

Is There *an* App for That?

Rochester faculty put new technology at your fingertips.

By Kathleen McGarvey

THE INNOVATIVE WORK OF SOME ROCHESTER RESEARCHERS IS ONLY as far away as your fingertips. Faculty in several disciplines are creating mobile applications for smartphones and tablets as a way to explore important aspects of the digital age—as well as to address social, medical, and clinical issues and demonstrate the artistic potential of the technology.

Here are a few recent examples:

‘Human Cloud’: VizWiz

FIRST DEVELOPED BY JEFFREY BIGHAM, ASSISTANT PROFESSOR OF COMPUTER science, and colleagues in 2010, the iPhone application aims to help people who are visually impaired to recruit sighted volunteers to aid them with visual problems—such as identifying text labels, icons, and colors—in nearly real-time. VizWiz users take a picture with their phone, speak a question, and then receive multiple spoken answers. Bigham calls the app a “tool to explore human-backed access technology—the idea that access technology would be more reliable and useful if humans could back up fragile (but fast and cheap) automatic approaches.”

The environment we live in usually assumes our ability to see, and tasks that are simple for the sighted—being sure clothing matches before a job interview, finding an empty picnic table at the park—become cumbersome when a person can’t take in information at a glance. That’s where digital culture can step in, says Bigham. “With social networks like Facebook and Twitter, and everyone



connected at all times on their mobile devices, the human cloud is ready and waiting. We just need to figure out how to harness it to do useful work.” VizWiz, he hopes, is one step in that direction.

Since it was first released in May 2011, more than 5,000 users have asked over 50,000 questions through the system. They received an answer in less than a minute, on average.

‘Mining Patterns’: Germ Tracker

UNDERSTANDING HOW DISEASES SPREAD IS AN ONGOING, urgent pursuit for public health—but traditional data collection is slow and limited. That’s where an innovation like Adam Sadilek’s Germ Tracker can step in. Sadilek, a postdoctoral fellow in computer science, and collaborators released the app this fall. Germ Tracker follows tweets to identify locations where people are sick. The results of the data analysis show up on a national map, with each tweet marked in colors from red to green, denoting the spectrum from sick to healthy.

“We have an automated model that goes through the tweets, ‘reads’ them and decides if the person is sick. It looks at the tweet in the entire context of the sentence, not keywords. It has about 2 million features it considers for any given sentence. Based on the evaluation

VIEWPORT: Lauren Blair ’13 displays a route through downtown Rochester mapped with an app developed by Leila Nadir, lecturer in sustainability studies, and Cary Peppermint, assistant professor of art, that’s designed to encourage people to engage with the environment.

of this giant checklist, it decides what is the probability of sickness,” Sadilek says of the app, which is in test-release.

When used on a mobile device, Germ Tracker uses GPS to indicate where a user is located when tweeting. “People struggle with modeling how epidemics grow, and how people infect each other. And there’s not enough data with this kind of granularity,” says Sadilek. “When a person comes to the hospital, you don’t know who he’s met, what bus he has ridden. This kind of app fills in some of the blanks, so you can begin to reason about the spread of epidemics. It builds on a giant iceberg of research that we’ve done before on mining patterns in social media.”

Twitter users stand in as representatives of the general population. Already, the app has begun to show that users riding the subway are more likely to get sick than those who don’t. Eating at restaurants seems to be another factor for transmission.


The model is about 90 percent accurate—and because the algorithm gains more information as it is used, the database will become more accurate as it is accessed more often.

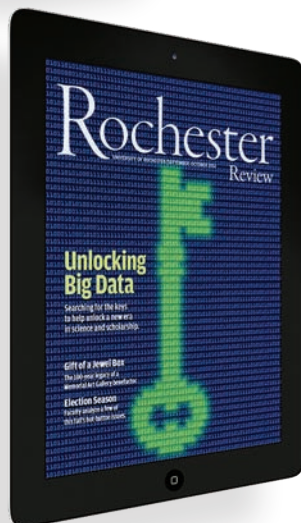
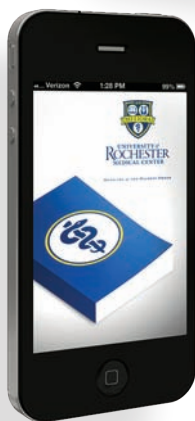
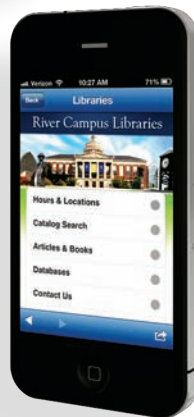
‘Field Notes’: Indeterminate Hikes+

DEVELOPED BY LEILA NADIR, LECTURER IN SUSTAINABILITY studies, and Cary Peppermint, assistant professor of art, Indeterminate Hikes+ guides users on walks through any landscape using Google Maps, with prompts and activities along the way that encourage participants to engage with their environments and see wilderness within urban spaces. The app is available for download on iPhones and Android phones.

Using the app involves entering a start- and endpoint for a hike, much like obtaining Internet directions. But instead of selecting a direct route, Indeterminate Hikes+ generates a random path with various stops and specific actions during the course of a hike. While following a route through the heart of a city, a suburb, or the countryside, users may be asked to take photographs at designated points, write “field notes” on their phones, send a text message to someone, or perform a particular task—all in response to the surroundings. By prompting participants to slow down, observe, and interact with nature, Nadir and Peppermint intend for the app to stimulate thoughts about how nature is defined, how humans affect ecosystems, and how media can mediate and improve the relationship of people to the natural world.

“Everyone speeds through cities so fast,” Peppermint says. “We want to rethink that, and use technology”—which usually speeds us up—“to slow us down.” You don’t need to “unplug,” he adds, to connect with nature; mobile technologies can actually be used to reconnect with place.

After users complete their hikes, they can upload them to ecoarttech.org—Nadir and Peppermint’s website—so that others can view their route, photos, and notes. Indeterminate Hikes+ can be downloaded for free at ecoarttech.org. 



Seizing the App-ortunities

Apps are also playing a role in how people interact with the University. Some examples:

MAGart

A free app for smartphones and iPads, MAGart features works from the Memorial Art Gallery’s Ancient World, Asia, and Medieval and Renaissance Europe collections. Users can explore artworks, follow a tour, and choose works by culture, date, or even title. Grant Holcomb, director of the gallery, also discusses his favorite pieces in the collection as part of the app. App-guided tours are available by subject matter, time period, and time available for touring. A version for Android platforms is planned for 2013.

UR Mobile

Designed for the University, UR Mobile is a free suite of apps and sites that give access to the latest information about Rochester. The app includes directory information, campus building locations, updates from Yellowjacket athletics, and other information.

URMC MDTips

A new app created by Yousaf Ali, chief documentation officer for the Medical Center, aims to demystify medical documentation. The tool—which doctors can easily carry in their pockets—supplies quick tips to help health care providers paint a more precise picture of the condition of the patients they treat, and the quality of care they extend. The app is an extension of a series of booklets on the topic that Ali, associate professor of medicine, earlier published to aid better documentation.

News

Rochester Review is available as an iPad app now, and Eastman Notes will follow in 2013. Futurity, a University-based site that features research news from top universities in the United States, Canada, the United Kingdom, and Australia, is available as an iPhone app.

—Kathleen McGarvey

It Takes a City

As the nation confronts an epidemic of childhood obesity, the University and community partners are working together to turn the tide.

By Kathleen McGarvey | Photographs by Adam Fenster

WHEN PAULA EDWARDS, A MOTHER OF three sons who lives in Rochester, took her 12-year-old to the pediatrician for a check up, she learned something she hadn't foreseen: her middle son was obese.

He would look at himself in pictures and remark that he was big, his mother recalls, but neither she nor he realized his weight had entered the realm of obesity. He was, in other words, part of a national epidemic, one that the University—with a range of community partners and a combination of outreach, clinical, and academic efforts—is working to address.

Edwards and her children—including an 18-year-old son and another son, just 3—snapped into action. She enrolled the family in the Healthy Hero Outreach Program, a project promoting healthy eating and active play that's run by the University's Center for Community Health. Since completing the program in August, Edwards's son has lost 11 pounds, a loss she credits to the whole family making healthier choices—and to the planning that makes healthy choices viable when convenience beckons.

As a single mother with a full-time job as a social worker, a full course load as a student at Keuka College, and an active role in her community, Edwards found her time stretched thin.

"My kids ate a lot of fast food. I thought as long as they ate, we were doing okay. But then I saw the effects in my 12-year-old."

Now the family cooks together, incorporating more fruits and

vegetables into their diet, making trade-offs for treats, and choosing simple dinners some nights to give them time to go to the gym. When exercise has to be squeezed in, Edwards jumps rope while waiting for the bus with her son—something she says he views with a little chagrin. "It's not always easy," Edwards allows. But her motivation is strong. "I want to see changes in me—but I really want to see changes in my kids."

"You see it. You know it," she says of her son's gradual weight gain. "But you don't think it's a real problem."

She knows now that it is.

Though tobacco use is the leading cause of preventable death nationwide, obesity is gaining ground and may eventually overtake it. In September, the Trust for America's Health and the Robert Wood Johnson Foundation issued a report predicting that, if current trends continue, by 2030 all 50 states will have adult obesity rates above 44 percent, and 13 states will have adult obesity rates above 60 percent.

Tomorrow's adults, of course, are today's children, and the statistics are already alarming. Twelve and a half million children in the United States—about 17 percent of those aged 2 to 19—are considered obese, triple the number of a generation ago, according to the Centers for Disease Control and Prevention (CDC). In Rochester's Monroe County, the figure is just slightly lower, at 15 percent.





Include those who are overweight, between the ages of two and 10, and the number of those affected rises to a third. And for the first time ever, the rising generation of Americans faces the prospect of a shorter life span than that of their parents.

“It’s arguably our most important health problem,” says Jeffrey Kaczorowski ’91M (MD), associate professor of pediatrics and president and chief children’s advocate at the Children’s Agenda, an independent nonprofit advocacy organization dedicated to improving the health and education of children in the Rochester community.

And while parents like Paula Edwards see the threat of obesity playing out within their own families, the roots of the problem spread deeply and broadly, say experts.

“This isn’t about the kids or their parents,” says Kaczorowski. “It’s about the community and how the environment has changed since the 1970s. People talk about weight being a matter of personal responsibility and blame kids and families. And that’s not right.”

SLIDING SCALE: Experts say societal changes—such as ensuring all children, like Rochester preschooler Caedon Coons, have opportunities to exercise and safe places to play—are key to addressing obesity.

Philip Nader ’62M (MD), ’63M (Res), a noted authority on childhood obesity prevention and a professor emeritus of pediatrics at the University of California at San Diego, agrees. “It’s taken complex changes to the environment to bring this epidemic about.”

In December, the Robert Wood Johnson Foundation released a study indicating that some cities and states are beginning to see small declines in their childhood obesity rates. It’s happening in places with focused strategies for addressing obesity, says Stephen Cook ’07M (MPH), associate professor of pediatrics.

Rochester is in the process of collecting its own most recent statistics but has developed such strategies over the last five years, mobilizing a grassroots campaign to change its environment and improve the health of its residents. The Greater Rochester Health Foundation (GRHF)—an independent community foundation established in 2006 to improve community health by providing funding to local organizations using the best evidence-based practices in community health—serves as the hub



of a wheel made up of an array of community partners, including the University, the YMCA, the Rochester City School District, and the Finger Lakes Health Systems Agency. Edwards, too, has taken up the community effort, working with the GRHF to establish a healthy-weight program for children at her church.

In 2011, the CDC awarded the Medical Center, the Monroe County Department of Public Health, and a wide range of community partners a five-year, \$3.6 million Community Transformation Grant. The funding is being used to develop Health Engagement and Action for Rochester's Transformation (HEART), a comprehensive initiative to improve the health of county residents by creating an environment that supports healthy behaviors.

CHECKING IN: Pediatrician Stephen Cook checks the weight of 12-year-old Tyshawn Jones of Rochester. "Too often, obesity is presented as a health condition of choice," Cook says.

Rochester is one of just 15 communities nationally to have received such a grant.

The funding came through the Affordable Health Care Act, as has another grant for the Greater Rochester

Obesity Collaborative, which has been selected to serve as a national model for obesity prevention and treatment.

"One of the wonderful things about Rochester is the level to which people are willing to partner and collaborate around pressing health problems," says Kaczorowski. There are relatively few communities, he says—among them, the city of Chicago and the state of Maine—that have tried to combine a community and clinical approach, as Rochester has.

Doctors are critical in preventing and treating obesity, he says, "but we won't turn the tide without a strong level of community advocacy, policy, and programs."

It's an approach that has a strong history not only in Rochester but also in the foundation of pediatrics itself. In the late 19th century, Abraham Jacobi, regarded as the founder of American pediatrics and a tireless champion of public health, addressed the climbing mortality of New York City children due to tainted milk not simply by treating the children as they became ill but by working to protect them from infection in the first place. Through his "Safe Milk" campaign, he urged parents to boil milk until bubbling and worked with philanthropist Nathan Straus to provide milk sterilization stations throughout the city.

"That's getting to the heart of what pediatrics is all about as a profession," says Andrew Aligne '01M (MPH), assistant clinical professor of pediatrics. With Kaczorowski, he codirects Pediatric Links with the Community, a program that teaches medical residents how to operate effectively beyond the examination room—as advocates in the community for their patients' health. It's an outgrowth of the biopsychosocial model of medicine developed at Rochester.

"Doctors work at the individual level. But if you want to move the needle on big public health problems, you need to act at the community level," Aligne says.

The first step is for communities to do what they can to stop children from being overweight and obese, says Nana Bennett, professor of medicine and director of the Center for Community Health. "Childhood obesity is a classic prevention issue, because really the way to address it is to keep kids from putting on excess weight from day one."

And prevention takes vigilance, says Nader. Parents looking at children often don't see them as overweight. In a three-year-old girl, it takes only four to six extra pounds for her to be considered overweight, he says.

The road to weight problems can begin even before birth. Babies gain significant body weight in the final trimester in utero, and when that weight gain is too much—known as fetal overnutrition—the child can be set up for excess weight through infancy, childhood, adolescence, and on. Nader calls it a "snowball effect."

"Once weight is put on, the body hangs on to it tenaciously. It's a lifelong battle," he says.

Researchers point to measures, such as breastfeeding, that can make a difference right from the beginning.



“It’s very hard to overfeed a breastfed baby,” says renowned breastfeeding medicine expert Ruth Lawrence ’49M (MD), professor of pediatrics and neonatology. Research suggests that breastfeeding is in some way protective against excess weight gain, though scientists don’t yet know why. Lawrence and colleague Cynthia Howard ’97M (MPH), associate professor of pediatrics, say it may be related to the fact that babies learn more about satiety from breastfeeding than they do from bottlefeeding.

Between ages three and five years, the body is adding new fat cells—and does again in adolescence as well as, for women, during pregnancy—and those cells “just provide one more cellular home for weight later on,” Nader says. In other words, preschool “puppy fat” isn’t something just to be grown out of: it’s actively priming the body for later weight problems.

At the level of biology and socialization, a child’s early years set a path for future health. “Day-to-day behavior has a lot to do with what we did in our early lives,” says Kaczorowski.

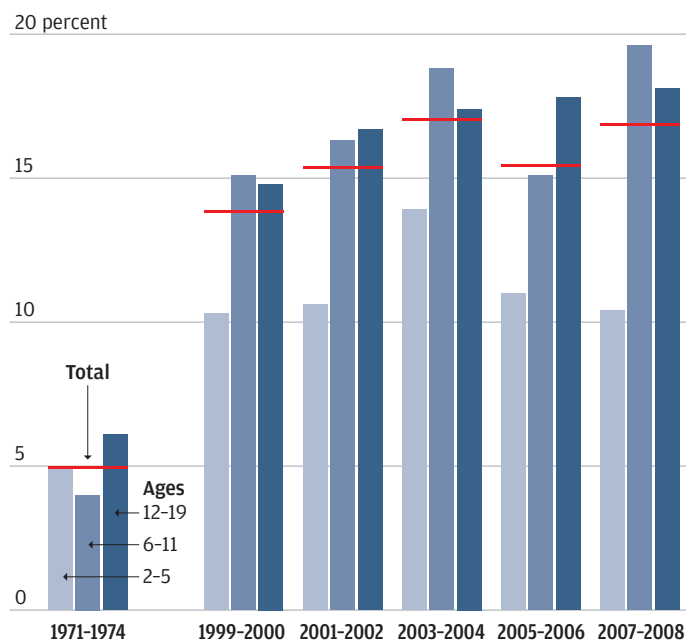
Cook, who leads the Greater Rochester Obesity Collaborative, says a multitude of factors converge to make us, and our children, heavier. “We move less. We have more opportunities to eat. What we eat is bigger, tastes better, and has more calories. It’s even more dense—an ounce of bagel 40 years ago actually had fewer calories than an ounce today.”

REAL FOOD: Jamal Jennings chooses an apple for his three-year-old daughter, Tanya, at Rochester’s Freedom Market, a source for healthy food in the city’s Beechwood neighborhood.

Coauthor of the first national paper to document metabolic syndrome—a clustering of risk factors that puts people on the path toward heart disease and diabetes—in youth, he last year

Obesity among children and adolescents

More than three times the number of Americans aged 2 to 19 are considered obese than were a generation ago, according to data gathered by the National Health and Nutrition Examination Survey, a series of surveys that began in the 1960s and became a continuous program in 1999.



Obesity is defined as body mass index greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.

SOURCES: Centers for Disease Control and Prevention/National Center for Health Statistics



was named Science Advocate of the Year by the American Heart Association for his work engaging lawmakers in issues related to heart disease and strokes.

“Too often, obesity is presented as a health condition of choice. And that’s not true,” he says.

Bonnie DeVinney, vice president and chief program officer of the GRHF, can outline some of the factors working against children’s maintaining a healthy weight: “The intense marketing of unhealthy foods. The growing tendency to eat more and more—and not just ‘supersized’ portions. The ‘normal’ size is bigger than what we had growing up.”

Children also spend less time playing outdoors than they used to. Part of the reason is the allure of television and computers—devices that lead kids to be sedentary. But while that hazard is obvious, another is even more dangerous, says Cook. Screen time exposes children to avalanches of advertising for cheap, calorie-laden junk foods, teaching them to ignore the dictates of hunger

and eat as a form of recreation. Advertisers target young children. According to the *New York Times*, cereal companies alone spent \$264 million in 2011 to advertise cereals targeted at children.

Part of the answer is education, as parents like Edwards have found.

Adrian Elim ’13, a film and media studies major from Rochester, is a member of a summer street team organized by the GRFH and staffed by fellow Rochester students. They attend community festivals and other events to talk with parents about ways to eat healthily and stay active.

In September, they invited parents from the neighborhood to Douglass House to share healthy food and recipes. These are “baby steps,” Elim says, but they have an impact. A sugar chart, showing the number of teaspoons of sugar in popular sweetened drinks, is something “that really shocks parents.”

But education can go only so far.

ON THE MOVE: Eyshawn Mason of Rochester takes part in an autumn Cyclopedia ride. Pediatric residents started the program, using bicycling as a way to help keep kids healthy and connect them with their community.



“We don’t have an obesity problem because people think ice cream is good for you,” Aligne says.

Wade Norwood ’85, director of community engagement for the Finger Lakes Health Systems Agency, says, “Society has changed. Opportunities not to be active have proliferated. We’ve developed incredible reliance on convenience foods. Our food supply system makes unhealthy foods more accessible, and healthy ones less. We need to make it easy and more natural to do the healthy thing.”

And because those trends have been created at the societal level, policy change is an important part of the equation in curbing problems of weight. Norwood helps to direct the agency’s Healthi Kids Initiative, a community-based coalition advocating for policy and practice changes to help kids maintain a healthy weight.

Among its goals are establishing better standards for food at schools and childcare centers, policies to support breastfeeding, safer and more accessible play areas, and at least 45 minutes of in-school activity.

“For students in the city school district, in particular, elementary school recess had been eroded because of pressures for students to maximize the time they spend preparing for standardized exams,” says Norwood. “Only one elementary school in three was allowing for daily recess.”

Armed with research demonstrating the importance to children’s health of school time for physical activity—and its academic benefits in enhancing children’s ability to concentrate in the classroom—coalition members convinced parents, teachers, and school leaders to restore daily recess last spring in a group of city elementary schools. The recess requirement was adopted district-wide last year.

And in response to findings that play happens not just in parks and playgrounds, but also in spaces all over neighborhoods, the city government created a program, Rec on the Move, to fund and staff a van that travels through city neighborhoods to teach

children fun ways to be physically active and provide play equipment. The program was so well received that the GRHF has funded a second van to help promote more outdoor play.

“It’s multimodal,” says DeVinney. “We’ve got to come at it in schools, in childcare centers, and in the community, with policies and practices that create healthy options as the default.”

While the problem of obesity is affecting all sectors of American society, the numbers are worst where incomes are lowest. “It’s not about your genetic code—it’s about your zip code,” says Cook.

That’s for a host of reasons. The cheapest food is often the least healthy and nutritious. Unsafe streets make it hard for children to walk to school or to play outside. And stress—from lack of time, economic worries, and more—lures people to the security of comfort foods or time in front of the television.

The two most pressing challenges to adopting healthier behaviors are time and money, says Norwood.

In Rochester’s Beechwood neighborhood, though, community members are taking control to improve their health. Grocery stores are a cab or bus ride away from the neighborhood, and residents

have been largely reliant on the snack foods available at the ubiquitous corner stores that fill urban neighborhoods.

“It’s not so much that we have a food desert—we have a food swamp,” says George Moses, director of the community group North East Area Development (NEAD). “There’s plenty of food, but it’s not real food.”

So last November, NEAD bought one of the stores with funding from the GRHF, turning it into the Freedom Market, a headquarters for healthy food and a safe neighborhood gathering place.

Salty, fatty snack foods are being phased out, replaced with nuts, seeds, fruits, and vegetables.

Joanne Larson, the Michael W. Scandling Professor of Education at the Warner School, says, “The residents wanted to have the ingredients that would go into a traditional Sunday dinner in the African-American community, so we’re offering fresh greens of all kinds, potatoes, onions, corn, grapes, plums, squashes, lettuce, and so on. And on Saturdays in the summer we have a farm stand right outside the store, which almost sells out every Saturday.” Along with colleague Joyce Duckles, clinical assistant professor in the Warner School, and several graduate students, Larson has been working with NEAD to perform a qualitative assessment of the project, helping to track the changes and interviewing residents, customers, and store employees—called the “Food Corps,” they’re all neighborhood residents with children up to 10 years old.

THE FREEDOM MARKET IS A SUCCESS, WITH PLANS AFOOT to begin offering healthy prepared meals. “We’re finding that it’s not necessarily a matter of education about obesity or healthy food—it’s access,” Larson says. “People come in six or eight times a day. They use it like their fridge, so what’s offered in the stores is going to matter a lot, in terms of addressing the obesity problem.”

Moses says the store is an example of “holistic community development. Nothing is by itself—and no one thing is going to take care of everything.” But he, like Larson, sees cause for pride and optimism in what has happened already at the store.

“The community is in collaboration with the University in solving the problem together. We’re constantly collecting data, and using it,” says Moses, who sits on the committees of both HEART and Healthi Kids. The groups work together, sharing data and strategies. Ultimately, NEAD hopes to expand its effort to include other corner stores across the city and develop a model that could be adopted in other urban areas.

People involved in combating obesity often compare it to the fight against tobacco that began to be waged a generation ago. It’s different in some ways—“No one has to smoke, but we all have to eat,” DeVinney observes—but similar in others.

“What worked for tobacco were taxes, laws restricting the environment where it was OK to smoke—especially to protect children. And the public messaging wasn’t just informational. It was counter advertising” that doesn’t just explain to people the hazards of smoking but hits them at an emotional level, says Aligne.

To turn the tide on obesity, as with smoking, “it’s going to take a social movement. And persistence,” Cook says.

“This didn’t happen overnight, and it’s not going to be solved overnight,” says Bennett of an effort that she and others predict will span decades. “There’s no quick fix for this.”

For Cook, it comes down to a matter of social responsibility.

“Children have zero voting power. We have to do what’s right for them.” **R**



Advanced Education

Nearly 50 years after its founding,
the Warner School of Education has
a home to call its own.



By Scott Hauser

FOR THE PAST FIVE DECADES, THE WARNER SCHOOL OF EDUCATION HAS BEEN AN academic program on the move.

Physically, the University's graduate programs in teaching and curriculum, counseling, school leadership, higher education, educational policy, human development, and health professions education have had a peripatetic life on campus. There were the early days in Taylor Hall, followed by a span in Lattimore, and for more than a decade, the nearly three dozen Warner faculty have crowded into Dewey Hall on the Eastman Quadrangle.

Since 2000, the school has grown faster than any other academic division within the University, more than doubling in student enrollment and tripling in its support from state and federal grants. At the same time, the school has added several programs aimed at supporting schools in the Rochester area and launched new initiatives to research educational practices to advance K-12 education and policy across the country.

"We were bursting at the seams," says Raffaella Borasi, who was named dean of the Warner School in 2000. "Every single closet was used as an office, we had no storage space; people were sharing offices. At the same time,

we were borrowing classrooms from everywhere else in the University.

"And as we looked at our strategic plan, we realized that we still had significant capacity for growth."

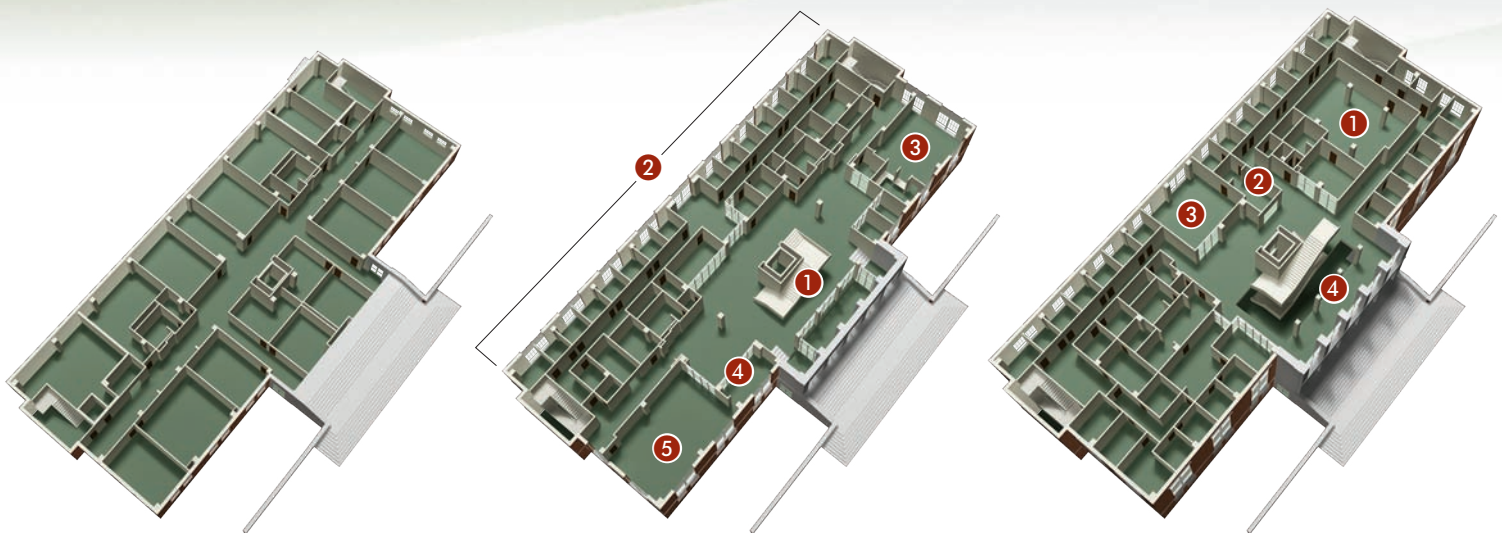
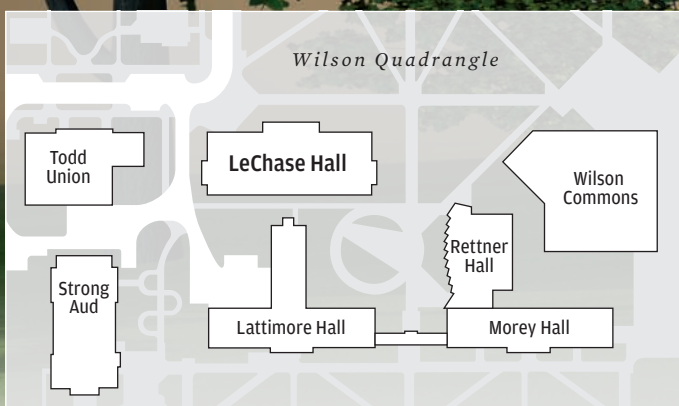
Borasi, a nationally recognized mathematics educator, and her colleagues in Warner and across the University hope to capitalize on that momentum in January, when the doors open on Raymond F. LeChase Hall.

The first building on the Wilson Quadrangle in 30 years, the new hall will also be the first dedicated home for the Warner School. Named in memory of the

LIGHTING LECHASE: A dramatic atrium named for key supporters and Rochester parents Robin and Timothy Wentworth connects the second, third, and fourth floors of LeChase Hall, offering a three-story view of the Wilson Quadrangle.

Raymond F. LeChase Hall

The Warner School of Education opens the doors this year to Raymond F. LeChase Hall, the first building designed to give Warner a dedicated home for research, programs, and initiatives to improve education.



First Floor

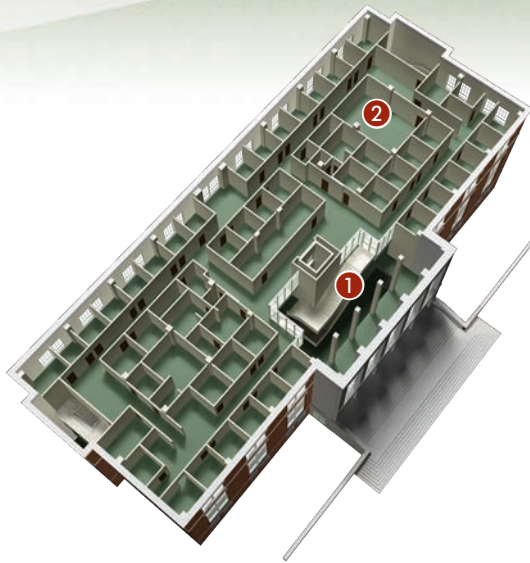
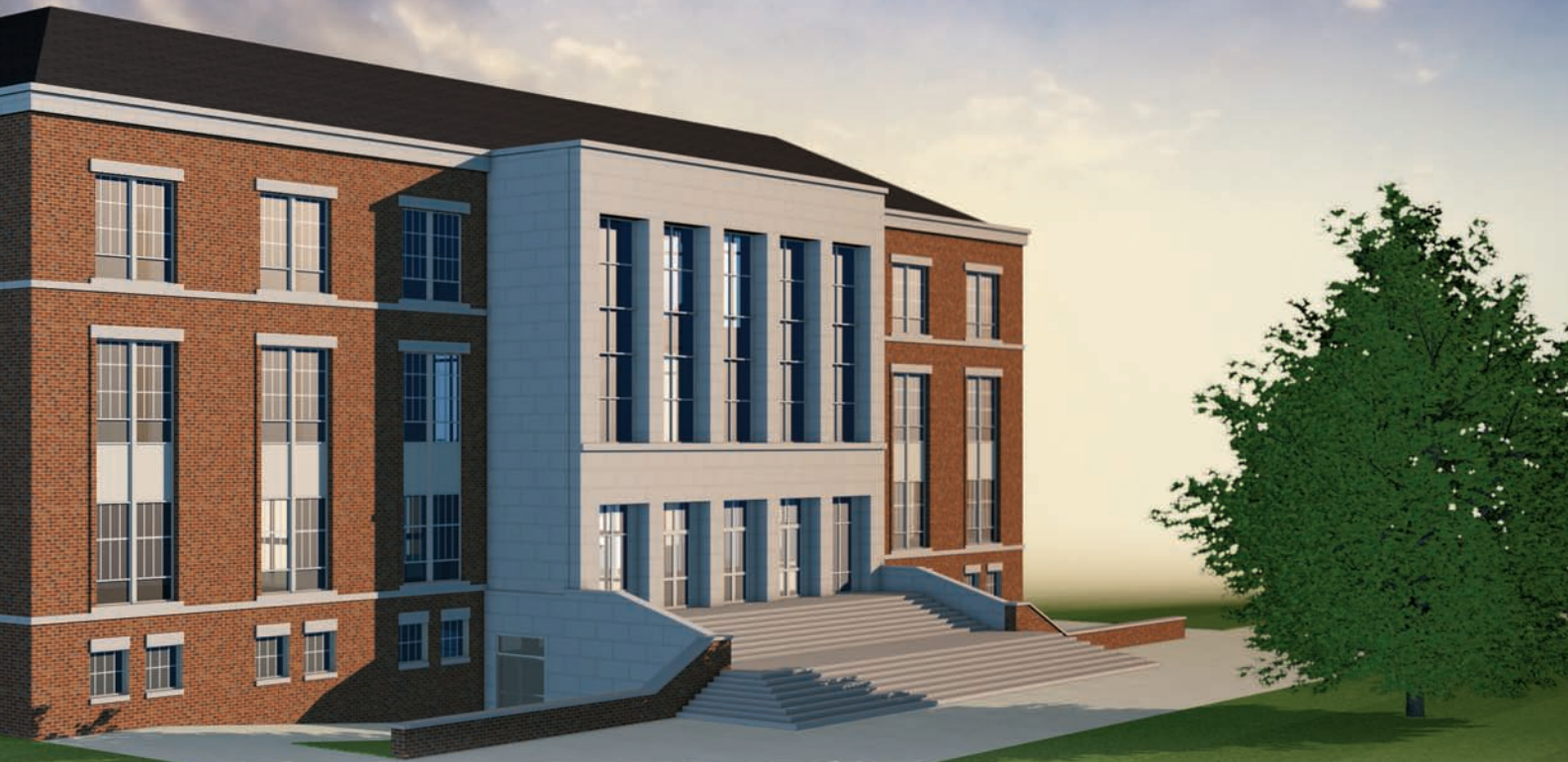
More than 3,000 students in 100 classes are expected to use the first floor's 14 classrooms every day. The College will use the rooms during the day while Warner programs will use the spaces in the evening and on the weekend.

Second Floor

Opening into ① Wentworth Atrium, the second floor features ② the Scandling Center for Student Support, a suite of offices for student services; ③ the Pallodoro Methods Classroom; ④ a children's book reading room; and ⑤ the Genrich-Rusling Room.

Third Floor

Home to ① a study for doctoral students, the third floor also houses ② the Miller Technology and Research Lab and ③ a technology classroom. Overlooking the Wilson Quadrangle is ④ a balcony that serves as a student lounge.



Fourth Floor

Connected to the second and third floors by ① Wentworth Atrium, the fourth floor features ② a classroom set up to support the training of counselors; meeting rooms to facilitate interactions among faculty, students, and staff; and faculty offices.

late Raymond F. LeChase—the founder of the Rochester firm LeChase Construction Services, a noted philanthropist, and dedicated supporter of education—the building provides space for all of Warner’s faculty and students.

LeChase Hall also features sorely needed facilities such as a “methods” classroom where instructional approaches can be demonstrated to prospective teachers; a technology center available to students 24 hours a day, seven days a week; community spaces for school and campus events; and designated work space for the school’s more than 600 full- and part-time graduate students.



Raymond F. LeChase

A cornerstone of Warner’s strategic plan since fall 2005, the project got under way in spring 2011, thanks to a \$3.5 million commitment from R. Wayne LeChase—a University trustee, chairman of LeChase Construction, and Raymond LeChase’s son—and his wife, Beverly.

In announcing the new building, President Joel Seligman thanked the LeChase family for their support and for their commitment to education.

“Raymond F. LeChase Hall will commemorate the many years of generosity and service which the LeChases have given to the University. Their leadership is pivotal to creating a new facility that supports the University’s commitment to improving K-12 education—one of the greatest challenges we face in the 21st century.”

Designed by the architectural firm Bergmann Associates of Rochester in collaboration with SHW Group, a Michigan firm with extensive background in



Transformative Support

In thanking R. Wayne and Beverly LeChase for their support for a new building for the Warner School of Education, Dean Raffaella Borasi noted that their commitment to education joined a history of transformative gifts for the school. Here are a few of the notable names in that recent history:

Warner School of Education



A portrait of Margaret Warner Scandling will be displayed in the new building.

William Scandling made a multimillion dollar naming gift to the school in 1993 in memory of his late wife, Margaret Warner Scandling '44, a former trustee who had been a leading supporter of the school and its programs. In the new building, a suite of offices that brings together student-related services—admissions, career services, finances, and others—has been named the Margaret Warner and William Scandling Center for Student Support in recognition of

the Scandlings' commitment to the school. William Scandling also established the Michael W. Scandling Professorship in Education, currently held by Joanne Larson, chair of the teaching and curriculum program, to honor his son.

Raymond F. LeChase Hall

Raymond F. LeChase, founder of LeChase Construction Services, was a pioneer in the Rochester construction community, a noted

philanthropist, and dedicated supporter of education. A University trustee, R. Wayne LeChase, and his wife, Beverly, made a \$3.5 million commitment to the University in recognition of the important role education plays in improving lives and strengthening the community.

Wentworth Atrium

Robin and Timothy Wentworth are the parents of a Rochester graduate who is now a teacher and of a current student who is a member of the Class of 2016. In recognition of their \$1 million gift to the school, the dramatic three-story atrium is named in their honor.

Genrich-Rusling Room

Ellen Rusling '66W, '79W (MA) and her husband, Thomas, provided support for a multipurpose room for events, meetings, and study. The space is named in memory of Ellen Rusling's father, Willard A. Genrich Sr., who was a former chancellor of the New York Board of Regents.

Pallodoro Methods Classroom

Vivian Pallodoro '76W (MS), '97W (EdD) provided support for a specialized classroom designed to demonstrate the use of innovative instructional approaches, technology, and materials that can be used to enhance student learning of specific subject matter.

Miller Technology and Research Lab

Named in recognition of Herb Miller '62, '64W (MA), a long-time Warner School supporter, advisor, and volunteer, the lab features 10 computer work stations that will be open to Warner students at all times, providing access to the latest technology for social science research and for multimedia editing and production.



designing creative learning environments, the building is designed to meet LEED (Leadership in Energy and Environmental Design) silver standards.

The four-story building is unified by a three-story atrium named in honor of Robin and Timothy Wentworth, parents of a graduate and a current freshman at the University. On the first floor, a suite of 14 classrooms will be used by both the College and Warner. The upper floors will house Warner School programs, including additional specialized classrooms, offices, and spaces specifically designed to support the preparation and development of educators and to conduct educational research and reform work.

While the building will be formally dedicated in May, the additional space will be immediately noticed on campus as students dive into the spring 2013 semester. The first floor classrooms will be used by classes in the College during the day; in the evenings and weekends, Warner School classes take over. Alto-

ROOM TO GROW: Dean Raffaella Borasi says spaces like a study for doctoral students (opposite) provide much-needed facilities for the Warner School's graduate students, while a children's book reading room (above) offers K-8 students a space of their own.

gether, about 3,000 students taking roughly 100 courses will use the classrooms every day. The move also frees up space in Dewey for College classes and programs.

Since its founding, Warner has had close ties to Rochester's educational community, administering several educational projects and providing professional development to teachers in the area. Most recently, the school launched the Horizons Summer Program in 2010 to help Rochester children


improve their academic performance, raise their personal aspirations, and discover a love of learning.

With the spaces provided by the new building, the program will be able to expand to include kindergarten through eighth grade. Eventually, the program is expected to serve nearly 150 students each summer, bringing them to campus for educational programs and activities.

"We took a leap of faith when we started the program because we didn't have the building," Borasi says. "We were at the point where we couldn't offer it if we didn't have LeChase Hall."

But beyond such practicalities, the building represents an important step toward building the school's identity and visibility, says Borasi, who holds the Frederica Warner Professorship, a faculty position named in recognition of a 1909 alumna and relative of the school's namesake, the late Margaret Warner Scandling '44.

"The symbolic aspect is very important," she says. "It's having something that our students, faculty, and staff can identify with, and that the rest of the University and the rest of the community can point to and have a reference for."

"But what is most exciting to me are the different things that this new space will allow us to do—which is developing a greater sense of community and encouraging more collaboration among faculty, staff and students, having specialized facilities that will allow us to better prepare teachers and counselors, and making it possible to expand in some new exciting directions identified as promising in our strategic plan." 

FACTS & FIGURES

By the Numbers

When LeChase Hall opens in January it will be the first standalone home for the Warner School of Education and the first building to open on the Wilson Quadrangle in 30 years. Here are some other facts and figures about the new building:

3,000

Number of students expected to enter LeChase Hall each day for roughly 100 classes

17

Number of classrooms, 14 of which will be shared with the College on the first level of the building

34

Number of wireless base stations to support Wi-Fi connections throughout the building

32

Number of academic and meeting rooms equipped with display technology

12,000

Estimated square feet of Virginia black slate used on the sloped roof

170,000

Number of bricks used in construction

3,500

Estimated cubic yards of concrete used for footings, foundation walls, slabs, and retaining walls

1,500

Number of pieces of precast concrete, weighing 1 million pounds altogether

207,470

Number of square feet of drywall

420

Number of tons of structural steel

460

Estimated number of construction jobs, resulting in \$17.3 million in labor income and almost \$1.25 million in sales tax and income tax revenue, according to the Center for Governmental Research

SOURCE: LECHASE HALL: 100 DAYS COUNTDOWN (WWW.WARNER.ROCHESTER.EDU/CONTENT/BUILDING/?P=100DAYS)



DETAIL: From *Dust Cloud* mock-up. Dust clouds are “a way of talking about a dramatic, traumatic event,” says LoPresti.



Dust Cloud Memories

Artist Eric LoPresti '93 explores the physical and psychological impact of the Cold War.

By Karen McCally '02 (PhD)

STANDING AGAINST A WALL OF HIS 350-SQUARE-FOOT BROOKLYN studio, artist Eric LoPresti '93 feels the pressure of an approaching deadline.

"February may seem like a long way away," he says, with a nervous laugh.

It's mid-November, and in early February, his solo exhibition, *No Blue Skies*, will open at the Kunsthalle Galapagos Gallery in the emerging arts neighborhood of Dumbo. This won't be LoPresti's first solo exhibition—it will be his ninth since graduating from the Maryland Institute College of Art in 2002—but in some ways, it will be a departure.

The showcase painting will extend 15 feet across the gallery's 25-foot wall. At this point, the piece exists only as a sketchy mock-up on three four-by-three-foot canvas panels. He's never worked this large before.

"I want this show to have a lot of energy," he says. Besides, he adds, Dumbo is just across the Brooklyn Bridge from Manhattan. "People who are going to make the trip over the bridge—although it's short—I want to show them something."

LoPresti has been able to make a solid impact with his customary 40-by-30-inch canvases. "He's a phenomenal painter," says Marisa Sage, an art dealer who's been showing LoPresti's work in her Like the Spice Gallery, since 2006. She's watched his reputation grow. "He's got very active collectors. They've all followed his career extensively."

From the start of his career, LoPresti's work has been rooted in conflict and disruption. "I really enjoyed big, cinematic scenes of aerial views of war zones or environmental conflict," he says. At first, he didn't give the reasons for his choices a lot of thought. But "it only took a year or two before I started thinking, 'Well, wait, where did this come from?' And then I realized there's a big elephant in the room, and it's called home."

Home for LoPresti was the vast, desert-like terrain of eastern Washington state. The economic base of his hometown of Richland was the Hanford Site, a plutonium production facility established in 1945 as part of the Manhattan Project.

"It was a secret city back in the day, on par with Los Alamos," says LoPresti of the Hanford Site. The plutonium for "Fat Man," the atomic bomb that exploded on Nagasaki in August 1945, killing more than 80,000 people, was manufactured there. Although the



site had long ceased to be secret by the time the LoPrestis moved to Richland in 1980, “people didn’t talk a lot about Hanford’s main mission,” he says.

“Everyone’s parents worked on the site,” LoPresti recalls. His father was a statistician. “He never did weapons work. But he certainly had a lot of projects that he couldn’t talk about. There was this culture of ‘You don’t talk about what happens at work.’”

LoPresti also imbibed the power of the natural landscape. “My aesthetics were really formed when I was living in the desert,” he says, referring to the treeless stretches of dry land on the Columbia River Plateau, where Richland lies. He says the land can seem desolate—“blank,” even—to people unfamiliar with the region. But LoPresti sees color everywhere. Not bright color, but dramatic, striking color nonetheless.

“The color’s very subtle, and you have to kind of be tuned in to

AT WORK: LoPresti, working off a letter-sized watercolor to produce a canvas mock-up of *Dust Cloud*, estimates it will take him “about a month-and-a-half” of daily work to complete the painting that will extend 15 feet across.

the misty sort of pinks, browns, and yellows,” he says. In one series of paintings, he depicts aerial views of the Hanford site, at different points throughout its history, with those misty desert hues superimposed.

In 2010, LoPresti returned to Washington for the opening of a solo show called *Afterglow*. A dual-venue exhibit, it took place at both Washington State University Tri-Cities and the Richland Public Library. Joining him at the opening was Richard Rhodes, author of the Pulitzer Prize-winning *The Making of the Atomic Bomb*, and in 2010, *The Twilight of the Bombs*. In a joint lecture, the two discussed the impact of the Hanford Site on the physical and moral landscape of the region.

“Richard’s participation in *Afterglow* meant an enormous amount to me,” LoPresti says. “He takes on the darkest subjects, but with the empathy of a novelist. As we spoke, I realized that it wasn’t outrageous for me to connect my own small story to the enormous subject of thermonuclear war. It was, in fact, essential to who I was trying to become as an artist.

“We still live in the aftermath of near global annihilation. My hometown happens to be one of those places where you can see that



what the dust metaphor starts to be. It's a way of talking about a dramatic, traumatic event."

Coincidentally, on the previous evening, LoPresti had watched the first segment of Ken Burns's documentary, *The Dust Bowl*, which aired over two evenings last fall on PBS.

"It's just apropos," LoPresti says of the documentary. He notes that there have been several iconic dust clouds in modern memory in the United State alone. Following the disastrous dust storms of the 1930s was what LoPresti calls "the biggest of them all," the mushroom cloud of Alamogordo. On September 11, 2001, there was the roaring, black cloud that rolled up Broadway as the Twin Towers fell. And LoPresti points to another iconic dust cloud, which he says looms largest in his own memory: the cloud produced by the explosion of the space shuttle *Challenger* in January 1986, which sent brilliant white streams spewing across a blue sky like fireworks. "I think if I showed you a little image of that cloud, you would recognize it immediately," he says.

A collaborative team of artists and curators decides on exhibits at the Kunsthalle Galapagos. Julie McKim, the gallery's director, who has also worked at the Whitney Museum of American Art and The Kitchen, says the team was united in its enthusiasm for LoPresti's work. "Eric has something we like, which is that he's conceptually strong and technically strong as well."

LoPresti says his technical skills came first, while his conceptual framework developed slowly, both during and after graduate school. "I wasn't raised an artist," he says, though he credits his mother, who attended art school briefly, as his first teacher. "I was a science kid."

LoPresti's high school chemistry teacher, Leo Faddis, nominated him for Rochester's Bausch & Lomb scholarship. LoPresti didn't even know it; and then he won. He remains grateful to this day for the one-handed teacher ("he'd blown his hand off in a chemistry experiment," LoPresti explains, with some fascination) who had acted on his behalf.

"I had a really great experience at Rochester," he says. "It really changed my life."

While majoring in brain and cognitive sciences, the student who'd always drawn and painted as a hobby ventured into the studio arts department seeking electives. He met Allen Topolski, the sculptor who's long served as the chair of Rochester's studio arts department and its principal undergraduate advisor. Topolski became a mentor, and LoPresti credits Topolski with helping him gain admittance to graduate school at the Maryland Institute College of Art—despite lacking the academic grounding in art, not to mention the extensive portfolio typical of most of those who are admitted to the institute's master of fine arts program.

LoPresti never lost his love of science, and often reflects on his dual interests. "I wanted to be a scientist, but I also wanted to do both," he says. After a couple of years of steady, secure work at the Pacific Northwest National Laboratory, "I decided I was going to throw myself into the thing that I knew less about."

It was a risky move. It frightened and thrilled him at the same time. And it befits the man now standing before the *Dust Cloud* mock-up.

LoPresti says he wants his work to evoke a certain kind of feeling. "Maybe an example would be, if you were at the edge of a diving board and looked down. And maybe on the high dive it's a little higher perhaps than you expected to go. It's sort of excitement and fear at the same time. I like that feeling. And I want my paintings to have something about that in them." ®

brush with apocalypse written directly on the desert landscape."

In another series of works, which will be shown later in 2013 at the National Atomic Testing Museum in Las Vegas, an affiliate of the Smithsonian Institution, LoPresti depicts aerial views of the Nevada test site, the crater-laden expanse whose visual scars are reminders of its role as the nation's primary nuclear test site throughout the Cold War.

At the Kunsthalle Galapagos, the centerpiece painting will be called *Dust Cloud*, named for the theme that will unite the works in the exhibit.

"This is the source image," he says, approaching a small photograph tacked to the wall opposite where the mock-up now hangs. A still photograph from a video taken by a soldier in Iraq, it's situated in a row of images, paper sketches, and notes. LoPresti explains that this particular dust cloud was produced by a helicopter landing. But that's incidental. What he really wants to explore is the cloud itself.

"It's a little more abstract than my previous work," he says. "It's not really clear that it's in Iraq, it's not really clear what made the dust cloud. It could represent a lot more things. And for me that's