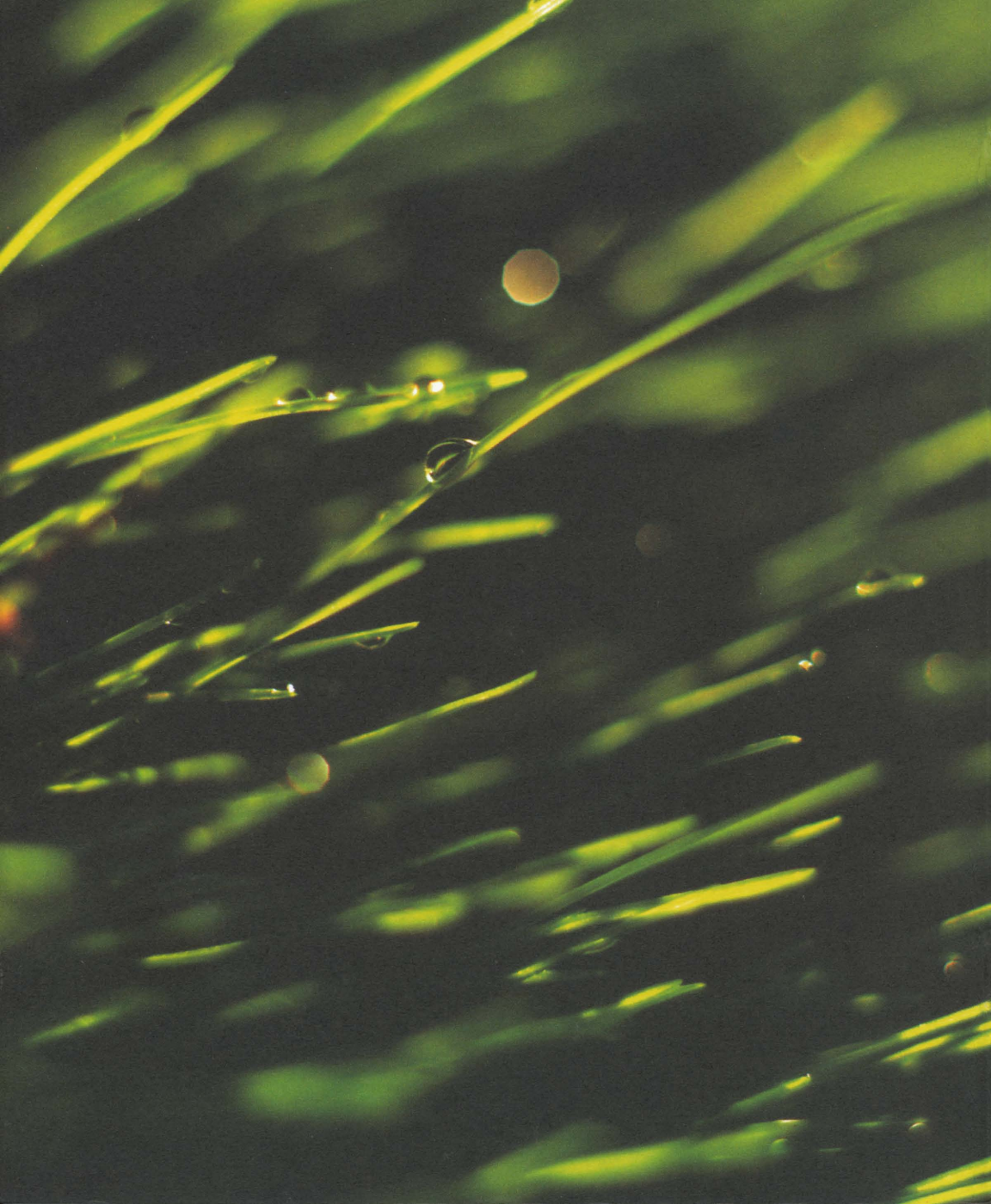
A photograph of a large, empty room. The floor is covered in a grid pattern of light-colored lines, possibly a projection or a tiled floor. The walls are dark and appear to be made of brick. The lighting is dim, creating a moody atmosphere.

**Heather Ackroyd + Dan Harvey**

Green brick, green back



22 January - 29 February 2004

**Heather Ackroyd + Dan Harvey**  
Green brick, green back

**Rice Gallery**



## Foreword

At a moment in contemporary art when digital media seem to have overtaken “traditional” photography, it is fascinating to consider that Heather Ackroyd’s and Dan Harvey’s monumental images are made using the same methods developed by their countryman, William Henry Fox Talbot (1800–1877), who created the first photographic negative more than 150 years ago. Using grass as their medium for many years, Heather and Dan have pushed photography’s potential into exciting and unforeseen areas. The artists discovered that a plane of growing grass is a light-sensitive surface akin to a sheet of photographic paper; the same tonal range found in a black and white photograph can be created in grass in shades of yellow and green. Thus, the grass surfaces they grew on-site for *Green brick, green back* recorded even the smallest details of their photographic negatives, from the crumbling corner of a brick column to the intricate designs on the back of an American dollar bill — an exactitude long associated with photography.

I am grateful to Heather and Dan for the garden-like pleasures their work brought us during their residency and the exhibition, and for the lucid and informative writings they contributed to this catalogue. Thanks also, to friend and colleague Karen Rapp, for her ongoing enthusiasm for Ackroyd’s and Harvey’s work since we first saw it in *Paradise Now: Picturing the Genetic Revolution* (2000) at Exit Art, New York.

Kimberly Davenport

Director

## Green brick, green back

*Green brick, green back* ties into our experience of being at Rice Gallery in Houston. Upon arriving at Rice, one of our first impressions was of the university's tall, red brick walls rising out of verdant lawns. The sturdy-looking buildings seemed at odds with the clapboard houses we had seen in surrounding neighborhoods, as well as the wooden construction rapidly going up in all areas of the city. Bricks evoke stability and longevity, particularly in a city where so many buildings are being knocked down and new ones spring up to take their places. On an elemental level, the bricks of the Rice buildings

relate to our working process, since bricks are fired clay, and clay is the substrate into which we plant our grass seed. Much of our work is architecturally-based and we were intrigued by the idea of bringing the exterior of Sewall Hall (home of Rice Gallery) inside, of having a brick wall transformed into a grass wall. Bricks that appeared as hard and permanent were made soft and mutable.

The second image, the dollar bill, is our response to a series of thoughts that we had about Houston after our first visit in June 2003. We were intrigued by the oil refineries, which someone had

referred to as "the Emerald City gone bad," and the fact that oil comes about through an ancient process of photosynthesis, as do all fossil fuels. The images we create in grass photographs also occur by virtue of photosynthesis. To us, a dollar bill grown in grass epitomized the link between this fundamental biochemical process, and the influence and power of oil and oil-connected industries in Houston. Then, too, we were intrigued by the occult imagery on the dollar bill, particularly the unfinished brick pyramid capped by the all-seeing eye. These two seemingly paradoxical images — the brick columns and the reverse of the

dollar bill — resonate on a number of levels. The folds we made in the dollar echo those of the brick columns. The materiality of the brick wall locates us in the here and now but the dollar bill, while an object, is actually conceptual; its influence is everywhere. Both bricks and dollars can be seen as building blocks, yet here, in grass, they are intrinsically ephemeral.

Heather Ackroyd + Dan Harvey  
21 January 2004, Houston, Texas

## Understanding the nature of a grass photograph

by Heather Ackroyd + Dan Harvey

Photography is defined as the process or art of producing pictures by means of chemical action of light on a sensitive film.

When we grow a grass photograph, we follow the same principles fundamental to the making of a photographic print. We use a negative film, expose an image onto a growing wall or canvas of grass through projection, and fix the image through a combination of special seed and drying techniques. The equivalent photograph is created in the grass photograph in a subtle range of shades of green and yellow.

Since most of our work is site-specific, we transform the exhibition space into a cavernous darkroom. The grass is grown

from seed, and depending on the scale of the work, is planted vertically onto an existing or portable wall covered with clay substrate. After planting, the seed is watered daily using a high-pressure hose system. To create the 16' x 32' image at the Rice Gallery, we used a 2.5-kilowatt projector. This machine uses a large-format negative specially prepared by a London-based company to withstand the high temperatures and lengthy projection times. At Rice, the negative was projected 12 hours a day, for seven days.

The bio-chemical reactions that occur on a molecular level give the image its

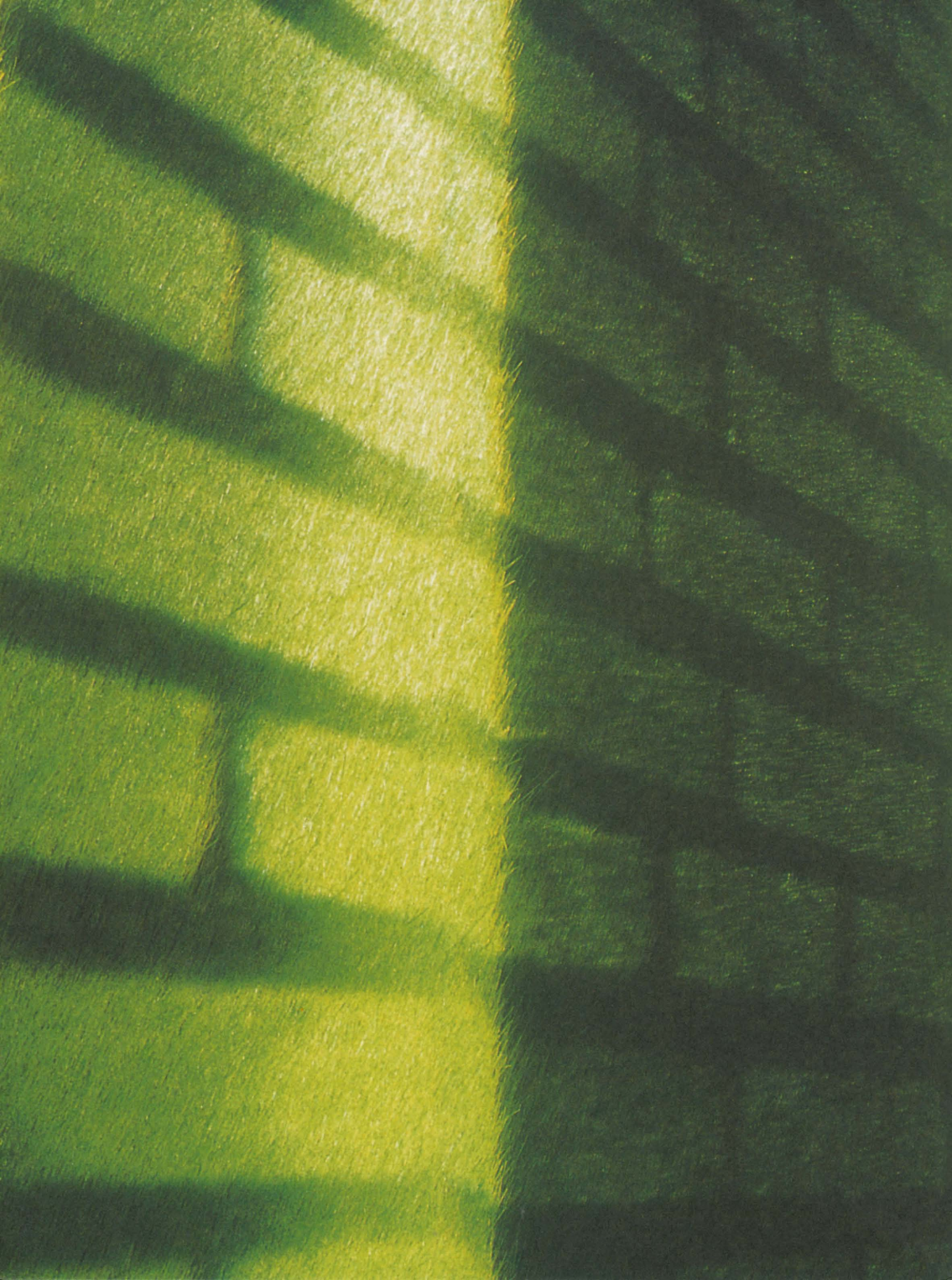




extraordinarily complex and subtle range of tones. Where the light from the projector falls, the green pigment chlorophyll is produced. Where no light falls, the grass grows, but as a result of other light-independent pigments, it is a bright yellow color. Ironically, the light that creates the imprinted image can also remove it. Strong natural light will encourage the yellow, light-deprived areas of grass to make chlorophyll and photosynthesize, causing the transient image to rapidly turn to green. Thus, after days of nurturing the grass we set about killing it as quickly as possible. We dry the grass by using dehumidifiers. The loss of moisture causes the cell structure to break down, and the withering of the tender leaves begins to occur. Also, the vibrant green

and yellow hues are subdued into gentler tones. Light still plays a critical role when these pieces are in a dry state. Direct light onto the piece causes bleaching of the remaining chlorophyll preserved in the leaves, so to maintain optimum viewing time the pieces are typically shown in low non-direct light. Where light does enter the space some fading of the image will gradually occur.

To prevent the loss of the image in the grass we embarked upon a remarkable relationship with scientists at the Institute of Grassland and Environmental Research (IGER), Wales, UK, who over the last few years, have developed a special seed called *stay-green* grass. This seed is now available commercially in the United Kingdom through British Seed





Houses as *So-Green* grass seed. What is remarkable about this seed is that it does not lose its green color even when it is dying. Most plants when exposed to harsh environmental conditions begin to senesce, that is, they lose the green color. This is part of the plants' strategy for survival. In a *stay-green* grass, the impulse to break down chlorophyll does not exist. Somehow, this crucial step has been sidestepped. Stay-greens are a naturally occurring manifestation, one of nature's aberrations.

The scientists at IGER identified the pathway of chlorophyll breakdown, isolated the gene responsible for color maintenance in a stay-green and through a traditional plant husbandry method, crossbred it into a ryegrass. We have had





an on-going, and in a sense, a symbiotic relationship with the scientists at IGER since 1997. By studying the tonal range in a grass photograph the scientists have initiated a revolutionary non-invasive way of observing color in plant cells through the use of hyper-spectral imaging.

By using the stay-green grass we have found that we can extend significantly the viewing life of the images in our grass photographs. We do not know exactly how long the image will remain visible. Currently a work in an exhibition at The Exploratorium in San Francisco has been on view for over a year and the image is still very visible. Our science colleagues have suggested that with good conservation a grass photograph can be visible for decades.







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1, 2. Heather and Dan preparing So-Green grass seed for germination  
3. Seed germinating on the gallery plaza

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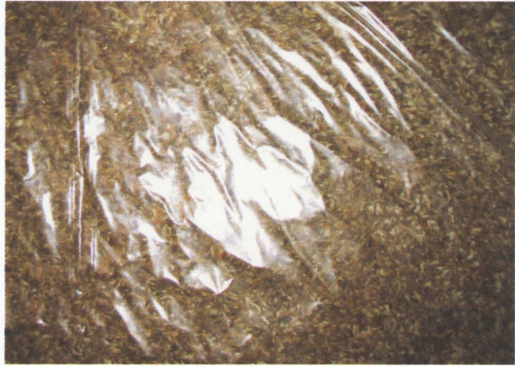
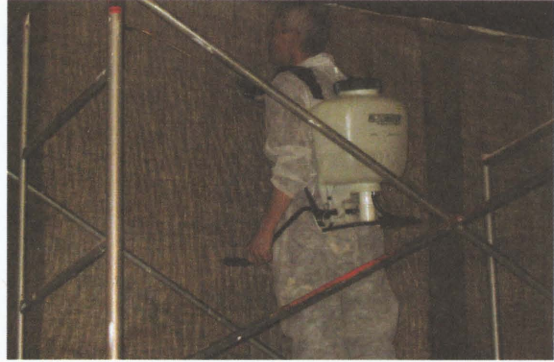
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4. Heather mixing Kentucky ball clay  
5. Clay mixture  
6. Back wall of gallery prepared with burlap  
7. Heather spreading clay onto burlap

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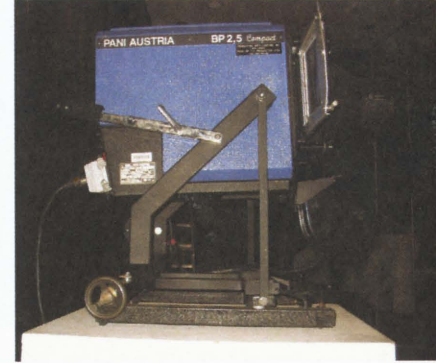
11

- 8. Dan spreading clay onto burlap
- 9. Watering the growing grass with high-pressure sprayer
- 10. Grass seed covered with plastic to keep moisture in
- 11. Gallery's front window covered in plastic; projector aimed toward back wall

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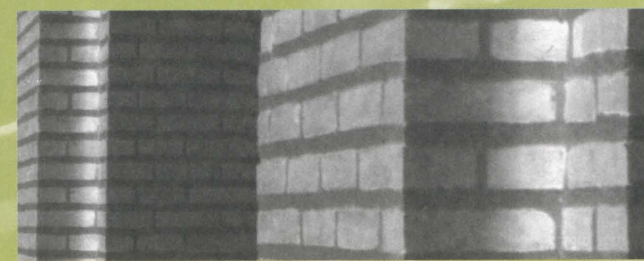


15

- 12. Dan focusing the projector
- 13. Pani large-format projector
- 14. Dollar bill negative projected onto seedling grass
- 15. Watering the grass photograph

## About the Artists

Both Heather Ackroyd and Dan Harvey were born in England in 1959, and completed their fine arts studies in the United Kingdom in the early 1980s, Heather at Manchester Metropolitan University, Cheshire, and Dan at Cardiff College of Art, Wales and Royal College of Art, London. Their recent large-scale projects include *Photosynthesis* (2004) at Metrònom, Barcelona; *Dilston Grove* (2003), (Former Clare College Mission Church), London; *Field Study* (2003), a Special Commission for National Eisteddfod, commissioned by LIFT (London International Festival of Theatre), London; *Supernatural (after Piero di Cosimo)* and *Specific Natures* (2003), commissioned by the Chicago Public Art Program; *Sunbathers* (2002), Aberystwyth Arts Centre, Wales; *Afterlife* (2001), commissioned by Beaconsfield, London, and *Presence* (2001), an exhibition of works created during the artists' residency at the Isabella Stewart Gardner Museum, Boston. Ackroyd and Harvey received the Pioneer Art and Science Award from the National Endowment for Science, Technology & Arts (NESTA), United Kingdom in 1999, and the L'Oreal Art and Science of Color Grand Prize for *Mother and Child* in 2000. Heather, Dan, and their daughter, Adele, live in Dorking, England. Artsadmin, United Kingdom, represents the artists.



Heather Ackroyd + Dan Harvey  
*Green brick, green back*, 2004  
Commission, Rice University Art Gallery

Rice University Art Gallery is located in Sewall Hall on the campus of Rice University, 6100 Main Street, Houston, Texas 77005, and on the web at [ricegallery.org](http://ricegallery.org).

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Rice Gallery thanks: Alex Ferrance and his remarkable crew of carpenters and painters, Ernie Flores, David Jimenez, Luis Morales, Paul Regalado, Alvaro Rodriguez, Miguel Rodriguez, and Rodrigo Rodriguez; Sylvestre Cantu, and electricians Calvin Rawls and Thomas Trevino, and our custodian, Sallie Gonzalez.

Rice Gallery would also like to thank Nicky Childs, Artists' Project Manager, Artsadmin, United Kingdom.

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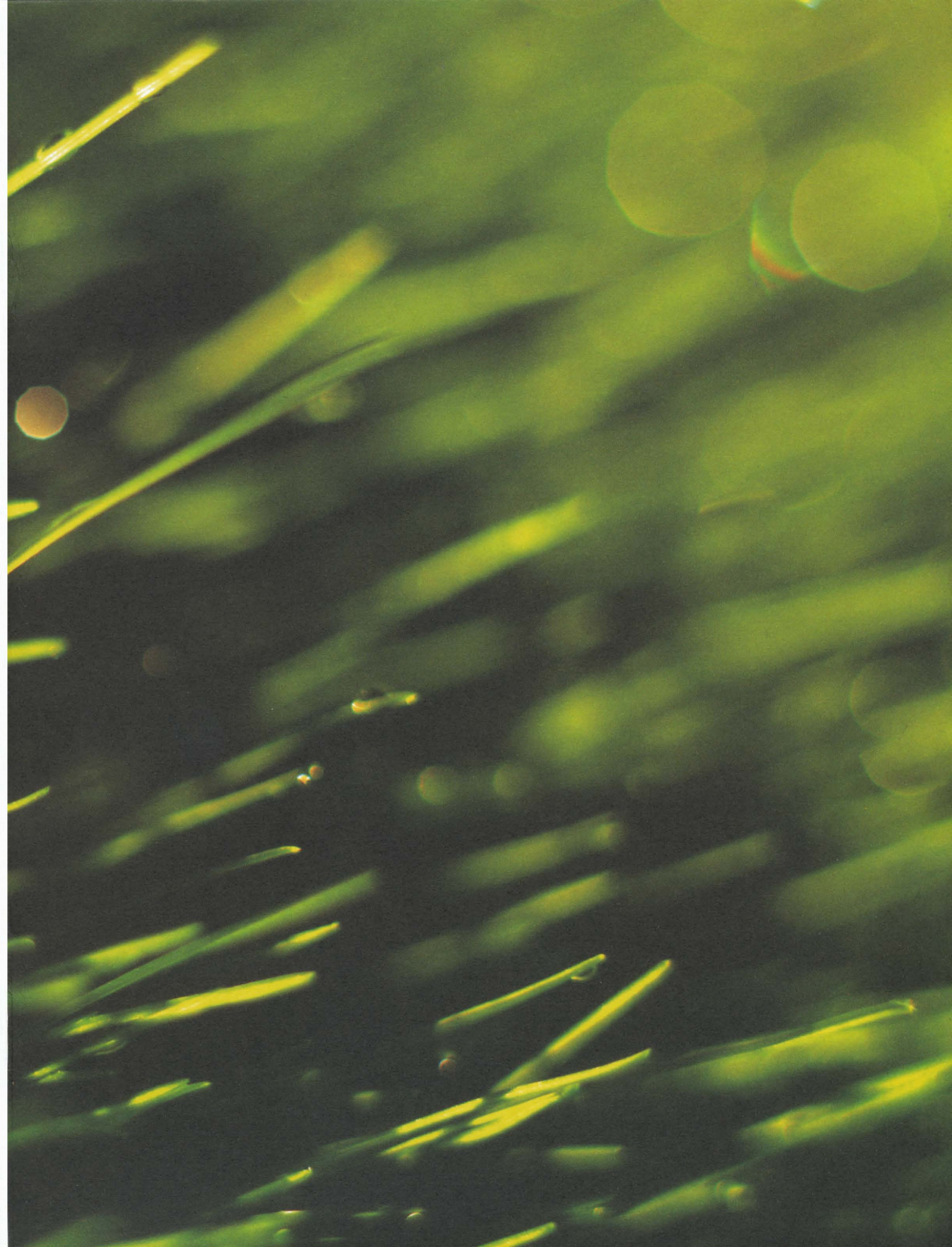
Heather Ackroyd + Dan Harvey: inside cover, pages 10-11, 20-21, 25 [14], 27 bottom, inside back cover  
Thomas DuBrock: pages 2, 12-13  
Paul Hester: cover, pages 14-17, 21  
David Krueger: pages 8, 23 [6, 7], 27 top center and right  
Susan Van Scoy: pages 7, 18-19, 22 [1-5], 24 [8-11], 25 [12, 13, 15], 27 left

Rice University Art Gallery Staff  
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**Rice Gallery**