

2013 Summer Undergraduate Research Fellowship Awards

Student Name: Johanna DeBari
(2013 Bruce LeVine Mellion '69 SURF Fellowship recipient)
Project Title: Rape During Genocide in Rwanda and Bosnia-Herzegovina: A Comparative Analysis
Faculty Sponsor: Therese Seibert, Sociology
Project Abstract:

Both Rwanda and Bosnia-Herzegovina experienced genocides of unforeseen magnitude and intensity during the 1990s. In both cases rape was used by perpetrators to humiliate and terrorize victims. The rape brigades of HIV infected men in Rwanda (Krueger 2011:8) and rape camps in Bosnia-Herzegovina underscore the importance of how rape is used as a tool of genocide (Krueger 2011:14). Despite the fact that rape is most often greatly prevalent during genocides, it is neglected formally in law in the 1948 UN Convention to Prevent and Punish Genocide. It is however now part of case law as a result of the *Akayesu* verdict handed down from the International Criminal Court of Rwanda (International Criminal Tribunal of Rwanda 1998:7). Using a triangulation methodological approach, including content analysis, in-depth literature reviews, and interviews of legal experts on rape during genocide, this project will compare and contrast both post- and pre-*Akayesu* cases of the ICTR and ICTY relating to the crime of rape. Drawing from feminist and genocide theory and research, an explanation will be given as to why rape occurs during genocide. It also discusses how rape will likely be treated in future genocide cases.

Student Name: Jordan Chase
(2013 KSC SURF Fellowship recipient)
Project Title: Instrumentation, Orchestration and Large-Scale Composition
Faculty Sponsor: Heather Gilligan, Music
Project Abstract:

The end goal of this project is to create a new composition for chamber orchestra. To accomplish this, focus will concentrate on several areas of research and composition. Over the course of eight weeks, five major areas of concentration will be addressed: instrumentation, orchestration, consideration of large-scale compositional form, the compositional process itself, and marketing and promotion of the piece. The study of instrumentation will include time spent learning to play several of the orchestral instruments to help facilitate the development of idiomatic compositional ideas. Orchestration will be addressed by studying and listening to works by Ravel, Rimsky-Korsakov, and Stravinsky, three great orchestrational masters. Formal structure will be addressed through the study and analysis of Berlioz's *Symphonie Fantastique*, Strauss's *Don Juan*, and Lezcano's *Concierto Cubanero*, three orchestral works of varying style and scope. The compositional process will be ongoing, both as a response to the studied topics and as a daily creative endeavor. This process, at the crux of the project, will be the focal point of the summer and its finished product will represent the project's most important completed result. Upon completion of the piece, a final score will be creative and sent to at least one national competition. The composer will also contact several conductors, local and national, in an effort to promote and market the piece.

Student Name: James Ulcickas
(2013 KSC SURF Fellowship recipient)

Project Title: The Chemical Characterization of Japanese Knotweed and of
Micronutrients Found in Chicken Eggs

Faculty Sponsors: James Kraly, Chemistry
Denise Junge, Chemistry

Project Abstract:

In the past decade the nutritional content of chicken eggs has been increasingly important to consumers. Recent studies indicate dietary antioxidants may influence the chemical properties of chicken eggs. Japanese knotweed contains relatively high levels of the antioxidant resveratrol. Preliminary studies at Keene State College indicate increased levels of the essential omega-3 fatty acids can be achieved by supplementing laying hens' diets with the herbaceous perennial Japanese knotweed. To test whether such supplementation alters the chemical content of hen eggs, methods must be developed to track chemicals in both Japanese knotweed and chicken eggs. Japanese knotweed will be sectioned (roots, stems, and leaves) and homogenized, and resveratrol will be extracted. Resveratrol will then be characterized and quantified by capillary electrophoresis. Cholesterol, folic acid, and vitamin A (retinol) will be extracted and subsequently quantified in the yolks of commercial chicken egg. Gas chromatography mass spectrometry will be used to quantify levels of each micronutrient. Results from this project will contribute to a better understanding of resveratrol's presence in Japanese knotweed and provide methods for future chemical profiling of chicken eggs.
