

## DANIEL KOHN DATA SETS



DATA SETS comes out of a six-year exchange between painter Daniel Kohn and scientists at the Broad Institute of MIT and Harvard. Through a series of conversations and residencies at the Broad, Kohn explored the conceptual framework surrounding genomics. As a result, his own visual language and artistic method transformed as he was exposed to the methods, challenges, and technologies of genome-based research.

Genomics considers a genome — the complete genetic blueprint of an organism — as a total system rather than focusing on single elements, such as genes. The human genome, for example, is not simply a chain of 3.2 billion chemical “letters”, but a dynamic system in which the parts interact, forming genes and other important functional elements that support life. In order to explore this system, scientists routinely collect extremely large amounts of data, which they analyze to find meaningful relationships and patterns. Kohn’s new work begins to explore a similar methodology.

During his residency, Kohn began painting on 3-by-3 grids of 8-inch square sheets of paper, which he then scanned into his computer. “Not only did this work allow me to explore visually what I was learning about science, but I had also unwittingly developed a high-throughput drawing process, which seemed to produce its own form of experimental data,” says Kohn.

Rather than being the end process of art making, these watercolor databases became the starting point of a visual inquiry. The serial images could be shifted, sorted, analyzed and reworked in a variety of ways. Kohn found that simply reordering the images brought out latent patterns and shapes that were surprising — and sometimes richer — than the originals from which they emerged.

Through this process, he began to view his work as a metaphor for the knowledge gathering that was happening around him at the Broad. “In the same way that experimental results can raise more questions than they answer and lead to new hypotheses to be tested, an image or pattern in my database could be removed from its original series and serve as the seed for a new inquiry.”

Kohn emphasizes that he is not trying to describe or illustrate science. “Rather I am interested in the structures we deploy to see. What I am asking in the end is: how can our evolving understanding of high-dimensional and dynamic systems inform a visual language? Conversely, how does visual language structure and communicate a body of knowledge, and ultimately influence how we see?”

For more information on Data Sets and its associated events, please go to [www.broadinstitute.org/events/data-sets](http://www.broadinstitute.org/events/data-sets).

### ABOUT THE BROAD INSTITUTE OF MIT AND HARVARD:

The Eli and Edythe L. Broad Institute of MIT and Harvard was founded in 2003 to empower this generation of creative scientists to transform medicine with new genome-based knowledge. The Broad Institute seeks to describe all the molecular components of life and their connections; discover the molecular basis of major human diseases; develop effective new approaches to diagnostics and therapeutics; and disseminate discoveries, tools, methods and data openly to the entire scientific community.

Founded by MIT, Harvard and its affiliated hospitals, and the visionary Los Angeles philanthropists Eli and Edythe L. Broad, the Broad Institute includes faculty, professional staff and students from throughout the MIT and Harvard biomedical research communities and beyond, with collaborations spanning over a hundred private and public institutions in more than 40 countries worldwide. For further information about the Broad Institute, go to [www.broadinstitute.org](http://www.broadinstitute.org).

*The artist extends his sincere gratitude to Dr Todd Golub, the Broad Institute and the CYNTHIA REEVES gallery for their unqualified support of this work and their invaluable help in organizing this exhibition, as well as to the numerous individuals whose contributions made this research possible.*



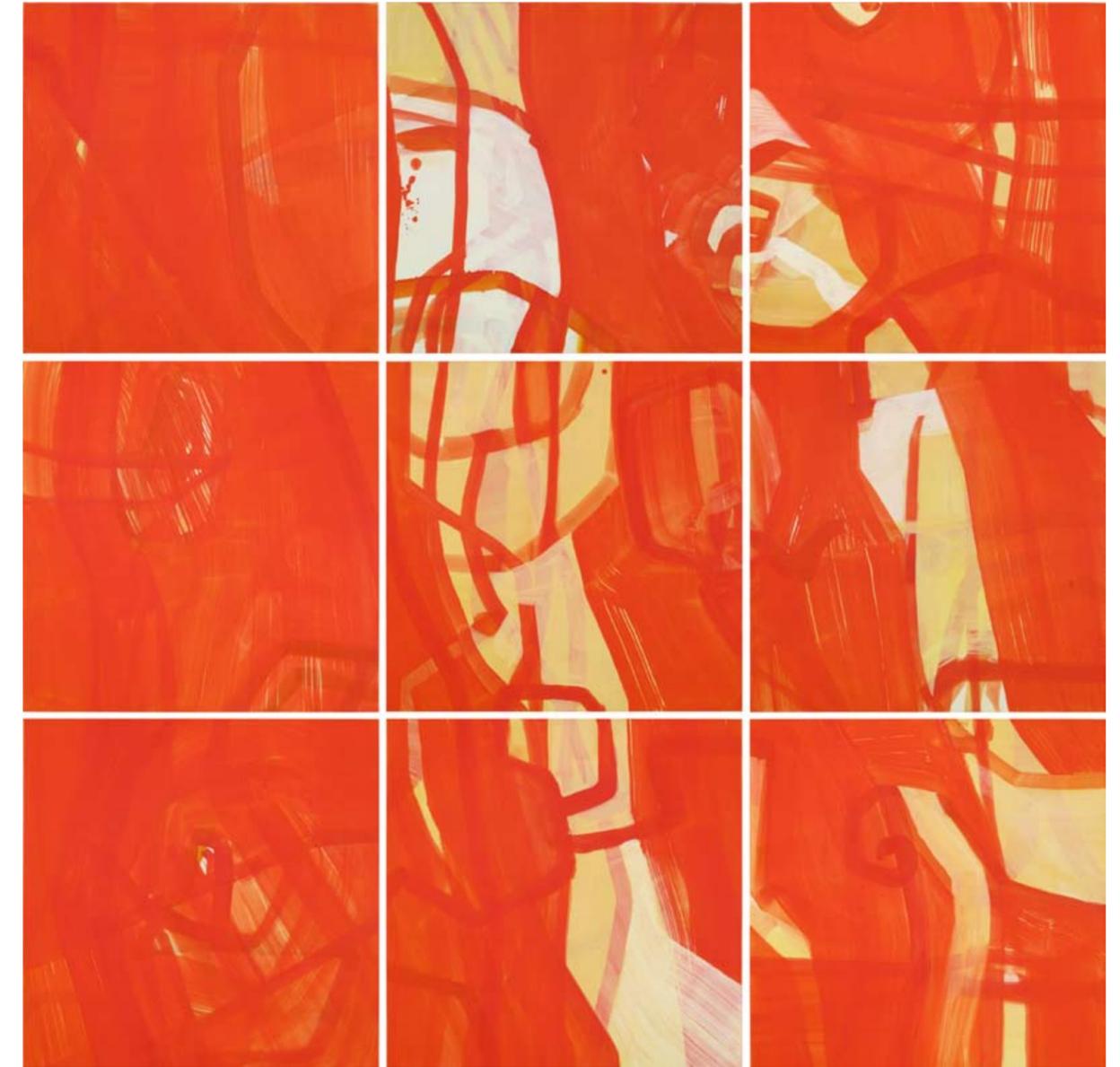
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MAY 6<sup>TH</sup> - AUGUST 15<sup>TH</sup>, 2010

Opening Reception, Thursday, May 6<sup>th</sup> 5-7pm

At the Broad Institute of MIT and Harvard  
7 Cambridge Center, Cambridge, MA 02142

*Blue 2*, 2009, oil on canvas, 61.5" x 61.5" (above)  
*Red 1-9*, 2009, oil on canvas, 30" x 30" each (front)  
*Dataset*, 2007 - 2009, archival inkjet on paper, 8" x 8" each, dimensions variable (inside)



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Art Intersects Science at the Broad Institute

