

The 1999 Society of Geologists
Employers' Survey rated
"Oral presentation, report
writing, and making diagrams
To show data" as the most
important non-geological skills
For potential graduate
employees"

EAS 466: Review Paper

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Roger Graves



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wac

c4w

writing initiatives

webmail

efs

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As Director of Writing Across the Curriculum, I'll be working with faculty and students across the university to improve student writing. I consult with instructors and departments, and I teach writing in a wide variety of courses when students in those courses are starting a writing assignment. I will also be working with students and faculty in the Department of English and Film Studies, my home department.

I am the author, co-author, or editor of six books and 29 articles, including *Writing Instruction in Canadian Universities*. My current research interests include the development of doctoral student writing, writing assignments across disciplinary fields, and rhetorical approaches to text encoding. Currently I serve as co-President of the Canadian Association for the Study of Discourse and Writing (CASDW), the

Recent presentations to classes

This page contains links to slides displayed at presentations I've given to classes.

Research and faculty presentations

Digital rhetoric



Writing Across the Curriculum



Writing Initiatives
University of Alberta

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**Group Writing
Tutorial Feedback**

C4W

Writing@UofA

WRS Courses

Roger Graves

Academic Honesty

We're offering a new lunchtime discussion series, "Thinking about Writing," this term offered in partnership with the Centre for Teaching and Learning. We'll start each session with a short (10 minute) background talk about the topic and then open the floor to your comments and concerns. [Click here for more detail.](#)

Free tutoring is available for groups of students in your classes to help them as they draft their essays, papers, reports or other written assignments. [Click here for more details.](#)

Click [here](#) to subscribe to the WAC newsletter.

Would you like to improve the writing of your students? Improve their learning of your lecture material? Are you looking for new ways to engage your students in your course materials? If this interests you, contact [Roger Graves](#): or 492.2169

What can we do for individual instructors:

- meet to talk about ways to incorporate informal (short, impromptu) writing assignments into any class, small or large
- review via email any assignment you give students that has a writing component to help make it clearer for students and to help develop grading rubrics to improve the speed and accuracy of grading
- visit your class to help students get started on your writing assignments

What can we do for departments:

- hold workshops on creating good writing assignments
- host discussions of how to improve the writing of students in your programs
- conduct reviews of writing assignments in your departments courses to identify exactly what your students are being asked to write—and to ensure that they have access to resources on how to write (online and on-campus)

Group tutoring schedule ([click here](#))

<http://www.humanities.ualberta.ca/WAC/>

Centre for Writers



The screenshot shows the homepage of the Centre for Writers at the University of Alberta. The header features the University of Alberta logo, the text "Writing Initiatives University of Alberta", and the "Centre for Writers" logo. A navigation menu includes links for Home, Appointments, Contact Us, Location, Coaches, Resources, FAQ, and WAC. The main content area has a breadcrumb trail "Home > Home" and a "Welcome to the Centre for Writers" section. This section offers free one-on-one writing coaching and support to all students, instructors, and staff. It lists the services provided by writing coaches, such as thesis formation, organization, and idea development. A red link "Request a class room visit by a tutor." is present. A welcome message for the Fall 2009 term states that tutoring hours will begin on Monday, September 14, and that an online appointment-booking schedule will be available soon. On the right side, there is a date stamp "9/2/2009 10:34:15 AM", a section for "Express News", a "Twitter Updates" section with a message about the fall term opening on Monday, September 14, and a "follow me on Twitter" link. Below that is a "GramWOW" section featuring a video player with a play button and a volume icon.

UNIVERSITY OF ALBERTA

Writing Initiatives
University of Alberta

Centre for Writers

Home Appointments Contact Us Location Coaches Resources FAQ WAC

Home > Home

Welcome to the Centre for Writers

We offer **free** one-on-one writing coaching and support to all students, instructors and staff at the University of Alberta - in any faculty or at any level of study.

Our writing coaches are available to assist clients with higher order concerns in their writing, such as thesis formation, organization and idea development, as well as more specific details, like grammar and documentation style. Clients can bring in any writing project at any stage of development: essays, lab reports, creative pieces, scholarly articles, thesis drafts, application letters - and more. Our coaches will also help students read instructor comments on already-graded papers. ESL and EAL students are welcome!

[Request a class room visit by a tutor.](#)

Welcome back for the Fall 2009 term! Tutoring hours will begin on Monday, September 14. The online appointment-booking schedule will be available to clients as soon as possible prior to this date. We look forward to working with you!

9/2/2009 10:34:15 AM

Express News

Twitter Updates

The Centre for Writers will open for the fall term on Monday, September 14! 5 days ago

[follow me on Twitter](#)

GramWOW



<http://www.c4w.arts.ualberta.ca/>

The writing process

Getting started

- ~~Explore the assignment~~
- ~~Make rough notes~~
- ~~Pick a tentative topic~~

Getting feedback

- Make an appointment at the writing centre
- Sign up for a group writing tutorial
- Get feedback on your draft/revise

Revising

- Work on style and lower order concerns
- Proofread, consult checklist for assignment

The plan today

- Examine the assignment guidelines
- Familiarize ourselves with the genre of the review paper
- Organize the paper
- Identify next steps for writing
- Set-up group writing tutorials

Purpose

For a group of meteorites, identify what we know about the meteorite group collectively, and what we know about the parent body or asteroid

or

report on a research problem using data

Grading criteria

- Depth (number of papers cited)
- Degree of critical assessment of ideas; synthesis/ comparison of ideas within the literature
- Quality of writing (standard edited English; academic prose; concise prose)
- Paraphrase and summary valued more highly than quotations

Audience: Readers

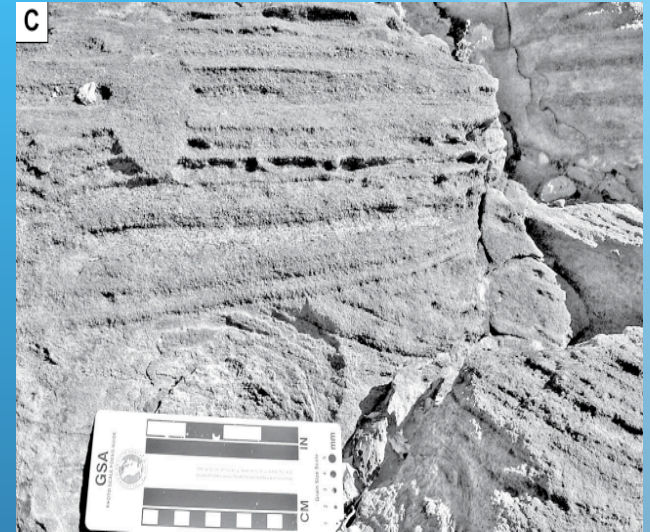
- What do you know about these readers?
- What do they value in a text?
- How do you adjust your prose to suit these readers?

Genre: Review Paper

- In a review of 10 dissertations in EAS, H. Graves found that the method of argument in geology was cumulative rather than argumentative

Example of critique

- “Various geometrical arguments **cast doubt** on the inference of an originally continuous, basal detachment surface. This **poses a challenge** to the rolling hinge interpretation. Although evidence for the migration of extension has been suggested to imply a rolling hinge (e.g., Hamilton, 1988; Holm, et al., 1992; Snow and Lux, 1999; Snow and Wernicke, 2000; Niemi, 2001), **such diachrony is not unique to that model**. Migration of extension across the region at large can be accommodated by separately rooting fault systems” (6).
- B. Renik, “Distribution of Neogene Extension and Strike Slip in the Death Valley Region, California-Nevada,” Ph.D., Columbia University, 2010.



Features of Cumulative Argument

8 of 10 theses (& dissertations) used a cumulative argument

Goal is
Additive

Explains how
this work adds
to knowledge

Summarizes
existing research

Notes gap in
literature

Does not argue
that this work is
superior

Avoids critique
of existing
literature

Cumulative Argument in Geology

- “In the Mississippi Alluvial Valley where much **previous research has emphasized** whole-valley evolution, detailed analysis of a study area can be evaluated within a regional geologic framework. This **approach provides control and depth** to the interpretations made on a local scale. In turn **more detailed local data helps refine** broader understanding of valley evolution” (60).
- Rains, Daniel S. “Origin of Quaternary deposits west of Marianna Gap, Mississippi Alluvial Valley, Eastern Arkansas.” M.Sc. University of Arkansas, 2010.

Summary: No critique, just add on

“The Gayna River Zn-Pb deposit . . . is located 80 km west of the proposed Mackenzie Valley pipeline route. If this pipeline project is completed it could supply access and power to any future mine development at Gayna River

“The Gayna River deposit is potentially one of the **world’s largest undeveloped carbonate hosted Zn-Pb deposits**. . . .

“Despite the importance of the deposit, **there have been few studies carried out** on the Zn-Pb mineralization at Gayna River. . . .

“This study was **undertaken to delineate** the nature of mineralization and the origin of the mineralizing fluids at Gayna River with an ultimate goal of **determining the main controls on mineralization.**” (p. 12)

Rationale

Gap in knowledge

Purpose of paper

S. Wallace, *The Genesis of the Gayna River Carbonate-Hosted Zn-Pb Deposit*, MSc, U of A, Fall 2000.

Organization ideas

Group of meteorites	
Introduction to meteorite group	Introduction to meteorite group
Minerals	Review of studies by topic (not historical)
Analyses done	Recent results
Processes of formation	Conclusion: what models explain the characteristics of the group?
Overview of what the parent body looks like	
Conclusion: what models explain the characteristics of the group?	

Organization of review paper

Title	Topic + focus
Introduction	General to thesis
Mineralogy	One way to find genesis
Chemical characteristics	Clues to processes of formation
Igneous models	More clues to formation; competing models here
Ureilite parent body	One body or more? Chemical analyses
Almahata Sitta Meteorite	Specific example: tracked upon entry to earth; this section functions as conclusion
References	

Decision point

Not much literature	Large corpus of articles
Example: mesosiderites	Example: iron meteorites
Compare with other groups of meteorites	Pick one of the 13 groups within this major group
Add your own “take,” critical inferences, or speculation	Compare your sub-group with another sub-group



Introduction → thesis

- The characteristics that set ureilites apart from other achondrites include: a high CaO content in olivine and pigeonite, high Cr_2O_3 in olivine, relatively high amounts of carbon, reduced olivine isotopic composition and an oxygen isotope composition that falls along the carbonaceous chondrite anhydrous mineral line (CCAM) (T. on G., 1.05.4.2.4). **From these, and other characteristics, the unique petrogenesis of ureilites can be inferred.**



Thesis

Sub-section argument

- The characteristics of ureilites cause difficulty in the development of petrogenetic models for their formation. Because certain elements that point to high temperature processes, **the two dominant models for ureilite genesis that emerged** involve igneous processing of the ureilite parent body. Ureilites were suggested to be **either** the mantle melt residue of the ureilite parent body that had undergone partial melting, **or** they were cumulate ultramafic rocks.

Conclusion

- The current consensus is that monomict ureilites are largely the result of residual melting with some of the augite-bearing ureilites being cumulates though certain chemical characteristics of ureilites are not explained by either model and therefore attributed to initial heterogeneity in the parent body (Mittlefehldt *et al.*, 2005).

Visuals

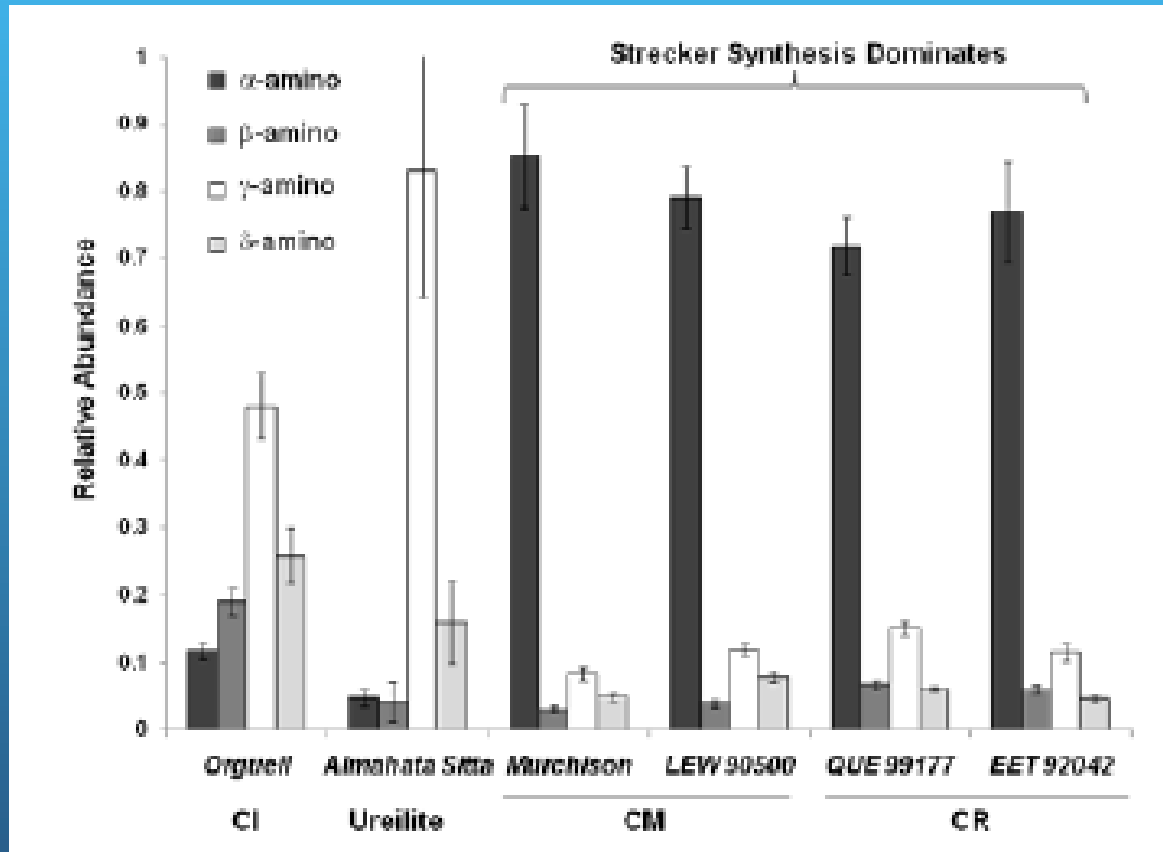


Figure : Amino acid distribution of Almahata Sitta compared to distributions from selected carbonaceous chondrites (Glavin *et al.*, 2010)

Photographs



Figure : Satellite photo with the approach path of asteroid 2008 TC₃ and distribution of located fragments (Jenniskens *et al.*, 2009)

Sample thesis

Several unique features of magmatic arcs are thought to contribute to the formation of ore deposits. These features vary somewhat depending on the specific formations they occur in. Recent research in magmatic-hydrothermal ore systems suggests that exsolved volatiles can account for ore deposits.² Other researchers have identified the 'delamination' of cumulates as a process that turns basaltic crusts into andesitic continental crust.¹

Model A

Model B