

*“Methane is such a potent greenhouse gas; if only a small amount leaks into the atmosphere during extraction, transport and delivery of natural gas to the consumer, the smaller carbon footprint of natural gas burned as fuel grows quickly. Recent estimates are that if more than 2% of natural gas produced at a well is lost to the atmosphere before it is burned by the consumer, then natural gas will no longer be a cleaner fuel than coal with respect to global warming.”*

—Bryce Payne, PhD and Bob Ackley, President, Gas Safety, Inc.



## **EMISSIONS: Images from the Mixing Layer**

Curated by

Ruth Hardinger and Rebecca Smith

In a world of corporate overtures, questionable gas and oil reserves, and growing population demand, the race for more efficient sources of fuel is serious business. With so much money at stake, the lines delineating fact from fiction can be a slippery affair. *Emissions: Images from the Mixing Layer* aims to detangle this ever-increasingly complicated web of corporate and governmental alliance, fusing scientific fact with analytic visual responses in an attempt to elucidate the hidden dangers underlying the energy industry's efforts to "sell" natural gas as a cleaner source of energy to the consumer. This program's purpose is two-fold: to provide a sentient counterpart to the scores of data collected in 2012 by Gas Safety Inc., which studied and measured the alarmingly high levels of methane emissions in Manhattan, as well as to generate a productive conversation around the subject of methane awareness and potential alternative energy sources.

Since the late 1800's, more than four thousand miles of gas lines have been laid in New York City. Many of these aging pipes are still in place. In 2012, under the auspices of Damascus Citizens for Sustainability, and initiated by curators Ruth Hardinger and Rebecca Smith, Gas Safety Inc., an independent methane data information company, measured the levels of methane emissions throughout 160 miles of Manhattan. The findings were astonishing. Manhattan island is sitting in a veritable cloud of methane, most of which is generated by leakage from the city's intrinsically flawed and maturing pipelines.

Coleen Fitzgibbons' documentary film, "*Natural Gas Emissions in NYC*," addresses these findings head-on. "Has NYC been quietly gassed by methane for several decades and more to come?" Fitzgibbons asks. "If shale gas fracking is allowed to occur in upstate New York to supply New York City with "natural" gas, it may contain the hazardous radioactive contaminant known as

radon." Questions such as these become particularly prescient when one looks at the numbers: "Natural" gas is 90% methane and is one of the most potent contributors of "greenhouse" gas if leaked into the atmosphere before being burned. When the methane-derived fuel is burned, it is less harmful to the atmosphere than petroleum fuels. But the methane that escapes directly from decomposing waste [and aged pipelines] is more potent as a heat-trapping gas than carbon. 20% more potent, according to the EPA.

Ruth Hardinger's *Envoys: Messengers of Methane*, standing like three stelae, translate this idea into tangible form, the undeniable weight of her concrete sculptures pressing on our psyche as much as our physical constitution, while Rebecca Smith's site-specific installation, *Mixing Layer*, attempts to describe the levels and movement of greenhouse gas emissions in the atmosphere through a complex series of gestures, color and tape.

Somewhat more humorous in its approach is the work of Joe Lewis and Christy Rupp, whose mediated sculptures and collage-based explorations utilize the language of irony as an entry point for serious discourse. Shuttling between digital and analog approaches, Lewis and Rupp emphasize the contradictory links existent among immaterial connectivity and our would-be phantom bodies.

At a prefatory level, these artists invite a more rigorous inquiry of our putative channels of information and distribution; at their most sophisticated, they beseech us to engage—to act as responsibly aware stewards of climate change. Our city, our way of life as New Yorkers is at stake. One need only observe *Emissions'* rich array of visual output to comprehend the apocryphal trajectory of our current course of action.

—KARA L. ROONEY

"Fuel From Landfill Methane Goes on Sale,"  
*New York Times*: SCIENCE, last accessed Oct. 2, 2013.  
<http://www.nytimes.com/2013/10/03/business/energy-environment/the-swamp-gas-station-fuel-from-landfill-methane-goes-on-sale.html?partner=rss&emc=rss>  
—Kara L. Rooney