HED: When Art Becomes Science

DEK: Art has always been the product of art-science collaborations. 2008 may be when we finally see science emerge as the result.

PQ: TK

WC: 597

The ongoing dance between art and science has come a long way since its most popular image was that of a glowing rabbit. Eduardo Kac's transgenic green bunny started a trend of bio-art that allowed the world to examine the social and ethical ramifications of science. But although art-science has propelled art into these and other new dimensions, science has remained squarely within its own realm, largely unaffected by the persuasions of the arts.

But there's a sense that this may be changing. While it's hardly a novelty that scientists and artists would commingle with grand intentions, there is a palpable sense that the expectations of these collaborations are now much higher than before. A new breed of contemporary cross-over art-scientists are starting to explore a future for science which incorporates the thought process of the artist.

Last November in Prague, creative thinkers from around the world gathered at the art-science Mutamorphosis conference, at which questions were raised as to why only one project out of tens could actually demonstrate a collaboration that led to success on both art and science fronts. That project was Blue Morph, a partnership born out of an artist-in-lab program. Jim Gimzewski, a director at the California Nanosystems Institute, discovered that he was picking up vibrations from yeast cells with atomic force microscopy, and reached out to Victoria Vesna, media artist and director of the Art | Sci Center at UCLA. Influenced by her artistic interpretation of his data, Gimzewski translated the vibration patterns into audio. The research ultimately resulted in both a published paper in the journal *Science* and a work of public art—a room in Prague's CIANT gallery steeped in saturated blue, alive with nano-images of

butterfly wing patterns, and surrounded by the sound of a caterpillar morphing into a butterfly.

"It's just the start of a new type of art-science." says California-based Vesna, "At this point, probably only one out of 10 art-science collaborations result in a real interaction like ours." But a growing number of art-scientists are realizing the potential of these interactions. Last year, BeiLAB was established as China's contemporary research platform where artists and scientists can compare creative processes. The recently opened Science Gallery will be Ireland's version of an innovation center and in France, David Edwards, Harvard professor of biomedical engineering, is hoping to kick-start the new art-science by bringing leading artists and scientists together under one roof.

Le Laboratoire is Edwards' new experimental arts and science center in Paris, a facility that he hopes will allow art and science to merge in equal parts and catalyze a new form of innovation. By focusing on the process of experimentation rather than the goals, Edwards believes that artists and scientists will be more inclined to work together and step out of the mainstream. Partnerships should allow the arts and sciences to feed off each other, find creativity in unexplored places, and drive an emerging dialogue between the leading thinkers of the two cultures.

At the Serpentine Gallery in London last October, top-tier scientists like physicist Neil Turok presented their work to some of the more scientifically-aware risk-takers of the art world like Francesca von Habsburg and Hans Ulrich Obrist. The attraction between art and science in 2008 will only grow as new questions are asked of the relationship. "We might not know what the exact results will be," Edwards says, "but we know that artscience will benefit us culturally and educationally."

As both the arts and sciences forge ahead into unmarked realms, the trend of interdisciplinary thinking is having an effect. Scientists and artists both realize the need to tap into new creative sources.—Don Hoyt Gorman