

Jon Johnson

UMM UNDERGRADUATE *Research* Symposium April 21, 2004

Featuring student research and scholarship from across the campus



Abstracts

Presenter: Margaret E. Uttke

Project Advisor: Anna Dronzek (History)

Title: "Herein May Be Seen Noble Chyvalrye": Sir Thomas Malory's Morte Darthur and Fifteenth-Century Chivalric Ideals

Type of presentation (Oral / Poster): O

Abstract:

In 1470 Sir Thomas Malory synthesized centuries of storytelling to produce the great Arthurian work, Morte Darthur. This massive, tragic romance depicts some of the greatest acts of "humanyte, gentylnesse, and chyvalryes," according to its publisher William Caxton, and provides the modern scholar with a window into not only the medieval world of heroic knights, but also the fifteenth-century chivalric ideals to which English readers were exposed. Yet, exactly whose chivalric ideal does this work depict—Malory's? Caxton's? And how did the fifteenth-century English readership react to these fictional feats of arms? To answer these questions, this paper first examines the depiction of Malory's favorite knight, Sir Lancelot, in comparison to Malory's French sources. This reveals Malory's emphasis on a narrative created from character dialogue rather than narrator description, on more vivid language used for Lancelot's chivalric deeds and combat, and ultimately on Malory's choice in adventures to produce Lancelot the great chivalric knight rather than the lover of Guinevere. Next, this paper examines Caxton's editorial and publishing choices for possible effects they had on readership reception; it also compares the chivalry depicted in Malory's work with other chivalric manuals printed by Caxton to determine any marked preference or influence the publisher had on the chivalric ideal presented to English readers. Finally, this paper presents these findings in light of fifteenth-century realities of chivalry, as well as evidence gathered from a physical examination of one of the existing Malory manuscripts at the British Library.

Presenter: Stephanie Vlamincik

Project Advisor: Jane Johnson; Nancy Carpenter (USDA Soils Lab; Chemistry)

Title: Development of a Method for Testing Nitrous Oxide Flux

Type of presentation (Oral / Poster): P

Abstract:

Nitrous oxide (N₂O) is an important trace gas, which contributes to the greenhouse effect and is linked to the depletion of the stratospheric ozone layer. The atmospheric concentration of N₂O is about one tenth the concentration of carbon dioxide (CO₂), but its radiative force is at least 200 times that of CO₂. Agriculture is a major contributor to the recent increase in atmospheric N₂O, mainly through nitrogen fertilization. Nitrous oxide production is affected by temperature, water availability, aeration, nitrogen form and concentration. The experimental goal was to test a chamber design and sampling protocols (sample collection time) for collecting field samples of trace gases, including N₂O. Chambers and collars were designed using polyvinylchloride. Vented chambers were notched to fit snugly over the collars (25.6 cm diameter by 7 cm height) and had a volume of 969 cm³. Gas samples were taken in small field plots that were either 1) not watered and not fertilized, 2) not watered but fertilized, 3) watered only and 4) watered and fertilized. The fertilizer had 3.75% ammonium phosphate, 5.2% nitrate and 11.05% urea nitrogen and was applied at a rate of 1 L of 200 mg N L⁻¹. After fertilizing, N₂O production was monitored by collecting gas every 15 minutes for 90 minutes from the chamber with a 3-mL polypropylene syringe through a stopcock on the chamber. The concentration of N₂O was measured by GC-electron capture chromatography. Nitrous oxide flux is calculated by determining the change in concentration over time.