

American Vectors: A Project Combining Biomaterials, Streaming Media and Military Imagery

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In *American Vectors*, I use the bacterium *Serratia marcescens* to represent airbases currently in use by the American military in Iraq. Images of these “micro airbases” are streamed over the Internet via multiple web cams on the *American Vectors* website so that viewers can follow the growth of the cultures over time. A blog component provides a forum for the discussion and interpretation of the work. In this, the first phase of the project, I have chosen to visualize six of the “enduring” airbases currently in use by the American military in Iraq. The “enduring” camps and airbases are permanent military installations in Iraq and they signify the intent of the US government to maintain a presence in the oil-rich country for the foreseeable future.¹ To visualize these bases, I am using cultures of the bacterium *Serratia marcescens* made with a printing technique derived from contemporary bioscience. The printing technique, a form of lithography, allows me to reproduce the bases as they appear from a satellite view, with the airstrips being the most recognizable feature. Over time the cultures grow, change and spread in unpredictable ways.

S. marcescens is a relatively harmless bacterium with a biosafety classification of level one: “not known to consistently cause disease in healthy adult humans.”² It can be identified easily by the naked eye due to its deep red color. It is because of these characteristics, safety and visibility, that I have chosen to use it in many of my recent artworks.³ The project re-presents the spectacle of the war in the manner of a scientific experiment. It combines the visual language of bioscience and the literary model of science fiction to envisage the physical infrastructure upon which the American-led coalition forces act as viewed from a satellite. The airbases and particularly the “enduring” airbases are of interest

because they are the largest nodes in an infrastructure created to support the spread of power of transnational corporations through colonialist and neocolonialist mechanisms of control.

As an artist and amateur scientist, I am interested in using scientific processes in new ways: to create new and different meanings by deliberately embedding cultural meanings into the spectacle of science where they have only appeared accidentally or rather, unconsciously, in the past. Our history is littered with examples of the sciences, especially biological sciences, being used as metaphors to provide “explanations” for cultural forms. In many cases, new “sciences” were developed specifically to aid those who believed society could be as easily manipulated and engineered as any material. Social Darwinism and the pseudo sciences of eugenics and phrenology are just a few examples.⁴ From this past, we have learned to view our science with a critical eye and question the research that produces our scientific knowledge as a general condition of scientific study. Though there are many exceptions to this rule, by and large, scientists have learned from their past mistakes and taken care to acknowledge the limits of their research and refrained from drawing too broad conclusions from their work. *American Vectors* is the latest piece in a body of work in which I actively use this conflation of science and culture to invert racist and cultural biases held by many Americans. It is an extension and appropriation of the original misreading of biological forms and processes, and an attempt to use the power of the biological metaphor to create a different vision of American culture and military conflict. This re-imaging of the Iraq war portrays American culture as many non-Americans view it: invasive, predatory, rapacious,

insidious, and exploitative. Thus, like biological entities such as viruses and biochemical materials, the infrastructure of war and globalization simultaneously perforates as it connects cultures. In *American Vectors* that infrastructure is presented as a living system with all its inherent unpredictability, growing, interacting and consuming all that surrounds it.

Transmission of these images over the Internet, along with a mechanism for feedback and exchange, is an attempt to re-ignite debate among Americans who are "fatigued" by the American mass media portrayal of war and by non-Americans whose perspective is most often absent from American media. The project welcomes, indeed encourages multiple readings, mis-readings and interpretations.



The airstrip at Baghdad International Airport (Log Base Seitz), Baghdad, Iraq.
Bacteria culture created with *Serratia marcescens* in a 4" round petri dish.



The airstrip at Balad Airbase (Camp Anaconda), Balad, Iraq.
Bacteria culture created with *Serratia marcescens* in a 4" round petri dish.

- 1 Graham, Bradley. 2005. "Commanders Plan Eventual Consolidation of U.S. Bases in Iraq." In *The Washington Post*, May 22.
- 2 Richmond, Jonathan Y. et al. May 1999. *Biosafety in Microbiological and Biomedical Laboratories, 4th Edition*. Washington: U.S. Government Printing Office, p. 11.
- 3 Artist Steven Kurtz, founder of the collective Critical Art Ensemble, was charged with mail and wire fraud in 2004, for the acquisition of *S. marcescens* and other biological agents that he and his collaborators were using in their artwork. The charge of mail fraud was, in the eyes of many critics, an attempt to "save face" on the part of federal prosecutors who were forced to downgrade from their original charge of bio-terrorism in June 2004. Federal Judge Richard J. Arcara dismissed the case against Steven Kurtz on April 21, 2008.
- 4 In Phrenology, the bumps on a person's skull were interpreted as indicators of an individual's personality and their propensity for "evil" or "greatness."