

CROSS-POLLINATING THE GRASSROOTS

The Beehive Design Collective is a wildly-motivated, all-volunteer, art-activist collective dedicated to “cross-pollinating the grassroots” by creating collaborative, anti-copyright images for use as educational and organizing tools. We work anonymously as word-to-image translators of complex global stories, gathered through conversations with affected communities.

Since 2000, we have disseminated more than 70,000 posters throughout the Americas, entirely by grassroots, hand-to-hand distribution! Our graphics have tackled issues from globalization, trade, and resource extraction to energy, biotechnology, and climate change.

A committed group of mostly women, we are working to create holistic, accessible, and educational images that inspire critical reflection and strategic action.

Please get in touch to learn more about the Beehive!

The Beehive Design Collective

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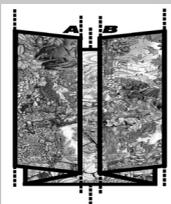
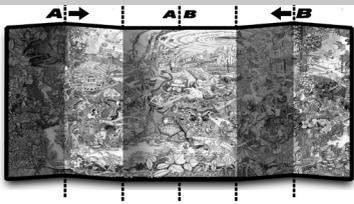
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POSTER DISPLAY TIPS

We suggest rolling your poster inside out to flatten it, or laying flat under weights.

Next, grab a friend to help you with folding!



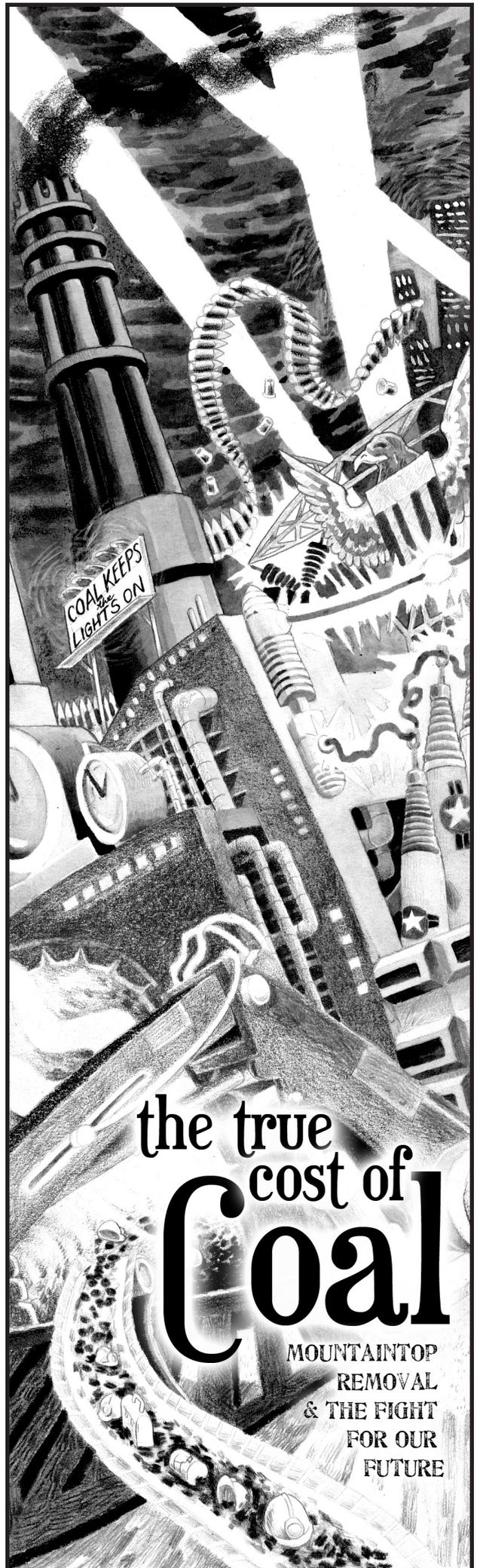
1. Lay the poster out upside down on a flat surface.
2. Starting with A=>, loosely fold each end panel inwards. Align top and bottom edges of the paper and adjust position of the fold until the dotted lines of fold A are exactly in the crease. Smooth down the fold with your fingers. Repeat with side B=>.
3. Flip the poster over again, so the white is down.
4. Bring fold A into the middle of the poster, lining it up with the dotted lines at the top and bottom. Smooth the new fold. Repeat with fold B. A and B will touch, creating a new unified image joined by the two halves of the hemlock tree.
5. Use push pins to display your poster open (4) or closed (8)!

Coming Soon: Stay tuned for a YouTube video called “How to Fold & Hang Your Coal Poster”!

The Beehive Design Collective

NARRATIVE

... the storybook companion to an epic illustration...



...an interactive visual tour of the connections between MOUNTAINTOP REMOVAL mining, CLIMATE CHANGE, and the STRUGGLE for JUSTICE in Appalachia and throughout the world...

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A BEGINNING

You hold in your hands an echo of discussions, story-tellings, and song-sharings that have taken place since 2008 between the Beehive Collective and community organizers, activists, and folks in Appalachia whose lives and livelihoods have been impacted by Mountaintop Removal coal mining (MTR). These exchanges of inspiration and information were collaboratively woven together into a tapestry of illustrated graphics, designed to strengthen & support critical reflection and strategic action in defense of the Appalachian Mountains- and the cultural and biological diversity they nurture.

The True Cost of Coal is dense with metaphors drawn from the natural world. It is rooted in history, grounded in the grinding urgency of MTR, fueled by the looming threat of climate change, and guided by the robust, grassroots resistance of everyday Appalachians. It is populated by characters from the mountains- plants and critters under siege, and fighting back! It is a love letter to the resilient, sustainable world that has quietly endured in the hills and hollers all the while, despite the horrors of displacement, the abuses of the powerful, and the onslaught of industrial scale extraction. It is about the better world our communities are envisioning, building, and defending every day, in a million ways.

You are a part of this story. So are we. From our dependence on coal-powered electricity to our collective ability to organize for climate justice, we are each implicated in the struggle for the mountains, which is really the struggle for all places. Though we cannot pretend to speak for the daily lived realities of the coalfields of Appalachia, we are listening to the wisdom of those that do, and are striving to create a tool to help us all decipher these overwhelming times we are living through. Each of us has a unique piece of the story, and each of our communities has a different kind of power. As we harness that power- and leave the coal in the ground- we are remaking the world.

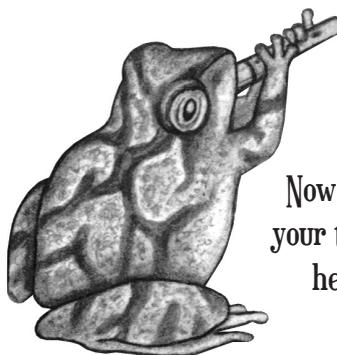
ACKNOWLEDGEMENTS

we're grateful for the collaboration and contribution of many organizations who have strategized, shared, and supported this project:



Alliance for Appalachia Appalachian Community Fund Appalachian Studies Asse. App. Staple Foods Collaborative Appalachian Voices Appalachian Women's Alliance Appalshop & AMI Artist Project Earth Aurora Lights Berea College Black Mesa Indigenous Solidarity Black Mesa Water Coalition Blue Ridge Earth First! Christians for the Mountains Clearfork Community Institute Climate Ground Zero Coal River Mountain Watch Concerned Citizens of Giles County Counter Cartography Collective Dave Cooper's MTR Roadshow Here's To The Long Haul Highlander Center High Rocks Camp for Girls Indigenous Environmental Network Keepers of the Mountains Kentuckians for the Commonwealth	Mountain Justice N. Plains Resource Council Ohio Valley Environmental Coalition Otta Your Backpack Media Pine Mountain Settlement School Provisions Learning Project Real Cost of Prisons Project Rising Tide North America Rrenew Collective Statewide Organizing for Community Empowerment SEAC Sludge Safety Project SouthEastern Community College Southern Appalachian Mountain Stewards Southerners On New Ground Thousand Kites Project United Mountain Defense Wisdom Keepers Woodland Community Land Trust ... and many many individuals, friends, family, high schools, and colleges who gave advice & hosted us on Tour! THANK YOU!
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SPREAD THE WORD!



Now that you know this story, it's your turn to pass it along... and to help write the next chapter for a coal-free future!

There are dozens of ways to use this poster, and to support the Beehive. You can...

Host a Presentation or Workshop

The Bees will come to your school or town & share an **interactive picture-lecture** or custom-tailored workshop with all your peeps! We offer shows year-round across North America, and especially love visiting high schools. If you've got a church basement, a lecture hall, a library, or even a big lawn, we'd love to bring *The True Cost of Coal* to your door.

Publish Parts of the Graphic

Get your hands on a copy of our **Graphics for the Commons CD** (at our distro table or on our web-store) and bust a clip art move. As long as your work is non-commercial, you're welcome to sprinkle beehive images all over your newsletter, zine, or body... Just send us a picture so we can fully appreciate it!

Donate Honey, Time, or Materials to the Hive

We raise the vast majority of our Honey (\$) through grassroots fundraising - that means, lots of little bits donated by people like YOU keep us afloat! Please contact us about donating materials or volunteering.

Have a Poster Coloring Party

You don't need a podium to tell the story of *The True Cost of Coal*. Invite some buddies over, bust out the markers, take turns dramatically reading this narrative outloud, and discuss ways that you and your friends can fight Big Coal and support Appalachia. You can even collect donations as seed money for your work!

Write an Article

Don't blame the media- **become the media!** If you're outraged about MTR, and if you like this poster, use radio, YouTube, or the good old newspaper to tell the world. We'll gladly help with press materials and information about us, and you can also contact folks in the "learn more" insert for interviews.

And Most of All...

PLEASE SHARE YOUR FEEDBACK!

This Graphics Campaign is a work in progress.

Your comments and suggestions will help strengthen our education and cross-pollination strategy!



A LIVING ECOLOGY



These critters appear in this graphic because they are significant to the Appalachian Mountains, both ecologically *and* culturally. For folks who spend time in the woods, hunting and fishing and playing, gathering ginseng for cash or bloodroot for sickness, this is not a static natural

history roster, but a familiar cast of characters in a beloved and threatened natural world.

CAST OF CHARACTERS OF THE MIXED MESOPHYTIC FOREST

F L O R A *extinct

American Chestnut*	Poison Ivy
Eastern Hemlock	Dandelion
Tulip Poplar	Goldenseal
White Oak	Yellow Dock
Red Maple	Burdock
Black Locust	Stinging Nettle
Rhododendron spp.	Bloodroot
Red Bud	Yellow Root
Lady Slipper	Ginseng
Morel Mushroom	Juncus
Cinnamon Fern	Water Lily
Lepidodendron spp.	Oyster Mushroom
Horsetail	Black Cohosh
Ramps	Wild Yam
Cattails	Partridge Berry
Cherokee Rose	Purple Trillium
Pipsissewa	Blue Cohosh
Solomon's Seal	PawPaw
Pedicularis spp.	Sassafras
Lobelia	Mountain Laurel
Mayapple	Basswood
Poke	Flowering Dogwood
Kudzu	Reishi Mushroom

F A U N A

Barred Owl	Red-Cockaded Woodpecker
European Starling	Great Golden Digger Wasp
Eastern Grey Squirrel	Mining Bee spp.
Appalachian Cave Spider	Eastern Spotted Skunk
Virginia Big-Eared Bat	Least Weasel
Bog Turtle	Porcupine
Timber Rattlesnake	Snapping Turtle
Eastern Cougar	Carpenter Ant spp.
Red Wolf	Red Ant spp.
Great Blue Heron	Lead Beetle
Flat-Spined Three-Toothed Land Snail	Star-Nosed Mole
Eastern American Toad	Virginia Opossum
Spring Peeper	Chestnut Clearwing Boring Moth
Field Cricket	Blacksided Dace
Coyote	Caddisfly Larva
Eastern Cockroach	Mayfly Larva
Appalachian Bewicks Wren	Mosquito Larva
Cerulean Warbler	House Mouse
Passenger Pigeon*	Domestic Cat
Beaver	Donkey
Black Bear	Cope's Grey Tree Frog
Bobcat	Peppered Moth
Muskrat	Mockingbird
Eastern Kingsnake	Earthworm
Mountain Chorus Frog	Carrion Fly spp.
Mudpuppy	Acorn Weevil
W. Va. No. Flying Squirrel	Bald-Faced Hornet
New River Crayfish	Threadwaisted Wasp
Pileated Woodpecker	Monarch Butterfly
American Woodcock	Appalachian Grizzled Skipper
Firefly spp.	Gray Bat
Green June Beetle	Ruby Throated Hummingbird
Red Fox	Bumblebee
Wood Mouse	Millipede spp.
Wild Turkey	Peregrine Falcon
European Honey Bee	Snowshow Hare
Raccoon	Eastern Painted Turtle
Yellow Canary	American Red Squirrel
Groundhog	Black Rat
Eastern Cottontail Rabbit	Poodle Dog Domestic
Eastern Elk	Cumberlandian Combshell
Blister Beetle	Fisher
Bloodhound Dog	White-Tailed Deer
Domesticated Bull	Yucatan Snail
Spruce-Fir Moss Spider	Hermit Thrush
Red-Cheeked Salamander	Appalachian Grasshopper
Paper Wasp	Cicada
Blackfly Larva	Cheat Mountain Salamander
	Midland Mud Salamander
	Shenendoah Salamander
	Southern Appalachian Salamander

A VIEW FROM THE GRASSROOTS

Our story begins with the poster *folded* to reveal a Mountain Hollow, where we see the Appalachian Mountains from a ground-up, ants-eye view...



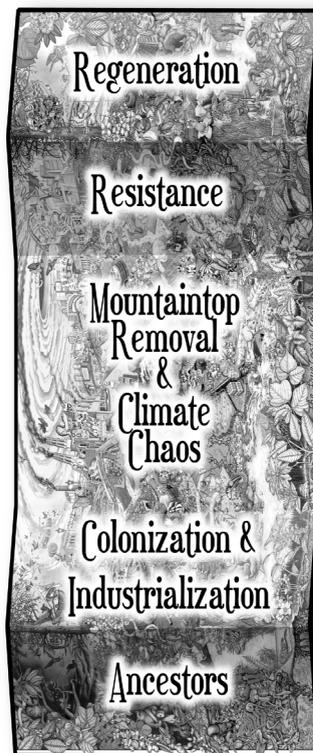
Teeming with biodiversity and nourished with abundant fresh water, this world is home to generations of plants and animals who are seen enacting the cycles of birth, life, death, and regeneration. Growing, gathering, and preparing food; sharing stories, songs, and skills; producing, exchanging, and reusing goods and tools; and transmitting historical memory, they are intimate with the land and rooted in economies of place.

please see back cover for a diagram & folding tips!

THE LANDSCAPE OF POWER & EXTRACTION

When the graphic *opens* by pulling the edges apart, both mountain and watershed are torn asunder, revealing a dramatic shift of perspective

(top right) (bottom right)



(top left) (bottom left)

Exposed and barren, this is the landscape of Mountaintop Removal coal mining on a global scale, where the thirst for resources and the hunger for profit have displaced community health and sustainable lifeways.

As a resource-extraction colony within the United States, Appalachia is sacrificed and poisoned in the name of cheap electricity for consumers and consolidation of power and wealth for corporations and government. Biological and cultural diversity are threatened while the spiral of climate chaos and unnatural disaster looms menacingly above.

A SPIRAL TIMELINE

In addition to contrasting these opposing landscapes and worldviews, the graphic reads from left to right as a meandering historical timeline. But we see history fold in on itself along the seam where Ancestors and Regeneration meet, weaving together history and possibility, inviting us to reach into the past to build a just and viable future. **We begin in the top left corner...**

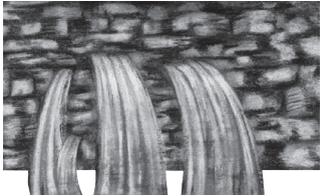


ANCESTORS

To understand where we are, we must remember where we've been. In this nighttime scene, we find communities living as though their lives depend on the land around them. The night sky, undisturbed by satellites or airplanes, is filled with constellations, used for orientation, navigation, and storytelling.

ORIGINS

The coal we use today in the US to supply over 50% of our electricity began its life over 300 million years ago, as giant plants decomposing and compressing in an ancient swamp. The descendants of these ancestors are still around today—we know them as Ferns, Horsetails, and Club Mosses. The sunlight stored in those ancient fossils through photosynthesis is what we capture when we burn coal—over 10,000 years of compressed solar energy, consumed in a flash! And coal still does today what those plants did all those millenia ago—like a giant brita filter, it sucks heavy metals and toxins out of water and soil, sequestering them in the ground forever.



The Source of Water & Life

The Appalachian mountains are some of the oldest mountains on earth, and they are incredibly special. After massive glaciers buried northern habitats in a mile of ice, Appalachia served as the “seedbed” of North America, repopulating a desolate landscape with its abundant genetic stores. These “mixed mesophytic forests” are the most biodiverse temperate forests in the world!

The mountains are also home to the headwaters of the major rivers of the eastern seaboard and the midwest. The water that flows from the taps of Atlanta and Washington originates here in the mountains, where it's purified by underground coal seams.



Cycles of Life & Death

The Appalachians are also amazingly special because of their unique, layered human history. And whether our ancestors were indigenous Cherokee or belonged to some very different place, somewhere in all our family histories are folks who knew how to live in a seasonal way in a cyclical world. Seen here planting seeds among the leaf litter of past seasons, these Grey Squirrels know that new life regenerates from death, and that all energy cycles.



Healthy soil, the foundation of life, is built over generations from layers of composting detritus.



REPRESENTATION

Become the Media!

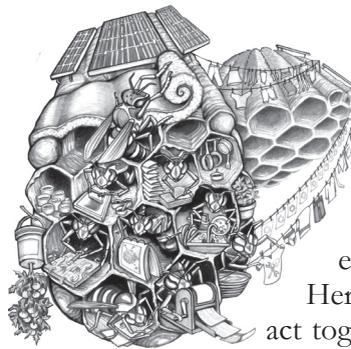
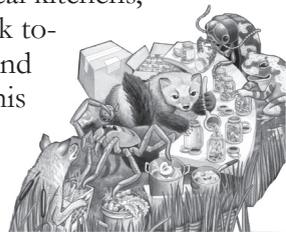
After generations of outsiders telling tales of Appalachia far and wide, young folks like this Possum Mama are seizing the airwaves and telling their communities' stories themselves. The future belongs to those who tell a better story, and documentary journalism not only exposes coal industry corruption, it trains storytellers for the next generation.

Social movements have always had music, art, and culture at the center of their organizing strategy. Whether at an old time revival or a mountain punk show, these critters are fueling the resistance with homegrown tunes!



SOLIDARITY ECONOMIES

What does a regional Appalachian economy look like without coal at the center? Here, folks each bring a different ingredient and skill to a Local Foods Cooperative (canning chow-chow and other preserves). Inspired by community commerical kitchens, where small producers can work together to scale-up production and contend with bigger markets, this scene reminds us that production and trade can be equitable, sustainable, and nourishing.



The Story of the Wasps

If you've seen the Beehive's *Plan Colombia* graphic, you might remember the Paper Wasps as North American colonizers and consumers—bad guys with bad habits. Here, the Wasps are getting their act together, building an affordable urban housing project that's energy efficient, pooling their resources, reducing energy consumption, and retrofitting their nest with insulation and a couple of solar panels. No longer just consumers, they've started a print collective (get it? *Paper Wasps?*) and are teaching themselves forgotten skills for how to live and work cooperatively - and even taking turns doing the dishes!

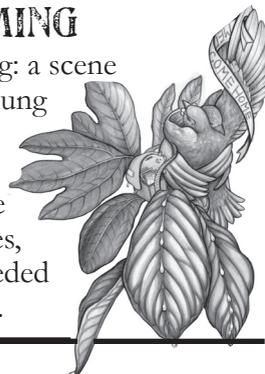
Energy Generation, Not Energy Extraction

Communities are saying NO to extractive power from mega-utilities in favor of democratically distributed, locally-produced, renewable energy. Not only is this better for Appalachia, but it's also far more efficient, as nearly two-thirds of all electricity “from the grid” is wasted, dissipating on the lines during transmission! What if we measured energy in terms of what we can generate with our bodies and communities, not what can be extracted from the earth?



HOME COMING

Our story's end is also a beginning: a scene of reunion. Birds representing young folks returning home (after generations of migration and displacement) are welcomed into the waiting arms of their communities, where their energy is urgently needed to build the future of Appalachia.



REGENERATION



No place on earth should be a sacrifice zone for the profit or luxury of any other, and no people -*anywhere*- are disposable. While folks fight like mad for their lives and lands, we are all in a perpetual moment of opportunity to get together, imagine, and build a million creative solutions to the problems of this very dire historical moment. And fortunately for us, we don't have to reinvent the (water) wheel! Appalachians (like these Carrion Flies) have been saving the seeds of sustainable lifeways for generations, and, like land-based people everywhere, they have lots to teach us about how to use our resources wisely and build our communities from our own life energy and **beyond coal**.

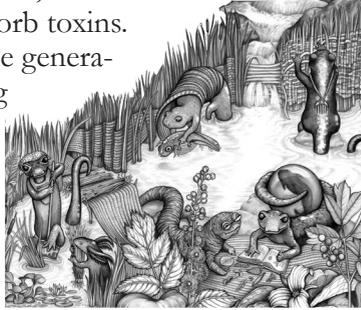
***When we close the poster* . . .**

...and return to a local, grounded perspective, we find scenes inspired by real folks building alternative economies **today** in Appalachia. Entwined with the legacy of environmental devastation, we see old wounds healing, ecosystems and cultures regenerating and thriving, and new ideas taking root in fertile soil.



BIOREMEDIATION

Seven generations of lady salamanders are working together to clean up contaminated water by planting Cattails, Oyster Mushrooms, and other species that naturally absorb toxins. By remembering the three generations before and planning for three to come, they stand a chance of eventually restoring their waterways - and the fabric of their community.



Rainwater Harvest



With so much toxic mine waste and devastated land, things won't be normal again in Appalachia for a long time. Folks will have to be inventive and relearn ancient ways of meeting their basic needs, like this Fly seen gathering rainwater where aquifers are too polluted.

RECLAMATION

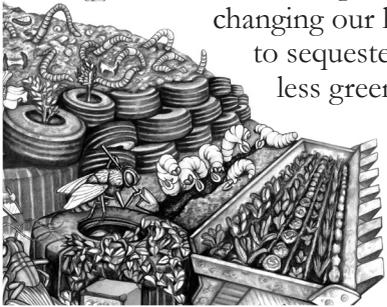
The Longest Walk

Real reclamation means honoring native land rights! Native folks from many nations are joined by solidarity marchers on the Longest Walk, a real cross-continental journey of homecoming made in 1977 and in 2008.



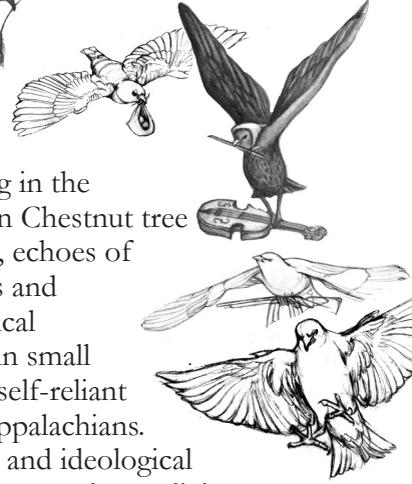
Soil, Not Oil

The antidote to a fossil-fuel addicted society is not merely more "renewable" energy sources - shall we have solar powered tanks and ethanol charged missiles? It is changing our land-use patterns to sequester more carbon, produce less greenhouse gases, build precious topsoil, and provide more resources to folks locally. The best place to start is with community supported, organic agriculture!



MIGRATION & ROOTEDNESS

People have migrated through Appalachia for millenia, from First Nations folks to people escaping enslavement. Seen here crash-landing in the boughs of an American Chestnut tree are European Starlings, echoes of the Scots-Irish workers and farmers who fled political oppression in Europe in small numbers to resettle as self-reliant homesteaders in the Appalachians. They carry the cultural and ideological baggage of all migrating peoples - religion and language, agricultural practices and crops, music, tools & weapons, and the next generation.



Song Circle

An ancestral hoe-down infuses the night with foot-stompin' energy, as the Appalachian dulcimer joins an African gourd banjo and a Cherokee drum in a riotous jig. These instruments are the grandparents of contemporary mountain music.



The Story

Critters from all walks of life gather around the fire's warm light, crafting tools and treasures and hearing stories of the past. Appalachia is home to some of the world's best -and longest!- stories.



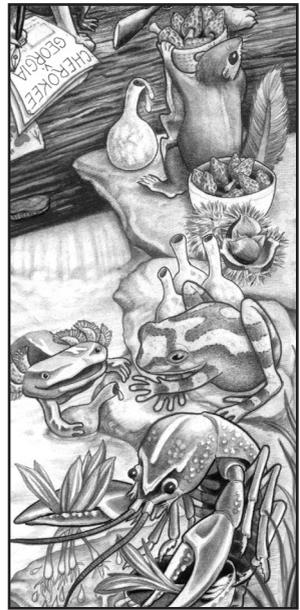
Land Use

Survival in the pre-industrial world meant resourcefulness, thrift, reusing old materials, and taking only what you could carry. Appalachian communities relied on their neighbors and on the food and fuel they could harvest themselves, much like the fishing Heron, the timbering & building Beaver, and the gathering and gardening Snails (with their nutritious crop of corn, beans and squash). Folks used and changed the land to meet their needs, but they did so within the land's ability to replenish itself.



The Community Meal

Amphibian characters, whose permeable skin makes them extra-sensitive to their surroundings, are sharing a meal of wild-crafted Ramps (a savory root vegetable), Chestnuts, and Morel Mushrooms with other forest dwellers!



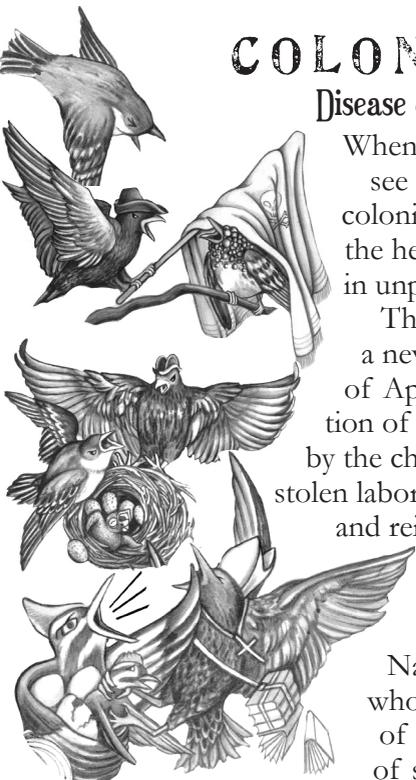
COLONIZATION

Disease & Forced Displacement

When the poster opens, we see throngs of European colonist birds, following on the heels of the Scots-Irish in unprecedented numbers.

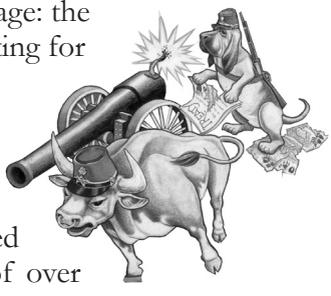
They bring violence and a new agenda for the land of Appalachia: the production of "wealth." Sanctioned by the church, powered by the stolen labor of enslaved peoples, and reinforced with military might, they build a new nation-state on the graves of

Native peoples, 95% of whom perish at the point of a gun or in the fevers of smallpox & other diseases spread intentionally throughout the Americas as biological weapons.

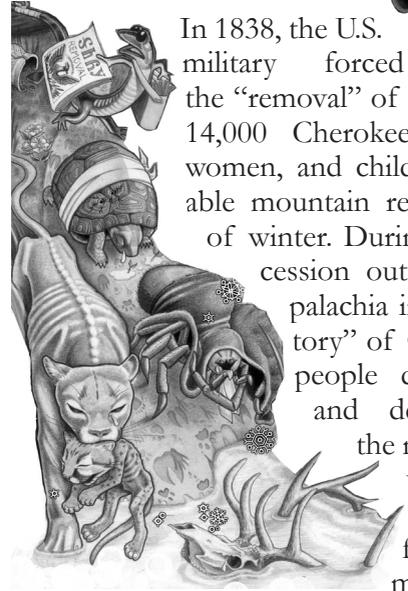


Negotiated Territory

Cherokee was an oral language until the 1830s, when Sequoia drafted the nation's first syllabary. Used to record Cherokee lifeways and letters and to defend rights to land and sovereignty in the face of genocide, *The Phoenix* bilingual newspaper reached Cherokee and white readers alike with a strong, clear message: the Cherokee Nation was negotiating for its survival.



The Trail of Tears

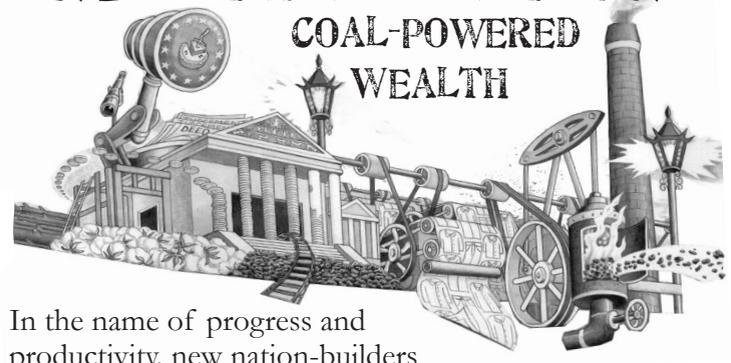


In 1838, the U.S. military forced the "removal" of over 14,000 Cherokee men, women, and children from their desirable mountain real estate in the dead of winter. During the long, cold procession out of mineral-rich Appalachia into the "Indian Territory" of Oklahoma, over 4,000 people died from starvation and deprivation. Although the majority of the Nation was lost or "relocated," some Cherokee folks remained in the mountains, negotiating

life in two worlds. Not disappeared though often invisibilized, indigenous folks persist in Appalachia, and are present in this poster for generations to come.

INDUSTRIALIZATION

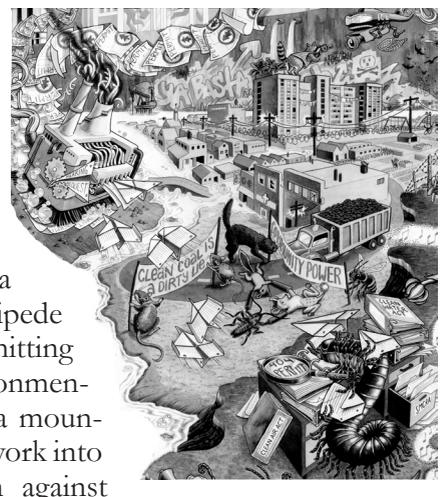
COAL-POWERED WEALTH



In the name of progress and productivity, new nation-builders sought not only to rid the U.S. of indigenous peoples seen as "in the way," but to convert all available land, labor, and resources to profits for those in power. Their capitalist endeavors -including their wars- were fueled with coal harvested from Appalachia.

COMMUNITY POWER, NOT COAL POWER

"Paperwrenching" means death to Big Coal by a thousand paper cuts! Here, a multitasking millipede turns the MTR permitting process, weak environmental legislation, and a mountain of other paperwork into potent ammunition against the construction of a new coal-fired power plant. Aiming to "exhaust the administrative capacity" of government regulators like the Office of Surface Mining, her paper airplanes are gumming up the gears of the coal industry machine, effectively buying time for community-based activists to halt it for good.

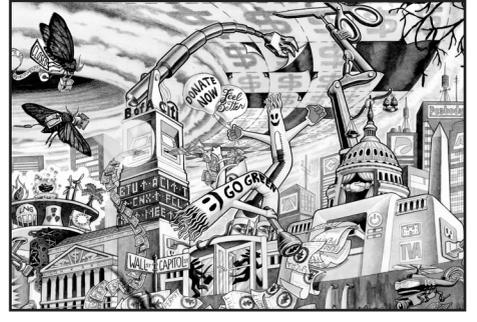


Meanwhile, in the low-income barrios and neighborhoods of the city, resourceful urban critters like the Squirrel, Cockroach, Cat, and even the carefully coiffed Poodle aren't standing for Big Coal's ongoing assault of air pollutants or huge doses of toxins. Instead, they are defending their neighborhoods through direct action and advancing a revised definition of "power"- **community power**. With over 150 new coal-fired power plants slated for construction during the final years of the Bush administration, dozens have already been defeated through such grassroots resistance!

WE'RE NOT ALL IN THIS TOGETHER

Big Banks, Big Government, Big Greens

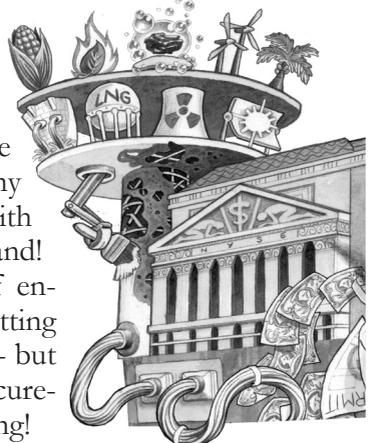
Who is responsible for MTR? Who pays for it? Who permits it? Here, activist moths shine a light on



the biggest culprits from Wall Street (including Citi-Group and Bank of America) and Capitol Hill to demonstrate their complicity in MTR. Always in cahoots, these financiers and regulators offer their answer to dirty energy and climate change - **green capitalism**, including carbon trading. Seen here carving up and selling off chunks our atmosphere -*the very air we breathe*- they pretend the same logic they've been using to create these problems is going to solve them- while earning them profits all the while! Full of hot air and bending over backwards to rubber stamp legislation and legitimize destruction and distraction, floppy tubey wind-sock men representing Big Green environmental groups (like the Natural Resources Defense Council and the Nature Conservancy) usurp funds, confuse public opinion, and undermine grassroots power to get "a seat at the table."

There is no renewable replacement for coal, because coal concentrates thousands of years of solar energy in every square inch. We'd have to plant the entire planet in corn many times over to keep up with our growing energy demand! No one makes money off energy reduction or admitting "there is no easy answer" - but anyone who says there's a cure-all is likely selling something!

FALSE SOLUTIONS



RESISTANCE

So what's the good news? As grim and overwhelming as the true cost of coal is, **resistance is fertile!** Folks all around the world are using wildly different tactics to keep the oil in the soil and the coal in the hole. From the coalfields of Colombia to China, a global movement is gaining momentum, urgency, and the power to fight coal and address the climate crisis with system change.



SOCIAL MOVEMENT BUILDING

The most endangered species of the air, water, and land -those most threatened by MTR- have gathered in the root system of an ancient tree (collapsed prematurely from atmospheric pollution) to learn, discuss, and strategize. Sharing grassroots knowledge and research, young and old from all different walks, swims, and slithers of life are mapping their community assets, watersheds, and coal industry pressure points in preparation for collective action. One chair is left empty, because we never know what new allies we'll discover along the way!



COALFIELD COMMUNITY ORGANIZING



Building upon an inheritance of cultural resilience and collective organizing passed down for generations, Appalachian community groups are speaking out and standing up for the mountains *and* the

miners! Educating their folks about MTR's health impacts, hosting vigils, and organizing rallies and marches, these activist "pollinators" are fighting for their homes, their mountains, their livelihoods, and their lives at great personal risk. Through documentation, petitions, lobbying, lawsuits, and non-violent civil disobedience, they are laboring to make their voices heard in Washington's halls of power. Despite EPA lipservice, MTR continues, along with coal company threats and acts of violence.

Existence as Resistance

With the vicious backlash of the coal industry against such public organizing, most Appalachians resist through private acts of perseverance. For many, continuing to hunt and fish on "company property"- the mountains that are everyone's backyard- is an act of courage and defiance.



Solidarity

Parachuting in to lend a paw are activists from outside the coalfields, represented by the Tortoise and the Hare. They carry different tools and tactics for the struggle, including access to education, technology, and social movements. By respectfully taking direction from local leaders, these activists can be instrumental in supporting coalfield resistance; they're less likely to be violently targeted for their efforts, so they can engage in direct actions, documentation, and organizing.



Land Grab The arrival of the railroad brought an erosion of land rights for folks in the mountains, resulting in outside landowners claiming deeds to over 70% of all Appalachian territory! The **Broad Form Deed** separated surface rights from mineral rights, which land prospectors gobbled up, often for 25¢ an acre.



Labor Grab

Feudal labor relations prevailed in the booming coal camps of the early 20th century, where coal companies kept miners indebted and imperiled in treacherous underground working conditions. Overseen with guns and preachers and paid only in company scrip, mining families could only secure food and housing from the company store at inflated prices, resulting in a lifetime of debt.



RESISTANCE

Unionization and collective bargaining eventually won healthcare and safety victories for United Mine Workers of America (UMWA). But strikers sacrificed their homes -and sometimes their lives- in the struggle for justice.



Battle of Blair Mountain

One of the largest labor struggles fought in U.S. history, Blair Mountain saw over 12,000 miners march on the seat of coal company power in armed resistance to repressive, militarized, and unsafe working conditions. In retaliation, the coal operators summoned the U.S. Marshals, who dropped bombs on the striking miners!



Celebration Dance

Life in the coal camps was steeped in struggle, but is also remembered as a time of community resilience. Here, immigrant miners share stories, songs, and moonshine. The square dancing June Bug, Bee, Turkey, and Wood-

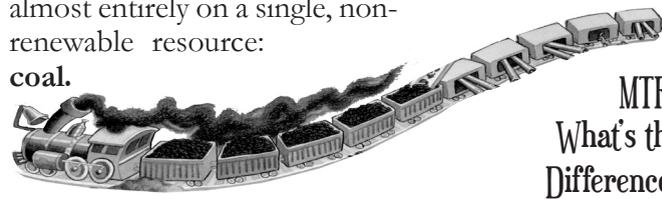


cock celebrate union victories and the long-awaited arrival of coal-powered electricity- more than a generation after it appeared in northern cities.

MOUNTAINTOP REMOVAL

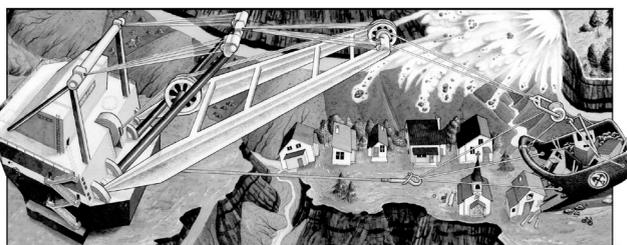
The wealth, industry, and Empire of the US were built on the resources of rural and wild lands (at home and abroad), powered with the dust of dirty coal, and enriched by the sweat of miners and workers. As we see in the center of the graphic, where a massive mine site is tearing into the landscape, colonies like Appalachia were sacrificed on the altar of “the greater good”- progress, power, and prosperity. And just as rural places gave birth to the modern industrial world, the rising powers of government, banks, and big business also shaped the profile of Appalachia, transforming a region rich in traditions of land-based self-reliance into a job-centered mono-economy reliant almost entirely on a single, non-renewable resource:

coal.



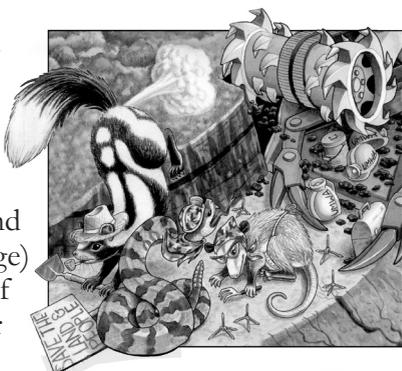
**MTR:
What's the
Difference?**

For over a century, coalfield communities watched the wealth of Appalachia carted out of the mountains by the trainload, leaving behind little of the prosperity or profits the “black diamonds” earned for absentee land owners. Today, coal mining operations are highly mechanized, using massive machines -like the 22-story tall dragline below -to excavate the thin seams of coal that run flat through the mountains like icing between layers of a cake. Unlike underground mines, which were worked with the hand-held pick and shovel, MTR and other forms of strip mining use explosives to expose and access underground coal seams, utterly decimating the soil, habitat, and critters above. The fractured mountain chunks, called “overburden,” are dumped in nearby waterways, polluting them with “valley fills”- inside out, upside down mountains. Over 2,000 miles of rivers are already buried, while 450,000 acres -an area bigger than Manhattan, distributed over 450 distinct, named mountain tops -have been flattened into lifeless moonscape.



Mechanization: Machines Replace Miners

In 1950 there were 150,000 coal miners in Appalachia. **Today, fewer than 15,000 remain.** And where an underground mine once employed 200 men, (and today employs only 30), an MTR site requires only 15 workers to extract vastly more coal. Through mechanization and union busting efforts by Massey Energy and other companies, the coal industry has eliminated so many jobs that many thousands of Appalachians have been forced to leave the mountains. Here, a continuous mining machine undercuts union power by chewing up UMWA helmets and lunchpails, while miners (the Rattler), farmers (the Skunk), and granies (the Possum) use their unique and potent defense mechanisms to fight back! Such direct actions (and even industrial sabotage) have been key tools of coalfield resistance for decades.



THE COAL ECONOMY

The Gifts of Coal. The Threats of Coal

Across the MTR pit (and a world away) from the Big City, we see Appalachian communities struggling with the complicated legacy of coal mining and the repressive stranglehold of today’s coal mono-economy. The seeming gifts of coal, including jobs, pensions, and subsidies for basic community services, are trucked in with a sparkling Santa smile. On the other hand, the bared teeth of intimidation and the spotlight of surveillance show the sinister side of coal- one that uses violence and threats to silence dissent and coerce complicity.



The Dance of Hard Choices

Miner Frog is a non-union miner working on a strip job. He spends each day blowing up the mountains where he fished and hunted as a kid, cause it’s that, flip burgers, or leave town.

Frog’s got all sorts of health problems, from asthma to severe back injury, as a result of working at the mine and breathing in coal dust all day. Urged on by his boss, he doesn’t report his injury to keep his job.



The whole family is getting very sick from sludge in the well. Black water comes out of the tap, poisoned with heavy metals. Mama Frog has had her gall bladder removed, while this year all the garden tomatoes have rotted in the ground.

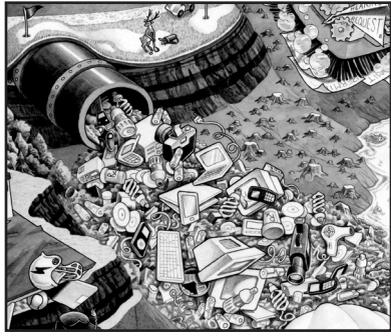
When Miner Frog and Tadpole go to visit the doctor (an Ass with a well endorsed pharmaceutical labcoat), they pay a high price for bottled water and Oxycontin pills, highly-addictive pain medication that has flooded Appalachian communities in recent decades.



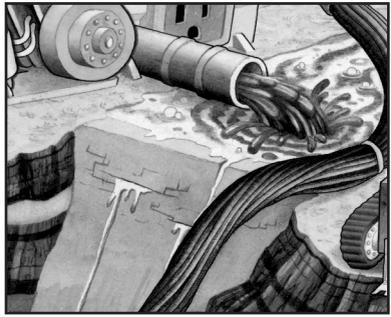
At the end of the day, Frog has to go back to work to keep up with his bills and his pills. As Tadpole grows older, she too must make hard choices - destroy the land she loves in order to stay? Or leave?

COMMUNITY IMPACTS

WASTE



With “planned obsolescence” (building things to break) and disposable, well, *everything*, most consumer goods aren’t even consumed at all- they’re wasted. That means, a real live mountain that’s green and vibrant and full of life gets blown up and gutted, its insides mined and burned and turned into lots of stuff, and then the stuff gets thrown in a landfill- **trading a mountain of life for a mountain of trash!**



Sludge Impoundments

Thanks to the Clean Air Act, coal is washed before it’s burned (to get some *-never all-* of the toxins out). But the deadly rinse water has to go somewhere- usually, back up the mountain into unlined, open air pits held back by some of the largest earthen dams in the world (the most famous of these is directly above Marshfork Elementary School in the Coal River Valley of W. Virginia). This “sludge” is even injected into old underground mines, (where it leaches and leaks into aquifers and wells), or illegally dumped into waterways.

UNNATURAL DISASTERS

Floods and erosion from MTR are a constant reality in the coalfields, but residents live with an even deadlier threat- impoundment collapse. The 2008 TVA spill of toxic, radioactive fly ash (another type of coal waste) near Harriman, TN wasn’t the first time coal industry recklessness caused a life-threatening disaster in the coalfields. The Buffalo Creek dam break of 1972 killed 118 in West Virginia; the 2000 spill in Inez, Kentucky buried 100 miles of waterways. Engineers say, it’s not a question of *if* the impoundments will break, but *when*.



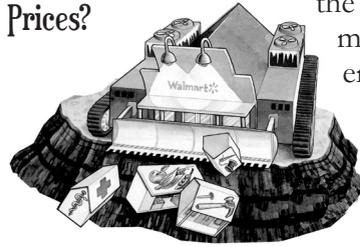
Climate Injustice

Climate Injustice means that the devastating burdens of climate & energy related disasters- like the TVA Spill, Hurricane Katrina, or the BP Oil Blowout- are carried by folks who didn’t create them or profit from them, while the responsible parties get tax breaks and bailouts and aren’t held accountable for cleaning up their messes. They even make money off reconstruction!

Clean Coal is a Dirty Lie

Coal can never be clean. A non-renewable fossil fuel containing almost every element in the periodic table, coal cannot be mined, burned, or stored without extensive damage and destruction. Yet the same corporations and big government officials that are encouraging us to shop away our guilt about climate change are labeling coal “clean”- and hoping we won’t notice we’ve been greenwashed.

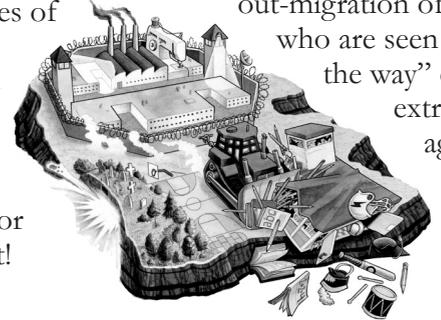
Who Pays for Walmart’s Low Prices?



The new face of the company store is familiar across the rural US, where the Walmart mono-economy means dollars earned by miners purchase goods produced “cheaply” in US-owned factories overseas, leaving local businesses unable to compete... or survive.

“Development”

Walmarts, Prisons, and Golf Courses are the three main “development” projects promoted by Big Coal interests as beneficial uses of “reclaimed” former mine sites. Only 3% ever receive even this excuse for development!



Depopulation Plans

Folks whose labor is seen as “unprofitable” count for little in an “efficient” free-market economy. **Depopulation Plans**, written by coal companies, target schools & community spaces for consolidation and destruction, urging out-migration of folks who are seen as “in the way” of the extraction agenda.

Prisons

New prison construction in Appalachia is hailed as a recipe for prosperity, while states trade in incarcerated people, many of them low income people of color and prisoners of the “war on drugs.” The prison industry means big bucks for corporate profiteers who trade in human lives, but a world of violence and cages for prisoners... *and* guards.

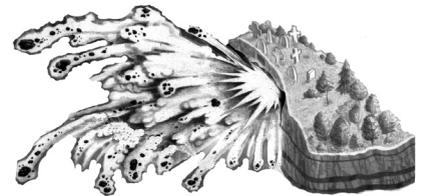
The Myth of Reclamation

But where are the lawmakers, the regulators, the news media?! Coal industry propaganda, greased with tax breaks and skyrocketing profits, attempts to calm and persuade the public that minelands are “reclaimed,” ie. restored to their “approximate original contour,” and repopulated with Oak, Elk, and folks with jobs security. Yet when coal operators abandon their “strip jobs” after they’ve pillaged the mineral wealth of the mountains, regulators barely fine the multibillion dollar industry!



Losing Ground

Every mountain is sacred to someone. While official cemeteries are some of the only lands deemed “unsuitable” for explosive MTR, unmarked and Native burial sites are destroyed everyday.



They Can’t Put It Back

The ecological diversity in this graphic is a metaphor for the cultural vitality of the region, both of which are threatened by destruction from MTR. Mountain-top removal destroys renewable resources- a forest that could be replanted, a road that could be rebuilt. **But other losses are permanent.** Fertile top soil, made rich over millenia, takes more than 500 years to accumulate even half an inch. Once extinct, endemic species (native only to a particular mountaintop or stream) take with them unique evolutionary adaptations- whole genetic languages that fall silent in their absence. Like soil or species, the fabric of community life -languages and dialects, skills for sustenance and survival, stories and songs -once unraveled through depopulation and degradation, are gone forever.

THE DEATH CYCLE OF COAL

COMBUSTION, CONSUMPTION & CLIMATE CHAOS

If the coal extracted from the mountains isn't burned in Appalachia, where does it all go? And why do we need it so badly that it's worth sacrificing the oldest, most biodiverse mountains on the planet to get at it?

Along the horizonline of the graphic, we can trace the full death cycle of coal on a global scale, from extraction and combustion to consumption and waste. At every stage (except in the ground, where it belongs!), **coal is deadly**, because processing it releases sequestered toxins and greenhouse gases into the air. Coal and other fossil fuels are used to power a linear production system that assumes the possibility of infinite growth on a finite planet, and whose sole purpose is to create wealth for those who benefit from it. But it is the folks least responsible for creating a fossil fuel-dependent economy who are hit first and hardest by its worst side effect—**Climate Change**.

Extracting Power

Charging onto the scene as a souped-up steam engine at full blast, with tentacular arms feverishly gobbling up fuel, water, forests, and land, this heavily-armored coal-fired fortress represents the dual meaning of "American Power." Not only is the US military the biggest consumer of fossil fuels in the world, it is often the US government's tool of choice for securing access to "energy resources" (ie. other people's stuff) around the globe. Endless war is a huge consumer of coal, and for the US (the "Saudi Arabia of Coal,") an energy-independence agenda means **more coal extraction**.

GREENWASHING

Have you noticed that *everyone* claims to be "going green" these days? From Clorox (partnered with the Sierra Club) to Walmart (selling organic veggies) to BP (really? *beyond* petroleum?), corporations are falling all over themselves to convince us that they are eco-friendly- even while they're selling us the same old poison as before! Despite their best efforts at a swindle, we *know* a wolf in sheep's clothing when we see one, and we *know* that we can't buy our way out of climate change and eco-cide with "greener" individual consumer habits! We need organized, collective action to transform a sick society and economy, **so we're changing the system, not just our lightbulbs!**

Burning the Future

To make coal into "cheap" electricity, it must be pulverized and burned. Coal-fired power plants are responsible for more than 40% of all carbon dioxide emitted in the U.S. each year, not to mention cancerous heavy metals and yucky, asthma-causing particulates.

Former NASA scientist James Hansen estimates that 80% of the problems associated with climate change could be avoided today, **simply by leaving the coal in the ground.**

Globalization, Transportation, and Manufacturing

Coal provides us with electricity, but is also central to the manufacture of concrete, steel, and consumer goods, the building blocks of our industrial world. As multinational corporations and monolithic financial institutions (like the World Trade Organization, The World Bank, and The International Monetary Fund) force local economies to play ball in a global marketplace rigged to favor rich countries, manufacturing is "outsourced" to poorer countries (who have even fewer environmental regulations and labor laws than the US). This means coal extracted in Appalachia is shipped all around the world- ironically, often to coal *producing* parts of Asia and Latin America, where everything from essential goods to cheap plastic toys are assembled for western consumer economies. **Coal does more than keep the lights on.**



The Temple of Conspicuous Consumption

Parading across infinite high-flying conveyer belts is a buffet of fancy consumer goods- hair dryers, cuisinarts, i-pods, x-boxes, plasma screen TVs, and even pricey college diplomas- all coal-powered placebos we're encouraged to buy as substitutes for genuine relationships, learning, and adventure. "Manufactured desire" means even folks' imaginations are colonized by corporate ad execs, who urge suburbanites to dash from their solar-paneled McMansions to Green Malls in their hybrid SUVs to get the latest gizmo from Apple or Whole Foods. Not only is this consumption treadmill directly fueled by MTR, it's also incredibly isolating and depressing, and keeps folks medicating their alienation with more stuff rather than getting together to do something about it!