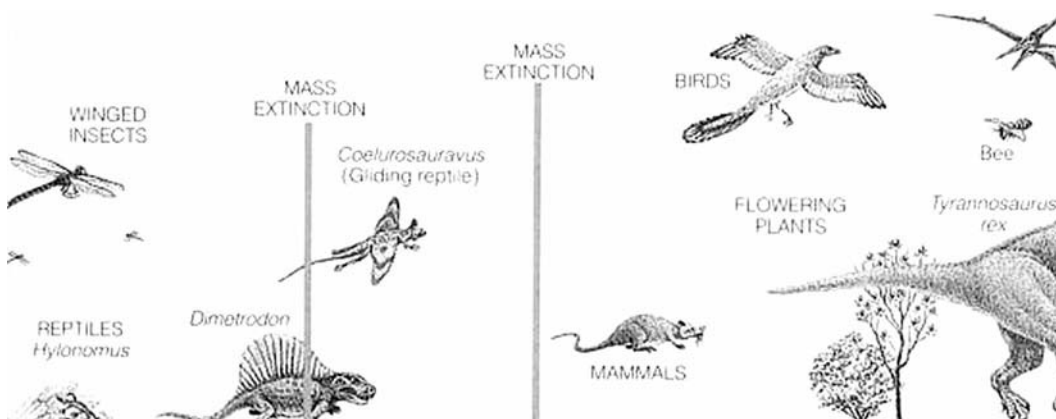


SCIENCE AND THEATRE COLLIDE

By Elissa Goetschius,
dramaturg

When Peter Nachtrieb matriculated to Brown University he planned to study theatre. During his sophomore year, however, an advisor suggested that becoming a playwright was not the most stable of career choices. Inspired by family scuba diving adventures, Peter declared a double major in theatre and biology and began exploring both fields side by side. As he studied cells and stagecraft, the two fields began to merge inside his head. He found drama in the history of scientific struggle.

Science has a power to change the world and how we perceive our place in it. But the public does not always accept those changes with open arms. In 1633, for example, Galileo was convicted of heresy and placed under house arrest for defending the Copernican structure of the universe. In 1864 Louis Pasteur's germ theory debunked the myth of spontaneous generation, yet his technique for safe vaccination is still questioned by parents in pediatricians' offices today.

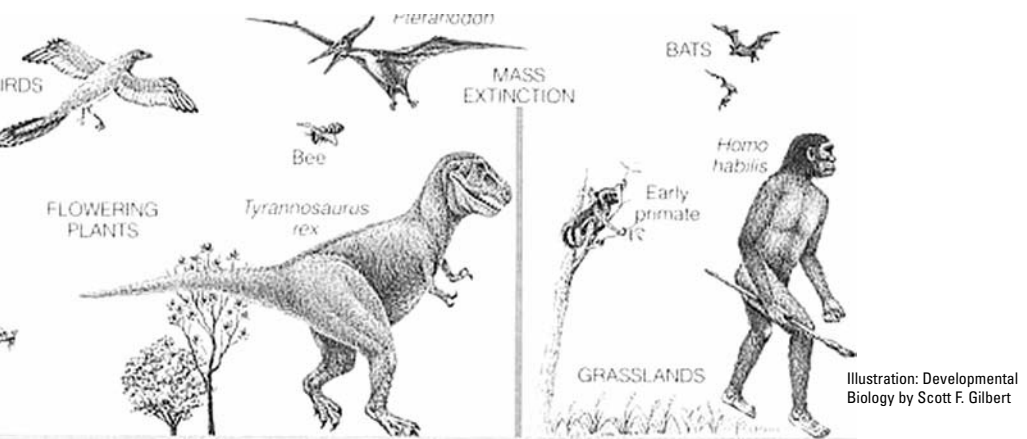


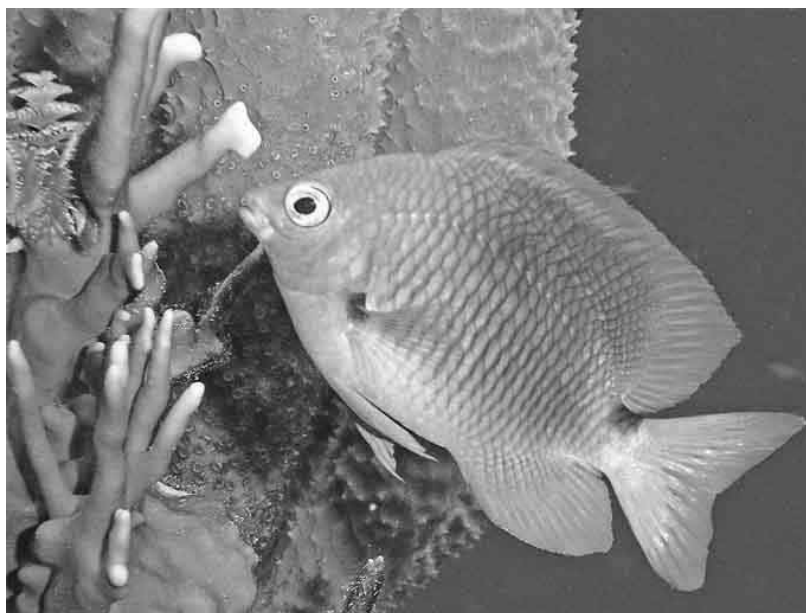
Peter's studies of the mating patterns of Panamanian damselfish ignited the spark that became *Boom*. As he worked, he found inspiration in his scientific idols and the public's enduring resistance to their theories.

Still, the debate about evolution rages on, and it is 150 years since Charles Darwin published his book *On the Origin of Species* and to this day a large portion of the general public dismisses the fundamental principles of evolution through natural selection. As Natalie Angier suggests in her book, *The Cannon*, vocabulary may be partly to blame. "Fie, fie to scientists here, for using a word like 'theory,' which has the common connotation of 'conjecture,' 'speculation,' or 'guess.' ...A scientific theory, like Einstein's theory of general relativity, like the theory of plate tectonics, like Darwin's theory of evolution, is a coherent set of principles or statements that explains a large set of observations of findings. ...those findings... are as close to being 'facts' as science cares to characterize them."

However, the debate about the validity of evolution continues and it is precisely this word "theory" that opponents cling to in their criticism. Proponents of the competing theory of intelligent design (ID), including the Discovery Institute Center for Science and Culture, assert, "Certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection." Those who champion ID – which scientists are quick to point out has no substantive research to support it – have largely given up mandating it in academic curricula. Yet recently they have introduced "academic freedom" laws that will open the door for teachers to "teach the controversy."

Another struggle facing many top scientists today has been convincing





Damselfish, which the playwright studied on a Panamanian island.

Bonaire Photography.

the world about humans' impact on climate change. Even when Al Gore's film *An Inconvenient Truth* was released to great acclaim, many in this country insisted global warming was a hoax. Now, while the public largely acknowledges problems facing us on land – shortage of natural resources, melting ice caps, ever-increasing pollution – marine threats remain drastically under-reported in the media. The sheer number of potential disasters that threaten the water that covers 70% of our planet is staggering.

The Great Eastern Garbage Patch, a soup of plastic refuse possibly one and a half times the size of the entire United States, is floating in the Pacific Ocean between California and Hawaii. A rise in ocean temperatures is killing coral reefs in staggering numbers, destroying habitats for hundreds of species of sea creatures. There are more than 400 dead spots covering the planet where marine life cannot be supported due to depleted oxygen levels. Ocean acidity is rising at an alarming rate, killing off plankton which are responsible for the ocean absorbing as much CO₂ as it does. According to David Hutchins, a biological oceanographer at the University of Southern California in

Los Angeles, if these plankton die off completely, the oceans, which have served as CO2 neutralizers for years, “could begin belching the gas into the atmosphere, just as our cars and factories do.”

Peter has skillfully woven his own education in marine biology into the science fictional premise of *Boom*. He knows the frightening scenarios that face us—and he knows the struggles our scientists face in communicating them to the rest of the world. Humans will eventually die off or evolve as every species before them has. While some people would despair at this knowledge, Peter chooses to see beauty in the larger picture. “I definitely feel that a sort of natural approach to the world, seeing humans as organisms, is a major cornerstone to my world view.” *Boom* dramatizes the quest for truth in the face of great obstacles, ultimately celebrating the resilience of life itself.

ABOUT THE PLAYWRIGHT



PETER SINN NACHTRIEB is a San Francisco-based playwright whose works include *Boom*, *Hunter Gatherers*, *Colorado*, *Meaningless*, and *The Amorphous Blob*. *Hunter Gatherers* received the 2007 American Theatre Critics Association/Steinberg New Play Award for best new play to premiere outside of New York and the 2007 Will Glickman Prize for best new play in the Bay Area. His work has been seen (or will be seen in 2008) off Broadway and across the country at Ars Nova, SPF, Seattle Rep, Cleveland Public Theatre,

Brown/Trinity Playwrights Rep, the Bailiwick Theatre, Wellfleet Harbor Actor's Theatre, Dad's Garage, and the Magic Theatre, Bay Area Playwrights Festival, Killing My Lobster, Playground, and Impact Theatre in the Bay Area. He is currently under commission from Encore Theatre Company (SF) and South Coast Rep and is a 2008 Resident Playwright at the Playwrights Foundation, San Francisco. Peter holds a degree in Theater and Biology from Brown and an MFA in Creative Writing from San Francisco State University. He likes to promote himself online at www.peternachtrieb.com.