



PS S S S S S S S S S S S T!

A newsletter for alumni and friends of the President's Scholarship Program at Georgia Tech • Summer 2006

A Flash of Brilliance

President's Scholarship alumna Ayodele Thomas had her interest in electrical engineering and Georgia Tech sparked at an early age. As young as fifth grade, Thomas declared engineering to be her profession of choice, and after falling in love with Atlanta, Georgia Tech was a veritable lock for her college choice.

During her time as an undergraduate, Thomas worked closely with the Society of Black Engineers. In 1995, Thomas was named a Truman Scholar and Ms. Georgia Tech. She graduated from Tech in 1996 with a degree in electrical engineering.

Thomas credits the PS Program for many unique opportunities at Tech, particularly emphasizing the chance to serve as a teaching assistant for the PS sections of the freshman orientation course.

Further, in what remains her only trip outside of the United States, Thomas traveled to Dakar, Senegal, on the funds of a Fleet Scholarship.

After graduating, Thomas interned at IBM, Scientific Atlanta, and Hewlett Packard, while working through graduate school at Stanford University. In 2005, she became only the second black woman to receive her PhD in electrical engineering from Stanford.

Thomas cites her interactions with numerous students, faculty, and people in industry as having prepared her well for her current position as Assistant Dean of Multicultural Student Affairs. From the perspective that her position affords, she holds Georgia Tech in the highest regard, particularly concerning diversity issues. Thomas states that under

Please see next column for Thomas



Ayodele & Jonathan Thomas

Luders, Vogt Take Top Honors

Several recently graduated President's Scholars were honored for their hard work and service to the community at the Student Honors Program, held April 19th. Many President's Scholars were noted for their contributions to Georgia Tech.

Brandon Luders, AE, was presented the Phi Kappa Phi Scholarship Cup. This cup is awarded to a member of the graduating senior class who has the most outstanding academic record. Brandon will attend MIT on scholarship for an MS/Ph.D. in aeronautics and aerospace. Specifically, his work will focus on spacecraft control systems, with the ultimate intention of entering the world of academia as a professor.

In talking about the award, Brandon stated, "The goal was never explicitly to keep a 4.0 or win this award; instead, it was to make sure I always kept school at the top of my list." Brandon also credits his "classmates, advisors--including Randy McDow and Billiee Pendleton-Parker--and parents" in finding a career path that combines his talents and passions.

Brett Vogt, CE, was recognized with the Tau Beta Pi Senior Engineering Cup. This honors the engineering student demonstrating academic excellence, leadership, and service, in addition to showing potential for growth. Brett will remain at Georgia Tech to earn his master's in civil engineering, with a focus on structural engineering. He currently works with Magnusson Klemencic Associates in Seattle, Washington, specializing in tall building design, and Brett hopes to use this experience to help shape urban communities.

Please see page 2 for Honors

-Thomas

the leadership of President Clough, "Tech has an overall and genuine commitment to diversity."

Thomas is now married and has one daughter, Maisha, who recently turned one year-old. Her husband, Jonathan, has a background in computer science and now serves as a minister. She and her family currently reside in Santa Clara, California.

-Honors

The Tau Beta Pi Cup has special significance for the Vogt family. Brett is the second member of his family to receive the honor; his grandfather was a recipient of this cup at Tulane University. Though his grandfather passed away when Brett was only nine years old, he emphasizes that his grandfather “left a very distinct impression on me. The fact that I was awarded the Cup signifies that I am following in his footsteps.”



Brandon Luders with the Phi Kappa Phi Cup.



Brett Vogt with the Tau Beta Pi Cup.

Additional Awards**Nationally Prestigious Scholarships-**

- **Marshall Scholarship** ~ *Ryan Haynes (BMED)*
- **Skidmore, Owings, & Merrill Foundation Traveling Fellowship** ~ *Catie “Noodle” Newell (ARCH ‘02)* ~ \$50,000 research and travel grant. Catie has chosen to visit six Nordic countries to study the effects that extreme weather conditions have on the design of structures and building sites.
- **Truman Scholarship Finalist** ~ *Thomas Earnest (INTA)*

Institute Awards -

- **George Wingfield Semmes Memorial Scholarship** ~ *Eric Southard (EE)* ~ Given to undergraduate engineering students who demonstrate academic achievement, outstanding leadership qualities, strong character, and a true love for Georgia Tech.
- **Ms. Georgia Tech** ~ *Saira Amir (PUBP)* ~ Recognizes grades, career aspirations, campus involvement, and includes a student body vote. Recipients are considered to be the personification of the campus.

Departmental Awards -

- **AEES Outstanding Master’s Student in Environmental Engineering** ~ *Stephanie Lucero*
- **Aerospace Engineering Outstanding Senior Scholar Award** ~ *Brandon Luders* ~ Best GPA for an Aerospace Senior.
- **Paul Eaton Award for Industrial Engineering** ~ *Stevie Hale*
- **School Chair’s Award, Woodruff School of Mechanical Engineering** ~ *Christopher Hannemann* ~ Awarded on the basis of outstanding contributions to the school and scholarship.
- **Senior Scholar Award for PTFE** ~ *Hillary Davis*
- **Sigma Gamma Tau Sophomore Award** ~ *Christine Dreas* ~ Awarded to the aerospace engineering student sophomore who has the best overall academic average.

School Awards -

- **Ivan Allen Jr. Legacy Award** ~ *Saira Amir (PUBP)* ~ Honoring an extraordinary student within the Ivan Allen College who has embodied the exemplary leadership of Mayor Ivan Allen Jr., demonstrated academic and professional achievement, and shown a spirit of civic responsibility.

Leadership -

- **Alvin M. Ferst Leadership and Entrepreneur Scholarship Award** ~ *Saira Amir (PUBP), Shannon Fatehi (BMED), and Schenck Wiley (MSE)* ~ Awarded to visionary students.
- **Impact Scholarship** ~ *Mike Casner (MGT)* ~ Awarded to students who make an impact on the Tech community through formal or informal roles.
- **Joseph Pettit Memorial Scholarship** ~ *Kevin Bell (ME)* ~ Awarded annually to one sophomore undergraduate student who has made significant contributions to the Tech community.
- **Omicron Delta Kappa’s National Leader of the Year Award** ~ *Brandon Luders (AE)* ~ Given to the student who has made a qualitative difference in their institutions and in the lives of others.

Organization Honors-

- **Georgia Tech Society of Black Engineers Faculty Advisor Excellence Award** ~ *Esinam Glakpe* (CHBE) ~ Awarded to a member of the society who demonstrates outstanding scholarship and leadership.
- **Helen E. Grenga Outstanding Woman Engineer Award** ~ *Ambika Bumb* (BMED) ~ Presented to a woman engineering student who has demonstrated outstanding scholarship, leadership, and service to her field.

Athletic Awards-

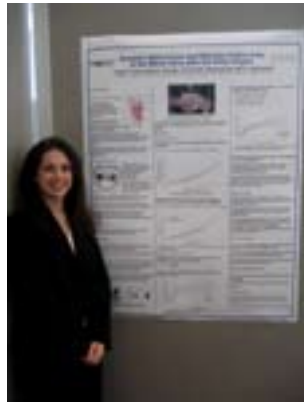
- **ACC Softball Freshman of the Year & Softball All-Region and Easton All-American** ~ *Whitney Haller* (ISYE)
- **All-ACC Academic Track and Field Team** ~ *Josh Hammel* (BMED)

On the Cutting Edge

Georgia Tech offers many opportunities for undergraduate students, one of which is research experience alongside Tech professors and graduate students. Many President's Scholars choose to spend their summers in these laboratories, including Laura Croft and Chris Luders.

Senior biomedical engineering major Laura Croft has been working in Dr. Ajit Yoganathan's Cardiovascular Fluid Mechanics Laboratory for over two years.

Her research is on the Alfieri stitch, a surgical procedure to correct regurgitation (backflow of blood) of the mitral valve of the



Laura Croft

heart. Surgical repair is an alternative to replacing the natural valve with a mechanical one. These surgeries also present the possibility of valve repair performed percutaneously, thereby avoiding open heart surgery. Croft uses the Georgia Tech left heart simulator to represent physiological conditions on excised porcine mitral valves.

Her experiments have included testing the force on the stitch under various pressure and flow conditions and testing the reduction in regurgitation of the surgery under different pathological conditions such as various degrees and geometries of ventricular dilation. Croft's

work on the Alfieri stitch led to her being co-author of an Alfieri stitch paper which was recently accepted to be published in the *Annals of Thoracic Surgery*. She also represented her work in a poster presentation at the 2005 Biomedical Engineering Society annual meeting in Baltimore and was co-author of an oral presentation at a heart valve conference in Hilton Head at which engineers and surgeons came together to collaborate on the future of heart valve repair and replacement. By understanding and elucidating the mechanical factors that play a significant role during mitral valve repair, surgeons can improve the efficacy of these cardiac surgeries.

Rising sophomore Chris Luders researches microbial fuel cells in Dr. Rachel Chen's Chemical Engineering laboratory. These 'biological batteries' operate on the principle that microorganisms, while under anaerobic conditions, oxidize organic material to produce a steady flow of electrons, among other products. These electrons can then be harnessed within a fuel cell, resulting in an electric current that can be used to power electronic devices.



Chris Luders

Luders' research attempts to incorporate innovative concepts in fuel cell technology into the design of microbial fuel cells, thus increasing their viability as alternative, renewable sources of energy for use in modern appliances.

Currently, he is using a species of bacteria that generates electricity from marine sediment and is evaluating the plausibility of biologically generated electricity in aquatic environments. Potential applications of this technology include a self-sustaining power source for deep sea sensors, such as those used by the United States military, as well as underwater power generation and treatment of wastewater or contaminated soils.

Luders and his colleagues hope to narrow the gap between current microbial fuel cell technology and its incorporation into consumer products on a wide scale.

Alumnus Stephen Parr Makes His Mark

One could certainly say that President's Scholarship alumnus, Stephen Parr, knows the value of his Georgia Tech education. Parr earned a bachelor's of science degree in economics in 1990, followed by a master's of science in economics in 1992.

A native of Atlanta, Parr followed in the footsteps of his father and grandfather by attending GT. Entering as a physics major, Parr followed a suggestion that he switch "to a more marketable degree like economics;" however, he continued to pursue his passion for math and science by taking upper level courses in both areas. Also at Tech, he earned minors in western literature and international affairs. From his success at Tech, Parr went on to obtain a master's of arts in economics from Princeton in 1994 and a J.D. from Yale in 1999.

Parr credits Georgia Tech and the President's Scholarship Program for helping him further his education beyond Tech. Parr affirmed, "The reputation of Georgia Tech and the President's Scholarship Program positioned me quite well to pursue any number of graduate school options. Of course, I did well at Georgia Tech, but I would not have had as many options as I did had I gone to a school that was not as highly regarded as Tech."

After earning his law degree, Parr went to work at the George Mason University School of Law, eventually rising to Senior Associate Dean. In this position, Parr drew on his knowledge of economics learned at Georgia Tech. Parr expressed his pride in seeing several Georgia Tech graduates pass through George Mason, including President's Scholarship alumna, Kay Hill (EE '02).

Parr and his wife recently celebrated their tenth anniversary and are the proud parents of five children. Parr accepted a new position last month as the Associate Dean at the University of Virginia law school, and he looks forward to meeting the challenges of his job while utilizing the strong foundations of his Tech education.



Stephen Parr

Finding the Energy to Succeed

President's Scholarship alumnus Geoffrey West, DABR, CHP, a nuclear and radiological engineering graduate of 1993, continues to follow his passion for physics and nuclear issues. After earning a master's degree from the University of Michigan and completing his doctoral research, West went on to found West Physics Consulting, which specializes in diagnostic medical physics.

A Georgia native, West was drawn to Tech by the President's Scholarship. An introductory nuclear engineering class sparked his interest in the subject, as his professor predicted a return of nuclear energy on a large scale.

West served as a class representative in the Student Government Association for three

years. In light of his current work, West stated, "Georgia Tech prepared me very well." He went on to cite the foundations of engineering taught at Tech and the fact that the curriculum is "rigorous and tough."

Further, West credited the President's Scholarship Program, extolling, "The PS Program made the experience more enjoyable" and made scholars "less susceptible to getting burned out." West demonstrates the value of the President's Scholarship Program by hiring scholars to work in his company.

West has delivered the keynote address at the National Conference of Radiation Control Program Directors and represented the United States in nuclear diplomatic negotiations at the International Atomic Energy Agency in Vienna, Austria. Now he applies the underlying theory of radiation physics learned at Tech as president of his company, while pushing onwards in the field of medical physics.



Geoffrey West

We would like to highlight PS alumni more often! If you have a story to tell (or know of a PS you would like to see profiled), please let us know by sending an email to psp@gatech.edu.

Ruminations from Randy

-A Longer Term Perspective on the PSP

Graduate School

For those of us among the elder half of the PS alumni (graduating by 1997), a question frequently asked of us was, "Have you considered graduate school?" With enough time elapsed, I thought it might be interesting to see some summary statistics on graduate degrees and President's Scholars.

Of the 1175 PS graduates, 57% have done some graduate work—495 PSs have graduate degrees; another 148 are working on them. There are 52 medical doctors and 116 doctors of philosophy; another 29 MDs and 45 PhDs are in progress. Forty PSs have law degrees; 17 more are aiming to earn them. Six have master's degrees in education, and three have degrees in fine arts.

The most frequently attended schools? Depends on the degree. Overall, it's Georgia Tech (225), Stanford (34), Medical College of Georgia (27), MIT (26), Georgia State (25), and Harvard tied with UGA (how often does that ever happen?! 23). For MDs, specifically—MCG, Emory, Alabama-Birmingham. For JDs—UGA, Emory, Columbia, Georgetown, Stanford, Vanderbilt. For MBA/MSM—Harvard, Georgia Tech, Georgia State, Emory, Duke.

Some Things Do Change

Georgia Tech remains a university focused on technology; yet within that, the mix of majors has changed somewhat. Comparing the PS alumni degrees to the currently enrolled scholars, excluding the 2006 entering class, we see some differences. The numbers of PSs enrolled in the following colleges have grown: Architecture has increased from 3% to 5%, Engineering has increased from 62% to 64%, and Liberal Arts has exploded from 7% to 13%. The numbers in some colleges have declined: Computing from 7% to 3% (though showing signs of reversing), Management from 6% to 5%, and Sciences from 16% to 10%.

Over the last nine years, the average PS award for entering freshmen has more than doubled from \$5,615 to \$11,304. While costs have gone up substantially,



Randy McDow

so have our awards, with some out-of-state Scholars receiving ~\$30,000 per year to cover the cost of a Tech education. We have been able to gain ground on rising costs by continually increasing stipend levels. Also, we reinstated full ride scholarships in 2002 so that we could compete for the top students in the country.

Georgia Tech has seen tremendous growth in the percentage of women among the undergraduates, and the PS Program has led that trend. In the fall of 1981 (when the PS Program began), women comprised 21% of the undergraduates, and that percentage grew to 28% last fall for Tech undergraduates overall.

There are as many PS women currently enrolled, 111, as we graduated from the first 11 years of the PSP. Overall, women comprise 49% of the students who enrolled as PSs over the last four years. As a comparison, 30% of the bachelor's degrees awarded this spring went to women.

Some Things Don't Change

I have been fortunate to be able to greet each class of entering scholars for the last twelve years, and I am continually impressed with these young people. Not only are they bright, eager, and interested in life, with superb credentials, they are surprisingly humble and helpful. They are as alike in their motivation and capacity to accomplish their goals as they are different in their talents and interests. In Tech parlance, if these students were vectors, they would all have tremendous magnitudes yet quite varied directions.

The founding and sustaining philosophy of the PSP is: by investing in excellent students, those who combine academic achievement with strong leadership ability and multiple talents, we invest in our future. With that in mind, you can look for continued strong dividends in the coming years from these students and this program.

Keep in touch!

Update your contact information with PSP. You can contact the office using the address, telephone number, or email given below.

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Recent Graduates' Plans

Michael Abraham (AE) will pursue a master's degree in aerospace engineering at Georgia Tech.

Monica Acree (STC) will work for Wentworth Marketing as an account representative.

Saira Amir (PUBP) will work for the Peace Corps in Honduras, then attend law school in 2008.

Stephen Baehl (CHBE) will attend the University of Texas Law School.

Todd Basile (AE) will be employed as an aerospace engineer for Bell Helicopter in Ft. Worth, Texas.

Emily Beck (CHEM/STC) will work in Atlanta for Sapient as a program manager.

Tim Brandstetter (CE) will study for a master's degree in civil engineering at Georgia Tech.

Lindsay Chason (MGT) will work in Marietta, Georgia, for Home Depot as a logistics analyst.

Zachary Chestnut (BIOL) will pursue a Ph.D. in plant biology at the University of California, Davis.

Kendra Christensen (MGT) will teach elementary school for two years within the Atlanta Public Schools system as a part of Teach For America.

Stephanie Chung (MATH) will work in Seattle, Washinton, for Safeco Insurance as an actuarial assistant.

Chris Clarke (ME) will pursue a master's degree in mechanical engineering/manufacturing at Georgia Tech.

Hillary Davis (PFE) will attend the University of California at Davis to earn an M.D. in orthopedic surgery and a Ph.D. in biomedical engineering.

Teresa Drew (CE) will work in Atlanta for LAI Engineering.

Chad Etzel (CS) will work for Cisco Systems in the Research Triangle of North Carolina.

Chris Grabowski Flaherty (PFE) will pursue a master's degree in polymer, textile, and fiber engineering and an MBA at Georgia Tech.

Jonas Forrester (MGT) will work for Canvas Systems in Norcross, Georgia as an Enterprise Storage Equipment Broker.

Kelsey Francis (CS) will work as a software developer for Radiant Systems.

Esinam Glakpe (CHBE) will work for Proctor & Gamble in Cincinnati, Ohio.

Katie Green (ARCH) will attend Rice graduate school for a master's in architecture.

Justin Haller (CHBE) will attend medical school at the University of Virginia.

Chris Hannemann (ME) will pursue a M.S./Ph.D. in mechanical engineering at the University of California, Berkeley.

Ryan Haynes (BMED) will study at the University of Cambridge for a master's in philosophy in nanotechnology enterprise.

Randy Hays (CHBE) will seek gainful employment in the Houston, Texas, area.

Stan Hill (MSE) will attend Vanderbilt Law School.

Stephen Hopkins (AE) will work for Wencor Aerospace as the PMA Sales Engineer.

Ben Jones (STC) will work at BOSE Entertainment as a demonstration specialist, while operating a production company called AngelDown Studios.

Christina Kozycki (BIOL) will attend the Medical College of Georgia.

Joe Kramer (CHBE) will work as a Process Engineer for Rayonier Performance Fibers in Jesup, Georgia.

Michael Lehman (ISYE) will attend the University of Florida for a master's degree in industrial and systems engineering.

Chris Lewis (CS) will pursue a master's degree in information security at Georgia Tech.

Erin Looney (BC) will work in Fairfax, Virginia, as a project engineer in the Management Training Program at HITT Contracting. Erin also plans to join a rowing club on the Potomac River.

Brandon Luders (AE) will pursue a M.S./Ph.D. at MIT in aeronautics and astronautics, with plans for a career as an academic.

Kirsten Lundstrom (ME) will work for General Electric.

Emily Matthews (BIOL) will attend the University of Georgia to pursue a Ph.D. in genetics.

Greg McCormick (AE) will attend graduate school at Georgia Tech, working towards a master's degree in Aerospace Engineering.

Gavin McDonald (ME) will intern for BOSE this summer. He will attend Georgia Tech for a master's degree in mechanical engineering, while studying in the dual degree program at GT Lorraine and ENSAM, a national engineering college in France.

Ryan McFerrin (ID) will work in marketing for the Atlanta Braves.

Jim Monaco (STC) will work as a Multimedia Production Specialist for the Worcester Polytechnic Institute Academic Technology Center.

Matt Moore (ISYE) will be employed as the deputy director of the Georgia Republican Party.

Meg Morris (STC) will work in Atlanta as a case coordinator for Litigation Presentation Inc.

Ellis Moser (AE) will attend graduate school at Georgia Tech for aerospace engineering.

Stephen Moynan (AE) will be employed in New Orleans, Louisiana, as a mechanical design engineer for Entergy at the Waterford 3 Nuclear Power Plant.

Elizabeth Munter (BIOL) will attend medical school at the University of Alabama at Birmingham.

Steve O'Keefe (AE) will work for AMA Inc. as a Contractor for NASA LaRC.

Chester Ong (AE) will work at the NASA Jet Propulsion Lab in Pasadena, California.

Sarah Oravetz (BMED) will be in Orlando, Florida, working for St. Jude Medical.

Andy Powell (ME) will work in Norcross, Georgia, as an analyst for Insight Sourcing Group.

Matthew Prohaska (ME) will attend the Medical College of Georgia to pursue an M.D.

Michael Ramsey (MGT) will work for Accenture.

Kelsey Rosbach (BMED) will attend Rice University pursuing a Ph.D. in bioengineering.

Ben Roth (BMED) will attend medical school at Northwestern University.

Andrew Saulters (AE) will attend the University of North Carolina at Greensboro to earn a master's of fine arts degree in creative writing.

Melissa Scholz (IAML) will pursue an M.A. in German & European studies at Georgetown University.

David Sibal (EIA) will work in New York as an investment banker for Citigroup.

Jenn Sigg (BC) will intern for CCF at Georgia Tech.

Meagan Spencer (CHEM) will work as an administrative assistant for Sterling IRB.

Cressie Teague (MGT) will attend the Nashville School of Law.

Wallace Tennille (CMPE) will obtain a master's degree in electrical & computer engineering at Georgia Tech.

Lindsey Threlkeld (BMED) will work as an analyst for Accenture in Washington, D.C.

Brett Vogt (CE) will pursue his master's degree in civil engineering at Georgia Tech.

Justin Vogt (EE) will attend Georgia Tech for a master's degree in electrical engineering.

Lowrie Ward (BIOL) will work for a public health clinic in Jacksonville, Florida.

Schenck Wiley (MSE) will study for a master's degree in material science engineering at Georgia Tech.

Class of 1966 Pledges Gift to PS

For their fortieth reunion this year, members of the Georgia Tech Class of 1966 chose to support the PS Program with a scholarship endowment. The Class of 1966 generously refers to their endowment as a “capital investment, not an expense,” in young people who will make an immediate and long-term impact on Georgia Tech. The class project is set for \$200,000. An overall goal of \$4,000,000 includes the class project, Roll Call, Alexander-Tharpe Fund, academic programs, deferred gifts, matching gifts, and endowment support.

Freshmen Raise the Bar

The newest class of President’s Scholars has continued the trend of outstanding academic performance. The 55 incoming freshmen have an average high school grade point of 3.99. The students are entering with a mean 1506 for the combined Math and Reading (formerly verbal) sections of the SAT and 2224 on the new test that includes a writing section. The middle 50% for the SAT scores of the PS Program this year is 1480-1570, up dramatically from 1350-1490 in 1999.

The International Plan Goes Abroad

As study abroad programs become more popular among all Yellow Jackets, an innovative program was introduced to undergraduate students last fall. Tech’s new International Plan is a “challenging academic program that develops international competence within the context” of a given major, according to official program publications.

The plan goes beyond the traditional credits earned during study abroad semesters, and turns that into a degree-long program. Earning a degree in which international studies and experiences are integrated is especially advantageous in the business world, where companies are seeking to hire graduates with in-depth knowledge of the global economy and international relations.

President’s Scholar Melissa Scholz, who graduated in May with a major in international affairs and modern languages and a minor in European affairs, was one of the first three International Plan graduates. Melissa will be pursuing a master’s degree in German at Georgetown University this fall. The PS Program is proud to have supported a successful pioneer of the International Plan.

How do I give back?

President’s Scholar alumni often ask us how they can give something back to a program they feel benefitted them greatly during their time at Tech — and beyond. There are several ways to do this:

- Give your time by interviewing semi-finalists for the President’s Scholarship; this not only helps us select the most outstanding high school students to offer the PS, but it is also a great recruiting tool. By representing Tech and the PS program well, you can help us achieve these goals.
- Give to the Alumni Association’s Roll Call; a portion of all gifts to the Institute’s unrestricted funds supports the PS program; online giving forms are available at www.gtalumni.org.
- Give directly to the PS Program through the endowment created in honor of our founder, Dr. E. Jo Baker. Income from this endowment supports stipends for President’s Scholars. To donate, send a check payable to:

**The Georgia Tech Foundation
60 Spring Street NW
Suite 400
Atlanta, Georgia 30308**

Be sure to write “Dr. E. Jo Baker President’s Scholarship Fund” on the memo line of the check. Contributions to Roll Call and the Georgia Tech Foundation are tax-deductible.

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