

## Knowing the score

### The score: it's in your genes

The Electric Company Theater Society  
Directed by Kim Collier  
Produced by David Hudgins  
Waterfront Theatre, Granville Island, Vancouver  
April 7–16, 2000



While he was organizing the Human Genome 2000 conference this spring, Dr. Michael Hayden of Vancouver's Centre for Molecular Medicine and Therapeutics was looking for innovative entertainment that would help the public keep up with the galloping pace of genetic research. His solution was to commission Vancouver's Electric Company Theater Society to create a play: the result, *The Score*, was a dynamic fusion of drama, song and dance played against striking black-and-white sets and original music.

Using multiple creative elements with a humorous flair, the play touches on a wide range of social and ethical concerns as it tells the story of Lynn Magnusson, a tyrannical geneticist running a small laboratory on the fast track to a groundbreaking discovery. A rival French laboratory is hot on her heels,

and the competition is intensified by the prospect of a \$3 million drug company investment with the potential to cut the time to discovery by five years. But time is also running out for Magnusson in the personal sphere. Her mother died of Huntington's disease, and Magnusson is unexpectedly forced to confront the possibility of carrying the gene herself when she discovers she is pregnant.

The public perspective on genetic research is conveyed through a mockup of Rex Murphy's CBC radio program, *Cross Country Checkup*. Concerned callers ask Magnusson about the implications of genomic knowledge on obtaining insurance and express fears about cloning and gene patenting. There are protests that "a sacred world has been breached" and that "the sanctity of human life has been devalued" by Magnusson's cutting-edge

work. She responds that humans have always "tinkered" with their species through medical research and that genomic research will ultimately offer more benefits than drawbacks.

Back in the laboratory, tensions run high. Magnusson's team tries to outpace the French group; there is infighting over credit on scientific publications; and researchers fear the loss of their careers in the corporate culture of patenting. Ultimately, Magnusson's lab collaborates with the French group, which later pulls out and publishes their findings alone.

Magnusson, meanwhile, has tested herself for the Huntington's gene and discovers the results are positive. Her angst plays out in front of stage-sized slides of cells and gene micrographs, enhanced by musical and dance interpretations of her torment. In the end, her pregnancy and the discovery of her genetic destiny bring perspective to Magnusson's obsessive pursuit of mutations in her lab — which she leaves to her colleagues, still fiercely competing among themselves.

**Heather Kent**  
Vancouver, BC

## Lifeworks

## Night thoughts

The Winnipeg Art Gallery takes on an evocative theme with *Nocturne: From Twilight Until Dawn*, an exhibition of 47 paintings, drawings and prints by Canadian and international artists on view until Sept. 30. The gallery's permanent collections of historical, contemporary and Inuit art are tapped to explore, as curator Mary Jo Hughes writes, the many metaphors of night: "night as death, night as fear, night as loneliness, night as peace, and night as the seat of our unconscious."

The canvas reproduced here, *The Errors of the Moon*, is by Manitoba artist Tom Lovatt, who describes the work as part of a series of paintings "related to the same body of images." The moonlit



**Tom Lovatt**, *The Errors of the Moon*, 1992. Oil on canvas, 5' × 10'. Collection of the Winnipeg Art Gallery. Acquired with funds from the Volunteer Committee to the Winnipeg Art Gallery.

garden, the floating man, the enigmatic woman, the urn and other elements suggest loss and regret. But for Lovatt they also describe the transition from one life stage to another and, ultimately, regeneration and regrowth. This is the contemplative aspect of night, through which one ascends from despair. From the dark night of the soul arises an eerie beauty.

Whatever the night holds for artists and mystics, the small hours have traditionally been onerous for physicians. Texas researchers<sup>1</sup> found that the rate of exposure to bloodborne pathogens among medical students and residents was 50% higher at night — hardly surprising in a group whose most well-known occupational hazard is sleep deprivation. As Vincent Hanlon writes of the ER night shift: “In this nocturnal labyrinth, we stumble repeatedly, bumping into the ill and injured. Other nights we walk the uneven terrain of Death Valley.”<sup>2</sup>

Fear of the night has a long and articulate history. The evening rites of the *Book of Common Prayer* implore the Creator to “defend us from all perils and dangers of this night.” But it seems that some things that go bump are really rattling around in our heads. A study on the acoustic startle reflex in humans suggested that although we are jumpy in the dark this may have more to do with our childhood fears of darkness than with heightened auditory attention.<sup>3</sup> Besides, there is some evidence that it is not night but early morning that is perilous. A study in New York City showed a 60% rise in disease-related deaths beginning at 2 am and peaking at 8 am.<sup>4</sup> This gives new depth to Thomas Browne’s observation in 1643 that “We term sleep a death; and yet it is waking that kills us.”

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#### References

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2. Hanlon V. *The ABC of the ER* [book and CD]. Winnipeg: Night Shift Productions; 2000.
3. Grillon C, Pellowski M, Merikangas KR, Davis M. Darkness facilitates the acoustic startle reflex in humans. *Biol Psychiatry* 1997;42(6):453-60.
4. Mitler MM, Hajdukovic RM, Shafor R, Hahn PM, Kripke DF. When people die. Cause of death versus time of death. *Am J Med* 1987;82(2):266-74.

### *Illness and metaphor*

## Quitting smoking

The phone says smoke when it rings, the radio says smoke, the TV smokes its own images until they are dead butts at three A.M. Three A.M. and the *dépanneurs* are open just for you. White cartons, blue cartons, silver cartons that mirror your face. Behind the counters, the young men who work the night-shift unwrap the cellophane as lovingly as you undo the buttons of a silk shirt, your fingers burning.

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Your cat is grey. When he comes in from the muddy lane, his paws leave ashes on the floor. The dirty burner on the stove smokes, the kettle smokes, your first, your last cup of coffee demands a smoke. The snow on the step is a long Vogue paper waiting to be rolled. Above the chimneys stars light up and smoke the whole night through.

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In Montreal there are stores where you can buy one cigarette. Cars parked outside, idle, exhaust pipes smoking. Women you could fall in love with approach you from the shadows and offer a light. The sound of a match struck on the black ribbon of a matchbox is the sound of a new beginning. In every dark room across the city, the fireflies of cigarettes are dancing, their small bodies burning out.

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Dawn and the neon cross on the mountain melts in the pale light. Another day. Blindfolded and one last wish. Electric, your fingers ignite everything they touch — the curtains, the rug, the sleeping cat. The air around your body crackles and sparks, your hair a halo of fire.

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Breathe in, breathe out. Your lungs are animals pacing their cages of bone, eyes burning holes through your chest. The shape of your mouth around an imaginary cigarette is an absence you can taste. Your lips acetylene, desire begins and ends on the tip of your tongue.

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The grey of morning — smoke from the sun settling on the roofs, the snow, the bare branches of maple trees. Every cell in your body is a mouth, crying to be heard: *O Black Cat; O ageless Sailor, where have you gone? O Craven A, first letter of the alphabet, so beautiful to say, O Cameo ...*

**Lorna Crozier**

From Lorna Crozier, *Angels of Flesh, Angels of Silence* (Toronto: McClelland & Stewart, Inc.), 1988. Reprinted with permission.