

POP REVIEW; Rhythms of Disorder, in Science and Music

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Nebulae and flames, clouds and crystal networks flash across scrim; operatic voices declaim above ratcheting polyrhythms and notes frayed by static and distortion. "Chaos," which the Kitchen is presenting through Oct. 24, finds all sorts of visual and sonic analogues to the chaos theory being pursued by its hero and heroine, in a technology-happy opera that romanticizes science as successfully as any work since "Einstein on the Beach."

It's no wonder that chaos theory appeals to musicians. The interplay between pattern and disorder is one of music's central and sublime mysteries. And chaos theory, which finds patterns within apparent disorder and proves those patterns are replicated at microscopic and macroscopic levels, brings a scientific perspective to ideas of structures within structures that preoccupy composers. It also uses an irresistible vocabulary: fractals, strange attractors and the "butterfly effect," which posits that, as Matthew Maguire's libretto puts it, "a butterfly's wing in Beijing can magnify till it sets a Kansas cyclone spiraling."

"Chaos" moves nearly as fast as a music video. The story is skeletal, told in 25 short scenes within 77 minutes, the length of a CD. Anna and Lorenz, a couple of scientists (Lisa Bielawa and Toby Twining), with Marie and Pierre Curie (Alex Sweeton and Jeffrey Johnson) as guiding spirits, confront the scientific and political establishment in the person of the treacherous Aguabone (Tony Boutte, who has them arrested; refusing to recant, they triumph in the end. Although the discovery of chaos theory was largely a matter of equations and computer simulations, Mr. Maguire's operatic license turns it into a journey into the Chaos Zone. In a 1990's update of the psychedelic sequences of "2001: A Space Odyssey," the director, Bob McGrath, ingeniously simulates vertiginous motion with slides and video projections on scrim around the singers.

Michael Gordon's score nods to the wheels-within-wheels Minimalism of Philip Glass's "Einstein on the Beach," nearly quoting it early in the opera, then moves into electronica's new sonic realms. True to pronouncements from the libretto like "patterns always the same, but never the same," the music is full of irregular but propulsive motifs. The singers have concise phrases, harmonized or dissonant or overlapping, that make nearly all of the libretto intelligible; they allude to the chromaticism of 12-tone music and to the non-Western modes of gamelan music and ragas. Around the vocals are the ricocheting polyrhythms of computerized music, in clear plinks and blips or in tones on the verge of dissolving into buzzes and whooshes. Although some stretches seem almost danceable, Mr. Gordon's patterns never settle into repetition; he's dispensing higher mathematics.

Avant-garde opera has struggled to find scenarios that make sense in the context of what current musicians and designers envision. "Chaos" finds that connection. While its science may not be accurate, its patterns add up brilliantly.

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