Pilobolus

PHOTONS AND GRAVITONS

text: William A. Ewing photos: Lois Greenfield

Ashley Roland, BodyVox

Up. Down. How to seize a moving body as it flies?
How to render on paper and for all time the ephemeral grace of a gesture literally effected "in the air"?
How to transform professional dancers into perfectly identified flying objects?
These are the questions a person fascinated by the phenomenon of gravity asks himself when looking at the aerial work of American photographer Lois Greenfield. Dance becomes pretext. The bodies levitate. The fleeting is fixed. It is not easy to keep one's feet on the ground while looking at these soaring images…

Bill T. Jones/Arnie Zane Dance Company

GRAVITY ISN'T "a force", it's just the way it is. That is how children see it. You fall, you pick yourself up. You drop a glass and it smashes. Later you begin to understand something deeper, the workings of a strange force: gravity. I remember discovering the wonder of this as a teenager. I suddenly realized: *we are all falling all the time, everything is!* Only because there is something under us (which would fall too, if it could), do we remain still. I also remember learning how this force draws each and every one of us towards the center of the Earth on our own, *individual*, straight line, all converging on Earth's center point. I remember, too, learning in biology of our body's "antigravity muscles", without which we humans could not maintain our upright posture. I remember as well the first astonishing pictures from space trials: a lucky few human beings, floating free of Earth's embrace, in antigravity bliss! Today I understand that antigravity is a *hypothetical* force, not, as one might assume, a lack of weight under gravity, but a space created where objects are not subject to the force of gravity. The author H.G. Wells was the first to imagine an antigravity substance in his 1901 novel, *First Men in the*

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Moon. More recently, the author James Blish has proposed a "Spindizzy" (or more pseudo scientifically, a "Dillar-Wagoner Graviton Polarity Generator") as a fictitious anti-gravity device. Real scientists first postulated an antigravity environment in 1944. More recently, CERN in Geneva has searched for this antigravity effect — a graviton has been theorized. I particularly like the related concept of "optical levitation" developed by Arthur Ashkin, whereby a material "is levitated against the downward force of gravity by an upward force stemming from photon momentum transfer" — not so far from Wells' magical "Cavorite"… All of which makes me think about the antigravitational pull of Lois Greenfield's dance photography. Of course, photographers like Lois Greenfield have long mastered an antigravity effect (in comparison, filmmakers have failed miserably, as their subjects always come crashing back to Earth). Lois's dancers leap and soar as if they live up there! I challenge anyone who isn't a dancer to emulate a dancer's jump in a Greenfield picture: most of us are lucky to get above the floor by more than a few centimetres. I can almost imagine the photographer saying to a dancer at the end of a shoot,

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"ok, I am satisfied, you can come back down now!" When Greenfield's second book, *Airborne* was published, *The New York Times* wrote, "Greenfield's dancers seem like a species apart, rare and wonderful creatures who have figured out how to break the bonds that hold the rest of us to the Earth."

How does she accomplish her antigravity effect, this perfect mix of gravitons and photons? First of all, she works in her own studio, where she has complete control over lighting and set. Secondly, she works only with well-trained and disciplined dancers (and very occasionally, athletes) who can repeat movements over and over without tiring. She shoots many frames of a single leap, suggesting minor changes to gestures or placements of hands and feet as she proceeds. Often what makes one image "the best" of the series, may be a tiny detail: the way a finger falls, or the expression on a face. Greenfield does not stop until she knows she has the image she wants, and this means a tough work ethic for her and her dancers.

Greenfield has famously said that she tells her dancers to "leave their choreography at the door", and she is not being

Ashley Roland and Daniel Ezralow

facetious. Greenfield is not interested in the faithful reproduction of specific choreography. She is interested in what a dancer can do. Experiment and collaboration are her guiding principles, and the dancers are often as surprised as she is with the results. Digital immediacy allows both parties to see what's been done, or needs to be done differently, on the screen.
The photographer does not look through the camera while she works: she looks at the dancers. She *feels* the movement. She *senses* what is about to come, she *anticipates*. It goes without saying that this is only possible due to years and years of experience. Contrary to what some first-time viewers assume when looking at a finished image, Greenfield does not rearrange her dancers with Photoshop, and indeed for most for her career that possibility did not even exist, as the process was strictly analogue (negative film, positive print). Nor, pre-digital, did she ever literally cut and paste different dancers into a single shot. So exquisitely composed are some of her pictures that people assume there has to have been some "collage" element. For instance, some years ago I was showing the great fashion photographer Richard Avedon a Greenfield

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photograph of three dancers, and he asked me how many negatives she had used to make the picture. "Richard", I replied, shocked at the question, "It's just one shot!" Avedon had assumed that such a perfect combination of flying bodies and intersecting limbs was only possible via darkroom manipulation.

Dance photography goes back to the earliest days of the medium, although it was impossible for decades to capture real movement with the slow lenses and films. Dancers necessarily had to be held up with cables for the long exposures; later the cables would be retouched out. Or dancers would strike still poses that did little to convey the feeling of the actual dance. Many of the earliest dance photographs are really therefore portraits. Dance photography, as we know it today only really begins in the mid-20th century with the arrival of the strobe, allowing for indoor pictures of great clarity and precision.

It is often said, rightfully, that Lois Greenfield is the finest dance photographer of her generation, and her latest book, *Moving Still*, attests to this. No other photographer has photographed so many dancers from so many companies. As an

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archive of dance material from 1980 to the present, it is unequalled. And yet I believe that "dance photography" is too limited a concept to fully embrace her work.

A Lois Greenfield picture is all about movement, and that marvelous paradox whereby it is best understood and appreciated by stilling or freezing it. Think for a moment about this paradox: dance is continuous movement, in three dimensions, in colour, to music. Dance photography (until recently) lacks colour, is two-dimensional, is mute, and arrests motion. Also, it reduces life-size figures to postage stamp size. Surely photography is the worst medium for depicting dance! Film should be the best. And yet in more than a century film has failed to produce any true masterpiece, while photography can claim to have produced many iconic images; indeed, any history of photography will include a number of them. Perhaps the best way of resolving the dance/photography paradox is to abandon both words: dance and photography, and appreciate the work of Lois Greenfield on its own terms: a brilliant mix of photons and anti-gravitons! ■