AMD&ART

"As a team, we have learned that by taking science, history, art and community interest with equal seriousness, we strengthen the contributions of each discipline and open the way for a truly innovative collaboration, bringing deep connection with each place we work..."

Vol. I, No. VI *Winter 1999*

Returning to Our Roots...

After a successful year in our Fayette County office, AMD&ART bid a fond farewell to Farmington this fall. We have returned to Johnstown, finding our new home at the BOTTLEWORKS Ethnic Arts Center in the Cambria City neighborhood. With a view of the Conemaugh River (or at least the orange-stained flood control walls), we are in a perfect location to continue our AMD-fighting activities.

Joining us in our new location is the Stream Team, our new educational outreach program which is co-sponsored by the Kiski-Conemaugh River Basin Alliance (please see article on page 7.)

We are tremendously excited to be at the BOTTLEWORKS, where we have even greater opportunities to explore our region's history. When in Johnstown, please stop by!

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A Note from the Project Director

It's been a while since we got a Newsletter out the door, but it hasn't been the lack of activity that kept us out of touch! As you will see in the rest of this newsletter, we have four AmeriCorps members working in the AMD&ART/ Stream Team offices and four times as much going on as we did when the last Newsletter was mailed. With Vintondale nearing the beginning of construction this spring, with serious laboratory tests and field survey work beginning on the Hughes Bore Hole and with new community interest in Dark Shade Creek and the Central City discharge, AMD&ART has a full schedule and an exciting one as well. We now have all the pieces to truly succeed—a great staff, a broad and dynamic coalition of community support, the right idea, and the money to get things started. Please join us in this adventure.

And in case you have not already heard, I am now a Senior Analyst with the Division of Reclamation Support in the Office of Surface Mining in Washington, D.C., where one of my assigned duties is to continue to advise and support the efforts of AMD&ART. So now I have the personal challenge of a new position and the personal satisfaction of a continuing relationship with the project that helped bring a new perspective to AMD remediation and community enhancement..

—TAC

Vinton Colliery Plant, 1907
Courtesy Denise Weber

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Now On Board!

Acid Mine Drainage—if it were physically able—would quake in their presence. Community designed treatment systems—once again, if physically able—would applaud them. Who are these crusaders against sulfates? They are the members of AMD&ART's new Board of Directors, appointed when AMD&ART set off on it own after four years of nurturing at the Southwestern Pennsylvania Heritage Preservation Commission. (We are still working in partnership with the Allegheny Heritage Development Corporation.) In February, AMD&ART filed for 501(c)3 status, and has already achieved Pennsylvania State recognition as a non-profit organization.

Heading up our Board is Jeanne Gleason, Executive Director of the Pennsylvania Rural Arts Alliance (PRAA), and an ardent supporter of AMD&ART since its inception four years ago. Dr. T Allan Comp, AMD&ART Project Director, also serves as Vice Chairman, while the Secretary-Treasurer post is filled by William Daniels, former head of the PA Council on the Arts, and also a long-time supporter.

Tim Phillips, Vice President of PBS Coals, Inc., lends our organization industry perspective as a board member, while John Foreman, Sr., P.E., provides us with 40 years of remediation experience. Rounding out our Board is Dr. Mary Lavine, professor of geography and director of Environmental Studies at the University of Pittsburgh, Johnstown.

Blacklick on the Rebound

The South Branch of Blacklick Creek should see improvements in the coming years. Not only is AMD&ART working in Vintondale, but we are part of an impressive coalition of partners working to engineer a comprehensive watershed plan for the basin.

Blacklick Partners:

- ⇒ AMD&ART
- ⇒ Blacklick Creek Watershed Association
- ⇒ Cambria County Conservation District
- ⇒ Cambria County Conservation and Recreation Authority
- ⇒ Ebensburg Power
- ⇒ Pennsylvania DEP, Bureau of Abandoned Mine Reclamation
- ⇒ U.S. Army Corps of Engineers

One Step Closer...

vintondale charette
january 1999

The day started out with a review of homework; with scribbled cross-sections splayed across a white board, Bob Deason explained the depth of the boney and the composition of the clays beneath. Next up was an in-depth historical examination of the physical site. Slides gave us views of the massive structures that once occupied this land, and their humble beginnings. Then we gazed at shots that showed the site devolved into a blackened landscape, foundations and pilings poking out of humps of boney, a precursor to the Rural Abandoned Mine Project of 1981.

In the afternoon we tramped out to the ice-encrusted site, to wander (a delicate phrase for our jerky steps and flapping arms in that thawing ice) around the trees hardy enough to survive this soil. There we thought about how this "new" terrain is already two decades old, and how our hands will mold it anew in the coming years.

As the sun sank past the hills that surround the town, and the temperatures dipped, we headed off to ruminate about what we had seen.

The evening passed quickly as points of view overlapped, corresponded and conflicted. Our perfect visions of the future site danced before our eyes, while monetary reality stared us in the face. Not just a multi-disciplinary jigsaw puzzle, this site is layer upon layer of meaning and interpretation, challenged with the overriding responsibility to clean the drainage. No major design changes resulted from this meeting, but now is a time of finesse—of crafting dreams into reality with bulldozers and volunteers.

AMD&ART and the citizens of Vintondale will begin construction at the site this year.

VINTONDALE LOOKING FORWARD/ LOOKING BACK

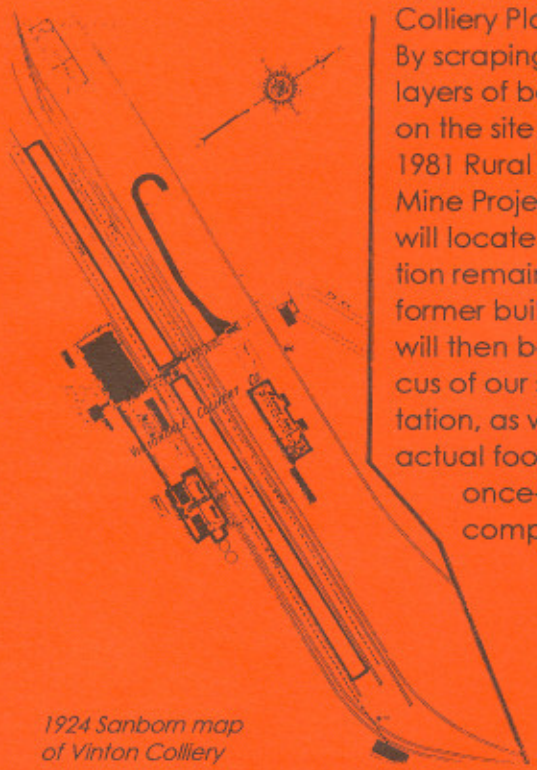
We have the picnic--Now where's the park?

In the photo, the man is in his 50's, face lined and elastic, cigarette hanging out of his mouth, VFD cap on his head, his eyes sparkling because he's holding a power tool and telling us a joke. He was one of 15 Vinton-dale volunteer firefighters working with eight AMD&ART summer interns to build picnic tables. With funds from the U.S. Forest Service and a lot of elbow grease, we built ten tables for the park that isn't here yet. What a vote of confidence in our continuing partnership! Thanks to all!

WHAT LURKS BENEATH THE BONEY?

Like archaeologists searching for sandswept tombs or foundation stones from Revolution-era forts, AMD&ART is hunting for the remaining vestiges of the Vinton Colliery Plant.

By scraping away the layers of boney placed on the site during the 1981 Rural Abandoned Mine Project, AMD&ART will locate the foundation remains from the former buildings, which will then be a major focus of our site interpretation, as we use the actual footprints of this once-towering complex to explore the rise and fall of King Coal in Vintondale, Pennsylvania.



1924 Sanborn map of Vinton Colliery

AMD&ART—Successful Bids

PA DEP WRAP Grant

Did AMD&ART just win the contest to design the most delicious yet environmentally-sensitive rolled sandwich? Actually, before we sent in our pierogi-inspired entry, we realized that the Commonwealth grants were for Watershed Restoration and Protection (WRAP), rather than tortilla-encased entrees. AMD&ART submitted a worthy project for this application, and were awarded with $10,000 towards the construction of our Clarification Marsh at the Vintondale site. Funds will go towards materials and construction.

Approximately 5 acres will be transformed into polishing wetlands where now only barren boney sits. This Marsh will buffer the water that emerges from the SAPS system before it enters the mitigation wetlands on the western end of the site.

Western Pennsylvania Watershed Protection Program

Through the Heinz Endowments, the Western Pennsylvania Watershed protection Program has provided $10,000 to AMD&ART towards the construction of our emergent wetlands—5 acres of new marshland where history and habitat will meet. AMD&ART welcomes the WPWPP into this partnership, and thanks them for their longstanding moral support and generous financial contribution.

Pennsylvania Council on the Arts

AMD&ART also thanks the Pennsylvania Council on the Arts for its grant of $1,000 towards our artists' fees. The PCA has supported us for several years, and we look forward to our continued partnership.

Hughes News

Testing the Aqueous Solutions

Will a clean and healthy Little Conemaugh be a reality in the future? With the help of some new technology and the hard work of many, this may not be as fantastic as it sounds.

This March, research will begin investigating the feasibility of using an innovative new treatment at the Hughes Bore Hole (a massive discharge that dumps 8% of the total AMD pollution load into the Little Conemaugh). The treatment, called Intensive Sulfate Reduction (ISR), was designed by Advanced GeoServices Corp., an engineering firm based in Chadds Ford, PA. It will treat the AMD by running it through a "vertical" version of the anaerobic wetland. The ISR system has proven successful in treating base metal mine discharges [zinc and lead] and shows strong promise for treating coal mine discharges. Why test this technology in Pennsylvania? Contrasted with traditional systems, ISR will require significantly reduced acreage—offering one solution to land-strapped treatment systems in Appalachia..

In March, AGC will begin a series of column tests with samples of water collected from the Bore Hole by AMD&ART and Allegheny Ridge Heritage Park staffers in partnership with the Dr. Uldis Katkin's Water Ecology class from the University of Pittsburgh, Johnstown. The tests will run these AMD samples through miniature versions of the treatment system to determine the potential success rate of the technology. If successful, the column tests will be followed with a pilot-scale test that would be built on site, treating a small portion of the discharge. And, if that proves successful, a full-scale treatment system at the Hughes Bore Hole could follow.

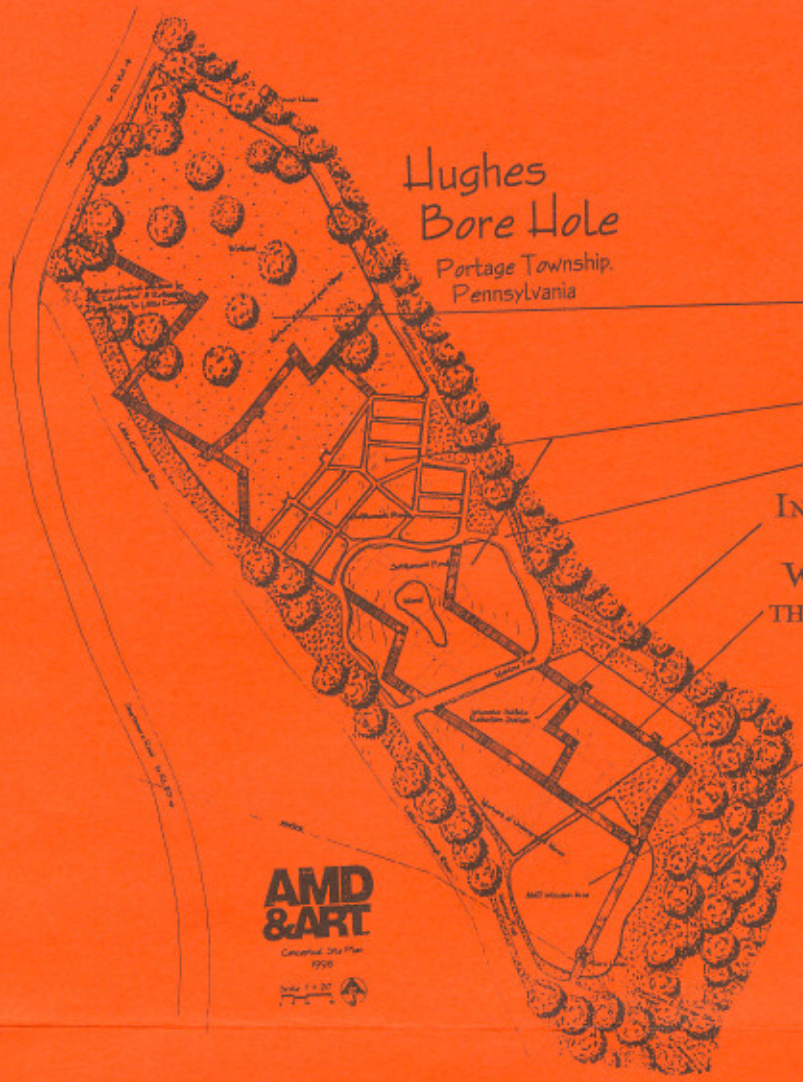
Artist Michael Oppenheimer reflects on the Hughes Bore Hole:

". . . The power of the site and the opportunities implied brings forth the incredible richness found in considering art in the context of nature somehow skewed by the hand of man...."

AMD&ART sees the these tests as one more critical step in extending passive treatment's potential for cleaning large-volume, nasty discharges.

SHLOPPING IN SUBSTRATE

The AMD&ART office had a recent lesson in the art of building wetlands. Under the guidance of Sean Furjanic and Paul Haggarty of Advanced GeoServices Corp., and with the assistance of team scientist Bob Deason of EarthTech, AMD&ART has been hard at work identifying the local sources of the biological matter needed to develop the most economic yet effective mix of ingredients for our I.S.R. wetlands. The biomass or substrate will attract the bugs and plant life necessary for a successful treatment wetland. Quantities are daunting—in the wetland world figures are measured in thousands of tons.... From cow manure and sawdust, to mushroom compost to alfalfa hay, the search for substrate is a dirty job, but somebody's got to do it!



Anatomy of a Bore Hole

- Constructed Wetlands
- Retention Ponds
- Proposed Mainline Trail
- Intensive Sulfate Reduction Pond
- Wooden boardwalks that mirror the paths of the mine headings hundreds of feet below
- Bore Hole Intrusion Area

Designed by:
T Allan Comp
Robert Deason
Michael Oppenheimer
Peter Richards

Drawing by:
Jessica Johnson

Dark Shade Details

With the recent sale of Manufacturer's Water (an important source of both industrial and recreational water to the Johnstown Metropolitan Area) to the Somerset and Cambria County Commisioners, new focus is on Shade Creek and its AMD-impacted waters that degrade this water supply. At a recent meeting of watershed-based environmental grassroots organizations and governmental agencies, participants realized that now is the time to act to heal this damaged waterway.
Currently AMD&ART is working with several local partners to put a system on the ground at the Firehall discharge, one of the worst discharges in Western Pennsylvania. With the contacts that AMD&ART has made in the Central City-Shade communities in the past four years, and the public meetings we will hold in the future, this coalition is well on its way to turning this environmental liabilty into a community asset.

Summer in the 'City

AMD&ART once again attended the Central City-Shade Heritage Days, at the gracious invitation of the Historical Society. With our large black display in tow, we set up camp under the park pavilion. Good thing—the only rain to hit all summer long fell in buckets all afternoon! However, everyone at the event crowded under the pavilion, giving us an impressive audience. Our impact was clear, however, when relatives of the miners we have pictured on our board showed their grandchildren the photos and talked about their memories of mining and "sulfur water" in the area. We look forward to many more years at this wonderful heritage festival!

From Rust To Renewal

The problem of acid mine drainage is a visual problem, and a tough one to describe to those who haven't seen it. To explain that it looks like a river of Tang makes the problem a little more whimsical than it merits, and the scientific explanation often leaves non-chemistry majors blank-stared after the opening equation....

How to deal with this? You may remember that in 1997 AMD&ART launched the idea of a traveling exhibit to bring to regional museums and local festivals. As we progressed, the two ideas diverged, leaving us with a traveling exhibit (affectionately termed "The Black Monster"—guaranteed not to blow over in a windstorm...) that we carry to local homecomings and fairs. Our second accomplishment is *From Rust To Renewal*, an installation exhibit now under the curation of Assistant Coordinator Beth Pillsbury.

At the invitation of the Art Department and the Center for Economic and Environmental Development, *FRTR* recently exhibited at the Bowman Gallery at Allegheny College in Meadville, PA. Sporting giant shots of orange goo and test tubes full of acid-loving algae, the show also visually explores our community involvement and our design-driven solutions to AMD. To round out the show, historian Allan Comp, artist Stacy Levy and scientist Bob Deason engaged students and faculty in an AMD&ART panel discussion, while Pennsylvania Humanities Council Speaker Virginia Maksymowicz spoke about "Public Art and the Community."

As we go to press, *FRTR* graces the walls of the BOTTLEWORKS. After a successful opening, we look forward to a month filled with programming conducted in concert with the BOTTLEWORKS and the Windber Coal Heritage Center (WCHC).

- Down in the Mine—A hands-on day especially for kids, included an epic tale of the loves and losses of mine mules and rats through the age-old medium of puppetry, compliments of the rangers from the Johnstown Flood National Memorial.
- Coffee House Nights—AMD&ART hauled out the high-octane java and some impressive discussion. At *Black Seams and Yellow Boy*, local filmmaker Brent Conrad showed his documentaries (including *Hughes Bore Hole*) and discuss his amazing stories from behind the camera. *My Countryside, Then and Now*, examined the letters and literature of Southwestern PA, searching for the human voices within history.
- *lood, Sweat and Coal Dust*—our grand finale, featured Men of Steel, who serenaded us with songs about the past. Former miners riding the lecture circuit for WCHC discussed their experiences underground.

We would like to thank the Office of Surface Mining, the Pennsylvania Humanities Council, and the U.S. EPA for their continuing support.

On the Road Again

With stars in our eyes, twinkling like wet yellowboy glistening in the moonlight, AMD&ART staff took our show on the road, speaking near and far about AMD&ART's approach to conquering AMD and promoting healthy communities.

- At the 4th Annual Acid Mine Drainage Conference "Building Partnerships for Reclamation" in Knoxville Tennessee, last September, Allan Comp was a featured plenary session speaker before an audience of governmental officials and watershed organizers gathered from throughout the eastern half of the United States.
- The 20th Annual National Association of Abandoned Mine Programs Conference in Albuquerque, New Mexico, mixed mine land officials from across the country. AMD&ART presented as part of national effort to recognize mining heritage.
- In September, Bob Deason and Allan Comp will speak at Sudbury II, "Mining in the Community," an international mine reclamation symposium in Sudbury, Ontario, Canada.

Introducing The Stream Team, Hands-on Education *In Action*

In the fall of 1998, AMD&ART and the Kiski-Conemaugh River Basin Alliance co-sponsored a new educational effort. This new entity, designed to reach the community through hands-on education, is called The Stream Team.

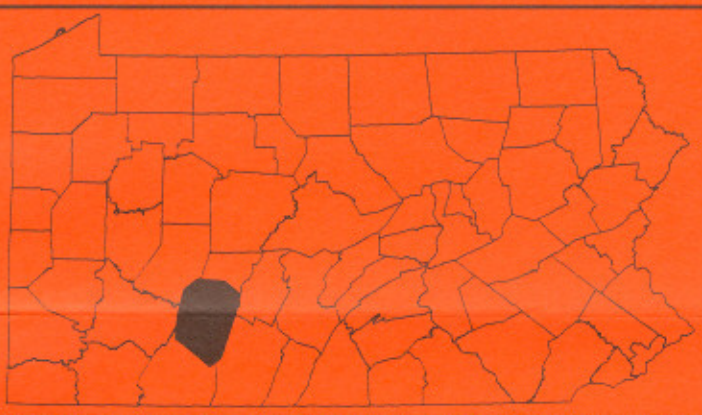
The Stream Team is a group of enthusiastic volunteers conducting aquatic monitoring throughout the Kiski-Conemaugh River Basin. This network of volunteers is made up of professionals, teachers, students and anyone willing to donate time to improving the health of their watershed.

AmeriCorps members Scott Alexander (Watershed Ecologist) and Zia Knupp (Education Coordinator) work together as the driving force behind The Stream Team to bring local communities throughout the Kiski-Conemaugh Basin up to date on non-point source pollution remediation efforts and how they can take action within their watershed. The Team is also active with teachers to bolster watershed education in their classrooms. Stay tuned for updates on how our in-class projects are working!

Becoming involved in local watershed assessment is an extremely important topic for the Basin's citizens as well. Acid mine drainage flows orange through many of the towns and cities in the region, while other residents are affected by agricultural runoff and erosion. Fortunately, treatment systems and preventative efforts are underway. It is the duty of the Stream Team to participate in aquatic monitoring and become assets to this national demonstration effort.

Data collected mainly by volunteers from approximately eighty strategic sites will be used to examine the overall health of the river basin. With the Pennsylvania Bureau of Abandoned Mine Reclamation assisting with training and lab analysis, the project will provide reliable, consistent data that watershed organizations and conservation agencies will be able to utilize for watershed assessment and planning.

The Kiski-Conemaugh Basin



Represented in black, the Kiski-Conemaugh Basin encompasses 1800 square miles in Armstrong, Cambria, Indiana, Somerset and Westmoreland Counties. Map courtesy of the Kiski-Conemaugh River Basin Alliance.

Currently, The Stream Team includes the efforts of:

- Indiana County Pennsylvania Senior Environmental Corps
- Intermediate Units 7, 8 and 27
- Latrobe High School
- Loyalhanna Watershed Association
- Pennsylvania Department of Environmental Protection, Bureau of Abandoned Mine Reclamation
- SCRIP Riverkeepers
- U.S. Forestry Service

If you would like more information, would like to volunteer for the Stream Team, or participate in an educational project, please call Scott or Zia at (814) 539-8404.

Funding for the Stream Team is contributed by:

The Canaan Valley Institute
The Office of Surface Mining, Department of the Interior
Pennsylvania Mountain Service Corps (AmeriCorps)
The U.S. Forest Service

Now Available: The AMD&ART Collection

Funded by the Office of Surface Mining, Department of the Interior, AMD&ART hired researchers from around the country to delve into some of the little-explored issues surrounding AMD remediation. For a copy of any of these fine publications, please send $5 for each publication to AMD&ART and we'll be happy to send it your way.

Measuring Economic and Social Benefits of Acid Mine Drainage Remediation/Community Enhancement Projects

Spearheaded by AMD&ART and the Institute for Public Policy at George Mason University, the survey uses a host of methods to construct a baseline for this long-term study. It provides an important model in a field where success is often measured solely by pH points raised, or miles of stream restored to fisheries. While important indicators, they often fail to take into account impact on human communities. This model is tuned to gauge AMD&ART's focus on both economic and community benefits from stream remediation *and* community involvement in that healing process.

Enhancing Your Acid Mine Drainage Remediation Site

"The most important ingredient to success in cleaning up our watersheds is the participation of informed, energized citizens." So says Kathy Karpen, OSM Director, in the preface to this practical, illustrated guide for watershed organizations. The booklet gives ideas for using a variety of disciplines to turn AMD treatment systems into community magnets—places that invite citizens off diverse backgrounds and interests to participate in design, construction and maintenance.

Waging War from the Homefront: World War II and its Effects on the Coal Industry

This report surveys the impact of the Second World War on coal mines in southwestern Pennsylvania, theorizing that war-driven expansion contributed to the AMD problem that this region now faces. With further research, it could be possible to garner additional defense-related remediation funding.

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Major Sponsors:

U.S. Environmental Protection Agency

Office of Surface Mining,
Dept. of the Interior

Pennsylvania Department of
Environmental Protection

Western Pennsylvania Watershed
Protection Program

Pennsylvania Council on the Arts,
Interdisciplinary Arts

This newsletter is based in part upon work supported by the Corporation for National and Community Service under AmeriCorps Grant no. 94ASCPA0390501. Opinions or points of view expressed in this document are those of the authors and do not necessarily reflect the official position of any of AMD&ART sponsors.