

GLY 471, Fall 2016

FIELD PROJECT

Part 2—The details

As mentioned in the previous handout, you will be required to submit a written paper in the style of a scientific article describing and interpreting the three stratigraphic sections you studied earlier in the semester. The earlier handout outlined the details for the required figures (individual stratigraphic logs, composite log, Shaw diagrams, correlation fence diagram)—this handout provides additional details on the written part of the paper.

Format

All text should be at an appropriate font (12 point), 1.5 line spacing, 1 inch margins, and with page numbers on every page. Primary headings will be centered, bold font and in capitals. Secondary headings should be flush left, bold, and in sentence case. Make sure every page is numbered.

Please pay attention to the capitalization of proper nouns (e.g., Upper Ordovician, Rodinia, Marcellus Formation, Pompey Member, Mollusca, *Homo*, or Nevada) and the italic/underline of generic and species names (e.g., *Homo sapiens*). The term brachiopods is not capitalized, but Brachiopoda is.

Sections/Headings of Paper

The first page of your paper will be the title and abstract page. Your abstract is limited to **one** page and should have the title of your paper (come up with an informative one), your name and affiliation at the top, in that order, all centered. Please use “Department of Geology, SUNY Cortland, Cortland, NY 13045” as your affiliation. You should certainly review the section on abstracts and also article “Scrutiny of an Abstract, II, (Landes, 1966) which are part of the Writing in the Geological Sciences document (available on the course web site).

The second page will begin with the “Introduction” section. An **Introduction** serves as the starting point for any paper and should clearly state what you have done, why you did it, any hypotheses you are going to test (or discuss) in the main part of the paper, and the relevance and significance of your work. You should conclude your introduction with your **thesis statement**, which is a sentence or two that explicitly identifies the purpose of the paper or previews its main ideas.

Subsequent primary sections should include "**Stratigraphic Descriptions**", "**Correlations**", "**Depositional Environments**", "**Discussion and Conclusions**", and "**References Cited**". You can add secondary headings as you see fit.

For the **Stratigraphic Descriptions** section, please arrange by stratigraphic unit (e.g., subsections for each formation/member). Here, you should explicitly state both the temporal/vertical (e.g., nature of unit contacts and vertical changes) and spatial (e.g., lateral facies differences) within and between each locality for that unit. Please keep in mind, **you are to use formal stratigraphic names of formations and members in all text and figures rather than the informal ones you used in the**

field. For the Depositional Environment section, it is not enough to just list or mention the depositional environment, you need to provide the basis (**evidence**) for your interpretation – e.g., what lithologies, sedimentary structures, fossils, lead you to your calls on depositional environments.

Folded within the **Introduction** and the **Discussion** sections should be explicit text and discussion addressing the ideas and observations of other’s published works. For example, in the Introduction section you should **provide background** information on the more important ideas of others – ideas that you will explore later in the paper and papers that provide context to your work and address the significance of your work. In the Discussion section you should **compare** your data and results with the results found in previous published papers. The discussion of previous literature should be well integrated into the main sections of your paper. Please note: you will be assessed on both the number, diversity, and quality of references cited. Here you will draw upon the applicable parts of the revised and corrected shorter literature review papers that you wrote earlier in the semester (*some may not be relevant to the project and need not be cited*).

Please follow the “Guide to Writing in the Geological Sciences” for proper methods in determining what literature sources are acceptable and how they should be cited—both for the in text citations and the Reference Cited section. As mentioned in class many weeks ago, I am particularly interested to see that you delved into the literature **well beyond** the few papers that were made available. More importantly, I am interested to see that you consider the ideas and conclusions of others into your work (and of course give them proper credit). Thus, you should begin finding, amassing and reading pertinent literature via the various bibliographic tools (e.g., GeoRef) available to you through the library.

Figures

Figures will be an important part of your paper. Figures should either be drawn with a computer drawing program (e.g., Adobe Illustrator) or drafted by hand with proper ink and paper **so as to look professional**. Please note, all figures (including stratigraphic logs) should be numbered sequentially (e.g., Figure 1, Figure 2, etc...) **and** have an informative caption explaining the figure. If you are using a figure from the published literature, you must write your own caption and properly cite the source in the caption. Each figure should be referred to in the text. All maps, stratigraphic logs, and correlation figures should also include a scale and legend (although you can use a single legend and refer to it in subsequent figure captions).

Other

You must hand in your field book with your paper! It will be part of you grade.

Please see me should you have any questions (or would like advice) regarding your paper or any of its included parts. I attach on the next page the grading rubric I will use in your assessment.

The paper is due in my office no later than **5 PM on Thursday, December 8.**

NAME: _____

I. Field Notes

Completeness/Accuracy 10 pts. _____

Neatness 5 pts. _____

II. Stratigraphic logs and correlations

Organization and presentation (strat logs) 5 pts. _____

Accuracy and completeness (strat logs) 10 pts. _____

Recognition of units and unconformities 5 pts. _____

Fence diagram 10 pts. _____

III. Other

Written & drafted descriptions match field notes and logs 5 pts. _____

Written argument/evidence in support of correlations 5 pts. _____

Depositional environmental interpretations 10 pts. _____

IV. Written Work

Informative Abstract 5 pts. _____

General writing (e.g., spelling, grammar, clarity) 10 pts. _____

Organization and format 5 pts. _____

Literature review/interpretation/synthesis 10 pts. _____

Quality and number of cited sources 5 pts. _____

TOTAL _____