranged in six parts; Bacteria/Microorganisms, Animals, Humans (the Good), Humans (the Bad), Society and Environment, and Technology. I'm going to highlight the articles that caught my fancy:

There were two in the Bacteria/Microorganisms part that mentioned the Human Microbiome Project, which is "an effort to characterize the thousands of species of microbes that live on or in us." Did you know that "90 percent of the cells residing in your body are not human cells"? No sense in getting freaked out about it. Scientists are looking into the importance of these symbiotic relationships, including how it might affect our behavior and the development of our brains.

In Part Two: Animals, one article profiles a man, Jack Horner, who is trying to create a dinosaur, not the impossible *Jurassic Park* way, but by modifying chicken genes to make "a chickenosaurus." Another article is about testing rats in order to ultimately improve human endurance through genes. The fact that those test rats got the article included in a section about animals may piss you off if you're an animal lover.

Part Three and Part Four are both called Humans. The first is supposed to be the Good, the second is supposed to be the Bad. The Good included an article called *Sleeping with the Enemy* by Elizabeth Kolbert, which reports that evidence connects humans to hundreds of species extinctions, and not just in modern times. (PS Did you know there is a Neanderthal Genome Project?) Another article in the Good concludes with observations from neuroscience that seem to damn us to destroy the earth, since “we are born to be ‘good consumers but not good conservationists.’ ”

The choices in the Bad were also sometimes confusing to me, though I enjoyed the articles themselves. For example, *The Feedback Loop* by Thomas Goetz was about how “feedback loops aren’t just about solving problems...” but “...could create opportunities.” What’s so bad about that? The Bad could be named the Depressing. Two articles focus on the brain. In *Beautiful Brains* by David Dobbs, adolescent risk-taking is analyzed in terms of brain development and David Eagleman, in *The Brain on Trail*, highlights how developments in neuroscience, now and in the future, has “legal implications”. That wasn’t depressing, but the sense that our behavior is the result of biology, not free will, was. Also, if bad behavior has a “biological explanation” rather than a moral one, isn’t that Good, in a way?

I’ve gotten carried away and must wrap it up. Lots of articles titulated. One, *Ill Wind*, in Part Five: Society and Environment, mentions “the discovery of the global mercury cycle” which “underscores the need for an international treaty to address such pollutants.” Reread that quote! Mercury. In the Atmosphere. Circulating. *The City Solution* by Robert Kunzig explains why even many environmentalists are recognising that the world’s increasing population is best packed into cities.

Finally, if you’re a fiction writer, volumes like this, with their multitude of topics and personalities, should spark ideas, so go nuts.
