SMITH COLLEGE

FROM THE CLARK SCIENCE CENTER DIRECTORS' OFFICE

A New Idea for the Sciences and Libraries?

This fall, the College is involved in intensive planning about the Neilson library complex; Library Programming Committee will present its vision to campus by early next year. Related to this work, the sciences have been brought into discussions about the possibility of Young Library's space enabling the Neilson renovation. The Provost asked Science Planning Committee to imagine what a science library is/should be so that Young renovations to enable the Neilson project might be done in a manner consistent with Young's future space uses. At two meetings this fall, Science Planning had vigorous and thoughtful discussions on the topic, agreeing that the following current functions in Young were essential for our division: reserves; educational programming; space for student studying; access to essential collection holdings; administration of self-scheduled exams; and support for science librarians and their critical roles. Science Planning agreed that each of these uses must be supported throughout the period of time that Young is involved in the Neilson enabling.

In this conversation, two big bold ideas for the future also emerged. One generated a great deal of consensus-- Young's space should be reimagined in ways that are consistent with the themes emerging from CMP's strategic planning process. In particular, faculty in the sciences were energized by the idea of expanding innovative classrooms as well as design thinking and collaborative learning spaces. In many ways, this part of our conversation echoed the thinking articulated by science faculty, staff, and librarians back in the college's 2010 Master Plan for the Libraries, which positioned Young as a "dynamic crossroads for the campus" that would provide "technology-rich and varied teaching and study environments." Although this Master Plan has been supplanted by the current Library Planning Process, the ideas in the 2010 plan for Young still seem to have a good deal of traction locally.

A second big idea emerged. This one had some buy-in but raised larger questions. A number of faculty argued that the physical footprint required to support Young's functions is not as large as the space that is currently allocated, and suggested that the college should contemplate a folding of Young's services, in whole or part, into the new Neilson. This proposal would free space in Young that could be used to meet space needs critical to our educational mission and help realize our first big bold idea.

In Science Planning discussions, a number of tensions emerged in relation to this second big idea. Some of these questions are aligned with bigger planning conversations at the college. For example, we were only able to begin a conversation about a science collections strategy. Many science faculty reported using print materials infrequently but there was disquiet at the idea of reducing the print collection without thoughtful consideration of the ways in which we use these resources. Right now, Library Planning is engaged in the important question of how best to prioritize our collections in relation to the Neilson renovation; all departments and programs have been charged with gathering input about the strategies Library Planning identified to steward our collections.

In Science Planning, there was also a vigorous debate about the material and symbolic impact if the sciences were integrated into the new Neilson. Some faculty were pleased by potential benefits of this scenario, given Neilson's reaffirmed status as the intellectual crossroads at our liberal arts college. Others felt that the presence of a science branch library at a women's college was a meaningful signal of our commitment to women in science. It was difficult for us to determine whether folding any of Young into Neilson would dilute rather than strengthen our identity as members of a liberal arts college community, especially given our last set of questions which all revolved

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around practical matters. Either way, we want to make sure that the sciences—symbolically and as a substantial part of the intellectual life of the College—are included in the conception of "the" library in a manner that is consistent with the College's strategic goals. Right now, Library Planning is hard at work to make a number of critical decisions related to collections priorities, relative square footage for library programming needs, and the fiscal costs for these things in relation to budget. A sense of these parameters would provide much-needed context for fuller discussions related to Young.

Library Planning is moving quickly and we need your input. There are two ways to influence these important decisions. First off, please continue your involvement in Library Planning Committee's listening phase as well as their imminent playback sessions. In addition, and more immediately, **if you have thoughts, questions, and reactions you want to share with Science Planning, please be sure to convey them to me by Wednesday, November 4th** so that we can weigh our input as a community as Library Programming crafts a vision for our libraries well into the future.   –Patty DiBartolo

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Have you heard about the collaboration between students, staff, and faculty in keeping local birds safe from strikes in the Science Center and around the College?

[Take a look](#).

NEW FACULTY FACES IN DIVISION III

Welcome to our new Div III faculty. Please be sure to share a warm hello as they settle in at Smith!

COMPUTER SCIENCE: **Sara Sheehan** joined Smith College as an Assistant Professor of Computer Science. She received her BS in Mathematics with a concentration in Computer Science from MIT, and her PhD in Computer Science from UC Berkeley in May 2015, with a designated emphasis in Computational and Genomic Biology. Within computational biology, her main research area is population genetics, with a focus on using algorithms and machine learning to quantify past events that have shaped genomic data. Going forward, she is interested in using machine learning to automatically detect phenomenon such as natural selection, population size changes, migrations, and admixture. She is also interested in developing algorithms to detect recent population size reductions in non-model species, where genomic data is limited. Through teaching and research opportunities, she plans to bring interdisciplinary material to students with diverse backgrounds in computer science, statistics, and biology.

ENGINEERING: **Kristen Dorsey** joined Smith College in July as an Assistant Professor of Engineering. She graduated from Franklin W. Olin College of Engineering with a bachelor's degree in Electrical and Computer Engineering. Her dissertation, Dielectric Charging in CMOS MEMS, was completed in the Electrical and Computer Engineering department at Carnegie Mellon University and was awarded the Angel G. Jordan Award for combined outstanding PhD thesis work and exceptional service to the ECE community. From 2013-2015, she worked as a University of California Chancellor's Postdoctoral Fellow in Professor Albert Pisano's lab, studying the stability of micro-scale air pollution sensors in outdoor measurements. Her current research in The MicroSmithy lab at Smith College investigates the stability of polymer-based micro-scale sensors and actuators.

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ENGINEERING: Niveen Ismail joined Smith College this fall as an Assistant Professor of Engineering. She received her BS in chemical engineering from The New Jersey Institute of Technology in 2003. She then took a position with ExxonMobil Research and Engineering and spent five years working in the areas of fuel formulation, high throughput experimentation, and refinery process optimization. After her time at ExxonMobil she returned to academia and in 2010 received her MS in biology from Temple University where she partnered with the Philadelphia Zoo and Wetlands Institute (NJ) in completing her thesis examining the bioaccumulation and transfer of legacy pollutants in diamondback terrapins, a locally threatened turtle species. She obtained her MS (2011) and PhD (2015) in Civil and Environmental Engineering from Stanford University. For her doctoral research, she focused on using native bivalves for improving the water quality of two local impaired water bodies. Her future research will explore the use of natural systems to improve water quality through removal of contaminants including trace organic and microbial pollutants.

ENGINEERING: Paramjeet Pati is Visiting Picker Professor of Practice in the Picker Engineering Program at Smith College. He is an environmental engineer studying the impacts emerging technologies have on environmental sustainability. Param graduated from Utkal University (Odisha, India) in 2006 with a Bachelor's degree in Chemical Engineering, after which he worked in the petrochemical industry in India as a process engineer (2006 - 2008). He then completed his MS in Environmental Engineering from Michigan State University (2010), followed by a PhD in Civil Engineering from Virginia Tech (2015). His research interests include life cycle assessment; e-waste management; integrated energy-water-environment nexus analyses of human habitats; and sustainability assessment of green energy technologies. In the classroom, Param is deeply interested in incorporating socioeconomic and ethical considerations into engineering solutions and design choices.

STATISTICAL & DATA SCIENCES: **Benjamin Baumer**, assistant professor and first director of Smith's new program in statistical and data sciences, received his PhD in mathematics in 2012 from the Graduate Center of The City University of New York. His research interests range from big data to network science to sabermetrics and sports analysis. Prior to joining the Smith faculty as a visiting assistant professor in 2012, Baumer worked as a statistical analyst for the New York Mets. In addition to building the data science program at Smith, Baumer will oversee the college's pilot Women in Data Science collaboration with Mount Holyoke College and MassMutual.

STATISTICAL & DATA SCIENCES: **R. Jordan Crouser**, visiting assistant professor of data science and MassMutual Faculty Fellow, earned his MS in educational technology and PhD in computer science from the VALT: Visual Analytics Laboratory at Tufts University in 2013, and is also a proud graduate of the Smith College class of 2008. He is a visual analytics researcher and semi-professional data wrangler. He is passionate about learning, and his teaching philosophy is grounded in three simple principles: each learner builds and rebuilds her own body of knowledge, people build the things they care about, and people keep building when they can see that they're making progress. In the classroom and in his research, he encourages each student to challenge their working models of the world in service of problems that matter to them. Prior to joining the SDS program, Jordan spent two years doing research and building analytical tools at MIT Lincoln Laboratory.

STATISTICAL & DATA SCIENCES: Amelia McNamara, visiting assistant professor of data science and MassMutual Faculty Fellow, earned her Ph.D. in statistics from the University of California, Los Angeles, and a B.A. from Macalester College, with double majors in English and Mathematics. She is excited to be returning to a liberal arts institution. Amelia's research is multidisciplinary, including components of statistics education, statistical computing, data visualization, and spatial statistics. Outside of teaching and research, Amelia loves to dance. She has tried almost every style, including ballroom, swing, jazz, modern, ballet, and hip hop.

ENVIRONMENTAL SCIENCE & POLICY: Alexander Barron, assistant professor, received his Ph.D. in ecology and evolutionary biology from Princeton University in 2007. He has taught at Carleton College, where he earned his bachelor's degree in chemistry, and has recently worked as deputy associate administrator in the Environmental Protection Agency's Office of Policy, helping to guide climate adaptation and smart growth policy.
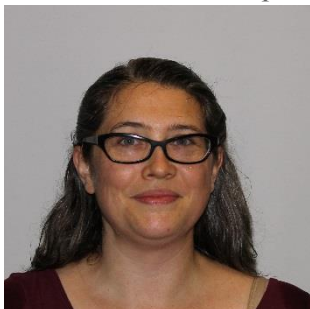
MATHEMATICS & STATISTICS: Bianca Thompson, lecturer in mathematics and statistics, received her Ph.D in mathematics from the University of Hawaii at Mãnoa in May. Her research interests include the intersection of number theory and dynamical systems and problems in arithmetic dynamics.
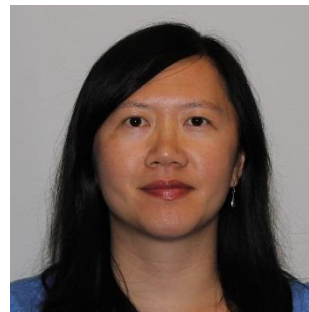
MATHEMATICS & STATISTICS: Eva Goedhart, lecturer in mathematics and statistics, received her Ph.D. in mathematics from Bryn Mawr College in May. In addition to Bryn Mawr, where she received a prize for excellence in teaching, Goedhart has taught at Wake Forest University in North Carolina.

PSYCHOLOGY: Janet Chang, visiting assistant professor, received her PhD in social psychology from the University of California, Davis in 2006. Her research interests include ethnic/racial disparities in mental health and sociocultural influences on social support, help-seeking and psychological functioning in diverse populations.

IMPORTANT DATES	
November 2, 2015	Internal deadlines for Goldwater/Udall applications
November 3, 2015	Otelia Cromwell Day
November 5, 2015	Div III new Child Safety guidelines meeting, McConnell 103, noon
December 1, 2015	HHMI Grant pre-proposal due

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HHMI Planning

HHMI pre-proposal grant planning continues.

At Teaching Circle lunches and Science Planning meetings, faculty have shared their thinking about the set of ideas emerging as contenders for our pre-proposal initiatives.

So far, there are two sets of goals that have gained traction in these meetings: extending and infusing course-based research experiences in our curriculum, especially at the introductory and intermediate levels, and providing curricular support for our advanced students who are given responsibility for supporting other students' learning while deepening their own disciplinary mastery.

What can we do next to build institutional capacity to benefit access to the sciences for all of our students?

Share your thoughts with Patty DiBartolo at pdibarto@smith.edu.