



h

The Magazine of The Heinz Endowments

LIVABLE AIR?

Pittsburgh enters the New Year bearing the crown of the country's most livable city and the burden of being ranked the second-worst region in America for fine-particle air pollution. This report examines how local public officials, business leaders and environmental activists are at odds in developing air-quality solutions.

inside

The Heinz Endowments was formed from the Howard Heinz Endowment, established in 1941, and the Vira I. Heinz Endowment, established in 1986. It is the product of a deep family commitment to community and the common good that began with H.J. Heinz, and which continues to this day.

The Endowments is based in Pittsburgh, where we use our region as a laboratory for the development of solutions to challenges that are national in scope. Although the majority of our giving is concentrated within southwestern Pennsylvania, we work wherever necessary, including statewide and nationally, to fulfill our mission.

That mission is to help our region thrive as a whole community—economically, ecologically, educationally and culturally—while advancing the

state of knowledge and practice in the fields in which we work. Our fields of emphasis include philanthropy in general and the disciplines represented by our five grant-making programs: Arts & Culture; Children, Youth & Families; Education; Environment; and Innovation Economy.

In life, Howard Heinz and Vira I. Heinz set high expectations for their philanthropy. Today, the Endowments is committed to doing the same. Our charge is to be diligent, thoughtful and creative in continually working to set new standards of philanthropic excellence. Recognizing that none of our work would be possible without a sound financial base, we also are committed to preserving and enhancing the Endowments' assets through prudent investment management.

h magazine is a publication of The Heinz Endowments. At the Endowments, we are committed to promoting learning in philanthropy and in the specific fields represented by our grant-making programs. As an expression of that commitment, this publication is intended to share information about significant lessons and insights we are deriving from our work.

Editorial Team Linda Bannon, Linda Braund, Donna Evans, Maxwell King, Carmen Lee, Grant Oliphant, Douglas Root. Design: Landesberg Design

About the cover The plume of smoke that billows from a smokestack in the shape of a question mark illustrates the perplexing nature of the Pittsburgh region's air-quality problem. Environmental activists of the past and present have helped Pittsburgh clean up some of the most obvious pollution sources, but there's still a lot of work to be done.

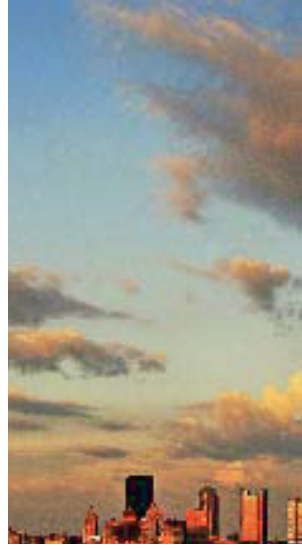
h

Volume 7 Number 4 Fall 2007

4

Trouble in the Air

Air pollution is a problem that just won't go away in Pittsburgh, even as the city regains its status as America's most livable city.



15

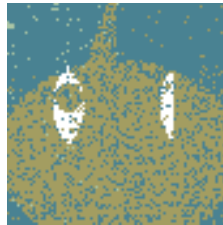
Air Forces

Progress that the Pittsburgh region has made in reducing pollution can be traced across the past century to the work of men and women committed to cleaning up the region's air.

20

Polluted Politics

Pittsburgh's environmental activists and public officials disagree about how to address the region's air-quality problems.



26

Taking Action

Find out what you can do to improve air quality in your community.



2 Feedback

3 Message

28 Here & There



feedback

Our Summer 2007 issue looked at the debate over the value of charter and other nontraditional schools as educational options for children. We also examined how renovated Carnegie libraries have attracted more visitors and provided a range of resources to Pittsburgh neighborhoods. We rounded out the issue with a photo essay of the citywide “Pittsburgh Celebrates Glass!” extravaganza.



School Choice

Initially as a Pennsylvania state legislator and for the past nine years as president of The Education Policy and Leadership Center, I have observed charter schools statewide and nationally. Christine O'Toole's recent story, "Making Choices," highlights important issues in this still-evolving picture.

It is undeniable that charter schools have had an impact. In some places, they have provided real options for parents and students dissatisfied with the status quo in their home districts and unwilling to wait any longer for changes to occur. In others, the presence of even a charter proposal has influenced district policymakers' decisions about curriculum and other important issues, including as O'Toole reported, heretofore radical ideas like more choice within the traditional public school setting. Still, in too few places are school district officials considering charter schools strategically to enrich the range of opportunities for students.

The major barrier to this kind of strategic thinking and the collaboration that could occur is the way Pennsylvania funds charter schools and public education.

Charters are often opposed because they are seen as a financial drain on school districts. Pennsylvania's charter school law assumes that a district saves money for every student who enrolls in a charter school, and requires districts where charter students reside to pay charter schools approximately what's spent to educate other public school students.

But the law's underlying assumption is wrong. A district is not likely to realize savings, such as reductions in staff costs, equal to what it must pay to the charter school. In many cases, especially for cyber school students, costs increase because the students were not previously enrolled in a public

school. Only in recent years have state officials reimbursed school districts up to 30 percent of the costs they incur.

Pennsylvania has one of the worst school-funding systems in the country. Its support for public schools is below the national average—and far below that of contiguous states. Districts are overly dependent on local resources, especially property taxes, to fund public education and charter schools. District officials typically see charter school payments as requiring higher local taxes and/or a diversion of funds from already insufficiently supported regular public schools.

Charter school proponents and other public school advocates should unite to build policymaker support for a better funded public education system in Pennsylvania. Then these same leaders, now driven apart by dollar issues, may be more ready to work together to promote meaningful choices for students.

Ronald Cowell
President
The Education Policy and Leadership Center
Harrisburg, Pa.

The Next Chapter

In "The Next Chapter," Thomas Buell, Jr. does a superb job explaining the critical role that the Carnegie Library of Pittsburgh's neighborhood branches play in our region. He makes a clear case for the need to invest in these architectural and educational treasures. One cannot read this article without being impressed by the wealth and breadth of resources and programming provided by the libraries. I strongly encourage everyone in our region to visit his or her local branch and become acquainted with these modern, technology-driven institutions.

I also was struck by Denise Graham's statement in the story that she "came from a family of readers." Her good fortune in growing up in a family that valued literacy and reading prepared her well for a challenging and rewarding career as the manager of the Carnegie Library's Homewood Branch. Her love of reading also has enabled her to give a great deal back to the children and families in our community.

But Graham's personal history leads me, as head of the Beginning with Books Center for Early Literacy in Pittsburgh, to point out one very important point not raised in the article. Most, if not all, of the resources and activities available to children, teens and adults at Carnegie libraries rely on one skill: the ability to read. At the Beginning with Books center, our mission is to make sure that all young children in our region become capable and enthusiastic lifelong readers, and have access to the information, materials, skill development and encouragement that allow them to do so. Helping young children become proficient readers enables them to succeed in school, which helps them become self-sufficient members of our region's workforce and productive citizens.

Our center has been a strong partner of the Carnegie Library for more than 23 years, and we take great pride in the library system's growth and success. We look forward to many more years of working with the Carnegie Library to do our part in providing every child with an equal opportunity to learn to read.

Keith G. Kondrich
Executive Director
Beginning with Books Center for Early Literacy

message



Barry Lavery

By Teresa Heinz
Chairman, The Heinz Endowments

3

In October, we at the Endowments were on a hectic schedule to finish several milestone responsibilities: community commitments, a fall board meeting to approve a record \$45 million in grants for western Pennsylvania, and perhaps most important to our future work, a final meeting of a board search committee to choose our next president.

Serendipitously, in the midst of all this, one of the world's masters of dynamic leadership, Archbishop Desmond Tutu, came to Pittsburgh and provided a much-needed object lesson. I had gratefully accepted the invitation to welcome him on his first visit to the city at an event hosted by the Pittsburgh chapter of Shared Interest, an American nonprofit assisting South Africa's underemployed poor.

Three days of events—honorary degrees, plaques, proclamations—were all about honoring Archbishop Tutu, a man who led courageously against the horrific injustice of apartheid in South Africa and then, in its aftermath, led a reconciliation and forgiveness campaign that would begin the country's healing.

But he is not one to bask in the limelight that so often comes with leadership roles.

"The leader is the servant," he said at one forum, explaining that true leaders act in self-giving for the sake of those they lead.

"That paradigm seems hugely unrealistic, idealistic, something for dreamers, namby-pamby even," he said, "when you think of the world of today filled with cutthroat competitiveness." But the one characteristic shared by the world's most revered and effective leaders, he asserted, is "that they have poured themselves out prodigally on behalf of others."

The archbishop's visit to Pittsburgh brought fresh perspective to our quest for new leadership at the Endowments and made me realize how blessed we are to be moving through a seamless transition from one strong service-minded executive to another.

Maxwell King will leave in May after nearly a decade leading the Endowments' staff and working with the board and me on exciting initiatives as well as rocky challenges. He came to us after a remarkable career in journalism, which included eight years serving as editor of the Philadelphia Inquirer. He departs

with a national reputation in the philanthropic sector for promoting ethics and accountability.

When asked by reporters why we had decided on someone outside the nonprofit-foundation sector to take this critical position in our organization, I said then that Max's qualities as a sharp thinker and a "doer" were the most important. "Everything else will fall into place," I said, and it did. When I announced his appointment, I predicted that Max "will enhance our work on every front." He has.

How fortunate for the Endowments and for this region that I can enthusiastically make the same prediction for our work again as Robert Vagt—or "Bobby," as he prefers to be called—prepares to assume the helm in mid-January.


Bobby, too, was recruited from the outside, and again, we were fortunate to find a broad record of leadership: dynamic president of Davidson College for a decade; chairman and CEO of international energy companies; government service in finance and prison management; experience in human services; and an ordained Presbyterian minister. But we were even more impressed with his distinct style of leadership, one that seeks to inspire and guide rather than dictate.

Such smart, service-minded leadership will be an incredible asset for a foundation-nonprofit community that has more expected of it each year. The challenges facing our region—and for that matter, our country—seem to grow more complex by the day. A stark example of this is presented in this special, single-topic issue of *h*, which provides the first significant in-depth reporting on the serious air-quality problem facing the Pittsburgh region.

That's just one of scores of issues that Bobby will be helping the board and staff work through in the coming year. But we expect that he will be as excited about the region's future as we are, and that he will be a positive, energizing force in the community.

Years of serving on boards of all types and helping shape the Endowments' vision for our region's future have taught me the inestimable value of those who lead from the heart as well as the head. In the words of Archbishop Tutu: "They help us reach for the stars and dream God's dream for us." *h*

TROUBLE IN THE



Sara Bono lives in a heavily air-conditioned split-level along a quiet rural street outside of Butler, Pa., where a handful of other tidy subdivision homes are arranged on manicured lawns. In this suburb north of Pittsburgh, a neighbor's laundry flutters in the summer breeze and forested hills roll toward the horizon. There are no smokestacks in sight. No plumes of acrid industrial emissions. No hiss of traffic. Nothing that can be seen or heard, smelled or tasted to suggest that pollutants fill the air. But Sara, a severely asthmatic 18-year-old, knows better. On days when news reports warn of high air pollution concentrations, "I don't even go outside," she says. "To even walk from the house to the car is a struggle. And it's pretty immediate. It's all of a sudden hard to catch my breath, like my chest has a load of bricks on it."

Jeff Fraser is a Pittsburgh-based freelance writer and frequent contributor to h. His last story, published in the Annual Report issue, reported on how changes in Pennsylvania's energy policy, particularly the new focus on alternative sources such as wind power, offer environmental and economic benefits to the Pittsburgh region.

AIR

PITTSBURGH HAS COME A LONG WAY SINCE BOSTON AUTHOR JAMES PARTON DESCRIBED IT IN 1868 AS "HELL WITH THE LID OFF." BUT WHILE THE SKIES LOOK CLEANER, SOME COMMUNITY, NONPROFIT AND GOVERNMENT LEADERS ARE GRAPPLING WITH HOW TO ADDRESS THE UNHEALTHY LEVELS OF MICROSCOPIC POLLUTANTS THAT EARNED THE REGION THE SECOND-WORST RANKING IN THE COUNTRY FOR FINE-PARTICLE AIR POLLUTION. BY JEFFERY FRASER



Sara Bono looks out the door of her home on a quiet street in rural Butler, Pa., where even the absence of urban traffic does not protect the 18-year-old asthmatic from breathing difficulties.

6

What Sara's condition alerts her to is a troubling fact confirmed by scientists, public health officials and regional air-quality monitors: The air over western Pennsylvania is dirty with dangerous pollutants that are often invisible to the naked eye, even though the infamous era that saw heavy industrial soot turn afternoons as dark as night is history. Despite Rand McNally's Places Rated Almanac crowning Pittsburgh the nation's most livable city last year, the region was ranked the second worst in America for fine-particle air pollution, behind grimy Los Angeles, in a report by the American Lung Association. And although the region is not the worst in Pennsylvania for ozone pollution, or smog—that distinction is held by Philadelphia—it is not far behind with levels high enough to earn it an "F" on the same report card.

These high-profile rankings cast the spotlight on an air pollution problem that is one of the most persistent and complex in the nation. Underscoring the dilemma is the grim regulatory fact that the region's most densely populated county, Allegheny, has been in violation of federal Clean Air Act standards for ozone and particle pollution ever since the thresholds for both were last tightened in 1997.

The costs of allowing such a problem to linger are high.

Scientific research provides a growing body of evidence linking air pollution to higher risks of serious disease, including elevated rates of asthma, heart disease and cancers that increase human suffering and burden the economy with high health care costs. Air pollution degrades other natural resources, such as water—a particular concern in western Pennsylvania where the rivers hold fish found to contain high levels of mercury.

Poor air quality also threatens development of new economic engines, such as the region's budding green building industry whose members are sensitive to the environmental health of where they choose to sink roots. And failure to clean up its own backyard weakens the region's legal position to sue for relief from pollutants vented by Ohio Valley power plants and other upwind sources that today account for a significant share of the fine particulates western Pennsylvanians breathe.

"Gone are the days when air pollution was the smell of money," says Caren Glotfelty, Environment Program director for The Heinz Endowments. "The regions of the country that will prosper in the future will be those that offer quality of life

as a competitive advantage. Southwestern Pennsylvania cannot afford to ignore the costs of health care for its existing population, but, more important, we must not underestimate the value of our increasingly green image as an economic driver."

A Complex Problem

A half-century ago, political leaders in Allegheny County and Pittsburgh made clearing the region's air a priority, but many current elected officials have been on the sidelines, with only a select few pursuing air-quality improvements as part of a government agenda. Environmental activists attribute this lack of political muscle to improve western Pennsylvania's air, at least in part, to what they see as most elected and civic leaders caring more about economic development than environmental progress.

Pittsburgh City Councilman William Peduto, one of the local government officials who is more vocal on environmental issues, has a blunter assessment: "Trees don't vote," he says. "I mean that seriously. Politics sometimes becomes mired in pushing policies that will be rewarded with re-election."

He hopes that a growing public awareness about the importance of clean air and water will demonstrate to local officials that residents support including environmental issues in a legislative agenda. Members of the public-private Green Government Task Force that Peduto co-chairs with Pittsburgh Mayor Luke Ravenstahl want to stimulate that awareness through a Green Summit in February.

Some civic and business leaders, however, insist that they do care about the environment, and they say they understand that companies interested in moving into the region consider air quality when making decisions about relocating.

At a Dec. 13 media briefing organized by the Allegheny Conference on Community Development, one of the region's most influential economic development organizations, a group of environmental lawyers and consultants along with Allegheny Conference officials said many companies in the region were not anti-environment. But these firms were concerned about what the group described as the inefficient and unnecessary local regulatory efforts by the county Health Department's Air Quality Program. Members of the group said companies they worked with would welcome the administration of sound air-quality policies by state and federal officials.



Photo: Joshua Franzos

I DON'T EVEN GO OUTSIDE. TO EVEN WALK FROM THE HOUSE TO THE CAR IS A STRUGGLE. AND IT'S PRETTY IMMEDIATE. IT'S ALL OF A SUDDEN HARD TO CATCH MY BREATH, LIKE MY CHEST HAS A LOAD OF BRICKS ON IT.

Sara Bono, 18

However, as part of the recent debates about the fate of the Air Quality Program, several environmental groups have contended that suggestions to transfer the program's air monitoring responsibilities from local to state authorities illustrate the lack of commitment some business and government leaders have to developing a clean-air agenda for the region—despite assurances otherwise.

In fact, efforts to address air-quality problems in southwestern Pennsylvania have been primarily carried out by private nonprofit organizations, such as environmental organizations and the Endowments, which has financed a diverse strategy for improving air quality with more than \$29 million in grants over the past 10 years.

And the complexity of the task can appear formidable. In decades past, Pittsburgh and the surrounding industrial valleys famously polluted themselves. But the decline of steel and other heavy industries, tighter industrial emissions standards and other factors have changed the equation. Today, much of the gases and soot that foul the air are imported from coal-fired power plants, industries and cities in the Ohio River valley and elsewhere in the Midwest. One local expert, Cliff Davidson, a professor of civil and environmental engineering at Carnegie Mellon University who has

A COMPLEX PROBLEM

NO ONE FACTOR IS TO BLAME FOR SOUTHWESTERN PENNSYLVANIA'S AIR-QUALITY PROBLEMS. POLLUTION IS PRODUCED LOCALLY AND BLOWS IN FROM AREAS OUTSIDE THE REGION. THE ROLLING TOPOGRAPHY PREVENTS AN EVEN DISTRIBUTION OF AIR AND POLLUTANTS, CREATING "HOT SPOTS" OF INTENSE AIR POLLUTION. AND THERE ARE ASSERTIONS — AT LEAST ON THE PART OF SOME ENVIRONMENTAL ACTIVISTS — THAT PUBLIC OFFICIALS AREN'T DOING ENOUGH TO PROMOTE AIR-QUALITY IMPROVEMENTS.

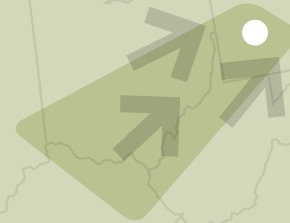


“The air entering Allegheny County is not clean. Yes, we are creating our own pollution, and there are parts of the county where [locally produced pollution] is dominating. But there are many times when we have high concentrations of pollution that are caused by sources in upwind areas that can be hundreds of miles away.”

Cliff Davidson professor of civil and environmental engineering
Carnegie Mellon University

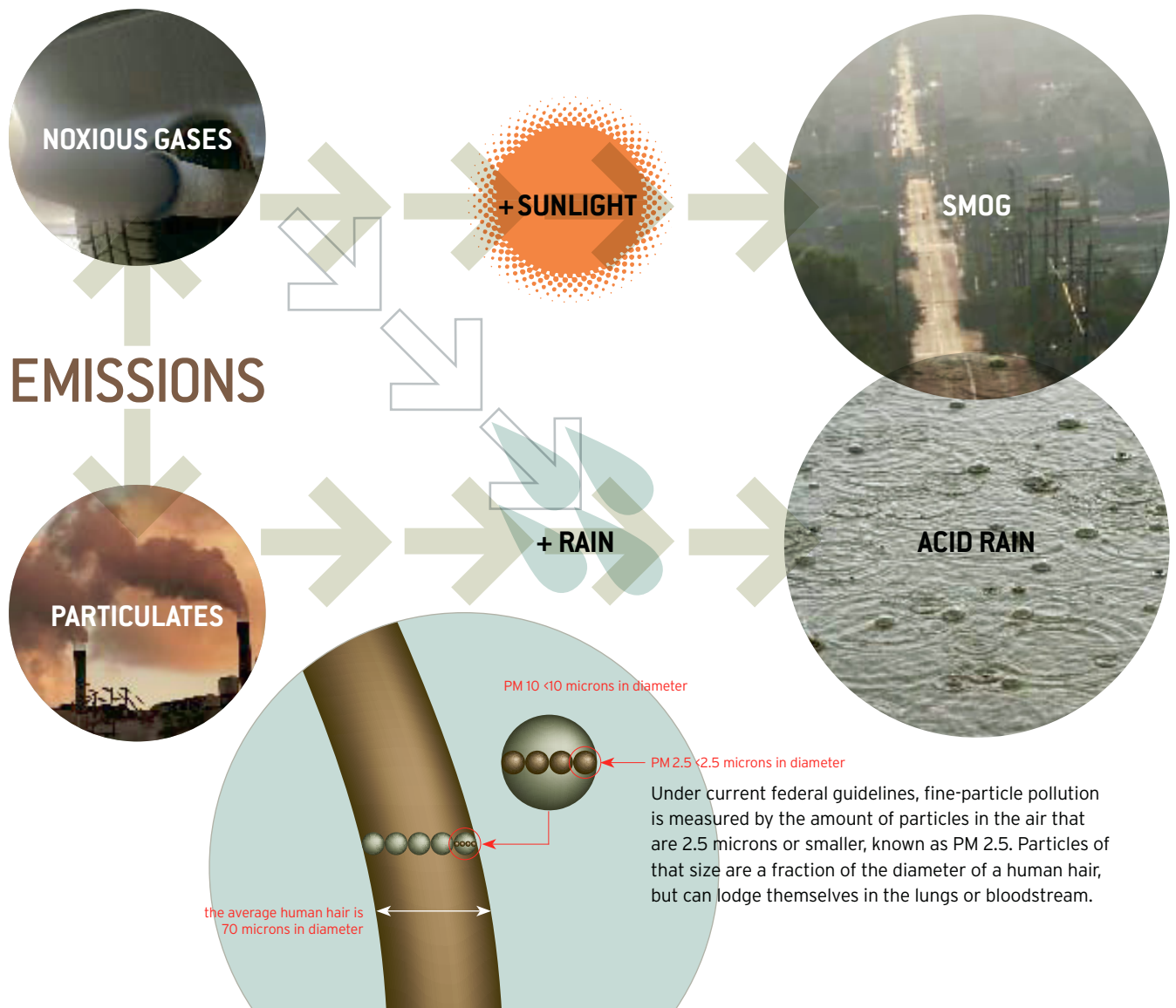
BORDER PATROL

Experts say more than half of the region's fine-particle pollution comes from out-of-state sources. It rides on wind currents from factories in states that are west and southwest of Pennsylvania.



POLLUTION 101

Two types of emissions contribute to much of the pollution we have today. Noxious gases from fuel burned by cars, buses, trucks, factories and other sources react with sunlight to create smog, or the gases combine with water to create acid rain. Particle pollution, or soot, is a mixture of solid and liquid compounds from sources such as diesel engines; coal-burning power plants; and steel, coke-making and other heavy industries. When mixed with moisture, these particulates also can form acid rain.



“WE ARGUE ALL THE TIME THAT, IN THIS DAY AND AGE, A CLEAN STATE IS A WE ARE NOT GOING TO BUILD THE JOBS AND

spent 35 years studying air pollution, estimates that on a long-term average, “well over half” of the region’s fine-particle pollution originates from out-of-state sources.

10

“The air entering Allegheny County is not clean,” he says. “Yes, we are creating our own pollution, and there are parts of the county where [locally produced pollution] is dominating. But there are many times when we have high concentrations of pollution that are caused by sources in upwind areas that can be hundreds of miles away.”

Particle pollution, or soot—one of the two most widespread air pollutants—is a mixture of solid and liquid particles emitted by sources such as diesel engines; coal-burning power plants; and steel, coke-making and other heavy industries. At 2.5 microns or smaller, fine particulates, or PM 2.5, are a fraction of the diameter of a human hair and able to dodge the body’s natural defenses, lodge themselves in the lung or slip into the bloodstream.

These fine particles hitch a ride on wind currents that most often blow into the region from the west and southwest. In some areas, such as South Fayette in Allegheny County, migrating PM 2.5 has a significant impact on air quality. Although South Fayette is upwind from the Monongahela River valley, where the county’s more prolific sources of fine particulates reside, the annual reading from a monitor atop the high school is less than a microgram under the federal limit of 15 micrograms per cubic centimeter. The reason, according to the Allegheny County Health Department, is that the majority of PM 2.5 being detected drifts in from the Ohio Valley.

“Go to Steubenville and take a trip north or south. You’ll see smokestack after smokestack after smokestack,” says Roger Westman, the Health Department’s Air Quality Program manager.

The other widespread air pollutant, ozone, also comes from local and outside sources. Ozone, or smog, is a gas formed by a reaction of sunlight and the vapors emitted when fuel is burned by cars, buses, trucks, factories and other sources—a process that takes three or more hours to complete. That means with a five-mile-per-hour breeze, automobile exhaust from a Pittsburgh rush hour won’t make ozone until it travels 15 or more miles downwind, contributing to pollution in other parts of the region.

Western Pennsylvania’s air-quality problems are exacerbated by its rolling topography and homegrown pollution. Major local sources of ozone are cars and buses—the usual suspects. The chief local causes of particle pollution include diesel trucks

and buses, the 11 coal-fired power plants in the region, and metallurgical industries and coke-making facilities, the most notable being U.S. Steel Corp.’s Clairton Coke Works, the largest in the nation, if not the world.

The region’s hills and valleys prevent the kind of even mixing and distribution of air and pollutants that more level geographic areas experience. These factors tend to create “hot spots”—pockets of intense air pollution. In Allegheny County, the hottest of the hot spots is the cluster of Mon Valley communities around Liberty Borough immediately downwind of the Clairton Coke Works. There, the monitor that measures the quality of the air some 25,000 people breathe reports the second-highest annual PM 2.5 reading in the nation.

At the end of November, U.S. Steel officials announced plans for a \$1 billion upgrade of the Clairton facility that would include state-of-the-art environmental controls, the creation of more than 600 construction jobs, and a new plant that would use gas produced by the coke-making process to generate electricity for the coke works and two other company sites.

While the plans still must be approved by the steel producer’s board of directors, elected leaders were heartened by the prospect of a large, long-term investment in the region that doesn’t call for public money. However, environmental leaders warned that the potential economic benefits should not prevent a thorough analysis of whether the changes will meet clean-air standards, especially if production increases, though U.S. Steel officials say the coke works’ capacity would stay the same.

“We’re cautiously optimistic,” says Rachel Filippini, executive director of the local environmental organization Group Against Smog and Pollution, or GASP. “But we need to know more about how much of a reduction in pollution there will be and how much the changes will affect the air and human health.”

Health Hazards

Those who remember can’t deny that the air is better than it was several decades past when all of the mills were up and running on full production schedules, contributing to the visible smoke, sooty residue and rotten-egg odor that was part of daily life in and around Pittsburgh. But with the discovery of stronger links between lower levels of air pollution exposure and a long list of serious health problems, it has become clear that better is not good enough.

COMPETITIVE STATE AND A DIRTY STATE IS UNCOMPETITIVE.

THE INCOME WE WANT BY TRASHING OUR AIR.” John Hanger, president and CEO, PennFuture

The potential harm to human health is the basis for emission standards for pollutants such as sulfur dioxide, nitrogen oxides, carbon monoxide and ozone. Many were first set in the 1970 Clean Air Act and later tightened as more was learned about the risks they pose.

The wake-up call had come decades earlier in the Washington County mill town of Donora. For four days in October 1948, an inversion clamped a lid on the Monongahela River town, trapping soot and gases vented from its steel, wire, zinc and other industrial works, killing about 20 people and sickening thousands.

“People began to understand that if a lot of pollution in a small amount of time can kill, it raises the question: What does exposure to a lesser amount of pollution over a long period of time mean to our health?” says Devra Davis, author, epidemiologist and director of the University of Pittsburgh Cancer Institute Center for Environmental Oncology.

For Davis, who survived the Donora inversion as a toddler, the answer to that question was in the health of relatives and neighbors. She remembers her grandmother and many other Donora grandmothers as bedridden invalids tethered to oxygen tanks. “There were people who went house to house fixing hair because these women could not get down the steps to get to the beauty parlor.”

Studies report that particle pollution damages the body in ways similar to cigarette smoking. The research links long- and short-term exposure to respiratory ailments, stroke, heart disease, cancer and other health problems. In one recent study, researchers at the University of Southern California found that Los Angeles residents living in areas with the highest average level of fine particulates in the air have thicker carotid arteries — a sign of more atherosclerosis — than those living in less polluted areas. And in western Pennsylvania, preliminary data from an ongoing University of Pittsburgh study suggests that among pregnant women, those exposed to higher levels of particle pollution are more likely to have pre-term deliveries.

“There is no doubt that what we thought of in the past as fairly low levels of air pollution can affect our health,” says Conrad Daniel Volz, an assistant professor in the University of Pittsburgh Graduate School of Public Health and coordinator for exposure assessment at the University of Pittsburgh Cancer Institute Center for Environmental Oncology.

Ozone particularly irritates the respiratory tract. Short-term exposure can exacerbate asthma and trigger attacks that

leave sufferers gasping for breath, like Sara Bono who finds it nearly impossible to walk the length of her front yard on Ozone Action Days. Long-term exposure raises the risk of reduced lung function, pulmonary congestion and heart disease. One of the more telling ozone studies was done in Atlanta during the weeks the city hosted the 1996 Summer Olympics. When citywide traffic-reduction strategies were in effect, Atlanta’s ozone levels fell 30 percent and acute asthma cases logged by doctors and hospitals dropped by nearly 42 percent.

Such findings come as no surprise to western Pennsylvania doctors who treat asthma patients. “Whenever we have a string of Ozone Action Days, we get very busy with acute visits — people coming in needing breathing treatments for their attack,” says Dr. Deborah Gentile, an asthma, allergy and immunology specialist at Allegheny General Hospital.

Children’s Hospital of Pittsburgh experiences emergency room visits for asthma at a rate nearly four times higher than the national average. What is driving these volumes up is unclear, but air pollution, indoor molds and cigarette smoke are on the list of suspects. Across Pennsylvania, the percentage of adults with diagnosed asthma rose from 10.7 percent to 12.3 percent from 1999 to 2005, and prevalence among children increased from 6.6 percent to nearly 10 percent, according to the state Department of Health. In hospital charges alone, the cost of treating asthma across the state jumped from \$171 million to \$406 million.

“We’re swamped,” Gentile says. “There are two of us in our program, and we can’t keep up with it. We used to get a lull in July and early August. Now, we’re booked solid.”

Bad for Business

As for the economic impact of air pollution, the Surface Transportation Policy Project, a national nonprofit, estimated in a 2003 report that, in terms of dollars, the cost of illness and premature death in western Pennsylvania related to air pollution from transportation sources alone exceeds \$227 million a year. Poor air quality also detracts from the quality of life of a state, city or region and, in doing so, makes them less attractive to businesses, investment and workers.

“We argue all the time that, in this day and age, a clean state is a competitive state and a dirty state is uncompetitive,” says John Hanger, president and chief executive officer of Citizens for Pennsylvania’s Future, also known as PennFuture,



Photo: Corbis

a statewide environmental nonprofit. “We are not going to build the jobs and the income we want by trashing our air.”

Recent reports of dirty air, such as the American Lung Association rankings, “will certainly show up on the radar of companies that are sensitive to environmental issues,” says Rebecca Flora, executive director of the nonprofit Green Building Alliance in Pittsburgh.

In a period when environmentally friendly technology, or “cleantech,” is one of the fastest growing sectors for investment nationally and when western Pennsylvania is trying to promote its green innovations, bad air could hurt business. And local opportunities for green economic development are expanding.

For example, the Pittsburgh region is otherwise well positioned to capture a piece of a domestic green-building-products market that, if estimates hold true, could reach \$60 billion in a few years. Pittsburgh already enjoys a reputation as a green building leader, ranking third among U.S. cities in the number of buildings certified under the Leadership in Energy and Environmental Design program of the United States Green Building Council. The City Council recently passed a measure allowing LEED-certified buildings to be as much as 20 percent higher, and have 20 percent more floor space than noncertified new buildings in their zoning areas. The region also is located near key markets and has a robust building-products sector and considerable research assets.

“When a study comes out that says we have such poor air quality,” Flora says, “it almost totally undermines what we are trying to do to promote the city as a green city and counters the image we have been able to create through green building leadership.”

A Multi-Pronged Approach

Western Pennsylvania has long faced a daunting challenge to clean its air. Pittsburgh is no longer the “Smoky City” of 1945, when atmospheric smoke was recorded on all but five days of the year. By 1980, the number of smoky days had fallen to fewer than 50 and, five years later, Allegheny County managed to meet the annual limit for PM 10, then the Clean Air Act particle pollution standard.

But such successes have proven to be deceptive. Today, the struggle is over how to bring the region into compliance with stricter air-quality standards and solve an air-pollution problem that is more complex and dangerous than realized only a few decades ago.

Air quality was among the first issues the Endowments’ Environment Program began to address after it was established as a formal grant-making program in the mid-1990s. Since then, the foundation has emerged as the region’s leading philanthropic supporter of efforts to battle air pollution. Its strategies have been broadened over the years from a focus on conservation and sound public air-quality policy to include efforts to build the capacities of environmental nonprofits and promote renewable energy, green building and more effective coalitions of advocates for a healthier environment.

“We’ve tried to tackle this from all angles of the problem,” says Ellen Dorsey, the Endowments’ Environment senior program officer. “We have to simultaneously respond to the effects of pollution, promote better public policies and invest in transformative technology.”

The John E. Amos plant in Winfield, W.Va., is the Columbus-based American Electric Power Corp.'s largest generating plant. American Electric has been ordered to install \$4.6 billion worth of pollution controls in its Midwest and Mid-Atlantic plants, including Amos, which is considered to be among the sources of polluting emissions that drift into southwestern Pennsylvania.

Early grants were made to support the efforts of Boston-based Clean Air Task Force and others to press for federal policy that would choke off emissions from aging Midwest power plants. Those awards recognized that much of the pollutants western Pennsylvanians breathe is imported from states west of them.

State and local air-quality policy was another focus. The strategies included grants to build the capacity of GASBP, whose work for decades relied solely on volunteers, and to support Clean Water Action, a national nonprofit that has been instrumental in alerting policymakers and the public to the high levels of mercury that coal-fired power plants and other sources deposit in the region's rivers. The Endowments also helped establish and support PennFuture, which has become the leading environment nonprofit in the state with the attorneys, lobbying expertise and large base of supporters that make it a powerful voice for environment-friendly regulation and legislation in Pennsylvania.

Still, Glotfelty notes that in hindsight the Endowments could have been more aggressive in the early days with its support of local advocacy, especially in light of current elected officials' lack of urgency in addressing air quality.

"We didn't realize how important local leadership would be in addressing air quality, which we initially saw as a state and national issue. We should have figured out how to get to western Pennsylvania community and business leaders early on to convince them that we have a problem and to advocate for solving it," she says. "We should have invested even more in national and state-level groups and partnered them with local organizations to create a much more sophisticated capacity than we even have today."

The important inroads that have nonetheless been made include the Clean Air Task Force seeing its decade-long fight to curb the interstate migration of power plant pollution rewarded with the implementation of the 2005 federal Clean Air Interstate Rule, which requires 927 power plants east of the Mississippi River to reduce the amount of nitrogen oxides and sulfur dioxide they emit by up to 75 percent.

When the new regulation will deliver to western Pennsylvania much-needed relief from out-of-state air pollutants depends largely on enforcement. It took an eight-year court battle to settle a landmark lawsuit brought by Clean Air Task Force,

12 other environmental groups, eight states and the U.S. Environmental Protection Agency against the Columbus-based American Electric Power Corp. The company was ordered to comply with federal air standards and to install \$4.6 billion worth of pollution controls in its Midwest and Mid-Atlantic coal-burning power plants. The settlement, signed in October, is expected to cut by 813,000 tons a year acid rain-producing emissions that drift into Pennsylvania and other downwind states.

Relief also may depend on the so-called "clean hands doctrine," the argument that a state or region stands a better chance of getting the remedy it seeks against upwind polluters if it has taken effective steps to clean up its own air pollution. "The clean hands doctrine goes to what the remedy will be," says Conrad Schneider, Clean Air Task Force advocacy director. "If you are pointing your finger upwind, but you are as dirty or dirtier as your upwind neighbors, chances are the court is not going to order them to be cleaner."

Nonprofits also played important roles in several recent Pennsylvania regulations and laws that have the potential to improve air quality and curb the impact airborne pollutants have on other environmental resources.

This year, a new regulation won the support of Gov. Edward Rendell's administration that requires Pennsylvania's 36 coal-fired power plants to reduce their mercury emissions by 90 percent—an estimated 3.6 million fewer tons of mercury each year. Mercury, a dangerous air pollutant, seriously degrades other environmental resources, most notably waterways. "Not only is people breathing air pollution the problem," says Volz, "but large volumes of heavy metals in stack gases are being deposited in the watershed. So we have air pollution creating a water pollution problem."

Volz and his Pitt colleagues recently reported that fish caught in the Allegheny, Monongahela and Ohio rivers near Pittsburgh contained more than three times more mercury than the EPA considers safe, and the mercury levels in fish caught in the Allegheny near Kittanning were 19 times higher than the EPA standard.

The new rule was the focus of a statewide campaign organized around the potential for neurological damage and other health risks such high levels of mercury pose to children.

The coalition of stakeholders that took action over the issue included environmental groups, sportsmen, women's organizations and public health advocates. PennFuture filed the petition for the mercury rule, then successfully blunted industry efforts to overturn it in the legislature. The nonprofit also was influential in getting legislation on the books that requires new cars sold in Pennsylvania to meet tougher California standards for emissions and fuel efficiency in the near future.

And in a step toward allowing Pennsylvania to depend less on burning coal to light homes and power industry, a coalition of advocacy organizations worked with legislators and the Rendell administration to pass the state's first Alternative Energy Portfolio Standards Act. The act, signed into law in 2004, requires that 18 percent of the electricity sold come from alternative energy sources, including 8 percent from renewables, such as wind and solar, that today account for less than 1 percent of electricity sales.

Almost immediately, the state witnessed a surge in new industry to meet the demand, including Vitoria, Spain-based Gamesa Corp.'s four wind turbine plants that brought \$50 million in investment and nearly 1,000 new jobs to Pennsylvania.

Close to Home

For Jim Berent, though, it wasn't soot from power plants or steel mills or coke ovens that gave him problems. It was diesel exhaust, which contains both ozone gases and particulates. At the Penn Hills School District bus garage, where he is the supervisor, it would blacken the walls. At home, his wife wouldn't allow him in the house until he changed out of his work clothes, which reeked of exhaust. She lifted the restriction two years ago after Penn Hills, as part of a Health Department pilot project, became one of the first districts to retrofit its 83 school buses with diesel oxidation catalysts that reduce sooty emissions by 60 percent.

"My clothes don't smell anymore like they used to," says Berent. "At the shop, we've been amazed at the difference. These walls would get so black we'd have to wash them down every summer. It's been two years since we painted and even now you can't see any soot."

GASP and Clean Water Action staffs are hoping to see similar benefits from a new program they are managing with a

\$500,000 grant from the Endowments to retrofit the Pittsburgh Public Schools' buses with similar diesel filters. A recent Clean Air Task Force study found that particulate matter from diesel exhaust routinely entered school bus cabins and, at some stops, was as much as 10 times higher than levels in the outdoor air. The nonprofits also are exploring ways to get other diesel sources to clean up, including city waste haulers and Port Authority buses.

Public awareness campaigns have been organized to educate residents, schoolchildren and the local news media about western Pennsylvania's air pollution and what they can do about it. And in the region's hot spots, citizen watchdog groups quietly conduct surveillance, providing the county Health Department with snapshots and videotape that officials say have led them to emissions violations they might otherwise not have detected.

"People who live next to plants come to know there are good days and bad days and why there are bad days," says Myron Arnowitz, Clean Water Action's director for Pennsylvania.

Kurt Miller is one of them. His Mon Valley neighbors include a chemical plant, a small coal-burning power plant and, only five miles downriver, the Clairton Coke Works. In the 12 years since he moved his family into their Jefferson Hills home, he's noticed that the air quality has gotten better. But there are still days when they need to close the windows against the pollutants he knows are there. He knows these things because he samples the air himself.

His tools include a crude air monitor provided by Clean Water Action that is fashioned from a five-gallon bucket, a plastic bag and a hand-sized vacuum cleaner. It was effective enough to once detect high levels of several carcinogens, including benzene, in the neighborhood air. Through GASP, he became a certified "smoke reader" trained to spot possible emissions violations from the plumes vented by industry. He sits on the chemical plant's community advisory committee, has the cell phone numbers of plant officials and has not been shy about using them. Air quality is important to him. His wife and three children all have asthma.

"I feel that as long as I'm here doing this—and [company officials] know I'm doing this—maybe that will keep them honest," he says. "I know there are cleaner places to live, but we like our home here." *h*

AIRFORCES

DURING THE PAST CENTURY, THESE INDIVIDUALS AND ORGANIZATIONS PRESSED FOR CLEANER AIR IN PITTSBURGH. BY REID R. FRAZIER AND JEFFERY FRASER

THE LADIES HEALTH PROTECTION ASSOCIATION

They were an unlikely group of Gilded Age activists, wearing long skirts, shawls and feathered hats. The women of the Ladies' Health Protection Association sought to clean up the city's air at a time when many considered smoke an advertisement for Pittsburgh's industrial might, as illustrated in this photograph of factories in the city's Strip District neighborhood. Among these women were daughters and wives of the city's leading clans who worried that the red ore dust and black soot that coated the city could be harming the public's health.

Their concerns were dismissed by the city's industrial elites, who painted the women's concerns as overly "effeminate." "But it is not

a pity," steel master William Metcalf, an early rival of Andrew Carnegie's, said condescendingly, "to mar such loveliness with this horrid soot?"

The Ladies' Health Protection Association called meetings on air pollution, sued industries like the railroads and ultimately persuaded City Council to pass its first general smoke ordinance. The law was modest — it exempted most industrial sites — but it was an important first step in clearing the air, says historian Angela Gugliotta.

"The main thing was they changed the conversation," said Gugliotta, a University of Chicago lecturer. "In very short order, [the women of the association] make it clear that desires for health and comfort at home are legitimate desires."

1896

While there's still much to be done to improve the air quality in the Pittsburgh region, people who've been here know the air is a lot cleaner today than when the town was known as "the Smoky City." Most attribute the change to the decline of the region's heavy industry, but there is another reason the air is better: People committed to a healthier environment made it so. • Some of these individuals represent several generations of Pittsburghers who demanded cleaner air. Others are members of nonprofit organizations—including several groups supported by the Endowments—that have played critical roles in the fight to clean the region's air. Their efforts have ranged from introducing local anti-pollution initiatives to organizing campaigns for state and federal regulations aimed at reducing fine-particle and ozone pollution. • Over the objections of industry and its government allies, these clean-air advocates created a legacy whose effects live on today.



1945

MAYOR DAVID L. LAWRENCE

By World War II, many Pittsburghers saw the ceaseless choke of soot, haze and smog in the skies above as a threat to the city's future. Yet the city's politicians were timid on smoke control. Industry carried huge weight, and most of the electorate relied on coal, a main source of smoke, to heat their homes.

That began to change in 1945, when David L. Lawrence, head of the Allegheny County Democratic Party, won the mayor's office. Lawrence, shown in the center above with members of a clean-up campaign that included stronger smoke-abatement regulations, took a political risk in supporting smoke controls. In the process, he aligned himself with anti-smoke Republicans like Richard King Mellon and members of the Allegheny Conference on

Community Development. "When that happens, he really rises to another level, [to] a statesman," says Joel Tarr, a Carnegie Mellon University environmental historian.

Lawrence almost lost an election because of his clean air stance. A democratic challenger who criticized Lawrence's stand on smoke nearly unseated him in the primary election of 1949. Lawrence, who later became governor of Pennsylvania, defended clean air as a cause worth paying for. "There is no other single thing," he said, "which will so dramatically improve the appearance, the health, the pride, the spirit of the city."

By the mid-1950s, thanks in part to Lawrence, most Pittsburgh homes were heated by natural gas — and the city was receiving national attention for cleaning its skies of smoke.

MICHELLE MADOFF AND GASP (GROUP AGAINST SMOG AND POLLUTION)

The first meeting of the Group Against Smog and Pollution, or GASP, was held in August 1969 in the living room of a Squirrel Hill housewife who had moved to Pittsburgh eight years earlier. Up to that point in her life, Michelle Madoff, pictured to the right in her later role as a member of Pittsburgh City Council in the 1970s and 1980s, had occupied herself mainly with being a wife and mother — and taking care of her own health. “I was asthmatic,” says Madoff, now in her 70s and living in Arizona. “I couldn’t breathe. I spent more time inside the hospital than out of it. I used an inhaler all the time.”

Madoff served cold drinks that day to a room of about 40 people, including physicians, attorneys, scientists and engineers, a constituency the Wall Street Journal would later term “the breathers’ lobby.”

Under her leadership, GASP commissioned reports on pollution, brought medical and legal experts to air-quality hearings, and generally became a thorn under the saddle of industrial polluters. Madoff had members sell cans of “Clean Air” on the streets of Downtown Pittsburgh.

“She was not at all afraid to cause a stink,” remembers Walter Goldburg, a fellow GASP co-founder and professor emeritus of physics at the University of Pittsburgh. “There’s a scarcity of people like that, people with courage who don’t particularly care what other people think.”

GASP worked for more than 20 years without a professional staff, educating the public on air-quality issues, working with environmental agencies to enforce clean air regulations and litigating when necessary. Its efforts included joining a lawsuit with the Environmental Protection Agency to enforce air-quality standards at the LTV Corp. coke plant in Pittsburgh’s Hazelwood neighborhood.

Today, with a staff of five, the nonprofit has undertaken important roles in several local anti-pollution campaigns. GASP is co-leader of a program to retrofit city school buses with diesel exhaust filtering devices, which has received Endowments support, and of the Campaign for Healthy Air. That initiative was organized around reducing fine-particle pollution in western Pennsylvania following the EPA’s 2004 finding that the air in Allegheny County did not meet federal standards.



Photo copyright © Pittsburgh Post-Gazette

1969

1972



Photo courtesy of Clean Water Action

CLEAN WATER ACTION

More than a decade ago, Clean Water Action staff urged Pennsylvania environmental officials to test the state’s waterways for mercury, a harmful air-delivered pollutant that deposits in rivers, streams and lakes. Evidence of mercury-contaminated fish led state officials to issue consumption advisories in parts of Pennsylvania. The nonprofit later joined a broad coalition of environmental advocates and other stakeholders in helping establish a new regulation that calls for a 90 percent reduction in power plant mercury emissions across the state.

Founded in 1972, Clean Water Action’s involvement in the mercury rule is an example of efforts to address water pollution at its source. Its work in western Pennsylvania to improve air quality includes an important role in the program to reduce diesel emissions from school buses and in the Campaign for Healthy Air, a local coalition that assesses air quality, suggests solutions and urges public officials to make clean air a priority.

The national organization, with offices across the United States and 1.2 million members, volunteers and professional staff, also organizes citizen actions. These include “bucket brigades” that arm people who live near industries with simple air monitors they can use to sample the air in their neighborhoods — and potentially influence local government and business policies.

In the photo to the left, Myron Arnowitt, the Pennsylvania state director for Clean Water Action, is shown on the left training residents from Allegheny County’s Mon Valley communities on how to take air samples using the bucket monitor. He started brigades in the county with this simple philosophy: “I think people living next to a large pollution source should breathe air as clean as everybody else does.”

In 2001, Arnowitt organized a bucket brigade of residents near Neville Island, home to 24 different companies permitted to emit about 500,000 pounds of toxic air pollution each year from a one-square-mile cluster. The brigade included cancer victims, asthmatics and people like Avalon resident Janet Trahosky, 55, who worried that pollution caused her headaches.

With help from a \$460,000 Endowments grant to promote better air quality at Neville Island, Clean Water Action gave residents 5-gallon buckets equipped with a simple vacuum device to take air samples for analysis. Among the dozens of chemicals they found — most of which were permitted under state and federal regulations — was acrylonitrile, a probable carcinogen used in the manufacture of acrylic fibers and other materials. None of the Neville Island companies had a permit to release the compound. When the results were publicized, the firms emitting the material stopped doing so.

CLEAN AIR TASK FORCE

As a leading advocate of tougher power plant emission regulations, Clean Air Task Force played an important role in getting the 2005 federal Clean Air Interstate Rule on the books. The measure requires more than 900 power plants east of the Mississippi River to reduce their nitrogen oxides and sulfur dioxide emissions by as much as 75 percent. Nitrogen oxides and sulfur dioxide are two of the most common and harmful air pollutants vented from coal-burning power plants.

The nonprofit, whose national headquarters is in Boston, was founded by Executive Director Armond Cohen in 1996 with the general mission of restoring clean air and healthy environments through scientific research, public education and legal advocacy. As an early supporter, the Endowments has awarded the task force grants

to help build the resources necessary to achieve its mission. Those resources include 20 senior scientists, lawyers, MBAs, economists and public-outreach professionals.

In western Pennsylvania, the nonprofit is investigating efforts by officials at the U. S. Steel Clairton Coke Works to comply with air-quality regulations. It also provides research and administrative support to the program to retrofit Pittsburgh public school buses with filtering devices that sharply reduce diesel emissions. Below, Bruce Hill, right, a senior scientist for Clean Air Task Force, and Peter Reba of International Truck & Engine Co. use a handkerchief to cover the tailpipe of a school bus in a Pittsburgh suburb to show how little particulate matter is coming from the exhaust because it was retrofitted with a tailpipe filter.

1996





**DEVRA LEE DAVIS, DIRECTOR OF
THE UNIVERSITY OF PITTSBURGH
CANCER INSTITUTE'S CENTER
FOR ENVIRONMENTAL ONCOLOGY**

A few years ago, Devra Lee Davis, pictured to the left speaking during a women's health and environment conference in Pittsburgh last spring, sat in a room with a trio of corporate lawyers, trying to convince them their clients had given people cancer. The companies — IBM, Dow, DuPont — had all exposed workers to unsafe levels of known carcinogens. When she laid out the scientific evidence — statistics, reports, test results — the lawyers weren't impressed.

"They saw cancer deaths in the same terms as deaths from a handgun," she wrote in her book "When Smoke Ran Like Water," a 2002 National Book Award Finalist. "When and where was the bullet fired that killed or injured each person? Who was holding the gun?"

Davis is an epidemiologist who served as a public health advisor to presidents Jimmy Carter, Ronald Reagan, George H. W. Bush and Bill Clinton. She has spent her career telling us that we are all, in a way, holding the gun. Davis grew up in Donora, a Mon Valley mill town south of Pittsburgh that is synonymous with pollution.

About 20 people died and thousands were sickened in 1948 because of the town's "killer smog," created when a cold air inversion trapped toxic emissions from several factories over the town for four days. Davis believes many more were victims of Donora's pollution, including her grandmother, who suffered two dozen heart attacks, and an uncle who died of a heart attack on a handball court at the age of 50.

Under Davis' direction and with help from \$1.2 million in Endowments grants, the oncology center's staff looks at ways the things people breathe, eat and drink can give them cancer, and proposes policies to reduce our risk. Her recently released book, "The Secret History of the War on Cancer," asserts that industries have hidden or ignored toxic hazards in the workplace, cigarettes and even beauty products.

Davis, 61, says her goal is to bring the facts about air pollution to light as a way of practicing "tikkun olum," the Jewish practice of "healing the world." "I believe that people are good, fair, just and reasonable. If you assume these things are true, then you make [change] happen. Certainly you set the stage for it to happen."

**CITIZENS FOR PENNSYLVANIA'S
FUTURE (PENNFUTURE)**

The Endowments, along with the Pew Charitable Trusts, helped to create PennFuture in 1998 after an analysis of Pennsylvania's environmental nonprofits showed a need for an advocacy organization with the depth of expertise and resources necessary to affect policy at the state level.

The nonprofit has since emerged as a leader in campaigns for new state regulations and laws expected to have a major impact on air quality. These include a rule slashing power plant mercury emissions, another requiring that new cars meet tough California air-quality standards and the state's first Alternative Energy Portfolio Standards that opened the door to greater

production of electricity from non-polluting renewable sources.

The organization's success is due in large part to a database of more than 20,000 grassroots contacts across the state and a staff that includes strategists and attorneys who specialize in environmental issues. Among its successful strategies is showing that there are economic benefits to cleaner air. Below, PennFuture president and CEO John Hanger, center, talks with reporters at the Pennsylvania state capitol steps about the group's Campaign for Energy Independence, a program to encourage use of renewable energy. PennFuture Vice President Jan Jarrett stands beside him recording his remarks for a podcast.



Photo courtesy of PennFuture

1998

2007



DESPITE PITTSBURGH'S PAST ENVIRONMENTAL TRIUMPHS AND ITS RECENT POOR SHOWING IN A NATIONAL AIR POLLUTION SURVEY, MANY LOCAL LEADERS IN THE REGION DON'T APPEAR TO BE MAKING BETTER AIR QUALITY A TOP PRIORITY. BY CARMEN J. LEE AND JOHN ALTDORFER ILLUSTRATIONS BY JIM FRAZIER

21

In 1966, federal government figures showed that Chattanooga, Tenn., had the dirtiest air in the country. Its county mortality rate from tuberculosis was three times the national average and double that of the state. Venerated television journalist Walter Cronkite informed the nation of the city's plight on the evening news.

"It was a major problem and a major embarrassment for our community," says environmental attorney Wayne Cropp.

But a year before the federal Clean Air Act created the Environmental Protection Agency in 1970, Chattanooga government leaders adopted an air pollution-control program that set the bar for air-quality standards at that time. The program also pre-dated Tennessee's statewide air-quality regulations, which weren't passed until 1971.

And the commitment to improving air quality didn't stop then. In the 1980s, Chattanooga was the first metropolitan area in the country to move from the "non-attainment" status for ozone pollution to meeting federal standards. When tighter federal clean air regulations were enacted, officials in Chattanooga and Hamilton County adopted an early action compact in 2004 for compliance with EPA ozone standards, which the metro area met last year.

"The turnaround in the air-quality story is a source of great pride in our community," says Cropp, a former executive director of the Chattanooga-Hamilton County Air Pollution Control Board who now heads a high-tech economic development agency in Chattanooga. "It was the first success story in the turnaround of our community."

This southern industrial city could be a good role model for Pittsburgh.

It's true that the Pittsburgh region has a similar history of pollution-reduction achievements, led in the 1940s and 1950s by then-Mayor David L. Lawrence. There also have been some encouraging initiatives recently, such as the formation of the public-private Green Government Task Force in 2006 to study city government's energy use.

And civic and elected leaders here say they care about the region's air quality and want to see it improved. But some also raise concerns about the need to attract and keep industries such as U. S. Steel Corp.'s Clairton Coke Works, which is a major local source of fine-particle pollution.

"It's a double-edged sword," says Democratic U.S. Rep. Mike Doyle, who represents Clairton in Congress. "We're always trying to find the balance between a healthy economy and a healthy environment. There was a time when we didn't have a lot of controls on emissions. U. S. Steel is putting...improvements there to meet government guidelines. But the reality is that you can't have an operating coke plant and perfectly clean air."

Still environmental activists complain that when it comes to taking action, many of today's powerbrokers are, for the most part, dragging their heels in addressing current air-quality problems. While these local leaders say they recognize the importance of clean air to southwestern Pennsylvania's future, too often they appear to place a higher priority on economic development, the activists maintain, without promoting the economic as well as the health benefits of a clean environment.

"Our elected officials need to understand that we have to solve our air-quality problem in order for the region to move

We have monitors in Greene County that pick up pollution from West Virginia and Ohio. Those readings show up here, and we get penalized. We could clean up every source of pollution here contributing to the problem, and that would only be half the battle. The problem doesn't start here. So the entire solution shouldn't be left up to us.

Dan Onorato, Allegheny County chief executive

forward,” says Myron Arnowitz, Pennsylvania state director of the environmental group Clean Water Action.

The problem is a serious one. Not only has the Pittsburgh region failed to meet federal standards for ozone and particle pollution since stricter guidelines were enacted in 1997, but it received the dubious distinction this year of ranking second on the American Lung Association’s survey of worst places in the nation for airborne fine particulates. So while most of the steel mills that earned Pittsburgh its former “Smoky City” moniker are gone, today’s scientific advances reveal that the region’s air is laden with tiny particles that threaten the health of residents and tarnish Pittsburgh’s reputation.

And the response of local civic and government leaders? Well, one of the most immediate reactions was an acerbic column in the May 25 issue of the Pittsburgh Business Times by Kathryn Zuberbuhler Klaber, executive vice president for competitiveness at one of the region’s leading economic development groups, the Allegheny Conference on Community Development. Klaber criticized the Lung Association’s rating as being unfair and the local media for coverage she deemed as lacking rigorous examination of the issue.

More recently, Allegheny County Chief Executive Dan Onorato raised the question of whether the duties of the Allegheny County Health Department’s Air Quality Program should be shifted to the state, which monitors air quality for surrounding counties. Some industry officials—along with Klaber and her Allegheny Conference colleagues—have claimed that the county program is driving away business because it does not process the industrial permits needed for construction quickly enough. They also contend that the program is an unnecessary layer of bureaucracy that doesn’t help environmental or economic development efforts.

County Air Quality Program officials and supporters dispute those allegations. They point to a recent review that found that the program, which has more stringent standards in some areas than the Pennsylvania Department of Environmental Protection, issued permits more quickly than the state.

The debate illustrates the lack of cooperation among local civic and elected leaders and environmental activists in galvanizing the resources and political will to lessen the region’s air pollution ills. Everyone says cleaner air is important, but the different factions are at odds about how to achieve it.

“We need to have a dialogue with local leaders. The air-quality rankings should be a call to action for them,” says Rachel Filippini, executive director of the grassroots organization Group Against Smog and Pollution, or GASP. “We’d like to see the mayor’s office working with the county and other local officials to develop a ‘greenprint’ for improvement. But the conversations that need to happen aren’t taking place.”

At a Dec. 13 meeting with local news media, Klaber and a group of environmental lawyers and consultants who help companies navigate Allegheny County’s permitting process were more than willing to talk about transferring air monitoring responsibilities from the county to the state. They believe the Department of Environmental Protection has more resources and technological expertise to analyze the region’s air-quality problems and enforce regulations.

“Major advances in air quality have historically been a result of technology innovations, and we need to continue that innovation by both the private and public sectors to meet the current air-quality standards in Allegheny County,” says Klaber. “It appears that the state can bring more resources to bear on our local needs than a local agency can. This would also promote government efficiency so county taxpayers aren’t supporting duplicative regulatory functions.”

Half a century ago, much of the conversation and work to clean up Pittsburgh’s environment took place among local movers and shakers.

As Pittsburgh’s mayor, Lawrence was a gruff, old-school Democratic politico who didn’t hesitate to knock a few heads together following World War II to clean up the town’s air. With

the help of financial, industry and civic leaders—including the Allegheny Conference and an unlikely ally, Republican millionaire banker Richard King Mellon—Lawrence piloted a remarkably successful package of residential heating and industrial manufacturing improvements that cleared the city's skies of the most obvious, sun-blocking soot. As a result, government leaders across the country jumped on the clean-air bandwagon to chase away the dark smog clouds that shrouded their towns.

Today, many of the region's more prominent politicians seem content to rest on Lawrence's laurels, pointing out that things are better than they were 60 years ago or that much of the local pollution breezes in from West Virginia coal mines or Midwest power plants.

"We have monitors in Greene County that pick up pollution from West Virginia and Ohio," says Onorato. "Those readings show up here, and we get penalized. We could clean up every source of pollution here contributing to the problem and that would only be half the battle. The problem doesn't start here. So the entire solution shouldn't be left up to us."

But a variety of national rankings indicate that without some type of improvement, the region will continue to bear a pollution label that taints its image. From Men's Health magazine to the American Lung Association to the EPA, Pittsburgh's air-quality ratings have been poor.

In 2004, for example, Allegheny County was among several in southwestern Pennsylvania that the EPA listed as failing its new, tougher air standards for microscopic soot from diesel-burning trucks, power plants and other sources. All the counties on the list were given until 2010 to come into compliance for levels of soot particles measuring as small as 2.5 microns.

State officials have asked the EPA to designate Allegheny County as moving from "non-attainment" to "attainment" status for federal ozone standards because of improvements in that form of pollution between 2004 and 2006. But because a routine check of ozone levels for last year yielded high readings, federal officials put their decision on hold for up to 18 months while a further review is made.

In 2006, Men's Health magazine gave the region an 'F' for air quality, ranking it 98 among 100 American cities, with only Chicago and Detroit receiving lower ratings. Pittsburgh's air-quality record was damaged by factors such as heavy traffic congestion, high levels of soot particulates from coal-fired power plants and an unfavorable Air Quality Index, which tracked five pollutants: ozone, sulfur dioxide, nitrogen oxide, carbon monoxide and particulates.

Then the American Lung Association released its annual "State of the Air" report last spring, ranking Pittsburgh the second-dirtiest metropolitan area for airborne particles, with only Los Angeles having worse air quality. Since the report was based on 2003–05 pollution measurements, county health officials pointed out that while their data confirmed the Lung Association's findings for that period, the county soot measurements for 2006 were better, possibly because of the recent installation of emissions controls by some power plants west of Pittsburgh.

Klaber took her objections further. In her Pittsburgh Business Times column, she accused the Lung Association of ignoring the singular nature of the air monitors in Allegheny County communities of Liberty Borough and Clairton, which are near U. S. Steel Corp.'s Clairton Coke Works. She added that the Allegheny Conference found that if the readings for monitors in

We need to have a dialogue with local leaders. The air-quality rankings should be a call to action for them. We'd like to see the mayor's office working with the county and other local officials to develop a "greenprint" for improvement. But the conversations that need to happen aren't taking place.

Rachel Filippini, executive director, GASP

Civic and elected leaders in Allegheny County need to be more proactive in addressing the region's air pollution problems . . . They should be pushing for more investment in pollution-reduction technology, greater enforcement of air-quality regulations, expansion of efforts to reduce diesel emissions and more partnerships between the public and private sectors to attract "green" industries and jobs to southwestern Pennsylvania.

Ellen Dorsey, Environment senior program officer, The Heinz Endowments

Liberty and Clairton were treated separately—as they are in EPA air-quality reports—the region's showing nationally would be much better, ranking below the top 50 measurements for soot pollution. The EPA made the separate designation at the request of Pennsylvania state officials and, as Klaber noted in her column, with the involvement of local elected officials and the Allegheny Conference.

"If the [American Lung Association] is going to use air-quality data in its reports and media strategies, it has an obligation to understand the nature of the data," Klaber wrote. "The reality is that people in the region are breathing cleaner air now than they have since before the industrial revolution. That's the real story. We're working hard to get the [association] and others to see it, and the local media have a responsibility to report it."

Also on the heels of the Lung Association report, Onorato approached the state Department of Environmental Protection about taking over the planning, permitting, monitoring and enforcement duties of the county Air Quality Program. While the idea is still only in the discussion stages, Klaber and the Allegheny Conference support it because Klaber says that it would be more efficient to have one governmental agency monitoring air quality in southwestern Pennsylvania rather than two, which she insists discourages industry expansion in the region and wastes taxpayers' money on a needless duplication of services.

Joe Duckett, an environmental engineer with SNC-Lavalin, which designs air and water pollution-control systems and works with companies in obtaining air-quality permits, agrees that having a single set of standards to follow would be less confusing for some companies. "The impression is out there that it is very difficult to do business in Allegheny County," he says. "By itself does it keep businesses from expanding or coming here? I don't know, but it's another hurdle."

Bringing additional attention to the air-quality issue was the Pittsburgh Regional Indicators Consortium's October release of an air rating system devised by former Allegheny Conference chief Harold Miller. The consortium of civic and university leaders was formed in 2004 to stimulate informed public dialogue

about southwestern Pennsylvania by comparing it with other regions on various indicators, including air quality. The organization has received support from several foundations, including The Heinz Endowments. Miller, now an independent management and policy consultant, agreed with Klaber's contention that the Lung Association's methodology was faulty. He averaged the readings from all of the pollution monitors in the region—except the one in Liberty Borough—to determine the average air quality for an average location. But his findings still left southwestern Pennsylvania in a sorry spot.

"What I discovered is that Pittsburgh does have pretty bad air quality," says Miller. "Even without the Liberty Borough monitor, the air quality as far as fine particulates is still the fifth worst in the nation."

But in response to efforts to separate Liberty and Clairton from Allegheny County's ranking, Lisa Nolan, the American Lung Association's assistant vice president of national policy and advocacy, argues that leaving them out would create a false evaluation. The organization includes all monitors so that Allegheny County's ratings are comparable to other regions around the United States, where readings from monitors in areas known as "hot spots" for pollution also are incorporated.

"By separating the worst monitor, they created a 'donut hole' in Pittsburgh," she says. "I don't know of any other place in the country where that's been done."

GASP's Filippini adds that an even greater concern is the possibility that such a separation could result in "leaving Liberty Borough and its residents out of a solution for improving air quality everywhere in Allegheny County."

As for suggestions that the county could turn over its Air Quality Program's duties to the state, Filippini says she doesn't believe state officials would be as accessible to the local residents and community groups, nor does she think that the state would be able to address as thoroughly the unique aspects of Allegheny County's air pollution problems, such as having the largest coke-making facility in the country.

Roger Westman, the county Air Quality Program manager, adds that even if the program's responsibilities were absorbed



Photo: Joshua Franzos

ALLEGHENY HOT SPOT

Darrell Stern, air monitoring section head for Allegheny County's Air Quality Program, examines a canister containing air samples of PM 2.5 from the monitor atop South Allegheny High School in Liberty Borough, south of Pittsburgh. The monitor is just 1.4 miles from U. S. Steel Corp.'s Clairton Coke Works, which is a major source of fine-particulate air pollution in the region.



by the state, local businesses wouldn't have it any easier because state officials still would be required to enforce more stringent requirements in Allegheny County to comply with federal law. And while some firms that operate in several counties in the region, including Allegheny, might be confused by having to follow two sets of air-quality regulations, Westman maintains that those operating only within Allegheny County can focus primarily on the local standards since they reference the state requirements where necessary.

When looking at the overall issue of improving air quality, Ellen Dorsey, the Endowments' Environment senior program officer, says civic and elected leaders in Allegheny County need to be more proactive in addressing the region's air pollution problems rather than looking to hand off responsibilities to the state or pointing the finger upwind. They should be pushing for more investment in pollution-reduction technology, greater enforcement of air-quality regulations, expansion of efforts to reduce diesel emissions and more partnerships between the public and private sectors to attract "green" industries and jobs to southwestern Pennsylvania.

"Regions across the country where sustainability is a priority are leaders economically," says Dorsey. "With the cooperation of city, county and state government, our region could be a model for demonstrating how good economic and environmental policies can work together to benefit everyone."

That's what Cropp says happened in Chattanooga, even though debates similar to those in the Pittsburgh region did occur. Civic, business and political leaders united to address the air pollution problems in the 1960s, only to have questions arise in later years about certain regulatory efforts. There even were some calls to place the duties of its county air-quality program in state hands. But Cropp notes that Chattanooga's success in significantly reducing its air pollution, which many believe helped boost its recent revitalization and growth, has overshadowed the naysayers and kept air-quality improvements going.

"Everyone has to do their part. We did our part and took action and attained the [air-quality] standards locally," he says. "As the standards become tougher, they will be more difficult to achieve ... But if everyone does their part, it helps us all." *h*

TAKING ACTION

PRACTICALLY EVERYTHING WE BUY, DRIVE OR EAT AFFECTS AIR QUALITY. WHILE PUBLIC OFFICIALS, BUSINESS LEADERS AND ENVIRONMENTAL ACTIVISTS DEBATE THE ISSUE, THERE ARE PLENTY OF THINGS WE CAN DO IN OUR HOMES AND AT WORK TO MAKE THE AIR SAFER. HERE ARE 10 EXAMPLES. BY REID R. FRAZIER

1

Be efficient. Purchase energy-efficient appliances, insulate your home, and buy energy-efficient doors and windows. Buy compact fluorescent light bulbs, which use one-fourth the energy of incandescent bulbs. Keep your thermostat low in the winter. In the summer, turn your air-conditioner to 78 degrees, or use fans if you can.

2

Become a Clean-Air Warrior.

Speak up on behalf of clean air where you live or work. Tell your local school district to retrofit diesel school buses. Let your local government officials know you want cleaner buses and garbage trucks. Tell your church to buy high-efficiency light bulbs. Report air-quality problems or excessive bus idling to your local health department. Write your state legislator or congressional representative to support clean-energy initiatives.



3

Unplug. Even when they are "turned off," equipment such as televisions, computers and cell phone chargers draw energy off the grid. Use power strips as a central "off" switch for these items, or unplug them when they're not in use.



4

Get an energy audit.

Professional contractors can pinpoint where and how to make your home more energy efficient. They can give you a detailed list of priorities to help you choose which projects to take on first.



5



Buy clean energy. Coal-fired electric plants, which provide most of Pennsylvania's electricity, emit fine particulates, mercury and sulfur dioxide, a precursor to acid rain. If you can't buy clean energy from your local utility — and in many parts of Western Pennsylvania, you can't — consider purchasing green credits. The credits fund clean-energy projects such as wind energy or farmer-run methane plants.

Find out where to get green power at www.cleanyourair.org. Look for programs certified renewable by a third-party source, like Green-e: www.green-e.org. This is the nation's leading independent certification and verification program for renewable energy in the retail market, run by the Center for Resource Solutions.

6

Know your footprint.

There are a number of online resources to help calculate your carbon footprint, a good way to see how much air pollution you emit.

The Environmental Protection Agency provides a couple of different ways to measure your footprint, which you can find at www.epa.gov/climatechange/emissions/ind_calculator.html and www.epa.gov/solar/powerprofiler.htm.



7

Lay off the gas. Each gallon of gas burned in the average motor vehicle generates 19 pounds of carbon dioxide, the most common greenhouse gas. Tailpipes also emit nitrous oxides and other gases. When heated in sunlight, these produce ground-level ozone, which can cause or aggravate respiratory and cardiovascular illness.

Walking, biking and taking public transportation are excellent ways to reduce air pollution. Living and working in transit- and walking-friendly areas can reduce the need for car trips. Calculate how "walkable" your neighborhood is at www.walkscore.com.

Consider buying a hybrid or a vehicle that runs on alternative fuels, like vegetable-based biodiesel, to make your drive a cleaner one.



8

Learn about air-quality action days.

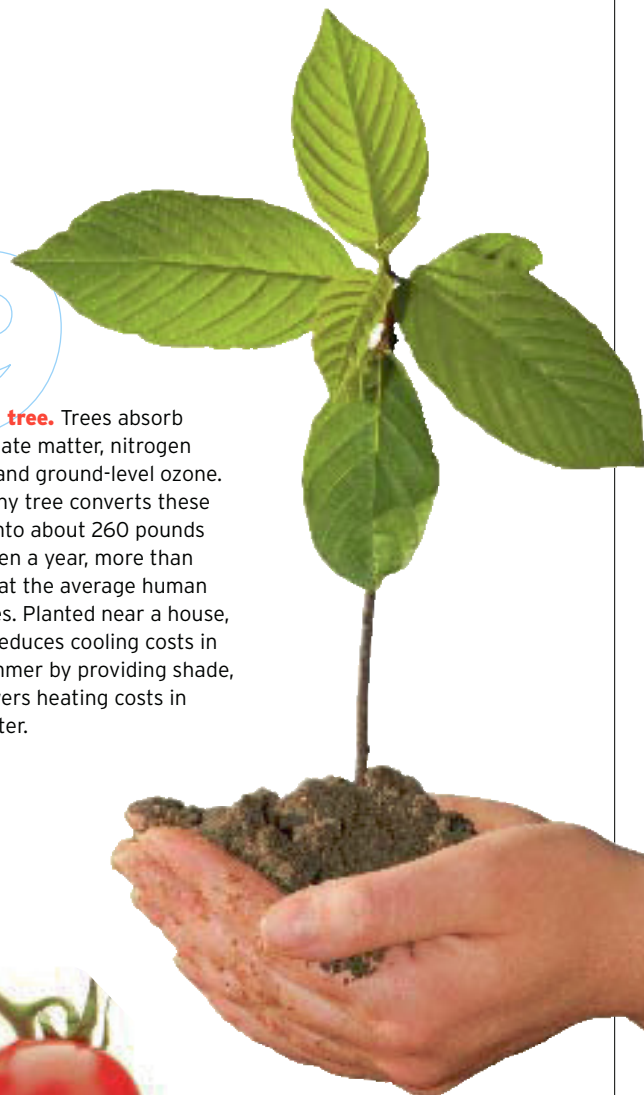
Pay attention to air-quality action days during the summer. In Pennsylvania, you can check on local air quality at www.dep.state.pa.us/aq_apps/aqpartners/default.asp. Increased levels of ozone and fine particulates cause serious

health problems for the old, the young, and those with lung or heart conditions or asthma. On "air quality action days," carpool or take the bus to work, and avoid mowing the lawn or fueling your car during the heat of the day. Those at risk should avoid outdoor exertion.



9

Plant a tree. Trees absorb particulate matter, nitrogen oxides and ground-level ozone. A healthy tree converts these gases into about 260 pounds of oxygen a year, more than half what the average human breathes. Planted near a house, a tree reduces cooling costs in the summer by providing shade, and lowers heating costs in the winter.



10

At the store, buy local. The average store-bought food item travels 1,500 miles to your table. Cut this trip down by buying locally grown produce and meat. Or grow your own by starting a vegetable garden. Avoid buying bottled water. It takes 1.5 million barrels of oil a year to make the water bottles Americans use annually, plus the oil used to transport them.



here&there



Photo: Joshua Franzos

Heinz Endowments board and staff, shown above, get a lesson in dinosaur anatomy during a tour of the "Dinosaurs in their Time" exhibit at the Carnegie Museum of Natural History in Pittsburgh. The museum's former Dinosaur Hall, built a century ago, was expanded to house the world-class, \$36 million exhibit. It portrays the diversity of Mesozoic life by placing the dinosaur skeletons in dramatic and scientifically accurate poses among the plant and animal species that shared dinosaurs' environments. The Endowments donated \$4 million in 2003 toward the construction of the exhibit.

Congratulations

At its 94th annual conference in Denver, Colo., last summer, the Governmental Research Association recognized the Pennsylvania Economy League's "IssuesPA 2006" project as the nation's "most effective" state-level educational program. IssuesPA is a non-partisan, statewide awareness project focused on raising the issues critical to Pennsylvania's future. It was initially launched in 2002 around the gubernatorial campaign to provide voters with substantive information about the candidates. By 2006, the project had expanded to include a Web site, www.IssuesPA.net; articles about important issues; polling on these issues; a gubernatorial candidate questionnaire; and a speakers bureau. It also featured a ground-breaking partnership between the Economy League and the state's public television stations that produced a four-part television series on topics facing state policy leaders. IssuesPA 2006 was funded in part by the Endowments, The Pew Charitable Trusts, The Pittsburgh Foundation, the Pennsylvania Public Television Network and the members of the Pennsylvania Economy League.

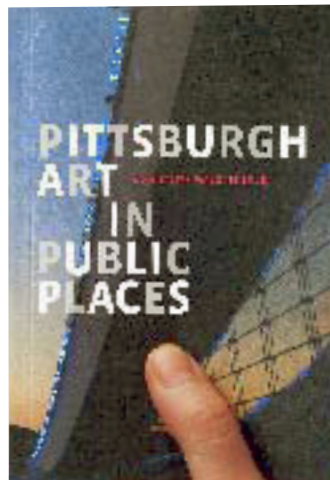
Also recognized last year was "Pittsburgh Art in Public Places," a walking tour booklet, shown below, that described public art in downtown Pittsburgh and was featured last year in PRINT magazine's Regional

Design Annual. The booklet was among 400 graphic design projects selected from more than 20,000 entries from across the United States. Landesberg Design, the firm for *h* magazine, did the graphic work for the guide. Selection for PRINT's annual is one of the major graphic design competitions in the country. The issue was released in November.

BACK TO NATURE

Wal-Mart officials have dropped plans to build a superstore and shopping plaza on the site of the former Dixmont State Hospital property in Kilbuck, north of Pittsburgh. They also have agreed to return the 75 acres to a sloped version of the land's pre-development condition and to plant trees and vegetation.

The decision, announced last summer, ended a five-and-a-half-year dispute with development opponents that became more heated after a massive landslide dumped 300,000 cubic yards of dirt, rock and debris on Route 65 below the site over a year ago. The Endowments provided \$36,000 in support to the grass-roots organization Communities First! that was formed to oppose the Wal-Mart development. Leaders of the group hailed the decision but said they would continue to monitor Wal-Mart's handling of the site.





YOUTH INTERNS

The Endowments' youth philanthropy program expanded last summer to include 22 interns at five organizations, with teams of recent high school graduates placed at the Endowments' offices, United Way of Allegheny County, North Hills Community Outreach, The Forbes Funds and The Pittsburgh Foundation. Each group developed a separate funding opportunity to serve Allegheny County youth and young adults, with grants to local organizations totaling \$154,370.

The interns based at the Endowments, shown above with Children, Youth & Families program officer Wayne Jones, far right, were from left, Louis Finley of Winchester Thurston High School; Kathryn McCaffrey, a junior at Penn State University who served as senior intern coordinator; Adrienne Webb of Schenley High; and Trevor King of North Allegheny High. They reviewed proposals for funding collaborations between community organizations and high school artists to develop public art for local neighborhoods.

The United Way interns—Chelsey McCoy of the Pittsburgh High School for the Creative and Performing Arts, Christopher Carter of Allderdice High, Audra Pettus of Perry Traditional Academy and Mahra Whitelock of Schenley—looked at education and violence-prevention programs for young adults ages 12 to 24.

The Forbes Funds fellows were Alicia Atterberry of the Ellis School, Sydney Blount of Gateway High and Michael Surh of St. George's High in Newport, R.I. They examined programs that support youth leadership development and enhance the capacity of youth leadership organizations.

Jules Coulson of Schenley, Maurisha Trent of Mt. Lebanon High and Susan Carr of North Clarion High were interns at The Pittsburgh Foundation. They reviewed programs for youth in grades three through 12 that were designed to increase literacy rates through reading and creative writing.

And North Hills Community Outreach, an interfaith community service organization in Pittsburgh northern suburbs, had two teams. One group included Katie Pfrommer of North Hills High, Katie Rectenwald of Eden Christian Academy, Theresa Timcheck of North Allegheny and Katie Walzer of Vincentian Academy. They examined programs for youth in kindergarten through grade 12 that support learning, safety and health. On the other team, Christina Binz of Shaler Area High, Scott Sullivan of Deer Lakes High, Monique Wingfield of Avonworth High and Kaitlyn Kirby of North Allegheny looked at programs designed to improve the lives of at-risk youth.

STAFF NEWS The Endowments' recent staff addition is Melanie R. Brown, shown below, who is the new Education program officer. Brown, 26, grew up in Monroeville, a community east of Pittsburgh. She studied secondary education and literature at American University in Washington, D.C. After graduating in 2002, she worked for four years at the SEED—School for Educational Evolution & Development—Foundation's Public Charter School in Washington, where she taught language arts, co-founded the school's musical theater program and led the school's classics program.

Brown left full-time teaching to enroll in a graduate program in arts education at Harvard University, and received a master's of education degree in June.

She replaces Gerry Balbier, who left the Endowments at the beginning of last year to become vice president of innovation programs for the educational technology company Apangea Learning.



Photo: Suelien Fitzsimmons

Langley Clock

Samuel Langley probably wasn't thinking about the artistic value of his work in 1870 when he invented the "Allegheny system" for accurately measuring and disseminating exact time. But the invention by Langley, who was director of the Allegheny Observatory on what today is Pittsburgh's North Side, was the inspiration for New York artist R.M. Fischer's public artwork "Langley Observatory Clock," shown right. The piece was completed last year and stands in Pittsburgh's North Shore Riverfront Park. The Endowments awarded the city's Sports & Exhibition Authority and Allegheny County \$250,000 in 2003 to help support public art in the park.



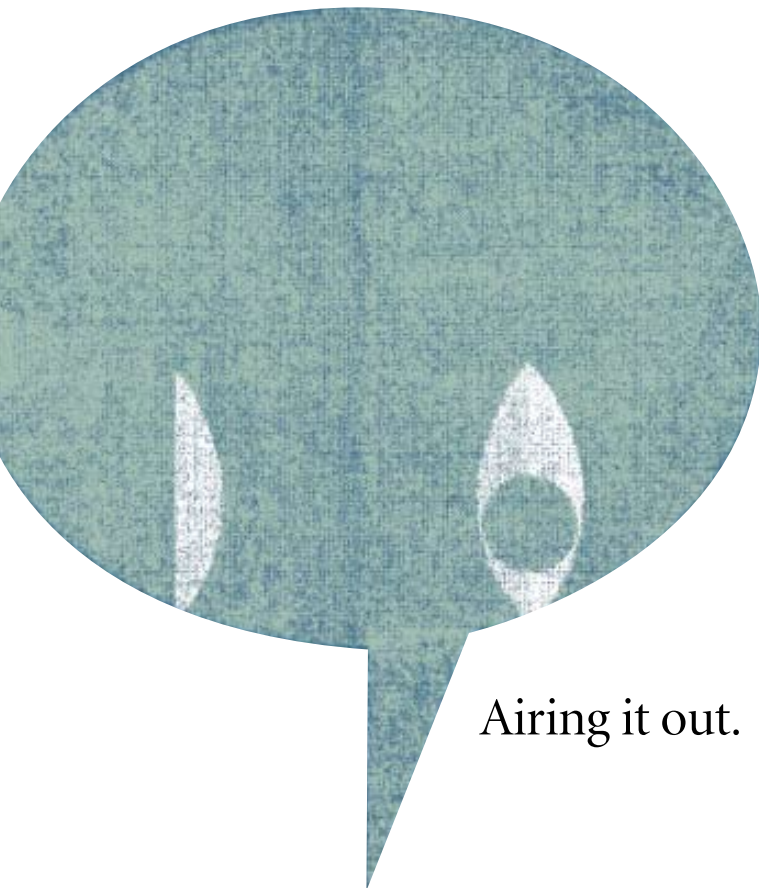
Photo: Charles Alcom

THE HEINZ ENDOWMENTS

Howard Heinz Endowment
Vira I. Heinz Endowment
625 Liberty Avenue
30th Floor
Pittsburgh, PA 15222-3115

412.281.5777
www.heinz.org

NONPROFIT ORG
US POSTAGE
PAID
PITTSBURGH PA
PERMIT NO 57



Airing it out. PAGE 20