

# RESEARCH at RIT

The Rochester Institute of Technology Research Report

Spring/Summer 2014

SPOTLIGHT ON

## SCHOLARLY DISSEMINATION



R·I·T

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## RESEARCH at RIT

The Rochester Institute of Technology  
Research Report—Spring/Summer 2014

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# Scholarly Dissemination

Research, scholarly activity, and the sharing of knowledge is why RIT is passionate about fostering the dissemination of scholarship.



I once asked an esteemed professor of mine, “When does research become science?” He smiled down on me benevolently and answered, “When it is published.” Academic researchers

become pretty well acquainted with the sentiment “the job is not done until you disseminate the results.” How often have we repeated this same platitude to our students?

As an inspiration for the focus of this particular issue of *Research at RIT* magazine, Bruce Austin, Director of RIT Press, aptly put it, “The inspiration, motivation, indeed the reason for research, is discovery. And discovery without dissemination means the knowledge gained by research remains private; if that outcome is the case, then the point of conducting the research has been missed. Research isn’t a selfish endeavor or something pursued without regard to beneficiaries beyond oneself.”

While few would argue about the necessity of subjecting one’s scholarly work to the scrutiny of others, how one goes about scholarly dissemination in this new age of electronic connectedness is currently a question with which many academics are grappling. The former raging debates over “publish or perish” have morphed into a whole new realm.

RIT works closely with its faculty, staff, and students to disseminate their scholarship. The Wallace Center facilitates research through its access to digital resources and open dissemination. The campus hosts symposiums and RIT’s

annual signature festival Imagine RIT: Innovation and Creativity. More than 35,000 visitors get a firsthand look at the university’s innovative and creative endeavors. And RIT’s unique collections are a draw for researchers around the world.

Representing an institution that has prided itself in remaining at the forefront of new technologies for dissemination, and one that has an extremely diverse portfolio of scholarship and unique collections, we decided that it would be appropriate to dedicate this issue of *Research at RIT* to scholarly dissemination. I hope you will enjoy reading about the depth and breadth of our activities.

Best regards,

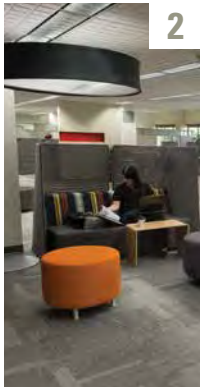


Ryne Raffaele  
Vice President for Research  
and Associate Provost

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The Wallace Center, home to RIT Libraries, is a hub for learning and scholarship. Digital collections have led to a transformation of library collections and space and an expansion of academic services. Research is facilitated through instant access to digital resources, unique historical collections, and open dissemination of RIT's scholarship.



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RIT's Cary Graphic Arts Collection is one of the finest teaching libraries in the world. Scholars and students have access to more than 45,000 artifacts including rare books, type, and printing presses. The collection's newest acquisition is the 19<sup>th</sup> century iron hand press, the Kelmscott/Goudy Press.



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The Image Permanence Institute (IPI) is a world leader in the development, deployment, and dissemination of sustainable practices for the preservation of images and cultural property. Research libraries, museums, and historical collections rely on IPI as a valuable resource.

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RIT's faculty, staff, and students have received significant national and international recognition for their research in a host of fields. A summary of awards and honors is provided.

Cover photo by Elizabeth Lamark



### On the Cover

Located on the second floor of The Wallace Center, glass-panoramic walls surround The Alexander S. Lawson Publishing Center, home to RIT Press. Typeface designer Hermann Zapf designed the typography adorning the glass.



**Facelift:** The first floor of The Wallace Center, home to RIT's library, underwent a transformation in 2013. To modernize the space and increase seating capacity, print collections were moved out.



**Innovative Collaboration:** Students working on group projects can easily share their ideas using the collaboration station located on the first floor of The Wallace Center.

## RIT's 'Center' for Academic Scholarship

by Kelly Sorensen

The library is a figurative and literal hub for learning on university campuses. RIT is no different. As scholarship has become more digital, RIT's library, now part of The Wallace Center, has transformed to reflect the transition from print to digital.

### From Library to Academic Center

The building, located in the center of RIT's campus, is named for Charles F. and Florence Murray Wallace. Mrs. Wallace was a 1907 graduate of the university's Domestic Science Department. An inventor and a chemist, Charles Wallace was one of the founders of Wallace and Tiernan Inc., which invented the chlorinator that made public water safe to drink. The Wallaces were major financial

supporters of RIT.

The Wallace Memorial Library was erected during the initial phase of construction when RIT moved to Henrietta from downtown Rochester. At that time, 1968, the student body totaled about 6,500 students. As enrollment grew so did the need for more space. A fourth floor and a wraparound addition were added to the library in 1991. At this time, the Cary Graphic Arts Collection and RIT

Archives moved to new space within the renovated building and the three libraries became known as RIT Libraries.

In 2009, a merger of academic units on campus created The Wallace Center, which now includes RIT Libraries, Faculty Career Development Services, and RIT Production Services.

This merger was representative of the changes occurring in academic libraries due to the tremendous growth in digital



**Library Expansion:** More space was needed as the number of RIT students enrolled continued to increase. In 1991, a fourth floor and a wraparound addition were added on to The Wallace Memorial Library.



**Open-Access Journals:** RIT publishes peer-reviewed open-access journals. The research is free for anyone to access.

publishing. RIT Libraries’ digital collections now surpass its print holdings. Hundreds of thousands of electronic journals and books are available globally, 24/7, giving researchers instant access to millions of research articles without having to leave their home, office, or lab. Discovery tools such as SUMMON, launched by RIT Libraries last fall, and Google Scholar facilitate the discovery of authoritative information and research can now be done in a fraction of the time. This ease of access is complemented by a human touch, as each RIT college has a librarian with subject expertise who provides instruction and specialized research assistance to students and faculty.

In summer 2013, The Wallace Center underwent a physical transformation to reflect this change in the information landscape, evolving from a traditional library housing print collections to a modern space for collaborative learning.

In addition to some cosmetic touches of paint and carpeting, collections were moved to increase the seating area capacity on the first floor by 40 percent. The renovated area reflects student input.

“We came up with the themes of discovery, community, scholarship, and technology based on our interactions with students as to how they view today’s academic library,” said Shirley Bower, director of RIT Libraries. “These words now define the functionality of the space throughout the first floor.”

To enhance students’ academic learning, a laptop “bar” was installed as well as a new mediascape collaboration station that allows students to work together on projects and assignments by sharing what’s on their laptop screens via a large flat-screen display.

As part of the transformation, The Writing Center and the RIT American Sign Language and Deaf Studies

Community Center relocated from the Student Alumni Union to The Wallace Center.

Added Bower: “We wanted to bring these types of services into the same facility. The idea was to create a space that’s not just about the library, but about supporting academic success for the students.”

**Open-Access Journals**

The Scholarly Publishing Studio, which is located on the first floor of Wallace, assists faculty in the dissemination of their scholarship.

One of the ways in which it does this is by publishing several open-access journals. RIT faculty members serve as the editors. The journals are international, niche publications. There are currently seven journals: *Journal of Applied Science & Engineering Technology*, *Journal of Environmental Sustainability*, *Journal*



**Preservation Pros:** RIT Archivists Jody Sidlauskas (left) and Becky Simmons acquire, preserve, catalog, and disseminate RIT's historical records from art to photographs to historical papers.



**Signed Stick:** An autographed hockey stick signed by the members of the 1982-83 championship team is part of the RIT Archives.

*of Unified Statistic Techniques, Journal of Game Design and Development Education, RIThink: Multidisciplinary Online Journal* (comes out of Kosovo), *Journal of Interactive Humanities*, and *Journal of Science Education for Students with Disabilities*.

The journals are double blind peer-reviewed, so throughout the screening process both the authors' and reviewers' names are not known.

The journal's editor determines the scope of the research and makes calls for papers. Each journal has its own international editorial board comprising up to 40 people.

"The board members from around the world help garner interest in the journal, obtain submissions, and give credibility to the journal," said Nick Paulus, manager of Scholarly Publishing.

"Open-access journals are a growing movement," said Paulus. "It's just a different business model for scholarly journals. Anyone worldwide can access the research for free. The provost and the university subsidize the cost to publish the journals. The goal is not to make money off the journals, but to share our scholarship with the world."

Open access to RIT scholarship is also the theme of RIT's digital repository, RIT

Scholar Works. Accessed via the same website as the open-access journals, RIT Scholar Works preserves the work of faculty and students, increasing its visibility and impact with widespread, open dissemination. It features a complete repository of RIT theses as well as faculty scholarly publications.

### Uncovering and Sharing RIT's History

Unique collections are instrumental to research, like those found in RIT Archives.

"Each piece of paper and photograph tells a story," said Becky Simmons, RIT Archivist.

It's the jobs of Simmons and Jody Sidlauskas to learn the stories of RIT's history and share them.

The two archivists acquire, preserve, catalog, and disseminate the university's historical records from art to photographs to historical papers.

"When Jody and I started working in the archives 11 years ago we had little in the way of finding aids," said Simmons. "It was the first time RIT had a full-time archivist in almost 15 years. All we had were lists of the boxes on the shelf. So it's been a process of digging into those boxes."

They began organizing and describing the contents and then created searchable websites and finding aids thanks to

financial support from the National Historical Publications and Records Commission. The finding aids provide detailed descriptions of archival collections and background information on the history and creators of the materials.

### Treasure Trove of Artifacts

So what's in the archives? They contain records from RIT dating back to its roots as the Rochester Athenaeum, covering everything from RIT's presidents' speeches, correspondence, and memos to activities from each of RIT's departments.

There are more than 200,000 images of academics, people, and the campus from the 19<sup>th</sup> century to the present. And it's a bevy of artifacts. Here are just a few examples: oil paintings of three past RIT presidents done by Stanley Gordon; the pocket watch of Carl Lomb; copies of every issue of *Reporter* magazine; a hockey stick signed by the RIT hockey team from the 1982-1983 NCAA Division II hockey championship season; and the original comic strip collections of political cartoonists John Scott Clubb and RIT alumnus Elmer Messner, who penned drawings for the Rochester newspapers.

Through the years, Simmons has purchased the artwork of early RIT faculty members like Ronald Pearson



**“Flower Power”:** The iconic image taken by RIT photography alumnus Bernie Boston in 1967 of a Vietnam War protestor at a rally is part of the photographic collection that Boston donated to RIT.

and Alling Clements. Pearson enrolled in the School of American Craftsmen after serving in World War II and taught metals classes part time while working full time as a studio artist. Clements, a graduate of the Mechanics Institute, joined the RIT faculty in 1921 and taught drawing classes. He was widely known for his oil and watercolor paintings.

“I’m proud of the work that we have by our faculty members because they were and continue to be an important part of the Rochester community,” said Simmons.

**Snapshot of American History: Photojournalist Donates His Work**

RIT alumnus and noted photojournalist Bernie Boston donated his entire photographic body of work to the RIT Archive Collections. Throughout his career as the White House photographer for *The Washington Star* and *The Los Angeles Times*, Boston documented moments of national significance, particularly the civil rights movement and the anti-Vietnam War movement. Boston’s iconic photo “Flower Power,” one of the most requested images in the Boston collection, captures a war protestor placing flowers in the barrels of soldiers’ rifles at a rally in 1967 outside the Pentagon. The photo was a runner-up for the Pulitzer Prize.

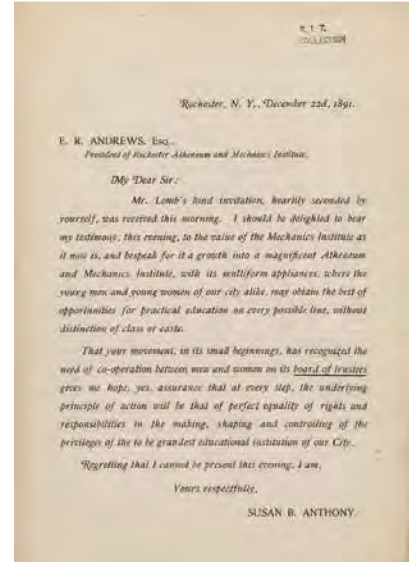
“It’s a fascinating collection and representative of the caliber of the work of our photo school’s graduates,” said Simmons.

**RIT/NTID Deaf Studies Archive**

An ongoing initiative for RIT Archives is the building of the RIT/NTID Deaf Studies Archive. This collection includes the NTID historical records (yearbooks, newspaper clippings, documents, and photographs) and materials from the TRIPOD school started by Academy Award-nominated filmmaker Megan Williams. Williams established the elementary school in California in 1982 for deaf educators and students following the birth of her deaf son. When TRIPOD closed, Williams donated its archive to RIT. Also in the archive is the collection from NTID’s first faculty member Robert Panara. It includes literature, plays, and poetry highlighting deaf characters and writers.

There are about 1,000 different collections within the RIT Archives. Simmons will always gladly accept donations and gather records as the university continues to ‘write’ its history.

“The job changes with the times,” said Simmons. “We certainly aren’t done!”



**Historical Note:** Letters and memos dating back to RIT’s roots are in the RIT Archives. In 1891, suffragist Susan B. Anthony wrote a letter to Ezra Andrews, president of the Board of Directors’ Rochester Athenaeum and Mechanics Institute, praising its decision to offer courses for women as well as men, and for inviting women to sit on its board.



**RIT/NTID Deaf Studies Archive:** It’s one of the largest collections in the RIT Archives. Among the historical records are the film negatives from the 1974 dedication of NTID’s main academic building named in honor of former U.S. President Lyndon B. Johnson. President Johnson’s wife, Lady Bird Johnson, visited NTID for the building dedication and naming.

**On the Web**

**The Wallace Center**  
Wallacecenter.rit.edu

**RIT Libraries**  
library.rit.edu

**RIT Scholar Works**  
scholarworks.rit.edu

**RIT Archive Collections**  
archives.rit.edu



**Scholarly Publishing:** Since 2001, RIT Press has published 80 titles to date with nine books on tap for 2014. David Pankow, former curator of Cary Graphic Arts Collection, was the visionary behind establishing a university press, adding to RIT's rich tradition in printing and publishing.

## The Next Chapter for RIT Press

by Marcia Morphy

RIT Press is an academic-focused publishing house for new and seasoned authors to share their peer-reviewed scholarship. Founded in 2001, the award-winning press is a member of the Association of American University Presses and publishes eight to 12 titles annually. Subjects include all RIT disciplines as well as topical and regionally related studies that promote public understanding and enrich cultural life.

### Take a Look Inside

The books on its impressive roster all have a shelf life due to their venerable history, beauty of design, and tactility of the page, as well as their scholarly merit and content quality.

*The Life and Letters of Kate Gleason; The New Medium of Print; Claude Bragdon and the Beautiful Necessity; From My Seat on the Aisle: Movies and Memories*, are just a few of the titles RIT Press has published.



Cover to cover, there's a never-ending story behind RIT Press, and since its inception 13 years ago, the university's academic publishing house has an impressive back catalog of 80 books in inventory.

Self-publishing a book in the digital age is like a roll of the dice—but there are plenty of advantages to working with an academic press.

- Authors who might have never published before have the opportunity to share their research. All manuscripts are peer-reviewed by similar experts in the field for quality and content.
- The Press' self-contained service offers the highest possible design and production standards—professional editing, copyediting, indexing, custom design, and targeted marketing and promotion.





**Visual Identity:** Visitors to the second floor of The Wallace Center can't help but notice the striking Alexander S. Lawson Publishing Center, named in honor of RIT's first Cary Professor. Home to RIT Press since 2007, the center's glass wall panels—etched with famous quotations about books, design, and typography—were created by typeface designer Hermann Zapf.

- Due to its size, authors receive personalized attention from a staff of four professionals: Director Bruce Austin, Managing Editor Molly Cort, Design and Marketing Specialist Marnie Soom, and Business Manager Laura DiPonzio Heise. The Press also employs outside contractors and student workers who gain valuable training in the publishing field.
- And there's longevity—all the books published at RIT Press since 2001 have remained in print.

**History of RIT Press**

Located in the striking Alexander S. Lawson Publishing Center that opened its doors in 2007, RIT Press is a highly visible, all-glass panoramic enclosure on the second floor of The Wallace Center.

David Pankow, former curator of the Cary Graphic Arts Collection, initiated RIT Cary Graphic Arts Press in 2001 as an experimental academic press that focused on titles about graphic communication, printing history, and bookmaking. Operating under startup funding from the Provost's office, The Wallace Library and the Cary Collection, Cary Graphic Arts Press released its first title *Digital Book Design and Publishing*. In 2007, an additional imprint, RIT Press, was established to broaden the editorial content—embracing all disciplines at RIT as well as community-based regional subjects and local history. As of 2013, all publications carry the imprint of RIT Press.

**“Print has not gone out of business . . .”**

“We still publish printed books,” said Austin, who has been at the



**Letterpress History:** *Melbert B. Cary, Jr. and the Press of the Woolly Whale* received the AIGA 50 Books/50 Covers award in 2002. The hardcover edition documents the work of “a man who loved books and loved the making of books.”



**Music and Culture:** HAYDN, the online digital journal of the Haydn Society of North America, is an internationally distributed biannual publication edited by RIT professor Michael E. Ruhling. The online digital journal is dedicated to the dissemination of all areas and methodologies of research and performance of Joseph Haydn and his circle.

helm since May 2013. “RIT Press is a full-service publisher, specializing in titles for niche academic audiences, trade editions for mass-market audiences, occasional limited editions with unique aesthetic standards, as well as gift items.”

According to Austin, RIT Press has two major pluses: It’s a “relatively youthful, energetic, and nimble” publishing house, which means authors receive prompt, responsive, and personalized attention. And second, unlike template-driven, self-publishing operations, all of the titles are custom designed.

Austin says every book is different

and comes with its own challenges. “We are a young publisher, and RIT Press is fully conversant with contemporary publishing and distribution methods including traditional print, print on demand, e-books, and enhanced e-books.”

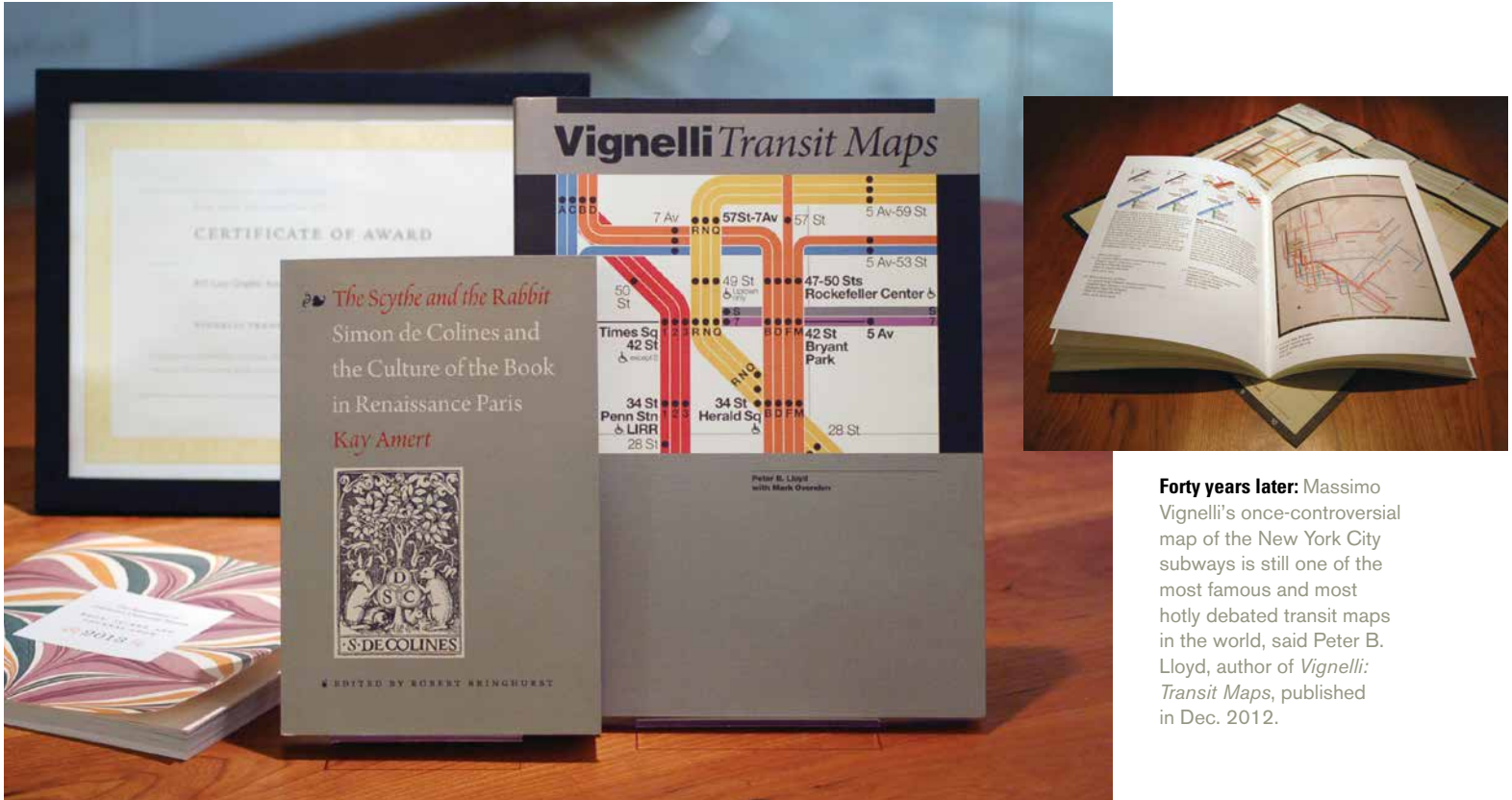
**What the Authors Say**

Authors Therese Mulligan, administrative chair of RIT’s School of Photographic Arts and Sciences, and Scott Pitoniak, seasoned journalist and sports columnist at *Rochester Business Journal*, have published with major and mid-sized publishers and both agree RIT Press delivers something special—the personal touch.

“RIT Press is a standout in my experience,” said Mulligan. “It provides a collaborative environment of creative and scholarly encouragement in which an author, whether first time or experienced, can realize the very best publication.”

Pitoniak has written, co-written, contributed to, and/or edited 21 books. Several have been Amazon.com best-sellers.

“RIT Press has a first-class team,” Pitoniak said. “Being able to talk to your editor in person is a big plus, particularly when you are running into the inevitable roadblocks that occur during the researching and writing of a book.”



**Forty years later:** Massimo Vignelli's once-controversial map of the New York City subways is still one of the most famous and most hotly debated transit maps in the world, said Peter B. Lloyd, author of *Vignelli: Transit Maps*, published in Dec. 2012.

**Juried Selection:** RIT Press was among a group of academic presses that were selected by the Association of American University Presses jury as “the very best examples” of excellent book design. Two titles published in 2012 were chosen: *The Scythe and the Rabbit: Simone de Colines and the Culture of the Book in Renaissance Paris* and *Vignelli: Transit Maps*.

### Talk to the Editor

Publishing a book typically takes 10 to 12 months before its completion. As managing editor of RIT Press for the past six years, Cort maintains a one-on-one relationship with the author while juggling the schedules of freelance copy editors, proofreaders, and indexers—and the rewrites that ensue—while keeping an eye on the printing schedule.

She said first-time authors are usually concerned with editorial control and what might change in terms of their writing. “We tweak and hone the material but we don’t necessarily manipulate the book into a different voice.

“Queries from authors have multiplied in recent months,” said Cort. The Press does not accept all submissions that are received, however. “Unlike a commercial press, which is all about the numbers and what’s popular, an academic press looks for unique, quality content that brings new research to life that wouldn’t necessarily have had a chance to get published.”

Books chosen by RIT Press must also fill a market need, and to that end, Cort says that RIT Press has met success with a diverse array of titles.

The Press also developed seven series—including the recent series on popular culture, the *Comics Studies Monograph*

*Series*, edited by Dr. Gary Hoppenstand.

“One of our gems is *HAYDN*, the online digital journal of the Haydn Society of North America, edited by Michael E. Ruhling, professor of music and conductor of the RIT Orchestra,” Cort said. “It has all the bells and whistles subscribers can expect. The internationally distributed professional journal is published by RIT Press twice a year and the sixth issue will be released this May.”

### From Design to Marketing

Soom has spent the last 10 years working on cover and interior book design for RIT Press. “One big advantage is our location

within The Wallace Center,” she said. “We are surrounded by books, so I start with those points of reference for each new title.”

Working with the text document and images, Soom drafts a sample chapter for review—concentrating on the trim size, typeface, and layout; the choice of paper stock; the inclusion and selection of illustrations, charts, and graphs; and even the color of the binding. “I have to consider whether this is a traditional type of book or it needs to be edgy or contemporary,” Soom explained.

Based on the price of the book and overall production costs, DiPonzio Heise budgets a personalized marketing plan that embraces promotion, publicity, advertising, sales to chains such as Amazon and Barnes & Noble, book-signings, and individual sales as well.

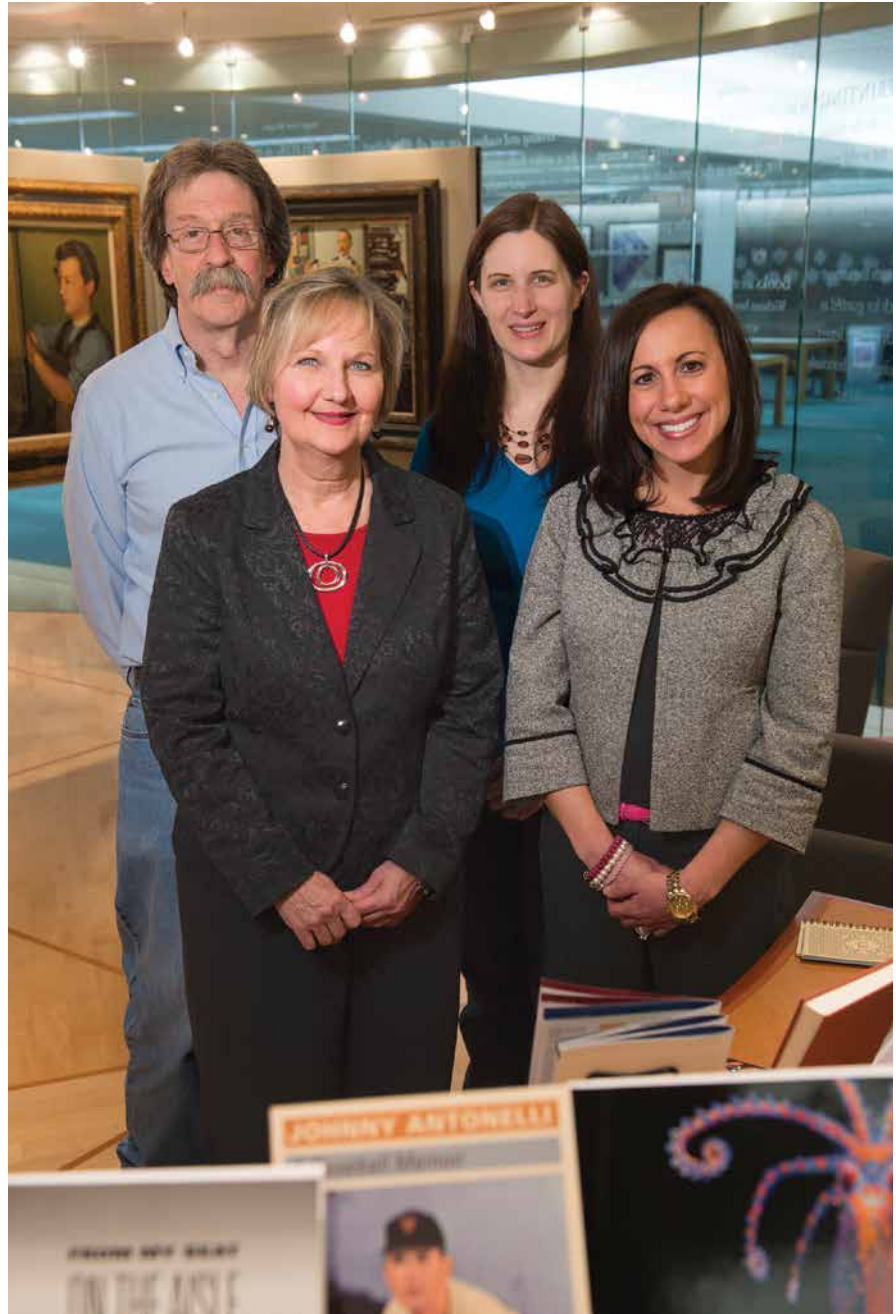
“An added advantage is that many of our books are printed here at RIT. And we are our own distribution center, which means we package and fulfill customer orders on site.”

### The Final Proof

When looking at trends, Cort said readers still tend to enjoy high-quality books even though they are expensive to produce. “The book is an art form, a place holder in time,” she said. “Our customers enjoy the scent of a new book in their hands and appreciate the quality of paper that contains beautifully organized images. I don’t think this aspect of the book process will go away. Although we are a niche publisher, we are looking to become an innovative digital publisher.”

Austin said disseminating the researcher’s scholarly contribution is key to the purpose of RIT Press. “We believe research information is to be shared, not hoarded. Part of our strategy is to seek strategic partnerships with cultural institutions and organizations that can provide content aligned with our interests in scholarly publishing across all media platforms.”

Austin explained there are no multiple layers of bureaucracy one needs to go through to have an informal chat about a book idea. “We are your publishing



**Personalized Attention:** RIT Press is a streamlined operation with a staff of four (pictured left to right)—Bruce Austin, Molly Cort, Marnie Soom, and Laura DiPonzio Heise. The publishing team works with authors to coordinate the editing, design, layout, printing, and distribution of new publications.

resource at RIT; we offer in-person, first-hand guidance on how to craft a proposal that can lead to issuing a contract for your book.”

What is Austin’s best advice to authors? “I know you want to discuss the research and your book at great length, but you should be able to encapsulate your idea and its reader appeal in a one- or two-

sentence elevator pitch.

“That’s a good beginning; we will work with you on the ending.”

### On the Web

RIT Press  
ritpress.rit.edu

## Global Resource for Design



Massimo Vignelli

The Vignelli Center for Design Studies, which opened nearly four years ago on the RIT campus, is a hub for design education, scholarship, and research. The center is home to the graphic and product designs of renowned designers

Massimo and Lella Vignelli. Their archive includes an extensive collection of original source materials, along with many examples of their finished work, including corporate identity campaigns, jewelry, silverware, and furniture.

Students, researchers, professional designers, and scholars have the chance to access and study the Vignellis' work.

"The Museum of Modern Art wanted our collection, as did The National Museum of Design, but it would have been kept in a storage space in the basement," said Massimo Vignelli. "Here at RIT, our archive is used for teaching students and scholars about the theory, history, and criticism of design. RIT is a living, teaching institution and that's the difference."

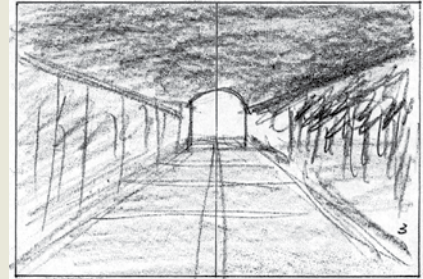
In addition to the archives, the center is made up of offices, a small gallery, classrooms, and an exhibition space. The center hosts a monthly Design Conversations Lecture Series that has drawn international designers like Michael Bierut, Jeff Miller, Ken Carbone, and Robert Appleton, to name a few.

Another popular program offering is an annual summer Master Designer Workshop in which young graphic design professionals can work alongside a master designer and RIT design faculty to learn more typography and graphic design.

And from programming to publishing, one of the center's current projects is producing a book on Massimo Vignelli's sketches.

"The book deconstructs some of Massimo's drawings, showing his thought process," said R. Roger Remington, RIT's Vignelli Distinguished Professor of Design.

"Massimo and Lella have always exemplified uncompromised excellence in their designs so we keep the bar high in all that we do in the Vignelli Center, whether it's a lecture we host or working on a publication or website."



**Vignelli Drawings: A Collection of Sketches for Book Design** dissects how Massimo Vignelli designs and plans a book. The Vignelli Center for Design Studies is producing the publication, which features 10 books Vignelli previously designed, including one on the work of American architect Louis Kahn.

## Growing Body of Scholarly Work



Jeremy Haefner

RIT's fifth annual Faculty Scholarship report highlighting scholarship achievements for 2013 has just been released. The report and the accompanying website showcase faculty publications, scholarly presentations, exhibits, performances, and fellowships.

The number of submissions has grown each year since the inaugural report in 2009. More than 1,800 citations are represented in the latest report. The number of citations has also steadily increased each year.

"We started this project knowing that it would take several years to really get to a point where we had a review that spoke volumes of the research and scholarly activity at RIT," said Jeremy Haefner, RIT provost and senior vice president for Academic Affairs. "I'm happy to report we have reached this point. The report, with so many submissions, has a terrific, professional look and feel. We have a terrific story to tell of the wonderful scholarship we do at RIT."

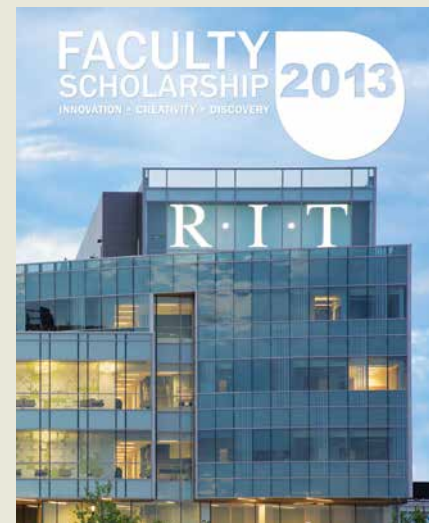
To be considered for inclusion in the report, the scholarship must be peer-reviewed, published, and disseminated. The provost and the deans set the criteria standards.

In addition to the compilation of citations, professors from each college are profiled in the report's "featured faculty section" based on nominations from each dean. The Wallace Center's Scholarly Publishing Studio produces the report. The entire project—graphics, photography, website development and design—is all done internally.

"Not only does the report showcase the scholarship that is done here at RIT, but it showcases the creativity and the technical expertise of The Wallace Center," said Nick Paulus, manager of Scholarly Publishing.

The Faculty Scholarship report is just one of the ways the university illustrates faculty's engagement in research and scholarly endeavors.

"Our scholarly aspirations are really compatible with our teaching mission," said Haefner. "When students see faculty 'learning' through their scholarly or creative work, the students see the value of continual improvement through learning, and this is important to us as educators. Secondly, I believe that research, creative work, and scholarly activity make substantial contributions to the intellectual life of a campus. The more that our faculty are engaged in the discovery of new ideas or the application of ideas to



**Faculty Scholarship:** The 2013 Faculty Scholarship report and website spotlights faculty publications, scholarly presentations, exhibits, performances, and fellowships. To view the report, go to <http://rit.edu/xB4qw>.

new fields, the more exciting it is to be part of campus. All great universities are known for intellectual vibrancy and RIT is no different!"

**Global Preservation Expert:**

More than a thousand institutions around the world—including research libraries such as the Inman E. Page Library on the Lincoln University campus in Missouri, along with museums, archives, and historical collections—employ the Image Permanence Institute's technology and preservation management approaches.



# Institute Serves as Preservation Expert to the World

by Rich Kiley

It is fair to say that the Image Permanence Institute (IPI), nestled within its 7,000-square-foot facility inside Gannett Hall, is not nearly as renowned on the Rochester Institute of Technology campus as it is off it. Acknowledged as one of the world's leaders in artifact preservation, IPI is recognized globally as one of the finest and best-equipped independent centers for testing imaging materials and for conducting preservation research.

## 'Game Changer' in the Cultural Heritage World

Since its humble beginnings nearly 30 years ago as the RIT Photographic Preservation Lab—a small department within the College of Imaging Arts and Sciences—IPI today has evolved into a world leader in the development, deployment, and dissemination of sustainable practices for the preservation of images and cultural property.

More than a thousand institutions around the world, including research libraries, museums, archives, and historical collections, employ IPI's technology and preservation management approaches, relying on IPI for its sage advice and information. For these institutions, IPI has become a trusted and valuable resource, research partner, and service provider.

"The research that IPI brings together in workshops and webinars is a game-changer in the cultural heritage world," said Erin Blake, curator of art and special collections for the Folger Shakespeare Library in Washington, D.C. "Everyone with a responsibility for collections care needs to get the message, and IPI has proven that they are very, very good at doing that. Long may they continue."

According to Jerry Podany, senior conservator of antiquities for the J. Paul Getty Museum in Los Angeles, "IPI's research and contributions in the area of collections and archives care are well known throughout the preservation field."

"They have undertaken numerous solid and well-thought-out research programs, nationally and internationally, which have resulted in useful tools and data for those charged with conservation of cultural heritage,"

### Decay's Devastating Effects:

Temperature and humidity are the fundamental culprits behind decay when it comes to a wide range of collection materials such as newsprint, which can become brittle over time due to poor storage conditions.

Podany said.

IPI has achieved its success through a meticulously balanced



**Smart Environmental Monitors:** To help institutions offset the effects of temperature, humidity, and other damaging factors, IPI provides clients with Preservation Environment Monitors (PEMs)—the only environmental monitoring hardware designed specifically for use in cultural institutions. The PEM2® is a highly accurate data logger already in its second generation.

offering of research, publications, educational activities, products, and services that meet the ever-changing and wide-ranging needs from world-class institutions to the corner library and the shoebox photo collector.

One example is IPI's wide range of topical webinars, which have been viewed in 47 countries around the world and in each of the United States, according to Patricia Ford, project manager.

"Here at IPI we've always understood that preservation research is an applied discipline in which the laboratory is only the beginning, and technical papers are not the end of the task before us," said James Reilly, who has served as IPI's director since its inception in 1985. "That is why we have tried at every turn to publish and disseminate our findings and to create publications and useful tools that serve the preservation and education mission."





**Growing Team of Experts:** Since its humble beginnings nearly 30 years ago, IPI has expanded its staff with research scientists, preservation specialists, and administrative personnel to become a world leader in the development, deployment, and dissemination of sustainable practices for the preservation of images and cultural property.

Fiercely devoted to scientific research in preservation technology for library, museum, and archives materials, IPI's inaugural focus was the preservation of photography, microfilm, cinema, and other forms of recorded information. In the last decade, however, IPI has broadened its mission to include a wide array of materials found in cultural institutions and focusing on the role of the environment in preservation management.

Support from federal and private foundations continues to be critical in the development and distribution of IPI's technology. The National Endowment for the Humanities (NEH), the Institute of Museum and Library Services (IMLS), and The Andrew W. Mellon Foundation are the primary sources for funding

and outreach. Over the past year, IPI has received more than \$1.5 million in federal funding. IPI also benefits from longstanding contracts with important institutions such as the Library of Congress—affiliated with IPI for more than 25 years—and the U.S. National Archives.

According to Daniel Burge, senior research scientist, all of the research and lab work “would be useless if it weren't converted into easy-to-understand-and-use publications and tools.”

Today, Reilly notes that IPI has expanded its staff to 17 people comprising research scientists, preservation specialists, and administrative personnel. Over the years, the research and field-testing focus has expanded through the development

of important tools for assessing and managing collection storage, and display environments in museums, libraries, and archives.

IPI has enhanced its six distinct websites and further developed a wide variety of online tools to assist research and education in support of artifact preservation.

### **Environmental Consulting Services**

Temperature and humidity are the fundamental culprits behind decay when it comes to collection materials. To help institutions offset their effects, IPI provides its clients with Preservation Environment Monitors (PEMs), the only environmental monitoring hardware designed specifically for use in cultural institutions. Already in its second gener-





**eClimateNotebook™**  
[www.eclimatenotebook.com](http://www.eclimatenotebook.com)

eClimateNotebook™ is a Web-based environmental data management system designed to help libraries, archives, and museums do more than simply collect and store data. Users can manage the environment for preservation, analyze the effect of temperature and relative humidity on their collection, and reduce the risk of decay.



**Graphics Atlas**  
[www.graphicsatlas.org](http://www.graphicsatlas.org)

Graphics Atlas is an online resource that presents an object-based approach to examining and characterizing the materials and technologies of prints and photographs. The site provides a sophisticated framework of interactive imagery and text to guide print observation and identification and to train the user's eye.

ation, the PEM2® is a highly accurate temperature and humidity data logger designed for use with eClimateNotebook™ — IPI's Web-based environmental data analysis software and reporting tool that informs users how the environment is affecting the long-term preservation of their collections.

The proliferation of digital technology is providing IPI with additional focus areas relating to preservation. With support from The Andrew W. Mellon Foundation and IMLS, IPI initiated the Digital Print Preservation Portal, known informally as DP3. The website is designed as a resource to explore aspects of digital printing and publishing. Since inkjet, dye diffusion thermal transfer, and digital electrophotography are relatively newer technologies, many archivists are



**DP3 Project**  
[www.dp3project.org](http://www.dp3project.org)

The DP3 Project (Digital Print Preservation Portal) is intended to help cultural institutions of all types and sizes preserve the digitally printed materials in their collections. Studies have been conducted on the effects of heat, humidity, pollution, light, flood, handling, and storage and display materials.



**Dew Point Calculator**  
[www.dpcalc.org](http://www.dpcalc.org)

The Dew Point Calculator's primary function is to express and visualize the relationship between temperature, relative humidity, and dew point. An understanding of how these variables influence each other is essential to improving the preservation quality of collection storage environments.

uncertain as to the potential longevity of newer submissions to their collections.

According to Burge, DP3 provides users with the means to compare aspects of newer technologies in relation to major deterioration issues so they can integrate the information into an overview that offers practical advice.

Graphics Atlas, another online resource, presents an object-based approach for the identification and characterization of prints and photographs. The site encompasses traditional printmaking, photo-mechanical, photographic, and digital print processes that are user-explored through interactive imagery and text. IPI takes advantage of social media by allowing people to sign up for an "interesting picture of the week" email or "like" IPI's Facebook page.



**Sustainable Preservation Practices**  
[www.ipisustainability.org](http://www.ipisustainability.org)

The National Endowment for the Humanities (NEH) has funded three programs of Sustainable Preservation Practices for Managing Storage Environments workshops and webinars allowing IPI to provide information and tools that enable project participants to make informed decisions based on current research, reliable data, and a fact-based understanding of the relationship between environment and material decay. These presentations and additional education and reference materials are available on the IPI Sustainability website.

### Tools of its Trade

IPI's research and field-testing focus has expanded over the years through the development of tools for assessing and managing collection storage and display environments in museums, libraries, and archives. In recent years, IPI has enhanced its six distinct websites and further developed a wide variety of online tools to assist research and education in support of artifact preservation.

### Climate Change Spurring New Research

Global climate change is expected to result in more frequent and severe natural disasters. Recently, IPI received a National Leadership Grant award from IMLS to help in the creation of disaster prevention response and recovery plans for modern inkjet prints in museum collections.

Despite the large numbers of inkjet-printed documents, photographs, and other art materials within museum collections, museum personnel are typically unaware of the makeup of inkjet materials or how to care for them—including how to prevent or respond to damage caused by natural disasters such as floods or other unintended exposures to water.

"Many inkjet prints are considerably more sensitive to water damage than



**Preventing Decay in Film:** The National Endowment for the Humanities recently provided funding to IPI for a project that will create an educational website called FilmCare.org, which is designed to prevent film decay and develop best practices for preserving film materials in museums, archives, libraries, and other repositories.



**Understanding Damaging Effects:** A new IPI study will simulate the effects of summer dampness and winter dryness on library materials inside a chamber exposing materials to a wide variety of damaging conditions.

traditional prints,” said Burge, who is leading the research. “We began this two-year project at the end of last year, and it is designed to help museums develop best practices to help in the recovery and preservation of modern inkjet prints in their collections.”

Burge noted that with climate change resulting in a greater number of severe events such as Hurricane Sandy in 2012, “this research is as timely and important as ever.”



### Preserving Film Collections for the Future

IPI was recognized with a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences in 1998 and has a long history of providing preservation tools for the Hollywood film community and independent film archives. The NEH recently provided funds to IPI for an education and training project designed to develop best practices for preserving film materials in museums, archives, libraries, and other repositories. The project will create an educational

website called FilmCare.org that will include an easy-to-implement decision-making tool for preserving all types and formats of film materials. This resource will provide a comprehensive synthesis of several decades of scientific research and experience in the field of film preservation, highlighting the need for defining sustainable approaches to film care, and facilitating the process of implementing best-fit preservation strategies for a wide variety of real-life situations.

“Despite the growing move toward digital formats, photographic film collections still are an important source of information for the humanities, and if properly cared for, these valuable records will be available to researchers and digitization programs far into the future,” said Reilly.

FilmCare.org, expected to launch in January 2015, will be available as a standalone tool for self-education at no charge. IPI is developing the content, architecture, and functions of FilmCare.org as well as programming the application. Results will be disseminated to the field through a series of webinars and presentations and will be posted on various distribution lists.

### Future of Preservation Continues to Evolve

IPI is continually evolving its laboratory research and field consulting practice in sustainable environmental management. Inside the laboratory, IPI is exploring how rates of thermal and moisture equilibration can be used to lower energy consumption and protect objects from uncontrolled adverse conditions. Beyond the laboratory, it is helping teach institutions how to use less energy through controlled shutdowns of mechanical systems, altering seasonal set points, reducing airflows, and reducing outside air quantities.

“One thing is abundantly clear—the path forward for sustainable environmental management is cross disciplinary in nature, including collection care and facilities management, and, of course, people,” said Reilly.

#### On the Web

**Image Permanence Institute**  
[www.imagepermanenceinstitute.org](http://www.imagepermanenceinstitute.org)

**Graphics Atlas**  
[www.graphicsatlas.org](http://www.graphicsatlas.org)

**eClimateNotebook™**  
[www.eclimatenotebook.com](http://www.eclimatenotebook.com)

# Student Research Symposiums

## Graduate Research Symposium



Matt Ganter



Ray Ptucha

In an effort to continue to build a greater sense of community around its graduate programs, RIT's Office of Graduate Studies hosted its first Graduate Education Week in April, culminating with a juried student art exhibition and the sixth annual Graduate Research and Creativity Symposium. The week also included a number of workshops and lectures on topics ranging from graduate advising to mentoring to thesis preparation.

The symposium drew participation from more than 100 graduate students across the university. Master's level students from the University of Rochester, Cornell, and the College at Brockport also participated. Awards were given for best poster and oral presentation.

"The annual Graduate Research Symposium is one of the ways we are pushing to create a graduate culture here at RIT," said Hector Flores, dean of RIT's Graduate Studies. "The university needs to build a stronger graduate culture that goes well beyond each of RIT's individual colleges. When we start building bridges between the colleges the students and faculty engaged in graduate scholarship

will feel more connected."

As part of this year's symposium, the Office of Graduate Studies created RIT Doctoral Dissertation Awards.

Matt Ganter, a sustainability doctoral student, and Ray Ptucha, a computing and information sciences doctoral candidate, were this year's recipients. Each received a \$500 award. Ganter's dissertation focuses on carbon nanotube enhanced electrodes to improve electrochemical performance while investigating the end-of-life options for recycling nanomaterials from lithium ion batteries. Ptucha's research is on the development of new mathematical techniques to help computers better recognize and interpret human faces and human gestures.

Criteria for the award included quality of the research and writing, impact of the dissertation as measured by peer-reviewed publications, conference papers, and awards.

More than a dozen selected works were on exhibit at the RIT Gallery as part of the complementary art exhibition, Convergence. Various mediums from 3D to 2D artwork to films were submitted. This year's jurors were metal sculptor and School for American Crafts artist-in-residence Albert Paley; R. Roger Remington, the Massimo and Lella Vignelli Distinguished Professor of Design; and Sarah Lentini, past president and CEO of the Arts and Cultural Council for Greater Rochester. "Graduate students of any major are



**Juried Exhibition:** This cast glass piece created by first-year School for American Crafts graduate student Hyesook Choi was among the selected pieces showcased at the exhibition Convergence as part of Graduate Education Week in April.

welcome to submit work for consideration, but the majority of the entries are typically from our MFA students," said Robin Cass, associate dean in the College of Imaging Arts and Sciences. "It's wonderful to see our graduate students in the creative fields given the recognition they deserve. The arts and design are such an important part of what makes the RIT graduate community balanced and vibrant."

## Undergraduate Research Symposium



Scott Franklin

RIT's annual Undergraduate Research Symposium is a signature event that began more than 20 years ago. It's grown in scope with the number of participants and attendees continuing to climb

each year, drawing students from all of RIT's colleges and institutes. Alumni and members of the Rochester community attend each year.

Structured like a professional research conference, oral presentations and posters are broken up thematically. Presentation themes in recent years have included biomedical and life sciences, energy and sustainability, chemistry and material science, modeling and simulations, imaging and optics, and social sciences and humanities.

"Talks and posters follow scientific norms and accepted guidelines in length, structure, and tone," said Scott Franklin, professor in RIT's School of Physics and Astronomy and the symposium's organizing committee chair. "By grouping talks by theme, the conference

guarantees an informed audience capable of understanding a technical presentation. The lightly moderated question-and-answer period following the talk is similar to what takes place at national meetings, and allows students to experience unstructured inquiry that so often leads to new ideas."

Organizers want students to experience what it's like to present at a professional conference without having to worry about travel and conference and lodging expenses that are typically associated with professional technical conferences. The symposium is free for presenters and attendees. Last year's conference moved off the RIT campus to the RIT Inn and Conference Center.

The next symposium will be held Friday, August 8, 2014, at the conference center. To be considered for participation, students, under the guidance of faculty mentors, submit abstracts to be reviewed by a program committee. Research interests among students run the gamut and represent the university's right- and left-brain thinkers.

Added Franklin: "The symposium captures



**Student scholarship:** The annual Undergraduate Research Symposium will be held in August 2014. The conference is structured like a professional research conference with oral presentations and posters divided up by themes.

the breadth of scholarship that takes place at RIT. Where else can you go from a talk on the physics of haystacks to a social network analysis of students on social media and finish with one on cognitive psychology or eye-tracking?"

**Press Restoration:** The 123-year-old Kelmscott/Goudy Albion iron hand press will be fully operational at RIT after a cleaning and fine-tuning. Assistant Cary Curator Amelia Hugill-Fontanel (right) is leading the press' refurbishing and reassembly. She along with Jason Stryker, (bottom right) and student employee, Derek Joyce, assemble the tympan frame. Pictured on the back wall is a painting of the press' original owner, publisher William Morris.



# Preserving All Types of Fine Print

by Marcia Morphy

Whether it's rare books, manuscripts, typography, graphic design, bookbinding, or printing, RIT's Cary Graphic Arts Collection—building on the special collections of Melbert B. Cary, Jr.—is one of the finest teaching libraries in the world.

## In the Beginning...

The written word always has, and continues to have, the strongest impact and presence in the rare and irreplaceable gems housed in RIT's Cary Graphic Arts Collection. The library-within-a-library is located on the second floor of The Wallace Center, and amid the carefully labeled books and boxes is a treasure trove of antiquities on the history and practice of printing, with more than 45,000 artifacts and hundreds of primary source archives—and still growing.

Many pieces resemble *objets d'art*.

There's an eighth century scroll, a Sumerian cuneiform tablet from 2100 B.C., two leaves from a Gutenberg Bible printed ca. 1456, alphabet stones carved with depictions of the Roman alphabet—and a room filled with 19<sup>th</sup> and 20<sup>th</sup> century historic, heavy-duty printing presses and type.



**Cary Curator:** Steven Galbraith has expertise in rare books, exhibitions and outreach. In the above photo, he is holding Apple's Newton Tablet, the company's first commercial tablet computer launched in the early 90s. The tablet is part of the Cary Collection.

The collection even owns the first Apple Newton tablet from 1993 and the first Kindle. Mixing with the old and the new is the recently acquired 19<sup>th</sup> century iron hand press, the Kelmscott/Goudy Albion, which has put a worldwide spotlight on the entire Cary Collection.

The artifacts are preserved behind locked doors, yet all visitors are welcome. Nestled under climate-controlled conditions of 68 degrees and 50 percent relative humidity, even the most ancient and revered relics can be viewed up close—and touched.

Cary Curator Steven Galbraith, who joined RIT in 2011 from the Folger Shakespeare Library in Washington, D.C., said his primary responsibility is to balance access and preservation.

"Our oldest printed complete book is from 1470, Johannes Marchesinus' *Mammothrectus super Bibliam*, and the paper used was not made from wood pulp, but linen rag. If you keep it in a moderate climate, it will last for generations to come.

"So we teach visitors how to cradle a book to take stress off the binding and structure of the book. We tell them to slow

down when turning a page. There's no need to wear gloves in most cases—clean, dry hands are all that's necessary."

## A True Man of Letters

The collection's namesake, Melbert B. Cary, Jr. (1892-1941), imported European metal type fonts into the U.S., and as a sideline, ran a small private press, Press of the Woolly Whale. An avid collector, he assembled a library with 2,300 volumes on printing history and the graphic arts.

After his death, the collection remained in family hands until the late 1960s, when Alexander Lawson, then a professor in RIT's School of Print Media, now known as the School of Media Sciences, noticed in an obituary that Cary's wife, Mary Flagler Cary, had recently died. (Lawson later became the first Melbert B. Cary, Jr. Professor in Graphic Arts, a post he held until retirement in 1977.)

## Gutenberg Bible Leaf:

Cary curators use leaves from the Gutenberg Bible when teaching classes on the history of printing.



**Melbert B. Cary, Jr.:**

The Cary Collection is named after the New York City businessman and prominent figure in the fields of typography and private printing during the twentieth century.





**Artifacts All Around:**  
In addition to some 45,000 books, the collection holds sculptural artworks, paintings, and printing technology artifacts.

## RIT's Cary Graphic Arts Collection

**A Welcoming Space:**  
The Cary main reading room is host to classes, student researchers, scholars, lectures, and other programming.

**Illuminated Alphabet:**  
A stained glass panel by calligrapher Julian Waters was designed as the room's focal point when the Cary Collection moved to The Wallace Center in 1991.

“He was eager to bring the collection to RIT, and based on the strengths of our printing and design programs, thought it would be beneficial to students and scholars,” said Cary Assistant Curator Amelia Hugill-Fontanel ('02, School of Print Media).

In 1969, the Cary Collection was donated to RIT by the Mary Flagler Cary Charitable Trust. First housed in Booth Hall, the collection was relocated to The Wallace Center in 1991.

David Pankow, former curator of the Cary Collection from 1983 until his retirement in 2012, was the pivotal force in growing the collection into a nationally recognized graphic arts resource. One of Pankow's landmark acquisitions was the Bernard C. Middleton Collection of Books on Bookbinding, one of the most complete collections of its kind in the world.



**Archives of Modern Masters of Graphic Design:** The Cary Graphic Design Archive contains the design collections of more than 40 American graphic design pioneers such as Will Burtin, Lester Beall, and Saul Bass.

## Cary Graphic Design Archive

The Cary Graphic Design Archive is under the administrative care of the Cary Collection, and came to RIT in 1984 through the vision of R. Roger Remington, Vignelli Professor of Design in the College of Imaging Arts and Sciences at RIT. The collection documents and preserves the work of some 40 American graphic designers from the 1920s to 1950s.

“Researchers from all over the world come to examine the collections of iconic designers as Saul Bass, Alexey Brodovitch, Will Burtin, Bradbury Thompson, and others,” said Kari Horowicz, RIT fine arts and photography librarian and manager of the Graphic Design Archive. “These collections serve as catalysts for learning and scholarship for students and researchers.”

The Archive frequently lends significant visual artifacts to museums, both



**Thriving Facility:**  
The Lowenthal Memorial Press Room and Weiss Reading Room round out the publicly accessible spaces in the Cary. Archival storage vaults complete the facility.

**Exhibitions:**  
Cary curators produce three exhibitions per year on topics drawn from its extensive holdings on the history of the graphic arts.

national and international, and the collections are actively used in RIT classrooms.

“They are wonderful teaching tools because we have original artwork from the designer, sketchbooks, sculptures, architectural models, and source materials that document the designers’ working lives,” said Horowicz.

### **New Kid on the Printing Block**

The newly acquired Kelmscott/Goudy Press, the Albion No. 6551, is the current star to join the Arthur M. Lowenthal Memorial Pressroom and its collection of 15 historical presses and more than 1,500 fonts of wood and metal type.

The renowned press, manufactured by Hopkinson & Cope in 1891, sold for \$233,000 on Dec. 6 at Christie’s auction house. The purchase was made possible by the generous support of Brooks Bower, RIT trustee, chief executive officer of

Papercone Corp., and alumnus of RIT’s School of Printing Management and Sciences, now known as the School of Media Sciences.

“This press was always on our radar because we wanted it to be used as a working press, not have it sit idle,” said Galbraith. “We knew it would make a remarkable addition to our collection especially because it would be a homecoming—it was once owned by Melbert B. Cary, Jr., from 1932 to 1941.”

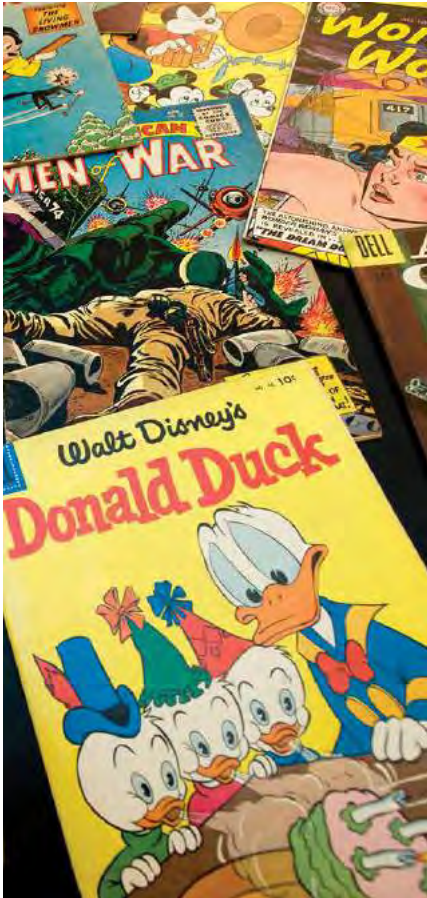
Unfortunately antique printing presses don’t come with an operating manual and a set of instructions for assembly. Weighing in at approximately 3,000 pounds, the muscular looking antiquity arrived in early January “in pieces” and, under the supervision of Hugill-Fontanel, is being partially refurbished before assembly.

“We’ve received a huge response from printing experts across the country and

Europe who are offering advice with the restoration, and are anticipating a fall reception to christen its installation here at RIT” she said.

The press was manufactured overseas in the Hammersmith district of London, and during the time frame from 1891 to 1898, produced 53 books, totaling some 18,000 copies. “Its claim to fame is that it was used by the founder of the Arts and Crafts Movement, designer William Morris, to print Chaucer’s works,” said Hugill-Fontanel.

“It has family here. We have a striking copy of the Kelmscott Chaucer in our collection—considered one of the most beautiful books ever made. And we have an oil painting by Robert A. Thom—part of our Kimberly Clark Graphic Communications Through the Ages Series, ca. 1968-71—where you can see Morris working with his staff at this same Albion press.”



**Famous Funnies:** RIT alumnus Stephen Neil Cooper donated his collection of 202 comic books to the Cary Collection. The comics provide a unique glimpse into American culture in April 1956.



**The Kelmscott Chaucer:** Cary Professor Alexander Lawson acquired William Morris' edition of *The Works of Geoffrey Chaucer* for the library around 1972 as an exemplar of outstanding fine press printing. The book was printed on the Kelmscott/Goudy Albion press.

### Curiouser and Curiouser

The Cary curators acknowledge there are some unusual items included in the historical collection.

"Think of comic books like Archie, The Lone Ranger, Nancy and Sluggo, and Uncle Scrooge," said Galbraith with a laugh. "RIT alumnus Stephen Neil Cooper, owner of Sybille Gallery in Manhattan, donated his synchronized collection of 202 comic books that were on candy store racks and newsstands in April 1956.

"The comics provide a comprehensive window into graphic design and printing technology as well as an anthropological study of popular culture in mid-20<sup>th</sup> century America—where we look at

how superheroes defy, follow, and create societal norms."

One of the collection's most curious pieces, said Hugill-Fontanel, is a plaster cast of type designer Frederic W. Goudy's hand, affectionately called "the paw" by staff.

"One professor at RIT believed 'the paw' was cursed, so anyone who touched it would get bad luck. It's still on most visitors' list of things to see in the Cary Collection."

### The Arc of Learning

One of the library's central obligations is to be a hub for students and scholars—a crossroads for students and scholars to utilize everything old in an effort to

create something new.

Galbraith cites working with RIT graphic design students who were designing text for iPad and tablet computers. He found one student struggling because she was wondering whether to use page numbers in the design.

"We had this great conversation about the artifacts we had on view because in the early 1500s books didn't have page numbers," explained Galbraith. "And she looked at me with this great sense of relief to learn that page numbers are only about 500 years old. It made a huge difference in how she approached her design."

Hugill-Fontanel reminds students that printing is the antecedent to terminology used everyday in the fields of typesetting





Image courtesy of Christie's

**The Kelmscott/Goudy Albion press:** Celebrated as the machine that printed some of the most beautiful books of the Arts and Crafts Movement.



**Type Collections**

The Cary is home to some 1,500 fonts of metal and wood type for letterpress printing.

**Collaborative Crew:**

Wallace Center Facilities Coordinator Thanh Hoang and Senior Manager of Circulation and Facilities Jason Stryker have been instrumental in reassembling The Kelmscott/Goudy Albion press.

and graphic design.

“Leading, a printing term where you actually have a piece of lead that goes in between the lines of type in a paragraph—is called line spacing in Microsoft Word!”

And there’s the familiar term, “Mind your p’s and q’s.”

“With printing, everything is backward,” explained Hugill-Fontanel. “You have to have wrong-reading type in order to print right-reading letters on a page. So a p backwards looks just like a q—it’s very easy to mix them up when you are typesetting.”

**Each Technology Learns from the Past**

Galbraith says the collection is like “a humanist island in the middle of this

technology sea,” but can certainly coexist within the digital age.

“That’s one of the lessons when looking at the history of printing,” he said. “In Europe when Gutenberg attempts printing and printing becomes a dominant way of disseminating information, it doesn’t destroy manuscript (written by hand) production; it changes it. Like when television first came out, we wondered what would happen to radio. Both survived.

“There is something wonderfully physical about taking a rare book off the shelf, holding it in your hands and thumbing through the pages, marveling at the printing process, the innovative design, or special binding. Print will

always have a lasting place in our world.”

Hugill-Fontanel agrees, and says the collection is a fusion of the future and the past.

“The RIT Cary Collection is really on par with some renowned libraries in the country. I’d like to think Melbert and Mary Flagler Cary would be pleased with how it’s grown. There’s incredible history at our doorstep, and it’s a privilege to be a part of it.”

**On the Web**

**Cary Graphic Arts Collection**  
<http://cary.rit.edu>

**Graphic Design Archive**  
<http://design.rit.edu>



**Connecting with crowds:** Nearly 35,000 visitors converge on the RIT campus every May for the Imagine RIT: Innovation and Creativity Festival. Faculty, staff and students showcase their innovative and artistic endeavors.

## Unlocking Your Imagination

by Debbie Waltzer

It is a celebration like no other. Imagine RIT: Innovation and Creativity Festival, a one-day event now in its seventh year, celebrates the marriage of right- and left-brain activities across RIT—and engages a crowd of 35,000 attendees to boot.



### Connecting with the Community

Held on campus on the first Saturday in May—rain, snow, or shine—Imagine RIT is a showcase of more than 400 student, faculty, and staff exhibits, live performances, and research projects.

But this is not just a show and tell. Participants, including Rochester and upstate New York residents as well as prospective students and their families, get hands-on experience with RIT’s breadth of technical and artistic offerings. RIT President Bill Destler brought the idea for the festival to campus when he arrived in 2007, having supported a similar event at University of Maryland.

Organizers say Imagine RIT has changed people’s perception

of the university.

“Imagine RIT is an interactive way for visitors to immerse themselves into all that the university has to offer,” said Barry Culhane, executive assistant to the president, who serves as festival chairman. “We are proud year after year to showcase the breadth of innovation and creativity among our faculty, staff, and students. The festival is truly a platform upon which we can illustrate why RIT is consistently ranked by *U.S. News & World Report* among the nation’s leading comprehensive universities and the second largest producer of undergraduate degrees in science, technology, engineering, and mathematics among all U.S. private universities.”

And throughout the festival’s history, exhibitors have made significant connections with corporate and research contacts.



**Award-Winning Technology:** Three RIT students from the B. Thomas Golisano College of Computing and Information Sciences created Open Video Chat, an open-source program for low-cost XO laptops that enables users to communicate via American Sign Language. Justin Lewis, Fran Rogers, and Taylor Rose (pictured above)—won a technology award from Digital Rochester after a festival visitor nominated them.

### Video Chat Program Earns Award

As undergraduate students in the B. Thomas Golisano College of Computing and Information Sciences in 2011, Justin Lewis, Fran Rogers and Taylor Rose wanted to help deaf and hard-of-hearing children from developing countries have an easier time of communicating with their peers around the world.

So the trio created Open Video Chat, an open-source program for low-cost XO laptops that enables users to communicate via American Sign Language. Hundreds of people stopped by their exhibit during the festival to use the software and to play educational computer games created by the students.

Impressed by their innovation, an attendee nominated Lewis, Rogers, and Rose for special recognition by Digital Rochester, a local professional organization. A few months later, they learned they had won a coveted Student Achievement Award from the organization during its 2011 GREAT (Greater Rochester Excellence and Achievements in Technology) Awards ceremony.

“We were thrilled,” said Lewis, who earned his bachelor’s degree in computer science and now is a programmer for Dealer.com in Burlington, Vt. “Imagine RIT gave us an opportunity to help others and be a part of a very special day.”



**Power of Emotion:** Dr. Caroline Easton illustrates with a boy the facial muscles involved in the expression of the emotion disgust. The boy is trying to practice showing this emotion by interacting with a computer program (Noldus FaceReader) that maps the muscles of his face and gives feedback about the accuracy of emotion displayed.

### Virtual Reality Tool Aids Clients in Therapy

Substance addiction and intimate partner violence are challenging behaviors to change. RIT forensic clinical psychologist Dr. Caroline Easton, along with professors Richard Doolittle, Jim Perkins, and Glen Hintz and medical illustration graduate students Alan Gesek and Ray Szigeti, turned to technology as a way of encouraging perpetrators of these behaviors to modify their actions.

Thus was born “AI-Virt,” an animated coach who explains the deleterious effects of drugs and alcohol on the brain, via an interactive video. The team also created a smartphone app that helps people manage their anger in constructive ways versus committing aggressive acts.



**Creating Fun Sound Effects:** Festival visitors get 'hands-on experience' creating sound effects for an animated film in RIT's School of Film and Animation. Scan the QR code to watch the animation with the created sound effects of a cartoon character fighting a pimple on his forehead.



**Video Technology to Train Future Members of Workforce:** Simon Ting (center), an instructional developer at the National Technical Institute for the Deaf, shows Imagine RIT visitors how video technology is being used to help deaf and hard-of-hearing students prepare for jobs.

Presented during Imagine RIT in 2013, the work has attracted a significant amount of attention, including an opportunity to present at a forum during New York Gov. Andrew Cuomo's State-of-the-State address as well as appearances on National Public Radio and local media outlets. "Research shows that 85 percent of substance abusers and intimate partner violence perpetrators own smartphones and computers," said Easton, who holds a doctoral degree in psychology from University of Connecticut. "We think that this project, along with further study, will show clients the negative consequences of their behaviors via engaging technology."

### Magic of Moviemaking

Through Imagine RIT, Dave Sluberski demonstrates the fun that can be had for people involved in the fields of film and animation.

In 2012, visitors had the chance to create the sounds of a popping pimple to show how sound effects are created for films. Using props such as squishy spaghetti and balloons, kids and their parents recorded the noises while watching a cartoon character negotiate his troublesome forehead.

The production techniques that festival-goers used are typically executed in a Foley Sound Studio, which is part of RIT's School of Film and Animation's sound facilities.

"The visitors love it," said Sluberski, a 15-year lecturer in RIT's School of Film and Animation and former senior audio technologist for the local PBS television station. "We get a smile and a laugh."

Plenty of prospective students and their parents stop by the exhibit to learn more about the film and animation industries. Attendees learn about graduates'

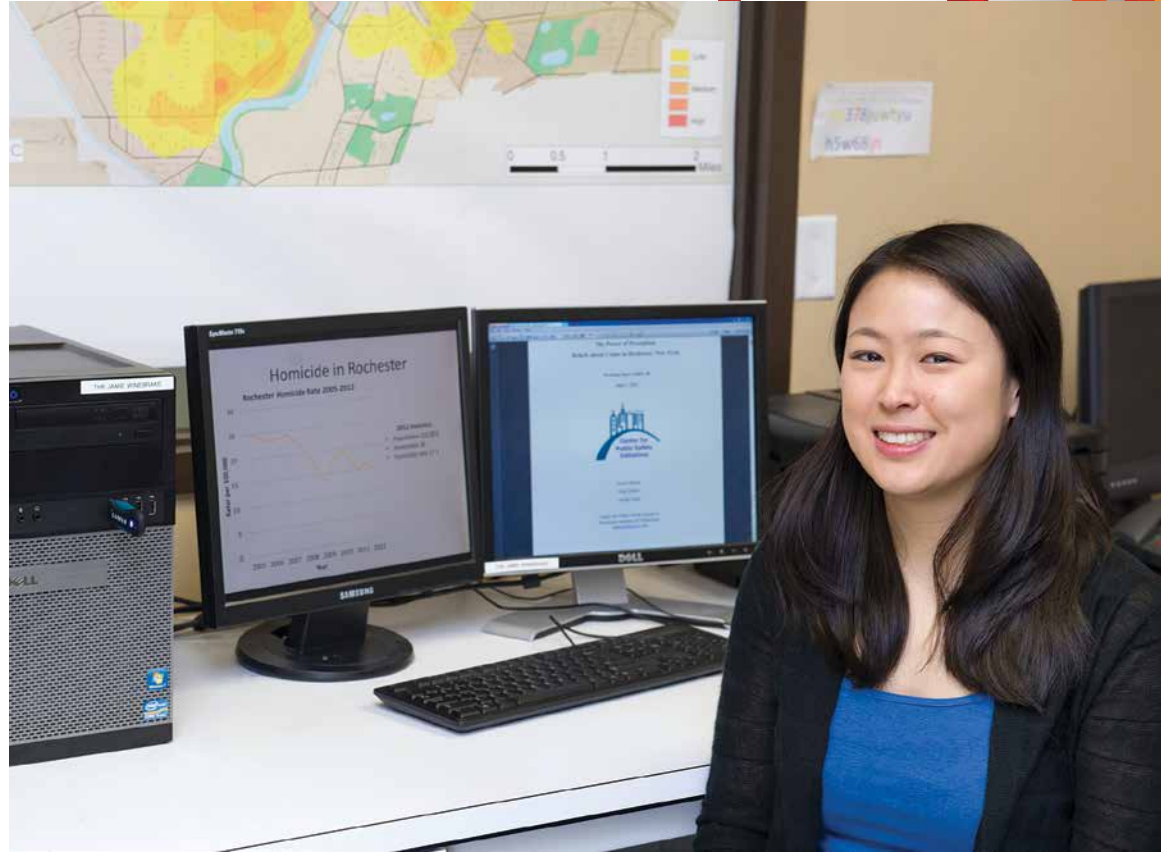
successes, including alumni who've landed sound careers with "Saturday Night Live," Warner Bros., and Maryland Public Television.

"Imagine RIT helps us communicate the connection between creativity and technology that is such an integral part of this field," Sluberski added. "Many folks who stop by during the festival turn into future students."

### Resource for Schools Educating Deaf and Hard-of-Hearing Students

Linda Gottermeier, associate professor and rehabilitative audiologist, and Simon Ting, instructional developer, both at RIT's National Technical Institute for the Deaf, know the benefits of video technology for students who are deaf or hard of hearing.

At Imagine RIT in 2013, they demonstrated the use of video in the job-seeking process. NTID students Kensie Channon



**Research Draws Attention and Job:** Karyn Bower, expected to graduate in May 2014 with a bachelor's degree in criminal justice, landed a full-time job with the Monroe County Crime Analysis Center after conducting a survey at Imagine RIT about crime perceptions.

and Joseph Valdez had the chance to conduct mock job interviews, prepare and present video résumés, and make business presentations about prototype companies that they have created.

“The purpose of this project is to rehearse real-life business opportunities and professional interactions through the medium of video,” explained Gottermeier, noting that three NTID researchers, Donna Lange, Myra Pelz, and Gary Long, are looking at ways to include this technology on the website ([www.deaftec.org](http://www.deaftec.org)) for their National Science Foundation Center, DeafTEC. The Center provides resources to improve the access to technological education and employment for deaf and hard-of-hearing students.

“In addition, these tools can be beneficial to NTID alumni who are looking for new career opportunities.”

### Festival Survey Helped Secure Job

Little did undergraduate student Karyn Bower imagine that a survey she would conduct during her junior year might help her land full-time employment after graduation.

Such was the case, however, when Bower, a criminal justice major from Bloomsburg, Pa., asked visitors to her exhibit about their perceptions of crime in Rochester and throughout the United States. Nearly 300 individuals completed the six-question survey, and their results were telling.

“Most people drastically overestimated the murder rate in Rochester, while drastically underestimating the murder rate nationwide,” she said.

Immediately, others took notice of Bower's findings, as presented in a 29-page research paper. The study was cited during the 2013 Rochester mayoral

race and several media outlets reported on the research conclusions as well.

Moreover, Bower included the study on her résumé, which helped her land her current position as a crime research analyst for the Monroe County Crime Analysis Center. She started working at the center in February 2014 while taking four classes to complete her undergraduate degree in May 2014.

“I thoroughly enjoyed being a part of Imagine RIT,” she said. “It was all new to me and led to some fascinating conversations with people. The project taught me a lot about people's perceptions of local and national crime.”

**On the Web**  
**Imagine RIT Festival**  
[www.rit.edu/imagine](http://www.rit.edu/imagine)

# Research Awards and Honors

by Kelly Sorensen

RIT values the research contributions of its faculty, staff, and students. Below are some members of the RIT community who have received recent international, national, and university recognition.

## CAREER Awards



**Wei Le and Linwei Wang**, professors in the B. Thomas Golisano College of Computing and Information Sciences, are recipients of Faculty Early Career Development (CAREER) Awards from the National Science Foundation. The CAREER Program is an NSF-wide activity that supports junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and



research within the context of the mission of their organizations. Le will develop program analyses to address quality assurance problems related to reliable software releases, diagnosing failures in changes and effectively patching multiple versions of software.

Wang's research aims to improve non-invasive and personalized medicine by integrating computer simulations into data-driven learning.

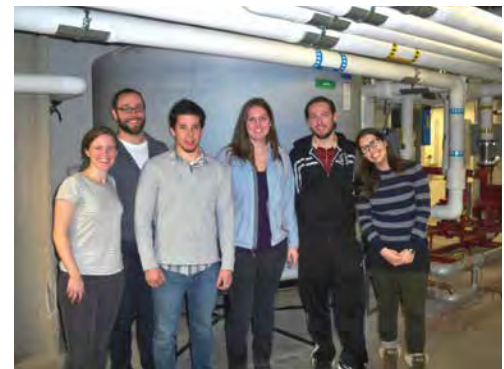
Teams of faculty and student researchers from the Kate Gleason College of Engineering and the Golisano Institute for Sustainability received Environmental Protection Agency grants through the 2013 EPA's People, Prosperity and the Planet phase I grant program. The projects were featured at the National Sustainable Design Expo in Washington, D.C., in April.

The first award was given for the project "The Development of an Improved 'Arborloo' to Promote Sanitation in Rural Environments." **Brian Thorn** and **Sarah Brownell**, faculty members in the College of Engineering, are leading a team that will design a simple, inexpensive toilet that can easily be built and installed in remote locations using local labor.



The "Arborloo" Team

The second project, "Implementing Practical Pico-hydropower," will support campus sustainability initiatives through a feasibility study of implementing a micro-hydropower system within RIT's Golisano Institute for Sustainability building. The team is composed of assistant



The "Implementing Practical Pico-hydropower" Team

professor **Gabrielle Gaustad** and architectural graduate students **Matt Burke, Kate Krueger, J.D. Harper, Bridget Carney, Adam Stoker, Sergey Selyuzhitskiy, and Andrew Sinko.**

## EPA Awards



## Faculty Awards and Achievements



**Irshad Altheimer**, assistant professor of criminal justice, earned a distinguished W.E.B. DuBois Fellowship for his work related to understanding and reducing dispute-related violence. The fellowship offers academic researchers the opportunity to elevate independently generated research and ideas to the level of national discussion.



**Stefi Baum**, director of RIT's Chester F. Carlson Center for Imaging Science, has been named to a leadership position in the American Association for the Advancement of Science. She was elected chair-elect of the society's Section on Astronomy.



**Burak Baylav**, a micro-systems engineering Ph.D. student, won a "Best in Session" award at TECHCON 2013. He presented research on a new processing technique with viable implications for the semiconductor industry. Baylav's recognition was for the "Impact of Pupil Plane Filtering on Mask Roughness Transfer."



**Zack Fitzsimmons**, a computing and information sciences Ph.D. student, won a Graduate Research Fellowship from the National Science Foundation (NSF). Fitzsimmons receives a three-year, \$32,000 stipend to pursue his research in computational social choice, specifically the difficulty of strategic attacks on elections.



**Gregory Halpern**, assistant professor in the School of Photographic Arts and Sciences, has won a prestigious fellowship from The John Simon Guggenheim Memorial Foundation. Halpern has published three books of photographs. The Fellowship supports individuals in mid-career "who have already demonstrated exceptional capacity for productive scholarship or exceptional creative ability in the arts."



**Kara Maki**, assistant professor in the School of Mathematical Sciences, was invited to participate at the 5th Indo-American Frontiers of Science symposium in April 2013 in Agra, India. The symposium is co-sponsored by the Indo-U.S. Science and Technology Forum (IUSSTF) and the U.S. National Academy of Sciences and is the premier activity for distinguished young scientists. Maki presented a poster on her research in collaboration with David Ross on modeling the mechanics of the contact lens.



**Brett Morris**, a second-year game design and development student, won the first-ever Game Innovators Scholarship from GSN Games, the social, mobile, and online games division of Game Show Network. The \$2,500 scholarship is given to a university student pursuing a degree leading to a career in the games industry.



**Gino Santaguida**, fourth-year industrial design student, took first prize and won \$2,000 at the RIT Tiger Tank competition for his product concept to stop nosebleeds. He demonstrated a nonworking prototype that could be opened with one hand, placed to the nose and a small tissue would be inserted in the nostril, with standard chemicals that are currently on the market.



**Hao Shi**, a 2013 graduate of RIT's physics program, was chosen as a recipient of the American Physical Society's LeRoy Apker Award. The premier national award recognizes outstanding achievement in physics by an undergraduate student in the United States. Shi was honored for his undergraduate research in theoretical quantum and optical physics, and cites his work on "Torsional Optomechanics: A Dialogue Between Spinning Photons and Twisting Oscillators."



**Saugata Sinha**, a Ph.D. student in RIT's Chester F. Carlson Center for Imaging Science, won best paper at the 2013 IEEE Western New York Image Processing Workshop for his work on detecting thyroid cancer. He presented the paper "Differentiation Between Malignant and Normal Human Thyroid Tissue Using Frequency Analysis of Multispectral Photoacoustic Images."

### About This Section

This listing is a sample of awards and honors that have been received by RIT faculty, staff, and students over the past year. For more information, go to [www.rit.edu/news](http://www.rit.edu/news).

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Rochester Institute of Technology is internationally recognized for academic leadership in computing, engineering, imaging technology, sustainability, and fine and applied arts, in addition to unparalleled support services for deaf and hard-of-hearing students.

For two decades, *U.S. News & World Report* has ranked RIT among the nation's leading comprehensive universities. RIT is featured in *The Princeton Review's* 2014 edition of *The Best 378 Colleges* as well as its 2014 *Guide to 332 Green Colleges*. *The Fiske Guide to Colleges 2014* describes RIT as "strong in anything related to computing, art and design, and engineering."

### Contact Information

To learn more about research opportunities on campus, contact us directly or through the RIT research website at [www.rit.edu/research](http://www.rit.edu/research).

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