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Perkins

NEWS BRIEFS

WHAT'S **GOING ON**

FACULTY AWARD NOMINATIONS **BEING ACCEPTED**

Nominations are being accepted through Monday, Feb. 27, for the Rev. Edmund P. Joyce, C.S.C., Award for Excellence in Undergraduate Teaching, the Dockweiler Award for Excellence in Undergraduate Advising, and the awards presented at the annual President's Dinner for faculty. To nominate someone, visit provostawards. nd.edu, which also features background information on each award, including recent winners.

VENUE ND LAUNCHES

The newly formed Office of Event Management, Venue ND, has been created to book meetings, events and academic conferences on campus. The office will initially begin booking events at the new Duncan Student Center, Corbett Family Hall and O'Neill Hall, as well as at Morris Inn and McKenna Hall.

The three new facilities, scheduled for completion in August 2017, will offer two new ballrooms, reception space and eight outdoor terraces offering breathtaking views of campus.

The Dahnke Family Ballroom, located on the seventh floor on the west side in the Duncan Student



Vargas

Center, has a capacity of 580. The Rasmus Family Club, on the eighth floor of the Duncan Student Center, includes a balcony that will overlook the ballroom below. The Downes Club on the seventh and eighth floors of Corbett Family Hall on the east side will seat 300 people for an event.

The Office of Event Management will begin to accept bookings for events and academic meetings in the new spaces on Wednesday, March 1, 2017, for events occurring after October 1, 2017.

Contact the sales and reservations team in the Office of Event Management at 631-1400 for event bookings and information.

PEOPLE

PERKINS NAMED EARLY CAREER FELLOW BY ESA

Alex Perkins, Eck Family Assistant Professor, and member of the Department of Biological Sciences, the Department of Applied and Computational Mathematics and Statistics, the Eck Institute for Global Health, and the Environmental Change Initiative, has been named a 2017 Early Career Fellow by the Ecological Society of America (ESA).

Perkins was one of only seven individuals nationwide honored as an Early Career Fellow this year. The program recognizes the many ways in which its members contribute to ecological research and discovery, communication, education and pedagogy, and management and policy.

Early Career Fellows are members who are within eight years of completing their doctoral training, have advanced ecological knowledge and

applications, and show promise of continuing to make outstanding contributions to a wide range of fields served by the ESA. Other honorees include scientists from institutions such as Princeton University, University of California-Irvine, Michigan State University, University of Washington, University of British Columbia, and Oak Ridge National Laboratory.

Perkins' research uses mathematical, computational and statistical approaches to better understand infectious diseases. His lab specializes in dengue, malaria, chikungunya, Zika and other diseases caused by mosquito-borne pathogens.

VARGAS RECEIVES BOOK AWARD FOR RESEARCH ON **CHICAGO TURF WARS**

Robert Vargas, assistant professor of sociology and faculty fellow in the Institute for Latino Studies, has

received a book award for his ethnographic study of Chicago's Little Village neighborhood and its confrontational relationships between police, politicians and gangs, "Wounded City: Violent Turf



Wars in a Chicago Barrio." The Academy of Criminal Justice



O'Neill Hall will house the Department of Music and the Sacred Music at Notre Dame program.

Sciences presented its Outstanding Book Award to Vargas at its annual meeting in March in Kansas City, Missouri.

Vargas' book explores the hazy boundaries between Chicago politicians' turf and gang turf, arguing that competition among political groups can facilitate the persistence of violence just as much as competition among street gangs does.

This ACJS award recognizes a professional's contribution to criminal justice as an academic or professional endeavor, and its recipients have made substantial contributions to the emerging body of knowledge in criminal justice.

CAMPUS NEWS

RILEYS MAKE LARGEST GIFT DIRECTED TO FINANCIAL AID IN UNIVERSITY'S HISTORY

The late Allan J. Riley and his wife, Radwan, have made a multi-million-dollar gift to the University in support of need- and merit-based scholarships for undergraduate, graduate and professional students. The gift is the largest directed toward financial aid in Notre Dame's history.

The gift made through Mr. Riley's estate will be used to support two distinct scholarships:

The Allan J. and Reda Radwan Riley Scholarships will be awarded to undergraduate, graduate and professional students on the basis of demonstrated financial need or academic merit.

The Leo and Edna Riley-Aref and Helena Jabbour Scholarships will be awarded on the basis of need or merit to undergraduate, graduate and professional students who have either lived in one or more of the countries of the Middle East or expressed interest in studying the history, culture, language, literature or politics of the Middle East or individual countries in the region. The initial awards of the two scholarships will be for the 2017-18 academic year. At least 15 percent of the funds drawn annually for the scholarships will be used to assist graduates of schools operated by the Order of the Brothers of the Blessed Virgin Mary of Mount Carmel (often referred to as Carmelite Schools). A patron of the arts, Mr. Riley made a gift to Notre Dame in 1982

to renovate a chemistry building on campus, now the Leo and Edna Riley Hall of Art & Design, named in honor of his parents. The Rileys have funded annual student scholarships in the fields of design, art history, studio art and photography, and he served on the advisory council for the University's Snite Museum of Art.

Among his permanent gifts to the museum are a portrait painting by Joshua Reynolds and a landscape painting by Louis Remy Mignot. In 2002, the Rileys funded the purchase of 40 British drawings from the 18th and 19th centuries that remain part of the Snite's Riley Collection.

NOTRE DAME RECEIVES \$25 MILLION GIFT FOR O'NEILL HALL

A gift of \$25 million has been made to the University for the construction of O'Neill Hall, adjacent to the south end of Notre Dame Stadium. The building will be named in honor of Notre Dame alumnus and Trustee Joseph I. O'Neill III.

The gift was made to the University by Helen Schwab and her husband, Charles, in honor of her brother Joe O'Neill. The Schwabs are significant donors to the University and major donors to O'Neill Family Hall.

"We are deeply grateful to Helen and Charles for their many years of support and, in particular, for this remarkable gift and what it represents for the future of music and the arts at Notre Dame," said Rev. John I. Jenkins, C.S.C., the University's president. "We are also truly thankful for the extraordinary leadership and support Joe O'Neill, his wife, Jan, and their entire family have provided to Notre Dame. They embody the Notre Dame spirit, and we look forward to dedicating this building named in their honor." O'Neill Hall joins Corbett Family Hall and the Duncan Student Center as the three structures surrounding Notre Dame Stadium. It will be a six-story, 100,000-square-foot building for the Department of Music, the Sacred Music at Notre Dame program, and hospitality space, with completion scheduled for August. A 1967 Notre Dame graduate with a degree in finance, O'Neill earned a master of business administration degree from the University of Michigan a year later and then served



WINTER TAILGATING

February was unusually warm in South Bend — warm enough that fans gathered to tailgate before a men's basketball game.

CONTACT US @

Comments or questions regarding NDWorks? Contact NDWorks managing editor Carol C. Bradley, 631-0445 (bradley.7@nd.edu) or Cidni Sanders, editor and program director for Internal Communications, 631-7031 (csander6@nd.edu). For questions regarding The Week @ ND or the University calendar, contact electronic media coordinator Jennifer Laiber, 631-4753 (laiber.1@nd.edu). NDWorks is published 11 times per year. 2016-2017 publication dates are July 7, Aug. 18, Sept. 22, Oct. 27, Dec. 8, Jan. 12, Jan. 26, Feb. 23, March 23, April 20 and May 18.



The 28,000 sq. ft. Notre Dame Turbomachinery Laboratory is located at Ignition Park in South Bend.

in the U.S. Army Special Forces. He is the managing partner of O'Neill Properties Ltd. in Midland, Texas.

O'Neill is a past president of the Notre Dame Alumni Association's Board of Directors and, in that capacity, served for two years as an ex officio member of the University's Board of Trustees. He served for nine years on the College of Engineering Advisory Council before his election to the University Board of Trustees in 2001. In 2012, O'Neill received an honorary degree from the University, and in 2013 the Alumni Association bestowed the Rev. Edward F. Sorin, C.S.C., Award on him for distinguished service to the University.

O'Neill is chair of the Midland Memorial Hospital Foundation and serves on the hospital's board of governors. He also is on the board of governors for the High Sky Children's Ranch and the executive committee of the Texas Oil and Gas Association and the U.S. Oil and Gas Association.

O'Neill and his wife, Jan, have two children, Catherine, class of 2002, and Flynn, class of 2011.

O'Neill Family Hall, a men's residence hall on Notre Dame's West Quad, was underwritten with a gift from the O'Neills, Schwabs and Joe and Helen's father, Joseph I. O'Neill Jr. The building is named for the family, with a particular honor for Mr. O'Neill Jr., a 1937 Notre Dame alumnus and a monogram winner in football and baseball, who founded O'Neill Properties. The elder O'Neill also served as president of the Notre Dame Alumni Association and as a University Trustee.

In addition to the residence hall,

the O'Neills also have provided a gift to Notre Dame for a longitudinal sundial on the south side of Jordan Hall of Science and are members of the President's Circle, Sorin Society and Badin Guild.

O'Neill Hall will include two 2,200-square-foot halls for rehearsals and concert performances, the library for both the Department of Music and Sacred Music program, a music lab for studio production, a lecture hall, classrooms and seminar rooms, rehearsal rooms, numerous practice rooms of varying sizes, four organ practice rooms and faculty offices.

The 18,000-square-foot club on the third level will provide hospitality space on football weekends and throughout the week. In addition, the first level of O'Neill Hall will serve as a primary entrance to Notre Dame Stadium through the Frank Leahy Gate.

TURBOMACHINERY LABORATORY ENTERS \$2.5M AGREEMENT

The Notre Dame Turbomachinery Laboratory (NDTL) has entered into a 19-month, \$2.5-million dollar agreement with Doosan Heavy Industries & Construction Co. Ltd. (DHI) to conduct compressor research and testing to support the development of a 300-megawatt class power generation gas turbine.

Testing will occur at NDTL's 10MW compressor test cell, which is currently under construction with the goal of becoming fully operational this fall. Once the test cell is completed, NDTL will be home to one of the largest compressor research facilities at any university in the world. The agreement is a milestone

for NDTL, which continues to expand its capabilities into the global commercial power industry. The compressor test will study aerodynamic phenomena that even the most powerful computers cannot simulate. All design, analysis, fabrication and assembly will take place at NDTL's facility located at Ignition Park in South Bend, Indiana.

DHI, a major player in the power industry based in South Korea, specializes in power generation equipment and EPC (engineering, procurement and construction). "We're excited to work with NDTL on this project and would like to establish a strong, long-term relationship with NDTL for upcoming gas turbine engine development programs," said Joohwan Kwak, head of compressor development at DHI.

NDTL is focused on research, testing and workforce development for a wide range of applications that involve turbomachinery technology. NDTL's new 28,000-square-foot, world-class facility offers experimental and numerical capabilities for the development of rotating machinery that requires high power levels and related specialized support. These capabilities create a shorter development path for new gas turbine engine technologies within any industry. NDTL is currently involved in research and product development for a variety of sponsors and collaborators including Pratt & Whitney, General Electric and Honeywell.

For more information, visit turbo. nd.edu.

Morris Inn receives Historic Hotel of America designation

The Morris Inn has been selected for membership in the Historic Hotels of America program of the National Trust for Historic Preservation.

To be selected for membership in Historic Hotels of America, a hotel must be at least 50 years old, have been designated by the U.S. Secretary of the Interior as a National Historic Landmark or listed in or eligible for listing in the National Register of Historic Places and be recognized as having historic significance.

The gift to build the Morris Inn was donated by Notre Dame student Ernest M. Morris. In 1902, Morris could not pay his tuition, so he asked the school president for two favors: to let him continue enrollment on credit, and



to take care of his horse Dexter. The University agreed and Morris went on to graduate, eventually founding his own investment firm. He donated \$1 million to aid the University in its postwar

Morris Inn

expansion, and Morris Inn was constructed in his honor.

In 2012, Ernestine Morris Carmichael Raclin, daughter of Ernest and Ella Morris, along with her family and the Carmichael Foundation, provided a gift to the University for the purpose of funding a major renovation and expansion of the Morris Inn.

On Oct. 21, 2012, the inn was closed for the first time in 60 years and the project began. Following a more than \$30 million renovation, it reopened in late August 2013 and now offers 132 guest rooms and 18 suites. The Morris Inn's AAA Four Diamond rating places it in the top 5 percent of hotels in the United States.

Vision and Action: Pioneering Women Faculty at Notre Dame

Reflections on the early influences and experiences of pioneering women faculty, and their aspirations for the future of the University

4 to 5:15 p.m. Wednesday, March 29, followed by a light reception

Decio Theatre, DeBartolo Performing Arts Center

The free event is non-ticketed and open to the public

For more information, visit provost.nd.edu

Call for Nominations: 2017 Presidential Awards

Help create a culture of appreciation and recognition on campus by nominating a fellow Notre Dame staff member for one of three 2017 Presidential Awards:



THIRD COAST PERCUSSION WINS GRAMMY

Third Coast Percussion, the University's Ensemble-in-Residence, won its first Grammy Award February 12 for their Cedille Records release, Third Coast Percussion/Steve Reich. The Chicago-based ensemble won Best Chamber Music/Small Ensemble Performance. The album was recorded in the Leighton Concert Hall.

Presidential Values Award

The Presidential Values Award recognizes a staff employee who lives the University's mission and is a role model exemplifying all of the Core Values.

Presidential Achievement Award

The Presidential Achievement Award recognizes a regular staff employee who has accomplished a significant achievement during the past calendar year or has measurably contributed on a regular basis to the overall goals of the University.

Presidential Leadership Award

The Presidential Leadership Award recognizes a regular staff supervisor who demonstrates and lives the principles of servant leadership: building community; orienting goals and achievements in line with the University mission; exhibiting strong stewardship of institutional resources; and developing a shared vision of institutional excellence.

Any member of the University community (faculty or staff) may submit a nomination.

Nominees may be exempt or non-exempt staff. Please visit news.nd.edu/ news/67033 to see last year's award winners.

To learn more and make nominations, please visit hr.nd.edu/awardsrecognition. Nominations should be submitted by Friday, February 24.

'Fear ecology' changes the survival of plants and animals

Impact of grey wolves on ecosystem

BY BRANDI KLINGERMAN, OFFICE OF RESEARCH

Gary Belovsky, director of the University of Notre Dame Environmental Research Center (UNDERC), and David Flagel, assistant director at UNDERC-West in Montana, conducted several studies on the cascade effects that grey wolves at UNDERC-East, located within Wisconsin and Michigan, would have on the area's ecosystem.

The researchers looked at how both coyotes and whitetail deer reacted to the wolves' presence, as well as how their food sources – small animals and plants – might benefit. Whether it's because of folklore or wolf attack stories from Asia or Europe, wolves get a bad rap. However, the grey wolves found in Canada and the United States are relatively harmless to humans and may even be considered beneficial to other animals in some ecosystems.

New Notre Dame research has shown that wolves living in Michigan's Upper Peninsula are actually helping foxes, hares and plants survive. This is because some larger predators and herbivores live in fear of being killed – but not necessarily because they are being killed – and change their behavior as a result.

"What we are seeing is the concept

of 'the enemy of my enemy is my friend," says Flagel. "The coyotes mostly hunt small animals like foxes, rabbits, hares, and some deer. The wolves that live within UNDERC-East are territorial and attack the coyotes to keep them away from deer, the wolves' main food, thus helping the small animals that covotes kill to survive. Additionally, the deer that are now being hunted by wolves are living under a heightened sense of fear and are therefore spending more time scanning for wolves and less time eating, helping tree saplings and wildflowers grow faster."

This was the first study to document this wolf-induced cascade effect in an experimental way as the researchers were able to implement a controlled research design. For the experiment, the researchers separated UNDERC-East into four areas: unfenced wolf territory, unfenced non-wolf territory, fencedin wolf territory, and fenced-in non-wolf territory. With these areas, Belovsky and Flagel found that both fenced-in spaces – which allow neither the deer nor wolves to enter as well as the unfenced wolf territory had comparable amounts of plant growth, showing that the wolves being near had a significant impact on how much the deer ate.

The research results showed effects on sapling growth that were twice as impactful as a similar study done at Yellowstone National Park in 2001. In discussing why this is the case, Belovsky says, "There could be



many reasons why our study presented a much larger impact, one of which was most likely the more precise measurements in an experiment. But another could be that our research was done in a more forested area where deer must constantly be on the lookout for an attack, as they graze for food as individuals. This means the fear that deer feel is likely greater in a forested area than an open plain where deer graze in a group and are more likely to see a predator coming."

The next step in this research is to study how and when deer become aware they are in a wolf territory. This will encompass manipulating a variety of indicators that are believed to influence deer when they are near the wolf pack.



Measuring snowfall

Graduate students utilize ND-LEEF to research an effective method for measuring snowfall over space and time

BY BRANDI KLINGERMAN, OFFICE OF RESEARCH

Although it may seem simple to calculate, snowfall cannot be well measured by simply placing a yardstick in the ground. In actuality, snow measurement is much more complicated and oftentimes the most accurate snow measurement devices are costly. However, two Notre Dame graduate students are working to improve the snow measurement process in an effective and affordable manner. Bethany Blakely - a fourthyear biological sciences graduate student studying under both Jason McLachlan, associate professor of biological sciences, and Adrian Rocha, assistant professor of biological sciences — and Salvatore Curasi — a second year biological sciences graduate student also studying under Rocha - have created a model that captures the effects that wind, temperature and vegetation have on snow and how these factors impact the measurement of snowfall over space and time. The research includes the use of temperature sensors developed by Curasi as an undergraduate student to gather the

necessary data.

When discussing the use of the sensors, Curasi said, "Conventional snow measurement devices cannot capture the impact different factors have on snowfall, especially over different areas or varying lengths of time. To account for this, we will collect data from the temperature sensors as well as other elements to help us measure snowfall in a way that includes space and time."

To conduct their research, Blakely and Curasi will utilize

A birthday with the scientists

Anton Kozelichki, son of **Veronica Kozelichki,** pre-award program manager in the Office of Research and **Chris Kozelichki,** career development assistant director in the Law School, celebrated his eighth birthday in January. "For his birthday, Anton wanted to meet a real scientist and see a lab," says Veronica.

Anton's birthday wish came true when (courtesy of director **Sharon Stack** and biologist **Reginald Hill** in the Harper Cancer Research Institute) he got to tour the facility. "He learned how to pipette, identify pancreatic cancer cells



 the Environmental Change Initiative's (ECI) Notre Dame
 Linked Experimental Ecosystem
 Facility (ND-LEEF). The facility is based in South Bend, Indiana's St.
 Patrick's County Park and consists of replicated watersheds, shallow groundwater wells, and several acres for terrestrial research. By using ND-LEEF's forested and grassier areas, the students will be able to gather snowfall data on a variety of

vegetation types.

"In the end, we would like to see if we can discover a consistent effect from each different kind of vegetation," said Blakely. "This could be one of the ways our work could benefit other ecosystem models, including those that are used for climate change and hydrology research."

As an example, Rocha conducts research on the Alaskan tundra and studies everything from Arctic climate change to land use change ecology. Part of his work may be using a microscope, watch someone grow cancer cells for use in research, and use a centrifuge to gather the cells," Veronica says.

Hill, Archibald Assistant Professor of Cancer Biology, noted that, in another 10 years or so, Anton can return to work in the center himself. The two share a common bond, Veronica notes — Anton and Hill both decided to become scientists after watching the movie "Jurassic Park."

impacted by snowfall on the tundra and could therefore benefit from Blakely and Curasi's work.

"Snow depth and cover plays an important role in wintertime biogeochemical processes that can carry over into the summer months — think increased water availability in summer from snow, and soil insulation during fall months," said Rocha. "Snow depth and cover can vary widely across the landscape and our inability to understand these processes beyond the scale of a couple tens of meters has been hindered by measurement cost. These affordable sensors allow us to develop a landscape scale understanding of the importance of snow depth and cover on ecosystem biogeochemistry."

With new intellectual resources, novel infrastructure, and cutting

Anton with graduate student researcher Jenifer (Jeni) Gifford.

edge tools, ECI provides support to spearhead innovative research. ECI is exploring approaches to help people and ecosystems adapt to climate change, mitigate the effects of land use change, predict species occurrences in a shifting world and improve water quality.

To learn more about ECI, visit **environmentalchange.nd.edu.**

Cover Story

Crystal flowers, made with cancer patients in mind

3-D imaging project also raises money for research

BY GENE STOWE, FOR NDWORKS

In the basement of Galvin Life Sciences Center, **Matthew Leevy's** fabrication laboratory uses the latest in 3-D printing and laser cutting to help campus researchers in their quest for scientific knowledge. Leevy also uses the equipment to produce beauty and goodness – crystal flowers that enshrine Notre Dame landmarks and, now manufactured commercially, raise money to benefit cancer research.

Leevy, who is also a research associate professor and director of biological imaging within the Notre Dame Integrated Imaging Facility, started Flourish3D to produce and market the flowers last year after students gathered specimens near the "Word of Life" mural (aka Touchdown Jesus) and Notre Dame Stadium to practice their CT scanning. While the imaging technology is traditionally used for noninvasive imaging of lab mice, rats and rabbits, the digital images of flowers were so dazzling that the group decided to 3-D engrave them into crystals.

One of the students mentioned that cancer patients, who can't enjoy real flowers because their immune systems are compromised from chemotherapy, would especially like the replicas. The idea blossomed in the startup company, a social entrepreneurship venture headquartered in Innovation Park and led by Aislinn



A 3-D scanning project led research professor Matt Leevy to start a business.

Betts, an undergraduate who was part of Leevy's group.

Others involved in the original project were Breelyn Betts, Aislinn's sister who was in high school; undergraduate Christine Craig; **Sarah Chapman**, assistant director of the Integrated Imaging Facility; and **Tiffanie Stewart**, a research scientist at the Notre Dame Center for Nano Science and Technology.

Handpicked flowers are CT scanned, 3-D rendered and laser etched within ultra-pure glass. Varieties so far are Cone Flowers for a Cure, Love Thee Canna Lily, Our Lady Geraniums, and the Onward to Victory Rose. Trademark rights to these works are the subject of a license with Notre Dame's Office of Technology Transfer. They are manufactured by a U.S. company and sold online and in local floral and gift shops, with profits going to the Harper Cancer Research Institute.

"These are products that we make with cancer patients in mind, although we think the general public will also derive enjoyment from these flowers in crystal," said Leevy, who also works with Harper and the ESTEEM program.

The company expects to expand the selection when more flowers bloom in the spring and hopes to reach a wider market, especially cancer hospitals in other cities.

"We intend to expand to have a catalog of flowers from landmark sites across our campus," Leevy says. "We are a core of investigators specializing in scientific research and image analysis technologies. We have expanded our efforts in order to give back to the research community and serve the public at large. It truly aligns with the Notre Dame mission to be a force for good in the world."

The fabrication laboratory, including staff, postdoctoral associates and undergraduates conducts research at the interface of 3-D printing technology and biomedical imaging, creating anatomical models derived from patient data and developing animal anesthesia delivery devices.

Tony Van Avermaete, a design and fabrication specialist, is operations manager of the facility, which includes three CAD workstations, a laser cutter and the most advanced 3-D printer on campus. It offers fabrication of a finished design, consultation on designs in process, and comprehensive design and fabrication based on a back-of-the-napkin sketches. The service is set up within CORES for access to all faculty, staff and students on campus.

Leevy's lab has made more than a dozen patent submissions in the past three years that are the basis for three startup companies. In Vivo Concepts LLC develops novel anesthesia delivery products to enhance small animal imaging in biomedical research, designed to improve animal handling and technician safety; Biomedical Constructs LLC, which markets anatomical models; and Benefactory Manufacturing and Design, which produces exclusively licensed collegiate goods used by Notre Dame's development office to thank donors, in addition to Flourish3D.

Visit flourish3d.com.

Spring Town Halls address parking, construction and ND Voice results

BY MARISSA GEBHARD, EVP COMMUNICATIONS

This spring, staff across the University gathered for the biannual Town Hall meetings, but this time staff met in twelve smaller units across campus to hear customized presentations catered to their divisions and to have greater the University consider adding additional shuttle stops and invest in a mobile app that could track the location of the shuttle bus to provide riders real-time shuttle information. Transportation Services is collaborating with the Office of Information Technology to pursue the development of the app.

The committee also recommended

170,000 square feet. On the north side of campus, there are approximately 650 geothermal wells being constructed under the Ricci Athletic Fields, which will decrease our carbon footprint by eight percent. On the south edge of campus, the 60,000-square-foot Walsh Family Hall of Architecture will open in fall 2018, and south



opportunity to participate in discussion. Executive Vice President John Affleck-Graves led the sessions and many division leaders joined him to present to their respective divisions.

"The smaller Town Halls gave Notre Dame staff an opportunity to ask more questions and for each division to discuss their unique ND Voice results compared to the overall scores of the University," said Affleck-Graves.

Campus parking remains an important consideration for many staff. The Parking Committee, composed of 27 faculty, staff, graduate and undergraduate students from across the University, analyzed key aspects of parking, and presented their recommendations on January 19. Their full report is available on the **ndsp.nd.edu** website under parking and traffic.

Affleck-Graves supported the committee's recommendation that

that the University consider the construction of a paid parking garage in the vicinity of Legends, create a new, temporary surface parking lot on the northeast side of campus, and consider adding additional, 90-minute parking spaces, and with Affleck-Graves' support, Parking Services has implemented that recommendation. Based on the committee's recommendations, Campus Services and Campus Safety are exploring the feasibility of a bike-sharing program, and soon the committee will make their final recommendations on reserved parking based on feedback from

faculty and staff. This is a time of unprecedented, strategic growth at Notre Dame. Including all current and recent campus construction, the University is adding a total of 1.4 million square feet. Jenkins Hall and Nanovic Hall will be completed this summer with a combined total of approximately of campus on Angela Boulevard the 40,000-square-foot, three-level Quinn Hall of Innovation and Change will open in the 2017-2018 academic year. The hospitality areas of Duncan Student Center, Corbett Family Hall, and O'Neill Hall will also be completed for the 2017-2018 academic year and will include space for special events and meetings.

The sales and reservations team in the Office of Event Management will begin accepting reservations on March 1, 2017 for events occurring after October 1, 2017. The office already manages reservations for Morris Inn and McKenna Hall. Read more about VenueND on page two, and visit **venue.nd.edu**.

Phase II of Eddy Street Commons, located just south of the current Eddy Street Commons, will include a larger, new home for the Robinson Community Learning Center, a proposed neighborhood market, space for retail on the

John Affleck-Graves

street level, and graduate student apartments on the three floors above it.

During each Town Hall, divisions reviewed their ND Voice results. Across the University, staff rated strategic clarity, image, and engagement as the highest categories. The scores for respect and fairness, diversity, and development and training saw the most improvement since the biannual survey began in 2006 when those areas were identified as having room for improvement. "What the data shows us is that as a community, when we choose an area on which to focus, we make a difference. Units worked very hard on crafting individual plans, so it's very gratifying to see progress. However, we should not be complacent because we still have work to do," said Affleck-Graves.

Staff members who were unable to attend their division's Town Hall are invited to view the session online in early March at **evp.nd.edu/ town-hall**.

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Kellogg welcomes journalist to the Visiting Fellows program



Kellogg Institute Visiting Fellows, from left, Hernán Flom, Margaret Triyana, Katherine Corcoran, Amy Erica Smith, Lauren Honig and Tina Lee

BY EMILY BEAUDOIN, KELLOGG INSTITUTE

Journalist **Katherine Corcoran,** the former Associated Press bureau chief for Mexico and Central America, will spend the spring semester at the Kellogg Institute

for International Studies as the Hewlett Fellow for Public Policy. It is a return to her alma mater for Corcoran, who majored in American studies as an undergraduate.

Her Kellogg project examines violence against the press in

Mexico, now one of the most dangerous countries in the world for journalists. Using the murder of an investigative journalist as a starting point for her research, she is exploring the paradox of the dramatic decline in press freedom in Mexico as the country has become more democratic, with the aim of producing a general-audience book. As a member of the institute's Visiting Fellows Program, Corcoran joins five scholars who hold academic-year appointments. All are conducting independent research related to core Kellogg themes of democracy and human development:

Hernán Flom, a political scientist

from the University of California, Berkeley, is working on a book manuscript that examines why and how state actors confront, negotiate with or extract rents from drug traffickers in Latin American cities.

Lauren Honig, also a political scientist, is investigating the development in Africa

of plural property rights, critical to governance, state building, economic development and environmental policy. She takes up a new position at Boston College this fall.

Tina Lee, a sociologist from Princeton University, is working on two projects that explore the unintended consequences of party building among Chinese entrepreneurs and the influence of global governance structures on political institutions. **Amy Erica Smith**, a political

scientist from Iowa State University, is examining why Brazilian evangelicals and Catholics have become highly active in recent Brazilian elections, in ways distinctive from evangelicals and Catholics in the United States. She is also co-organizing a spring Kellogg conference on public opinion, democracy and development in Brazil.

Margaret Triyana, an economist from Nanyang Technological University in Singapore, is studying mechanisms that affect health investments, with a special focus on how social policies affect health outcomes for the poor in Southeast Asia.

Also in residence this semester are guest scholars **Col. Jay Hopkins**, a United States Army War College fellow; **Victor Maqque**, a recent Notre Dame Ph.D. who was a Kellogg dissertation year fellow; and **George Tsebelis** of the University of Michigan, a former Kellogg visiting fellow.



Dear Faculty and Staff,

Humility. Determination. Fatigue. Faith. This is what I encountered when walking the 320 miles of the Notre Dame Trail last summer in preparation for August 2017.

As a Notre Dame alumna, employee and parent, I was already a part of the family, but my appreciation and faith in the University and Congregation of Holy Cross has been deepened by this pilgrimage for Our Lady. I hope we may share this experience, and invite you to register for the Notre Dame Trail.

Serving as a unique way to embrace the University's 175th anniversary, this journey will retrace the steps of Rev. Edward Sorin, C.S.C., and seven Holy Cross brothers who walked from Vincennes to South Bend in 1842 to found the University of Notre Dame du Lac. The Notre Dame Trail will be a bold opportunity to:

- · Pause, reflect and embark on a spiritual journey
- Deepen your faith
- Challenge yourself physically
- Immerse yourself in the spirit of Notre Dame
- Celebrate the charism of the Holy Cross order
- Build lasting relationships with fellow pilgrims

Please choose from a 5-day, 3-day or 1-day pilgrimage. Note that there is a 10 percent discount for all who register prior to March 21.

I hope you will join us on the Notre Dame Trail!

In the name of Our Lady,

Katherine Lane MNA '00 Sr. Director, Notre Dame Trail



Liberatore receives second composer's fellowship for 2017

Will be composing a song cycle setting Iranian poems to music

BY NOELLE ELLIOTT, DEPARTMENT OF MUSIC

Assistant professor of music composition and theory **John Liberatore** — who was recently awarded a prestigious fellowship from the MacDowell Colony — has been awarded a second fellowship from the Millay Colony for the Arts. Following his stay at the Mac-

Dowell Colony in March 2017, Liberatore will travel to the Millay Colony this summer as an artist-in-residence. In both residencies, he will spend the bulk of his time composing a song cycle for soprano, percussion and glass harmonica, setting translations by Niloufar Talebi of new poetry by expatriate Iranian writers around the

world. In proposing the project to the Millay Colony, Liberatore wrote, "These poems poignantly capture themes of longing, connection, loss and hopefulness. Talebi's translations bridge cultures across political divides, pointing

toward a profound sense of shared humanity."

The finished piece will be premiered by soprano Jamie Jordan, a versatile and much sought-after interpreter of new music, and Daniel Druckman, associate principal percussionist in the New York Philharmonic and director of

percussion studies at the Juilliard School. Liberatore will join Jordan and Druckman on the glass harmonica, a rare instrument that he acquired last year through a Faculty Research Support Program Initiation Grant. When completed, the work will be recorded as part of an album of Liberatore's works slated for release on Albany Records in 2018.

At the Millay Colony, he will also dedicate time to a commission

from Korean-American pianist Eunmi Ko for a concert honoring the 100th birthday of composer Isang Yun at the Seoul Arts Center in September 2017.

Located near Austerlitz, New York, at the former home of poet and activist Edna St. Vincent Millay, the

Music professor John Liberatore is composing a song cycle for soprano, percussion and glass harmonica. Pictured is an example of a glass harmonica (courtesy Wikimedia Commons) an instrument invented by Benjamin Franklin in 1761. Millay Colony was established by her estate in 1973. The colony aims to "nurture and promote the vitality of the arts" by offering competitive residencies to artists of all disciplines from around the world.

Liberatore has taught at Notre Dame since the fall of 2015.



Franklin named it the armonica, based on the Italian word "armonia," meaning harmony. The instrument comprises a series of glass bowls of graduated sizes — rubbing the glass produces musical tones. The instrument we call the harmonica, which is unrelated, wasn't invented until 1821.



Liberatore

Football tickets to cost less for most faculty and staff

BY CIDNI SANDERS, INTERNAL COMMUNICATIONS

Most faculty and staff football ticket prices will decrease for the 2017 season.

A recently announced tiered pricing model is lowering the price most faculty and staff pay for season tickets. Faculty and staff season tickets members typically sit in the end zones of Notre Dame Stadium, where season ticket prices will now cost \$400 in the upper level and \$550 in the lower level. That's down from \$600 to sit in either level in 2016.

"We now have a more equitable approach to ticket pricing that is accessible, affordable and fully consistent with Notre Dame's values," said **Rob Kelly,** assistant athletic director of ticketing and technology. "No longer will the person who sits in the end zone be asked to pay the same amount as the person who sits at the 50 yard line."

As a part of the University's benefits package, faculty and staff have the opportunity to purchase two season tickets for home football games in designated sections of Notre Dame Stadium without paying the annual gift that the public is charged to gain access to season tickets.

"The annual gift exemption is a substantial benefit for faculty and staff. In the 2017 season, this is an additional savings of \$750 per ticket for season ticket members in the upper end zone and \$1,000 for those in the lower end zone," Kelly said.

Although faculty and staff tickets are set aside in the end zones and corners of the stadium, it is possible to purchase a seat in a higher-price location. Interested persons may request to change, based on availability, but will have to pay the higher ticket price as well as the annual gift per ticket, which is also based on seat location. Season tickets for 2017 include seven games (there is no Shamrock Series game this year) but will be priced for six games. Season ticket members will receive several new benefits, including free parking in White Field, free entry to all general admission sporting events and merchandise discounts. Access to purchase away, bowl and Shamrock Series game tickets will continue. Payment plans will allowseason ticket members to spread their total cost over three to five months, and there will be no price increase for the 2018 season. About 3,000 faculty and

staff were season ticket members in 2016. The Athletics Ticketing Office has already provided information to them regarding the cost of their current seats going forward and opportunities to change seat location, if desired.

"Season tickets are the surest way to guarantee access to every game, so we are making additional season tickets available for purchase this year," Kelly said. "I hope the pricing and accessibility changes result in more faculty and staff who are able to attend the games with their family and friends. The Notre Dame community is such a vital part of the Notre Dame football tradition."

Faculty and staff who wish to purchase new season tickets will be contacted via email with that opportunity in April.

Single-game football tickets will go on sale in

July, and availability will be based on demand. These tickets will be priced by opponent, a practice that has been in place since 2012.

The changes to the seating and pricing as well as other new amenities are separate from the new premium seating that is available and the construction of Duncan Student Center, Corbett Family Hall and O'Neill Hall, three new buildings adjacent to the stadium. Watch for more information on the more than 750,000 square feet of teaching, research and performance space these new buildings are adding to campus in future issues of NDWorks.

If you have any questions about the new tiered pricing model or season tickets, please contact the Notre Dame Ticket Office at 631-7356 or **tickets@nd.edu**.



SINGLE GAME TICKET PRICING | ²⁰¹⁷/₂₀₁₈

PRICE LEVEL	Temple, WF, Miami (OH)	NC State, Navy	Georgia, USC
Preferred	\$200	\$250	\$300
Lower Prime	\$145	\$160	\$250
Upper Prime	\$125	\$150	\$225
Lower Side	\$110	\$135	\$205
Upper Side	\$95	\$120	\$185
Lower Corner	\$90	\$110	\$170
Upper Corner	\$75	\$95	\$145
Lower End	\$70	\$85	\$130
Upper End	\$45	\$65	\$95

SEASON MEMBERSHIP PRICING $|\frac{2017}{2018}|$

PRICE LEVEL	Ticket	Annual Gift	Ticket and Gift
Preferred	\$1,500	\$2,700	\$4,200
Lower Prime	\$1,000	\$2,500	\$3,500
Upper Prime	\$900	\$2,250	\$3,150
Lower Side	\$850	\$2,000	\$2,850
Upper Side	\$750	\$1,750	\$2,500
Lower Corner	\$700	\$1,500	\$2,200
Upper Corner	\$600	\$1,250	\$1,850
Lower End	\$550	\$1,000	\$1,550
Upper End	\$400	\$750	\$1,150

Green Belt project teams celebrated

BY ANGELA KNOBLOCH, **CONTINUOUS IMPROVEMENT**

On January 26 the achievements of eight Green Belt project teams on campus were celebrated during an event hosted by the Office of Continuous Improvement.

Green Belt projects focus on "making Notre Dame better every day" by improving services, reducing rework, mitigating risk, and giving back to people the gift of time that can be transferred from administrative tasks to more value-added activities.

Eleven faculty/staff members were honored with Green Belt certification at this event, after having finished both online and classroom coursework and leading process improvement projects to successful completion. Those recognized in January were:

Satish Adusumilli Freimann Life Science Center (ND Research): Animal Care and **Husbandry Tasks**

Through process streamlining and facility reconfiguration, created additional capacity to accommodate new and growing research needs with little to no additional expense

Dan Allen **Student Affairs:** Summer Housing Process

Thirteen weeks restored capacity; rework decreased by 83 percent; improved customer satisfaction campus-wide

Maureen Collins Graduate School: Transcript Process

Ensured 100 percent accurate capture of transcripts for current-year incoming class; revised process to align with electronic student files; approximately 60 hours annual restored capacity

Crystal DeJaegher and Laúrie Kirkner **Office of Digital Learning: Course/Content Development** Process

Increased faculty satisfaction; enhanced the discipline around project management and tracking steps to ensure quality and timeliness; clarified roles and responsibilities

Jonathan Hall OIT: Campus Workstation Program

Reduced non-value added time in annual CWP allocation process by 85 percent; annual restored capacity of 821 hours projected in the ordering and installation process

Denise Moser, **Chelsea Noble**

OIT: Knowledge Centered Support Restored annual capacity of approx-

imately 1133 hours or 28.3 FTE weeks; improved service to OIT Help Desk customers



The newly-certified Green Belts include (L-R): Front Row—Chelsea Noble, Denise Moser, Maureen Collins, Laura Picking; Middle Row—Phyllis Campbell, Crystal DeJaegher; Laurie Kirkner; Back Row—Jonathan Hall, Dan Allen, Andy Wendelborn, Satish Adusumilli,

Laura Picking (Human Resources), Phyllis Campbell (Building Services): **Unplanned Reporting Process**

Increased absence documentation to 100 percent; reduced missing information to 0 percent; improved communication cycle time between employee and supervisor regarding absence within one day to 100 percent; 154.4 hours restored capacity

during control phase with projected annual savings of approximately 600 hours.

Andy Wendelborn **Graduate Business Programs** (Mendoza College of Business): **Internal Student Communications**

Improved quality via content, style and branding standards; reduced email volume via internal consolidation and planning efforts; approximately 84 hours of restored capacity

due to process streamlining.

While these individuals led the project work, they were supported by engaged sponsors and team members who were critical to project success.

If you would like more information about the Office of Continuous Improvement or the Notre Dame Green Belt program, please visit continuousimprovement.nd.edu or call Carol Mullaney at 631-1293.

ACE Partners with the American Indian Catholic Schools Network



BY THEO HELM, ACE

The University's Alliance for Catholic Education (ACE) has embarked upon a new partnership with the American Indian Catholic Schools Network (AICSN).

The collaboration allows ACE to work with the staffs of five Catholic mission schools and help the 1,300 students and their families along their educational journeys.

"This is an opportunity that

fits beautifully our mission of transforming Catholic schools, particularly for underrepresented students," said Rev. Timothy R. Scully, C.S.C., the Hackett Family Director of Notre Dame's Institute for Educational Initiatives. "We are working with AICSN to strengthen and sustain schools that offer the best educational opportunities for the children they serve."

The partnership started Jan. 1 and is funded by a grant from the Better

Way Foundation. ACE is working with AICSN to provide professional development, build governance structures for the network and grow the enrollments of the schools.

"We will be able to bring the tremendous expertise of ACE to a new audience that in most cases is remote," said Brian Collier, the coordinator of supervision for ACE Teaching Fellows and the director of the collaboration with AICSN. "This effort is led and overseen by Native

peoples from the mission schools themselves, and those of us at Notre Dame will serve as resources for the schools."

AICSN started in 2013 with the help of the Better Way Foundation and Creighton University in an effort to bring shared success in professional development, school communications and financial sustainability.

Member schools in the network are St. Charles Mission School,

San Carlos, Arizona; St. Michael Indian School, St. Michaels, Arizona; De La Salle Blackfeet School, Browning, Montana; St. Augustine Indian Mission School, Winnebago, Nebraska; and Red Cloud Indian School, Pine Ridge, South Dakota.

The schools serve students representing the Apache, Navajo, Blackfeet, Winnebago, Omaha and Lakota peoples.

SERVICE ANNIVERSARIES

The University congratulates those employees celebrating significant service anniversaries in **March**:

35 Years

Tamara R. Springer, Mendoza College of Business

30 Years

Keith A. Bruce, Office of Director, Maintenance Kathy L. Gallay, General Services Ana Laskowski and Sandra K. Tompkins, Custodial Services

25 Years

Claude J. Devaney, Teaching and Learning Technologies **Brenda L. Young,** Custodial Services

20 Years

Annie K. Geary, Development Wade E. Stoller, Service Center

15 Years Monica Crabtree,

Honica Crabtree, Hesburgh Libraries John A. Foster, Golf Course Administration Eileen Williams, North Dining Hall Angela Yugo, Pre-College Programs

10 Years

Matthew Brazo, Landscape Services Angelica M. Cowan and Darrell Rowell, Custodial Services Michael J. Cramer, UNDERC Patrick J. Gaska, Food Services–Corby Aaron M. Kelly, General Services Ellen G. Kyes, Robinson Community Learning Center Cheryl M. O'Brien, Athletics Ticketing Natalie Stahl, Innovation Park

IN MEMORY

The University extends sympathy to the families and friends of these recently deceased employees and retirees:

Carmen Colón (Retiree, Food Services) Dec. 29 Ruth Wiltrout (Retiree, Radiation Laboratory) Jan. 19 Katherine Blasko (Retiree) Jan. 22 Shohn Turner (Office of Research) Jan. 24 Joan Van Acker (Retiree, Housekeeping) Jan. 28 Flora Riddle (Retiree, Hesburgh Library) Feb. 3

NEW EMPLOYEES

The University welcomes the following employees who began work in **January:**

DelVaughn Alexander, Matthew D. Balis, David M. Ballou, Charles A. Long and Thomas K. Rees, Football Ian T. Alford, Hesburgh Libraries Erica L. Arevalo and James N. Bell, Morris Inn Matthew D. Atherton, Center for Culinary Excellence Kyle M. Brey and Angelina A. Torain, Athletics Thomas E. Burman, History Leah J. Campbell and Anthony Van Avermaete, **Biological Sciences** Kerri A. Casper, Student Development and Welfare Joseph R. Caudle, Customer IT Solutions Thomas A. Cumbow, User Services Sharon S. Decker, Elizabeth Heintzkill and Cassandra M. Kline, Executive Education Eric M. Felde and Maria K. Harding, Notre Dame Research Aaron C. Greene, Marketing Communications April S. Harmon, St. Michael's Laundry Cassandra R. Hobday, South Dining Hall Aaron J. Hunter, Chemical and **Biomolecular Engineering**

Vicente Jerez Fidalgo, **Turbomachinery Facility** Ryan Kaspitzke, Landscape Services Christopher A. Kozelichki, Law School Jessica M. Likens, Psychology Anna Martinez-Montavon, Hesburgh Libraries Amanda M. McKee, Alumni Association Ronald L. Mudica and Floyd A. Sam'pl IV, Custodial Services Nathan J. Norman, Women's Soccer Joseph M. Parent, Political Science Tom J. Purekal, Institute for Global Development Jennifer L. Rajchel, Office of Digital Learning Arthur J. Resil, Food Services, Holy Cross House Brady C. Ruffing, **Electrical Engineering** Robert A. Troup, McDonald Center for Well-Being Joshua S. Tullis, Development April VanDenDriessche and Tina M. Vernon, Physics Thomas J. Waldschmidt, Risk Management and Safety Elliot J. Wiley, Shared Services

Get more out of your health benefits with Castlight

Castlight is a free online healthcare comparison and pricing tool for Notre Dame faculty and staff. Use Castlight anytime you want to make a more informed decision before choosing care.

Castlight maintains the highest standards of security and meets all federally mandated guidelines — including HIPAA — to ensure your privacy and data security.

Upon registration, claims data is obtained from Meritain, the third-party administrator of the Univerasity's medical plan. Your use of Castlight is private — nothing is shared with the University.

What will Castlight show me?

- Past medical spending
- Remaining deductible
- Estimated costs search for specific services and see personalized cost estimates based on your health plan, location, and how much of your deductible has been met.
- Patient reviews. See provider ratings and read the experiences of other patients in their own words.
- Provider quality. Use Castlight to compare providers. See where different doctors went to medical school, how long they have been practicing, and what they charge.

To register, visit **mycastlighthealth.com.**

Family Connections

The Villanos

CAROL C. BRADLEY, NDWORKS

After his daughter Marisa was accepted as an undergraduate student at Notre Dame, **Michael Villano** brought her to his alma mater to show her around. That included a stop to visit his favorite teacher, Charles Crowell, a professor in the Department of Psychology. During their talk, Villano mentioned that he might one day like to move from private industry in Colorado back into academia. Crowell suggested an open position. Michael returned to Notre Dame a month before Marisa began her freshman classes 10 years ago. "I was happy for my dad, of course," Marisa remembers, but as a high school student anticipating going off on her own to college, the family's move to South Bend, "wasn't exactly what I'd been hoping for."



"Suddenly," Villano's wife, Suze, recalls, "we were back in Indiana."

Michael, class of 1983, is now a research assistant professor in the psychology department's Cognitive, Brain and Behavior program. He's currently studying the moral decision making of drone pilots with data he collects at the U.S. Air Force Academy. He personally developed a performance assessment tool for pilots, as well. Using two separate video games, the tool compares baseline results to outcomes after pilots have been subjected to oxygen depletion and G-force. Today, she embraces the turn of events. Every member of the family has worked at Notre Dame and has been otherwise engaged in campus activities. They all "get" the passion, she says, for the University that she and her brother share with their father as alumni.

Marisa graduated from Notre Dame in 2010 and is currently assistant director of undergraduate admissions.

Suze is administrative director of ND's Sacred Music Academy.

The Villanos have three sons: Mike, a graduate of Indiana University, Bloomington, who is an assistant middle- and high school band director in Anderson, Indiana; Tony, who graduated from Notre Dame in 2015 with an electrical engineering

Notre Dame family Marisa, Suze, Michael and Rocky Villano

degree; and Rocky, a sophomore studying computer science at Purdue University.

The family also shares a love of music. Michael plays jazz organ. For the last four or five years, Suze and Marisa have sung in two campus choirs, the Basilica Scola and the Collegium Musicum. Rocky plays in the Purdue band, and Tony, who performed in the concert and marching bands and symphony at Notre Dame, continues to play at church.

"Being part of the University of Notre Dame has been a blessing," says Suze. "Besides having two children attending, we have hosted grad students for dinner and choir members, before and after tours. Our son was in band, so we also have hosted band students at our home."

Though first and foremost Michael

identifies as a Notre Dame alumnus, he values the perspective he's gained as a Notre Dame parent and faculty member. Too, he says, his family's involvement in the Notre Dame community has given him a "strong sense of pride."



For tickets to events at the DeBartolo Performing Arts Center, visit **performingarts.nd.edu** and create an account or log in to view faculty/staff discounted ticket prices, or contact the ticket office, 631-2800. Ticket prices listed are the faculty/staff rate.

MUSIC

South Bend Youth Symphony Concert and Gala

4 p.m., Sunday, Feb. 26; \$17 Leighton Concert Hall The South Bend Youth Symphony Orchestras (SBYSO) will present its third annual gala concert. This performance will feature both the Concert Orchestra and Symphony Orchestra ensembles. The Concert Orchestra will begin with music from "The Hobbit"; Symphony Orchestra was given special permission by Howard Shore to be the first youth symphony ever permitted to perform music from "Lord of the Rings: The Fellowship of the Ring." This will also involve a collaboration with the Penn High School choir.

Vignoles and Ainsley

Department of Music 7 p.m., Saturday, March 4; \$6 Leighton Concert Hall The great British lyric tenor John Mark Ainsley and world-renowned pianist Roger Vignoles will perform a recital of classical songs by Charles Gounod, Francis Poulenc and Benjamin Britten, culminating with Robert Schumann's masterpiece Dichterliebe ("Poet's Love"). Ainsley is renowned for his interpretations of Baroque music (Monterverdi, Purcell, Bach); of Mozart's operas and 20th-century dramatic works by Britten, Janacek and Henze; and of the song repertory. Roger Vignoles regularly accompanies the world's greatest singers (Kiri Te Kanawa, Susan Graham, Bernarda Fink, Anne Sofie von Otter and many more) and instrumentalists. With his many recordings and engagements at the world's best concert halls, he is acknowledged as one of the world's greatest accompanists.

Philharmonia Quartett Berlin Presenting Series

Haydn's "London" Symphony South Bend Symphony Orchestra

2:30 p.m., Sunday, March 19; \$25 Leighton Concert Hall This performance in the June H. Edwards Chamber Series features the South Bend Symphony Orchestra, conducted by Carmen-Helena Tellez of Sacred Music at Notre Dame.

Kronos Quartet with Wu Man Presenting Series

7:30 p.m., Saturday, March 25; \$32 Leighton Concert Hall Teddy Ebersol Endowment for Excellence in the Performing Arts Inspired by an 18th-century Anhui province house, the 50-minute work is a travelogue of Chinese history, complete with costume changes, visual projections, props and heavy metal shredding on an electric pipa. Beginning with 19th-century mountain dances, the high concept and cross-cultural piece advances to jazzy 1930s Shanghai and the horrors of the Sino-Japanese war to Chairman Mao and then contemporary China. Evenings of moments like this are signature Kronos Quartet. That they also contain humor is all the better.

THEATER

I and You Department of Film, Television and Theatre 7:30 p.m., Wednesday–Friday, March 1-3; \$12 2:30 p.m. and 7:30 p.m., Saturday, March 4 2:30 p.m., Sunday, March 5 Decio Theatre Written by Lauren Gunderson. Drawn together by a poetry assignment, two high school classmates spark an unexpected connection.

Junie B.'s Essential Survival

stirring Black Girl (La noire de ...). Sembène transforms a deceptively simple plot—about a young Senegalese woman who moves to France to work for a wealthy white couple and finds that her life becomes a figurative and literal prison-into a complex, layered critique on the lingering colonialist mindset of a supposedly postcolonial world. Featuring a moving central performance by Mbissine Thérèse Diop, Black Girl is a harrowing human drama as well as a radical political statement—and one of the essential films of the '60s. Black Girl will be preceded by Sembène's first film, Borom Sarret, a short piece focusing on the life of a cart driver in Dakar. Free for Notre Dame students. Sponsored by the Meg and John P. Brogan Endowment for Classic Cinema.

Pather Panchali (1955)

Classics at the Browning 3 p.m., Saturday, March 4 **Browning Cinema** Directed by Satyajit Ray With Subir Banerjee, Karuna Banerjee, Kanu Banerjee, Uma Das Gupta Not Rated, 125 minutes, DCP Bengali with English subtitles With the release in 1955 of Satyajit Ray's debut, Pather Panchali, an eloquent and important new cinematic voice made itself heard all over the world. A depiction of rural Bengali life in a style inspired by Italian neorealism, this naturalistic but poetic evocation of a number of years in the life of a family introduces us to both little Apu and, just as essentially, the women who will help shape him: his independent older sister, Durga; his harried mother, Sarbajaya, who, with her husband away, must hold the family together; and his kindly and mischievous elderly "auntie," Indirvivid, multifaceted characters all. Free for Notre Dame students. Sponsored by often heart-wrenching film, which won three top prizes at the Venice Film Festival, including the Golden Lion, not only extends but also spiritually deepens the tale of Apu. Free for Notre Dame students. Sponsored by the Meg and John P. Brogan Endowment for Classic Cinema.

The World of Apu (Apu Sansar) (1959)

Classics at the Browning 8 p.m., Wednesday, March 8 Directed by Satyajit Ray With Soumitra Chatterjee, Sharmila Tagore, Alok Chakraborty Not Rated, 106 minutes, DCP Bengali with English subtitles This extraordinary final chapter in Ray's "Apu Trilogy" brings our protagonist's journey full circle. Apu is now in his early 20s, out of college, and hoping to live as a writer. Alongside his professional ambitions, the film charts his romantic awakening, which occurs as the result of a most unlikely turn of events, and his eventual, fraught fatherhood. Featuring soon to be Ray regulars Soumitra Chatterjee and Sharmila Tagore in star-making performances, and demonstrating Ray's ever more impressive skills as a crafter of pure cinematic imagery, Apur Sansar is a moving conclusion to this monumental trilogy. Free for Notre Dame students. Sponsored by the Meg and John P. Brogan Endowment for Classic Cinema.

Blow Out (1981)

Classics at the Browning 8 p.m., Wednesday, March 22 Directed by Brian De Palma With John Travolta, Nancy Allen, John Lithgow, Dennis Franz Rated R, 108 minutes, DCP John Travolta gives one of his greatest performances, as a movie sound-effects man who believes he has accidentally recorded a political assassination. He enlists the help of a possible eyewitness to the crime (Nancy Allen), who may be in danger herself, to uncover the truth. With its jolting stylistic flourishes, intricate plot, profoundly felt characterizations, and gritty evocation of early '80s Philadelphia, Blow Out is an American paranoia thriller unlike any other, as well as a devilish reflection on moviemaking. Free for Notre Dame students. Sponsored by the Meg and John P. Brogan Endowment for Classic Cinema.

nymph Rusalka. Sir Mark Elder conducts Mary Zimmerman's new staging, which also stars Brandon Jovanovich as the human prince who captures Rusalka's heart; Katarina Dalayman as Rusalka's rival, the Foreign Princess; Eric Owens as the Water Sprite, Rusalka's father; and Jamie Barton as the duplicitous witch Ježibaba.

National Theatre Live: Hedda Gabler (2017)

7 p.m., Thursday, March 9; \$18 Directed by Ivo Van Hove With Ruth Wilson Not Rated, 210 minutes, Captured Live Broadcast Just married. Bored already. Hedda longs to be free ... Hedda and Tesman have just returned from their honeymoon and the relationship is already in trouble. Trapped but determined, Hedda tries to control those around her, only to see her own world unravel. Tony Award-winning director lvo van Hove (A View from the Bridge) returns to National Theatre Live screens with a modern production of Ibsen's masterpiece. Sponsored by Brady Endowment for Excellence for Live Theatre Broadcasts.

La Traviata Met Opera: Live in HD

1 p.m., Saturday, March 11; \$23 153 minutes (1 intermission), Live Broadcast

Sonya Yoncheva brings her acclaimed interpretation of the doomed courtesan Violetta Valéry to Live in HD audiences for the first time, opposite rising American tenor Michael Fabiano as her lover, Alfredo. Thomas Hampson sings one of his most acclaimed Met roles as Giorgio Germont, Alfredo's disapproving father, in a revival of Willy Decker's staging conducted by San Francisco Opera music director Nicola Luisotti.

Presenting Series 2 p.m., Sunday, March 5; \$32 Leighton Concert Hall Since their foundation in 1985, the Philharmonia Quartett Berlin has been a world-renowned quartet, especially known for their interpretations of Beethoven and Shostakovich. The quartet has an extensive repertoire that spans from the Classical Era to contemporary works. In our final Beethoven program, return to Beethoven's late period for a performance of one of his Op. 132 quartets.

Tickets for Browning Cinema movies are \$6 for faculty/staff, \$5 for those 65 and up, and free for Notre Dame students, unless otherwise noted on the website. Visit performingarts.nd.edu for more information or to purchase tickets, or call the Ticket Office at 631-2800.

Guide

Presenting Series Family Show Series 11 a.m. and 2 p.m., Saturday, March 11; \$10 Decio Theatre

Now that Junie B. Jones is an expert first-grader, who better to write the book on everything you need to know? From bus rules to backpacks, carpools to cookies, Juniper Beatrice and friends deliver big laughs along with the final silly word on surviving school in style. Funny, strong-willed and prone to mishaps, Junie B. shows us all how school is sometimes scary, sometimes super-fun and always something to sing out loud about!

CINEMA

Black Girl (La noire de ...) (1966)/Borom Sarret (1963) Classics at the Browning 8 p.m., Wednesday, March 1 Ousmane Sembène, made his feature debut in 1966 with the brilliant and the Meg and John P. Brogan Endowment for Classic Cinema.

Aparajito (1956)

Classics at the Browning 3 p.m., Sunday, March 5 Directed by Satyajit Ray With Karuna Banerjee, Kanu Banerjee, Smaran Ghosal, Pinaki Sangupta Not Rated, 110 minutes, DCP Bengali with English subtitles Satyajit Ray had not planned to make a sequel to Pather Panchali, but after the film's international success, he decided to continue Apu's narrative. Aparajito picks up with Apu and his family having moved away from the country to live in the bustling holy city of Varanasi (then known as Benares). As Apu progresses from wide-eyed child to intellectually curious teenager, eventually studying in Kolkata, we witness his academic and moral education, as well as the growing complexity of his relationship with his mother. This tenderly expressive,

ALSO AT THE BROWNING Rusalka

Met Opera: Live in HD 1 p.m., Saturday, Feb. 25; \$23 245 minutes (2 intermissions), Live Broadcast Kristine Opolais stars in a new

production of the opera that first won her international acclaim, Dvorák's fairy-tale opera about the tragic water

Idomeneo Met Opera: Live in HD

1 p.m., Saturday, March 25; \$23 Browning Cinema 260 minutes (2 intermissions), Live Broadcast

James Levine conducts a rare Met revival of Mozart's Idomeneo, set in the aftermath of the Trojan War. Jean-Pierre Ponnelle's classic production, which has its first Met revival in over a decade this season, stars Matthew Polenzani in the title role. The cast also includes Elza van den Heever as Elettra, Nadine Sierra as Ilia, Alice Coote as Idamante and Alan Opie as Arbace.

Spotlight

Fine Art Out of Ashes Ceramic artists collaborate for Snite exhibition

Explore more than two dozen works produced by a collaboration of ceramic artists, the likes of which the University has not seen since the 1970s, in the Snite Museum of Art's exhibit "Out of the Ashes."

The exhibit continues from 10 a.m. to 5 p.m. Tuesdays through Fridasy and noon to 5 p.m. Saturdays and Sundays through March 5. The exhibit will move on to the South Bend Regional Museum of Art, where it opens with a reception on April 7.

Notre Dame Professor of Art **William Kremer** and visiting lecturer **Zach Tate** organized the Notre Dame Ceramic Art Symposium, which drew another 12 artists to campus for five days last October. The participants were mostly college and university teachers from across the country.

Their focus became Notre Dame's giant wood-fired kiln. The outcome: an eclectic mix of objects, mostly vessels, with organic patinas and nuanced earth colors.

The 30-foot long anagama kiln, located at Kremer's Michigan studio, is modeled on an ancient concept adopted by the Japanese and Chinese from Korea. Temperatures in the cave-like structure can rise up to 2,500 degrees Fahrenheit.

The burning produces ash and volatile salts that settle on surfaces and melt into a natural glaze, varying greatly in color, texture and thickness. Pieces closer to the fire are more dramatically impacted.

Kremer, Tate and a graduate student stoked the kiln 24 hours a day for five days after most of the other artists had gone from campus. Relinquishing control over this finishing stage of their works was just part of the collaboration.

Artists also swapped ideas and creative elements.

Tony Marsh, who teaches at California State University, Long Beach; Keith Ekstam, from Misourri State University; and Tate each added figures to a bowl thrown by Bede Clarke, from the University of Missouri.

Lindsay Oesteritter fashioned an elegant stand for a fine cup thrown by Dan Molyneux. Both are independent artists. Oesteritter now works in Virginia. Molyneux works in Boston. Stoneware sculptures by Ann-Charlotte Ohlsson



Working in the Riley Hall of Art ceramic studio, clockwise from top left, Tom Meuninck, Dick Lehman, Scott Myers.



Kremer said that many artists who participated in similar Notre Dame symposiums in the late '70s over the years have told him "it was one of the best experiences they had."

Kremer, who has two large abstract vessels on display in the exhibition, enjoyed affirmation from the group for his work. "One beautiful sunny day last fall, I was making cups," he recalled, "and I realized I was in the best pottery class I'd ever been in."

The Notre Dame Ceramic Art Symposium was made possible in part by support from the Henkels Lecture Fund, Institute for Scholarship in Liberal Arts, and College of Arts and Letters.

Participating artists were: Bede Clarke, Keith Ekstam, Dale Huffman, Howard Koerth, Bill Kremer, Dick Lehman, Tony Marsh, Scott Meyer, Tom Meuninck, Dan Molyneux, Lindsay Oesteritter, Ann-Charlotte Ohlsson, Dennis Sipiorski and Zach Tate.

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The evening of Friday, Feb. 10, University photographer Matt Cashore was on campus to capture the rise of the February full ("snow") moon during a lunar eclipse. A penumbral eclipse (as explained by NASA) occurs when the Sun, Moon and Earth align. The Earth blocks the Sun's light, and covers part of the Moon with the outer part of its shadow, the penumbra. This type of eclipse is rare, happening 0 to 9 times per century on average. The last one took place on March 14, 2006 — the next won't take place till August 29, 2059.