

## Mutual inspiration

Art posters are everywhere in labs. Biochemists aspire to emulate Rothko with their polyacrylamide gels; developmental biologists respond to the rich patterns and symbols of fertility in Klimt. In turn, artists are excited by new views of the natural world and the unnatural insights of science. And sometimes, the art succeeds in communicating what it is like to do science. Eric Lander's carpet at the Whitehead/MIT Center for Genome Research lets you know immediately what is going on in that space. Long aperiodic traces run parallel to each other into the distance. Each trace is very similar, but each one has unique features needing examination.

Simply installing sequencing machines in an art gallery doesn't make genome art, although it may be a good way to inspire some. The conversation between art and science seems to work best as mutual inspiration, rather than mutual instruction. Scientific accuracy is appropriate for illustration of a current concept, but an artist referring to, rather than illustrating, scientific concepts can evoke connections outside science and suggest that within science, interpretive frameworks can shift. Alex Beard's 'The Tree of Life', on the journal's cover in July 2004, embodies ideas of the genome expressing and reproducing itself. Sometimes the scientific ideas come from the artist's own research, as in 'Chromatin Iznik *chini*' by Tayfun Özçelik (April 2005), with its chrysanthemum nucleosomes. Or artist and scientist can plot the work together, as in the DNA Double Helix Tularosa Pot by Lee Brotherton (October 2004), with its signature codons and hemimethylated CpG islands, looking like an artifact from an abandoned pre-Columbian epigenome project.

Eve Stockton, whose 'Cluster III' is featured on the October 2005 cover, has a deep intuitive understanding of biology. Trained in art and architecture, she has the ability to absorb and incorporate concepts we immediately understand as scientific. Her works more often than not contain fractal dimensions, making them at once natural and difficult to place on a relative scale. Microscopic view or landscape? Like new research results, many of her works seem to have unnatural, uncanny or downright terrifying implications (see 'Cloning Colony' on the January 2005 cover and other examples on her web site, <http://www.evestockton.com>). She says she is often inspired by thinking of the emergence of primordial life forms (as in 'First Embrace', featured on the August 2005 cover).

In choosing to reproduce original art of scientific interest on our cover, we make a compromise not to pair it with a 'cover story' research paper. Since the image is very rarely relevant to any one

paper contained in the issue, it can reflect the scope and values of the journal in an indirect way. This limitation can be an advantage when one month's cover draws the visual imagination to aspects of genetics—say, gene expression, helicase activity, chromosomal rearrangement or developmental patterning—that can be found in the journal throughout the year. Suggesting that art and scientific content are somehow related requires some awareness of artistic intention. It is up to the artist to let us know if the integrity of the work requires that we reproduce it in its entirety, or, if the piece is in a decorative medium or contains an extended pattern, it would be appropriate to use parts of the work to highlight or promote the work itself and the journal's content. In return, a journal can certainly exhibit the original pieces and publish the reactions of artists and scientists to each other's work (<http://www.nature.com/nature/focus/arts/index.html>).

The double helix is one of the most readily recognized images circulating. DNA is often represented as a smooth, right-handed double spiral of varying relative dimensions, often without base pairs or obvious antiparallel strands. The fact that recognition survives the loss of these essential features suggests that the helix motif has a symbolic life of its own as the embodiment of the genome, genetics and life itself. Where are the limits of misrepresentation? To represent a left-handed helix is just wrong, according to the howls of literal-minded critics who write whenever an artist includes the mirror image of a double helix. In doing so, we have infringed upon their brand. If the double helix is to stand for our kind of life that arose from one set of chiral molecules, it has to be right-handed, they say.

Literature, as the critic Christopher Ricks has pointed out, doesn't seem to be invalidated by impossible errors. For example, it should not have been feasible to make fire with the myopic Piggy's glasses in Golding's *Lord of the Flies*. It was even thought a clever statement of the edge between art and commercial silk-screening for Warhol to reproduce Marilyn Monroe's image with the beauty mark the way she saw it in the mirror, rather than the way we see her. On this issue's cover, Lewis Long rings the changes around mirror-reflected half-faces of three ancestries in an exploration of what structural genome variation might look like if it were readily visible.

To all the artists and their scientist partners who have contributed art over the past years, we say thanks. This is just the beginning of an exciting adventure in communicating the human imagination. ■