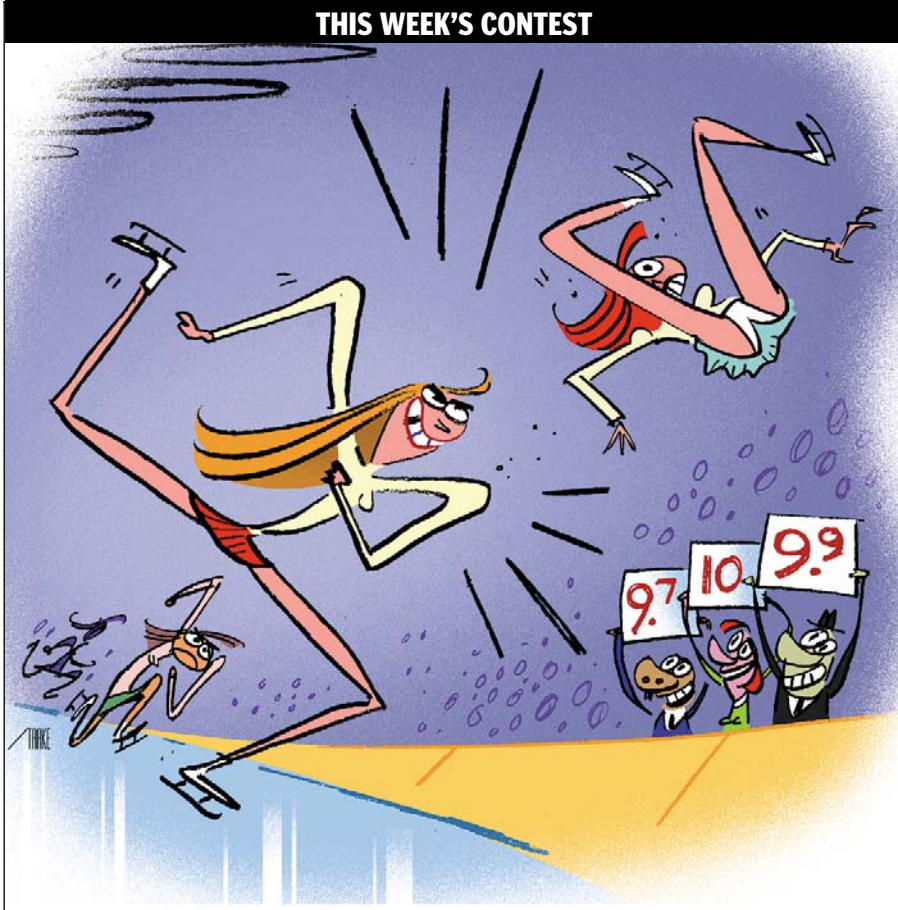


The Style Invitational

THIS WEEK'S CONTEST



BY BOB STANKE FOR THE WASHINGTON POST

Ice Derby: Full contact figure skating

The lugie: Create frozen phlegm sculptures just by spitting

Week 644: Winter Limp Picks

In a little more than four weeks it'll be time again for the Semi-Worldwide Festival of Sports Featuring Bundled-Up Goggled People That Nobody Cares About Except Europeans, Plus Skating for the Ladies' Demographic. Alarmingly successful new Loser Kevin Dopart of Washington suggests we brighten up the Winter Olympics with some new events and rules, as in the examples he offers above. Alternatively, you can suggest a commercial or ad campaign that could be tied in with the Winter Games or one of its sports.

Winner gets the Inker, the official Style Invitational trophy. First runner-up this week gets a trophy, too, of sorts: It's a bobblehead ostensibly of Arnold Schwarzenegger but looking nothing like him, perhaps because this statuette is wearing a pink suit dress and matching pumps. The base is labeled "Governor Girlie Man."

Other runners-up win a coveted Style Invitational Loser T-shirt. Honorable mentions get one of the lusted-after Style Invitational Magnets. One prize per entrant per week. Send your entries by e-mail to losers@washpost.com or by fax to 202-334-4312. Deadline is Tuesday, Jan. 17. Include "Week 644" in the subject line of your e-mail, or it risks being ignored as spam. Include your name, postal address and phone number with your entry. Contests are judged on humor and originality. All entries become the property of The Washington Post. Entries may be edited for taste or content. Results will be published Feb. 5. No purchase required for entry. Employees of The Washington Post, and their immediate relatives, are not eligible for prizes. Pseudonymous entries will be disqualified. The revised title for next week's contest is by Tom Witte of Montgomery Village.



REPORT FROM WEEK 640

In which we asked for mottoes or slogans for any of the 50 United States or its little auxiliary things: When she announced this contest four weeks ago, the Empress expressed apprehension that it would yield too many entries expressing not much more than "This state is boring." Sure enough, it did yield lots of those, along with lots and lots and lots that were unoriginal (*Missouri Loves Company*) or just plain uninspired (especially from those would-be Losers who felt compelled to submit at least one motto for every last state). And some that were funny but were sent by everyone (e.g., *West Virginia or Kentucky: We're One Big Family*; *Arkansas: A Division of Wal-Mart Stores Inc.*). But a few stood out:

4 Alaska: Come for the Caribou, Stay for the Pork (Rob Poole, Ellcott City)

3 Hawaii: The Hub of the Mono-State Area (Russell Beland, Springfield)

2 The winner of the George W. Bush paper-doll-style magnet set: California: Silicon Valley, Silicone Hills (Jack Held, Fairfax)



1 AND THE WINNER OF THE INKER
Kansas: Maybe YOU'VE Evolved (Phil Frankfeld, Washington)

AND A GAZETTEER OF HONORABLE MENTIONS

California: If You Like This Motto, We've Also Got a Screenplay . . . (Brendan Beary, Great Mills)

California: You Deserve a Quake Today (Steve Fahy, Kensington)

Delaware: Toll Plaza 1 Mile (Pam Sweeney, Germantown)

Florida: You Can Turn Off Your Blinker Now (Rob Poole)

Hawaii: We've Got a Word That Means Both "Tourist" and "Sucker," Too (Douglas Frank, Crosby, Tex.)

Hawaii: No, We Can't Explain Why We Have Interstate Highways Either (Russell Beland)

Kansas: Getting the Monkey Off Our Background (Art Grinath, Takoma Park)

Kansas: The Black-and-White Part of the Movie (Jay Shuck, Minneapolis)

Kansas: Way Under the Rainbow (Phil Frankfeld, Larry Yungk, Arlington)

Kentucky: We're West Virginia's West Virginia (Fil Feit, Annandale)

Louisiana: Let the Good Times Sink (Ed Gordon, Ashburn)

Louisiana: If You Lived Here, You'd Be Homeless by Now (Larry Yungk)

Mississippi: That's M-I-Crooked Letter-Crooked Letter-I-Crooked Letter-Crooked Letter-I-Humpback . . . (Marty McCullen, Gettysburg, Pa.)

Nebraska: The Nation's Only Unicameral Legislature. Whoopee. (Douglas Frank)

Nevada: What Happens Here Stays Here (Not Counting Any Subsequent Itching and Burning) (Peter Metrinko, Chantilly)

New Jersey: The Garden State — Smell Our Plants! (Steve Langer, Chevy Chase)

New York: Unless You Got 7 Million of Your Friends Around, I Suggest You Shut It (Douglas Frank)

New York: We're More Than Rochester (Norman F. Wesley, Pittsburgh)

Oregon Is for Goners (Kevin Dopart, Washington)

Rhode Island: Spend a Few Minutes With Us (Marty McCullen)

Rhode Island: Sharing a Puzzle Piece With Connecticut Since 1776 (Andrew Hoenig, Rockville)

South Carolina: Party Like It's 1861 (Rob Poole)

South Dakota: Betcha We Have More Giant President Heads Than You Do (Russell Beland)

South Dakota: North Dakota's Riviera (Elwood Fitzner, Valley City, North Dakota)

Texas: It's All in the Execution (Marty McCullen)

Utah: Just a Notch Below Wyoming (Russell Beland)

Utah: Bring the Wives and Kids (Steve Adise, Silver Spring)

Vermont: Founded by Ira Allen, Ethan Allen's Brother (Ira Allen, Bethesda)

Virginia: Yeah, Well, You Don't Have to Be a Louise to Live in Louisiana Either (Elwood Fitzner)

Washington, D.C.: We've Never Elected a Crooked Senator (Kevin Dopart)

And Last: Navassa Island: We Never Heard of Ourselves Either (Brendan Beary) [That may be because the territory of Navassa Island, a speck in the Caribbean that was claimed by the United States in 1857 for its guano, is uninhabited except for "transient Haitian fishermen and others," according to the CIA's Web site.]

Next Week: Dreck of All Trades, or Twindustries

Where to Start, Where to Start . . .

LIFE, From D1

certainties, of raging controversies, of passions and prejudices. Of all the great unknowns, the origin of life is particularly daunting. Direct evidence of the origin is essentially nonexistent: It happened too long ago, in too subtle a way. There's no fossil of the First Microbe. If there were, some skeptical scientist would surely raise a ruckus, saying: That's just a blob of mud.

The field has attracted people with strong personalities. They argue. They grumble. They snipe. Their debates are much more intense, and more grounded in the rules of science, than the much-hyped debate about evolution and intelligent design.

They are wrestling with basic questions: What is life, exactly? Does it always require liquid water and those long Tinkertoy carbon molecules? Does life require a cell? Did life begin with a hereditary molecule or with some kind of metabolic chemical reaction? Where did life begin on Earth? Was there a single moment that could be described as the "origin of life," or did life sort of creep into existence gradually?

All that is very much in play. In the words of George Cody, an origin-of-life researcher, "No one knows anything about the origin of life."

At the risk of absurdly oversimplifying, there are two prominent schools of thought in the origin-of-life (OOL) community: The Millerites and the venturists.

The Millerites follow in the footsteps of Stanley Miller, the mastermind of the most famous experiment in the history of the field. In 1952, working under Harold Urey at the University of Chicago, Miller created a laboratory analogue of the young Earth. One five-inch-diameter flask held water, mimicking the primordial ocean, heated by a gentle flame. A larger flask held a mixture of gases — methane, ammonia and hydrogen — representing a hypothetical early atmosphere. Miller zapped the atmosphere with electricity (lightning). The next day he discovered that his clear "ocean" water had turned yellow, and a brown gunk had appeared around the electrodes. The simple experiment, repeated over many days, produced organic molecules, including amino acids, some of the building blocks of life.

This was a long way from making life in a test tube — the simplest organism is vastly more complicated

than anything in the Miller-Urey experiment — but it set a template for the field of prebiotic chemistry. Miller made chemistry look like a powerfully creative force.

The venturists are apostates. They are blasphemers. Perhaps life didn't begin at the surface of the Earth, they say, but rather deep beneath the sea around a hydrothermal vent. Such geysers form along mid-ocean ridges, spewing hot water into a dark, cold, pressurized realm that teems with bizarre organisms, like giant clams and 6-foot tube worms. The venturists say the disequilibrium between the hot and cold water is a natural driver of interesting chemical reactions. This would be a good place to cook up organic molecules from which life could emerge and evolve, they say. Moreover, the deep hydrothermal environment would have been protected from harsh ultraviolet sunlight and the meteor bombardments common at the surface of the young Earth.

In other words, it's where we humans live, on the surface, that might be the truly exotic environment. Perhaps life's miracle is not that it learned to live at the bottom of the sea, but somehow in the sunshine.

On a knoll of bedrock on the edge of Rock Creek Park, tucked on a back street called Broad Branch Road, is a little scientific fiefdom called the Carnegie Institution. On the third floor of the Geophysical Lab you'll find the aforementioned Robert Hazen — a proud venturist.

You may have read one of his 19 books (such as "Science Matters," written with James Trefil), or taken one of his science classes at George Mason University. Or maybe you've seen him play classical trumpet in a symphony orchestra. He's somewhat all over the place as scientists go. About a decade ago, after years as a crystallographer, studying rocks, he turned his attention to the origin of life.

The result is a new book, "genesis: The Scientific Quest for Life's Origin," a rambling tour of a controversial field. We learn about the theory of A.G. Cairns-Smith, that life began as clay. We learn about the Iron-Sulfur World of the German patent attorney and chemist Gunter Wächtershäuser, described as quick to fire off an angry letter on legal stationery. We learn about the Proteoid World, championed by the late Sidney Fox, who cooked up in a lab



BY P. RONA / OAR — NATIONAL UNDERSEA RESEARCH PROGRAM; MILLER PHOTO COPYRIGHT 1981, UCSD PUBLICATIONS OFFICE, UNIVERSITY OF CALIFORNIA, SAN DIEGO

tiny spheres that he thought possessed "rudimentary consciousness." Amid all the chemistry are scenes of scientific rancor, as when Hazen describes a face-off between two scientists, Martin Brasier and William Schopf, over some alleged 3.5-billion-year-old fossils.

"As Brasier calmly outlined his arguments, the scene on stage shifted from awkwardly tense to utterly bizarre. We watched amazed as Schopf paced forward to a position just a few feet to the right of the speaker's podium. He leaned sharply toward Brazier and seemed to glare, his eyes boring holes in the unperturbed speaker."

Hazen writes that the origin-of-life field is "at times tarnished by questionable data, contentious debates, or even outright quackery."

Now you can see how all this might get a bit delicate given the current debate about intelligent design. Hazen knows that by exposing the backstage bickering on the origin of life, he may give ammunition to the critics of the scientific community: "Anything I say that shows any un-

certainty or doubt, they will use as evidence that scientists are baffled." His friend Harold Morowitz, another prominent origins researcher, says of Hazen, "He is walking into the middle of a lot of crossfires."

But Hazen has a broader agenda, which is to make science accessible to ordinary people. And perhaps, he seems to be saying, making it more human will help that cause. He doesn't flinch, unlike many scientists, from engaging in verbal battle with the proponents of intelligent design. He doesn't apologize for putting out a book with a title that, except for the fact that it's lowercase, is the same as a much more famous book by a much more revered Author.

"The word 'genesis' has a more generic content. It's everybody's word," Hazen says. "We have just as much ownership over the genesis story as they do, and wanted our story to be heard."

He believes that the universe is hard-wired for the emergence of life. "Emergence" is his buzzword, much more than "evolution." What he sees

is inevitable progress from the simplest elements to more complex chemistry, then to life, then to consciousness, and finally to creatures who can comprehend the cosmos. "And if that isn't meaning and purpose, I don't know what is."

Is there a God who hears the prayers of human beings? "Science cannot say yes or no to that," he says. "Science can't answer questions about faith and the nature of God."

But can religious people accept the scientific take on the cosmos? "If you wanted to know if the universe has meaning and purpose, wouldn't you be better off studying the universe?"

Hazen is, at first glance, a prime candidate to represent the scientific view of life's origins. He's good-looking, articulate, passionate, and has collaborated in OOL experiments. He puts interesting samples into contraptions called hydrothermal bombs, and squeezes them at 4,000 atmospheres of pressure at 1,000 degrees Celsius.

But he's also a relative newcomer to a highly contentious field. Some of the old guard, the Millerites, have not welcomed Hazen any more than they've embraced the deep-sea-vent idea.

As Hazen writes, "Miller and his scientific cohort had staked their claim to a surface origin of life, and they seemed determined to systematically head off dissenting opinions."

The Millerites, Hazen reports, relentlessly attacked the theory that life could have begun at ocean vents, saying high temperatures would have destroyed amino acids. Miller called the vent hypothesis "a real loser."

To this day, the Miller camp won't budge.

"This whole hype on hydrothermal systems and everything is just bogus," says Jeff Bada, professor of marine chemistry at Scripps Institution of Oceanography at the University of California at San Diego and the most prominent protege of Miller. "I think he oversells this." Bada questions an experiment that Hazen and his colleagues conducted in which they managed, in mimicking deep-sea pressures and temperatures, to create an important biomolecule called pyruvate: "I have some strong questions about whether that experiment is even valid. We haven't been able to repeat it."

Hazen denies overselling anything.

"Bada has for a long time felt he has enemies here. . . . It's been very strained. It's been very antagonistic."

Why is the field so contentious? Hazen says, "I've heard it said that the less certain we are about a field of knowledge, the louder we have to shout to get our point across. Back when I was doing crystallography, no one shouted. And maybe that's why it was a little boring."

Nothing's ever dull in the OOL world.

Science as an enterprise has persisted and grown over the past half-millennium largely due to its ability to get things right — eventually. Weak theories wither on the vine, starved for experimental support. Good theories thrive. There's a kind of natural selection at work; even the theory of evolution has evolved, and become stronger, as observation and experiment show how evolution works.

Hazen says, "Ultimately the truth comes out." But some questions are harder than others. Life began on Earth a long time ago, maybe as long as 4 billion years ago. Someone can always show how it could have happened, but as Morowitz puts it, "Will we ever know what happened historically 4 billion years ago? No."

And so the debate over the beginning will probably never come to an end.