

BOOK AND POSTER PROJECT

FRACKTURED LIVES

AN ACT OF RESISTANCE

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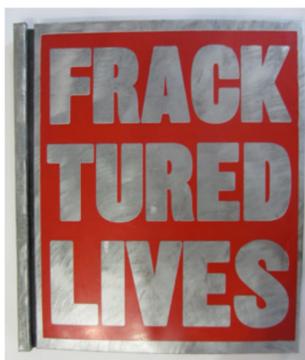
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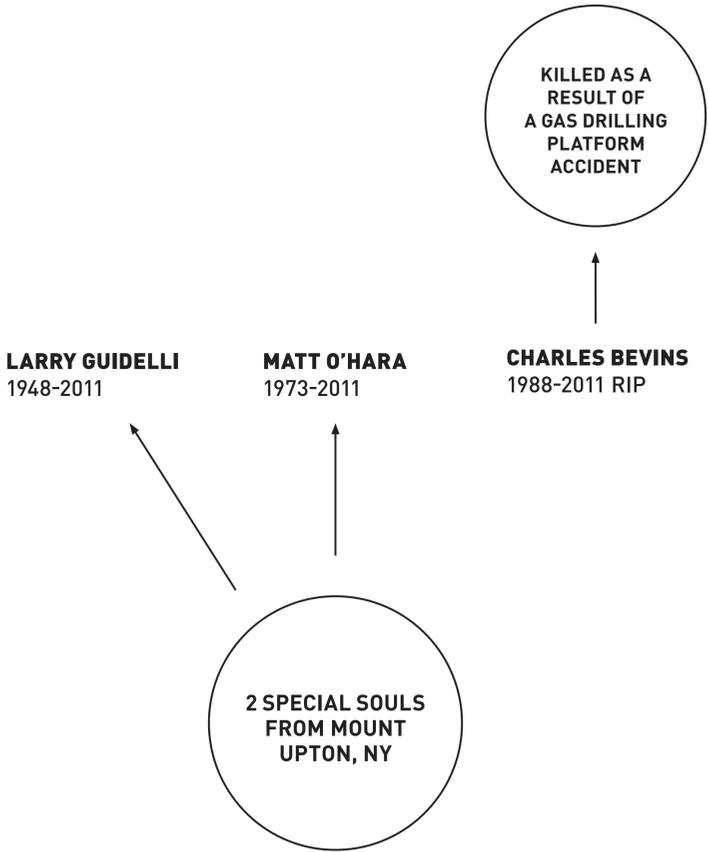
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IN MEMORY OF

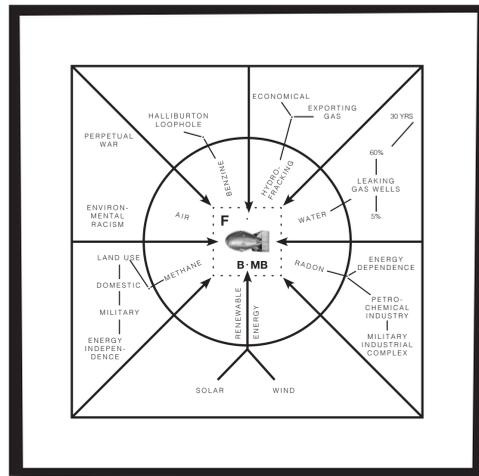


FOREWORD

and a healthier earth needed to sustain it.

Individuals participating in *Fractured Lives* range from a grouping of writers and poets whose social and aesthetic histories align with New York's The Lower East Side, including Carlo McCormick, Frank Morales, Carl Watson, Sarah Ferguson, and Michael Carter. Like the Beat Generation and the New York School writers before them, these (and many others) have fostered and maintained a thread of radical reimagining of collective society—and the visionary words it may bring forth. Visual artists include Sue Coe, David Sandlin, Walter Sipser, John Fekner, Alexandra Rojas, Anton van Dalen, Tony Pinotti and Andrew Castrucci himself. Most of these, too, have taken up subjects that have pre-occupied earlier generations of socially engaged artists such as those

Lives (begun 2010). Castrucci modeled this process on the organic unfolding and consolidation, in New York City during late 1980's early 90's, of a resistance movement against encroaching real estate development and gentrification of his Lower East Side neighborhood. Collectively, with a number of other community members, made up of writers, poets, artists and a wide array of neighborhood denizens, Castrucci helped conceive and publish *Your House Is Mine* (1988) This massive book (21x24", 19 pounds) of resistance writings and associated artist-posters has since been called one of the most important art book documents of the 20th century, namely by the likes of Mark Dimunation, Head of the Rare Books, Special Collections at the Library of Congress, in Washington DC. It can be found in museums collections around the world, including the Museum of Modern Art in New York, and in



Andrew Castrucci

Staatliche Museen zu Berlin, Kunstbibliothek, Germany. Castrucci modelled the combined book-poster function of *Fractured Lives* (which associated artist-poster project was also deployed in acts of civil resistance such as the protest marches mentioned above). On *Your House is Mine* (which artist-posters functioned similarly, as they were posted in neighborhoods under real estate development pressures). As a long term teacher at The School of Visual Arts in New York City, Castrucci elaborated on this previous syncretic model of publication/activism by including the student community that he worked with there. By mentoring successive generations of artist-activists and including their anti-fracking artwork in *Fractured Lives* (together with already established arts and literary professionals) Castrucci has demonstrated the same social leveling process, the same collegial equanimity, that characterized the best collective aspects of *Your House is Mine*. And this student contingent of *Fractured Lives*, mostly undergraduates in their late teens and early twenties, forms a vital cadre of younger generation activists who've literally taken their posters to the streets in civil disobedience and protest assemblies coordinated by their teacher. Like the social activists of Marjory Stoneman Douglas High School in Parkland Florida, radicalized, perhaps prematurely and against their ideal wills, by the Valentine's Day shooting massacre there in 2018, this student group has shown little hesitation in speaking truth to power. The willful ignorance of The National Rifle Association towards gun control and Halliburton's cynical disdain for environmental regulation are, after all, inextricably connected. *Fractured Lives* comes to publication at a time when these types of connections are becoming more clearly a common cause, perhaps more sharply felt by the young who would prefer to inherit a better society

and a healthier earth needed to sustain it.

Fractured Lives - A Coming Together
Tom McGlynn

Earth, water, air, fire: these are the basic elements that make up life. These elements work upon us everyday as we walk, we breath, we drink and we gather warmth. In a different combination, augmented by modern alchemical fiddling, these elements can become deathly fissures, tsunami floods and poisoned wells, choking gas clouds and devastating combustive explosions. So why on earth would anyone choose this latter scenario as a plausible way to move human society forward? Hydraulic fracturing (fracking) as a method of extracting natural gas from the geological substrate destroys the eons of integrity of the ground on which we walk.

It poisons the ground water and the air with toxic chemicals and gases and sets fire to potential pipeline and wellhead explosions. Why would we even go there? *Fractured Lives* proposes that the "we" as in "We The People" would clearly prefer not to. The short-term profit goals set by oil and gas exploration companies, such as the now notorious Halliburton, have seduced a wide swath of interested parties, (including indigent rural property owners who have long suffered the deleterious fiscal vacuuming by centralized agribusiness of their local agrarian economies), into thinking it's "their" (the invasive and aggressive natural gas interests) way or the highway, yet the resistance movement grown up around the energy industry's push to industrialized nature's ancient infrastructure is responding with an unequivocal "no" to such irresponsible and devastating development.

Years before the governor of New York, Andrew M. Cuomo, established an executive ban on fracking in that state in 2014, a grass roots movement had evolved into a growing national network. Vermont and Maryland have come to similar conclusions—their legislatures having banned fracking in their states in 2012 and 2017 respectively. Local activist groups, comprised of a wide social cross section concerned citizens, have already witnessed and decried the initial effects of the ever-widening environmental degradation caused by fracking. These national and worldwide social protest activities have inspired the publication of *Fractured Lives*. Contributors to *Fractured Lives* have brought pre-publication banners of its posters to the steps of the New York State legislature in Albany, August 27, 2012, to SUNY Binghamton, August 23, 2013 (an action actually witnessed by then President Barack Obama) and in the New York City gathering for the international People's Climate March, September 21, 2014. Such demonstrations have undoubtedly contributed to the governor's signal decision to ban fracking in New York. Unfortunately, other state and federal policies overseeing the destructive procedure have either leaned in favor of those who would benefit most from fracking, the oil and gas conglomerates, or have otherwise been woefully insufficient in their regulation of such. Since the combined social activism and publication of *Fractured Lives* was first conceived and begun in 2010, there has been a concerted effort within conservative sectors in the federal government to redefine the regulatory reach of the Environmental Protection Agency. The most egregious breaches of the public's trust in the EPA's ability to keep the environment from harm has occurred during the Trump administration, with successive executive appointments of individuals to lead that agency who are unambiguously aligned with the energy companies spearheading oil and gas infrastructure emplacement and resource extraction. *Fractured Lives* is comprised of the combined voices of writers, artists, student and local communities, all activated in response and resistance to the juggernaut of fracking barreling down their respective and common roads. It's a publication whose time has way past come, and it is destined to become a crucial future document in the continuing struggle of the mass of enlightened citizens against the dismissive cynicism of such progressive ideals by a self-entitled few.

Andrew Castrucci, an artist, activist and educator, initiated the social process leading to the publication of *Fractured Lives*

ACKNOWLEDGMENTS

+ EDITORs NOTE



"Fractured Lives" 2010-20, "Your House is Mine" 1988-92

A majority of our politicians and elected officials no longer do their appointed jobs. They don't protect our health, safety, well being or quality of life in any substantial way. As engaged citizens we have to step up, as the muckrakers¹ of the early 20th century (such as Ida Tarbell and Upton Sinclair) exposed the excesses of the nascent oil industry and the brutish, destructive power of monopolies. On the slippery stage of digital/social mass media we've been all but subsumed as theatrical stand-ins; we've become cartoonish puppets. A lot of sociological science-fiction like Aldous Huxley's *Brave New World* and George Orwell's 1984 has come horribly true. The "soma" of social media has numbed our minds to the spectacle of civic and environmental degradation. The ever-increasing policing of our privacy and freedom of movement by nation-state dogs (being wagged by the tail of multinational corporate interest) fills out our Orwellian nightmare.

Fractured Lives was begun in 2010 and came to final fruition in 2020 at The School of Visual Arts in New York City. It originated as an assignment (in Silkscreen Poster Design with the prompt: "in response to Fracking"), that evolved into a larger book and poster project. Bringing in all sorts of individuals, artists, activists, students, and deploying a range of aesthetics between "high" and "low brow" art forms, the posters and the ideas behind them were collectively brainstormed and printed at The School of Visual Arts printshop where I have been teaching Design and Guerilla Graphics for over 20 years. At the printshop, in collaboration with my students, I started the collective DIRTY GRAPHICS, (founded circa 1997). The concept of the collective was strongly inspired by a previous project I worked on (in concert with artists and activists involved in anti-gentrification activism in Manhattan's Lower East Side) entitled *Your House is Mine* (1988-92). Marvin Taylor (NYU Fales Library), Ian Kahn, and Mark Dimunation (Library of Congress Rare books) recently called *Your House is Mine* "One of the most important artists books of 20th century". For *Fractured Lives* specifically, the collective printed over 64 silkscreen posters: 100 prints of each poster— half for

the street and public banners/demos—the other half for a book, in a limited edition of 50 total books. The sum total of hand-printed posters produced for *Fractured Lives* is over 5000. *Fractured Lives* initially dealt more locally with gas drilling in upstate NY, but it soon became apparent that fracking quickly became a global epidemic. We created this project to protest and ultimately ban the practice of hydro-fracturing to forcibly extract natural gas, or "fracking". Art sometimes becomes a necessity and art as life a necessary form of resistance. As the project evolved in both street demonstrations and in developing graphic strategies in the printshop, it became our existence.

Special thanks go to Chie and David Hammons for 2 grants funding our project. David Hammons "Global Fax Festival" limited edition book also helped fund this project. *Fractured Lives* main source of funding were from sales of *Your House is Mine* book and poster project, published by Bullet Space (1988-92). Thanks also to Sue Coe, an artist/activist living in the fracking threatened area of Deposit, NY, who conceived a silkscreen print for this project based on actual events of an oil and gas pipeline, routed by eminent domain right through the middle of her own property.

Additional thanks to Jeremy Weir Alderson for his publishing of The No Frack Almanac out of Ithaca, and his hard, thorough research on fracking. Other Upstate New York residents who

contributed greatly to the project include: Tony Pinotti and Theresa Winchester from the Butternut Valley, Mary Jo Long and Mike Bernhard from Afton (for their invaluable contribution on "Home Rule"). Ken Fogarty, Katharine Dawson, Tom Gray from Guilford/Mt. Upton, Eddie Rodriguez who lives on the Unadilla River and Walter Gurbo from New Berlin. Additional artists and writers to thank include Carlo McCormick, Sarah Ferguson, Jim Wu, David Sandlin, Carl Watson, Chris Molner, Ann-Sargent Wooster, Robert Flemming, Walter Sipser, John Fekner. For their legal, scientific and human rights work; David and Helen Slotje, Sandra Steingraber, Vera Sroggins, Debra Wirkman, Carol French, Ellen Cantarow.

Also Jane and Mike Winchester, Mary, John and Nate Twitchell, Tyler Furgison, Dante Mills, Dennis Crawford, Cliff Wilkinson, Joe Zaczek, Joe Johnson ("Say it ain't so, Joe!"), and Patrick McElligott (for his contributed research on the confederacy of the Iroquois Nation). Appreciation goes to the artist Tom McGlynn (a habitué of the Delaware River watershed adversely affected by fracking) for his poster contribution and fine editing of selected texts included in the book. Igor Langshoyin contributed graphic design work and the posters "7 Deadly Sins" and "Secret Formulas". Daniel Velle's photography, all night proof reading and tire-some work on graphics deserves special mention as do the similar efforts of SVA printshop artists Daniel Gionvaniello,

Kirsten Karkanen, Yunjie Qian, Sam Baraitser Smith, Sean Mitchell, Mateo Ramirez, Stephen Cup, Emily Pracher, Yusef Najafi, Leks Angeles, Sean O'dea and Juan Zalaquett. Special thanks too text section printers, Brendan Carney and Bishop Printshop, as well as Joe and John Cipri from Superior Metal/Woodwork for book binding. Additionally, I'd like to express my appreciation to Yoko Ono and Sean Lennon for their Frack Action, Artist Against Fracking. Josh Fox for his call to action film "Gasland", Pete Seeger and the watershed conservation precedent of Hudson River Keeper, Gratitude goes to members of my family, Alexandra Rojas, Renzo Castrucci, Paul Castrucci and Dolores Castrucci for their special contributions and support. *Fractured Lives* was produced with the invaluable resources and assistance of the School of Visual Arts Printshop facilities and facilitators: David and Anthony Rhodes, Richard Wilde, Gunars Prande, Larry Wright, and Dominick Rapone.

Our collective could not have made this book without this group effort of 1000's of artists/activists/citizens to force Governor Cuomo to change his mind on fracking in New York State. Robert Kennedy Jr, of Riverkeeper has recently stated; "This activism around fracking in New York State, we have not seen this form of resistance since the Vietnam war." A true activist force peaking at the Albany demo steps of legislature Aug 27, 2012, which marked a turning point in the banning of fracking in New York.

Fractured Lives is dedicated to the memory of Charles "C.J." Bevins, who was killed in Symma, NY gas drilling platform accident on May 1, 2011. Thanks to his sister Charlotte Bevins for keeping his memory alive and fighting for workers rights. The book is also dedicated to Larry Guidelli and Matt O'Hara, 2 local heroes of our town. Larry Guidelli's road side signs remind us we are alive and his generosity as a citizen of Mount Upton. Also Matt O'Hara for keeping a sense of humor in our daily grind.

— Andrew Castrucci

"THEY ARE PLANNING TO DROP AN ATOM BOMB IN UPSTATE NEW YORK"

ANDREW CASTRUCCI

"...BECAUSE WE KNOW, THERE ARE KNOWN KNOWNS; THERE ARE THINGS WE KNOW WE KNOW. WE ALSO KNOW THERE ARE KNOWN UNKNOWNNS; THAT IS TO SAY WE KNOW THERE ARE SOME THINGS WE DO NOT KNOW. BUT THERE ARE ALSO UNKNOWN UNKNOWNNS—THE ONES WE DON'T KNOW WE DON'T KNOW."

DONALD RUMSFELD

"TRUTH IS NOT TRUTH"

RUDY GIULIANI

"NO MAN MAY POISON THE PEOPLE FOR HIS PRIVATE PROFIT."

THEODORE ROOSEVELT

"I HAD NOTHING TO OFFER ANYBODY EXCEPT FOR MY OWN CONFUSION."

JACK KEROUAC

"HUMAN BEINGS AND THEIR COMMUNITIES ARE CONSIDERED A PART OF MOTHER EARTH, BY BEING INTEGRATED IN "LIFE SYSTEMS" DEFINED AS "... COMPLEX AND DYNAMIC COMMUNITIES [...] IN THEIR ENVIRONMENT, IN WHICH HUMAN COMMUNITIES AND THE REST OF NATURE INTERACT AS A FUNCTIONAL UNIT."

"NATURE BILL OF RIGHTS" EVO MORALES

"LEARN HOW TO SEE. REALIZE THAT EVERYTHING CONNECTS TO EVERYTHING ELSE."

LEONARDO DA VINCI

"IF YOU FIND YOURSELF IN A HOLE, STOP DIGGING"

WILL RODGERS

"... IS THE POINT AT WHICH DANGEROUS WATERS BECOME SAFE — AND SAFE WATERS BECOME DANGEROUS."

MARK TAWIN

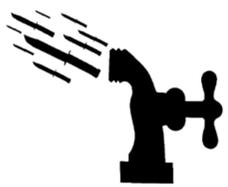
"NATURAL GAS... THERE'S NOTHING NATURAL ABOUT IT..."

ELLEN CANTAROW

IN + PRODUCTION



Albany, NY 8.27.12



Schee Lee

large tracks of land dumping tons of illegal toxic waste, camouflaged as sewage sludge. Knowing its history of illegal dumping the town of Gilbertville had by 2012 put in place a comprehensive environmental plan which adapted strict dumping laws and the Home Rule, ultimately banning fracking in the valley. ⁴

From early to mid 80's the mafia paid off a local landowner to dump toxic chemicals and large amounts of

Fractured Lives

Andrew Castrucci

"Getting and spending, we lay waste our powers; Little we see in Nature that is ours; We have given our hearts away, a sordid boon!"

—William Wordsworth, from *The World is Too Much With Us*

The fracking industry LIES about safe drinking water as they pollute our water aquifers.

BIG Pharma LIES about opioid addiction.

Exxon Mobil LIED for 30 years about global warming.

We are in the age of LIES.

The controversial technique of shale oil and gas extraction called hydrofracturing (fracking) which was instituted by Halliburton in the 1990's, began to be deployed aggressively in 2005. It will affect the drinking water of 19 million New Yorkers by endangering the fragile shale geological substrate that filters the New York water supply: aquifers, wells, and reservoirs (in both upstate and downstate watersheds). This new technology is also affecting and hitting hardest Pennsylvania, Ohio, Texas, Oklahoma, Montana, Alaska and North Dakota to name a few. In 2012 there are 23 states in which fracking is actively engaged in despoiling the landscape above and below. By 2015 there were 48 states w/ gas leases adding up to more than the land mass of Florida and California.



Andrew Castrucci

Fractured Lives constitutes a book and street project initiated as a protest against fracking in Central New York. This extraction technique typically uses over 700 chemicals including carcinogenic causing chemicals such as toluene and benzene. Thousands of gallons of waste water containing these chemicals are generated, per well, which contain radium which exceeds by 267 times the EPA's maximum safety standard. The gas industry has also initiated the disposal and, unfortunately, the widespread dispersal of such toxic wastewater (euphemistically, strategically, renamed the harmless sounding "brine"), on local roads as a de-icing and dust-reducing agent. Such an incredibly irresponsible process has already been taken up as a practice in Pennsylvania, Ohio, and New York.

Environmental Social Classism

Not limited to a national crisis, fracking has become a global problem especially in third world countries, where looser environmental regulations invite a "drill first/regulate later" attitude. Aquifers, watersheds are supposed to be protected by a 500-2500 ft. barrier not subject to drilling, but even this barrier some scientists say is not enough due to fracking-caused

earthquakes, cracked cement seals, ground seepage and ground water run off. These oil and gas companies admit to a 6% leak right away, yet 60% will leak within 30 years from cracking in cement filled wells. Will these gas drilling companies return in 30 years? The environmental disasters of the past such as the infamous Love Canal toxic disaster and cleanup which affected multiple unknowing families who built homes and raised children on the unmitigated waste of prior industrial production. The latter example also brings up the issue of environmental justice and how such devastating pollution often disproportionately affects working class and lower income communities. A divide and conquer technique by the political-industrial complex protect affluent watersheds of the Catskills, Syracuse and Cooperstown regions while targeting New Yorkers with the lowest tax base and a weakest resistance. It's a procedure termed environmental racism/classism.

A (Short) Catalogue of Disasters

2010-14 hundreds of off-shore wells dump billions of oil and gas waste into Gulf of Mexico. In 2014 alone 76 billion gallons of waste fluid was dumped into the sea.

2011 Pennsylvania's biggest environmental accident in history located in the Marcellus Shale. Thousands of gallons of chemical-laced waste water spills into near by Trout Creek then into Susquehanna River. Chesapeake Energy is responsible.

2012 Youngstown, Ohio, is hit by its twelfth earthquake of the year. The most recent earthquake is located, like the others, very near a D&L fracking injection well where millions of gallons of fracking brine have been injected below the earth's surface in attempts to "sequester" its toxicity.

2015 In a suburb of Los Angeles, Porter Ranch, California, the largest gas leak in US history occurred. Methane gas leaked for 4 months. The SoCalGas Company was responsible.

2018 During severe droughts in California, Oil and gas companies sold fracking wastewater to farmers to water fruits and vegetables.

Our Overlooked, Polluted Cities and Towns (Class Warfare and Sacrifice Zones)

Some of the most polluted spots on earth: Bayonne, Perth Amboy, Newark, Elizabeth, Carteret, NJ, highest rates of cancer in U.S. ¹

South Bronx, NYC, people of color highest rates of asthma in U.S. ²

From Chemung to Sidney in upstate NY, before and during the "Frack Revolution" poor low-income residents of the Southern Tier have been targeted as toxic dumping grounds and ground zero for gas drilling. In Chemung alone, the biggest dumping ground of toxic sludge in the Southern Tier (from Pennsylvania's fracking waste water). ³

In the 1990's Butternut Valley and it's surrounding towns were approached by city municipals and organized crime disposal waste companies. They would negotiate with vulnerable landowners and at times go as far as buy



Lucas Foglia, New York Times

asbestos, and other toxic debris on the Nelson Hill embankment of Unadilla River. Mike Winchester of Mount Upton on his numerous canoe regattas, witnessed dead fish below Nelson Hill, also all vegetation (60ft embankment leading to road) around Nelson Hill was dead. Cliff Wilkinson of New South Berlin also witnessed this among others. After being caught and evading responsibility the landowner disappeared. By late 80's the property went up for tax lien foreclosure. Under night-lights, DEC followed up with a 24-7 clean up.

Unadilla River 1999-2008 Super Fund Site, West Winfield NY: 180,000 gallons treated industrial wastewater dumped into swamps directly leading into Unadilla River. On a 12-acre site, high levels of chromium were found in the soil and in sediments in the adjacent wetland and river. ⁵

Sidney/Bainbridge districts in upstate NY: For decades, the Bendix Corporation (1924-1983), Amphenol and Honeywell Intel Corporation

Andrew Castrucci

took toxic sludge to the tops of mountain ridges. These corporations would buy a tract of land, dig a huge pit, dump its toxic sludge, hide/cover up with 6 feet dirt. Over a ten-year period, on top of Newton Town Road in Bainbridge, everyone on this street eventually contracted leukemia. This was witnessed by my close friend Richard Rausch along with his neighbors. Richard also eventually succumbs to leukemia while noticing this strange pattern. ⁶ Other sites in this region include the Richardson Hill Road Landfill, Sidney and the Sidney

Landfill waste recovery site, at 122 Valley View Road, Bainbridge, NY. The Environmental Protection Agency (EPA) received \$3.5 million in a federal court judgment against two companies responsible for hazardous waste contamination at the Sidney Landfill Superfund site in Sidney. The two companies, Honeywell International Corp. (formerly Allied Signal Inc.) and the Amphenol Corp., are successors of the Bendix Corp. which was the largest commercial and industrial waste contributor to the landfill, which operated from 1967 until 1972. The \$3.5 million is partial reimbursement to EPA for the agency's investigation, oversight and enforcement costs related to the site, which is, on EPA's National Priorities List (NPL) of serious hazardous waste sites.

When oil and gas companies come into vulnerable towns, with all their bribes, legal/illegal and snake-charmer promises, it is similar to when a super power invades a third world country: same play book. The Southern Tier of New York State is one of its poorest regions. These communities feel they are being invaded by a superpower that is abusing their natural resources benefiting a select few. These towns become a war zone.

Trump's EPA has undertaken drastic steps to deregulate the fracking industry. His swamp of environmental administrators are typically connected to insider oil and gas tycoons.

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Nature's Bill of Rights (An international movement started south of the border)

The Law of the "Right of Mother Earth" is a Bolivian law, passed by Bolivia's Plurinational Legislative Assembly in 2010. The law defines Mother Earth as "A collective subject of public interest, and declares both Mother Earth and life-systems as titleholder of inherent rights specified in the law."

Ecuador was the first country to put the "Rights of Nature" in its constitution.

In Lima, Peru, December 2014, the 2nd International "Rights of Nature" tribunal was held.

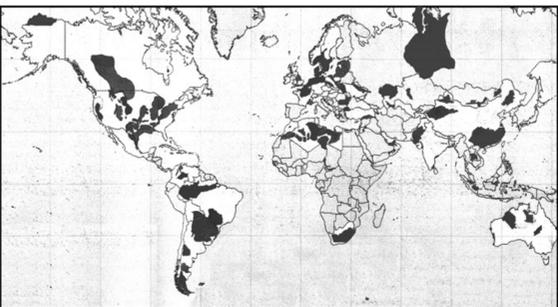
In the United States, The Tamaqua Borough in Pennsylvania was the first to legally recognize the rights of nature. In September 2006, the Borough Council used a "rights of nature" law to ban companies from dumping toxic (frack) sludge in its community. ⁷

Ecological Violence and America's Radioactive Secret

In Dick Cheney's "Halliburton Loophole" the fracking industry is exempt from the clean water and air act. Also exempt from the Superfund (cleanup) Act. The fracking industry is now allowed to use words like "residual waste" instead of "hazardous waste".

Much worse currently though, President Donald Trump's administration (the Trump Era DEP, Department of Environmental Protection, stands for "Don't Expect Protection") ⁸ is seeking to privatize Bureau of Land Management (public) Lands and even Native American reservations, which sit on an estimated 20 percent of the nation's oil and gas, along with large amounts of coal reserves. These resources are worth nearly \$1.5 trillion. ⁹

Oil-and-gas wells produce nearly a trillion gallons of toxic



World Shale Gas Basins



The Posters of Fractured Lives (a representational cross-section)

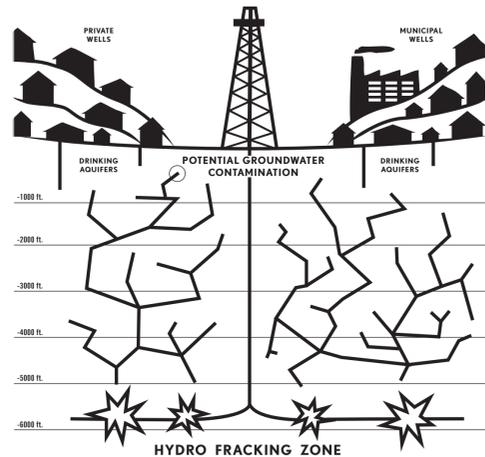
64 posters made in this project were silkscreened by hand for a total of 5000+ posters over a 10 year period. Some posters contain indirect messages of meaning, like a Symbolist poem or a Surrealist painting: subconscious, thought provoking, going beyond the literal, meant to be open ended. Others are more direct. These posters are interested in creative aesthetics first, in order to be less dogmatic: the social element becoming more apparent on the 3-4th reading, even the 9-10th reading. The intent is often more cryptic, less direct-inspired by more of a "social sculpture" influence, in the tradition of artists such as Joseph Beuys, Gordon Matta-Clark, and David Hammons. Here are a few examples:

1. Diagram "Rude Algae of Time", cryptology: coding, mapping, fracking bubbles, transcending the conventional dogma of the traditional poster.



2. John Fekner's "NY+ DK 4EVER", an appropriation of lover's initials carved into a tree 4EVER. N.Y. as in initials New York and D.K. as in "decay forever". A version of this piece was originally used in 1981 large spray painted stencil guerilla art on the old abandoned Coney Island Parachute jump.

3. Walter Sipser's drawings, concerning human (nature's) frailty features an arm leaking like a sieve. It is also related to drug abuse and the correlated abuse and despoliation of the environment. Another Sipser piece depicts a pipeline swastika.
4. Walter Sipser and Renzo Castrucci, after viewing the Lone Ranger classic remake film, created the "Bad Trade" poster, quoting the Ranger's cliché sidekick Tonto: "Bad Trade, Kemosabe".
5. Tom McGlynn's pop appropriations such as, "Domino" (a takeoff of a Domino's Pizza delivery uniform) and "Mob" (a cut-up of the Mobil Oil logo) express both a pop Surrealism and Dada playfulness to seriously critique the increasing influence of corporate culture in everyday life.
6. Eunyoung Cho's "X red circle", (NO -sign) do not enter, depicts a graphic street sign figure urinating on our water source or a phallic symbol, a symbol of lust/greed.
7. "Zero Cents", large minimal "O" with cent sign, fracking makes zero sense.



8. Alexandra Rojas's "Protect Your Mother" (with gun in hand), was photographed on Unadilla River in upstate New York where she lives, and also appropriates her South American roots (Columbia), commenting on the inspirational sources of "The Rights of Nature".
9. "MF Poster", in which the word "Mother Fucker", in stylized graffiti type, covers a crying, bleeding earth, a reaction to Trump's EPA.
10. "There's Something Wrong With Everyone In This Town..." has a black-on-black type that one can barely read, somewhat reminiscent of a Mark Rothko painting.
11. The poster, "Halliburton Loophole", outlines silhouette Dick Cheney face, with interior flowing type Coca-Cola graffiti script; repetitive words Halliburton Loophole Frackelicious...
12. "This Land is Ours — Speculators Keep Out", seemingly referencing the classic Woody Guthrie composition, "This Land is Your Land."
13. "The F-BOMB", (the fracking bomb)
14. Igor Langshteyn's composition "Secret Formulas" depicts a map of the USA in the shape of chemical codes used in the processes of fracking.
15. John Kim's poster "H₂O", depicts lungs filled with water in the shape of the USA upside down, with the heart in the center whose veins are river tributaries.
16. The point of the "Empire State" (building) veers downward cutting the earth in half.
17. Ben Jura's "War", the Gulf Gas company logo is manipulated with a more honest face.

18. Hye Ok Row, "Water is our Life Blood"
19. A large drop of water by Brandie Ferreira with the backdrop of the "700 Chemicals" it takes to frack a well. Water is a strong theme in this poster series. In 2020 we have recently watched the price of water being just as expensive as gasoline.
20. Corin Trachtman and Sean Mitchell's collaboration, which rounds up the collection, "Water, Water Everywhere But Not A Drop To Drink".

Fractured Lives: Book and Poster Project
Published by: Dirty Graphics Collective and Bullet Space, an Urban Artists Collective. Printed at The School of Visual Arts, NYC.

We end this book as America is in the process of losing its mind and its environmental soul as we enter (what will hopefully be) the final year of the Trump administration's wholesale war on all water and air protections for the sake of maximizing and privatizing profit interests. Even though New York State has a ban on fracking (since 12.17.14), energy companies are watching us like hawks, waiting for a pro-fracking governor to take over, like the other 46 pro-fracking states, we are still vulnerable. ¹⁰

"I won't tell you where the place is, the dark mesh of the wood meeting the unmarked strip of light—ghost-ridden crossroads, leafmold paradise: I know already who wants to buy it, sell it, make it disappear."

—Adrienne Rich, from *What Kind of Times are These*



Binghamton, NY 8.23.13

¹⁰In 2012, 23 states fracking. In 2015, 48 states fracking. In 2020, 46 states fracking. Recently Florida and Georgia have joined states with pending legislation banning fracking. While we were in the middle of this book and poster project New York bans fracking 12.17.14. Our activism had pushed Governor Cuomo to reverse his decision on fracking and place a ban. Especially peaking at the Albany rally of August 2012.

THE FIGHT FOR NY'S SOUL

THE SACRIFICE ZONE

SARAH FERGUSON

Drive three hours or so northwest of Manhattan, into the rugged counties of upstate New York along the Pennsylvania border, and you'll find yourself cycling through rolling hills and corn fields and dusty main streets so sucked dry of industry it sometimes feels like that "Twilight Zone" episode where a man returns to his hometown and finds all the people have somehow evaporated.

It's a level of economic disparity that must be experienced firsthand to really comprehend how fraught the battle over fracking—the process of extracting methane gas from shale rock—has been for the Southern Tier of New York.

The crushing need for some kind of industry to revive this region is what made Governor Andrew Cuomo's decision in December 2014 to prohibit all high-volume hydraulic fracturing in New York such a stunning and unexpected reversal for the gas lobby. But it would be a mistake to think the battle here is over.

Back in 2008, when geologists announced the potential of nearly 400 trillion cubic feet of natural gas lodged in the Marcellus—a vast formation of carbon-rich shale that stretches from Central New York to Northern Tennessee—many in the Southern Tier saw it as a godsend. Suddenly dairy farmers sitting on hundreds of acres with no means to pay their taxes were being offered tens of thousands of dollars to lease their land for "natural" gas—an industry billed as "cleaner than coal."

SAY IT AIN'T SO, JOE The Southern Tier has been hemorrhaging jobs and people since the 1970s.¹ Now state officials were projecting high-volume fracking could bring an economic boom, centered in five counties (Broome, Chemung, Chenango, Steuben and Tioga) where the shale was believed to be the thickest and deepest. In

May 2008, the town supervisor of Sanford, NY—a sleepy town of 2,400 people on the edge of Broome County—bundled a lease deal with XTO Energy on behalf of himself and 300 other farmers worth \$110 million. The New York gas rush was on.

Of course, plenty of other folks in the region were soon up in arms at the notion that their rural hamlets could be permanently despoiled by the rapid industrialization caused by high-volume fracking—which involves blasting millions of gallons of chemical-laced water and sand through pipes drilled laterally into the shale to release pockets of methane trapped there 400 million years ago. By 2008, there had already been reports of a house exploding in Ohio due to methane seepage, groundwater contamination in Wyoming, and endocrine-disrupting chemicals leaking from frack operations in Colorado. Closer to home, the January 1, 2009 explosion of a private drinking well in Dimock, PA, next to gas wells drilled by Cabot Oil and Gas, set off alarms.

"It felt like they were trying to kill me. I started having nightmares every night—always something blowing up," recalls Kathy Dawson, a retired school teacher from Guilford, NY, describing her reaction when she

found out her neighbors up the hill had leased their land to a gas company. "They're from New Jersey and have like 80 acres and are never here. My daughter's ex-husband is leased, and his farmland lies right above Guilford Lake," a natural "kettle lake" about a quarter mile from Dawson's home—which provides drinking water to her town.

Like many in the Southern Tier, Dawson found herself drawn into a fight that would pit neighbor against neighbor—centennial farmers against retirees and other longstanding homeowners—fracturing the quiet equilibrium of these small towns—just like the fracking process itself fractures open fissures in the shale formations deep within the earth.

For six years, as the de facto moratorium imposed by former governor David Paterson dragged on, the debate upstate simmered. Town meetings erupted into shouting matches. County roads became battlegrounds of opinion—Here a billboard touting the alleged promise of energy independence: "Drill a Well, Bring a Soldier Home." There an answer: "Drill a Gas Well, Poison a Water Well."

AN UPHILL BATTLE

Initially, the frackers had the upper hand. Before the first leases were signed, the gas lobby pushed through frack-friendly laws in Albany, like "compulsory integration"—whereby gas companies can force property owners to let them drill beneath their lands if more than 60 percent of the adjacent property is already leased.

In Afton, NY, Mary Jo Long, an attorney and former Green Party candidate, recalls watching pro-gas landowners shut down an anti-fracking forum in 2011. "They literally tried to push people off the sidewalk," Long says. Most of the big landowners in Afton had signed leases with gas companies, while the town supervisor sold off most of his dairy farm to Norse Energy in a deal many considered vastly inflated. Local trucking and gravel companies were also gung-ho to frack, since they were getting so much work in Pennsylvania. As the lone opponent of fracking on the town board, Long says she became the target of hostile threats. (At one point, someone stood up at a landowner's meeting and said, "Somebody oughta shoot her," Long recalls.)

With most of their legislators pro-gas, and Big Green environmental groups pushing the line of "responsible regulation," Long and other fracking opponents upstate were fighting an uphill battle. Early on, there was some heavyweight pushback from New York City, which sounded the alarm over the threat to the city's unfiltered water supply. But that pressure slackened when the state Department of Environmental Conservation agreed to restrict drilling around the New York City and Syracuse watersheds. (NYC's billionaire mayor Michael Bloomberg was more than happy to have areas outside the watershed fracked in order to supply cheap gas to the city, and even donated money through his philanthropic arm to help promote "responsible" extraction.)

While downstate opposition faded, upstate the movement intensified, propelled by a broad array of citizens intent on preserving their homes, farms, fishing streams—fracking threatened all of it. Grass-roots groups sprang up across the state—some working alongside statewide coalitions like New Yorkers

Against Fracking, others fiercely independent. They were joined by artists with homes upstate like Yoko Ono, Debra Winger, Natalie Merchant and Mark Ruffalo, as well as scientists like Anthony Ingraffea and Robert Howarth of Cornell, whose work on methane emissions challenged the notion of natural gas as a "bridge fuel" to clean energy.²

Several times, Governor Cuomo appeared ready to lift the moratorium, then—met with an onslaught of protest—circled back on the need for more environmental and health "reviews." As he deliberated, residents upstate took the fight into their town halls, running anti-fracking candidates and pushing through bans, moratoria and zoning ordinances to restrict fracking any way they could.

"It was heart-wrenching. I don't know anyone who slept," says Maura Stephens, an independent journalist and educator from Tioga County, NY who helped launch several anti-fracking groups. While most cite the flaming faucet of Josh Fox's documentary "Gasland" as the icon of the "fracktivist" cause, what really turned opinions upstate was the work of people petitioning Albany, organizing public forums with scientists and engineers, and going door-to-door to educate their neighbors—and themselves—about the risks.

Nationally, fracking became the leading edge in the movement to combat climate change—with so much of the U.S. getting fracked, the threat of extreme energy

production was in everyone's backyards. The movement's strength was shown in the September 2014 democratic primary, when Zephyr Teachout, a law professor who campaigned for a ban on fracking, won 30 percent of the vote, carrying most of the counties in central and upstate New York and the Finger Lakes.

I FEEL LIKE AN INSECT

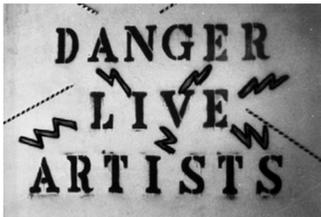
But in the Southern Tier, the bottomed-out economy—coupled with the multi-billion-dollar heft of the gas industry—made fracking seem inevitable, in spite of the risks. Not only was the gas there, but 59 town boards—generally controlled by large landowners—passed resolutions basically inviting the gas industry to frack, using language shopped by pro-drilling groups.

That's not to say that these town votes necessarily reflected popular opinion. (In fact, the New York Attorney General launched an investigation into conflicts of interest.)³ But those votes provided political cover—if Cuomo wanted it. In 2012, his administration floated a plan to allow fracking in five Southern Tier counties

where towns had indicated support.

While opponents decried making the Southern Tier a "sacrifice zone" to the gas industry, proponents said fracking could bring economic "salvation." The wind-falls, they said, would lift the "stranglehold" of taxes and debt that was crushing farmers and businesses in the region, provide tax money to refurbish schools, and cheap gas to lure manufacturers, so people's kids didn't have to leave the region to find jobs.

"The Pennsylvania-New York border is the Berlin Wall," said Karen Moreau, executive director of the New York State Petroleum Council, taunting Governor Cuomo for stalling. "Pennsylvania is West Berlin, and New York is East Berlin. Literally, people can stand



John Fekner

there on the New York side and look just across the political border and see all this prosperity."

In fact, by 2013, there were ample reports in the media of the Pennsylvania frack "boom" going bust due to a glut of gas on the market.

Still, with with Democratic governors in Maryland, Illinois and California moving to open their states to fracking in 2014—and the Obama Administration cheering them on—most assumed Cuomo would follow suit and lift the moratorium to allow at least some limited trial in the Southern Tier.

Instead, at a year-end cabinet meeting on December 17, 2014, Cuomo announced he would prohibit all high volume hydrofracturing—making New York the first state with significant shale reserves to do so.

A BAN ON FRACKING—FOR NOW

It was a game-changing move that stunned advocates and opponents alike.

Cuomo's decision to prohibit high-volume fracking across the state is a remarkable victory for the army of grassroots activists who pushed for a ban—even when mainstream environmental groups said it would never happen. Many are now saying New York has set a benchmark for the rest of the country to follow, and potentially roll back fracking initiatives elsewhere.

"With the gas industry — losing is not in their playbook — and we just beat them," says Ramsay Adams,



executive director of Catskill Mountainkeeper. "So it shows it's not a lost cause."

But New York's frack fight is far from over.

Already, proponents of shale drilling are strategizing how to undo the ban. Property owners counting on gas royalties say they'll sue to recover their "mineral rights." Congressman Tom Reed of Corning, NY—long an ally of the oil and gas industry—introduced legislation aimed at getting the state to compensate owners for their loss in gas revenues. Meanwhile, 15 upstate towns are threatening to secede to Pennsylvania in order to move forward with fracking. (While



Walter Gurbo

the political feasibility of this is nil, it sends a message.)

"People are extremely angry," says Daniel Fitzsimmons, president of the Joint Landowners Coalition, a group of 77,000 upstate property owners that supports gas drilling. "It's a constitutional right both as citizens of the United States and as landowners in New York to sell our minerals," he insists. (After the ban was announced, the JLC posted a photoshopped image of the Governor on its website, depicting Cuomo as a dog taking a crap on the Southern Tier.)

Fitzsimmons dismisses the health and environmental concerns cited by Cuomo's commissioners as the reason for New York's frack ban. "It's all politics," he maintains. "This was all about Andrew setting himself up as the environmental candidate going into the Democratic Convention, in contrast to Hillary [Clinton]," who actively promoted fracking in the U.S. and around the world when she served as Secretary of State.

The politics behind the ban are equally concerning to opponents of fracking, who fear Cuomo's newfound stance as an environmental maverick may just be temporary. It's no accident that Cuomo chose to announce the ban at a time when the shale market is crashing due to plunging energy prices worldwide. (As I write, the price of gas is down to \$2 a gallon).

Given falling gas and oil prices, it's unlikely banks would finance much drilling in New York in the coming years anyway — especially when there's plenty of less-regulated shale plays in Pennsylvania and beyond. Indeed, in some ways it makes sense for Cuomo to leave the gas "banked" in the ground, until prices go up again.

"What we have now is not really a ban, but a moratorium," contends Mike Bernhard, a custom furniture maker from Afton, NY who co-chairs a grassroots group called CDOG (Chenango Delaware Otsego Gas Drilling Opposition Group). "All this says is that the Department of Environmental Conservation will not issue permits for high-volume hydrofracking. It doesn't say anything about low-volume fracking. It's a 'ban' only as long as Cuomo, or his successor, wants it."

Chip Northrup, a former oil and gas investor from Texas who's now a prominent fracking critic, concurs. "The ban is no more solid than the governor of New York," says Northrup, who runs the popular blog, No Fracking Way. "It's a ministerial act of an executive agency. The Republicans already control the [state]

Senate and the House. If we get a Republican governor, it's frack away."

[As this book goes to press, the DEC had yet to publish its final Supplemental Generic Environmental Impact Statement (SGEIS) that will codify the state's position on fracking. So we don't know the scope of the ban on high-volume fracking, or to what degree low-volume fracking—which uses up to 300,000 gallons of water per well—will remain permitted.]*

THE SCIENCE BEHIND THE "BAN"

Interestingly, Cuomo never even used the word "ban."

When he announced his position at that December 17, 2014 cabinet meeting, Cuomo said he let the "science" decide—deflecting all responsibility to the state's health commissioner, Dr. Howard Zucker, and DEC commissioner Joseph Martens, who together concluded that the risks of high-volume fracking outweigh the economic benefits to New York.

Yet the science presented by Dr. Zucker, was far from definitive.

"We don't have the evidence to prove or disprove the health effects," Zucker told reporters at the meeting. Summing up the results of his agency's supposedly exhaustive, two-year review of existing health and environmental studies, Zucker enumerated a list of qualified and often contradictory findings. Although Zucker said he felt it would be "reckless" to allow high-volume hydrofracturing to proceed, he conceded that his department's analysis was still inclusive, largely because comprehensive, "longitudinal" studies of the impact of HVHF on people's health, water, and the environment have yet to be completed.



Albert Crudo

"There are many red flags, questions that remain unanswered," Zucker stated. "Bonafide scientific literature is now emerging. Most studies have been in the last two years. The bottom line is we lack long-term comprehensive studies. They're not yet completed or yet to be initiated. The science isn't there. These concerns gives me reason to pause."

By stating that "the science isn't there," Zucker left the door open to approve fracking should the "science" decide otherwise:



Yoko Ono

Until the science provides sufficient information to determine the level of risk to public health from HVHF to all New Yorkers and whether the risks can be adequately managed, DOH recommends that HVHF should not proceed in New York State.

That word "until" is troubling. An earlier assessment by the Department of Health of fracking's health impacts leaked to the New York Times in January 2013 concluded that fracking could be done safely if closely

regulated. This time, the DOH's survey was far more extensive, yet its conclusions seem tepid compared to the data that is actually out there. There's no mention, for instance, of the fact that according to the Pennsylvania Department of Protection's own records, some 243 private water wells in Pennsylvania have been contaminated or dried up as a result of nearby fracking operations in the past seven years.

Nor, for that matter, did Zucker's report make reference to the scores of cases of contamination, spills, and gas migration caused by conventional oil and gas drilling operations in New York since 1983, which are documented in State records.⁴

And because such evidence is "anecdotal," Zucker's report did not include any of the alarming cases of people being poisoned by frack operations—like Carl Stiles of Bradford County, PA, who contracted intestinal cancer shortly after Chesapeake began drilling on his land. Tests showed his well water was contaminated with strontium, uranium, and radium, and Stiles had barium, arsenic, and VOCs in his blood.⁵

While many hailed Zucker for restoring the "precautionary principle"—erring on the side of caution if the safety of an action can't be proven—with no real smoking guns, the report's findings could have been swung to justify a trial run of fracking if the governor had wanted that.

NOT WORTH THE PLUNDER

A more compelling case for the ban was made by DEC commissioner Martens, who argued that the profits to be made from plundering New York's shale are now far less than originally expected—and hence not worth the cost to mitigate any disasters down the line.

Part of that's just geography. As Martens noted: "New York is a very water-rich state." Upstate rivers, reservoirs and aquifers provide drinking water to more than 17 million people in New York, New Jersey and Pennsylvania. (The Catskill Watershed is the largest supply of unfiltered drinking water in the world.) Other states don't have such high concentrations of people living downstream.

Moreover, New York's shale is relatively shallow and prone to fractures. In order to safeguard against the potential for methane and toxic fluids to migrate into aquifers, the DEC decided to prohibit drilling in areas where the shale was less than 2000 feet below the ground surface (a precaution that Pennsylvania did not take). That took out 41 percent of New York's exploitable shale.

Martens said that when his staff factored in further restrictions around the watersheds, flood plains, and public drinking water sources, as well as state parks and historic districts, they found that at least 63 percent of the Marcellus would have been off limits to drilling if high-volume fracking were allowed.

Included in that estimate were the 180 towns that have thus far enacted bans and moratoria on fracking. It turns out the so-called "Dryden Decision" (upheld by the NY Appellate Court in July 2014), which confirmed the right of towns to pass zoning laws barring fracking under the state's "Home Rule" provision, is more of a deal-breaker than many thought.

And the DEC's estimate didn't even include further restrictions that municipalities could have enacted around schools, homes and other sensitive areas. In Broome County, a supposed "sweet spot" for gas, much of the shale would have been off limits because of thousands of private water wells, says Ron Brink, groundwater specialist for the county, where 16 percent of the population relies on wells.

But what really killed it for the Southern Tier was the declining price for gas, which was hovering at 10-year-lows at the close of 2014. Not only had the Marcellus Shale's potential been vastly overstated—but the cost of extracting gas in New York was now economically prohibitive in many areas.⁶

"I'd say the prospects for HVHF development in New



York are uncertain at best," Martens told reporters. Evidently he and his staff took into consideration the powerpoint presentations being made around the state by Jerry Acton, a former IBM and Lockheed system engineer. Acton modeled gas reserves in New York based on well productions in Pennsylvania. Based on that data, he determined New York's shale gas reserves had been overstated by the industry as much as 30 times. Acton presented his work alongside geologist Brian Brock, who argued that compared to Pennsylvania, most of the shale in New York is "too shallow, thin, and overcooked," to be profitable at today's prices.⁷

While it would be easy to dispute their analysis as biased—Acton and Brock both live upstate and oppose fracking—their work was backed by a May 2014 report commissioned by the New York League of Women Voters, which concluded that unless natural gas prices double, much of the shale gas in the state can't be profitably accessed. According to the League's analysis, which was done by petroleum geologist Arthur Berman and petroleum engineer Lyndon Pittinger, even if prices double, only small regions of the Southern Tier can be profitably tapped.⁸

And those profits would need to be weighed against a potential collapse in property values. Even before any drilling, homeowners who signed gas leases have found they can't get mortgages or insurance because of concerns about the potential risk to their properties. And a growing number of banks won't give loans to new buyers for properties with gas leases, because gas leases stay with the property once it's sold. (A recent study found that levels of cancer-causing radon have spiked in Pennsylvania homes since the fracking boom there began—a factor that can't be good for home prices.)⁹

"If you remove the money from fracking, there's no argument for it," argues Chip Northrup. "At some point I think Cuomo said, why am I taking all this aggravation, if there's no money."



Anton van Dalen

NEW YORK STILL GETTING FRACKED WITH INFRASTRUCTURE

Of course, the easiest way for shale gas to become profitable, is for prices to rise. Although the U.S. Energy Information Association projects natural gas prices will remain well below \$4 MMBtu through 2016 (and hence cheaper than coal), prices are expected to rise steadily

(continued on next page)

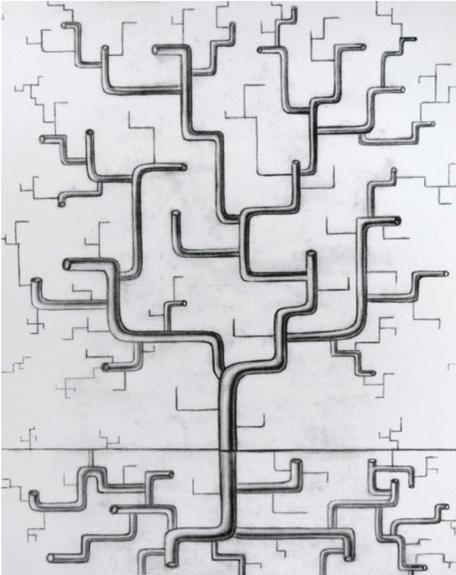
thereafter as more pipelines and export terminals are built to transport the gas to expanding markets in the U.S. and overseas.¹⁰

In New York, there's a massive build-out of pipelines under way to bring shale gas from Pennsylvania and Ohio to New York City, New England, and Canada, where four LNG (liquefied natural gas) ports are in production.

“New York is the throughway,” says Clare Donahue of the grassroots group Sane Energy Project, which created an online, interactive map to track the spread of gas infrastructure across New York State. “Because the price of gas here is so low, they're actually desperate to get this gas out of the country to Europe and Asia,” where the price of gas is two to three times higher, Donahue notes.

While the industry claims the pipelines crossing New York are essential to meet growing domestic demand in New England and New York City, the sheer rate of expansion —and growing capacity for export—suggests otherwise.

In September 2014, the Federal Energy Regulatory Commission approved the conversion of the long dormant Cove Point liquified natural gas (LNG) terminal in southern Maryland, transforming it from an import to an export facility. Environmentalists fear the proposed Port Ambrose terminal in Long Island could be flipped to export as well. Further north, another U.S. firm is seeking



Andrew Castrucci

approval for the first Northeast LNG export terminal in Baileyville, Maine.

This expanding infrastructure had become the new frontline in the battle against fracking New York.

Opposition is mounting against the 124-mile Constitution Pipeline**, which would funnel gas from Pennsylvania across the Southern Tier and northwest Catskills—traversing more than 1000 acres of intact forest along with forested wetlands, streams, farms and waterways. In February, a federal judge gave the pipeline’s builder, Williams Partners LLC, the right to use eminent domain to access the lands of some 120 property owners—about half the owners en route—who have refused to sign leases which they say barely compensate for the loss in property values and environmental harms. Yet in spite of the outcry, federal regulators are now considering an even bigger pipeline—the Northeast Energy Direct, or NED—that would run alongside the Constitution and then up into Massachusetts.

Beyond their ecological footprint, these pipelines would provide a readymade infrastructure for fracking, if it moves forward in New York. (Both the Constitution and the NED traverse the “fairway” of the Marcellus and Utica shale formations—and Cabot Oil, one of the part-

ners in the Constitution, has gas leases along its route.)

And with larger pipelines come more and bigger compressor stations to pressurize the gas and keep it moving—spewing ozone-causing nitrogen oxides, volatile organic compounds (VOCs), methane, formaldehyde, and other toxins into the air.

In the Finger Lakes, more than 200 people have been arrested seeking to block plans to make a series of abandoned salt mines along the western shore of Seneca Lake the “Northeast storage hub” for liquified petroleum gases (LPG) and compressed methane. Residents and local wineries fear the facility (and adjacent brine ponds) could pollute or salinate the lake and subject the public to the dangers of “bomb trains” and trucks carrying these highly flammable gasses.

“When you look at the footprint of pipelines, compressor stations, metering stations and storage, more people in are going to be exposed to harm from all this infrastructure than from fracking itself,” says Donahue. “No one in Westchester was ever going to live near a drill rig, but now they are under threat from a pipeline that could traverse dangerously close to Indian Point.”

SACRIFICE ZONE

In the Southern Tier, the harm is already happening. Paradoxically, although New York prohibited high-volume fracking within its borders, it

continues to import potentially radioactive and carcinogenic fracking waste from Pennsylvania.

Most of that waste is getting dumped in landfills in the Southern Tier. “Environmentally, we’re still the sacrifice zone, except we’re not getting any of the gas revenue to help make up for it. So we’re getting screwed twice,” quips Mary Jo Long of Afton.

From 2010 to 2014, at least 460,000 tons of solid drilling waste and 724,000 gallons of liquid wastes from Pennsylvania frack operations were disposed in New York according to a recent report by the Albany-based group Environmental Advocates. In fact, the amounts could be much higher. EA based its analysis on the data gas drillers self-report to Pennsylvania’s Department of Environmental Protection—since, incredibly, New York’s DEC doesn’t have a system for tracking how much and what types of frack waste come here.

That’s because under New York’s antiquated regulations, waste from oil and gas operations is exempt from being classified as “hazardous” and is instead generally treated as “construction debris.”

The DEC insists New York landfills do not accept fracking fluids and only take in drill cuttings (the rock and mud pulled up during drilling) and dewatered drilling mud—products which it says don’t contain fracking chemicals and only contain small amounts of radiation. In fact, this claim is contradicted by the Pennsylvania DEP reports, which list thousands of barrels of “drilling fluid waste” and “fracking fluid waste” being dumped upstate.

But what’s toxic isn’t just the mix of chemicals and bio-cides that drillers inject into the wells. The Marcellus shale itself is steeped in corrosive salts, heavy metals like arsenic and mercury, along with high levels of naturally occurring radioactive materials (NORMS)—including radium 226, which is water soluble and tends to concentrate in the salty brine that comes up with the drill cuttings. Moreover, under the existing regulations, waste headed to New York landfills only has to be 20 percent solid to meet “levels acceptable for handling and disposal”—a loophole that can allow the more toxic brine and other drilling fluids to get dumped here as

well.

Locals say there’s enough loopholes to drive a truck through. “There’s so much salt in the Pennsylvania wastewater, the water treatment facilities there don’t have the processing capacity to handle it,” charges Mike Bernhard of CDOG. “So now a lot of Pennsylvania’s waste water is being trucked to landfills in New York as solid waste.”

“They’re cutting the forest down to add wood chips to lower the radium concentrations from the drill cuttings,” Bernhard continues. “But that radium still comes out of the landfills as leachate, and that leachate is going to our public wastewater treatment centers, and then goes into the Chemung and Susquehanna Rivers.”

According to the Environmental Advocates report, levels of radium-226 found in the leachate at the Chemung County landfill have been increasing beyond the EPA levels considered safe for drinking water. The leachate is taken to the sewage treatment center in Elmira—which is not equipped to filter out radioactive materials, and which discharges into the Chemung River.

Ingestion of radium-226 can cause lymphoma, bone cancer, and leukemia; it remains in the environment for 1,600 years and can be bioaccumulated in plants, animals and fish over time.

But fracking waste also brings revenue to struggling counties. In January 2015 the Chemung County legislature unanimously approved to a plan to more than double the capacity of its landfill to 417,00 tons. “They built an exit ramp off a four-lane highway for this dump—where else would that make sense except to accommodate the flow of trucks from Pennsylvania,” says Dr. Earl Robinson, a local physician who is among a group of citizens suing to block the expansion. Robinson is concerned about the potential for toxins to leach, noting that the landfill, a former gravel pit, sits above an aquifer and is located several hundred yards from the Chemung River.

GREENING THE EMPIRE

After he announced the ban on HVHF, Cuomo threw a stop to Southern Tier. In addition to asking the state gambling board to reconsider siting a casino there, he unveiled a \$20 million “green jobs” competition intended to attract renewable energy initiatives to the region.

He also created a \$30 million farm preservation fund, which will provide Southern Tier farmers with one-time grants of \$500 per acre if they agree to keep their property as farmland for the next 25 years.

It seemed of little solace to many pro-gas farmers in region, who say the grants aren’t enough to arrest the economic decline in the region, or to compensate for the royalties they hoped to reap from fracking.

Many folks upstate still hold a grudge against downstaters for flooding out their towns and farms to create the reservoirs that provide New York City’s water (a process of displacement that went on from 1912 through the 1960s). As they see it, Cuomo’s ban on fracking is part and parcel of this incursion of “urban elites” forcing their needs on the backs of upstaters.

“They stole our land for water, and now we’re getting our mineral rights stolen, too,” says Barbara Odell, a dairy farmer from Mt. Upton, NY who now serves on the Guilford town board.

Ask Odell about the fracking ban, and she’ll tell you it’s all related to Agenda 21—a plot by the Rockefellers, the Park Foundation, George Soros, the United Nations, and various other government entities to push rural people off their land and take control of their resources. “Cuomo’s taking our gun rights, and now he’s going to take over



Andrew Castrucci

our land rights,” Odell charges. “They don’t want big landowners any more. The want to flush people back to the city and devalue our land, so they can buy us out cheap and then get the gas for themselves later on, if they want it.”

It’s a paranoid view, parroted in various forms on pro-gas blogs with some frequency.

What Odell and other pro-gas landowners wanted from Cuomo was not a handout but independence. Fracking, they believe, holds that promise. No matter that in Pennsylvania, many landowners are finding themselves burdened by higher taxes while their royalties plummet as gas companies find new ways to write down their expenses. Or that in areas where spills and well contamination have occurred, property owners are sitting on land that’s essentially worthless. Or that many of the Pennsylvania farmers who cashed in for gas have now left.

“If natural gas is so bad, they should ban people from using it,” Odell charges. And there’s a truth there, too: As long as we all use the gas, we’re all complicit. More than any lasting victory, Cuomo’s ban on fracking is a window for New Yorkers to work to reshape our economy around sustainable energy. There are promising developments afoot—like the state’s REV plan to decentralize the electrical grid to enable power companies to take in more energy from renewable sources.¹¹ “We can convert dairy farms in the Southern Tier to solar so that they can reduce energy costs and increase profits,” says Adams of Catskill Mountainkeeper, which just won a grant to facilitate bulk-buying of solar equipment. Defeating fracking means rethinking our relationship with power. How this fight plays out will redefine the “Empire State.”



*June 2015 “The Fight for NY’s Soul” was written. After a long awaited 6 year study, DEC (SGEIS) finally admits hydrofracking poisons residential and municipal water sources.

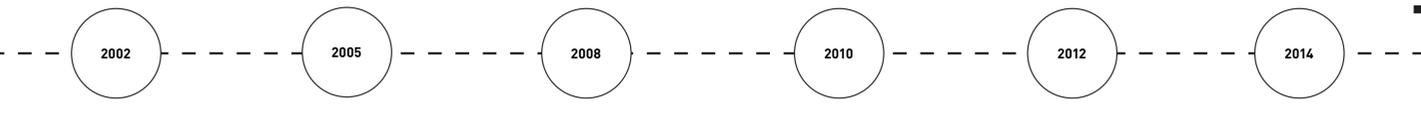
**Nine months after this text was written anti-fracking activists won another victory. With pressure, Governor Cuomo on April 22, 2016 bans the Constitution Pipeline (124 miles of the Southern Tier).



Ben Jura

BETWEEN SAFE AND DANGEROUS WATERS

— TERESA WINCHESTER



2002 -- Range Resources’ land men start signing up people for gas leases in Southwest PA (source: Ron Gulla)

youtube.com/watch?v=twcSkD8E0pl

2005 -- The Energy Policy Act of 2005 is signed into law by President George W. Bush, changing US energy policy by providing tax incentives and loan guarantees for various types of energy production. Proponents considered the act a means of combating growing energy problems.

Detractors contended that the bill inadequately addressed conservation measures and continued subsidizing already well-established oil and gas industries.

This bill exempted fluids used in the fracking process from protections under the Clean Air, Clean Water, and Safe Drinking Water Acts, as well as Comprehensive Environmental Response, Compensation & Liability Act. It allowed gas-drilling companies to conceal chemicals involved in fracking operations, chemicals whose disclosure had been required under federal laws. The proposed Fracturing Responsibility and Awareness of Chemicals (FRAC) Act would repeal these exemptions.

Also in 2005, in New York State the oil and gas lobby persuaded the DEC to substantially amend the state’s Compulsory Integration law, effectively privatizing eminent domain for oil and gas speculators.

2008 -- Range Resources controls more than 900,000 acres in the region. The Marcellus gas rush begins.

Feb 2008 – DEC receives first fracking permit applications for Marcellus [Town of Erin, Chemung Co].

dec.ny.gov/dmndata/Well_Reports/Unit_Spacing_SW_Rpt.html

July 23, 2008 – Acting Gov. Paterson directs DEC to update 1992 GEIS

scribd.com/doc/13030773/2008-NY-Gov-Paterson-Directive-to-revise-SGEIS

scribd.com/doc/13030773/2008-NY-Gov-Paterson-Directive-to-revise-SGEIS-02R

Jan 1, 2009 -- A water well in Dimock, PA explodes due to methane accumulation. Later that year, 15 Dimock families file a lawsuit against nearby driller Cabot Oil and Gas for contamination of water wells. Cabot denies its wells are the source of the methane but provide water to the affected homes until late 2011, before the Environmental Protection Agency took over at some homes.

2008-2009 -- As the State began considering permits for fracked wells, citizens and environmental advocacy groups produced considerable evidence of the risks of fracking. The DEC agreed that a Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program (SGEIS) for horizontal drilling and high-volume hydraulic fracturing was warranted. The DEC’s Division of Mineral Resources is given lead agency status on the SGEIS – a disconcerting arrangement because DMR is known to work closely with the oil and gas industry in NY.

blog.shaleshockmedia.org/2013/01/22/dec-we-lost-all-the-records-when-we-moved/

Public scoping and public hearings were held on the SGEIS. At no time were the DEC’s previous draft regulations from the 1992 GEIS shown to the public.

the-leader.com/opinions/columnists/1711915879/Out-to-left-field

Each iteration of the SGEIS, brought more protections for large voting blocs via political carve-outs, such as the New York City watershed, but few protections for rural upstate New York.

scribd.com/doc/66390117/The-Political-Science-of-the-SGEIS

December 2009 -- NYC Calls for Ban in its upstate Watershed.

Dec 31, 2009 -- The public submits 13,000 comments on the dSGEIS.

July 2010 -- Just weeks before the SGEIS is to be finalized and DEC permits issued, the New York State Senate passes a moratorium on a fracking bill with an overwhelming bipartisan vote of 49 to 9.

March 2010 -- The US Environmental Protection Agency launches a national study into the hazards of fracking, following up on a 2004 study finding the drilling technique did not pose a threat to drinking water.

April 2010 – After visiting Dimock, Pa. and talking with residents there about the negative impacts of fracking on their lives, a town of Butternuts resident calls an ad hoc town meeting to discuss fracking, its impacts, and how citizens could curb its spread. Sixty local residents attended the meeting. They were subsequently kept informed of developments and received action notices through a group email list.

Summer 2010 – The documentary Gasland, written and directed by Josh Fox, begins wide circulation. The film focuses on communities in the United States affected by fracking. It was nominated for an Academy Award for Best Documentary in 2011,

October 2010 -- DEC Commissioner Pete Grannis is fired after his memo complaining to the Budget Division about 209 layoffs of DEC employees, was leaked to the press. In the memo Grannis said these cuts seriously inhibited the DEC’s ability to protect the environment of New York state.

blog.timesunion.com/capitol/archives/33251/dec-commissioner-pete-grannis-fired/

December 2010 -- The New York State Assembly passes the fracking moratorium bill with bipartisan vote of 93 to 43.

green.blogs.nytimes.com/2010/11/20/n-y-assembly-approves-fracking-moratorium/

December 13, 2010 – Governor Paterson vetoes the fracking moratorium bill but signs Executive Order 41 for a one-year moratorium on fracking. The order also opened another round of public comments on the dS-GEIS.

governor.ny.gov/archive/paterson/executeorder/EO41.html

January 1, 2011 -- Andrew Cuomo becomes Governor of New York State and signs the continuation of Executive Order 41.

governor.ny.gov/executeorder/2

February 2011 -- Hundreds of concerned doctors, scientists and environmental groups sent letters to NYS Department of Health Commissioner Dr. Nirav Shah informing him of the potential health impacts of fracking. They also requested the DOH become co-lead agency with DEC on the SGEIS process since it was becoming evident from studies in Pennsylvania and Colorado and reports from elsewhere that public

IN 2008, THE CITIZENS OF NEW YORK STATE BEGAN GRAPPLING WITH WHETHER TO ALLOW THE PRACTICE OF HIGH-VOLUME HYDRAULIC FRACTURING OR FRACKING. THE CONTROVERSY WAS LARGELY FOCUSED ON THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION’S SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT (SGEIS), WRITTEN AS A GUIDELINE FOR FRACKING OPERATIONS. MANY THOUGHT THE SGEIS WOEFULLY INADEQUATE TO PROTECT THE ENVIRONMENT FROM THE IMPACTS OF FRACKING. FROM THE BUTTERNUT VALLEY THIS TIMELINE NOTES SOME OF THE SIGNIFICANT DEVELOPMENTS IN THE PUBLIC DIALOG ON FRACKING.

health was threatened by fracking.

pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list/

April 2011 – Formation of the Friends of Butternuts, a citizens’ group dedicated to banning fracking within town borders and to electing people opposed to fracking to local office.

April 2011 – Cornell Study: Hydrofracking More Damaging Than Coal

Cornell professors publish a study in the journal “Climatic Change” estimating the level of methane released from natural gas operations would make fracking more damaging to the climate than coal.

May 2011 – Cuomo expands scope of DEC review after PA accident:

online.wsj.com/article/AP11680U56766e49f6adc5e3908add1a16.html

July 2011 – Friends of Butternuts presents Butternuts Town Board with a petition signed by 800 town residents and landowners calling for a ban on fracking in the Town of Butternuts

August 2011 -- Town of Dryden passes a zoning ordinance effectively forbidding fracking,

November 2011 – Three candidates in the Town of But-



ternuts, having run for town board on an “anti-fracking” platform, are elected, giving them a 3-2 majority on the board.

Jan 11, 2012 -- 67,000 comments received statewide on the SGEIS

Feb 2012 – The New York State Supreme Court upholds the Town of Dryden’s right to ban fracking within its borders. Another local court later upheld the Town of Middlefield’s ban. Eventually more than 100 towns pass bans and moratoria on hydrofracking across New York State.

September 26, 2012 -- President of Toxics Targeting Walter Hang releases information that documents decades of enforcement problems with the DEC’s Mineral Resources Division including over 5,000 uncapped existing oil and gas wells across NY.

toxics-targeting.com/news/2012-09-27/ny-records-show-history-of-oil-gas-well-problems#f1

toxics-targeting.com/MarcellusShale/letters/2012/09/26/cuomo-dmr-oil-gas-problems

youtube.com/watch?feature=player_embedded&v=J_PJRJDC5A#f

toxics-targeting.com/MarcellusShale/letters/2012/10/01/vote

Dec 9 2011: EPA links chemicals used for fracking fluid to water contamination in Wyoming for the first time.

republika.org/article/feds-link-water-contamination-to-fracking-for-first-time

May 2012 – Town of Butternuts passes a moratorium on drilling operations within the town, on natural gas and petroleum exploration and extraction activities, underground storage of natural gas and disposal of natural gas or petroleum extraction, exploration and production wastes. The nine-month moratorium gave the town the opportunity to seek input from its residents about their vision for the future of the town as it reviewed and revised its comprehensive plan.

thedailystar.com/localnews/133735564/Butternuts-OKs-drilling-moratorium

September 2012 – DEC appoints NYS Department of Health Commissioner Nirav Shah to review the impacts of fracking on human health. Dr. Shah stepped down in June to take an executive position with Kaiser Foundation Health Plan in California.

November 29, 2012 -- The DEC sends out its final draft of the drilling regulations, allowing 30 days of public comment over the holiday season. In violation of the State Administrative Procedures Act (SAPA), no public hearing was scheduled. The regulations offer few protections for land uses, water sources, the general public, the environment or landowners.

scribd.com/doc/118508538/Assembly-DEC-Regulations

sourcewatch.org/index.php?title=NY_Fracking_Regulations

February 21, 2012 -- Tompkins County Supreme Court Judge Phillip Rumsey rules that the Town of Dryden has the right to ban shale gas drilling.

February 24, 2012 -- Acting Supreme Court Justice Donald F. Cerio, Jr. ruled that a previously passed drilling ban in the Town of Middlefield is legal.

January 11, 2013 -- The DEC receives over 204,000 comments on the dSGEIS, almost entirely opposed to Cuomo’s proposals.

May 2013 -- State Appellate Division upholds lower court decisions finding nothing in the state’s Oil, Gas and Solution Mining Law that removed the supremacy of localities to institute bans such as those voted into force by the town of Dryden and Middlefield.

August 2013 -- The state’s top court set to review appeals in two lawsuits fighting the ability of local governments to ban hydrofracking within their borders. The suits pit the Cooperstown Holstein Corp. against the Town of Middlefield and Norse Energy Corp. against the Town of Dryden.

December 2013 – Town of Butternuts passes a law banning fracking.

thedailystar.com/localnews/12227594/More-area-towns-pass-fracking-bans

June 2014 -- New York State Court of Appeals upholds drilling bans in Dryden and Middlefield

December 2014 – NYS Commissioner of Health concludes that the potential adverse impacts of fracking appear significant enough to recommend that fracking should not be allowed. Gov. Cuomo announces that fracking moratorium will remain in place.

June 2015 -- Finally after a long awaited 6 year study, DEC (SGEIS) officially states hydrofracking poisons residential and municipal water sources.

FRACTURED STATE

AKIRA OHISO

Acclaimed ecologist, author and cancer survivor, Sandra Steingraber, is a recognized expert on the environmental links to human health. She has written books, poetry and countless articles for scientific and environmental journals. In 2010, filmmaker Chanda Chevannes completed the documentary *Living Downstream* which is based on Steingraber's 2009 book. The film follows Steingraber as she lectures on the environmental links to cancer.

The titled was inspired by a parable. A kind village by a stream notices dead bodies floating downstream. The villagers develop ever more elaborate technologies to resuscitate the dead, but never think to walk upstream to find out who's throwing the people in the stream.

"That's the metaphor for how we deal with cancer," says Chevannes. "We spend so many resources on treatments and a cure which is very important, but we should be spending more time finding out why we're getting cancer and working to prevent that from happening. It's also an environmental metaphor because chemicals don't stay where they are released, they travel through the water, they travel through the air and they travel through the earth, so in many ways we all live downstream."

In her most recent book, *Raising Elijah: Protecting Our Children In An Age Of Environmental Crisis*, Steingraber investigates the toxic everyday world her children inhabit from a pressure-treated playground to unearthed toxic linoleum during a home renovation. Inspired by 18th century abolitionist, Elijah Lovejoy, who had the courage to oppose America's economically-dependent slave industry, Steingraber sees a striking similarity to the United States dependence on fossil fuels. She wants us all to become "carcinogen abolitionists." The last chapter of the book is devoted to high-volume horizontal hydraulic fracturing or *fracking*. Steingraber, who lives near Ithaca, New York, has been outspoken about fracking, an industry that is brazenly building infrastructure in the state as a fait accompli.

Hydraulic fracturing is a drilling method that injects millions of gallons of chemically-laced water deep underground breaking up shale formations to release pockets of natural gas. Fracking creates unpredictable cracks than can contaminate underground water sources. There are also concerns about the mortality of cement well casings. "We know that 7% of well casings leak immediately, therefore the conduits between our drinking water and shale are open," says Steingraber.

Once gas is extracted, flowback or waste water rises to the surface. Flowback contains corrosive salts, carcinogens like benzene, undisclosed industry chemicals and naturally occurring radioactive materials (NORM) like radium, which has a half-life of fifteen-hundred years. Flowback cannot return to the hydrologic cycle, and must be enclosed safely from water sources.

"Parts of the Marcellus Shale are highly radioactive which takes the form of radon, the leading cause of non-smokers lung cancer," says Steingraber. "Radon appears to be mixed in with the gas itself, which means it's not only a menace to those living in the gas fields, but to Manhattanites living in small apartments that may not have good ventilation over their gas stoves." Spectra Energy is in the process of constructing a 16-mile pipeline under the Hudson River with the plan of delivering "800 million cubic feet per day" of natural gas to New York City and New Jersey according to their website.

Steingraber cofounded New Yorkers Against Fracking, a coalition of organizations asking Governor Cuomo to ban fracking in the state. Governor Cuomo who seemed gung-ho about the prospects of fracking in New York State as panacea for the states economic woes, has felt unrelenting pressure from the anti-fracking movement, leading environmentalists and Hollywood. Matt Damon's upcoming movie *Promised Land* will bring an anti-fracking message to the masses, the highly-anticipated *Gasland 2* is expected by year's end and Yoko Ono cofounded Artists Against Fracking with son, Sean Ono Lennon.

Dear Governor Cuomo..., directed by Jon Bowermaster, premiered at the Woodstock Film Festival on October 12th. The 75-minute documentary is based on an open letter by actor activist Mark Ruffalo to Governor Cuomo asking to uphold the moratorium. "He's on a tightrope and I feel for him," says

12

largely based on farming and tourism," adds Wiener.

Gas companies spend millions on ad campaigns touting natural gas as cleaner than coal. "Natural gas does burn cleaner than coal, but the extraction unleashes methane into the

air which ends up being far worse than burning coal," says Bowermaster. "In addition, cooling and converting shale gas to a liquid so it can be shipped is energy intensive, only worsening the effects of climate change," says Wiener.

There are mounting reports and studies of contaminated water in towns like Dimock, PA, which became a flashpoint in the fracking debate when a dozen families sued Cabot Oil & Gas Corp. In the seminal film, *Gasland*, Josh Fox documents methane-laced tap water people ignite from their kitchen sinks. "The violations in Pennsylvania are in the thousands," says Steingraber. The gas industry's press-release denial, prove-it mentality and flippant disregard for public health is an indication that something is deeply wrong. If there is nothing to hide, why not let science do its work?

Without sufficient scientific evidence, "precautions" is the watchword. Steingraber adds: "Any time you are rolling out a potentially hazardous activity, especially one that is carcinogen-dependent, accident-prone and will drastically industrialize our rural areas, you have to ask if the consequences of this decision are reversible or not. If they're not reversible, we are compelling future generations to take risks they have not consented to."

On August 27th, 2012, Steingraber delivered an inspirational speech at the Don't Frack New York Rally in Albany in anticipation of a Cuomo decision to lift the moratorium. "I choose to belong to a vision of an unfractured New York that turns its back on 19th century thinking and death-dealing fossil fuels and leads the world in the creation of a clean energy economy."

She crafted an anti-fracking pledge asking people to resist fracking with non-violent protests. Over 6,000 people have signed the pledge to-date. "The pledge is a solid commitment to engage in acts of non-violent and peaceful demonstrations and for some that will include civil disobedience," says Steingraber. "The signatures are a powerful tool to show the depth and breadth of the opposition to fracking in New York."

Two weeks later, on September 9th, Steingraber was asked to bear witness to an act of civil disobedience in the Finger Lakes



region where seventeen protesters blockaded the entrance to Inergy Midstream's Seneca Lake Compressor Station. Inergy is in the process of converting depleted salt mines into storage containers for liquefied petroleum and natural gas. Reverend Gary Judson, a 72-year old retired minister from the area, was called to action by his conscience when he learned two brine pit spills were reported to the DEC and were being investigated.

Governor Cuomo must know the risks or else he is highly misinformed by his advisors. Scientific due diligence and transparency are essential, yet, until he felt pressure from the anti-fracking movement, he seemed lured by the deep pockets of the natural gas industry. "He's a modern day politician, which means he needs a lot of money to run campaigns," says Bowermaster. "If he wants to run for president he doesn't want to aggravate the gas and oil industry, because he is going to want to go to them for campaign funding."

The governor has his sights on the 2016 Presidency, but he has a state election in 2014, which would be an essential stepping stone to the White House. "If he lifts the moratorium, he risks aggravating the democratic voter in the state," says Bowermaster.

Governor Cuomo could be a hero by banning fracking and moving the state decisively towards renewable energy. "We believe there are ways to build our southern tier economy without treating the bedrock like a piñata to be broken open in desperate times only to create long-term despair, ruin and economic calamity," says Steingraber. The fate of New York State is in the governor's hands and either choice will be his legacy.

In a fractured New York, gas extraction would be dense with 35,000 to 90,000 frack wells planned. "The U.S. is on a fast track to becoming an energy extraction colony," says Wiener. "Exporting gas will increase fracking across the country, resulting in increased land disturbance, decreased property values, water and air contamination, forest fragmentation, property seizure, and damage to ecologically sensitive coastal areas."

Bulgaria, France, Ireland and Germany have banned fracking. Yet, Barack Obama's website reads, "He is promoting the safe, responsible development of our near 100-year supply of natural gas, which could support more than 600,000 new jobs by the end of the decade."

New York State is at a crossroads. It may be the single most important issue of our time because there is so much at stake. Our children and our future are in the hands of politicians and the fossil fuel industries. To truly become energy independent there must be a paradigm shift where renewables, not frack wells, are in every yard and on every rooftop.

"Fractured State" was written in the winter of 2012. By August 2012 the anti-fracking movement peaks leading to Governor Cuomo to eventually ban fracking on December 17th 2014.

DOING WHAT COMES NATURAL: GAS BEYOND REASONABLE DOUBT

TOM MCGLYNN

The oil and gas exploration business has been around for some time. The following is a (very) brief history of that business and a plea for its planned obsolescence.

While it was first commercially tapped there in 1859, oil had seeped into the waters around Titusville, Pennsylvania where for centuries it was used by Native Americans primarily for ceremonial and medicinal purposes. One of Titusville's most eminent citizens was Franklin S. Tarbell who benefited from the oil drilling by servicing the young industry with barrels to ship its product. When his daughter Ida Tarbell wrote her "muckraking" expose' of "The History of the Standard Oil Company" in 1904, the oil and gas industry had been dominated for a while by the unregulated business practices of Standard Oil. In 1911 the US Supreme Court upheld a lower court judgment and declared Standard Oil to be an "unreasonable monopoly" under the Sherman Antitrust Act.

Before the breakup of Standard Oil, the company was actually lauded as a model of efficiency in how it recuperated petroleum by-products that many other competing firms simply dumped into landfill and streams. This positive public face (put forth as a model of the ethics of efficiency) of the largest oil and gas concerns continues to this day, the spin trending that the larger the company, the more comprehensive its scale of efficiencies. BP and ExxonMobil, both companies directly linked in their genesis to Standard Oil, currently promulgate this type of ethics in clean (green) energy advertisements. Both of these companies are also responsible for two of the most domestic environmental disasters in history. In the Gulf of Mexico well explosion of 2010 and the Exxon Valdez tanker spill in Prince William Sound Alaska in 1989.

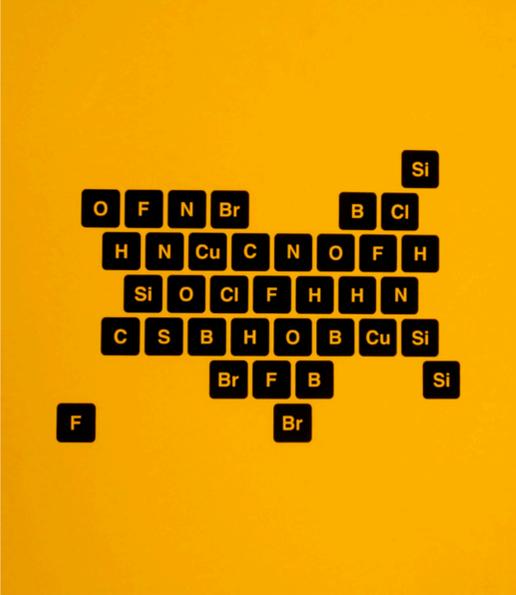
Natural gas, like oil, had been known to exist for centuries also. It too was initially given to possess a somewhat magical aura. It is believed that the ancient temple of Delphi, at Mt. Parnassus Greece, was built upon a natural gas spring, which fed a flame that was said to evoke the visions of its famous oracle priestess.

William Hart, in Fredonia, New York, dug the first natural gas well in the United States in 1821. The Fredonia Gas Light Company was the first company of its kind in America. Most natural gas in the nineteenth century, however, was still produced from coal, as a pipeline delivery system for natural gas was all but nonexistent. The natural gas infrastructure in the US known today is primarily the result of a post-World War II boom in building of gas pipelines and related hardware. Prior to this post-war expansion, Congress instituted The Natural Gas Act of 1938 in order to prevent abuses of what was then legally termed a "natural monopoly". By the 1980's and 90's regulation of gas and oil companies had been slackened. At present, as reserves of domestic oil have dwindled, the turn to natural gas exploration has been accelerated. With the institution of hydraulic fracturing techniques the possibility of tapping shale- entrapped deposits of natural gas has spawned a new industrial/legislative push to exploit any remaining reserves. Considered a source of "clean" (as opposed to the carbon emissions of coal and oil) domestic energy, this new "gas rush" neatly marries energy efficiency with a political expediency the likes of which one wouldn't mind witnessing in many other legislative arenas.

What is significant now is that the regulatory mandate of state and federal legislature to fairly benefit the common good has been supplanted by the tactics of supporting a bottom line economy. Survival and panic ethics have taken the place of the reasoned deliberation in a democratic debate. Today it is not necessarily an individual company which would monopolize an industry but an entire industry that would co-op the democratic process by a combination of sophisticated advertising campaigns aimed at green doublethink marketing and legislative lobbying to secure legal carte-blanche from local and national governing bodies. Concerning private property, this gas rush comes at a time (one of the worst economic slumps in world history) when many rural landowners and farmers are often more than reluctantly resigned to either lease or sell their land for oil and gas exploration and extraction. A huge swath of this (and other) countries' arable land and clean water aquifers are now being threatened to be overtaken and destroyed—for decades, if not centuries, by hydraulic fracturing practices.

The burden of proving the devastating effects of "fracking" is on those who would preserve clean ground water at the reasonable risk of having to come up with alternative energy sources. Renewable energy like wind and solar also have their battles to win over public support but these seem more of a fair fight than the railroading of access to private and public lands that the oil and gas exploration industry currently deploys. In his book "Spaceship Earth" Buckminster Fuller made the very sane point that fossil fuel reserves should function as a tool in a staging of energy development to lead us to the next elaboration in technological advance. Oil and gas technology originates in the middle of the nineteenth century and has had a very long time to help build the type of machines that would make its own need obsolete. The reason why this hasn't happened is that the idea of a "natural monopoly" (in the language of the Natural Gas Act of 1938) is the kind of abstract reasoning which seems to sit well with not just the companies exploiting the resources for profit but also consumers of fossil fuels. In some strange perversion of natural law, the majority assumes an inevitable birthright to "found energy". What's left after this common assumption is to fight over the territorial rights to make a living from it. While it's only natural to want to make a living, perhaps the assumption of the "unalienable rights" to do so should have already evolved from collectively fouling the nest.

There is so much quick money to be made in the initial stages of the hydraulic fracturing for natural gas because there hasn't been a suitably long time frame established in which to measure its environmental effects. The accelerated rush to drill is strategic and that is why there is such a concerted effort at positive public relations and a concurrent tactical lobbying push with national, state, and local legislators. There is however plenty of statistical evidence to currently conclude that the long (and short) term structural stability of even abandoned gas exploration wells, poses a systemic threat to ground water contamination. Despite the industry's discounting of flammable faucets (shown in the 2010 documentary, *Gasland*) as caused by naturally occurring circumstances (methane gas pockets) there is much more contrary proof



Igor Langsteyn

ONE OF WORST ECONOMIC SLUMPS IN WORLD HISTORY

now recognized that the overall effects of the "natural monopoly" being established by the industries backing hydraulic fracturing will be irrevocably harmful for decades into the future.

Rationalizing the exploitation of what comes naturally often requires a counterintuitive leap, but should we be so alienated from our primary intuition as to assume that imploding an extensive geological substrate, injecting toxic chemicals, and then hoping to retrieve only a percentage of those chemicals is a good thing? Is this an unreasonable doubt? A primitive alchemy is being performed on our contemporary consciousness. It would return us back to the magical thinking of ancient cultures regarding oil and gas emanations from the earth, except that nowadays it doesn't take an oracle to determine the disastrous ecological fate of whole regions by reading the signs in a flame.

"Stay away from anything that obscures the place it is in. There are no unsacred places; there are only sacred places and desecrated places."

-Wendell Berry, from How to Be a Poet

TRUTHS THE GAS COMPANY WILL NEVER TELL YOU OR YOUR ELECTED OFFICIALS

1 When the gas companies get the go ahead to begin drilling on a large scale in NYS, they will be injecting 20,000-90,000 gallons of "toxics" into each gas well when they use fracking or horizontal drilling method and they don't even have to inform you of that. They claim it's only 1% of the total fracking fluid, but 20-90,000 gallons is a lot of toxic waste! The kinds of chemicals used in this method are: Toluene, Benzene, Naphthalene, Oil, 2-BE, Methane, Diesel fuel, and more than 200 other chemicals that are known carcinogenic and mutagenic that cause cancers, reproductive disorders, impair cognitive function and harm children, pets, farm animals and wildlife.

2 It's not if they will poison you or your neighbor's water supply, but when. The fracking process uses between two and nine million gallons of fresh, potable water that is injected deep underground to crack or fracture the rock to release the methane gas, of which half is left behind to travel through cracks in the bedrock over large distances. This slurry gets into other people's water supplies and makes it unfit for drinking. The average family uses about 400 gallons of fresh water a day, this means if your water supply gets contaminated by this toxic sludge, you will have to have fresh water brought in. Good luck when all the available water is contaminated. Oh and you can forget about selling your house now. No one will want to buy it if the water supply is not fit for drinking.

3 You never signed the lease and still your house exploded. The explosion is a result of methane gas that was trapped in the fracking fluid that traveled far from the drilling site and found its way into the water well of your home and settled in the basement. The house simply blew up one day. This happened recently in Cleveland, Ohio and in Dimrock, PA.

4 They will poison your livestock and claim it wasn't from anything they did. On May 7, 2009 in Louisiana, 17 Beef cattle died horrible deaths from drinking contaminated water that was next to a well drilling site. Their insides melted and the only thing the farmer could do was to watch them all die in the hot sun, bellowing in agony. The local landfill wouldn't accept the carcasses because they were considered "Toxic Waste." He couldn't send them to the slaughterhouse either for the same reason and was forced to bury them on his property, further contaminating the soil. The gas company, Chesapeake Energy is "looking into the matter" and won't accept responsibility to date. Is the gas company going to reimburse you for your loss if your livestock die from drinking contaminated water or eating contaminated grass?

5 Don't count on the DEC (Department of Environmental Corruption) to help you out for they let the gas industry people craft the rules and legislation allowing these same companies to trample over your rights all in the name of "Energy Independence." The scary thing is, that none of those officials at the DEC looked at what was happening in other states. They took the word of industry at face value and when confronted with the facts, stumbled. It's a big land grab on the part of industry with the state going along because they can get much-needed monies to offset the huge budget deficit. No one is looking out for your interests here! Face it, you have no rights to what happens to your property once you sign a lease. The gas companies can even force you into signing a lease against your will. It's called Compulsory Integration and the DEC is for this version of Eminent Domain by the corporations! The gas companies prey on poor, rural folks with grandiose promises of vast riches but leave economic devastation and lies in their wake (Ohio, PA, Louisiana, Texas, Colorado, Wyoming, Kansas, etc. have all heard the same lies and look what's happened to them) Don't let that happen to you! Don't let them turn upstate NY into another Love Cana! The DEC has plans for the gas companies to drill anywhere from 18,000 to 24,000

C-CARE

RESPONSE: CHENANGO COUNTY AND TOWN OF GUILFORD — FRACKING THREAT

Ken Fogarty

Chenango Community Action for Renewable Energy, known as C-CARE, a community education project was founded early in 2007. One of its early efforts was to alert Chenango County residents to the harmful impacts on the social environment that a proposed large transmission line targeted for the Chenango River Valley would bring to our area. In this successful community outreach, C-CARE worked alongside the STOP-NYRI organization; we marched with them in a number of local parades; we helped organize and participated in several well-attended community workshops. The firm community resistance was successful; the proposed NYRI project was withdrawn.

Early in 2008 several C-CARE members attended a newly formed Chenango County taxpayer funded group, the ad-hoc Natural Gas Advisory Committee (NGAC). They were surprised to learn that this official county committee arranged to hire, without publicly advertising the position, an advisor to be paid an annual salary of forty-five thousand dollars. The person hired had no known special skills nor background in this area and had already leased his property to the gas industry. One of the new hire's first actions was to invite two neighboring counties, Madison and Delaware to join with Chenango and form a Tri-county Advisory Gas Committee (TCAGC). And he selected himself as the coordinator of this broader TCGAC group.

Several C-CARE members attended the second meeting of TCGAC and observed that more than half the persons in attendance were representatives of gas industry affiliated companies. During discussion of the agenda item regarding the need for a road protection agreement/law, the newly hired gas advisor/coordinator of the meeting, Steve Palmatier, said to the gas industry representatives present, "There is no need to re-invent the wheel. Don't you guys have some model law already written up that we could use?" Even more shocking, during the Q&A near the end of the meeting, was to hear Palmatier's dismissive response to a C-CARE member who dared to ask, "How does this new kind of gas drilling impact on our air and water." Palmatier bellowed "That is out of order! We are here to discuss economics. Not other issues." These comments caused the initiation of an ever deepening involvement by C-CARE in the fracking issue.

The first forum November 2010, Facts About Gas Drilling, featured SUNY Oneonta chemist, Dr. Ron Bishop, and retired Mobil Oil Executive VP, Lou Allstadt. It was followed in December 2010 by Professor Tony Ingraffea. And then attorneys Mary Jo Long and Helen Slotje in January 2011. Then a long list including economist Dr. J. Barth, attorney Joe Heath, attorney Nicole Dillingham, community activists Kelly Branigan, Vera Scroggins, Ellen Harrison, oil industry investor Chip Northrup, and many others. C-CARE also sponsored a special event in the Norwich Library featuring guest speaker Mayor of Dish, Texas, Calvin Tillman.

C-CARE decided that the Norwich county seat had been saturated and that it was then timely to reach out to individual towns. The towns of New Berlin, Oxford and Guilford organized forums and workshops. Friends of Sustainable Guilford (FOSG), a town spinoff of C-CARE was formed in 2011. FOSG mailed a petition to every town household asking the town to support a ban or moratorium on fracking. More than 25% of households paid their own return postage and responded favorably.

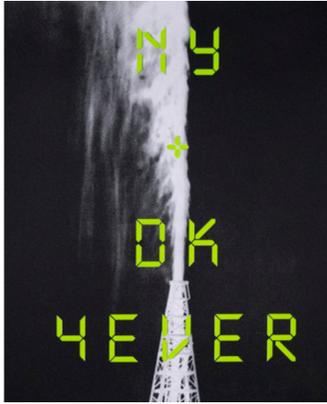
FOSG sponsored several Guilford forums, speakers included attorney Helen Slotje, Mount Upton, September, 2012, and community organizer Kelly Brannigan, spring, 2012. FOSG arranged for attorney David Slotje to speak to the Guilford Town Board in June 2012; he titled his talk, "Legal Rights of Local Governments: Home Rule vs. DEC Regulatory System". As thanks for their dedication and community service, FOSG sponsored a successful fundraiser for Helen and Dave at the Old Mill Restaurant, a local landmark. One hundred twenty people attended.

Dear Neighbor

We need to proactively protect both Town and residents' property and assets from harmful impacts of gas hydro-fracking if it is allowed in Guilford.

These concerns mirror many of those expressed in the recent Guilford town survey for the Comprehensive Plan. Highly valuing our Town's quiet rural character and four-seasonal beauty of its landscapes, we find in the survey that more than 90% of respondents rank as important the preservation of clean air, good drinking water, agricultural lands, forests, lakes, streams, and wetlands. Indeed we find that 4 of every 5 persons want either a Town ban on hydrofracking, or a moratorium allowing time for safety concerns to be resolved, or strong local town-level protections put in place. Also, we find there is strong support for renewable energy sources, including more than 90% who strongly favor solar energy development in Guilford.

In its July 2012 meeting the Town board approved by a 3 to 2 vote a resolution, written by an outside organization, that calls for the Town to rely solely on the DEC, and to not put any local protections in place regarding gas hydrofracking.



Fekner/Castrucci

This is why the gas industry is so adamant about letting the DEC handle it alone. In fact, the Home Rule Amendment to the New York State constitution, Article IX section 2.c-10, obligates the town board to protect "safety, health and well-being of persons or property therein (the Town)".

In response to the Town Board's continued silence, despite repeated requests to have open discussion on these pressing concerns, I decided to run for the position of town councilman. I strongly believe that it is unwise, even foolish, to entrust the preservation of the quality of life we enjoy here in Guilford to far away bureaucrats. Guilford is special to us-not them.

Dirty Elections

Twice as many voters participated in the Guilford Town election 2012 than had in earlier years. A pro-gas candidate, Barbara Odell, supported by the very active local Tea Party organization ran a particularly dirty campaign. I was accused of being a Communist, labor union lover from downstate, accused of not standing for the Pledge of Allegiance, or of not taking his hat off during the Pledge (rather strange since I don't wear a hat), and characterized as being senile. I lost by thirty votes. When asked whether I would run again in 2014, the defeated candidate responded "If I say yes, it might prove that they were right on the senile issue." The Town of Guilford is almost finished with a three year effort to create its first Comprehensive Plan. FOSG is in full support of this project. And the Town of Guilford has sponsored an Economic Development Committee in response to an issue raised by the FOSG candidate.

ATTN: CUOMO



Dear Governor Cuomo,

This is July 4th, an important day for all of us to think of our beautiful country and be proud of it. Strange, I did not think that I would end up writing this letter to you today, but that's how it's working out.

I want to ask you a question. How Green Is Our Valley? I've been in this country since 1935, and for the most part loved every minute of it. When the youth of today talk about this country as if it was theirs, I have an urge to say – listen, kiddo, it's not yours yet! It belongs to people like me and my generation who fought hard to make this a beautiful and healthy country. What did we do? We went through a lot...The San Francisco earthquake, the second World War, the detention of Japanese Americans, Korea, Vietnam, Black Tuesday, the list goes on. Through thick and thin, we never lost the love we have for this beautiful, beautiful country. Why? Because of the American idealism: justice for all! There's not another country in the world that was built on such idealism.

Right now, some people are trying to make easy money, and meanwhile ruin this country's future, by a thing called 'fracking.' It is clear to everybody in this city, and certainly most everyone in the state, that by doing this our beautiful natural green valleys of New York will be devastated and ruined forever. Nothing is worth doing that.

It will immediately make the pure water we have now in this state become dirty and poisonous. Many adults and many children will get cancer. The ones who have means will get out of the State. There could even be a string of class actions suits against the State of New York and its agencies. New Yorkers will only be too glad to join in the demand for reparations. The heavy legal cases will go on until the next century and more.

There is another scenario available to us. We, under the wise decision by you, our Governor, can get together to protect the State and even the whole country from being ruined. Like what the governor of Vermont, our next door State has done: leading America into a sustainable future based on renewable energy.

Our Governor, and possibly the future President of the United States, we are counting on you. You will only have to say "no more fracking in our State." That's all. It's as simple as that. We will then make this State and the city connected to it, into a model of sustainability, with technologies and policies to produce clean energy and live in an enlightened land. Many wealthy people who are now thinking to flee from the potential disaster, will come back to join our model of a future for the world to visit and perhaps emulate.

We need your wisdom and leadership to make this happen. Please say YES to life, and NO to Fracking. Thank you.

A proud resident of New York State,

Yoko Ono Lennon
New York City
4th July 2012



Albany, NY 8.27.12

This land is your land, this land is my land
From California, to the New York island
From the redwood forest, to the gulf stream waters
This land was made for you and me

As I was walking a ribbon of highway
I saw above me an endless skyway
I saw below me a golden valley
This land was made for you and me

I've roamed and rambled and I've followed my footsteps
To the sparkling sands of her diamond deserts
And all around me a voice was sounding
This land was made for you and me

When the sun came shining and I was strolling
And the wheat fields waving and the dust clouds rolling
As the fog was lifting a voice came chanting
This land was made for you and me

As I went walking I saw a sign there
And on the sign it said "No Trespassin"
But on the other side it didn't say nothin!
Now that side was made for you and me.

In the squares of the city, in the shadow of the steeple
Near the relief office I see my people
And some are grumblin' and some are wonderin'
If this land's still made for you and me?

Nobody living can ever stop me,
As I go walking that freedom highway
Nobody living can ever make me turn back
This land was made for you and me.!

Nicholas Tonelli, Susquehanna River Basin²



CULTURE FARMING

CARLO MCCORMICK

“THIS COUNTRY MAY HAVE BEEN FORMED BY A VERY RECKLESS AND DISTRACTED GIANT WHO, OBSERVING THE TRACT OF TIPPED-UP AND IMPOSSIBLE GROUND, STOOD OFF AND CARELESSLY PELTED TREES AND BOULDERS AT IT. NOT ADMIRING THE RESULTS OF HIS LABORS HE SET OFF SEVERAL EARTHQUAKES AND TRIED TO WRECK IT. HE SUCCEEDED BEYOND HIS UTMOST EXPECTATIONS, UNDOUBTEDLY.”

STEPHEN CRANE, “HUNTING WILD HOGS”

well. It has a sense of benign neglect filled with the somewhat haunting shadows of its former glories and the paths of unfulfilled opportunity. Everywhere there is something terribly wasted, a provocation that at once reminds us of the futility of human endeavor, the fecund power of nature to reclaim the voids of our abandonment, and the amazing potential that’s still there dormant, awaiting our ingenuity and enterprise if we can only suspend out better judgment. The land itself is an impossible folly, but to give one’s self fully to that land proffers the kind of folly from which real wisdom can be gleaned. Rural enough to conjure the reverie and persistent impulse for self-exile of back-to-nature living that is so much a reactive condition of our modern world, inhospitable in myriad ways that can amply test one’s spirit and soul, and scarred all over by foully adulterating industries, the decaying relics of down on their heel cities and a suburban blight that sprawls like the cancer of consumerism and our penchant for disposability such that you cannot help but develop a healthy disregard for the malignancy of humankind, this other world up there provides the full diet of fantasy and fact that is fundamental to the creative soul.

Being very much a city person, more specifically a Manhattanite where one resides and abides its infinite indignities for the sublime payoff of its cultural capital, I’ve long thought that artists were pioneers. We always have occupied the neglected margins, from the coldwater flats of the West Village to the flat iron district manufacturing lofts of Soho, through the dilapidated tenements of the East Village, the Lower East Side and then Williamsburg, on to the even more ignoble no-man’s lands of Bushwick and beyond. In the way that creative communities colonize the abandoned and abnegated, making hearth and home of perilous and far from pristine environs, they like the many artists who continue to flock to the mountains north of New York are kind of pioneers. But transplanted to the Catskills the term seems somehow inadequate and deceptive. In the city this notion of pioneering worked primarily in oft-unwitting concert with the larger forces of gentrification, the avant-garde returning to its etymological roots as a kind of advance guard to supplant squalor with youth thereby inviting a more affluent demographic, but no matter who moves up to these parts and whatever fame and fortune they carry with them could be said to truly change the place. Nor would this seem a proper model for the geographical isolation and psychologically isolating topography of the mountains—too far to commute and without even the convenience of a rail line—where artists are drawn there far more for the creative advantages of solitude and space than the social energies of urban compression.

We do have actual pioneers up there, friends who are clearing the land, building their own homes, home-schooling their kids and even living the hardscrabble existence of farming a land that is best suited to growing rocks. Pioneers build, artists occupy, just as industry manufactures while artists recycle. All the farmer folk we know are great people, the best of neighbors for whom we can turn for all manner of produce from free-range chickens, eggs and raw milk to pigs, ducks, geese and a short seasonal surfeit of garden greens, but by and large they are not artists, and the few who were don’t have much time or money for the indulgence of making art. This is not to say they lack creativity. In fact, the way they manage so much in such circumstances is the purest form of art we can imagine, at once ancient craft and totally punk in its DIY ethos. They are truly inspiring, as integral and natural to the wide range of wildlife (deer, turkey, fox, mountain cat, bear, snapping turtle, mink, heron and hawks all cross our property) as they are all the more precious and wonderful for their rarity in this age. But this is a shared appreciation, for what abounds in the Catskills

are freaks, casualties of the modern world, visionary artists not so willing to play the art market game of the city fulltime, religious cultists and eccentric spiritualists, inveterate loners, bikers, hikers and other sorts of activity seekers who seem to get some surrogate high in the great outdoors, and weekend soul-searchers who come to redress the primal imbalance of contemporary life as if Plato himself told them to.

This diversity constitutes a commonality, a community based on autonomy where oddity is cherished and collectively defiant against the forces of conformity that are misshaping this nation. As plentiful as the artists and free thinkers may be in this ulterior zone some two to three hour drive from New York City, they remain a happy minority, glad to be at some crucial critical distance from the rest of their like-minded clan, and though always happy to run into one another at a farmer’s market, thrifting or whatever modest entertainments being nowhere provides, they remain otherwise un-tethered to the typical institutional bonds of society like schools, athletic leagues, churches, bar scenes or chicken fries at the local fire house. There is of course a whole world of that up there, and the studious ignorance and avoidance of that entire spirit of normalcy is not simply the result of difference— an expression of not belonging lodged in an anomalous affiliation to otherness— it is a tacit rejection of the bankrupt, soul-



Andrew Lee

less ideology of this particular nation state called America. That’s not just the America of greedy callous corporations that would do anything for capital gain, but a populace so poorly informed and misguided by its afflictive desires that it acquiesces to the worst exploitations in false promise for the same greedy illusion of a payoff that is not coming save in the form of another brutal fucking over.

A most beautiful part of the Catskills’ magic is how it grows such splendid specie of enlightenment in the shadows of unrelenting ignorance. Those who choose to come there do so with an inherent appreciation of everything that’s so very wrong about the place. I don’t think any of them want to change it, except in that vague way we all would like to change the world, and a great part of the appeal is the area’s general resistance to change. There are inevitable divisions in all of this, some as much to do with the unfair distinctions of class and education that separate people as to do with the disputes of politics. Those of the mountains practice their own form of tolerance however, or at least they navigate their disagreements with the same fortitude as they do the winding roads. The artistic community living up there views the sprawl of Hassidic summer camps (tax-free in status and xenophobic in culture), the eye sore of white trash trailer parks and collapsing structures of failed condo schemes, and the desperate poverty of the many small cities that have fallen victim to white flight and fiscal abandonment with what I imagine to be the same suspended judgment as our alien ways must strike them. We are all part of the same mismatched but desperately perilous eco-system. Nothing can truly offend where the grotesque is so finely woven into the picturesque.

The false promise of Fracking more than just endangers that balance by encouraging neighbors to sell out the greater good of all for the illusory benefit of the self, like the toxic chemical waters it pounds into the earth it fractures the whole along the terrible hidden fault lines that divide our society. The greater alarm for what this pernicious new Trojan horse of the malevolent petroleum industry will do to our environment, to



Route 8, NY

the purity of our water and the health of all that lives there, human, animal and plant alike. But I also see threat to so much else that is growing up here, great bodies of work in all fields of creativity, healthy alternatives to the greater disease that afflicts our culture, and an impossible space of mutual incompatibility where rednecks, radicals, religious zealots, recluses and romantics can coexist without having a clue or care for what the other is doing. This as much as anything is what has attracted successive generations of artists to these parts for the last hundred years, and to me that does seem well worth saving.

HOME RULE & THE SACRIFICE ZONE

MIKE BERNHARD

In 2008, the state legislature amended its “spacing law” to enable the profitable use of HVHF in shale formations, shales being by far the richest sources of methane (natural gas). As a result, several New York towns passed moratoriums on drilling, a standard response on the part of localities that need time (generally six months to two years) to study and prepare for any economic activities that have been permitted by the state: the location of a new housing development, for instance, which may involve new traffic patterns, provision of emergency services, school expansions, etc.

If GasCorp was annoyed at those moratoria, they were enraged when towns began to exclude drillers entirely within their borders. They sued two localities, Dryden in Tompkins County and Middlefield in Otsego County, which had passed “bans” based on their zoning laws. The industry brought lawsuits against those towns, asserting that those towns were attempting to regulate the industry, in violation of the Supersession clause (above). The doctrine developed by David and Helen Slotte at CEDC – that “zoning out” heavy industrial activities like gas production was not specifically proscribed by the Supersession clause – was victorious in the NYS Supreme Court (the lowest court in the state system), and again when GasCorp’s appealed the decision to the Appellate Division. Finally, with the failure of a further GasCorp appeal to the NYS Court of Appeals (the highest court with regard to state laws) the Slotte doctrine was recognized as the ruling principle: the regulatory supersession in ECL 23-0303 applied only to the way in which drilling had to be carried out: it did not deprive localities of their zoning powers, including the power to “zone out” HVHF.

The outcome of the supersession issue is without doubt an important victory in the larger struggle for participatory democracy, or— more immediately— the struggle to counteract the power of GasCorp over the governor’s office and unelected state permitting agencies.

But, in the short and medium term, federal, state and local governments that service corporate interests will “work around” the Court of Appeals decision. Further progress towards the banning or criminalization of HVHF and its infrastructure requires that we understand the implications and limitations of the acceptance by the state of the Home Rule Doctrine championed by CEDC.

First, the decision by the Court of Appeals left the Dryden/Middlefield laws standing because the supersession clause did not explicitly supersede town zoning powers. Thus, a simple majority vote in the state legislature, signed by the governor, can do just that. Why the industry ghostwriters of ECL 23 didn’t legislate the supersession of zoning powers back in 1981 is anyone’s guess, but that they are working to correct that oversight is a certainty.

Second, bans-by-zoning were never adopted in any of the localities likely to be drilled in the foreseeable future, owing to the geologic realities underlying the state. As in Pennsylvania, this gas-favorable geology largely coincides with relative poverty, a history of extractive industries, the lack of zoning laws or comprehensive planning, and reactionary local regimes.



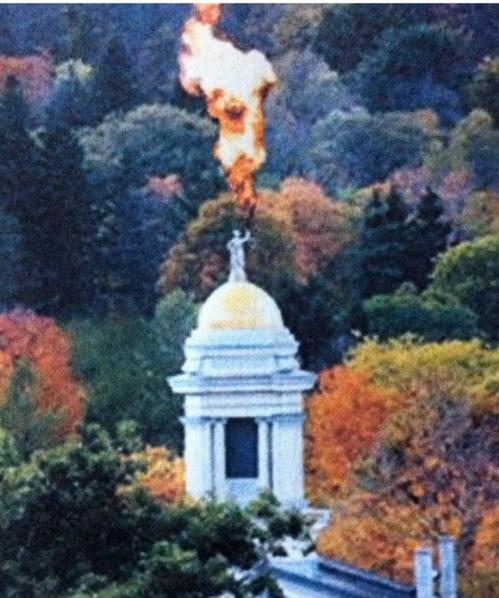
Craig Stevens

Since GasCorp has its eye on profit, not principle, it is likely to leave the Home Rule situation undisturbed for now. Together with the exclusions of the NYC and Syracuse watersheds, allowing areas unlikely anyway to produce profitable quantities of gas, to zone-out drilling is a useful divide-and-conquer strategy.

Furthermore, the State and GasCorp were ahead of the curve in the Home Rule/zoning powers debate. It ju-jitsu-ed the establishment (if perhaps only temporary) of no-gas zones into the establishment of a “z” in which GasCorp can operate under state protection, even before the supersession clause is rewritten. That is a story that has to be understood before we can strategize the defeat of this many-headed monster.

HOW THE SACRIFICE ZONE WAS ESTABLISHED

In April, 2012, DEC commissioner Joe Martens said his agency would consider local wishes when it issues drilling permits. On June 13, a New York Times story floated Cuomo’s plan to “test frack” five counties in the Southern Tier region of New York, while excluding fracking near New York City’s water supply. The next day, Cuomo said his administration was looking at a plan to initially allow hydraulic fracturing in five Southern Tier counties, and then only in communities that welcome it. “Yes, you could override local government,” Cuomo said. “Or, you could say, ‘Well, we’re going to respect home rule if it is coincident with the obvious and neces-



Annie Lenihan

sary ramp up period anyway.”

Thus the stage was set for effectively gerrymandering the state, environmentally. While almost 100 towns had instituted moratoriums or bans on HVHF, the state did not say how towns in favor of drilling would be identified. But between the DEC’s April statement and Cuomo’s June announcement, GasCorp’s minions had begun the process of identifying the “communities that welcome it.”

Beginning in April, the so-called Joint Landowners Coalition of New York (JLCNY) circulated a draft resolution that was adopted by 40 localities (about 25 of which were towns in the Sacrifice Zone). That resolution, found the “pursuit of a ban or moratorium to be an irresponsible and premature misallocation of town resources pending the release of the state’s final sGEIS”. In fact, once the sGEIS was released and permitting commenced, the industry would have grounds for “takings” challenges to subsequent local bans/moratoria. Thus, the JLCNY resolution earned its nickname: the “Frack Us First” Resolution.

The resolution was passed in manner that called into question the commitment of certain town governments to public participation, democratic procedures, and disclosure of financial interests on the part of local lawmakers. Towns that adopted the JLCNY resolution

- took legal advice from organizations that have a financial interest in fracking
- did not entertain legal advice from organizations without a financial interest in the issue,

- usually passed the resolution without providing any prior opportunity for public comment,
- did not disclose town board members financial interest in gas drilling (as for instance their membership in the so-called landowner’s coalitions that promoted the resolution).

The JLCNY resolution was designed to get local governments to dig themselves into a legal hole, out of which it would be very difficult to climb. The resolution set a trap for municipalities, a trap well-concealed by reasonable sounding language about waiting for the DEC to issue

regulations, to define the powers of localities....

In fact, a town that does not protect itself through zoning regulations (or through the legally untested exercise of its police powers to protect the health, safety and welfare of its residents)

- Is allowing the DEC control land-use decisions in the town.
- Will subject the town to “takings” lawsuits should they try to institute any controls over drilling after permits are issued, while “takings” claims were not even advanced in the Middlefield/Dryden decisions, because those towns took protective action before permits were issued.
- Subjects the towns to constant legal challenges of any ordinances regarding noise, traffic, hours of operation, dumping of wastes and other aspects of the health, safety and welfare of its residents.

The failure of a town to adopt local controls prior to permit issuance by the state will thereafter severely hamstring the town in dealing with gas corporations. The resolution was not a “neutral” position on gas drilling. Rather it is the “proof” needed by the State to put those towns in the “frack us first” column.

The State’s establishment of a Sacrifice Zone serves GasCorp in multiple ways.

- By focusing fracking (initially) in a small area with the best prospects, the State mediates the interests of individual drillers in favor of the whole industry.

- Guides the development of infrastructure (pipelines, waste processing, water withdrawal) in an economical way.

- Creates the impression among residents of towns with bans or watershed exclusions that they are permanently protected, making

statewide ban legislation less pressing for them.

- Creates a false sense of security in counties adjacent to the Sacrifice Zone, counties which will be providing infrastructure (waste dumping, worker camps, water withdrawal, frack sand transloading, injection wells, etc).

Regardless of how the Sacrifice Zone is ultimately defined (and recognizing that the “experimental fracking” of the Southern Tier is the proverbial camel’s nose under the tent), fracking opponents need to develop strategies that focuses on the “bleeding edge” of GasCorp’s assault on New York: the Sacrifice Zone. That focus has to:

- Recognize that local bans in the Sacrifice Zone are politically impossible in the short run.
- Find ways of organizing people in areas that have been politically terrorized into silence.
- Force the adoption of legislation against unpopular infrastructure uses like road-spreading of brine, gas storage units, use of publicly-owned waste treatment plants, etc.
- Develop citizen-constructed, legally-admissible baselines to prove damages to air, water, property.
- Garner support from the temporarily “protected” areas for the Sacrifice Zones, both in direct material support and in political support for statewide legislation that will put a stake through GasCorp’s monster heart.

THE GROUND SHAKES

GERRI KANE

Gerri Kane worked for an oil drilling company in Texas and says that, “Time and time areas where we had been, you could never live there anymore. To me, it was just devastating.” So about ten years ago, she moved to Rushboro, Pennsylvania, thinking that this would be her “safe haven” from the industry. It didn’t work out that way.

Several years ago, landmen started showing up, trying to get her to sign a lease. “They came almost everyday,” and some, she says, were “threatening. I was beside myself being threatened all the time.” Her partner, Ken, who actually owns the property they share, never signed a lease, but many neighbors did.

According to Kane, when the pipe men showed up to lay pipe (she recalls their foreman as being “very nasty”), “I was told that our township had signed away our road rights... We were notified that we would have no mail service... Two of our neighbors had no roadway to their house... This went on for two and a half weeks.”

Then there were problems with seismic testing that shook the ground until everything “broke lose” in their house. The foundation cracked and all of their water pipes became clogged. They wound up having “no indoor plumbing that winter,” and using an outhouse on their property.

“Time and time areas where we had been, you could never live there anymore.”

Kane who had had previous bouts of illness, says she became “very ill after the seismic testing... I did end up in the hospital... I was told that I was raw hamburger meat from my throat all the way through my rectum. I was bleeding, throwing up. I was just shooting blood... I begged God every day to just let me die.” Ken never experienced these symptoms, but Ken theorizes this is because he is on the road five days a week and only home on weekends. She eventually got better when, “We quit all water. I got a juicer and started juicing.”

Kane says that she got no help from DEP (Pennsylvania Department of Environmental Protection). “We were being told there are MBS’s or MSBS’s [in the water], and I ask what they are, and [I’m told] it’s a component of the drilling process... and they’re asking me how that got in our well. I don’t know. [I said] ‘If you can’t tell me, how am I suppose to know?’”

Kane has also experienced difficulties when gas flared off.

“There is an explosion,” she says, and that too makes “the ground shake.” She’s “put lips on the shelves in our house” because “all the antique bottles will dance. And after that, for days you have, I call it ‘dusty water.’ It smells.”

After one such flare, their pool “looked like the Gulf oil spill. I’m wondering what is this stuff, so again I call the DEP. They’re telling me it’s our neighbors’ wood burning fireplace or something. Now this in the middle of summer... Everything was covered in this oil, and I was really afraid for my little bird, because he’s loose in the house. I thought this might not be good for him, but nobody gave me an answer... I didn’t know little birds could get diarrhea, and loose their feathers like that. He is now on bottled water and I have to bathe him in bottled water.

“After all that stuff started raining down on the house, the trees were loaded with cherries, but then everything started getting these black spots. [By the time] I took my bushel basket around back, I was so excited, woo-hoo cherries, but [there was] not a cherry left. Not a leaf on the tree... I’ve grown all this food, not just for us, but to give to low-income families... It was heart breaking to have to tell people I was sorry this year when they would call... One girl said, ‘You mean you’re not going to share this year?’ I said, ‘Honey, it’s poisoned. I don’t know what’s on it. I can’t give it to you and your children.’... So I let it rot.”

Life, Kane says, has completely changed. “I wouldn’t go out to ride a horse now to save my life. I don’t see anyone riding anymore. Those trucks are flying. You’re not even safe on your little cow path road... Once, I was informed by one of the workers from one of the gas companies that if I step on leased land they could have me arrested... So I don’t take walks anymore, cause I don’t know where— where I’m safe.”

Because she has been outspoken, she has been subjected to a barrage of verbal abuse. She says that neighbors or gas workers have variously warned her, “fire is hot,” called her “fucking crazy,” and “wonder bitch,” and told her, “We didn’t ruin your water. It was ruined before we ever fucking got here.”

“The sad thing is the nastiness of the workers. When they first came I defended them. They were here to support their families. But when you have men go up in front of you and they tell you “f” this and “f” that, and you have no rights? I live here. What right do they have to tell me to shut up or get out?”

“People who are very concerned have now become very quiet because we’re afraid. It’s almost like not living in America anymore... I’ve been telling people for five years (when they ask), ‘where do you live?’ I say, ‘The pit of hell.’”



Eric Gay, Associated Press

Homage to the Susquehanna

THE REEDBEDS OF THE HACKENSACK

Scummed maanderings that nothing loves but reeds, Phragmites, neighbors of the greeny asphodel that thrive among the windings of the Hackensack, collaborating to subvert the altogether ugly though too down-to-earth to be quite fraudulent: what’s landfill but the backside of civility?

Dreckpot, the Styx and Malebolge of civility, brushed by the fingering plumes of beds of reeds: Manhattan’s moat of stinks, the rancid asphodel aspiring from the gradually choking Hackensack ring-ditch inferior to the vulgar, the snugly ugly, knows-no-better, fake but not quite fraudulent:

what’s scandal but the candor of the fraudulent? Miming the burnish of a manicured civility, the fluent purplings of uncultivated reeds, ex post cliché survivors like the asphodel, drink, as they did the Mincius, the Hackensack in the absent-minded benediction on the merely ugly.

Is there a poetry of the incorrigibly ugly, free of all furbishings that mark it fraudulent? When toxins of an up-against-the-wall civility have leached away the last patina of these reeds, and promised landfill, with its lethal asphodel of fumes, blooms the slow dying of the Hackensack,

shall I compare thee, Mincius, to the Hackensack? Now Italy knows how to make its rivers ugly, must, ergo, all such linkages be fraudulent, gliding the laureate hearse of a defunct civility? Smooth-sliding Mincius, crowned with vocal reeds, coevals of that greeny local weed the asphodel,

that actual, unlettered entity the asphodel, may I, among the channels of the Hackensack—those Edens-in-the-works of the irrevocably ugly, where any mourning would of course be fraudulent—invoke the scrannel ruth of a forsooth civility, the rathe, the deathbed generations of these roads?

AMY CLAMPITT

GLOBE FOR THE HEAD

CARL WATSON

EARTH FELT THE WOUND, AND NATURE FROM HER SEAT SIGHING THROUGH ALL HER WORKS GAVE SIGNS OF WOE. THAT ALL WAS LOST,

—PARADISE LOST

Cover a ball with points
Make a mace of it,
Stuff a sheep’s heart with thorns,
Or jam glass shards
In a rubber sphere,
Then heave it to hell away—
You can hear the air scream as it bleeds.
The metaphors here being: ball
Eats air, body eats air, time eats body.
We walk through time and body,
Tearing breath across raw nerve.
Digestion is simple as wind,
Whispers of which play
The decadent refrain:
The earth is just an animal in pain.

Earth is a cracked stone head whose faults
Reveal beneath scalp & cheek
Subsurface malignancies
And painful levers,
Asymmetrical weights and measures:
A primal machinery of expression
What once could grind earth up
In geologic smiles, or down
Down to sympathy, down to empathy.
Yes, but too much empathy
Can drive a mother insane
Like a tumor surrounding slowly
A once sweet dream.

The earth’s crust is now

A stretch-marked mug of agonized flesh
Swelled by lust too fast,
Pulled by birth too thin
Over anxious bones until the skin
Parts & the plains show scars.
Pitted, dozed, excavated, hosed,
Built-on, blown, hacked away
And worn by hard waters
In slow despotic torture,
This pocked facade floating through
The infinite universe
Is to say the least, haggard,
Psychically numb, splayed, dumb,
Singed, spilled on & skinned.

The earth screams in a mute tongue.
Born from hunger’s assumptions.

Ants eat at it, birds peck it, men
Grind it under iron wheels,
Stab it under drilling heels
Until each quarried sore yawns.
Yes, both septic & sensual,
Its many new mouths seek
Nourishment from chaos,
While human cities rise to attack
The blotting-paper black
Of the eternity that will engulf them.

And all the edges’ efforts to digest
Are worn at last to nubs by nothingness.
The head grows bald as a skull
And dead like the rest, then
The bone-cold glare of this thrown stone
Ceases to produce life from indifference,
Anymore. And Why?
Because this earth’s hollow eyes
Don’t look back, no
No memory, no expectation
No name either, all given way
In subjugation to its ingrate kin.

As this earth that once did royally serve,
In the end, is just another sentient
Entity in pain, in its own race
Against it’s conquered name,
Throughout indifferent space.
For them who bear it
The weight is immense,
But there is no resting place,
No resting place.
There is just this one
Stand we had. It’s so easy
To fall when blind
To consequence and time.

MY NAME IS MUD

My name is mud
 I am the Susquehanna
 Drifting over rocks and pebbles downstream through muck and mud
 I am the great Susquehanna named high spirits from Lenape chief Onchiota mud river who I am
 I'm the longest artery on the east coast
 Running thru 4 states
 from giant Otsego lake central NY to Pennsylvania, Maryland to the edge of Virginia as I spit out at the Chesapeake

My name is mud
 I am the Susquehanna

I'm the oldest existing river in the world with 10 tributaries, including the Unadilla and Chenango,
 Moving heaven and earth 27,500 miles of river bank bleeding at its edges draining into the belly of the Chesapeake Bay
 I am older than the early Cenozoic mountain ridges through which I run

My name is mud
 I am Mesozoic
 I am the great Susquehanna
 I run with my fish over rocks and pebbles through muck and mud
 Walleye, small mouth, brook trout, eel, catfish, muskies, shad
 Swimming up in all flowing downstream tributaries
 Yet methane benzene radium is injected in my veins (regularly by unregulated industries)

I am a bubbling river
 dying slowly

I'm hooked bleeding running down stream in the muck down tumbling on my knees scrapping the bottom over rocks pebbles stones deathbed reeds

I am the Susquehanna
 My name is mud

Begging for mercy running over hot larva

I run with the wind and tide ancient dirty water I get muddier yet as I drift downstream zigzagging past Sidney Amphenol Binghamton
 Draining poision all downstream into skunk weed making sooty gray aqua clear waters. Tentacles pulling me in I am a sinking boat
 I gasp for oxygen
 The river spills unfolding like the hand of God
 I am a toxic junkie
 Indian curse
 Ebb tide evaporated
 Siskëwahane
 Chesapeake Howl!
 You owe me America, you sucked me dry, your manicured civility
 Pitted against each natural other

I bleed for you
 Please I beg you stop your spitting, spewing toxins
 I'm up to my neck
 I was just kicking my old habits from your industrial-postindustrial age
 1890's thru 1920's 30's 40's 50' 60's 70's I was coming back to life
 what happened to your clean water act? Great society
 America you betrayed me, Pocoughtaonack exhaust

My name is mud
 I am the great Susquehanna
 Officially named before the beginning of time, before the making of America, an endless river through the Allegheny plateau
 Algonquian then Lenapehoking Onieda Iroquois meaning mud river/singing river
 Let me speak again
 Roar again over rocks and pebbles through muck and mud
 Let me live

I am the great Susquehanna



MARY TWITCHELL

JOHN

Andrew asked me to write something about the efforts of my late husband John Twitchell regarding fracking. I searched throughout the house to find copies of his writings to state and federal legislators and his few published letters to the editors of local newspapers. I was unable to find any, I suspect as I have been organizing that they were tossed away. That being said, I am writing from my recollection as to what occurred.

John became interested in what at the time, I suspect 2008, 2009 was being proposed for the same as many other land-owners, a way out of debt. John, always the researcher, began through reading and the internet to research this new thing called "fracking" the more he read, the more concerned he became. Not just satisfied with reading—he travelled to Dimock, PA—to see for himself as best he could, but was not able to see much as he was ordered away from the site. He also went in NYS to Coventryville and West Edmeston where an aquifer had been blown out during drilling and spoke to the locals. Everything he read and saw told him how dangerous this was to the land. He began talking to people, many that would not listen, writing letters to local papers that were not published, posting hand made signs that disappeared overnight. On several occasions death threats were left on his answering machine much to his disbelief.

John passed away before the movement became what it is today, but I know that he is proud to see what has been done since his passing, so many people here in upstate NY are now fighting to protect their water and land, some who before did not believe what John was trying to say.

Bless you all as we keep on fighting.
 Mary Twitchell

YOKO ONO LENNON

IMAGINE

IMAGINE N.Y. WITHOUT FRACKING

My husband, John Lennon, and I bought a beautiful farm in rural New York more than 30 years ago. We loved the tranquility and beauty of the area. Our son, Sean, spent many precious days there growing up. Our family still enjoys it now. Like the rest of our state, this peaceful farming community is threatened by fracking for gas. Giant pipelines, thousands of tractor-trailer trucks ripping up roads, loud air compressors, air pollution—and most of all, the certainty of poisoned drinking water.

Certainty is the right word, according to the engineers, as the wells drilled for fracking will leak. According to industry documents from the gas drilling giant Schlumberger and other studies, 6 percent of the wells leak immediately, and over 60 percent of them leak over time. And no wonder they leak—the pressures of the earth thousands of feet under the ground cracks the cement well casings. The big variations in temperature along the well at various depths expand and contract the cement until it cracks and leaks.

And what leaks from the wells?

Toxic hydrocarbons like benzene and methane that are under the ground. And the toxic chemicals injected with millions of gallons of water at high pressure to fracture the bedrock to get at the gas.

This is why you can see families literally light their tap water on fire in the movie "Gasland" from the leaking methane. And why homeowners across the country have had their drinking water ruined with the chemicals used in fracking.

Meanwhile, there is no place to put the toxic wastewater that comes back up from under the ground. About half of it stays underground forever. In Pennsylvania, it is often dumped into open pits where the toxic chemicals volatilize into the air. Sewage systems cannot handle it safely.

Gov. Andrew Cuomo has made some very important and strong statements about combating climate change, especially in the wake of Hurricane Sandy, which I applaud. But he must not believe the hype that fracking for gas is good for the climate. It isn't.

The methane that leaks from the wells, and even from the pipelines and compressors, is a very powerful greenhouse gas—100 times more than carbon dioxide. When the bedrock is shattered, the methane also migrates away from the wells. More than a tiny bit of this leakage makes fracked gas as great a problem for our climate as coal. And the leaks are not tiny.

I understand the pressure on the governor to create jobs and help the economies of rural areas. But fracking creates very few jobs, and most of them will not go to New Yorkers. We could create far more jobs by insulating every building in the state to save energy and changing all the windows to more insulating models. Doing this would save far more energy than fracking will ever produce, plus lower consumer heating and electric bills forever. In contrast, fracking and climate change will cause economic damage and decline.

Former Vice President Dick Cheney succeeded in removing fracking from all federal regulations. It is no longer covered by the Safe Drinking Water Act, or the Clean Air Act, or even the National Environmental Policy Act.

If fracking isn't safe enough for the Clean Air and Water Acts, it isn't safe enough for New York. And the energy won't even go to New York. There is a glut of gas on the market, and the companies plan to export what they produce here to other countries.

Governor Cuomo, please don't frack New York. Don't allow our beautiful landscapes to be ruined, or our precious and famous clean water to be dirtied.

Your draft plan won't allow fracking near New York City's water supplies. But if it isn't safe enough to be near New York City's water, how can it be safe enough for rural communities, or the New York side of the Delaware Basin that feeds drinking water to Philadelphia?

No amount of regulation can keep these wells from leaking. Please stand up to the fossil fuel industry and save our water, our climate and our state. Let's make New York the Clean Energy Empire State, not the state of dirty fracking.

Yoko Ono Lennon
 10 January 2013
 New York

**PRETTY
 SOON
 THERE
 WILL BE
 NO MORE
 WATER
 TO DRINK**
 Y.O.

"NO MATTER HOW FAR YOU'VE GONE DOWN THE WRONG ROAD, TURN AROUND."
 MIKE BERNHARD

MIKE BERNHARD

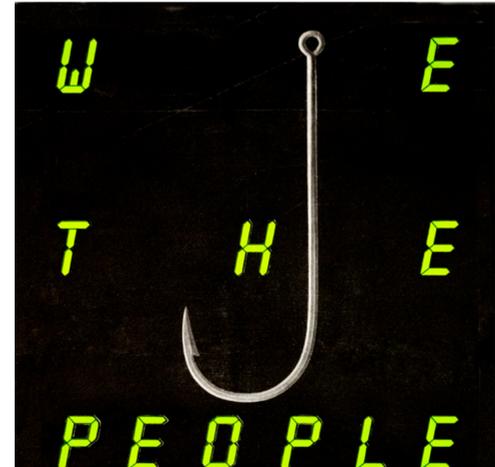
DON'T FRACK NY

Geological experts claim that shale beds in New York, particularly the Utica and Marcellus Shale, contain significant amounts of natural gas. Numerous energy and gas drilling companies are now vying with one another to tap these deposits using a method known as horizontal drilling and hydraulic fracturing (hydrofracking). The recent release of the fatally flawed draft supplemental Generic Environmental Impact Statement on horizontal drilling and hydrofracking by the New York State Department of Environmental Conservation is now bringing this issue to the forefront. Hydrofracking, a gas extraction process developed by Halliburton, pumps millions of gallons of water and 'fracking fluids' containing mixtures of up to 632 toxic chemicals under high pressure to break apart the rock, forcing the gas to the surface. With operations in 46 states, the gas industry has provided ample evidence that extracting gas from low permeable rock is environmentally unsafe.

"ALL WATER ON EARTH CONTAINS LIFE, AND ALL LIFE ON EARTH DEPENDS UPON WATER."
 ONONDAGA CHIEF
 PAUL WATERMAN

It is unlikely that this method of drilling could ever be made completely safe, regardless of regulations, and natural gas drilling in New York State has the capacity to jeopardize the health, safety and welfare of millions of New York residents. As global corporations turn our state into a sacrifice zone, reap massive short-term profits, and significantly add to greenhouse gas emissions, the true costs of drilling in terms of environmental impacts, quality of life, and long-term cleanup costs will be passed on to state residents.

Due to the inherent danger of un-natural gas drilling and the potentially massive impact on our local rural communities, we are calling for a complete ban on drilling in low permeable stone deposits in New York State.



THE RUDE ALGAE OF TIME

TONY PINOTTI AND ANDREW CASTRUCCI

Tony Pinotti and Andrew Castrucci have known each other for over thirty years, mutually developing their ideas in the 1980's art and music subcultures of New York City's Lower East Side. Castrucci's short-lived A&P Gallery and the still-active Bullet Space: an Urban Arts Collective have been and are important radical cultural art centers in that neighborhood. Pinotti was a co-founder of the seminal no-wave band Circle Xi, as well as a co-founding editor of the art book collective Anti-Utopia. Sharing an austere, often confrontational aesthetic, both wound up trading alternative spaces for art and culture like the now legendary ABC No Rio for villages upstate in the early 2000's. The combined traumas of the AIDS epidemic, 9/11, corporate hyper-gentrification, and the runaway escalation of drugs and crime wars of the 80's and 90's had taken a massive toll on the Manhattan arts community as a whole and many chose to decamp to upstate homes and studios where they might establish a lifestyle more consistent with that of avant-garde pioneers.

In an urban environment, organized crime and the aggressive footprint of big corporations are common, even expected. But these artists didn't necessarily escape such problems by retreating to the Hudson Valley. From General Electric's mid-century dumping of PCB's in the Hudson River (still in clean up mode) to the proposed Constitution Pipeline to facilitate the transport of natural gas from hydraulic fracturing, or "fracking" a whole host of 21st century problems invades the Arcadian dream of self reliance and free-range aesthetics. In Butternuts, Pinotti's town in Otsego County, crime syndicates would typically buy large tracts of land for dumping toxic chemicals, fighting environmental regulations all the way. An avid fisherman in nearby Chenango County (central New York State), Castrucci has had similar experience battling powerful organizations. In the city it was resisting absentee landlords and complicit city administrations with squatting movements poised against the rapid gentrification of Manhattan's Lower East Side. He'd adapt such resistance in the country by affiliating with Riverkeepers, the non-profit protecting the Hudson and its tributaries. When fracking came to the region, both Pinotti and Castrucci were already prepared to fight against the gas drilling (legal and illegal) bribes that have been paid out to landowners across the country, opening the floodgates for untrammelled, irreversible contamination of the environment.

Here they discuss the fight against fracking, and their intersecting experiences making art and resisting the powers that be.

FRACKING

Tony: The worrisome thing about fracking that so many people are willing to just go along with it before any serious studies have been done. There's no going back. Once we start putting these wells through aquifers, and aquifers get polluted... that's it, game over. You cannot clean up aquifers.

Andrew: It takes over 100 years for a river to come back to life.

Tony: Drill first, regulate later.

Andrew: What I thought when Cuomo protected the Catskill watershed at Syracuse and Cooperstown – places like that – is that it divides us. Now the city people aren't so concerned. At one point there were a lot of city people worried about downstate water. It was clever of him to divide and conquer.

Tony: They're not gonna allow it in the NYC watershed - no way.

Andrew: But the NYC watershed is huge. It's the Catskills region, only 500 or 2500 feet from its borders -- that is still risky to me. To me that's environmental classism causing communal fragmentation. The southern tier Chumung dumping ground for PA fracking wastewater is a perfect example of one of the poorest regions of NYS. In more upscale Cooperstown this would never happen. In my family's small hamlet of Mount Upton, we had someone come to our town board meeting from the JLC, The Joint Landowners

24

Coalition and it was completely absurd. I felt like I was inside a commercial, like I was on drugs listening to him. Like he was advertising toilet paper in some surreal dream. His sales pitch - on fracking and its safety was so soft and filled with so much misinformation. His tone of voice was like he was talking to a 10 year old child.

Tony: You can't prove anything has gone wrong so they can say "we've never had a problem since 1940. We've done 10,000 of these wells and you're suppose to decide this just taking our word for it." Now these are some of the worst actors on the stage.

Andrew: There was an advertisement for drilling in South Africa that said there had never been an accident and then the ethics committee said "you can't say that." The gas company replies that "it's our opinion that we never had an accident." It's our opinion. A little loop hole. But they had to take it off the air.

Tony: They're using the same PR firm that devised the tobacco advertisement strategies for so many years. So what does that tell you?

PROMISED LAND

Andrew: Growing up along the NJ waterfront and where we homesteaded in the city construction people were always getting kick backs. It's happening up here. To The town supervisor, "here's a \$50,000 envelope, you gotta come out strong for gas drilling." Just like Promised Land, the Matt Damon film. It's the new mafia. Our local Senators, Thomas Libous gets \$190,700 and Conklin Town supervisor Debbie Preston got \$82,428 from the energy companies. The Sierra club got a 26-million-dollar donation from Chesapeake Energy. All legal bribes.

Tony: Then gas companies and pels came out and said that it would be a wonderful transition fuel.

Andrew: "It's cleaner than coal." But they don't factor in that

"IT ALL SEEMS VERY BEUYS-LIKE TO ME RIGHT NOW. HOW YOU DON'T NEED TO SIT AT AN EASEL TO MAKE A CREATIVE CONTRIBUTION TO THE PROCESS OR THE SOCIAL SCULPTURE."

what are you gonna do with this toxic soup of wastewater. In PA most of wastewater got dumped into the Susquehanna River. Burning the gas wells also creates a tremendous amount of carbon dioxide, just as much as coal considering leakage. 6% at first then 60% over time.

Tony: I would lose all hope except for the fact that people in general, the little guys, don't trust any of these sons of bitches at all any more. We know how rotten and corrupt the system is. So the little guys are not going to believe this bullshit. It's just so lucrative. How would you like to be governor of a state behind billion dollar deficits every year? Trying to figure out some fuckin way to keep your head above water.

Andrew: Let's say all this natural gas development goes through, -- what about Ithaca with all of the wine that comes out of it. It takes a tremendous amount of local water to grow wine. Or the dairy farmers? They aren't necessarily down with the idea of poisoned wells. And the large upstate corporation of Chobani yogurt, a big employer, has shown an inclination to resist too -- they don't want fracking around.

Tony: I think the reason local farmers aren't sometimes taking a stronger position against fracking is because they are just keeping their heads above water. But what are you gonna do with trying to sell a product like Chobani yogurt and it comes out that some of your cows have been drinking water from contaminated wells and

contaminated streams. What does that do for your product? Sure they're not happy with that prospect. If they could get the cleanest milk that the planet could make, that's what they want and that's what they've got now. Now out of desperation, with the recent droughts in CA for example, we are hearing about growers in that state are using waste water from fracking for watering fruits and vegetables.

Andrew: Well Cuomo let regulation slip for cows – farmers are allowed to have 300 cows instead of 200 cows without upgrading their weight. We have a big problem with the Susquehanna River or the nutrients in terms of its ability to sustain such lax regulations. It's already one of the most endangered rivers in the country.

BEGINNINGS:

Andrew: To give some context I wanted to talk about how we as artists chose to migrate from NYC. When we first met, in the city in the 80's, you noticed that big painting of Reagan in the window in the A&P gallery, that my brother Paul and I ran then.

Tony: Yeah. I was walking down the street and there it was on East 4th street between Aves. B and C, during the East Village art occupation of storefront galleries.

Andrew: That was between 1984-85. You were eventually in some shows at A&P gallery- like "Godda". You had birds, live birds in a nest. At A&P Gallery, we showed your work we had two live finches flying around the gallery I remember seeing your show at Piezo Electric. You were one of the best painters in town, you and Alexis Rockman, although Rockman was at the time still heavily influenced by Ross Bleckner. He hadn't yet found the style that later established him.

Tony: You know, this painting here for instance of your "Skyline", when I moved over to Brooklyn I had a view of the water almost like that. I wasn't quite that close to the river and I remember I used to have this recurring dream over there that some kind of awful catastrophe and Manhattan was on fire and I would spend the night swimming across the river, you know, clinging to a piece of shard wood and going to get my friends and bringing them to safety in Brooklyn.

Andrew: When Sandy happened the Con-Ed plant blew up and it looked just like the "Skyline" painting in front of you. This painting is not based on September 11. It's based on 1977 when we had a black out.

Tony: I was in pretty good shape.

Andrew: Chopping wood. That's what I miss about our squatting days. I lost interest in NYC when our squat got legalized. I started gaining weight. Their was a lot of anxiety with the city always trying to evict us. Then September 11th happened, they started telling us we had to put duct tape and plastic around our windows, constant fear, we just burnt out. A lot of us migrated upstate after 9.11.

Tony: It's hard to say because we were young and had so many ideas or whether NYC was really just a wonderful place to live at that time. Our heaven or hell?

Andrew: It was dangerous but somehow in a strange way you were so much freer.

Tony: You were free because you didn't have to keep a full time job just to pay the rent. You could work a part time job and pay for the rent and still have enough money to pay for rehearsal space for your band or do the projects you wanted to do or ...

Andrew: At a certain point living situations in the city became overwhelming. Today I just don't know how a lot of my students do it. They get 3 roommates to chip in to pay \$2,000 each! So they split that between three people and then they don't even have a studio. A lot of them take my Continuing Education painting class and they are like, "this is my studio, I come here and paint. Then I have to put stuff in storage. I can't afford a studio. I'm taking my night classes."

NY used to be famous for cheap subways and cheap cabs compared to London and other places. Our metro system and even our cabs were reasonable. But we are just like any other major city now.

Tony: You used to be able to live very cheaply in NY.



Joseph Beuys, Photo Caroline Tisdall

Andrew: You kept getting bounced from Lower East Side to Williamsburg and further deep into Brooklyn.

Tony: I moved to Williamsburg where I could have a nice sized studio. It seemed I was always struggling to pay the rent, you know, so you're always working to pay the rent and it was just at the time - it was the summer Bruce Witspeid died.

Andrew: '94.

Tony: It was very hard after Bruce (co- founder of Anti-Utopia and Circle-X) died and his last year he was alive was just very traumatic for all of us. I was with him when he died.

Andrew: Because you were one of his main caretakers. I remember when he past away you said that you opened up the window, and you just felt that air: you just felt him leave.

Tony: My friend Bruce. But anyway it was really traumatic experience.

Andrew: I even remember during Anti-Utopia that you and Bruce used to go up to my brother Paul's place and what you guys used to build up there in that campsite. I was amazed with your creativity. You built the tables and benches out of crude wood you scavenged. You were always making something. Later when you lived in the woods full time, you were doing some tough living up here. With your stove, dug well, and that Ted Kaczynski- like shack you built.

Tony: That was nice though. That wasn't tough. That was some of the finest living I've ever done. It was a lot of work but it was really nice. The quality of time we spent there was excellent. There's nothing like a walk to a well to get every drop of water that you drank with a bucket. Chop every bit of wood to make your fire and living on nice simple beautiful place.

Andrew: You didn't need to go to a gym. It's hard to be simple in life.

Tony: I was in pretty good shape.

Andrew: Chopping wood. That's what I miss about our squatting days. I lost interest in NYC when our squat got legalized. I started gaining weight. Their was a lot of anxiety with the city always trying to evict us. Then September 11th happened, they started telling us we had to put duct tape and plastic around our windows, constant fear, we just burnt out. A lot of us migrated upstate after 9.11.

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Tony: You used to be able to live very cheaply in NY.

Andrew: Right. My rent on the Lower East Side for instance – I paid \$500 for the A&P gallery and we lived in the back. And that's 1984.

Tony: Yeah. My last apartment on Clinton St. – I paid \$300 for that apartment.

Andrew: It was amazing when I told you I got a place up here and the we were just 10 minutes away from each other. That blew my mind. Then Rick Letendre was in Trout Creek and Robert Parker in Walton. It was amazing how close we all were upstate. The Lower East side in exile.

SOCIAL SCULPTURE

Tony: When you started *Fractured Lives* you asked if I would like to come down and do a workshop at the school and do an art piece for it. I was already so overwhelmed with the work we were doing in our town, being on the Comprehensive Planning Committee. I was so overwhelmed with that, but then you brought up the idea of Joseph Beuys and social sculpture. It all seems very Beuys-like to



Joseph Beuys

me right now. How you don't need to sit at an easel to make a creative contribution to the process or the social sculpture.

Andrew: I know you and Bruce had looked at Beuys as an inspiration when you were doing the late Anti-Utopia book projects. Bruce was especially on a bit of a Beuys frenzy toward the later part of his life.

ART AS LIFE

Tony: It was primarily the idea of being able to make art works out of anything. All of the objects that you used in your life.

Andrew: Almost like Arte Povera, where the everyday object is art. Even though Beuys is more of a Fluxist, he really fits well into the art Arte Povera movement too.

Tony: Oh sure. Absolutely.

Andrew: When he was a young man as a WWII German pilot and crashed his plane he found a way to survive out in the cold, and he was saved by the local people. So he wouldn't freeze he had to wrap himself in felt from the airplane insulation. He used that everyday object symbolically throughout his whole life - that felt kept showing up in his artwork.



Tony Pinotti, "Portrait of the Artists"

Tony: Yeah and complicit in that: all of our actions, you know, are creative works, in this grand project of creating a society.

"LATE" HUDSON RIVER SCHOOL

Andrew: I always thought your work was related to nature in some way. Even the early Piezo Electric stuff - even though it is very abstract. Not the dogma of trying to save nature but in a very mysti-

cal or abstract way, you would paint these dark voids, I remember, they had so many dimensions to it. With Anti-Utopia it has - in a very indirect way, maybe on its fifth layer, a social-political thing. About utopia, you say it right in the title.

Tony: In Anti-Utopia there was always this sense of community and artist working together to try and archive something greater than any individual could achieve.

Andrew: Which is not unlike what you are doing upstate, bringing together the community to have home rule. Social sculpture, except instead of, say, planting trees, it's a moratorium on fracking.

Tony: Our goal was to stop fracking period. However we could do it.

Andrew: And there's this one town in Pennsylvania where they introduced a visionary new Bill: "The Rights of Nature."

Tony: Yes. That town, Tamaqua, was approached by the Citizens Environmental Defense Fund. With the idea "why not just enact a rights of nature ordinance?" Giving any individual the right to defend nature.

Andrew: What year was this?

Tony: Early. 1995- 96.

Andrew: You can trace that back to the Clean Air and Water Act which itself goes back to Native Americans, indigenous people, it was always in their philosophies and manifestos. It also goes back to the Hudson River School and that nature/ utopia tradition I think. Very American.

Tony: A romantic notion about wilderness. Idealize states of nature. But we don't have any wilderness anymore. We've sort of lost all romantic notion about that. There's no wilderness at all. All we have is scraps of a few parks left in the United States. And I think there is this idea that almost everything is gone now. It is just the same...

Andrew: That's what was interesting about the French Impressionists and the American Hudson River School. It was right at the edge of the industrial revolution. So how they sensed the fragile transition from nature to the Industrial Revolution. And again from the Luminst Movement from 1850-1875.

LANDSCAPE OF MEMORY:

Tony: The idea is of all these big macro-systems. The Geo-earth system is a composite of all other life systems. Gaia of legend. Whether it's forests or mega-fauna or waterways, you know, and all of these things together are inter-related, inter-dependent and complementary: working together, for all life to exist. We can't just separate ourselves out and say "we are different from everything else ". We are not different from everything else. If these systems die, we die too. As early as 30 years ago - when Beuys was still working -- we could conceive of creating a culture that exists outside of nature. Today we can very easily conceive of that. We're already building it in the digital culture and a virtual world. If you want to listen to people like Ray Kurzweil, we'll upload our consciousness onto a mainframe and simply become programs and existing in that sense. That would be one kind of bubble outside of nature. Might be the way we go. Maybe humanity divides into a couple of subspecies and there will be a biological sub-species that is like the Amish who coexist with nature in a simpler way-one of the original models for an intentional community, or social sculpture.

Andrew: The social sculpture as holding on to both nature and humanity understanding it.

Tony: In his famous piece I Love America and America Loves Me, Beuys occupies space with a coyote and they sort of sniff each other out and become familiar, the two of them- he to the wild and the coyote to mankind. I think it was a way to locate the original trauma in America which was our genocide against the indigenous people in our separation from and pillaging of the natural world.

Andrew: But there was some contact maintained after all.

Tony: It's curious that Beuys saw that so clearly as the defining aspect of our culture and it's something we to this day can't acknowledge (or are only beginning to) and the fact that there's this trauma— this wound that needs to be healed in order for us to heal as a nation.

Andrew: A lot of Germans will accuse America with that in light of their awareness of their own complicity in the Holocaust. "What about the genocide of the indigenous people in your country?" "You're always criticizing our genocide but we're trying to heal." Beuys was one of those who was trying to heal from that post-World War II trauma. Now we have Trump to deal with and all the other extreme right wing factions in countries all over the world forgetting the horrible history of racial hatred and genocidal theories.

Tony: I like to look at that larger picture too. I don't think it gets

any clearer unless you do. In order to accomplish something you have to put the time into it - to leave the studio and go out into the real world and sit on a committee and sit on a planning board or town planning board...

Andrew: Beuys said everyone's an artist or that everything you do in life is an artistic action -- like you said, like going to the committee board. Norman Mailer or Jello Biafra running for mayor or something like that.

Tony: Yeah, we're all responsible. And especially if you're an artist and you're trained to think outside the box and to come up with creative solution. You're almost required to lend a hand when that's called for. I know your initial thing you wanted to accomplish with Fractured Lives was to create some anti-fracking movement with the posters and put them up, to change people's ideas about the whole issue and to educate people. When I started to work

on the anti-fracking movement up here that wasn't our concern because we knew from the beginning that we had the numbers. It wasn't a so much an issue of trying to convince people as it was to just organize all of the energy we already had to accomplish something concrete. I think one universal between the pro-frackers and anti-frackers, at least locally, is that everyone cares about clean air and clean water and clean land and wants to preserve it here. The question is just whether this technology is going to do that for us or not. But that was an interesting way of looking at the whole community and discover things about it.

Andrew: Also rights of nature too, I think it makes sense to parallel the movement to the Endangered Species Act or the Clean Water and Air Act. Because these were official laws that we had in this country that have been dismantled. But there's still that precedent to bridge all the different opinions. The basis in law, along with the Native precedent and artistic precedent, of Beuys or the Hudson River School...

Tony: Like Thoreau, though he wasn't exactly wildly popular in his day. It wasn't until the turn of the century that his writings were picked up again. Then modern conservation movements took hold. It wasn't even called the environmental movement back then. It was called the conservation movement. We realized there was no more frontier. That it was limited amount of wilderness and we had to conserve it. One of its biggest proponents was the Republican president Teddy Roosevelt. That's quite a precedent too.

Andrew: It was interesting, in the Hudson Valley there was a Women's Club in 1900, that formed a moratorium to stop quarrying the Palisades, saying it was a sacred trust. Directly across from the Hudson from the city but further north. A whole other aspect, not only scenic. Interesting too was the fact that it was Rockefeller, an industrialist and "robber baron" who wound up giving the huge tract of land he owned to preserve those Palisades.

Tony: The modern environmental movement gained its voice as a restorative movement with Rachel Carson and Silent Spring. To point out the damage we've already done we've got to change course. Since then we've gotten rid of DDT and stuff like that. Time to ban Roundup too...

CLASS WAR/ IN COUNTRY:

Andrew: The residents of the Southern Tier of upstate New York, where you and I live, are the guinea pigs. It's the poorest region in the state. And so it's partly a matter of us, as artists/citizens, making sure the wilderness stays wilderness in any way we can, because it's all we've got, and there's only so much time you have left.

Tony: The gas companies want these pipelines built ASAP. The pipelines are the things that are killing us because the pipe-

lines are just going to facilitate whenever the ban gets overturned - just like that. They are laying the pipe-- the infrastructure for when the current fracking ban gets reversed. The money is going to roll in so fast you won't be able to stop it. Once those pipelines are in. That's the big danger.

Governor Cuomo banned fracking on December 17, 2014.

Tenacious upstate people's coalitions (including Pinotti and Castrucci's groups) helped to convince the governor to rethink fracking in the Southern Tier region of upstate New York. He came close to start fracking in this region. This was an attack on the more impoverished and depressed zones by fooling this desperate population into buying in on the short-term financial benefits of fracking: a form of disaster capitalism, taking advantage of an economy that has already bottomed out. Picking the low hanging fruit. Soft targets. This potential boom and bust economy, after 5-10 years,

would leave behind a wasteland of dirty polluted air and drinking water. People power, changed his mind, Peaking with the August 27, 2012 Albany protest. Without that power we are lost.

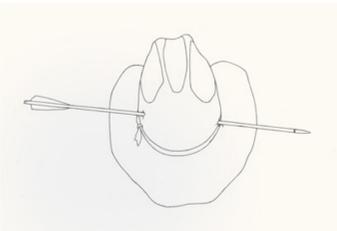
(This interview took place in 2012 and was revisited in 2017)



Andrea Lisca



Rosja Castrucci



Walter Sipser

FRACKING WASTEWATER USED IN CALIFORNIA PRODUCE INCLUDING ORGANIC, TIME TO BAN THE PRACTICE

FRACKING WASTEWATER USED IN CALIFORNIA PRODUCE INCLUDING ORGANIC, TIME TO BAN THE PRACTICE

January 30, 2018

Our multi-billion dollar food industry is getting away with using our dinner plates as disposal sites for oil wastewater from dirty oil corporations in California like Chevron.

Water samples have determined that the wastewater contains dangerous chemicals, some that are linked to cancer.

This is a threat to our health, the health of farmworkers who grow our food, and our environment, yet our Governor Jerry Brown and our legislators have failed to take action on this pressing issue.

Why is toxic oil wastewater being used to grow our food?

Oil companies in California are selling wastewater from their drilling operations to several local irrigation districts, which in turn mix it with the water they sell to growers to irrigate their crops.

This sounds complicated, but what it means is that the toxic wastewater, which could include up to 173 different chemicals, ends up in the water used to irrigate popular crops that are shipped across the country. A lot of the fruits, veggies and wines irrigated in this area are going to look familiar — like Halos Mandarin oranges, a popular snack marketed as being “pure goodness.”

Other companies growing in these districts:

POM Wonderful Pomegranate Juice
Wonderful Pistachios
Sunview Raisins
Bee Sweet Citrus
Sutter Home Wine

“People are outraged, especially parents, when they find out the products they’re buying, sometimes organic, are actually being raised with oil and gas wastewater.” —Wenonah Hauter

If we don’t ban it, it could spread:

Currently, four water districts in the Central Valley use this toxic water. But with such a neat way for the oil and gas industry to dispose of their noxious wastewater (not to mention looming water shortages) it isn’t hard

to imagine this becoming industry standard. It’s not clear whether the practice may already be going on in other states.

Our California Food and Water Watch director Adam Scow, points out that this practice is even more deceptive than pink slime*. “So-called healthy brands grown in these districts are using toxic waste to grow crops and then labeling them as pure goodness.”

A lot of these fruits and veggies are grown with toxic wastewater are the same ones we feed our children. You can see the shocked reactions of shoppers as they watch. The consensus? We just need to ban it.

This practice threatens the safety of our food, the farmers and workers who irrigate and pick the crops, and environment.



Frack Report FoodandWaterWatch.org WineWaterWatch.org Marianne Sorisalo

FRACKING WASTEWATER ACCUMULATION FOUND IN FRESH WATER MUSSELS’ SHELLS

October 22, 2018

Elevated concentrations of strontium, an element associated with oil and gas wastewaters, have accumulated in the shells of freshwater mussels downstream from fracking wastewater disposal sites, according to researchers from Penn State and Union College.

“Freshwater mussels filter water and when they grow a hard shell, the shell material records some of the water quality with time,” said Nathaniel Warner, assistant professor of environmental engineering at Penn State. “Like tree rings, you can count back the seasons and the years in their shell and get a good idea of the quality and chemical composition of the water during specific periods of time.”

In 2011, it was discovered that despite treat-

ment, water and sediment downstream from fracking wastewater disposal sites still contained fracking chemicals and had become radioactive.

In turn, drinking water was contaminated and aquatic life, such as the freshwater mussel, was dying. In response, Pennsylvania requested that wastewater treatment plants not treat and release water from unconventional oil and gas drilling, such as the Marcellus shale. As a result, the industry turned to recycling most of its wastewater. However, researchers are still uncovering the long-lasting effects, especially during the three-year boom between 2008 and 2011, when more than 2.9 billion liters of wastewater were released into Pennsylvania’s waterways.

“Freshwater pollution is a major concern for both ecological and human health,” said David Gillikin, professor of geology at Union College and co-author on the study. “Developing ways to retroactively document this pollution is important to shed light on what’s happening in our streams.”

The researchers began by collecting freshwater mussels from the Allegheny River, both 100 meters (328 feet) upstream and 1 to 2 kilometers (0.6 to 1.2 miles) downstream of a National Pollutant Discharge Elimination System-permitted wastewater disposal facility in Warren, Pennsylvania, as well as mussels from two other rivers — the Juniata and Delaware — that had no reported history of oil and gas discharge.

Once at the lab, they dissected the shell and then drilled and collected the powder from the shell layer by layer to look for isotopes of two elements: oxygen, used to determine the year and season, and strontium, both of which carry a distinctive signature of the rock formation where they were produced. The results were recently published in Environmental Science & Technology.

What the team found was significantly elevated concentrations of strontium in the shells of the freshwater mussels collected downstream of the facility, whereas the shells collected upstream and from the Juniata and Delaware Rivers showed little variability and no trends over time.

Surprisingly, the amount of strontium found in the layers of shell created after 2011 did not show an immediate reduction in contaminants. Instead, the change appeared more gradually. This suggests that the sediment where freshwater mussels live may still contain higher concentrations of heavy metals and other chemicals used in unconventional drilling.

“We know that Marcellus development has impacted sediments downstream for tens of kilometers,” said Warner. “And it appears it still could be impacted for a long period of time. The short timeframe that we permitted the discharge of these wastes might leave a long legacy.”

According to the U.S. Department of Energy, up to 95 percent of new wells drilled today are hydraulically fractured, accounting for two-thirds of total U.S. marketed natural gas production and about half of U.S. crude oil production.

“The wells are getting bigger, and they’re using more water, and they’re producing more wastewater, and that water has got to go somewhere,” said Warner. “Making the proper choices about how to manage that water is going to be pretty vital.”

Warner added that there is not much difference between conventional and unconventional wastewater from a pollution standpoint. He



Tom McGlynn

said high levels of strontium, sodium, chloride and other contaminants are still present with conventional oil and gas development.

Now that the researchers know that freshwater mussels can be used as chemical recorders of fracking pollutants in waterways, they would like to look at the soft tissue of the freshwater mussels, since muskrats and fish feed off them. They also hope to expand their research to include other specific pollutants that likely bio-accumulated in areas of surface water disposal.

“We want to see what metals the mussel incorporates predictably and which ones it doesn’t,” said Thomas Geeza, a doctoral student in environmental engineering at Penn State and co-author on the study. “We’re trying to develop this as a tool that can be used in other waterways to answer other questions.”

The mussels could also be used to investigate possible seepages occurring at facilities.

“We tested if fracking fluid discharge from a wastewater plant was recorded in shells, but one could imagine also using this technique to investigate leaks from holding ponds or accidental discharge into streams nearby fracking operations,” said Gillikin.

Jennifer Matthews Penn State University

ANADARKO

Anadarko, America’s third largest fracking company, was a 25% partner in the BP Deep Horizon well that blew out in the Gulf of Mexico. In February of this year, a Federal judge rejected Anadarko’s claims that others

were to blame, and held the company liable for costs and penalties associated with the spill. Anadarko may also face billions of dollars in liabilities and litigation brought by Tronox, a former spinoff, that claims Anadarko should be held accountable for some 2,800 polluted sites. In 2002 Anadarko and two other companies paid \$1.05 million in penalties and agreed to spend \$8 million for remediation related to violations of the Clean Water Act. In 2007 Anadarko was fined \$157,500 by the EPA for destroying wetlands in Wyoming.

BP

Though final responsibility has yet to be adjudicated for the BP Deepwater Horizon blowout, we know it was BP, America’s fifth largest fracking company”, that filed a safety plan for it’s Gulf of Mexico operation, detailing the measures it would take to protect local walruses and seals. And we know it was BP that told the public only 5000 barrels a day was leaking from the Deepwater Horizon well, when its own engineer was saying 15,000 (and the real figure was much higher still). In 2007, the company paid the Justice Department \$373 million to settle charges pertaining to a fatal Texas refinery explosion, manipulation of the propane market for the purpose of price gouging, and a massive Alaska oil spill, for which it pleaded guilty to a misdemeanor violation of the Clean Water Act.

CHESAPEAKE ENERGY

In April of this year, a blowout at Chesapeake rig in Wyoming forced more than sixty families to evacuate. In February of this year, The Pennsylvania Department of Environmental protection (DEP) fined Chesapeake, America’s second largest gas company”, \$565,000 for failing to protect streams and wetlands as required by law. In May of 2011, the DEP fined Chesapeake over \$1 million for contaminating water in Bradford County. In March of 2010, Chesapeake was fined \$20,000 for withdrawing more water from Bradford and Sullivan Counties, PA, public water supplies than their permits allowed. In 2009, Chesapeake was fined \$15,557 for spilling hydrochloric acid in Bradford County, PA. Also in 2009, Chesapeake was fined \$22,000 each for the deaths of 22 cattle near a gas-drilling site in Louisiana.

CHEVRON

Chevron, the second largest oil company the United States, is also America’s ninth largest natural gas exploration company”. Native peoples in Ecuador allege that, over the course of two decades, Texaco, now part of Chevron, spilled more than 17 billion gallons of oil and dumped more than 18 billion gallons of toxic drilling waste, contaminating more than 1700 square miles of pristine Amazonian rain forest and causing, among other things, a cancer rate seven times higher than the national average.

In January of this year, an Ecuadoran court ordered Chevron to pay a fine of \$18 billion, the largest such penalty ever assessed, but the case is still in a tangled litigation limbo.

Chevron has repeatedly been accused of environmental crimes and human rights abuses including murder, in Nigeria. In March of this year, following a spill, Brazil suspended all of Chevron’s drilling activities, barred it from new oil fields, fined it \$30 million, prepared a legal action and ordered 17 executives not to leave the country without judicial approval.

DEVON ENERGY

In March, Devon, America’s fourth largest fracking company”, paid a \$3.5 million fine to the U.S. government for it’s failure to pay natural gas royalties on federal and Indian land. In January, Devon took \$2.2 billion from the Chinese government for a one-third stake in five gas plays, including Ohio’s Utica Shale. In 2010 a family in Denton County, Texas sued Devon for contaminating

their water. The plaintiff’s attorney alleged, “We believe that hundreds and more likely thousands of property owners have already had the water beneath their surface essentially ruined...” Also in 2010, Devon reportedly threatened to cap all its wells in Denton, TX, depriving the town of revenue, if then mayor Calvin Tillman didn’t stop criticizing the industry for polluting.**

ENCANA

In 2012, following up on a Nov. 22, 2009 gas spill in British Columbia, the Ministry of Environment charged Encana, America’s 6th largest fracking company”, with introducing waste into the environment and failing to report the spill of a polluting substance. In August of 2010, Encana agreed to pay \$200,000 and pleaded guilty to charges in connection with the deaths of protected migratory birds in the company’s open wastewater ponds in Colorado. Encana is the major gas company fracking near the Wyoming aquifer, which a preliminary report from the EPA said had probably been contaminated by gas drilling. The EPA found that Encana had ailed to seal its wells properly.

EXXONMOBIL

The 1989 Exxon Valdez spill may be the most famous disaster attributable to America’s number one fracking company”, but it is hardly the only one. In 1998, Exxon was assessed with a \$760 million punitive damage award to workers who had been exposed to toxic chemicals. In 1990, an Exxon pipeline spilled 567,000 gallons of oil into a waterway between New York City and New Jersey, leading the company to eventually admit that its leak detection system hadn’t been working reliably for 12 years. Mobil was associated with decades of environmental degradation and human rights abuses in Nigeria. Villagers in Aceh, Indonesia, are currently suing ExxonMobil for complicity in brutal repression by the Indonesian Army, including rape, torture, kidnapping and murder. And the company is, reportedly, a responsible party for 41 Superfund sites in seventeen states.

HALIBURTON

The prime developer of the fracking process, Haliburton was also the company responsible, in 2010, for cementing the borehole on the BP Deepwater Horizon well. Though final legal responsibility has not yet been determined, it has been alleged that Halliburton continued using faulty cement for weeks after discovering it was unstable. Also in 2010, the United States filed a suit against a Haliburton subsidiary over improper charges for work in Iraq. In 2009, Haliburton pleaded guilty and agreed to pay a \$559 million fine in connection with a scheme to bribe officials in Nigeria. In 2004, Haliburton paid a \$7.5 million fine for misleading investors about its profitability (during the period when Dick Cheney ran the company). In 1995, Haliburton paid a \$3.8 million fine and pleaded guilty to shipping equipment – including pulse neutron generators that could trigger a nuclear weapon – to Libya in violation of U.S. ban.

SCHLUMBERGER

In 2010, Schlumberger, the world’s largest oilfield service company, admitted to breaching, health and safety laws in connection with the careless handling of radioactive materials in the North Sea and was fined approximately \$480,00 by the Aberdeen Sheriff Court. In 2009 the Pennsylvania DEP fined Schlumberger \$15,557 for a 295-gallon spill of hydrochloric acid near Townanda, PA. In 1999, a U.S. District judge in Washington, DC, found Schlumberger guilty of criminal contempt for forming a joint venture in defiance of a previous decree.**

*by amount of daily natural gas production, rankings from propublica.org
**research assistance by Anna Kucher

Jeremy Weir Alderson
The No Frack Almanac

WHAT HAVE WE DONE?

CAROL FRENCH

Nearly 30% of the rural farmland located in Bradford County, Pennsylvania was already leased prior 2006. We and 50% of the county decided to lease our land for an average \$5-\$85/per acre. It would take two more years before the gas companies would convince another 10% to lease their land at \$2,500 or more/ per acre. During this leasing process, you could feel the excitement. It was the talk of the town. There were suggestions made that if a gas well was drilled on your property you would become the next “shaleionaires.” Everyone was to prosper, new roads, jobs, additional money from leasing and royalties. It was too good to be true!

By the spring of 2009 there was uneasiness among the farmers that had a gas well drilled on their property. The local newspaper was reporting contamination found in water wells, death occurring on a gas pad and the farmer was facing the fact that he could lose his farm, due to lawsuit based on the gas companies operation. For myself, I was thinking that our lucky neighbor was going to become the next millionaire, because they had the gas well drilled on them. Soon my mind changed. Those farmers were facing penalties lodged against them, due to their land becoming industrial use instead if agricultural use. Landowners found themselves seeking legal advice, only to find that the attorney’s were not experienced in Oil & Gas law, and had a conflict of interest. Example: If the landowner could not afford the attorneys fee, the attorney would simply attach his name to the royalty interest for payment.

My neighbor (Carolyn) and I attended a presentation by a professor from Penn State University. He made a statement, saying that we must sacrifice; it was our patriotic duty to assure our Country would be independent from foreign oil. I could not wrap my mind around what he was saying. Was there legislation insuring that our natural resources would stay in this country? What did he mean we would have to sacrifice?

In December 2010 – January 2011, three gas wells were drilled near our farm. Farmland was getting ripped up like old material for a patchwork quilt. In the middle of 2011, five more gas wells were drilled, surrounding our farm. Two of the gas wells were less than 4,000 feet away.

My water changed March 15, 2011. Our water appeared pearly white. Then it had a layer of green moss settling on top of a ¼ inch sand as the water would become gelatin like. By October 2011, my daughter became ill. She had a high fever, diarrhea, weight loss of 10 pounds in 7 days, and severe pains in her abdomen. At the hospital they found her liver, spleen and her right ovary was extremely enlarged. Our neighbor living north of us had the same health issues after her water changed in March of that year, except her spleen burst three days after she went to the hospital. We knew our

daughter would have to leave Pennsylvania in order to have a chance of a healthy, normal life. She moved to Tennessee. We don’t drink the water or the milk from our cows. We still have to bathe in it. Our state agency (Department of Environmental Protection) refuses to test our water; therefore the gas company will not provide water for our cows and my family.

I now believe I understand what he meant by “we are to sacrifice.”



Igor Langshbeyn

It is October 3, 2012. Many that quit their previous jobs to work for the gas related companies are now unemployed. We have become “prudent partners” with the gas company, by signing a lease, now we are finding ourselves responsible for their debts (Mechanics Liens). There are for sale signs in the yard of a contaminated farm. The farm lost 80%-90% of it’s value, possibly losing it’s milk market, and who will buy his cows? Many living in Bradford County have “changed” water, depending on the gas companies to provide water for their families and farms. This has become a huge, expensive burden to the gas companies. Some of the gas companies operating in Bradford County have chosen not to pay for the water bill, resulting in no more water deliveries to the affected families. Other residents have been given water filtration systems, resulting in additional cost to the resident.

We were given a chance to dream, not knowing the true value of what lies so far beneath our land. Not aware of the type of operations that would be conducted on our land. We believed in false promises made by the gas industry. Now I wonder, will these private gas companies produce natural gas for this country or produce natural gas for sales overseas, selling to the highest bidder? This would crush the theory of “sacrifice for our country allowing independence from foreign oil.” I keep asking myself, what have we done?

EARTH MOTHER PATE

CARL WATSON

If you stick a tube down a goose's throat
Force feed it a chemical concoction of corn
You get a nice fat liver, to grind in a blender
With spices to serve on crackers or toast
To the takers, for whom you are the host.

If you force doctored milk down a penned calf
Immobilized so as not to damage the muscle
Forbidding him to wander, mature or mate
You get that soft bloodless meat, highly prized
At the banquet table of the human feast.

If you fill a man's vein's with hormones & heroin
Just keep pumping it in, despite any illusion
Of ecstasy or satiety your victim might enjoy,
You get a hollowed man, in fact, who, if his head
Has not exploded, his frame will sadly collapse.

If you pump the toxic elixirs in the earth's crust
Fracturing it for the pleasures of commerce
The devices that will be driven by the extract
May well speak to their slaves: "It's alright.
This world was made to appease your appetite."

While it may seem profitable to force
One's will against the structure of Paradise,
For pate or veal or fuel or glory or other trophy,
The unseen bargain bars the desired result
As the parasite atrophies with its host,
That material world we wound.

FRACKTURE

MICHAEL CARTER

It didn't begin with the fracking but the crack just grew...
Darwin's fracture sutured it temporarily as his leg healed,
Or way before that, fissures in a bonding that appeared of limestone,
But was built of tenuous shale, toxic chemicals and blasts
Of fresh water released all the gas out of that stentorious balloon,
Destroyed whatever gravitational force had held the firmament in place before
The walls came tumbling down and the earth gave way;
Yielding English tremors; drilling without verifiable yield,
These sawfished puller-things deep in earth,
Tilted, horizontal all whichways,
Regardless the spiritual reap; so many moments of tenderness
And passion only apparently distancing the reaper; undone
By the myriad faults of love and lovers--chasms and promontories,
We all fall into or bound over when the heart cracks
And the earth's crust loses its cohesion, derided
By filthy rich oilmen and their cabal of corporate cronies,
Who deny the 99 percent even a 2% tax-cut...
How long does it take before the wounds stop?
The sudden dyspnea in the middle of the night, or for
The underground streams to recover from devastation;
Why this relentless harrowing of what seemed solid stone?
Temples ransacked by pulsing migraine and doubts
The excavation was ever safe at all? Is it all
To build a Temple to the Sun only for human sacrifice,
Exploit the fumes within the rocks a few more years;
Did the Mayans really know that in the year 2012
Water would ignite?

ON THE PLAINS

KATHARINE DAWSON

up here, upstate, i be needin' a high plains drifter myself, a shane [you remember that shane, that gunslinger helpin' out the single mom against the hired thugs] i be needin', we all be needin' a high plains drifter, nay, dozens of high plains drifters and twenty-nine shanes, to run off, run out, rub out those natural gas mafia corporosi/capitalisti/ufficiali dello stato coming to take us out with their "legal" chemicals in the fracking fluids, as they make megabucks for india, japan, norway and ye olde american investors. SOW is our new SOS and it don't spell female pig--it taps out SAVE OUR WATER! SAVE OUR WATER! SAVE OUR WATER!

rap this and rap on--pass the message on--natural gas ain't the clean energy, that's the corporate lieeeeeeeee

NAKED...

KATHARINE DAWSON

The naked pride of people standing to announce their full support of natural gas drilling in the Town of Guilford
The naked pride of people
locks with a citizen's harsh warning
that Chenango County stands naked ...
before the might of the multinational natural gas corporations.
What will be the fruit of this naked coupling...? The thrusting of opinion?
Heard last night at the Guilford town board meeting
during the public speaking time.
Mangled limbs, headless bodies?
the fatty important opossum scurrying away from my headlights as I left the meeting
never again to drink safely crick and river waters?

FRACK IS CRACK

GONZALEZ/
NEGRINI

Frack is crack
It sets us back
Turns everything black

Frack is crack
Crack is wack

I don't smoke crack
Don't drink crack

No drill no spill no kill
Don't worry and take a pill

Don't crack mother earth
She trying to give birth

Frack is crack
Frack is wack

DRILLING ON STEROIDS FORMER MOBIL VP WARNS OF FRACKING AND CLIMATE CHANGE

ELLEN CANTAROW

Few people can explain gas and oil drilling with as much authority as Louis W. Allstadt. As an executive vice president of Mobil oil, he ran the company's exploration and production operations in the western hemisphere before he retired in 2000. In 31 years with the company he also was in charge of its marketing and refining in Japan and managed its worldwide supply, trading and transportation operations. Just before retiring, he oversaw Mobil's side of its merger with Exxon, creating the world's largest corporation.

The first in a modest Long Island German-American family to graduate from college (the US Merchant Marine Academy), Allstadt got a master's degree in business administration from Columbia University then was hired by Mobil. Before his retirement he wasn't aware of a new, sophisticated form of rock fracture, high-volume hydraulic fracturing, developed only in the late 1990s. "It just wasn't on our radar at that time," he said. "We were heavily focused on developing conventional oil and gas offshore in deep water."

Quaint, arty Cooperstown, home of the Baseball Hall of Fame, is perched on the shores of Lake Otsego, which supplies drinking water to the village and glimmering, placid expanses for kayakers and boaters. Allstadt launched his leisure years in this idyllic spot, intending to leave the industry behind. He founded an art gallery with his wife, Melinda Hardin, made pottery, kayaked, taught other people to kayak, and played tennis. But then friends started asking him questions about fracking - it had been proposed near the lake. What he saw as he began investigating the technology and regulations proposed by New York's state Department of Environmental Conservation (1,500 pages titled "Supplemental Generic Environmental Impact Statement, a.k.a. 'the SGEIS'") alarmed him. In these pages last year he called high-volume fracking "conventional drilling on steroids." "Just horrible," is how he described the 2011 SGEIS in our conversation in June 2013.

Allstadt has become an indispensable guide for one of the country's most powerful environmental movements, New York's grass-roots anti-fracking resistance. Recently he was elected a Cooperstown Trustee. He is modest and low-key, his authority hallmarked by personal understatement. He said this interview was a first for him: earlier talks and interviews have focused on what he calls "tweaking the technology and [promoting] tighter regulations." Never before has he focused squarely on the industry's impact on the planet's atmosphere.

A note about interview chronology: Allstadt's observations about the Obama climate-change address were added in phone conversations in July 2013. The rest of the interview took place in person in mid-June 2013. A brilliant June sun illuminated the greenery of gardens below the back porch of the Cooperstown house where we spoke. In the driveway, a kayak rested atop a car.

We began by discussing fracking as part of what oil-scholar Michael Klare calls "the race for what's left."

Louis Allstadt: The fracking that's going on right now is the real wake-up call on just what extreme lengths are required to pull oil or gas out of the ground now that most of the conventional reservoirs have been exploited - at least those that are easy to access.

Elen Cantarow: So could you describe the dangers of this industry?



John Fekner

LA: First of all you have to look at what is conventional oil and gas. That was pretty much anything that was produced until around 2000. It's basically a process of drilling down through a cap rock, an impervious rock that has trapped oil and gas beneath it - sometimes only gas. If it's oil, there's always gas with it. And once you're into that reservoir - which is really not a void, it's porous rock - the natu-

ral pressure of the gas will push up the gas and oil. Typically you'll have a well that will keep going 20, 30 years before you have to do something to boost the production through a secondary recovery mechanism. That conventional process is basically what was used from the earliest wells in Pennsylvania through most of the offshore production that exists now, that started in the shallow water in the Gulf of Mexico and gradually moved down into deeper and deeper water.

Now what's happened is that the prospect of finding more of those conventional reservoirs, particularly on land and in the places that have been heavily explored like the US and Europe and the Middle East just is very, very small. And the companies have pretty much acknowledged that. All of them talk about the need to go to either non-conventional shale or tight sand drilling or to go into deeper and deeper waters or to go into really hostile Arctic regions and possibly Antarctic regions.



John Fekner

**METHANE RELEASE:
FRACKING THE PLANET'S FUTURE**

So when you talked about "the race for what's left," that's what's going on. Both the horizontal drilling and fracturing have been around for a long time. The industry will tell you this over and over again - they've been around for 60 years, things like that. That is correct. What's different is the volume of fracking fluids and the volume of flow-back that occurs in these wells. It is 50 to 100 times more than what was used in the conventional wells.

The other [difference] is that the rock above the target zone is not necessarily impervious the way it was in the conventional wells. And to me that last point is at least as big as the volume. The volume will tell you that the mile or two between the zone that's being fracked is not going to let anything come up.

But there are already cases where the methane gas has made it up into the aquifers and atmosphere. Sometimes through old well bores, sometimes through natural fissures in the rock. What we don't know is just how much gas is going to come up over time. It's a point most people haven't gotten. It's not just what's happening today. We're opening up channels for the gas to creep up to the surface and into the atmosphere. And methane is a much more potent greenhouse gas in the short term - less than 100 years - than carbon dioxide.

METHANE-MIGRATION EVIDENCE AND THE DEC

EC: Was there any major turning point that started you thinking about methane migration?

LA: There were many. An example is that one of the appendices of the draft SGEIS [New York Department of Environmental Conservation guidelines for the gas industry] that was issued in July 2011, had a section describing an EPA study of the only cases where similar fractures had been unearthed. These were in a coal-mining area. The EPA investigation indicated that the fractures had progressed in unexpected patterns and at greater lengths than expected. In September, when the draft SGEIS was eventually put out for comment, that section had been expunged.

EC: That's shocking! I know a lot has been discovered about the

"collusion" between New York's DEC and the industry. Is this one big example?

LA: Yes, it is. To ignore the only direct evidence of fractures, or to remove it from public information, indicates that the industry was trying to hide something. The other point is that in terms of a turning point (in my thinking), here is evidence that the fractures go further and in patterns that were not expected. It showed that fractures could allow methane to reach drinking water aquifers or the atmosphere.

IN CHARGE AT MOBIL

EC: Let's back up for a moment to your career at Mobil. Were you thinking about climate change then?

LA: Just starting to in the 1990s. When I first heard about it I thought climate change was overblown. I don't think anybody in the industry was focused on it at that point

EC: And did you have any idea you would be talking to a reporter about it?

LA: No, not at all.

EC: Maybe you could talk a little about what you did at Mobil. You were in charge ...

LA: I was in charge of the US and Latin America.

EC: In charge of exploration?

LA: Mostly production. There wasn't a whole lot of exploration going on in this area.

EC: What does being in charge of production mean?

LA: Production is everything other than finding something in the first place. There was some exploration going on, more in the Eastern hemisphere than the West at that particular point in time. But if you have already discovered a field, production means drilling more wells to further delineate it and to get more production out of it or going back in and doing secondary recovery operations or buying fields from somebody else and combining them with yours, things like that.

Later I was in Japan and Singapore for a total of 12 years, ended up running Mobil's operations in Japan, which was their biggest [marketing and refining] operation outside the US. And then I came back to headquarters in the US to head up the logistics area - all of the shipping, about 40 tankers moving oil around the world, buying types of crude oil that we needed, selling types that we didn't need, making sure that all of our refineries around the world got the right supplies at the right time and then also trading oil with other companies. And after that, Mobil did a major reorganization and put me over in an exploration-producing job. When the merger with Exxon came along, I was in charge of implementing the merger from the Mobil side.

A QUIET RETIREMENT GETS FRACKED

I retired with no intention of doing anything in the oil or gas industries. [But] about the time we bought this house and started restoration, people that knew I had been in the oil business started saying, what do you think about fracking? I had not been following it at all, and said, "What do you mean?" " They said, 'They're talking about maybe drilling gas wells 100 or 150 feet from the lake.'" I said, "That's crazy. It doesn't make any sense, I'll see what I can find out."

That's where it started. I started looking into it, realized what the new process was, and looked at the New York State regulations, and at that point they were just starting to draft the first version of the SGEIS, and they were just horrible. They didn't make sense even for conventional drilling, most of them, they were so weak.

Initially I put together a little presentation. People started asking me if I would talk about it. It just happens that there are a few people within a couple miles of here that know something about it. We had different approaches, different styles, but we would share information. The focus at that time was the SGEIS, which was supposed to guide the establishment of high-volume hydrofracking. I ended up giving presentations to many towns around upstate New York. Sometimes this was on my own or in a small group. Sometimes it was as part of panel discussions with people from both sides of the fracking debate.

EC: So to go back to your earlier comments, what are the future consequences?

LA: 20, 30, 100 years down the road we don't know how much methane is going to be making its way up. And if you do hundreds of thousands of wells, there's a good chance you're going to have a lot of methane coming up, exacerbating global warming. ... That is what Tony Ingraffea is talking about as part of the problem. [Anthony Ingraffea, Dwight C. Baum professor of engineering at Cornell University, in 2011 co-authored a landmark study on the greenhouse-gas footprint of high-volume fracking.]

What you [also] don't know [is that] when you plug that well, how much is going to find its way to the surface without going up the well bore. And there are lots of good indications that plugging the

well doesn't really work long-term. There's still some pressure down there even though it's not enough pressure to be commercially produced. And sooner or later the steel casing there is going to rust out, and the cement sooner or later is going to crumble. We may have better cements now, we may have slightly better techniques of packing the cement and mud into the well bore to close it up, but even if nothing comes up through the fissures in the rock layers above, where it was fracked, those well bores will deteriorate over time. And there is at least one study showing that 100 percent of plugs installed in abandoned wells fail within 100 years and many of them much sooner.

THE WAY FORWARD

EC: So what's the solution?

LA: I think we have wasted a lot of time that should have gone into seriously looking into and developing alternative energies. And we need to stop wasting that time and get going on it. But the difficult part is that the industry talks about, well, this is a bridge fuel [that] will carry us until alternatives [are developed] but nobody is building them. It's not a bridge unless you build the foundations for a bridge on the other side, and nobody's building it.

EC: Have corporations like Mobil considered developing alternative energies?

LA: Yes. Back after the first [1973] and second [1980] oil crises, when we had the spikes in prices and the lines and rationing, there was a lot of talk and substantial investments in alternative energies. Mobil invested in solar, and so did Exxon, and kept it going for quite a number of years. They abandoned it as just not coming up to the technical promises [because] solar cells weren't converting enough sun to electricity to be economically viable. There was also at that time a fair amount of work done on shale oil in the Western states, and that was not fracking for shale. It was mining the shale and trying to extract oil from it. It just never came through. More recently there've been attempts at biofuels and some attempts to use algae.

OBAMA AND THE FUTURE

EC: What are your thoughts about President Obama's national address on climate change?

LA: Well, when he talked about the XL pipeline he said he wanted to be sure it didn't increase carbon emissions. When he talks about natural gas, he kind of broad-brushes it and implies it's better than coal (and we now know that's not true).



The whole speech is feeding into [Exxon-Mobil CEO] Rex Tillerson's comments at a recent Exxon-Mobil shareholders' meeting where he said there's nothing we can do to switch to alternative fuels [and still] allow economies to continue the way they are. Society has to solve the problems by dealing with global warming - building levees around the cities, things like that. Obama is feeding into that, saying we have to strengthen the infrastructure. Basically what the industry is doing is unloading all the costs of what it's been doing onto the public. Just go out and build miles and miles of levees around New York City and build drainage systems and things like that. Obama is saying the same thing. We'll go on producing natural gas and keep the cost low by having the taxpayers pick up the cost of dealing with the consequences of global warming. Obama proposed some very positive steps toward developing alternative energies but he is not addressing the impact that methane has on global warming.

FRACTIVISTS AND THE FUTURE

EC: You've been on both sides now - promoting fossil fuel development for your whole life until your retirement and now trying to fight fracking. Do you think the anti-fracking movement and other environmental movements are the main hope now?

LA: I think the main question is how fast can these movements educate enough people about the dangers of fracking and its impact on global warming. It will take masses of people demanding action from politicians to offset the huge amount of money that the industry is using to influence lawmakers, a world-scale version of those standing-room-only town meetings. Something has to wake up the general public. It will either be education from the environmental movements or some kind of climate disaster that no one can ignore.

FRACKING POSTERS ENERGY AND ITS DISCONTENTS

ANN SARGENT-WOOSTER
with TOM McGLYNN



Jon Campbell

What is our relationship to energy and how do we know its effects? Winters were cold in Pittsburgh and several times a year a truck would back up to a special window in the cellar of the Wooster house and dump a rough assortment of black cubes into our coal bin. Did I know it was fuel from the age of dinosaurs and was produced in a dangerous, dirty manner? I had no idea. I wanted to play in this block pile but I quickly learned that I'd be smudged in black all over and scolded for wrongful habits. It didn't stop me. The dust from the coal furnace and the belching steel mills caused me to develop a cough

that lasted several years and introduced me to chocolate chewable penicillin. On family drives when I was a kid in Pennsylvania I saw tall-lighted poles sparkling with blue light. I may have noticed the homes were the run down part of a devil's bargain that produced energy made visible. I'm sure my parents explained about the dangers of underground gas then but I wanted a giant Roman candle in our backyard just like them. I didn't realize it was fortunate that our home wasn't located on a gas field. As we left Pittsburgh driving West I smelled the slag heaps before I saw them. The rotten egg smell made my stomach roll but the black streaming fields had a fascinating combination of beauty and danger that I hadn't seen again till I watched the lava from a recent volcanic eruption in Hawaii cascade into the sea. And I recall old black and white photographs of wildcatters hitting gusher of black gold. Erector set towers spilling forth barrels of oil with men dancing in its greasy bath. Then it was a picture of joy and success. There was no sense of despair we often associate with disasters today such as the 2010 Deep Water Horizon disaster with its 85-day event unleashing 4.9 billion barrels of oil. We all watched this real time event helplessly on our TV screen while cascading streams of oil closed beaches, destroyed industry and covered pelicans and other creatures with a coat of noxious slime.

Television imagery of my childhood convinced me that Los Angeles was a land of milk and honey or at least roller skaters with beautiful bodies in skimpy bathing suits. I was amazed when first true sight of Los Angeles was mile after mile of oil wells lined up outside the city, their heavy heads bobbing and feeding from the earth. The bright blue sky and beautiful beach was backed with a six-lane highway with a constant roar of cars that drowned out the waves of the Pacific. I once went looking for the wild horses of Camarque on the French coast and discovered a miles-long nuclear city glowing by the edge of the sea destroying any sense of wild nature and its beautiful fauna. I drove quickly out of there. The human planet is addicted to energy and nothing seems to get in the way of this destruction of nature that is the result of an unchecked feeding frenzy. It was only with the market-driven gas crisis of the 1970s that Americans in particular began to think about the relationship between gas guzzling cars and the environment. A cycle began then where a problem causes reflection and change with the unfortunately inevitable slide back to massive consumption. We are like dieters who get fatter after each diet. And always there is a profound disconnect between the beauty of nature and our desire for the kind of fuel that destroys it. This return to wasteful resource consumption was accelerated by the deregulation policies of the Reagan administration beginning in 1980.

Fracking, the word grabs you. It's onomatopoeic—the sound of a violent assault on the earth. The name carries the sound of the action. When Andrew Castrucci first began working on this series of silk-screened posters that bring hidden underground meanings of such actions to the light of day the word was little known. Yet "fracking" (primarily due to activists like Castrucci) has gained a more popular and colloquial use. Specifically, the word refers to a violent and unclean way of obtaining oil from up to 10,000 feet below the surface instead of about 50 to 300 feet of a standard oil well. Hydraulic fracturing injects fluid or slurry made up of water, propellants and a variety of chemicals into rock under extreme pressure to release oil and gas naturally secreted there. There is nothing clean about the process, and the risks and damage it causes are extreme. Yet its dangers are just now being understood. Shockingly, understanding of the word, the process, and its discontents is still not widely known. This is true even in the areas most directly affected. The full significance of this process including the toxicity of its by-products and damage to local and national water supplies are not fully understood. Only one out of 20 of my college students



had heard the word and understands its implications for their lives. It is invaluable to bring the risks of yet another dangerous energy seeking extravaganza to a more general discussion in the way the *Fractured Lives* does. The posters produced under the aegis of Andrew Castrucci have the boldness of 21st century graphic design signage and street art to ask questions about this new technique of energy production. They question its impact on the environment especially on the supply of clean water for New York City residents. One of the upstate centers lies regrettably close to the New York City water supply. The graphics of the posters leap from image to image. They become a sequence of rifts, chants, and improvisations, poetry slams about the issues involved. Including our dependence, (you might say our cultural addiction) to oil. The choice of the word fracking to describe the process of shattering earth beneath our feet is clearly no accident. In its repetition its like the sound of a bomb being exploded or a rifle fired. The posters are similarly explosive in their tense suggestions of the process of spectacular attraction and repulsion. "Hacked" images of familiar emblems are a short-circuit to significance. They draw us in. We think we know many of them but their usage here does not follow our neural pathways of habit and memory. They twist us from the comfort of experience and by adding irony and other devices they ask us to question authority. Here language plays a vital role. The images are often soul-seeking hoping to raise a moral conscious but the words have their own insistent beat that doesn't let us forget their message of resistance.

Castrucci and his not-so-merry band of provocateurs are raising the real effects of fracking in our midst. We are subsequently twisted from the comfort of passive spectators and asked to question authority. This work recalls the famous Act Up AIDS awareness logo "Silence=Death". The collective aim of these words and images on paper is to open a discussion. The critic Leo Steinberg repeatedly said the best art is about ambiguity and although these posters fall within the most sophisticated forms of historical agitprop, they create awareness without resolution. They become restive tattoos: heartbeats creating a climate of drifting excitement and vagrant unease. Logos of major gas companies are detached from their propagandistic use as capitalist signs and demonized, for instance. One poster adds horns and the word Hell to a Shell accompanied by the word, "hell" and yet another turns the logo into a skull. Another poster changes energy logos into emblems of the 7 deadly sins: envy, lust, wrath, sloth, gluttony greed and pride. A young boy urinates an elongated black tear drip (of oil). Provocative words reinvest images with newer meanings and create a climate of detached signifiers that goad one to thought and action. The destruction of water is a recurring theme in many of the posters. One bright green poster features an unhappy face as if it has just stuck out its tongue in distaste. The words accompanying the image suggest: "Be sure to put one on your faucet." In another image a large lush blue green water drop rests on a top to bottom grey field of words listing the chemical names of fracking solutions. In yet another poster a bright blue mother and baby rest on a white field. They have "X"s for eyes. At the top in the same shade of blue is the word "Fracking" that has been crossed out with a line of red. Another image depicts a young woman straight out of a line drawing for a vintage diner menu holding a "Flaming cocktail" presented in a martini glass. Below the image it says, "100% tap water." Such images conspire to say that fracking makes it dangerous to drink the water you have been drinking your whole life. As one poster says in large, red hand-drawn letters describes: Your Water's Fracked." Another poster takes the same idea a step further by drawing a tombstone inscribed with the words "US Drinking Water." A large blue water drop floats in another image on a white field. Inside the drop it says, "Water is our life blood." Conversely, death is more directly referred to in other posters. There is a freely drawn black skull, for instance, on an orange field. Underneath

**THIS LAND
IS OURS
SPECULATORS
KEEP OUT**

it are two crossed drills like crossed swords and one of them is labeled "frack off." Another image shows a blown-up and abstracted photograph of a gas mask made set at 3/4 view. The eyes and mouth look out at you in an unnerving way that suggests a pig in sunglasses. On top it reads, "Warning Government Issued Gas Mask." Down below it says, "Please report to the nearest town hall to receive your government issue gas mask. This is to ensure safety to the areas located near the hydraulic fracturing lines."

Significantly, the posters are often set out in public and on billboards along the highway (as they have been in the past in actions of civil protest and disobedience) This aspect of the project locates the works within developments in contemporary art starting (at least in the United States) 40 years ago in the late 1960s and early 1970s. There was a concerted movement, by organizations such as Art Workers Coalition and many others, to take art out of the gallery and museum and place it within the general culture. Artists aggressively addressed problems in society through posters combining images and words. These generally lead to a new form of hybrid print or poster, part fine art, part pop image, part politics. Art world devices combined with the signage, typography and graphic design of rock and political posters to generate a new, hybrid energy. The print and the printed poster were equally art objects and ephemeral. A radical rethinking of the nature of art at this time led to a re-evaluation of categories of high and low art. There was a deliberate erasure and recombining of categories so that the boundaries between fine art and applied art were blurred and dissolved. Artists used places and surfaces other than canvas and museums and galleries to situate their art. Magazine spreads, posters, advertising posters on the subway, the spectra color board at Time Square, signage on trucks, and posters, t-shirts, baseball hats, benches and other places and methodologies were used to disseminate art.

Language based art that originated in Conceptual art and feminist art were particularly successful as the basis for this air borne transmission. The print and the poster, which had first been understood as a handmaiden to fine art, has become a glorious end in itself. This strategy could be seen most clearly in Jenny Holzer's "Truism" series of street posters from the late 1970's and in the posters and exhibitions of General Idea from the early to late 1980's. Such "out of the white cube" tactics have taken on a new prominence as an aesthetic form unto itself. The poster images in *Fractured Lives*, and the book of text accompanying them, continue in this radical tradition.



**THE DAY THE TIDE TURNED
3000 FEET MARCH
AUGUST 27TH 2012**

POSTQUAM

Fractured Lives is a collaborative book and poster project, ten years in the making, consisting of writings and original silkscreens bound in sheet metal, wood and bolts. The contributors to this book together form a coalition against hydro-fracking with over 177 artists and writers represented. An edition of 50 implies mechanical precision and exact repetition of each of the prints, but each of the volumes of *Fractured Lives* is slightly different. It is more in the nature of a suite. It is a great example of how good art can metastasize into uncontrollable infinite forms. The variability is partly from the handmade process of this approach to silkscreen that celebrates the process of making. The nature of silkscreen printing is with each stroke, each squeegee wipe there can be 40-50 variations: some brighter, some darker, some lines thinner and some thicker. The color changes, especially in this collection of posters printed by many hands. The variability of the books in this project makes each volume more like an artists' proof. Each book is slightly different and therefore unique. Out of 64 prints printed over a 10-year period, some books include different variations of edition. Still keeping the integrity of a solid group of prints in the edition of 50 books. The choice to individually bind the books in sheet metal reflects both the content of the book and the nature of bookbinding. Each book has been manually hammered. You can clearly see the repeated marks made by a tinsmith's mallet. The book has a beat up gritty urban quality like some sidewalks in New York. It is also a steel crate-like bound book holding the collection of writings and silkscreen prints that make up the weight and size of the book. 21" wide x 24" length and 2.5" depth = 25 pounds, symbolizes the content of the book, the struggle, the fight, the victory. "The Day the Tide Turned", 3000 feet pound the pavement, 8.27.12, 2010-20.



FRACKTIVIST MANIFESTO

Zone of resistance: Central New York. Radius (metaphysical center): New York State Southern Tier, northern part of the Unadilla river tributary of the Susquehanna. Dividing line of resistance /border: On the treaties meeting grounds, Like the Five Nations (Iroquois Confederacy) Central New York Anti-fracking coalitions unite in power. The day the tide turned: People power took to the steps of the New York Legislature in Albany, August 27, 2012.

convincing Governor Cuomo to ban fracking statewide. Home rule: Ban fracking. Home invasion: oil and gas conglomerates constantly coerce towns to organize independently against the state to amend home rule. Home is where the heart is: the tenacity of the upstate people's coalitions not only forced the governor to reconsider fracking, but also forced a ban on compressor stations and the laying of the Constitution Pipeline along the Susquehanna River.

Political representatives no longer represent: We as activists are forced to step up as America's moral compass. Muckrakers, pushing the debate. Life out of balance. Fracking is a form of chemical warfare on the poor- the rapacious classism of late Capitalism. The Southern Tier, poorest region of New York State, is targeted for fracking development. Low hanging fruit (soft targets) in the sights of successively more cynical EPA leaders under Trump: allies of the developers.

"NEVER DOUBT THAT A SMALL GROUP OF THOUGHTFUL, COMMITTED CITIZENS CAN CHANGE THE WORLD; INDEED, IT'S THE ONLY THING THAT EVER HAS."
MARGARET MEAD

SOURCE TEXT:

Page 4
1. "Frackivist Manifesto" (Page 35)

Page 6-7
1. "Cancer Deaths are Linked to Wastes in Jersey Study", New York Times 7.8.82
2. "Bronx Ashting Numbers Among Highest in U.S.", News 12 NY 5.18.18
3. "Disposal Locations Unknown", Chemung NY, frackracer.org 10.9.19
4. Castrucci/Piccoli, "The Rude Algae of Time"
5. Superfund Site 1999-2008 Unadilla River NY, West Winfield, Hilman Co. 180,000 gallons industrial wastewater, Chromium in soil sediments, wetlands and river.
6. Richard Rausch, 197 Newton Town Road, Bainbridge, NY c.2000-2010
7. "Rights of Nature Ordinance", Sept. 2006, Tamaqua PA, ejatlas.org, Global Atlas of Environmental Justice 3.25.19
8. Ecological Violence, "Natural Gas Nothing Natural about It", "Fracking PA to Death", Ellen Cantarow, Mother Jones 5.11.12
9. "Trump Advisors Aim to Privatize Oil/Gas Rich Indian Reservations", Reuters.com, Ecowatch.com 12.5.16
10. "America's Radiocactive Secret", Rolling Stone 1.21.20

Page 7 World Shale Gas Basins (Map)
Advance Resources International

Page 8-10
1. According to U.S. Census Bureau estimates, 40 counties in upstate NY lost population between 2010 and 2014, with the largest drop in population in Broome County.
2. While there was much doctory over Howarth and Ingrathea's estimate of the rate of methane leakage, their work has since been backed by numerous studies, including a U.S. National Oceanic and Atmospheric Administration study that found natural gas wells in Utah were releasing 8 to 12 percent of their output into the air. Another study found fracked wells in North Dakota and East Texas leaked 10 percent of their output between 2006 and 2011.

Page 12
Fracktured State
Akira Chiso
Originally published "Green Door" Winter 2002
Liberty, NY

Page 15
1. Woody Guthrie "This Land is Your Land" 1940 original unedited lyrics
2. Nicholas Tompaz, Susquehanna River Basin

Page 18-19
"The Reedsbeds of the Hackensack", 1986
Amy Clampitt, Selected poems Knopf/Doubleday 2002

Page 20
"Rally Against Fracking" U.S. Capital 7.28.12
Lucas Foglia, "Water Wars", New York Times 7.19.18
Liz Alderson, "Construction to Begin Never", Fracktured Lives Posters, Albany 8.27.12
Binghamton SUNY 8.23.13
People's Climate March NYC-9.21.14

Page 22-23
Jennifer Matthews
"Fracking wastewater accumulation found in freshwater mussels' shells - The National Science Foundation PennState 10.22.18
Additional research Bonnie McDevitt and Katherine Van Sice
"Pink Slime" is a meat by-product used as a food additive to ground beef- based processed meats as a filler.
No Frack Alliance
Jennifer West Alderson
Liz Alderson

Page 29
Former Mobil VP Warns of Fracking and Climate Change, Ellen Cantarow, butnot.org, 7.19.13

Page 31
"What was it that nature would say?"
Ralph Waldo Emerson 1803-1882
Koyanogami 1983
Music composed by: Philip Glass
Cinematography: Ron Fricke

Page 24-25
1. Circle X, Seminal Na/Wave band c. 1978-1985 co-founded
Bruce Witkepp, Tony Piccoli, Rick Letendre
Joseph Blum, "I Love America and America Likes Me", May 1974, Rene Block Gallery, New York, photos, Caroline Toddall
Joseph Beuys, "Overcome Party Dictatorship Now", 1971

Page 26-27
Fracking Wastewater used in California Produce, Frack Report 1.30.18
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Page 28
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"Environmental Racism... There's Something in the Water"
Ingrid R.G. Waldron 2018