

Reading Critically for In-Class Discussion

Philosophical Comments: We will all be reading articles in this course that will certainly “stretch” our knowledge or background in geology. Each article has been carefully chosen because it represents an important historical component of the discussion, or because it presents insightful comments or models that will aid in our understanding. Reading these will be a much different experience than your previous reading of textbooks which are, by their very nature, simplistic summaries of generally accepted concepts. Journal articles, however, represent the “battleground” of science, where ideas are thrown out for critical review by the author’s peers. Some ideas stand the test of this review and become widely cited...such ideas will, over time, end up distilled within textbooks. On the other hand, many ideas discussed in journals are eventually rejected or significantly modified over time as new observations and insights come to life.

Intellectually, reading journal articles is vastly more exciting than reading text books, but much more challenging for several reasons. Firstly, they generally assume a particular set of knowledge by the reader which can be frustrating if you don’t have it! Secondly, and more importantly, the ideas presented may well be in error and the reader must be prepared to read critically and not assume that anything written is necessarily correct. Both these points place considerable responsibility and burden on the reader, but the rewards of interacting at the level of a scientific peer are well worth it.

The bottom line here is not to get frustrated. Read the articles at the level you can. A major part of a seminar course such as this is to learn. Taking careful notes of what it is that you don’t understand in a reading will help us shape our discussions.

What to Do: For each article read in this course, I want you to fill out a copy of the following worksheet which will help you summarize your own thoughts as well as help us focus in-class discussions. Remember the following each time you approach an article:

- First read the abstract (if there is one) and then skim over the article to get a general sense of what it is about and the general approach taken by the author.
- Read the article twice; once to determine what you understand and don’t understand and to pick out the author’s arguments, and a second time to help you summarize the flow of the arguments in the article.
- Don’t get frustrated by words and concepts you don’t know or remember. Consult textbooks or the Glossary of Geology (American Geological Institute) in the library for terms, and simple concepts. Otherwise, bring your questions to seminar!

Name_____

Worksheet for Reading Critically

Title of Article:

Author(s):

1) List below the major arguments that the author is trying to convey.

2) For each argument, list the authors principal evidence supporting the argument.

3) In what way do you find the author's arguments compelling. Are there ideas presented for which you find the support is weak or lacking?

4) List below the terms and concepts that you did not understand while reading this article. We will discuss these in class.