

PERFORMING ARTS

Scientific Tide on New Wave Stages?

Stuart Firestein

Three new theatrical events that cropped up on New York stages late this past fall all had at least a nod to science for their themes. The Public Theater in lower Manhattan offered *Idiot Savant*, a play by avant-garde theater pioneer Richard Foreman. *Inside Out*, a circus performance, and minimalist composer Philip Glass's latest opera, *Kepler*, were presented as parts of the New Wave Festival at the Brooklyn Academy of Music. Although the plural of anecdote is not data, the three events at least suggest that science is becoming a theme of greater interest to writers, directors, and players in the performing arts.

The term “idiot savant” is no longer in scientific use, at least in part because of its pejorative nature, but its oxymoronic property still seems poetically acceptable and interesting. Foreman has been producing intensely personal theater pieces that are

part of culture that ignoring it is, well, like being an idiot savant.

That said, Foreman's *Idiot Savant* does not so much explore the science of savantism as evoke the idea that to know is to be an idiot—at least in someone's eyes. Willem Dafoe, in what might loosely be called the lead role, is confronted with statements that seem deeply philosophical but whose meanings evaporate the moment he grasps them. The play is perhaps best characterized as a metaphysical comedy: In one of many bizarre scenes, Giant Duck, a puppet character, plays a game of interspecies golf; in another, the poor savant is trailed around the stage by “butlers” who are aiming bows and arrows at his head while he tries to utter sensible phrases (I thought, “They could be reviewers”). *Idiot Savant* is not about science nor does it really use science. It does, however, somehow brush up against science by wondering deeply about knowing and knowledge.



Idiot Savant. Elina Lowensohn, Willem Dafoe, Alenka Kraigher, and the company.

nonetheless riveting events for public audiences for more than 40 years. It is remarkable that someone who has passed the 70-year mark is relentlessly more avant-garde (in the literal meaning of the phrase) than many half his age who consider themselves experimental artists. That he has turned even ever-so-slightly toward science for the starting point for his latest play is perhaps an indication that art and science are not so far apart as we tend to believe. This is certainly to be welcomed, because science forms such a critical

part of culture that ignoring it is, well, like being an idiot savant. falls, dangerous animals, and other risky acts of bravura), the performance asks whether we can face down our inner fears, those that have to do with death, meaning, love, and personal identity—pretty heavy going for a circus. In spite of that, the night remains a brilliant spectacle of high and low comedy, a kind of intellectual acrobatics to go with the physical feats that challenge belief.

A comparison with Cirque du Soleil seems almost inescapable, but that would not be fair. Cirkus Cirkör is circus with intellect. Its performance is funny (and occasionally dumb), has a brilliant clown who also serves as a sort of master of ceremonies, and, although

lacking a real narrative like one would find in a play, moves through a series of scenes in which the heart is explored—literally. A huge red shiny set piece with valves, arteries, and chambers is tugged about by the central character, a woman named Stephanie, who seems at first to have been plucked from the audience. This heart also serves as a springboard for all sorts of remarkable acrobatics, dances, and illusions. For most of the performance, it sits out on the stage, waiting to be investigated, dissected, and diagnosed.

One of the acrobats performs a wonderful routine with a large metal hoop, a few inches taller than him, which he controls with perfect movements. He spins in unimaginable ways while caught inside this hoop like a three-dimensional kinetic version of Leonardo da Vinci's famous anatomical human in a circle. There are in fact anatomical graphics in the style of da Vinci spread across the backdrop and the floor of the stage.

The troupe makes their home in Stockholm, and director Tilde Björfors gives credit to friends and mentors at the Karolinska Institutet for consulting on the science and even for opening them up to scientific ideas. Once again, there isn't really that much science in the show. But then again, when have you ever seen a circus that has gigantic red blood cells rolling around the stage? Or an acrobatic number that uses an elastic replica of the neurons and connections in a brain that stretches from floor to ceiling and across the entire stage—making neural plasticity (elasticity might be an even better description) as literal as I've ever seen it portrayed? In addition, the “dub-punk-new wave-electro-inspired” band even uses a theremin to produce all those eerie sounds that you may remember from 1950s science fiction movies with social themes.

On the whole, *Inside Out* may involve as much physics as biology, but it is intuitive physics, the kind practiced by acrobats and high-wire performers who know more about gravity than any of us mere mortals. Indeed, for amazing moments gravity seems to just disappear from the stage. This all reminded me of a story about Richard Feynman, a consummate educator and showman, from his legendary Introduction to Physics course at Caltech. For the first class, held in a large lecture hall, he had a heavy bowling ball suspended by a wire from the ceiling in the center of the room. To begin the lecture he held the ball right up to his face and then let it go. It sailed across the room, over the heads of the enraptured students, reached the end of its arc, and began speeding back toward Feynman's head. Feynman didn't budge as the ball came to within the predicted millimeter or so

Idiot Savant

written and directed
by Richard Foreman

Public Theater, New York.
27 October–20 December 2009.
www.publictheater.org

Inside Out, by Cirkus Cirkör, is the literal as well as figurative title of a circus event that attempts to bring the inside of you to the outside. Using the notion that the circus is a means of facing and superceding fears of the physical kind (heights,

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Inside Out. Stephanie is about to begin her journey to the Inside, through that giant blood vessel at the back of the stage.

of the tip of his nose before receding away in its pendulum swing. Feynman never flinched, saying, “If we want them to listen to us, we have to show them that we believe in this stuff.” Cirkus Cirkör believes.

We can look forward to more science in the circus’s future shows. Director Björfors has told me that this is an area the group has become deeply interested in as a source for inspiration.

Unquestionably, though, the most successful of the trio of pieces is the concert staging of Glass’s *Kepler*. The work was commissioned by the Upper Austrian State Theatre of Linz, the city where Kepler lived and worked from 1612 to 1627. Its premier in 2009 was quite appropriate, as the International Year of Astronomy marked (among other things) the 400th anniversary of the publication of Kepler’s *Astronomia Nova* (in which he presented his laws of planetary motion). As the first bars of the opera are taken up by the Bruckner Orchester Linz, one senses—from the repetitive but exhilarating chords that echo from the strings to the brass to the percussion to gorgeous choral voices—that something big is afoot, that big ideas are on their way. Martina Winkel’s libretto, pieced together from various texts in Latin and German (and presented through projected English translations), begins with the epitaph Kepler wrote for his own grave—“I measured the skies, now the shadows I measure”—and goes on to explore his astronomical and philosophical meditations.

At one point, I thought to myself, wouldn’t it be wonderful to have a score for my next seminar? Wouldn’t music help get my points across? In some ways, it seems ironic that science, the very icon of modernity, should find such persuasive expression in a form as traditional as opera. But it is the combination of orchestral music, drama, the human voice, and a poetic libretto that provides the heft to explore

Inside Out

Cirkus Cirkör
Music by Irya’s Playground
Tilde Björfors, director

Brooklyn Academy of Music,
New York. 12–15 November 2009.
Next Wave Festival. www.bam.org/view.aspx?pid=1269

the big questions in science. Glass and Winkel take full advantage of the opportunity. Where else might you hear a libretto graced with words such as “icosahedron” and with musical phrases that make the overworked idea of the “music of the spheres” really become the music of the spheres? Kepler himself wrote that the “heavenly motions are nothing but a continuous song for several voices” (1).

Although it is not quite equations that are being sung, the interplay between the musical and poetic statements summons Kepler’s evolving belief that the universe and its mysteries are to be understood by measuring and counting and calculating. The connections between

Kepler

Philip Glass, composer
Libretto by Martina Winkel

Brooklyn Academy of Music,
New York. 18–21 November 2009.
Next Wave Festival. www.bam.org/view.aspx?pid=1271

music and mathematics have been frequently remarked upon, and music’s relations to space and the cosmos popularly realized through works by composers such as John Williams and the pairing of vintage Carl Sagan descriptions of the boundless universe with grand Bach concertos on numerous television shows. But Glass goes further. His score explores the confusion of Kepler’s mind as Kepler works out the mathematics of the Copernican model, and it takes wing as we share the exhilaration of the great astronomer’s sudden perception of the heavens as mathematically precise and comprehensible. The music helps us to inhabit the medieval mind looking into the heavens and seeing the discordance of stability and chaos, divinity and mystery, puzzles and solutions, meaning and void. No wonder that 17th-century philosophy was still a blend of empiricism and deism. And then we ponder, how much are we

still in the dark? Will there be, for example, an opera about dark matter in 100 years that portrays our myopic 21st-century views?

One crucial and contemporary theme in the opera is the tension between science and religion. Kepler was a religious man, but he never felt that his science was in any way heretical. In a particularly telling moment in the libretto, Kepler takes his contemporary churchmen to task for what he sees as their debasing the Bible by taking it as a literal text. For him, there was no split between religion and science except the one created by the foolish—he would even say blasphemous—reading of the Bible as a literal tract, as a book of optics and astronomy when it is really about meaning and life. The stakes may be higher today—although at least we don’t burn people at the stake, a threat that hung constantly over Kepler’s head—but much of the friction between religion and science we see today stems indeed from literalist readings of the Bible that cannot be reconciled with science. A dose of Kepler may be needed. Was he perhaps correct that literal interpretations of the



Kepler. The Bruckner Orchester Linz and a chorus drawn from the Upper Austrian State Theatre, under the direction of conductor Dennis Russell Davies.

Bible debase it and that those who insist on doing so are the blasphemers?

Kepler does not end in musical triumph, but with a whispered chord on the cello followed by a blackout. That exquisite moment serves as a perfect metaphor for science, then and now. Much has been discovered; more remains to be understood. Science can certainly use a metaphor or two that connect with the public, and it is heartening to see the likes of Philip Glass turning to science for inspiration.

References and Notes

1. This quote appears in Kate Daloz’s informative program notes, which were funded by the Sloan Foundation’s program for arts and science.

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