WELCOME

Aims

The aim of the Rock Research Expo (RRE) is to serve as a newsletter that keeps our campus informed of the scholarly endeavors and potential research opportunities for both faculty members and students.

Specifically, RRE:

- Shares new knowledge of different disciplines on campus
- Provokes students’ interests and curiosity in knowledge exploration
- Promotes long term academic communication and collaboration on campus, and most importantly
- Develops a success-driven environment of learning for faculty members and students

The Scope of RRE includes:

- Recent publications of faculty members and students (title, authors, and optional abstract)
- Recent research projects and grant acquisition (title, authors, brief description)
- Recent conference presentations, performances, and exhibitions of faculty members and students
- Announcement of research related activities

The Policies of RRE area:

- Anyone can submit their information via email. Student submissions need to have a supporting letter or email from a faculty member
- The basic submission standards for the newsletter will be that the submitted material be legible, pertinent, and appropriate to present to the campus community
- Authors are responsible for the accuracy of their submissions. Newsletter editors and SRU will NOT be responsible for the verification of the submitted information

Contact Information:

rockresearchexpo@sru.edu

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http://www.sru.edu/academics/research/rock-research-expo
SRU faculty are devoted teachers who seek to make all students successful. In addition, they engage in various forms of scholarship and creative arts. Scholarship itself makes course content cutting-edge, while its motivating factors of curiosity, creativity, intellectual dynamism, and enthusiasm are infectious and help fuel learning in the classroom.

Faculty often go to great lengths to involve students in their research and to mentor them in their own research. Although the creation of new knowledge is a key element of this process, we are more proud of the collaboration and learning that occurs between teacher and learner. Why? One of the key elements of the SRU Strategic Plan is developing high-impact practices for students. High-impact practices are deemed essential to developing students as educated citizens, and studies show that these practices have a positive effect on retention and success. Research that teams faculty and students is one of these practices.

SRU is proud to offer the Rock Research Expo (RRE) again. RRE highlights the impressive accomplishments of faculty in the areas of publications, presentations, performances and exhibitions.

Best regards,

Philip Way
Provost and VP for Academic and Student Affairs
FEATURE STORY

Going Public: The Stone House Center for Public Humanities

There is a lot of debate in national higher education circles about the place of the humanities in the 21st century American university. Some claim the humanities are in “crisis” as politicians seek to steer public funding toward professional degrees or STEM research, and point to declines in enrollment in humanities majors as further proof of the diminishing influence of disciplines like philosophy, history, literature, arts, and anthropology to contemporary society.

Fortunately, these dire forecasts have been answered by a large chorus of voices – often from scientists and the corporate sector – that see the humanities as central to higher education, and to a democratic society. Many of these advocates have argued for public engagement as the key to humanities teaching and scholarship in the new millennium.¹

In many ways, public engagement is one of the most innovative practices within the humanities today, and institutions of higher education across the country are increasingly reclaiming the public good of the humanities and seeking ways to apply its insights to contemporary society.

The Stone House Center for Public Humanities (CPH), established in 2014 in the College of Liberal Arts, connects the university’s humanities departments (faculty and students) to the broader community by offering collaborative educational programming, public forums, workshops, and service learning opportunities, all focused on bringing the insights of the humanities to bear on contemporary public life.

While the CPH uses the SRU-owned Butler County landmark Old Stone House as its namesake, the programs of the CPH are not limited to this historic site. Rather, the name is symbolic -- in the 19th century, the Stone House was a meeting place at a crossroads, just as the new center seeks to build “meeting places” between campus and community through its programs.

Since the CPH’s launch, it has offered several public educational opportunities, such as the Center's Historic Foodways cooking courses, community archaeological digs and an exhibit of original World War I propaganda posters; the latter a collaborative effort between SRU’s Art, English, History, Interdisciplinary Studies, and library departments.

The Center is co-directed by Dr. Aaron Cowan, Associate Professor of History and Dr. Lia Paradis, Associate Professor of History and Department Chair. An advisory board includes faculty from a number of SRU departments, including English, philosophy, art, political science, interdisciplinary studies and social work. The CPH has also established relationships with community partners like the Butler County Historical Society, the county public library system and the Bottlebrush Gallery in Harmony, PA.

http://www.sru.edu/academics/research/rock-research-expo
Enhancing Student Learning

But the CPH is far more than an outreach or community enrichment project. One of the Center’s primary aims is to provide SRU students with a "laboratory" for practicing the essential skills of publicly-engaged research and application. All of the Center's programs are designed to maximize student service learning and "real world" experience, something not always emphasized in the traditional humanities curriculum.

Humanities programs in leading universities around the country are increasingly emphasizing the importance of public engagement and non-traditional methods of communication for scholars. For SRU students to receive a complete education in humanities for the 21st century, they need to learn and practice these skills. The Center for Public Humanities provides the instrument to do exactly that.

Students have been incorporated into the CPH from its beginning, helping craft the center’s vision, mission, and strategic plan, assisting in planning and implementing exhibits and programs, and contributing research and their own scholarly insights to a number of ongoing projects.

Research and Service Learning Opportunities

So what does “public humanities” look like in action? Here are a few examples of current initiatives:

- **The Humanities Ladder** -- an innovative program based on the internationally-recognized Clemente Course in the Humanities, this pilot project began in Fall 2015 in collaboration with Aliquippa High School. SRU professors visit the classroom weekly to offer engaging, college-level curriculum in philosophy, literature, and history and help students explore the relationship of these disciplines to their everyday lives. By providing challenging, humanities-based enrichment to students, the program aims to develop students' critical thinking, reading, and writing skills, and, through sustained relationships with college faculty and students, potentially giving them the confidence and skills necessary to pursue higher education.

  The program begins in the sophomore year and continues through graduation, and will assess student participants’ educational outcomes (reading and writing skills, college matriculation, etc.) over the period to measure the impact of the program.

- **Butler County Historical** -- a digital history project that integrates archival images and historical narratives into engaging digital stories that are overlaid onto their geographic locations. Development of content and tour design is a partnership between the CPH and the Butler County Historical Society; students in Dr. Aaron Cowan’s
Public History classes conduct local history research, write original stories, and curate archival images for the project. See [www.butlerhistorical.org](http://www.butlerhistorical.org)

- **Western Pennsylvania Foodways** -- a workshop course for both community and SRU students exploring the social, cultural, economic, and political significance of food production and consumption patterns in the history of Western Pennsylvania.

A hands-on cooking component will engage students in opportunities for rich experiential knowledge of cooking methods and food wisdom of the past. Moving beyond a nostalgic “butter-churning” approach, the Foodways workshop will also challenge students to consider contemporary issues of food politics, agriculture, and sustainability.

SRU’s mission states, in part, that the University exists to address the “educationally-related economic, health, environmental and recreational needs of the region served by the University,” The work of the Stone House CPH is thus an extension of the core function of Slippery Rock University. The Center will continue to make the wealth of the humanities available and accessible to everyone, because the ideas and ways of thinking about the world learned through studying the humanities are essential for a thoughtful, just, and prosperous society.

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1 See, for example, Cantor, Nancy, "Academic Excellence and Civic Engagement: Constructing a Third Space for Higher Education" (2010). Office of the Chancellor. Paper [http://surface.syr.edu/chancellor/1](http://surface.syr.edu/chancellor/1);


RECENT PUBLICATIONS


Abstract: Planaria are common flatworms in Pennsylvania waters, and are famous for their regeneration and learning abilities. Student researchers in Dr. Simon Beeching’s laboratory group were able to demonstrate that planaria are sensitive to the odors of injured planaria, and can exhibit avoidance of areas where other planaria have been injured. Most exciting was the finding that planaria can detect injury in both their own and other species of planaria.


Abstract: Two species, Amorpha fruticosa and Yucca filamentosa, new to northwestern Pennsylvania, are reported from the Gull Point region of Presque Isle State Park. One of these, A. fruticosa, is weedy and/or invasive and a noxious weed in parts of its distribution. Yucca filamentosa is also reported to occur in Butler County in western Pennsylvania. A third species, Sedum acre, is reported as new to Presque Isle State Park, but not to Erie County per se. A fourth species, Hyacinthoides hispanica is reported as new to Pennsylvania.


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Covey, William (Department of English) (2015) "MR AND MRS SMITH: Alfred Hitchcock's Experiment in
**Abstract:**

The family Peyssonneliaceae comprises a worldwide group of non-calcified to calcified, crust-forming red algae of great ecological significance. Of the genera currently recognized in the family, *Peyssonnelia* has been widely considered to contain the largest number of species, with five members reported for the Azores. Using *rbcL* as a molecular marker, we here report on the taxonomic identity of recent collections of Peyssonneliaceae from the Azorean islands of São Miguel, Graciosa and Pico, and compare those specimens in a worldwide context. Only a single *Peyssonnelia* species, *P. squamaria*, is confirmed for the Azorean archipelago, with three different haplotypes. Although the populations in the Azores are genetically different from those occurring in the Mediterranean, this separation appears to be relatively recent.


Abstract:
Skinsfold measurement is valid and economical; however, it has a steep learning curve. The Think Aloud method allows insight into cognitive processes that underlie the completion of complex tasks through participant verbalization. The present study was undertaken to quantify procedural and cognitive characteristics of skinfold measurement. After introducing Think Aloud, seventy-five undergraduates with varied curricular exposure performed a seven-site skinfold assessment on a test subject. A trained practitioner recorded procedural observations, with transcripts generated from session audio recordings. Participants who measured all seven sites had each site compared to a criterion measurement. Bias scores were generated. Participants whose total bias fell within ±3.5% of the standard were proficient (PRO; n=25), with the remainder non-proficient (NON; n=37). An independent samples t-test was used to compare procedural and cognitive observations across groups. Large deviations were noted between PRO and NON for the chest (2.6±1.7 vs. 5.7±2.7mm), abdominal (2.0±1.6 vs 4.4±2.5mm), and thigh sites (1.7±1.2 vs. 4.7±2.7mm), while both groups had difficulty with suprailiac (9.5±1.7 vs. 10.7±3.2mm). PRO were significantly more likely to utilize anatomical landmarks (88.0 vs. 64.9%; P<0.05) and a confident grasp (88.0 vs. 40.5%; P<0.05). Likewise, PRO completely verbalized the chest (44.0 vs. 16.2%), midaxillary (100.0 vs. 70.3%), suprailiac (48.0 vs. 16.2%), and abdominal landmarks (60.0 vs. 27.0%) compared to NON. Additional curricular exposure was shown to improve skills associated with skinfold measurement. Specific sites (e.g. suprailiac), procedural (e.g. landmark identification) and cognitive skills (e.g. complete site explanation) were identified to be highlighted during targeted instructional practices.


Abstract: Doxorubicin (DOX) is a potent and widely used antineoplastic agent. Despite the efficacy of DOX, its clinical use is limited by a dose-dependent cardiotoxicity. Chronic exercise training has been shown to protect against DOX-induced cardiotoxicity. It is less clear whether short-term exercise can attenuate DOX-induced dysfunction. The purposes of this study were to determine if short-term wheel running and treadmill exercise training can attenuate the cardiac dysfunction that accompanies DOX treatment and to investigate possible mechanisms that may be involved with any protective effects of exercise. Male Sprague-Dawley rats engaged in a short-term 5-day voluntary wheel running (WR) or treadmill exercise (TM) regimen. Following the exercise preconditioning period, animals received either 10 or 15 mg/kg of DOX or an equivalent volume of saline (SAL). Five days after DOX/SAL exposure, cardiac function was examined. Western immunoblotting was used to quantify left ventricular sarcoendoplasmic reticulum calcium-ATPase 2a (SERCA2a) protein expression. Exercise preconditioning attenuated in vivo and ex vivo cardiac dysfunction observed with DOX treatment alone. Specifically, short-term treadmill exercise (TM + DOX10, 56 ± 4 %; TM + DOX15, 48 ± 5 %) and voluntary wheel running (WR + DOX10, 51 ± 5 %; WR + DOX15, 45 ± 3 %) consistently preserved fractional shortening when compared to sedentary (SED) animals treated with DOX (SED + DOX10, 48 ± 4 %; SED + DOX15, 39 ± 6 %). Likewise, both exercise protocols preserved left ventricular developed pressure (TM + DOX10, 115 ± 6 mmHg; TM + DOX15, 85 ± 5 mmHg; WR + DOX10, 92 ± 12 mmHg; WR + DOX15, 91 ± 8 mmHg) when compared to SED animals treated with DOX (SED + DOX10, 79 ± 6 mmHg; SED + DOX15, 69 ± 7 mmHg). SERCA2a expression was also preserved in TM + DOX and WR + DOX. These findings suggest that short-term exercise prior to DOX treatment may be a valuable adjuvant therapy to offset acute cardiotoxicities and that maintaining calcium handling in cardiomyocytes may be responsible, in part, for the preservation in cardiac function.


Melago, Kathleen A. (Department of Music) (2015) “Fall Semester is a Fresh Start!” PMEA News, 80(1) (Fall 2015), 44-45.


Rehorek, SJ. (Department of Biology), Cunningham, JM., Johnson, JL., Bruening, A. (Department of Biology majors), Bhatnager, K., Smith, TD (School of Physical Therapy), and Hillenius, WJ. (2015) “Development of the Nasolacrimal Apparatus in the Mongolian gerbil (Meriones unguiculatus),” Journal of Morphology, 276, 1005-1024. DOI:10.1002/jmor.20393.


**RECENT PRESENTATIONS/PERFORMANCES/EXHIBITIONS**


Ambrosio, Nora (Department of Dance) (2015) presented a new work entitled “At First Glance” for the Faculty and Guest Artist Dance Concert, Succop Theatre, Butler, PA, 2015.

Ambrosio, Nora (Department of Dance) (2015) recreated a work entitled “Bohemia” for the Faculty and Guest Artist Dance Concert, Succop Theatre, Butler, PA, 2015.


**Abstract:**

Polypeptides are sequences of amino acids that can fold into secondary structures such as α-helices and β-sheets. Incorporating unnatural amino acids into polypeptides can influence folding of the secondary structures. Many unnatural amino acids can be synthesized using a nickel Schiff-base complex. Standard decomposition techniques of this complex require refluxing with HCl. These harshly acidic conditions can remove acid-labile protecting groups from the side chains of the desired amino acids. To circumvent this issue and to provide synthetic access to unnatural amino acids with side chain protecting groups, we have devised a novel method of hydrolysis using EDTA with mild pH conditions. These conditions should prevent the loss of side chain protecting groups while enabling facile hydrolysis of the nickel Schiff-base complex.


Covey, William (Department of English) (2015) presented “FOOL FOR LOVE, KILLER JOE, and the Fate of Women In Rural Noir Drama” at the 39th International Comparative Drama Conference. Stevenson University/Pier 5 Hotel. Baltimore, MD, March 26-28, 2015.


David, Andrew H. (Department of Chemistry Major), K. Moore, C. Zaleski, J. W. Kampf, Vt L. Pecoraro, and Thaddeus T. Boron III (Department of Chemistry) (2015) “Exploration of Nanomagnetism Presented in a Family of [LnIII₄MnIII₄] (LnIII = YIII, DyIII, HoIII, ErIII) Compounds,” Post presentation, UMBC Undergraduate Research Symposium, Baltimore, MD, U.S., October 2015. (Andrew presented the research findings of a family of lanthanide containing inorganic clusters. The authors were able to compare the magnetism of these four different compounds and infer the source of the magnetic behavior.)


Falso, Paul G. (Department of Biology), Leah V. Marshall, Jordon M. Zajac, Kelsey L. Gustafson (Biology Majors), Miranda S. Falso, and Steven. R. Strain (Department of Biology) (2016) “Implications of Exposure to a Neonicotinoid Pesticide on Amphibian Immunity,” poster presentation at Society of Integrative and Comparative Biology, Portland. OR, January 3-7, 2016.

Hart, M., C. Bender (School of Business Majors), and Solano, R. (School of Business) (2016) “Using AVL Data to Determine Bus Schedule Achievability for a Rural Transit System,” Sponsor: SRU FSRG. Paper to be presented at the SRU Symposium for Student Research, Scholarship and Creative Achievement, Slippery Rock, PA, March 2016.


Karnes, Megan, Shelby Schettler (Department of Chemistry Majors), and Lengyel, George (Department of Chemistry) (2016) “Impact of α-Alkyl Amino Acid Insertion on β-Hairpin Peptide Folded Stability,” presented at the Regional American Chemical Society Meeting, Covington, KY, March 18-21.

Abstract:
Peptides are short sequences of amino acids that can mimic...
the shape, and therefore function, of larger proteins. Peptide therapeutics can potentially be used for the treatment of a wide range diseases such as HIV, diabetes, and cancer. Peptides are naturally broken down by enzymes within the body through a process called proteolysis, but the introduction of unnatural amino acids into the sequence can slow this process, potentially increasing the lifetime of peptide therapeutics. We have examined the impact of incorporation of α-alkylated amino acids, unnatural amino acids in which the α-proton is replaced by an alkyl side chain, into short, β-hairpin peptides. Four α-alkylated amino acid derivatives with varying side chain lengths were incorporated into peptides using Fmoc solid-phase peptide synthesis. These peptides were then analyzed using homonuclear multidimensional-NMR spectroscopy to determine the propensity of the unnatural amino acids to promote a β-hairpin folded conformation. These analyses showed that the α-alkylated amino acid with two side chains consisting of one carbon unit completely disrupted the folding population of the model system. However, increasing the side chain length of the α-alkylated amino acids to two or more carbon units restores some of this folded stability.


Abstract:
The leafy liverwort Pleurocladula R. Grolle is generally accepted as being a monotypic genus. Through utilizing light microscopy and examining herbaria samples worldwide we have noticed that the North American populations of “Pleurocladula albescens (W.J. Hooker) R. Grolle” have a tendency to generate stoloniferous/flagelliform branches. Diagnoses of P. albescens in Europe and North America do not mention this anatomical characteristic within this species. In Schuster’s treatment of Pleurocladula in North America east of the hundredth meridian he went as far to say that stolons are lacking in Pleurocladula. This suggests that these North American populations in which we are finding individuals with stoloniferous/flagelliform may represent an undescribed species.


Li, X. (School of Business major) and Solano, R. (School of Business) (2015) “Improving Bus Schedule Reliability in a transit system,” Sponsor: SRU Summer Undergraduate Research Experience (SURE) in STEM Grant Program. Presented at the Symposium for Student Research, Scholarship and Creative Activity, Slippery Rock University, April 2015.


Macmillan, Sean (Department of Art)

http://www.sru.edu/academics/research/rock-research-expo
• (2015) “PA Pride: Metal Arts in the State of Pennsylvania” Foyer Gallery, Brockway Art Center, Brockway, PA (National Invitational Group Exhibition)
• (2015) “The Graphical Web: Motion, Meaning, Stories, Standards” Fairmont Hotel, Pittsburgh, PA (Group Exhibition)
• (2014) “Residents and Residence” Harlan Gallery, Seton Hill University, Greensburgh, PA (Invitational Group Exhibition)
• (2014) “Hammer Forming Workshop,” presented at Visiting Artist lecture and workshop at Millersville University, Millersville, PA

Mahoney, S., S. Zuchowski (Exercise and Rehabilitative Sciences Majors), and K. Smith (Department of Exercise and Rehabilitative Sciences, faculty mentor) (2015) “Examination of weekly step count patterns during a 12 week pedometer program,” poster presentation at 2015 Mid-Atlantic Regional Chapter of the American College of Sports Medicine, Harrisburg, PA, November 2015.


Abstract:
Body Image has long been an interest of feminist psychologists, with the robust finding that, in general, women’s relationships with their bodies are frequently negative, whereas men seem to be protected from negative body image. Rodin, Silberstein, & Striegel-Moore (1984) coined the term ‘Normative Discontent’ to reflect this, and it is well established that this normative discontent leads to negative health and mental health outcomes, including disordered eating, anxiety, and depression. While much early research focused on assumed heterosexual populations, recent research has begun to explore body dissatisfaction in samples of gay men, lesbians, and bisexual women and men. This body of research has been less clear, with some studies reporting that gender is the most important factor, and others reporting that sexual orientation/identity is more important in predicting body dissatisfaction. Some have theorized, and research has supported that gender-typed traits, such as traditional femininity and masculinity, explain some of the observed gender differences in heterosexual populations. However, very little data exists that looks at gender-typed traits in non-heterosexual populations. Data collected from university and community samples will be reported, which examine the role of gender-typed traits, feminist identity, and gay identity, with multiple measures of body dissatisfaction in a diverse sample of lesbians (n=57), gay men (n=77), heterosexual women (n=165), and heterosexual men (n=82). Analysis of means shows that heterosexual women scored highest and heterosexual men scored lowest on measures of body dissatisfaction, consistent with previous research; Lesbians and gay men scored in between. A mediation model will be presented describing how gender-typed traits and feminist and gay identities mediate the associations between sexual identity and body dissatisfaction. Results will be discussed in terms of the clarity they can bring to the complex associations between intersecting sexual and gender identities and body image.


Melago, Kathleen (Department of Music) (2016) “Cumulative Strategies for Increasing Student Success on Secondary Instruments,” presented at National Association


Petray, Marnie Jo (Department of Modern Languages and Cultures) and Gail Clements (2016) presented “Where Are We Now: The Status of Linguistics in Master's in TESOL and Master's in Secondary/Adult Education Language Teacher Programs” at the 2016 Linguistic Society of America (LSA) annual conference, Washington, D. C., January 9, 2016.

Abstract:
Dr. Petray and Dr. Gail Clements of Duke University investigated linguistics’ curricular integration in graduate level language teacher programs in 100 universities and colleges across the U.S. Their co-authored study was part of a symposium on Linguistic Foundations for Second Language Teaching and Learning sponsored by the LSA Linguistics in Higher Education Committee. The LSA is the preeminent academic organization for linguists and research in the scientific study of language in North America.


Solano, R. (School of Business) and N. Dong (School of Business Major) (2016) “Completeness analysis of AVL Data in a Rural Transit System,” Sponsor: SRU FSRG. Paper to be presented at the POMS 27th Annual Conference, Orlando FL, May 2016.

Solano, R. (School of Business), M. Hart, C. Bender, and T. Tustin (School of Business Majors) (2016) “Improving Bus Schedule Adherence in a Rural Transit System Using Automatic Vehicle Location Data,” Sponsor: SRU FSRG. Paper to be presented at the POMS 27th Annual Conference May 2016, Orlando FL, USA


Westman, Barbara (Department of Art)

- (2016) Student Achievement: While working on her BFA degree (focus in Fiber Art), Alexandra Kirsch’s artworks were accepted for the 2016 Fiber Art International, Pittsburgh, PA
- (2016) Juror for the The 2016 Pittsburgh Arts Region's of The Scholastic Art Awards

http://www.sru.edu/academics/research/rock-research-expo
• (2016) 8th International Printmaking Biennial Douro Gravura, Portugal, 2016
• (2016) 20 x 20 Textile, juried fiber art exhibition, Warsaw & Gdansk, Poland, January 21 – February 27, 2016 at Jan Nowak-Jezioranski Information Center, Warsaw, Poland
http://tkanina20x20.blogspot.com/p/uczestnicy.htm
March 9 – April 1, 2016 at GAK gallery, Sobieszewo Poland http://www.wyspaskarbow.gak.gda.pl/
• (2016) Indiana University of Pennsylvania (June-July) and Dixon University Center (August – October) “Experiment” - Co-organized and co-wrote the program of the International Fibers Studio collaboration between SRU and Academy of Fine Arts, Gdańsk, Poland. Both studios students and faculty exhibited at the Academy of Fine Arts gallery in June. The article about this collaboration was published by Fiber Art Now (USA) and The Nordic Textile Art (Sweden)
• (2015) “Small, Smaller, the Smallest” three fiber artists exhibition, July 15 – August 4, The Baltic Sea Cultural Center, Gdańsk, Poland
• (2015) 14th Lessedra International Mini Print Annual, Sofia, Bulgaria. June 11 - August 31
• (2015) “Here & There” Co-organized and co-wrote the program of the International Fibers Studio Collaboration between SRU and Academy of Fine Arts, Gdańsk, Poland. Exhibition of artworks created by students and faculty, July8 – July 19, 2015, Artur’s Mansion Gallery, part of Gdańsk Archipelago of Culture
• (2015) participation in an exhibition with students in the Advanced Printmaking class. June 6-July 12
• (2015) Co-organizer of the Global Images of U.S. Women event (on behalf of the Martha Gault Art Society), together with The Know Art Project and Gender Studies at SRU. The program includes the exhibition of the international postcard art created by non-American women, a lecture and a workshop by Tavia La Follette, PhD. SRU campus. March 30-April 1
• (2015) As the Center for Public Humanities Advisory Board member, co-organized a multi-departmental student project. Project in all departments involved research of the original WWI propaganda posters. Students in my Advanced Printmaking class created their own contemporary propaganda posters. This research concluded with the “Act Now! Rallying for The Cause – WWI and Today” exhibition at Martha Gault Art Gallery, March, 2015. co-curated this exhibition
• (2015) Faculty sponsor of a student research project presented at the 2015 SRU Symposium for Research, Scholarship, and Creative Achievement. Student Delaney Munnal, research project director
• (2015) Student achievement: Kate Fitzgerald’s monotype created in my Advanced Printmaking class was selected for the national juried student exhibition at the Curry College, MA, organized by the Monotype Guild of New England
• (2015) Selected to be a juror for the 2015 Scholastic Art and Writing Competition, Pittsburgh region. Over 1800 artworks were submitted from high school students in area

http://www.sru.edu/academics/research/rock-research-expo

Abstract:
Bryophytes include the groups of plants that are commonly referred to as the mosses, hornworts, and liverworts. These plants are often overlooked; however, there has been a large amount of floristic studies in Pennsylvania on the hornworts and liverworts. There are numerous samples that have been collected dating back to the mid 1850’s, which provides us with some vital information about our plant history as well as an insight into our future. Even though this information has been used in many previous floristic studies, it has never been utilized as an interactive checklist/map. Using the data collected by other individuals, which was gathered from the Symbiota database, we created an interactive liverwort and hornwort distribution map of Pennsylvania on Google Earth. The distribution map allows individuals to view specimen localities in more detail. This further detail of the afore mentioned specimen locations will allow an individual’s expedition out into the field to be an easier, more user friendly and technologically interactive experience. It will also provide future researchers with new insight into counties in which samples are under collected throughout Pennsylvania. This in turn will provide new study opportunities, which are necessary to further understanding these plant groups in our local environment.


http://www.sru.edu/academics/research/rock-research-expo
RECENT RESEARCH ACTIVITIES AND ACCOLADES

Ambrosio, Nora (Department of Dance) (2015) was elected the Chairperson for the Commission on Accreditation for the National Association of Schools of Dance for a three-year term, 2015.

Ambrosio, Nora (Department of Dance) (2015) was reelected to a second three-year term as a member of the Board of Directors for the Lincoln Park Performing Arts Charter School, September 2015.

Ambrosio, Nora (Department of Dance) (2015) was asked to be a member of the Editorial Board for the Dance Education in Practice journal, where she also serves as a writing mentor for author’s submissions, 2015.

Ambrosio, Nora (Department of Dance) (2015) conducted an accreditation site visit for the dance program at Eastern Michigan University on behalf of the National Association of School of Dance, 2015.

DeNicola, D. M. (Department of Biology) (2015) Development of a field method to examine the effects of metals and nutrients on algae in streams. College of Health, Environment and Science Grant $1,856. Aaron Onufrak student investigator.

Keller, Jennifer (Department of Dance) was selected for juried screenings of her film work, "ferry," at the following film venues:

- Athens Video Dance Project (Athens, Greece, January 22, 23, 24, 2016)
- D’Motion International Dance Festival (Selangor, Malasia, December 1-20, 2015)
- Bucharest International Dance Film Festival (Bucharest, Romania, November 6-8, 2015)
- LightMoves (Limerick, Ireland, November 21, 2015)
- Mostra Internacional de Videodança de São Carlos (MIVSC) (São Carlos, Brazil, August 13-16, 2015)
- San Souci Festival of Dance Cinema (Boulder, CO, September 26, 2015)
- Cinedanse Quebec (Quebec, Canada, September 24-27, 2015)
- Topanga Film Festival (Topanga, CA, July 30, 2015)
- Utah Dance Film Festival (Provo, UT, April 11, 2015)
- Greensboro Dance Film Festival (North Carolina, March 22, 2015)
- RADfestival (Michigan, March 21, 2015)

Meztli, Itzi (Department of English) (2015) elected a member of the Board of Directors of the PCEA during its last meeting on October 2, 2015.


Smith, K. (Department of Exercise and Rehabilitative Sciences), A. Kubala, and A. Staub (Department of Exercise and Rehabilitative Sciences majors) (2015) “Investigation of International Health Behaviors in France,” Summer Undergraduate Research Experience (SURE) Research Grant, $780.00 funded.


Solano, R. (School of Business) (2014) “Improving Time Tables in a Local Transit System,” Funding: SRU Faculty/Student Research Grant.

Tylor, T. (School of Business Major) and Solano, R. (School of Business) (2015) “Identifying Data Completeness Issues in the Automatic Vehicle Location (AVL) Data of the Butler Transit Authority System,” Funding: SRU Summer Undergraduate Research Experience (SURE) in STEM Grant Program.
Zieg, Michael J. (Department of Geography, Geology, and the Environment) (2016) “RUI: Thermal Consequences and Textural Signatures of Reinjection in Mafic Sills,” awarded a $163,424 grant from the National Science Foundation (NSF) (NSF Website link).

Description:
Just as volcanoes have alternating periods of eruption and repose, igneous intrusions can also have alternating periods of injection and crystallization. This study will provide a better understanding of the emplacement process and its effects in intrusive systems, specifically in mafic sills. The study will identify the diagnostic physical and chemical signatures of magma reinjection into a partially crystalline system and the specific textural characteristics of a reinjection horizon that can be used to determine its timing and thermal conditions. Diagnostic criteria for recognizing reinjections in mafic systems will allow this process to be positively identified in other intrusions and will place important constraints on models for magma chamber formation and evolution. In addition, the data to be developed (texture, composition, and mineralogy profiles) will be widely distributed as a resource for developing and testing petrologic hypotheses, and for recognizing additional processes beyond those specifically addressed in this study.

The primary goal of this study is to define the detailed signature of reinjection events using a continuous drill core profile through a diabase sill (the Black Sturgeon sill) from Nipigon, Ontario. Petrographic data will include modal mineralogy, textures (crystal size distributions), and fabric (alignment factor). Geochemical data will include bulk-rock major and trace-element chemistry and mineral compositions. Preliminary results have been used to tentatively identify the positions and effects of several reinjection events in the Black Sturgeon sill. This project will document the fine-scale variations around these sites and locate and characterize other potential reinjection zones. These textural and compositional variations will provide a set of discrete criteria that can be used to demonstrate and document the existence of reinjection horizons in magmatic systems. Numerical cooling models will then be integrated with textural observations and with MELTS modeling to provide quantitative constraints on the emplacement history of the Black Sturgeon sill, including the timing and spatial distribution of the individual replenishment events.
Frequently Asked Questions

1. **What is the Rock Research Expo?**
   The Rock Research Expo (RRE) is an annual newsletter that keeps our campus informed of the scholarly endeavors and potential research opportunities for faculty and students.

2. **Why is it important to participate?**
   The RRE shares, across disciplines throughout campus, new knowledge being gained through both faculty and student research. Additionally, the RRE serves to promote academic communication, collaboration, and a success-driven environment of learning for faculty and students.

3. **What types of submissions are appropriate?**
   - Recent publications by faculty members and students,
   - Research projects and grant acquisition information (title, authors, brief description),
   - Recent presentations, performances, and exhibitions by faculty and students.

4. **How do I submit my information?**
   Faculty and students (with faculty letter of support) may submit their information via email to: rockresearchexpo@sru.edu.

5. **When is the deadline to submit?**
   Submission deadline for the newsletter is February 27.

6. **When will the next issue be published?**
   The newsletter is published annually after spring break.

7. **How should I cite my submission?**
   Use whatever citation format is standard for your field of study. A short abstract may be included, if desired.

   Please make sure to include the name of your department. See the example below.

Thank You Note to Judy Silva

Rock Research Expo would also like to take this opportunity to honor and thank Judy Silva for her countless contributions to the newsletter. Judy was one of the RRE newsletter founding editors when the journal began in 2010. In the early days, it was Judy who called many meetings to coordinate related people from different departments so as to initiate and accomplish work on the newsletter. In the beginning, the first few issues did not have enough self-submissions. It was Judy who organized student workers to dig up information from the library database to be used in the newsletter. Judy is also an excellent proofreader. Before the committee members worked together as a group on the editing, it was Judy who always completed the final proofreading. She has a keen eye and is capable of spotting the most obscure typos, tiny misalignments, extra spaces, and inconsistent fonts. Judy’s contributions to the establishment and quality of this newsletter will be missed. We would like to briefly thank Judy again for all the time and energy she has placed into the newsletter. We will miss Judy’s ability to get work accomplished, her work ethic, and her smiling face.