SEJournal

Spring 2009, Vol. 19 No. 1

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A quarterly publication of the
Society of Environmental Journalists

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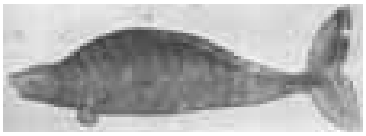

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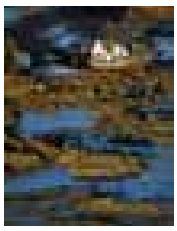

COVER PHOTO
The Perry James family home in Harriman, Tenn., stood directly in the destructive path of the TVA Kingston Fossil Plant coal ash spill on Dec. 22, 2008. Photo © Dot Griffith Photography

The world changes and twirls us back toward place

By CHRISTY GEORGE

I'm sure that reading *National Geographic* in my childhood laid the groundwork for what I thought was my personal theory that geography is destiny.

When I visited Central America during the 1980's, I made the connection that, because the region is constantly rocked by earthquakes and erupting volcanoes, the ground beneath peoples' feet is truly unstable, and that in turn, has led to Central America's unstable politics. And later, visiting Japan in the 1990's, I realized the profound influence being an island nation made up of overwhelmingly homogenous people has had in making Japanese culture and politics insular.

I was reminded again of this theory in January, when SEJ's board met at Arizona State University in Phoenix. ASU has both a young and rapidly growing Sustainability Institute and a journalism school — The Walter Cronkite School of Journalism and Mass Communication, and SEJers organized a panel on the financial plight of journalism. Among the professors the "Cronk" has recently snared: former CNN anchor Aaron Brown, Steve Doig, late of the *Miami Herald*, former *Sacramento Bee* editor Rick Rodriguez, Kristin Gilger of the Salem (OR) *Statesman-Journal* and the *Times-Picayune*, and new media writer Dan Gillmor, who ditched his column at the *San Jose Mercury News* to start the first blog by a mainstream journalist, and who now heads ASU's Knight Center for Digital Media Entrepreneurship. The J-school also draws heavily on Arizona journalists from all media to be guest lecturers.

What was most striking for me was how ASU has grown as an institution exactly as the city itself has grown: sprawl. ASU has even incorporated sprawl into the design of its campus and content within its Global Institute of Sustainability — the first of its kind. Director Jonathan Fink told us that the Institute's founders literally gathered up all kinds of sustainability-related pieces and programs and left them in their de-centralized buildings all around the city after the launch. Now, Fink says, ASU treats that organic sprawl as a creative force, encouraging interdisciplinary connections and collaborations — notably in the school's "Decision Theater," a laboratory for science-based game-playing and policy-making about things like pandemic flu.

What does all this have to do with environmental journalism? For starters, I'm convinced that an awareness of "sense of place" adds a deeper dimension to our reporting. What is nature writing if not an exploration of very particular places? And I mean nature writing in the broadest sense, including writing about PCBs, CFCs, or CAFOs.

There's nothing like an SEJ conference, and especially an SEJ field trip, to bring home the connections among a place's physical geography — minerals, trees, plants, animals, birds, fish and bugs, the economy those resources provide to a place, and the culture and politics of a place's people.

Before the age of transience arrived and people started moving several times within their lives, geography was the major determinant in our lives: the characteristics of the land in our home place shaped the culture we grew up with, and the local natural resources defined the local economy.

SEJers discover this every year when the annual conference moves to a new location. This past year, in Roanoke, we encountered Appalachia, a region where mountains wall off small hollows and separate population clusters, leading to tightly knit small communities. That isolation produced unique traditional music, crafts, and herbal medicines, all of which endure today. Once the coal companies moved in to mine the Appalachian Mountains, people broke their geographic isolation by joining the union.

Compare Appalachia's geography to that of Madison, Wisconsin, where SEJ will hold our 2009 conference in October. Instead of isolated mountain villages, the Midwest is wide, flat and open, sliced by rivers and dotted with glacial lakes, with small rounded hills — perfect for raising dairy cattle and growing grain. Grain led to flour mills, and railroads, and manufacturing. When power got overly concentrated in the hands of robber barons during the Industrial Revolution, workers and farmers in Madison (and across the Midwest) became a hotbed of the agrarian Progressive reform movement.

This notion that geography is destiny may become even more important as climate change accelerates and the impacts become more evident. For one thing, climate change may erode, or even erase, what we now think of as the traditional sense of place. For another, there could be mass migrations of people away from their traditional homes to escape intolerable conditions — drought, floods, heat, cold and rising seas. Yet other populations could be stuck in changing places while the natural character of those places that shaped the local economy and culture disappears.

The intersection between a "sense of place" and the prospect of climate change has spawned new academic experts: biogeographers, paleobiogeographers and cultural biogeographers, whom SEJers can find at http://www.biogeographer.org/ — one of many intriguing sub-groups of the Association of American Geographers: http://aag.org/sg/sg_display.cfm

Thanks to climate change, the global economic crisis and, perhaps, the arrival of peak oil, the short happy life of *New York Times* columnist Tom Friedman's "flat world" may come to an abrupt end. If the cost of air travel and international shipping rise beyond our means and our super-mobile lifestyle of the last half-century ends, the world will become very local and very, very round again. And the job of journalists will be to discover the new "sense of place" in a transformed world.

Christy George, SEJ board president, is special projects producer for Oregon Public Broadcasting.

In the eye of the newsworld storm

Let's not forget the key ingredient of credible daily journalism

PHOTO BY ROGER ARCHIBALD

By MICHAEL MANSUR

I can imagine that many of us working at a newspaper are beginning to feel a bit like a soldier in a World War I trench. Your buddies are falling all around you and you figure you may soon join them.

And the only thing you know to do is fight on. It seems noble to do so. Besides, you think, where else can I go?

Years ago, in my first big-city job, I sat for a first time with my new newspaper buddies in a local pub. Charlie Roper, a longtime editorial writer and a great newspaper man at the *Memphis Press-Scimitar* — Edward Meeman's old newspaper, now shuttered, of course —was telling a story from his J-school days at the University of Arkansas.

"What's the purpose of a newspaper," he quoted his journalism school prof.

Around the room, Roper related with great barroom flourish, the students stretched up their arms to answer.

"Right wrongs."

And the teacher shook his head.

"Help the afflicted."

No.

"Give them light….." Roper said, quoting from what was the motto of Scripps-Howard, the company that owned the newspapers in Memphis.

No, the teacher replied. "It's to make money."

Indeed, almost every newspaper in America is a business. Problem is that, for most of my career, I never really had to think much about the truth of Roper's story. I remembered it, but it hardly ever affected me or what I did.

Then came 2008-09.

If it's not known later as the Great Depression of the 21st Century it will be known as the year that newspapers, as we had known them for decades, died. Some are quite gone — the *Rocky Mountain News* and maybe even the *San Francisco Chronicle*. *The Ann Arbor News and* the *Seattle Post-Intelligencer* just announced they are going all online.

Serious doubts are being raised about other news organizations as they struggle on. But its plight is about more than new technology strangling its revenues. Strangely, my newspaper, *The Kansas City Star*, and its other brothers in the McClatchy news chain of newspapers were profitable in 2008. Yes, they were making money. But the corporation that owned them carried a large debt.

And the recession came, of course. Advertising fell. As did the newspaper's profits.

Won't it come back with the economy? That's one hope. But, then again, I wonder. Might the advertisers who left the print publications return, even with good economic times? Might the old business model of private advertisers paying the freight for the nation's reportage be so fractured by the Internet that only new business models will flourish?

Those worried about the print journalism world's continued existence find much to point to in recent weeks beyond the death notices of once-great publications like the *Post-Intelligencer*.

The Pew Research Center for the People and the Press released these findings in March: Fewer than half of Americans say that losing their local newspaper would hurt civic life in their community "a lot." Even fewer (33%) say they would personally miss reading the local newspaper a lot.

I wasn't surprised. Just counting the front lawns in the morning that still have newspapers awaiting a homeowner signals those numbers are not so far off. But, then again, who wouldn't establish a business that reached 200,000 homes in almost any American metropolitan area?

Also, what percentage of Americans would say the same about an Internet news site?

Meanwhile, no viable alternative to producing local daily journalism has surfaced. With hope, we look to websites like the Voice of San Diego. Funded with non-profit dollars, it's recently attracted the attention of *The New York Times* and the *Los Angeles Times*, among others, as a potential model for future local coverage.

The site — www.voiceofsandiego.org — displays an impressive amount of quality, prize-winning journalism. But so far the site attracts only 60,000 unique viewers each month.

So the way out of this predicament has not surfaced as yet. There is officially no way to keep alive credible daily journalism, especially local coverage, if newspapers fail. And it must be something with more information than 140-character tweets.

What emerges, I suspect, will be some combination or

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hybrid. If the economy improves, enough advertising dollars might support operations for the dedicated remaining millions who still want a printed product, while the same news organization can also feed the Internet masses.

Maybe it will be like the 20th Century's dawn when each town had multiple news operations. Of course all of them were printed. In the future each town may have its own individual combination of news sites that work, possibly in a variety of ways.

Don't know.

But I believe this, for certain: Those guys in the World War I trench. They fought for something as well as their lives. And all of us who labored at newspapers, often for less-than-what-should-have-been-acceptable pay, did so *not* because they knew a newspaper was a business. They did so because they believed what they did had little business purpose. It simply had purpose. They worked to make a difference.

Newspapers may close or morph into all-Internet operations or change in a variety of other yet-to-be-imagined ways. But that very passion that fueled so many journalists in the 20th and early 21st centuries will be the one thing that leads us to whatever it is that returns and sustains daily journalism, whether it is distributed via the Internet, in a newspaper box or on a TV screen near you.

So here's to that bright future. But getting there – that is the tough part.

Oh, I should note that I have survived my news organization's latest round of cuts. Dozens of others did not, adding to dozens more who have gone before them in the last year. Many of them, I can say for a fact, were as good or better journalists than those left behind. I pray some of them are part of that bright future.

Michael Mansur, SEJournal *editor, covers local governments for* The Kansas City Star.

PHOTO BY ROGER ARCHIBALD

So here's to that bright future.
But getting there — that is the tough part.

SEJ Event at ASU examines online reporting opportunities

By CAROLYN WHETZEL

Print journalists considering a dive into Web-based media should, at the very least, start a blog. Even better, develop the technical skills needed for multimedia reporting.

That advice comes from Dan Gillmor, director of the Knight Center for Digital Media Entrepreneurship at Arizona State University's Walter Cronkite School of Journalism and Mass Communication.

Gillmor was one of four veteran newspaper journalists who talked about the opportunities for quality journalism, including environmental reporting, in online news outlets at a program SEJ sponsored Jan. 30 at the Cronkite School in downtown Phoenix.

"Learning about being on the Web and digital (media) forms is about just doing it," Gillmor said. The chances for financial success are best "if you can find a niche and go deep and be the best at it in the world and have a market" Gillmor said.

As a columnist at the *San Jose Mercury News*, Gillmor, in 1999, launched one of the first weblogs from within a traditional news organization.

"Internet-based news sites, even those operated by traditional newspapers, are capturing large audiences," Gillmor said. Many rely on the news that other organizations are paying to produce and are unlikely to support what Gillmor called "eat your spinach journalism," the kind of good journalism SEJ promotes and the type of reporting a growing number of newspapers are unable to finance, he said.

But new models are emerging, including non-profit news outlets like *ProPublica*, that are supporting quality, original journalism, and innovative multimedia news sites, Gillmor said.

Other journalists on the panel —Adam Klawonn, editor and publisher, *The Zonie Report*; Marla Cone, editor-in-chief, *Environmental Health News* and former SEJ board member; and Douglas Fischer, editor, *The Daily Climate* — shared the motives behind their move to online news.

After *The Arizona Republic* shuttered its news bureaus around the state, Klawonn saw an opportunity for a multimedia statewide news site. Klawonn left San Diego to return to his native state, and with money he had squirreled away for graduate school, launched *The Zonie Report.*

The Zonie Report does not provide breaking news, he said. Instead, it focuses on five topics: growth and development, environment, health, politics, and Mexico.

"These are the five things people really care about," said Klawonn, the site's editor and publisher.

Klawonn's site features blogs, narrative, video, and sound, much of it produced by him and freelancers. While popular, the free site has yet to generate enough advertising revenue or other income to be self-supporting.

As a result, Klawonn works as editor at *Phoenix* magazine and as an adjunct professor at ASU's Cronkite School.

Marla Cone spent 18 years as an environment writer at the *Los Angeles Times* pioneering a beat that focused on explaining the risks pollutants pose to the public health, wildlife, and ecosystems.

"I'm very much an old media person," Cone said. "I've worked at newspapers for 30 years."

Quarterly downsizings at the *Los Angeles Times* had cut the editorial staff in half and curbed the ability to write long stories, she said.

"I didn't think we were serving the readership" Cone said. "I want to write about things people should know about."'

Last fall, she accepted the job at *Environmental Health News,* a non-profit online news outlet published by Charlottesville, Va.-based Environmental Health Sciences.

"We're the *ProPublica* of environmental news," Cone explained.

EHN's researchers gather news and science from around the globe daily. Its free daily e-letter, Above the Fold, is often the first thing many environmental journalists look at in the morning. But EHS also provides original reporting by staff and freelancers that it syndicates to other publishers for free.

"I'm writing the same type of stories I used to write at the *LA Times*," Cone said. "We're filling the void for newspapers that can't support this kind of journalism any more."

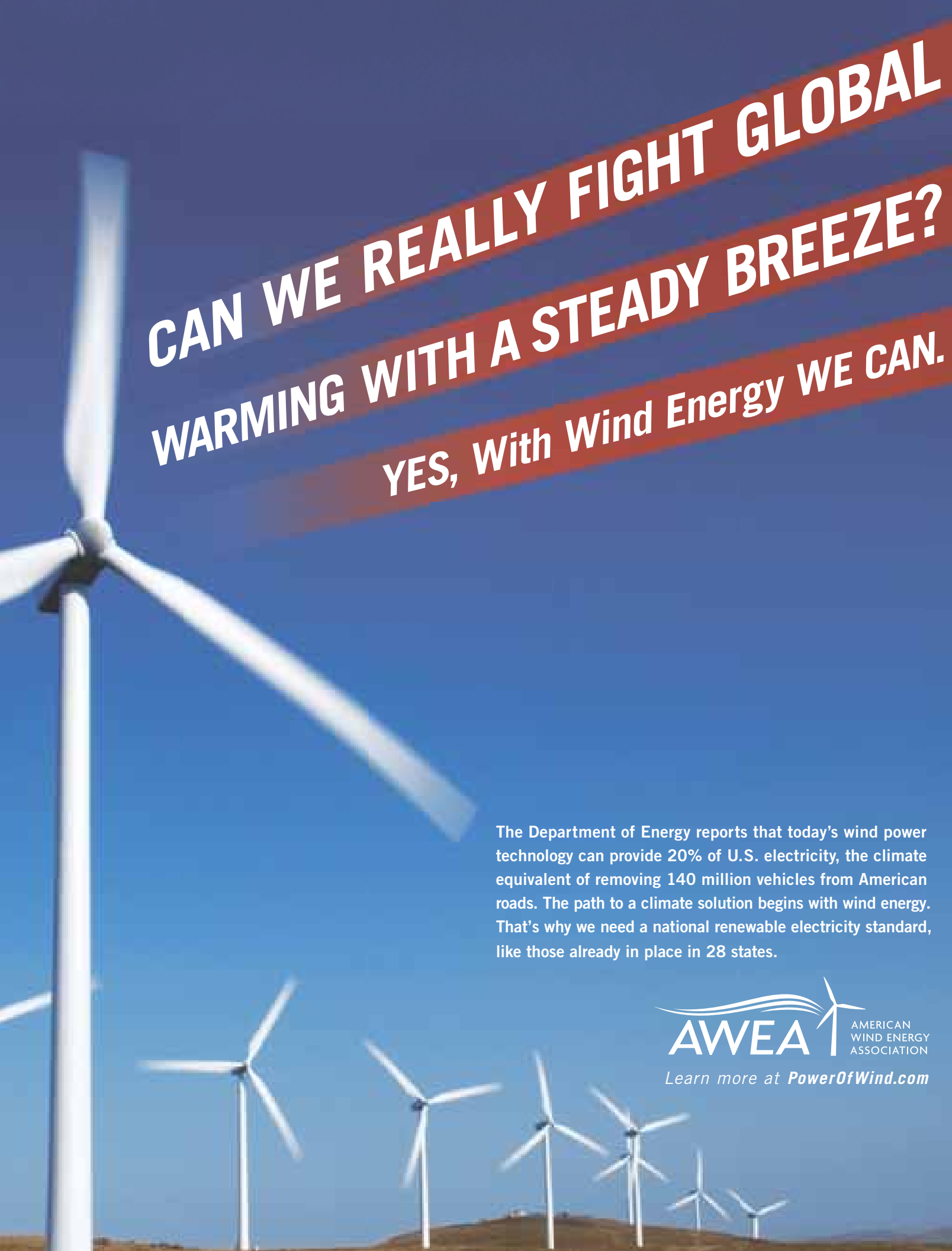
Fischer said his move to *The Daily Climate*, also an EHS publication, is giving him a chance to help reinvent journalism, a career he was beginning to question.

The turning point came when Fischer's wife accepted a fellowship in Boulder, Colo., forcing his departure from the *Oakland Tribune* and a search for new work.

Fischer said he starts the work day at 5 a.m., reviewing climate change-related news stories and other information EHS researchers dump into his queue to determine which to add the website.

Both Fischer and Cone have healthy budgets for freelance stories, courtesy of foundation grants that have absolutely no say in the editorial content of the stories.

Carolyn Whetzel is California correspondent for BNA and a longtime SEJ board member.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Spreadsheets can find patterns in words, not just numbers

Date/Yr	EPub/Date/Mo	Author 1	Author2	Author3	Author 4	Author 5	Author 6	Journal	Animal	Strain	Effect
2005	5	Williams	Hess	McFry	Sullivan	Rubin	Gulliford	Sci X	rat	CO-1	y
2001	10	Sprague	Sanders	Nelson	Bender	Edwards	Tillings	EVY Pro	rat	n	n
2008	12	Vane	Connor	Leeland	Sauls	Weller	Baretti	ANM	mice	Wis	y

By DAVID POULSON

Reporters traditionally use spreadsheets to analyze numbers and quickly calculate thousands of records.

But increasingly they also use them to analyze words and to find patterns in their notes. You don't have to know a mean from a median in those spreadsheets to uncover a hot story angle, rule out dead ends or keep yourself organized during a complex investigation.

Susanne Rust used a Microsoft Excel spreadsheet to analyze more than 250 peer-reviewed studies about the health effects of the chemical bisphenol A. The *Milwaukee Journal Sentinel* reporter started with five columns — date, author, journal, whether the study found an effect and who funded it.

As she worked, she added new categories. And her spreadsheet largely populated with words, not numbers, grew to more than 50 columns. They included such things as the number of animals studied, how they were exposed, their bedding type and the health endpoint that was examined.

Rust found that 168 studies looked at low-dose effects. And her spreadsheet analysis helped her discover the basis of a powerful story: 132 of those studies disclosed health problems, including hyperactivity, diabetes and genital deformities.

Perhaps equally interesting is that all but one of the studies indicating health problems were conducted by non-industry scientists. But nearly three-fourths of those that found the chemical harmless were funded by industry.

Rust also ruled out a story tip that some studies may be skewed because a particular strain of rats might be insensitive to the chemical. Her work did not disclose that pattern.

"It's funny, you know, although I used Excel all the time as an anthropology grad student, when I became a journalist, it never occurred to me to use it — until I got on this story," said Rust, a member of SEJ.

"Now, once again, it's become indispensable in my work."

Former SEJ president Mike Mansur, an investigative reporter for *The Kansas City Star*, also found a spreadsheet valuable for more than crunching numbers. He built one to investigate complaints against the Kansas City Police Department.

Not sure of what he'd find, Mansur created columns for each bit of data on the form used to investigate the complaints. They included things like location of complaint, date filed, date resolved, outcome, gender and race of complainant, gender and race of officer.

"I learned how long each complaint took to wind through the system, how often video cameras were not on or failed, how often the officer was exonerated," Mansur said. "It also gave me an easy way to search my paper files without ever touching them. If I wanted the complaint at 67th and Swope, I searched for those terms and the number popped up."

Indeed, organization and quick access to information is why many reporters use spreadsheets.

ProPublica reporter Joaquin Sapien created in Excel a chronology of how the Federal Emergency Management Agency defused worry over formaldehyde levels inside trailers provided to hurricane victims. The story drew upon two years of email conversations and formal correspondence between federal officials.

Sapien, also an SEJ member, created fields for date, agency, description of communication, newspaper clips.

"Each time that a relevant email was exchanged between agency officials, I plugged a description of the email into a cell that corresponded with the appropriate date," Sapien said.

He linked descriptions to the supporting documents saved on his hard drive. A pattern emerged showing that the objections of many low-level officials were ignored while senior officials insisted that the formaldehyde did not pose a health hazard.

"The process made several hundred pages of documents far easier to process, and gave me a quick accessible format that was extremely helpful in writing the story," Sapien said.

What's more, the spreadsheet became the basis of an online timeline providing a visual aid for readers.

Excel can even sort through multiple interviews to help get a sense of where the story is. Marcy Burstiner, a former reporter who teaches investigative reporting at Humboldt State University, has developed a system for entering into a spreadsheet interview questions and answers, the major points they elicit and quotes relevant to those points.

Sorting on the major points elicited in the interviews will group all the information that produced them, Burstiner said. Points without a lot of supporting information may be irrelevant or perhaps require more investigation.

But similar points, gathered from perhaps dozens of interviews, may become the structure of the story. And sorting them groups all the quotes, paraphrases and other information that support those points.

"In other words, Excel outlines your story for you," Burstiner said. "Then you can relabel cells according to major points and

continued on page 26

black carbon:

a key cause of warming not well recognized

By CHERYL HOGUE

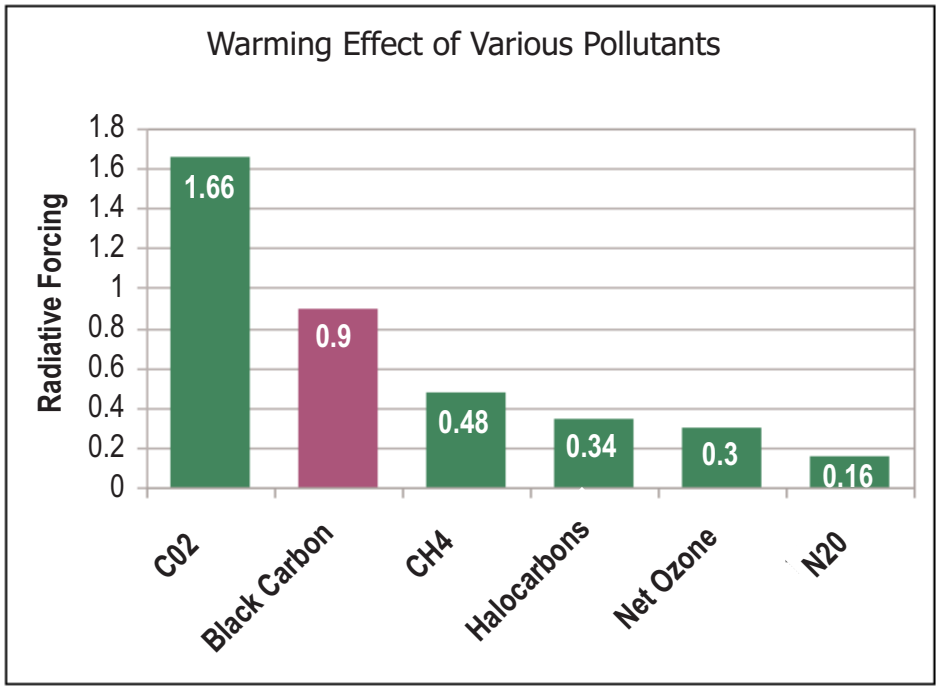
Quick – after carbon dioxide, what's the second largest contributor to human-induced global warming?

It's not methane from giant manure pits and rice paddies.

It's not even a gas. It's a solid.

It's black carbon, a type of particulate pollution. Scientists say black carbon is a major cause of warming in the Arctic and the Himalayas.

Black carbon didn't figure prominently in the Intergovernmental Panel on Climate Change's landmark 2007 scientific assessment of global warming. But research since then, especially a 2008 paper published in *Nature Geoscience*, has boosted black carbon's significance among the emissions that cause warming.



GREEN BARS INDICATE IPCC ESTIMATES; PURPLE SEGMENT INDICATES FINDINGS OF RECENT RESEARCH . UNITS ARE RADIATIVE FORCINGS, A MEASURE OF INFLUENCE ON GLOBAL ENERGY EXCHANGE, EXPRESSED IN WATTS PER SQUARE METER. SOURCE: EARTH TRENDS 2008, USING DATA FROM IPCC 2007.

Policymakers are increasingly interested in black carbon these days because reducing emissions of it could curb global warming in the short term. This could buy time for the development and deployment of new technologies to reduce carbon dioxide releases over the long haul. However, black carbon is not among the emissions targeted for control under the United Nations treaty to combat climate change.

Black carbon comes from incomplete combustion. Sources include forest fires and the burning of diesel, coal, crop residues, wood, dung, or other biomass that people use for heating and cooking. It's a constituent of fine particulate matter, a type of air pollution linked to respiratory and cardiovascular problems.

JOURNALISTS, TAKE NOTE: BLACK CARBON ISN'T CARBON BLACK.

A commercial product used as a pigment in inks and car tires, carbon black is also starting material for many products of nanotechnology. There are key chemical and physical differences between the intentionally produced commercial material and the widespread pollutant, according to the International Carbon Black Association, an industry-sponsored group that conducts health, safety, and environmental research. The big difference, the association says, is that carbon black is generally composed of at least 97% of carbon in its elemental form — meaning the atoms of carbon aren't bonded with other elements.

Black carbon, in contrast, has less elemental carbon than the commercial product. It generally contains a fairly hefty amount of other chemicals, including a family of hazardous air pollutants called polyaromatic hydrocarbons.

Black carbon contributes to global warming in several ways. It absorbs the sun's energy and heats up the air around it, just like a black dashboard and seats can make a car's interior stifling on a cool, sunny day.

When wind currents sweep black carbon bits high into the atmosphere above most clouds — at an altitude of about 6,500 feet

— these particulates have a two-fold warming effect. At a place scientists call the top of the atmosphere, black carbon absorbs the sun's energy directly and causes warming. Plus, it reduces the global cooling effect of clouds by intercepting and absorbing sunlight that clouds are reflecting into space.

Black carbon particles last about a week in the atmosphere, and eventually fall out of the air as part of rain or snow. If they land on icy or snowy areas like glaciers, they contribute to global warming just as they do above clouds — by cutting down ice and snow's ability to help cool the planet by reflecting the sun's rays into space.

Plus, snow or ice dirtied with black carbon melts faster. In some places, this means dark soil that readily absorbs heat is exposed more quickly in the spring, exacerbating planetary warming.

In the Arctic, black carbon also makes winter clouds thicker. This makes clouds more able to trap heat in the atmosphere and less likely to allow heat to dissipate into space during the dark polar winter.

Last September, the U.S. government issued a scientific report recommending sharp cuts in global levels of black carbon and ground-level ozone (or smog, as most of us call it) to forestall climate change in the short run. Cuts in emissions of black carbon and ozone over the next decade would have an almost immediate cooling effect on the climate, the report argues.

This is because these two pollutants only exert their warming for the few days to weeks they last in the atmosphere, the report explains. In contrast, most other greenhouse gases, such as carbon dioxide, stay in the atmosphere for decades to centuries.

But there's a complication.

Many activities that form black carbon, such as the burning of coal, release a mixture of air pollutants. Some of these contaminants, such as sulfates, reflect light and help cool the planet. This means any efforts to cut black carbon emission need to be carefully targeted on sources that don't supply significant amounts of cooling pollution.

The U.S. plan says reducing emissions from biomass burned for cooking and heating homes in Asia is the most cost-effective policy for reducing black carbon pollution and cut global warming in the short term. But logistically and politically, this idea may prove difficult to implement.

More scientific research is under way on black carbon. Watch for new studies as well as novel policy proposals, nationally and globally, to reduce emissions of this pollutant.

International Carbon Black Association on the commercial product carbon black:
http://www.carbon-black.org/what_is.html

Nature Geoscience paper on black carbon: http://www.nature.com/ngeo/journal/v1/n4/full/ngeo156.html

U.S. government report on black carbon and other short-lived pollutants:
http://www.climatescience.gov/Library/sap/sap3-2/final-report/#finalreport

Cheryl Hogue covers climate change and other pollution issues for Chemical & Engineering News *in Washington, D.C.*

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Are science journalists tough enough?

A survey shows that scientists are pleased with coverage of their work, prompting questions about whether science journalism is "too tame."

By JAN KNIGHT

Survey results published in July 2008 show that scientist-journalist interactions "are more frequent and smooth than previously thought," according to the survey authors.

But in a more extensive interpretation published in December, the authors suggested that the results also indicate that "science journalism is too tame, that is, that it is easily exploited by scientific sources." Most science news reports, they continued, serve science rather than "the investigative orientation that is a major journalistic quality criterion."

This may be linked to changes within the scientific community itself, the researchers explained. Scientists have become increasingly comfortable working with journalists as a way to publicize their work. In turn, scientists may be more adept at controlling science news, underscoring the need for "strong science journalism — strong in terms of resources, professionalism, and self-confidence — in order to counterbalance the increasingly strategic orientation in scientific self-presentation" and conducted in a way that is "analytically critical, investigative, and prepared to look behind the scenes ... Beyond doubt, such science journalism exists, but it is the exception — not the norm — in many countries."

Scientists' anticipation of news coverage holds another potential drawback: It might influence decisions about their own research, including framing their research results so that they appeal to the general public, which "may mislead the public about the true character of science," the study authors stated, adding that their own survey showed this to be true.

The survey, which focused on tension between scientists and journalists, was distributed by mail in 2005 and 2006 to 1,354 biomedical scientists in France, Germany, Japan, the United Kingdom and the United States and garnered a 43 percent response rate.

Majorities of respondents in all countries agreed with all positive statements about their encounters with reporters and disagreed with all negative statements, a strong reversal of the common perception of scientists as strong critics of journalists. Positive statements included "Got message out to the public" and "My research was well-explained." Negative statements included "My statements were distorted," "Biased or unfair questions" and "Information was inaccurately used."

The scientists also indicated that "their own interactions with journalists [were] okay and beneficial for them," the study authors wrote, despite different expectations and other challenges inherent to communication between scientists and journalists.

Changes in science journalism — including increased training for science journalists — as well as changes in the scientific research community, including accepting communicating with the public as a "necessity and a duty," may have contributed to the respondents' positive views, according to the authors.

For more information, see two studies:

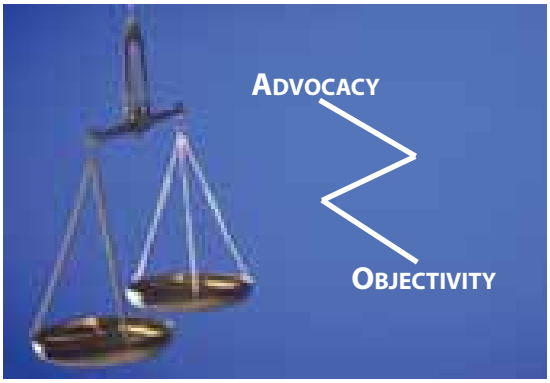
Hans Peter Peters, Dominique Brossard, Suzanne de Cheveigné, Sharon Dunwoody, Monika Kallfass, Steve Miller and Shoji Tsuchida, "Science-Media Interface: It's Time to Reconsider" in *Science Communication*, Volume 30, No. 2 (December 2008), pp. 266 – 276.

Hans Peter Peters, Dominique Brossard, Suzanne de Cheveigné, Sharon Dunwoody, Monika Kallfass, Steve Miller and Shoji Tsuchida, "Interactions with the Mass Media" in *Science*, Volume 321, Issue 5886 (July 11, 2008), pp. 204 – 205.

Investigative journalists define crossing the line

Investigative journalists use complex framing to draw the line between advocacy and objectivity, study suggests.

By JAN KNIGHT



Research suggests that the news media block or transform "beyond recognition" the aims of environmental and other activist groups.

But a recent study suggests otherwise. It concludes that investigative journalists often are activists, but they stay within professional boundaries.

The research focused on two documentaries about the Danish chemical producer Cheminova's distribution of pesticides illegal in Denmark to developing countries, where they were not prohibited. Each documentary — one aired in 1997, the other in 2006 — sparked immediate outcry and moral debate among Danish citizens, including politicians and members of the public, unions, pension funds and the news media, and resulted in concessions from Cheminova, according to the study.

The researcher described investigative journalism as akin to scientific research — that is, aiming to be objective, accurate and thorough — except that it is "more political" than science in topic selection and framing, a trait linked to its emphasis on serving as a watchdog of neglect and abuse.

Each documentary was reported by a freelance journalist who had founded his own independent media company and, during travels to developing countries, had observed pesticide use and wondered where the chemicals had been obtained. Each told the researcher that their observations led to an effort to document the origin, including using public records, and then they sought funding for their projects.

For both journalists, the motivation for reporting the story was the chemical company's publicity, which stated that it was operating in socially and environmentally responsible ways, juxtaposed against empirical data, including their observations of unprotected farmworkers handling the pesticides. The reporters also said they worried about crossing the line separating advocacy and investigative journalism, fearing to appear as judges of the company's behavior.

The researcher compared the documentaries to newspaper coverage of Cheminova to find that reports of pesticide exports began immediately after the films aired and continued for one year for the 1997 documentary and six months for the 2006 documentary. In both cases, "the debate soon became a media storm," including investigations by mainstream media.

"The ability of the two documentaries and their investigative journalism to spark public debate and place an issue on the public agenda was undoubtedly observed by civil society organizations (CSOs) with envy," the researcher stated. But, although investigative journalists and activists each must provide credible evidence of their claims, "CSOs are more readily accepted as representing a certain political position. This freedom is not granted to journalism, not even its investigative variant."

In each of the documentaries, complex framing took place as the reporters tried to distance themselves from the problem as they saw it — farmworkers' handling of "highly toxic pesticides without proper knowledge and protection" — by placing moral responsibility with the chemical company. The company had done nothing illegal but, "by juxtaposing the corporation's public formulations about responsibility with the empirical realities on the ground" via audio and visual imagery, it became implicated in the impacts of pesticide use on unwary farmworkers, the researcher suggested. Supporting this frame was the chemical company's refusal to take part in the documentaries when asked, he added.

In the debates that followed the documentaries' airings, criticisms of the investigative approach arose, including each film's focus on negative aspects of pesticide use without examining benefits, including increasing crop yields and, in turn, increasing the standard of living for those in the countries where the pesticides were used.

"Investigative journalists do frame their material in a critical and activist-like manner," the researcher concluded. This "only becomes a democratic problem under two conditions: If counter-arguments are excluded or drowned out in the debate that follows" and the reporting is inaccurate or illogical. In regard to the latter point, "it should always be open to debate whether concrete acts of journalism succeed," he stated.

For more information, see Thomas Olesen, "Activist Journalism?" in *Journalism Practice*, Volume 2, No. 2 (December 2008), pp. 266 – 276.

Jan Knight, a former magazine editor and daily newspaper reporter, is a former assistant professor of communication at Hawaii Pacific University in Honolulu, where she continues to teach online courses in writing and environmental communication. She can be reached at jknight213@aol.com

Getting started with some new skills: *producing podcasts*

By DALE WILLMAN

Just being a great writer is no longer all you need in order to make a living as a freelancer these days.

The market is flooded with newly unemployed journalists — you might be one of them — and it's becoming really hard to make your work stand out. So maybe you think that by producing a podcast to go with your writing, you can have something unique to offer your editor.

A podcast is an RSS feed for audio or video. It's a way to syndicate such material for distribution to portable audio players, such as the IPod, from which podcasting takes its name. People sign up for your podcast, and whenever a new program is produced it is sent automatically to their computers.

And if you really think producing a podcast is the answer to your freelance needs, let me give you one word of advice — don't. There, I've said it. Right now, there are thousands of podcasts in the world, more than 95% of which are produced by people with really nothing to say. So why add to that clutter?

Besides, producing a podcast isn't as easy as it sounds. It requires a learning curve that takes something in short supply for most freelancers— time.

You can still look to audio as a way to make your offerings stand out. But start small. Using a couple of fairly inexpensive pieces of equipment, you can record broadcast-quality interviews and natural sounds. Either of these can make a nice addition to your freelance offerings, with much less to learn before you can get started.

The equipment needs are minimal— a recorder, a microphone and a computer powerful enough to run an audio editing program. Here's how to get started.

Journalism 2.0

First, you need to read up on what's happening in the world of digital media. I know, there's barely time to eat anymore and sleep is out of the question, but take a few minutes to learn about where our profession is heading. A good start is Journalism 2.0 — How to Survive and Thrive, produced by the Knight Citizen News Network. Be sure to read the chapter on digital audio. The book is available for free download here:
http://www.j-lab.org/Journalism_20.pdf

Hardware

Your computer needs to be powerful enough to run audio editing software, and have a big enough hard drive to work with audio files, which can become rather large — each minute of a mono audio recording in WAV format (more on that in a moment) requires about 5mb of computer space. So an hour interview will require about 300mb of space. Most relatively new computers should be able to handle these needs. For complete system requirements for one popular audio editing program (Audacity), go here for Windows computers:
http://audacity.sourceforge.net/download/windows#sysreq
Go here for Macs:
http://audacity.sourceforge.net/download/mac#sysreq

Audio can be recorded and saved in many formats, from MP3 to WAV files. You don't need to know what all of this means— you just need a recorder that can record and transfer WAV files to your computer. WAV files are considered broadcast quality, and that's what you want. While your final product will likely end up as an MP3, you want your source files to be the best quality possible, and that's WAV.

While some small digital voice recorders (DVRs) such as the Olympus DM-20 can record in WAV format, I would suggest you purchase a small flash card recorder. They are simple to use, relatively inexpensive, and easy to find.

Every day there seems to be a new flash card recorder out on the market. Here are a couple of incomplete, but fairly substantive recorder comparison charts, with links to reviews:
http://digitalmedia.oreilly.com/audio/portable-recorder-comparison/
http://www.transom.org/tools/recording_interviewing/200703_recorder_reviews/

While not all flash recorders are equal, pretty much any of them today will do all that you will need as a beginner. SEJ owns ten Marantz PMD 620s. These machines were used to record all the audio from the SEJ conference in Roanoke (listen to some on the SEJ website). The Marantz is available here:
http://www.bswusa.com/proditem.asp?item=PMD620

I also own and love my M-Audio Microtrack II, which can be found for $270-$290:
http://www.m-audio.com/products/en_us/MicroTrackII.html

The Olympus LS-10 also has had several great reviews:
http://www.olympusamerica.com/cpg_section/product.asp?product=1350&fl=2

All three machines come with their own microphones (the Marantz and Olympus microphones are internal to the machine, while the Microtrack microphone plugs in externally), so they can

record some basic audio without any additional equipment needed.

Eventually, though, you may want to get a good external microphone. When you're ready, read about microphone pickup patterns, and then pick the best microphone type for your needs: http://www.microphonesetc.com/microphone_pickup_patterns.php

The Shure SM58 ($99) and the Electrovoice 635A ($99-$130) are broadcast standards, so tough you can pound nails with them (really). Both are omni-directional (did you read about pickup patterns yet?) and great for general interviewing. For noisier locations, and good sound isolation, consider a small shotgun microphone. These are unidirectional (another pick-up pattern) and are quite versatile. Here's one example: http://www.amazon.com/Technica-ATR-55-Condenser-Shotgun-Microphone/dp/B00006J04Z

There are many stores that offer both audio recorders and microphones. I've had the best luck on prices and service with BSW: http://www.bswusa.com/

Some gear can also be found inexpensively at Amazon.com. Be sure to shop around, though, because prices vary widely between suppliers.

Software

A decade ago it took a $50,000 studio to produce truly professional audio. Today, many software packages under $400 can do everything that a studio could and more, all on your laptop. There are even free programs that will easily do everything you will want to do with your audio.

Most of these programs are no more difficult to use than Microsoft Word. In fact, some of the conventions are the same across platforms — in most audio programs, Control-C will copy a section of audio, Control-V will paste that audio elsewhere, and Control-X will delete a segment— just as they do with text in a Word file. So don't be surprised when you quickly feel comfortable moving audio around your computer.

Here are reviews of some of the more well-known audio editing programs:
http://www.pcworld.idg.com.au/index.php/taxid;2136212765

Audacity is a free, open-source audio editing program. It's easy to use, and well-supported by the open-source community. It can be downloaded here:
http://audacity.sourceforge.net/download/

Audacity manuals

Search "audacity manual" on YouTube for some good video instruction. Also:
http://audacity.sourceforge.net/manual-1.2/tutorials.html
http://www.guidesandtutorials.com/audacity-tutorial.html
http://curriculum.union.edu/tips/audacity.php

For Mac users, there is Garage Band. I've never used it, but I've been told it's quite simple to use as well.

Finally, once you are done with your recording and editing, you'll want to send it off. Several websites allow the transfer of large files. I use www.yousendit.com, but you can find many other sites that will do just as good a job.

It really is that easy. Changing technology has removed the hard stuff involved in working with audio. Any well-trained monkey can now do it. What's left is the creativity you bring to your work. So go out there, be creative, and start winning those new contracts. Then get some sleep — you deserve it.

Equipment list:

- ✔ Free – Audacity Audio Editing software
- ✔ $250-$400 – Flash card recorder
- ✔ $99-$130 – Microphone
- ✔ $9.00 – Microphone cable

Dale Willman is the executive editor of Field Notes Productions. He provides training for journalists internationally and speaks widely on media issues.

Citizen journalists and citizen s

Aerial view of the cleanup of the remaining ash at the TVA Kingston Fossil Plant in Tennessee. Photo courtesy TVA.

Amphibious trackhoes were used for clean-up operations areas of the spill that were still too liquid to support lar vehicles. Photo courtesy TVA.

By BILL DAWSON

Environmental issues related to coal ash, the voluminous toxic residue that's left over when coal is burned, are nothing new to reporters in coal country. See the Inside Story interview with Tim Thornton, formerly of Virginia's *Roanoke Times,* on page 20 of this issue of *SEJournal* for one example.

When a dam collapsed and a billion-gallon spill of liquefied coal ash in East Tennessee covered homes and farmland on Dec. 22, 2008, local and regional news outlets immediately responded. It took much of the national media a while longer, however, to acknowledge that such a huge environmental disaster was a major national story — and then to begin exploring the event's implications.

Media critics took note of how the coverage had followed this trajectory, with growing recognition of the importance of the spill itself and its broader significance.

On Jan. 5, **Peter Dykstra**, writing in his Media Mayhem blog for *Mother Nature Network* (a.k.a. MNN.com), discerned a notable difference between the slow start of some of Old Media's national outlets on the story and the nimble performance of New Media's Twitter, facilitated by media consultant (and SEJ *TipSheet* contributor) **Amy Gahran**. Here's part of what Dykstra said:

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Maybe it was the Christmas holidays, but the major U.S. media largely took a pass on the story. *The New York Times* didn't show up for 48 hours. National TV news outlets mostly ignored it, despite the appalling images of a community spending Christmas blanketed in a gray, soupy, toxic mess.

Twitter was an odd exception. The social networking site was abuzz with info from activists, journalists, scientists, and links to reports from regional media treating the story like the major environmental disaster it was.

With a 140-character limit on individual posts, Twitter looks like a poor conduit for in-depth information. But you can fit just about any URL in 140 characters. Twitter also has a simple, unique feature called a hashtag. Type in a key word preceded by the "#" in Twitter's search function, and you'll be taken to every Tweet that includes the phrase— in this case, "#coalash."

Amy Gahran is a Boulder, CO media consultant who specializes in both online and environmental journalism. "I saw a big story that I thought was interesting, and found almost nothing in the national media," she told me. Within a day or two, Gahran had spearheaded a hashtag effort to bring all available info on the spill to a national audience of Twitterers. Other contributors included *RoaneViews*, a news and info website for the community near the Kingston power plant; the *Knoxville News-Sentinel* and *Nashville Tennessean*, two state dailies that have covered the story aggressively; and **Jeffrey Levy**, an EPA Web Information Officer, volunteered agency maps and stats on the facility.

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On Feb. 20, **Curtis Brainard**, editor of *Columbia Journalism Review's* The Observatory blog on science and environmental reporting, weighed in on the coal ash coverage with a lengthy post that examined the expansion of media attention to include the

entists redefine disaster story

Clean-up workers spraying chemicals on the spilled ash to control dust. Photo courtesy TVA.

Two months after the spill, a dike constructed to prevent further contamination of the Emory River is nearly complete. (The house on the cover appears severaly damaged, but still standing in the lower right-hand corner.) Photo courtesy TVA.

larger context of the December spill, which occurred at a Tennessee Valley Authority facility — namely, the multifaceted debate over coal's future role in the nation's energy mix.

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An excerpt:

Despite all the excellent local and regional spot reporting after the Tennessee spill (and one that followed it two weeks later at another TVA waste pond in Alabama), it took the national media a while to realize that the disaster was the perfect hook for a discussion about the future of coal and where technologies like CCS (carbon capture and storage technology) — touted by President Obama — will fit in. Indeed, it was at least two days after the spill before outlets like *The New York Times*, National Public Radio, and CNN even reported what had happened. Thereafter, those outlets produced some very good reporting. *The Times*' **Shaila Dewan** and The Associated Press' **Dina Cappiello** both had great pieces on the huge volume of unregulated coal ash "piling up" in ponds around the country, and how the Environmental Protection Agency has refused to designate the material as hazardous waste.

But take three pieces — from *The New York Times, Time* magazine, and The Discovery Channel — that went a step farther, arguing that the waste is proof that "clean coal" is a myth. These reports make a clear distinction between the notion of "clean" as it applies to CCS and to coal ash. *Time's* **Bryan Walsh**, for instance, wrote that, "The 'clean coal' campaign was always more PR than reality — currently there's no economical way to capture and sequester carbon emissions from coal, and many experts doubt there ever will be. But now the idea of clean coal might be truly dead, buried beneath the 1.1 billion gallons of water mixed with toxic coal ash…." But then, once the point is made that coal is and always will be unclean, the three pieces end with somewhat frustrating, open-ended points about the future. *The New York Times*, for example, concludes its January 23 editorial (one of the three pieces mentioned here) with the argument that "[C]oal remains an inherently dirty fuel … The sooner the country understands that, the closer it will be to mitigating the damage."

Well, sort of. That's an important first step, but there is still much for that needs to be discussed. First and foremost, we must decide whether or not CCS technology is as worthless as the "clean coal" slogan used to sell it. Unfortunately, reporters were so busy exploring coal ash's relationship to the "clean coal" slogan that few explored coal ash's relationship to new pollution control technologies, which might have produced some very interesting stories.

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(Dykstra's complete post can be accessed at tinyurl.com/7e8jxx. Brainard's post is available at tinyurl.com/dl82ck.)

To get yet another perspective, The Beat asked Bill Kovarik to reflect on the spill coverage. Kovarik is a professor of communication at Radford University in Virginia, the representative of SEJ's academic members on the society's Board of Directors and the editor of *Appalachian Voice*. The newspaper is published by

The destructive wave of coal ash that breached its containment (upper left) at the TVA's Kingston Fossil Plant was photographed by Dot Griffith, with aviation assistance from SouthWings (www.southwings.org). For more about Griffith's experience, see: http://freakonomics.blogs.nytimes.com/2009/01/08/the-tennessee-coal-ash-spill-in-pictures). Photo © Dot Griffith Photography.

Appalachian Voices, an environmental organization whose stated mission "is to empower people to defend our region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns."

Here is Kovarik's response, written in mid-March. In it, he discusses news coverage of the Tennessee spill and its relationship to discoveries made by activists:

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The TVA coal fly ash disaster marked a turning point for environmental reporting and environmental activism.

For the first time, the media had sampling results from environmental organizations almost right away. Robert F. Kennedy Jr.'s Riverkeepers, especially, were very active in gathering samples and getting them to university (Appalachian State University) and government toxicology labs.

The results completely contradicted TVA's attempts at public relations. TVA said there was nothing to worry about, and the environmental groups not only said this was a cover-up, but they also proved it within a few days of the disaster.

Typically, the cycle of disaster reporting goes something like this: Disaster occurs, media summarizes; government agency tests, media reports, environmental groups react. Within a week, everyone is clamoring to see the agency test results. FOIA requests are filed. Complaints are made. A month goes by, and the test results come out, and even if the results are fairly serious, the controversy ebbs away.

The typical cycle was broken wide open in the TVA disaster. News organizations were in the air taking photos, and environmental groups were in the water taking samples, within hours of the disaster.

Video, posted by Appalachian Voices on YouTube, showed the samples being taken, it showed the Appalachian State University toxicology lab, and it showed the test process.

There was solid and very credible information that the agency was doing something wrong. TVA said they found arsenic in the river at 40 times below the drinking water standard, but the

continued on page 22

Mainstream coverage of coal ash wins praise

Writing for CJR.org, **Curtis Brainard** praised a number of local and regional newspapers for their coverage in the immediate aftermath of the huge coal ash spill in Tennessee last December:

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Local media jumped on the story, covering the extent the damage, the response by the TVA (Tennessee Valley Authority) and the Environmental Protection Agency, estimates of the various health risks, and issues surrounding waste ponds generally. The *Nashville Tennessean*, the *Knoxville News Sentinel*, and the *Chattanooga Times Free Press*, deserve particular credit, as do *The Post* and *Courier* in Charleston, South Carolina, *The Charleston Gazette* in West Virginia, *The Courier-Journal* in Louisville, and the *Pittsburgh Post-Gazette* for placing the story in a broader, regional context. A refrain throughout that reporting was the point that coal ash, leftover from burning, is proof that coal is (and always will be) dirty.

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Here's a sampling of some stories that show how coverage of the issue changed and grew in the months that followed the Tennessee spill.

That incident occurred three days before Christmas. Coverage by both local and national news outlets had begun to include broader-focus explanatory and investigative stories by New Year's Eve and New Year's Day.

On Dec. 31, for instance, Bloomberg's **Alex Nussbaum, Christopher Martin** and **Daniel Whitten** reported that "U.S. power companies may face billions of dollars a year in new costs after last week's coal-sludge spill in east Tennessee if the accident results in regulating their wastes as toxic," noting that such "proposals stalled during the eight years of President George W. Bush's administration."

On Jan. 1, **Scott Barker** of the *News Sentinel* reported that a TVA inspection report in February 2008 had indicated the "agency knew about leaks at the (spill) site for more than two decades and opted not to pay for long-term solutions to the problem."

That same day, **Richard Fausset** of the *Los Angeles Times* reported on health and economic concerns near the spill site, the Kingston Fossil Plant:

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No one was harmed, but residents are worried about the long-term health effects from the ash, which contains potentially harmful contaminants such as arsenic. They are also worried about the threats to their economy and culture, long defined by the picturesque waterways that snake through the lush Appalachian hill country.

A few days later, *The New York Times* and The Associated Press produced detailed reports on the national dimensions of potentially problematical coal ash disposal sites.

On Jan. 6, the *Times'* **Shaila Dewan** reported that the Tennessee spill site "was only one of more than 1,300 similar dumps across the United States — most of them unregulated and unmonitored — that contain billions more gallons of fly ash and other byproducts of burning coal."

Three days later, AP reporter **Dina Cappiello** wrote about her analysis of "the most recent Energy Department data," which revealed that "156 coal-fired power plants store ash in surface ponds similar to one that ruptured last month in Tennessee."

Taking the big-picture approach further, the Center for Public Integrity, a non-profit investigative reporting organization based in Washington, D.C., on Feb. 19 posted on its website a report headlined "Coal Ash: The Hidden Story / How Industry and the EPA Failed to Stop a Growing Environmental Disaster." Included was an interactive map of coal ash ponds and landfills across the country.

Beyond Appalachia, reporters were already localizing the story before the CPI report helped make that easier to do.

On Jan. 1, **Perry Beeman** reported in *The Des Moines Register* that Iowa officials were postponing action on proposed rules to require landfill liners and monitoring for coal ash disposal after industry representatives "questioned the true health risk and objected to potential costs."

Three days later, **L. Lamor Williams** of the *Arkansas Democrat-Gazette* had a story reporting that "environmental regulators and company officials" were saying there was no risk in that state of a catastrophic spill like the one in neighboring Tennessee because the same method for storing ash is not used in Arkansas.

Bordering Arksansas' southwestern corner, Texas is the largest consumer of coal in the U.S. As **Randy Lee Loftis** reported in *The Dallas Morning News* on March 13, the state also leads the nation in "current and proposed production of the waste."

In the weeks before that article appeared, Texas reporters already were focusing on the issue in different ways.

On Jan. 22, **Jeanne Williams** reported in the *Temple Daily Telegram* that a state report listed neighboring Milam County's 314,400 tons of the waste as Texas' largest amount stored. On March 13, Williams reported on proposed state legislation to regulate coal ash as hazardous.

On Jan. 23, *The Texas Observer*, a biweekly publication based in Austin, had published an article by **Forrest Wilder** reporting concerns among environmentalists and some Texas lawmakers about inadequate regulation. Wilder's review of state rules found that operators of the state's 17 coal-burning power plants don't have to get a permit to dump the waste (totaling 13 million tons per year) in landfills and ponds.

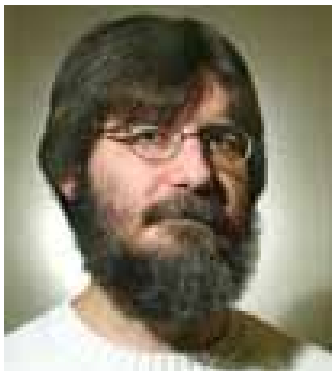
Not all coal ash coverage in Texas was directly related to utilities' power plants. **Greg M. Schwartz** took an in-depth look in the weekly *San Antonio Current's* Jan. 21 issue at health concerns prompted by the local public housing agency's excavation of a site where ash from the boiler of a defunct meat-packing plant had been dumped.

Bill Dawson is assistant editor of the SEJournal.

A river close to home flows through his work

The course of the New River, believed by geologists to be one of the world's oldest rivers, makes a major turn at Pembroke, Va. (This picture was honored in the Rivers & Waterways category of the 2008 Scenic Virginia Photo Contest.) Photo: © Kirk Carter, www.KirkCarter.com

By BILL DAWSON



Tim Thornton

Tim Thornton, a former staff member of *The Roanoke Times* in western Virginia, won SEJ's 2008 award for the best environmental reporting published by a small-market publication. Thornton's entry comprised a pair of articles from August 2007 about the use of conservation easements in Virginia and a series from November 2007 about threats to the New River.

The contest judges declared that his coverage was "informative, ground breaking, meticulously researched, extremely well written and accompanied by stunning photographs and excellent graphics."

Before he left his post at *The Times*, Thornton responded to questions from *SEJournal* about his contest entry and his other work at the *The Times.*

Q: First, please tell me a little about yourself and your role at the newspaper. Did you grow up in Virginia or somewhere nearby? How long have you worked in journalism? How long at the *The Times*? Do you have duties other than reporting on the environment?

A: I grew up pretty much where I live now. The building where I went to high school is about a mile down the road. I left for about 20 years. I've been back a little more than eight years. My family's been in this general area at least since the Jefferson administration.

My first job at the edge of journalism was as a sports stringer for the local paper. That was 1976, the year I got my driver's license. I started working for newspapers for a living in 1982. I've been with *The Roanoke Times* since 2000. I was at the *Greensboro News & Record* for a while before that. They're owned by the same company. Most of my career has been at very small papers, with a side trip into alternative newsweeklies.

I was a growth and environment reporter from April 2005 until September 2007. Since then, my main jobs have been covering Radford, a small city on the New River, and Radford University, a small state school. Any environmental writing I've done since September 2007 has been on stories I began covering when I was an environmental reporter that just won't die and stories I've managed to wedge in. Some people inside and outside the paper still think of me as an environmental reporter, so they send me tips and complaints.

Q: What are the major environmental issues that you cover? Are you solely responsible for environmental coverage at your newspaper?

A: For a while, we had two growth and environmental reporters. Now we have none, though there's a rumor that the beat may come back.

The biggest environmental issue I'm still working on now is a seven-acre coal ash pile on the banks of the New River, in the little town of Narrows, Va. Folks who took the New River trip at last year's SEJ conference got a chance to see it, I think. Gene Dalton, who helped organize that trip, grew up along the river and knows an awful lot about it. We worked together on a series about the New. Gene's retired now, but he still e-mails tips from time to time.

The coal ash project — it's called Cumberland Park — is using the ash from a coal-fired power plant about eight miles down the road as construction fill. The power plant — and it's a small one — produces about 200 tons of ash a day. This project is supposed to hold about three years' worth of ash, about 254,000 cubic yards of it. It will raise nearly seven acres about 30 feet,

which will put it level with U.S. 460, the highway that runs through there on the way to West Virginia. That, in theory, will create a building site.

Coal ash has all sorts of nasty stuff in it — arsenic, mercury, lead and lots more — but it's not really that dangerous as long as it's off to itself. If you eat it or snort it you'll have problems, but otherwise it's not supposed to be that big of a deal. The way to really cause problems with it is to get it wet. Then all that nasty stuff leaches out. Cumberland Park is in the 100-year flood plain. It's protected by a steel-reinforced earthen wall that's about a foot and a half higher than the 100-year flood. There's no liner under most of it. Some of it has a liner because water started seeping in from somewhere, so Headwaters, the company that's running the site for AEP, moved the ash they'd put in, installed a liner and then put the ash back.

There's some question about what happened to the wetlands that used to be near the site, but the local Corps of Engineers office closed when its one-man staff retired, so not much is happening there.

There's a citizens group fighting Cumberland Park, even though it's been operating for roughly a year.

Q: Why did you decide to write in an in-depth way about conservation easements – the subject of two of your contest-entry stories? Did these articles grow out of earlier coverage of Virginia Gov. Tim Kaine's pledge to protect a whopping 400,000 acres before leaving office? Have you continued to write about that pledge and about conservation easements since the contest articles were published in 2007? Any major developments since then?

A: The reason I wanted to write about it is that I think it's incredibly important. Land conservation touches on all kinds of environmental issues — wildlife habitat, water quality, air quality, climate change. It also has cultural effects such as preserving family farms and historic sites. To me, it's a doorway into all sorts of issues.

I was at the annual Environment Virginia Symposium at Virginia Military Institute when Kaine made his announcement. So we looked at it a year later. I and other reporters have written about conservation easements since then, but it's not getting the attention it used to. I did a lot of reporting about a guy who put an easement on his property — some photos that ran with the stories you're talking about show the governor in this landowner's canoe — but editors lost interest in it. I thought it was a good illustration of the workings and frustrations of the process. Here was a guy who really wanted this to work. The governor had stood on his land and said this is just the kind of land the state wants to preserve. The governor stood on this man's riverbank and filmed a commercial promoting Virginia's state parks. And it took the landowner months and months of dealing with several land trusts to finally get the deal done. He was ready to quit more than once. It's a great story, but we never got it in the paper.

We haven't done a checkup since those 2007 stories, but the state secretary of natural resources Web page says they're up to 329,409 acres now, with less than a year to go. I'm skeptical of the state's numbers, in part because in their grand total of all the land ever protected in Virginia, they include all federal land — which includes a good bit of land on military bases, including the Pentagon. I'm not sure all that land is protected from its present owner, much less any future development.

Q: Your series on the New River is multifaceted, dealing with various threats that the river faces. Two overarching themes involve the challenges posed by new housing developments along the river and the limitations of existing methods of conservation. Did you have these angles in mind when you undertook the series or did they emerge as you did the reporting?

A: We figured that development along the river, primarily housing, would be a major focus from the beginning. The idea evolved along the way, of course, but that is pretty much where we started. Of course, there were and are lots of industrial threats there, too. Some of Virginia's biggest polluters are right on the riverbank.

Q: The series featured video along with articles and photos. Was it your plan from the start to include a video component? Are video and other multimedia elements now a routine part of all major projects at the *The Times*?

A: The paper's interest in multimedia has gone through cycles. When we did that series, everyone was supposed to do video. That's not to say it was a gratuitous, ticket-punching kind of thing. It's decent video. It shows you things such as the spot where the river virtually disappears.

In a project that began in the late 1920s, the New River was diverted into a tunnel through Gauley Mountain to generate electricity for a chemical plant. Below the dam you can walk across the river without getting your shoes wet.

Q: The conservation easement articles in your contest entry focused on Virginia. The New River series also included articles about two other states — West Virginia and North Carolina. Was this part of the original concept? Was it a departure from your normal reporting, or do you report on neighboring states on a regular basis?

A: It's rare that we venture outside our immediate area.

The conservation stories were focused on a state initiative, a promise the governor made, so it's very heavily Virginia-centric.

Most of the New River is in Virginia, but it begins in North Carolina and ends in West Virginia where it joins the Gauley to form the Kanawha. We'd always intended to write about the whole river. One of the things we expected to show was that, while Virginia has most of the river, North Carolina and West Virginia have done most of the river-protecting.

Gene Dalton, the photographer on the series, and I started near the headwaters and covered most of the distance between there and Gauley Bridge, the West Virginia town where the New meets the Gauley. We canoed, hiked, biked and drove, not all in one trip. We fit it in wherever and whenever we could. It's not all that far from the bureau we worked out of to either end of the river. The whole thing is only 320 miles long.

Q: What kind of response did you get to the conservation easement and New River stories? Anything that surprised you?

A: I don't remember anything astonishing in the response.

Q: I noticed on the *The Times* website that you did some stories in 2008 — about eight months after the New River series appeared — that were pegged to a float trip on the river marking the 10th anniversary of its designation as an American Heritage River. Tell me a little about that subsequent coverage — how it came about, how you carried it out and how it related to the 2007 series. Have you continued to report on issues related to the river since then? Any major recent stories?

A: The float trip was organized to commemorate the 10th anniversary, to try to tie the people and the communities along the river together. Since a 10th anniversary happens only once, and since I convinced my editors that the coverage would be very different from the first series — and that they'd get a story per day from the river, plus three cover stories for the tab that covers the New River Valley — they gave me and a photographer, Matt Gentry, the go-ahead. Matt grew up in Blacksburg and is an avid hiker, skier and birder and an experienced kayaker. My entire river canoeing experience was the half-day I'd spent on the James the summer before, when the governor was promoting his land conservation plan.

We traveled by canoe and kayak and outfitter's raft. We camped along the river. We stayed in some cottages along the river. Every night we'd look for a place with cell phone coverage so we could file our pictures and stories. We were out about a week, I think. Matt went back to video a nighttime running of some rapids. There were spots along the way where we knew what we would be writing about, but most of the time we woke up looking for a story. In a way, we were trying to make it not tie into the 2007 coverage. Otherwise, we couldn't have gotten it into the paper. They wouldn't want the same series less than a year later. But I think that, taken together, the two series give an interesting picture of the river.

They're planning a second, more elaborate trip this summer that will actually begin where the river is narrow enough to straddle and end where it joins the Gauley.

I think the only major river-related story I've written about since has been the coal ash development I talked about earlier.

Q: Based on your experiences covering the issues in the contest-winning articles, are there any important things you learned that you think might benefit environmental reporters in other areas as they approach or consider whether to cover similar issues?

A: I don't know that I have any great words of wisdom to pass on.

I've always thought that, essentially anyway, reporting is reporting whether the subject is mountaintop-removal coal mining or a city budget. You have to keep asking questions and you have to know that words don't always mean what they seem to. There's a 26-mile section of the New River that's designated by North Carolina and the federal government as Wild and Scenic. For much of that section, the banks of the river are protected by conservation easements. But those easements are only 50 feet wide. There are vacation homes and campgrounds and outfitters all along there. As a park ranger said, "People think because it's designated Wild and Scenic, it's wild and scenic. But it's not."

And I was reminded that it's a good thing, as a reporter and a person, to hang up the phone and get out into the environment you're supposed to be writing about whenever you can do it.

Bill Dawson is assistant editor of the SEJournal.

High altitude view of the Kingston, Tenn. coal ash spill the day after it happened, Dec. 23, 2008. Photo courtesy TVA.

The Beat, continued from page 18

environmental groups found arsenic levels 300 times higher than the drinking water standard.

We don't know exactly what TVA was doing wrong — we think they were taking samples from the wrong side of the river — but that question will be answered by a federal investigation.

But there is a great lesson here. Citizen science works, and it serves the public interest in ways that some government agencies often do not. There have been environmental sampling operations in the past. This used to be called the "bucket brigade" approach.

After the TVA disaster, I think we are going to see a lot more direct sampling, both by environmental groups and the news media. I'm hoping SEJ can do more to train journalists to take samples, to keep a chain of custody, and to bring samples to appropriate toxicology labs.

The other main point I would make is that TVA tried very hard, and is still trying very hard, to manage the news media and keep environmental activists away from the disaster victims and the site itself. When Riverkeepers' Donna Lisenby tried to take the first set of samples, the TVA "police" told her that she was trespassing on the river and gave her a ticket, and told her she'd be arrested if she came back. (She did and she wasn't arrested, but that's another story). TVA has arrested and harassed environmental activists in ways that we haven't seen in decades.

On the editorial page at my newspaper, *Appalachian Voic*e (a publication of Appalachian Voices), we called for the resignation of TVA's CEO and the entire board of directors, not only because their gross negligence before the fact, but also because of its obtuse inability to serve the public interest long after the fact. We are still getting reports of, and seeing videos of, environmental organizers being harassed and getting arrested months after the disaster. It's absolutely appalling.

These citizen environmental volunteers ought to be a resource for the government. We ought to encourage them, for Pete's sake. Instead TVA is treating them as if they were the problem. Many people are angry about this, and we expect any day to hear of heads rolling at TVA headquarters.

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Bill Dawson is assistant editor of the SEJournal.

The great challenge:

Getting the climate change story right

By BUD WARD

Saving daily newspapers is all the buzz. The latest thing.

So too, of course, is saving the climate. From climate change, that is. At least it was until the global economy went critical. Now it's fallen somewhat. To, let's say, something-bazillion. At least that's how some commentators and would-be policy geeks see things.

But not the Obama administration. It still seems bent — and from the standpoint of those who see climate change as linked indelibly to global economic security this is commendable — on doing something meaningful about the issue.

Add to the Executive Branch's fervor to move forward talk from House and Senate leaders, where Senate Majority Leader Harry Reid (D-Nevada), for instance, says he is determined to bring major climate change legislation to a floor vote by the end of this summer. Californians Nancy Pelosi, House Speaker, and Henry Waxman, Energy and Commerce Committee Chair, seem no less committed to action than they were before the Dow-dive.

So in the wake of newly declared bankruptcy declarations in Minneapolis and Philadelphia…and shut-downs of print editions in Seattle and Denver — we have a challenge — the nation's media must do a responsible job in covering the coming climate change debates in Washington.

Adding to this challenge is that many D.C. news bureaus, with fewer than half the states now having at least one newspaper with a Washington bureau, toil with fewer reporters and editors. Another complicating factor: some newspapers are increasingly balking at what they see as burdensome pricing for wire service coverage, a manifestation of the hyper-localization trends sweeping news rooms.

In this context, there comes Shorenstein Center Kalb Fellow Eric Pooley with a reminder that climate change offers "the great political test, and the great story, of our time. But news organizations have not been treating it that way."

In a January paper (http://tinyurl.com/cmn9wa) for Harvard's Joan Shorenstein Center on the Press, Politics and Public Policy, Pooley, a contributor to *Time* and the former *Fortune* managing editor, writes that "a vigorous press ought to be central to both climate policy and climate politics." But, he understates, "this is not a time of media vigor" because of a "secular revenue decline that is driving huge reductions in newspaper staff and making disciplined climate coverage less likely just as it becomes most critical."

Repeat: "Just as it becomes most critical."

What makes it critical, mind you, is not simply the advent of a new administration seemingly determined to take the issue seriously, and act on it, but also the approaching year-end international negotiations in Copenhagen, which are virtually certain to take place in the context of a continuing global economic crisis.

Oh yes, and there's the underlying science too.

Emboldened somewhat by the continued bellicosity, if not veracity, of their loudest and most sustained contrarians and "skepticians," the flailing beat of climate science contrarians is morphing to climate policy and climate economics contrarians, missing not a beat in the transition from science to policy.

So will the media, newly compliant in their financial doldrums, repeat their past and bestow an ill-fitted journalistic "balance" to policy differences crying out for fair, impartial, and detached analyses?

As the climate change beat steadily morphs from the disappearing daily newspaper sections and pages once committed to science and business, can the general assignment writers in tomorrow's shrinking newsrooms muster the knowledge to tell chaff from wheat and place accuracy and fairness above quantitative balance?

Will their editors, those, of course, who are left, buy it?

In his useful and thoughtful analysis, Pooley provides examples raising some concerns. He finds mistaken instances, in the media's coverage of last fall's Senate climate bill debates, of doomsday economic forecasts being treated as straight news, without sufficient journalistic vetting. And he puts forward some measures for evaluating the coming news coverage:

- Will the reporter as stenographer merely record "the give and take of the debate without commentary, at most favoring one side through the selection and presentation of facts but shying away from firm conclusions?";
- Will the reporter come off rather as a "referee" — "keeping both sides honest by calling fouls and failures to play by the rules?";
- Or will the reporter "appoint himself judge and jury, passing sentence on who is right and wrong?"

Pooley allows that each journalistic approach may be appropriate in certain cases. "But in this ferocious public policy debate, in my view, the most valuable journalistic role is that of referee." The reporter-as-stenographer mode, he says, doesn't add much of value and amounts to a shirking of journalistic responsibilities. Those passing themselves off in their news columns as judges, advocates, "or peddlers of opinion" should give up their reporting posts for a "column or blog," he writes.

Reporters covering climate — whether it's THE story of the century or just THE environment story of the year — owe it to themselves to step back from the daily rush of their jobs and think hard about how best to handle the journalistic challenges that await them. Eric Pooley's report – "How Much Would You Pay to Save the Planet? The American Press and the Economics of Climate Change" – offers an effective way for them to prime their pumps. And ultimately to refine their coverage for their audiences.

Bud Ward is an independent journalist, educator and founder/former editor of Environment Writer. *He is editor of the* Yale Forum on Climate Change & the Media.

Feature

Obstacles in Central Asia to much-needed environmental reporting

By ERIC FREEDMAN

PHOTO COURTESY OF ERIC FREEDMAN

Despite many newspapers and magazines available at this kiosk in Almaty, they have little or no environmental coverage.

Kyrgyzstan and Kazakhstan confront serious environmental problems, yet in-depth environmental journalism is scarce. Problems in these two Central Asian countries include inadequate water for irrigation; soil erosion, degradation and contamination; toxic dumpsites holding mining and radioactive wastes; disruption of fragile ecosystems; deforestation; unsustainable agricultural practices; conflicts between biodiversity protection and local interests; and inadequate monitoring of environmental impacts on public health. Lakes Issyk-Kul and Balkhash and the Aral and Caspian seas are in jeopardy from such things as pesticide runoff, oil drilling and overfishing.

Interviews with journalists and press experts, environmental NGO activists and policy analysts in both countries show: environmental topics are not a top priority among media managers and owners; journalists receive little training and journalism students receive no coursework on how to fairly and accurately report on such issues; and stories that do appear usually lack depth, insight, context and analysis.

Press rights are restricted, and both authoritarian governments are frequently criticized for strict constraints on the media. Dramatically underscoring the precarious situation is the 2007 unsolved murder in Kyrgyzstan of journalist Alisher Saipov, who had reported courageously about human rights issues. In Kazakhstan, the disappearance of investigative journalist Oralgaisha Omarshanova in 2007 has been attributed to her anti-corruption articles for the independent weekly *Zakon i Pravosudiye* (Law and Justice). Both crimes remain unsolved.

Ecological problems have created economic, political, diplomatic, security and health threats for both countries and their neighbors. Yet if an independent press cannot or doesn't report about such issues, the public can't pressure government, which then feels less impetus to respond. Also, to report with fairness, balance and accuracy, journalists must obtain information from multiple, diverse sources in the environmental movement and from independent experts, not merely rely on government officials. Thus it is meaningful to examine how journalists cover the environment and how environmental groups attempt to influence or shape that coverage.

With grants from the National Council for Eurasian and Eastern European Research and Michigan State University's Muslim Studies Program, I conducted 31 interviews in Bishkek, Karakol, Naryn and Almaty—the two national capitals and two oblast (regional) capitals. Interviewed were journalists for domestic and international media organizations; environmental and civil society NGO leaders; press experts; and policy analysts.

Here's what I found:

Environmental problems receive inadequate press coverage, both in the number and frequency of stories and in their depth.

Journalists who cover the environment full-time are nonexistent in Kyrgyzstan and virtually nonexistent in Kazakhstan. At Kyrgyzstan's largest newspaper, the reporter who writes most about environment covers other issues as well. Most coverage is episodic, driven by events—disasters, crises or sensationalism—with little context or analysis. Journalists lack the time, resources and editors' interest to do follow-up reporting with deeper perspective. A multinational NGO executive in Almaty complained about "the lack of analytical information," saying the press provides "just an emotional description of what was happening, and didn't ask experts and scientists." The coordinator of an

environmental Web site funded by international donors says, "The weakness is that there is no strict, direct, environmental journalism because journalists are writing from event to event or sensation or scandal."

There are several principal reasons:

- Difficult access to information and comments from public officials and bureaucrats. Interviewees cite deliberate obstruction, coupled with a reluctance or refusal to be quoted, as well as denial of requests for reports and formal statements. A Bishkek journalist acknowledges "Getting access is difficult. That's normal all across the region anytime you talk about a sensitive issue, given the track record of government officials." Environmental NGO activists cite similar problems: One in Kazakhstan notes: "Access to information from government? This is not a tragedy. This is a law of life. We are very far from the democracy people are talking about."
- Difficulty in obtaining information and analysis from independent experts, due in part to their scarcity — many having emigrated — and reluctance of many who remain to antagonize powerful interests. A TV journalist interested in air pollution says, "There are no alternative specialists who can do research and have special equipment to measure poison in the air and compare it with statistics from the state. Because there are no such experts, we have to rely on the state."
- Few truly independent domestic media exist. Those that aren't state-owned generally are owned or controlled by friends, relatives and allies of the regimes, by opposition parties, by individual politicians or by well-heeled business owners, and don't report impartially on environmental issues. An international NGO executive says, "Their understanding of `independence' is `write whatever the customer demands.'"
- Most media owners put low priority on environmental coverage, allocating little space or airtime except for crises. Career advancement comes with covering economics, international relations and politics, not environment. A media consultant in Kyrgyzstan says, "Even if there is an ecological accident that would interest local media, there would not be strong in-depth analysis in the story for a simple reason: that's not demanded by editorial offices."
- News organizations lack financial and staff resources for comprehensive coverage. The Kyrgyzstan country director of Internews noted that regional TV stations with limited budgets and "trying to make a living" can't afford to travel outside their locales. And a TV editor in Bishkek says his station can't afford to rent a helicopter to cover the impact of global warming on mountainous Kyrgyzstan's glaciers.
- Universities don't teach environmental journalism. While there are some NGO-sponsored trainings, most professionals lack substantive knowledge and practical skills to competently tackle such complex issues as nuclear waste disposal, desertification and climate change. A Talas journalist says journalists have difficulty understanding environmental problems and terminology: "They can't do analytical work, just reporting, because of a lack of professional skills."
- A perception—true or not—is that the public is disinterested in environmental issues, except problems in their immediate area. An independent radio journalist observes that while "a small group" of activists might press government to act on a problem, "most of the population doesn't know the current situation on environmental issues and don't want to know."
- Overall, weak relationships and a lack of trust exist between NGOs and journalists, although relations may be stronger at the local than national level. As the head of one news service said, many NGOs in repressive societies aren't eager to publicize their actions and lack the capacity to work with the press. Reasons include: fear of antagonizing authorities and irritating donors; limited finances; failure to collaborate with each other; and lack of public relations training.
- The practice of "envelope journalism"— bribery—deters activist organizations from seeking coverage and impedes their ability to compete for media attention with well-heeled business interests. A journalist in Kyrgyzstan says the problem has worsened because of hard economic times: "It's increasingly difficult to talk about standards and ethics if there's no way of implementing that."

PHOTO COURTESY OF ERIC FREEDMAN

The well-being of Lake Issyk-Kul, Kyrgyzstan, located just beyond this cemetery, faces threats from dropping water levels, overfishing, development and agricultural and mining-related contamination.

Implications:

Weak environmental reporting can't be regarded in isolation because that failure carries wider ramifications. For example, environmental problems link closely to the economy and development, health, regional security, energy and mineral production, politics and international relations. And factors that impede environmental reporting reflect broader challenges for democratization, civil society and public participation in policymaking.

In addition, failure to report accurately and insightfully impedes building of public trust in the press and reinforces long-standing beliefs that the press is a biased tool of the regime, the regime's rivals or other influential interests. At the same time, aggressive reporting can have a positive impact. For example, a Naryn journalist described how his coverage of a Chinese-owned mining company's illegal cutting of trees led the Kyrgyz government to deny it an operating license, and his articles about overfishing in Lake Son-Kol led to a two-year fishing ban.

Pulitzer Prize-winner Eric Freedman is an associate professor of journalism and assistant dean of international studies & programs at Michigan State University, where he is associated with the Knight Center for Environmental Journalism.

Newsroom cuts reap heavy toll on the E-beat

By JUDY FAHYS

The contraction of the news business in recent months has continued to take its toll on environmental journalists and their work. It also has prompted some innovative adaptations and interesting projects.

Among well-known environment writers cast out of work due to newspaper closings and downsizing were **Chris Bowman**, a longtime *Sacramento Bee* reporter and SEJ board member, and SEJ board member **Robert McClure**, a victim of the *Seattle Post-Intelligencer's* closing.

McClure posted a final, touching item March 16 to the blog he wrote with **Lisa Stiffler** for the *Post-Intelligencer.*

"This decade has been more enjoyable than any human being has any right to expect," McClure wrote, explaining that the *P-I* was ending the publication of its daily pages and continuing as an internet news source with a dramatically reduced staff.

McClure touched on many highlights of his career in Seattle. He singled out Stiffler and several editors for their good work.

"Again, thank you, readers for your interest," he concluded. "You made it all worthwhile. I am in your debt."

The blog is moving to www.datelineearth.org, and McClure said he will be part of InvestigateWest, a journalism outfit dedicated to investigative, environmental and narrative journalism.

The former *Seattle Post-Intelligencer* reporter is helping set up the non-profit journalism venture to preserve investigative, enterprise and long-form narrative reporting on the West. InvestigateWest initially involves former *P-I* reporters and editors, but will be branching out geographically and, its founders hope, into photojournalism as well.

One other recent casualty: **Tim Thornton** of *The Roanoke Times*. Thornton, who had covered Radford University and Radford, Va., while also doing stories on the New River and other threatened natural resources, won an SEJ annual award in 2008 for his beat coverage.

Meanwhile, **Peter Dykstra** provided updates on himself and other SEJ members formerly of CNN's science unit.

Former CNN Anchor and Tech & Environment Correspondent **Miles O'Brien** has signed on for a documentary project with WNET, the New York PBS flagship station.

Former Science & Environment Producer **Marsha Walton** is contributing to the Mother Nature Network at www.mnn.com

And Dykstra, former CNN executive producer, completed a two-month stint as a Public Policy Scholar at the Woodrow Wilson Center in Washington in February, and is writing three columns a week for the Mother Nature Network at www.mnn.com

In other media moves, **John Ryan**, a reporter at KTOO-FM in Juneau, Alaska, joined KUOW-FM in February as the Seattle NPR station's first investigative reporter.

Christine Heinrichs has a new book, *How to Raise Poultry*, published in April. Another part of the series, *How to Raise Chickens*, came out two years ago.

Peter B. Lord, environmental writer at *The Providence Journal*, is co-author of a book on the last 100 years of land conservation in New England. Charles H.W. Foster, former Massachusetts commissioner of natural resources, a past president of The Nature Conservancy and former dean of the Yale School of Forestry and Environmental Studies, edited the book, *Twentieth-Century New England Land Conservation — A Heritage of Civic Engagement*. Lord wrote the chapter on Rhode Island.

SEJ member **Cara Ellen Modisett**, editor of *Blue Ridge Country* magazine, recently released a book on the Blue Ridge Parkway with photographers Pat and Chuck Blackley, published by Farcountry Press.

BRC magazine has received several recognitions recently, including an award for Best Column for contributing editor **Elizabeth Hunter's** "From the Farm," from the International Regional Magazine Association.

Dick Russell's book, *On the Trail of the JFK Assassins*, was published by Skyhorse in November. The revised updated edition of *Black Genius* came out in February, and a paperback of his book with Jesse Ventura, *Don't Start the Revolution Without Me*, will be published in April, by the same publisher.

SEJ member and freelance author and journalist **Kevin Clemens** has a new book, *The Crooked Mile: Through Peak Oil, Biofuels, Hybrid Cars, and Global Climate Change to Reach a Brighter Future*. This book was developed during his eight-month Knight Wallace Journalism Fellowship at the University of Michigan in 2007-2008 and covers the past, present and future of the energy and infrastructure issues associated with transportation. It is published by Demontreville Press of Lake Elmo, Minnesota. (www.demontrevillepress.com)

Judy Fahys is environment reporter at The Salt Lake Tribune. *Send updates on your latest job, web venture or book to fahys@sltrib.com.*

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then shuffle those around if you want to see if there is a better order to those points."

Adding columns for "people to interview" or "data to get" quickly creates a list of holes to fill, she said.

"By putting your interviews into Excel you treat the anecdotes, statements, opinions, etc. as pieces of data and you can work with them as you would any other data."

Besides better organizing your notes, story information and even your story, these techniques can produce other benefits: Susanne Rust and her reporting partner Meg Kissinger have already won a George Polk Award, the Edward J. Meeman award sponsored by the Scripps Howard Foundation and the 2008 John B. Oakes Award for Environmental Reporting for their series on common household chemicals, including bisphenol A.

David Poulson is the associate director of the Knight Center for Environmental Journalism where he teaches environmental, investigative and computer-assisted reporting.

Teaching journalists to cover climate change

Communicating on Climate Change:

An Essential Resource for Journalists, Scientists, and Educators

By Bud Ward

Metcalf Institute for Marine & Environmental Reporting
(Publisher; free download or $8 for hard copy ordered online)

Reviewed by STEFAN MILKOWSKI

The science of climate change can be daunting. While the basic idea of anthropogenic warming is fairly simple and well understood, the mechanics behind it can be quite complex. Chemistry, physics, and biology all play critical roles.

Amid that complexity, public skepticism has flourished, especially in the U.S. As warnings grew sharper and other nations embraced ambitious plans, Americans remained largely skeptical of the basic idea that humans are warming the globe.

Yet compared to other environmental problems, where sources are fewer and impacts are more localized, climate change arguably demands a much greater public understanding. Public engagement is needed to spur political action and to change personal behavior.

So who's to blame for leaving the public in the dark just when light is needed the most? According to *Communicating on Climate Change*, written by SEJ founding member Bud Ward, scientists and the media are both at fault.

News organizations have given relatively little space to an issue that "oozes but doesn't break," in the words of *New York Times* reporter Andrew Revkin. When they have, the journalistic principle of balance has all too often given disproportionate weight to sources skeptical of the science.

Scientists, for their part, have generally shied away from using the media to convey their findings, even when their research is relevant to the general public.

The difference in language and norms of the two professions has also limited the quality of coverage, as has the reluctance of reporters and scientists alike to be seen as advocates.

Ward, editor of the Web-based *Yale Forum on Climate Change & the Media**, seeks to explain this failure in communication and offer creative solutions for improving coverage.

The book is the product of a series of workshops organized by the Metcalf Institute for Marine & Environmental Reporting between November 2003 and September 2007. The workshops brought together scientists and reporters to discuss media coverage of climate change. "Frustration was the impetus," Ward writes in the first chapter.

*www.yaleclimatemediaforum.org

The Metcalf Institute published Ward's book as continuing education for scientists and journalists. It includes chapters such as "Science for journalists," which offers a 101 on scientific method and peer review, and "What scientists can do," which encourages scientists to be patient when explaining complex science to someone lacking a scientific background.

The book also includes essays from prominent scientists and journalists on topics ranging from the ethics of using video provided by sources to how climate change is taught in public schools. SEJ co-founder Jim Detjen argues for credentialing of climate reporters. Climate researcher Ben Santer examines the political environment that allowed author Michael Crichton to be considered a climate expert. And Revkin explains his efforts to get climate change on the front page without overstating the science.

Ward tosses out some thought-provoking ideas, such as forming an AP-like news agency for climate change reporting. He rightly notes that scientists and reporters share the goal of informing the public about climate change. But at times the book has the feel of a written Kumbaya, with any gripes between sources and the media quickly set aside.

Because the book is written for scientists and teachers, not just media folks, some of its contents will be obvious to reporters, especially those on the environmental beat. That said, it offers many ideas that aren't obvious. "As a truth barometer, have scientists identify experts in their field whose conclusions differ, but whom they nonetheless believe to be reputable scientists," is one example. "Encourage reporting staffs to look at climate change not just as a science or environment story," is another.

Workshops are often stimulating and valuable but the lessons learned can fade quickly. *Communicating on Climate Change* provides a key service in gathering the most perceptive observations and constructive ideas from a half-dozen multi-day workshops into a readable, 74-page synopsis.

Ward notes that media coverage of climate change increased over the course of the workshops and the tone of the coverage changed. Reporting started to reflect scientists' confidence in the basic theory even if many readers remained skeptical. And in some cases, such as linking stronger hurricanes to climate change, the news media even jumped ahead of the science.

Communicating on Climate Change remains relevant despite the shift. Its analysis and recommendations – for bridging the professional divide between scientists and reporters to cover an important and complex issue – make the book a valuable resource for journalists and scientists alike.

The book is available for free download at the Metcalf Institute Web site: www.metcalfinstitute.org.

Stefan Milkowski is a freelance writer living in Fairbanks, Alaska, and former reporter for the Fairbanks Daily News-Miner. *He won a first-place award for best series from the Alaska Press Club for his climate change stories in 2008.*

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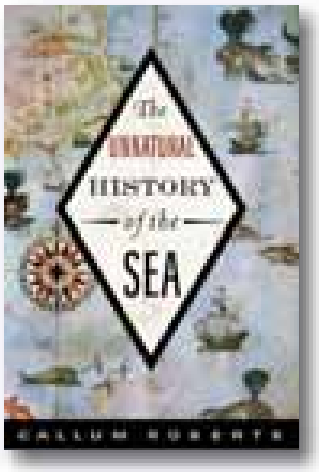


Man and technology combine to plunder the oceans

The Unnatural History of the Sea

By Callum Roberts

Island Press, $28.00

Reviewed by CHRISTINE HEINRICHS

It's no revelation that the world's oceans have been overfished.

Callum Roberts documents the extent, duration and effects of the problem in *The Unnatural History of the Sea*, winner of the 2008 Society of Environmental Journalists' Rachel Carson Environment Book Award. The book tells a saga of technological advances that have allowed the plundering of the world's fisheries to accelerate.

In his book, Roberts points out a basic flaw in the baselines often used to evaluate the extent of overfishing. Relying on evidence solely from recent history — the past hundred years or so — causes us to overlook how much abundance has been lost, he says.

"I find that few people really appreciate how far the oceans have been altered from the pre-exploitation state, even among professionals like fishery biologists or conservationists," he writes in the book's preface. "A collective amnesia surrounds changes that happened more than a few decades ago, as hardly anyone reads old books or reports. The worst part of these 'shifting environmental baselines' is that we come to accept the degraded condition of the sea as normal."

To learn what the oceans and rivers once contained, Roberts examines the writings of Roman writers such as Caesar, Pliny the Elder and Ausonius. In the first century AD, Pliny described fish in the River Padus — apparently sturgeon— that reached a weight of half a ton and had to be dragged from the water with teams of oxen. Archeological records reflect the decline of sturgeon as a food source in the Baltic region: from 70 percent of fish eaten in the eighth century to 10 percent of the fish eaten by the twelfth century. The bones also revealed that sturgeon were becoming progressively smaller. By the thirteenth century, England and France passed laws reserving sturgeon for use only by monarchs. The British law remains in effect.

By researching the historical record, Roberts establishes a richer baseline than the ones that have crept into acceptance. And what a story those documents tell! Think of oceans roiling with fish, sea beds clogged with the shells of oysters and mussels, inlets crowded with hundreds of otters. "Seeing the world through the eyes of early travelers helps us to better understand our own environment and gives us the impetus to find better ways to protect it," he writes.

Archaeological evidence shows that the depletion of fish stocks began as early as the 11th century. Technological changes made it possible to fish further and more efficiently. Now it is possible to harvest nearly every fish in the ocean. Trawl gear, first used in 1376, was immediately recognized as destructive and wasteful. Despite anger about its use, fishermen have continued to trawl because it is such an efficient method to scoop up large amounts of fish.

Roberts acknowledges that some areas have been closed to trawling, notably close to coasts, but in general, "trawling grounds are defined simply as any place a fisher is willing to put down a trawl." The cameras mounted on underwater Remotely Operated Vehicles can now document the physical effects. Describing seamounts off the Australian coast after a few decades of orange roughy trawling, Roberts writes that they were "shocking in their sterility: exposed stark vistas of bare rock, criss-crossed with the scars of repeated trawl passes."

As technology becomes more efficient and more fish can be taken from the sea, there's a predictable progression. First the large fish of high-value species are taken. When those are gone, fishermen move elsewhere or switch to other species. They proceed down the food web, taking ever smaller and less desirable species. Roberts quotes Daniel Pauly of the University of British Columbia, who said, "We are eating today what our grandparents used as bait." Today, fishermen pursue prawns, crab and lobster where they used to chase cod. "Pauly warned that in due course we will end up consuming plankton directly, drawn from seas without fish," Roberts writes.

As ships get bigger and are equipped with more sophisticated technology, they can chase ever-declining stocks and continue to make a profit. Scarce supply drives the price up, and being the first to take the last fish works economically for the fisherman, at least in the short term. "Where there is no restriction on access people will pile into the fishing industry as long as there is profit to be made," Roberts writes.

And so it goes: the largest mammals and fish, whales, tuna, grouper, skate, sharks, are fished down, in many cases below the target levels for maximum sustainable yield. "Today, many fish stocks languish at between a tenth and a thousandth of their unexploited numbers," Roberts writes. For example, the cod population on the Grand Banks is now less than one percent of its unexploited population size, he says. "If we stick to that management paradigm (of unsustainable exploitation of the sea), I am convinced that marine life will continue its long slide toward jellyfish and slime," he writes. The loss of fish down the food web impacts sea birds and mammals that feed on them. And lost and damaged nets and gear float free, continuing to catch fish, amphibians and mammals whose deaths will never even have the justification of becoming food. Over 780 miles of gill nets are lost or discarded every year – ghost nets that kill in perpetuity.

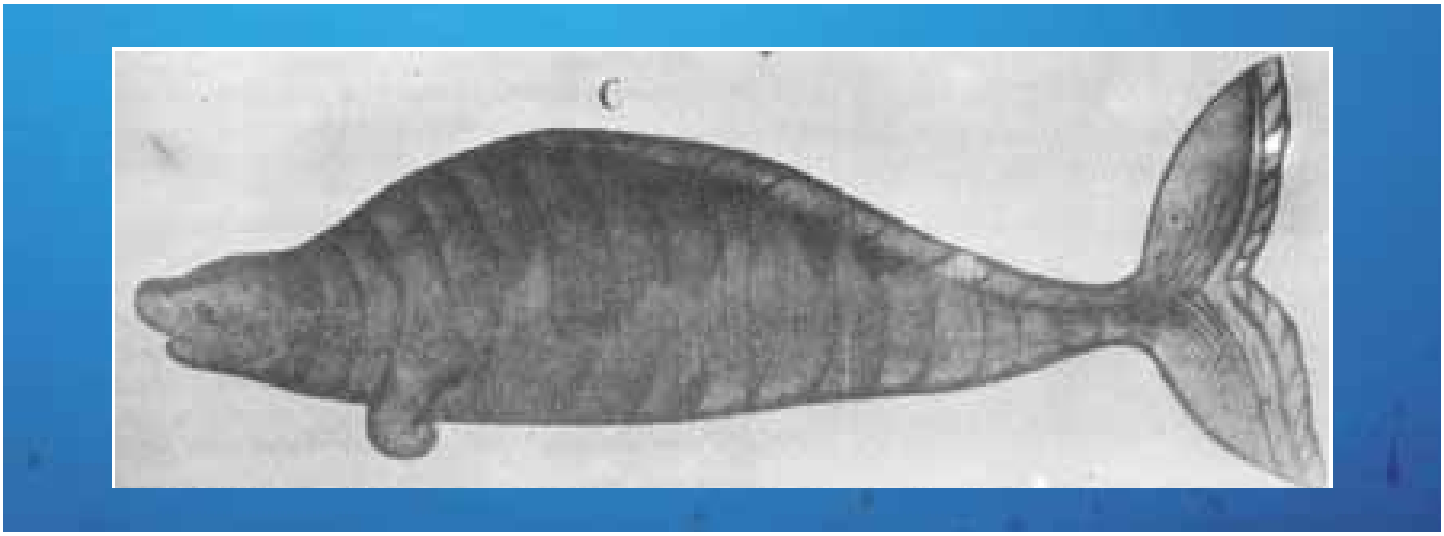
Roberts is undaunted in his conviction that it's not too late to save the oceans. He outlines six points to improve fishery management: reduce the amount of fishing; cut politicians out of the process; limit where, how long and with what gear a vessel can fish (such limits have been used in the U.S. in many fisheries but have been slow to catch on in Europe, he says); use the best available fishing technology to reduce bycatch; and ban or restrict

the most damaging fishing gear.

Combine those regulatory measures with protection for 30 percent or more of the oceans and they could return to abundance, Roberts says. Not to pristine conditions – the losses have irretrievably altered many ecologic relationships – but to a new baseline of healthy fish and ocean life of all kinds. "The public is ready for such a change in thinking," he writes.

Right now, only three-fifths of one percent of the oceans is off limits to fishing. But in January, the National Oceanic and Atmospheric Administration established eight new marine protected areas encompassing a total of 529 square nautical miles in south Pacific waters to shield deep-water fish species and their habitats from fishing. In the Arctic, the North Pacific Fishery Management Council banned all commercial fishing in U.S. waters from north of the Bering Strait and east to the Canadian border in February. That decision was reached to allow time to evaluate the effect of ocean warming on fish stocks including Arctic and saffron cod and snow crab. The oceans are not lost and we can be grateful to Callum Roberts for bringing their condition into such vivid perspective.

Christine Heinrichs is a freelance writer on California's Central Coast. Her second book, How to Raise Poultry*, on raising traditional breeds in small flocks, was available in April. She's an Elephant Seal docent at Piedras Blancas.*



A sketch from the *Unnatural History of the Sea,* produced by Sven Waxell, who was first officer on Bering's Expedition. It is the only image drawn from life from the journal of Sven Waxell, "Kamchatka Expedition 1741-1742"; source: The American Expedition by Sven Waxell 1952. Image courtesy Callum Roberts.

Recounting the fall of the last sea cow

By CHRISTINE HEINRICHS

Roberts writes the tragic tale of the demise of the Steller's sea cow, a 30-foot marine mammal once abundant in the north Pacific. It survives now only in written accounts from the 18th century.

Georg Wilhelm Steller recorded his experiences as he traveled on Captain Commander Vitus Bering's expedition to explore and map the eastern boundaries of the Russian empire, which ended up in North America. Although Bering died along the way, the remaining crew and Steller pressed on. When they exhausted the game available near their camp, they turned to the peaceful grazers that filled an island's shore. Steller waxed lyrically about the delicious boiled fat, comparing it to the "best Dutch butter… in taste like sweet almond oil." While he didn't consider them very smart, "they do have an extraordinary love for one another," and describes how the others will come to the rescue of one being killed, even a male that returned to the body of a dead female for two days. They were exterminated by 1768.

They were likely in decline before Steller's party began consuming them, following possible overexploitation by native people and the loss of the kelp forests on which they fed. The kelp forests diminished as a result of overexploitation of sea otters, which kept the invertebrate kelp-eaters in check. As each piece of the ecosystem is removed, others tumble into the black hole of extinction.

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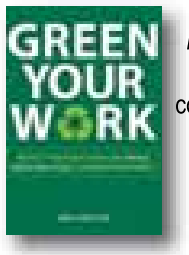

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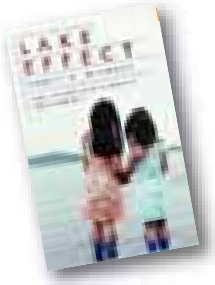

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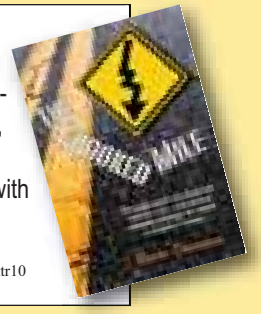

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-- Aldo Leopold, *A Sand County Almanac*

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