Part I: Before you begin and as you are writing

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• A few things to think about before you start
• Some best practices in constructing a manuscript
From the beginning

• You’re finishing up your research and thrilled about your results
• You have a novel idea that apparently hasn’t been discussed before
• You have an enormous pile of maps / seismic / analyses / video footage / remote imagery and synthesis

It’s time to write that paper!
From the beginning

• Audience!
  • choose the most appropriate journal – think about your primary idea
  • check the website for each journal

• Think about who your co-authors should be (if any)

• Refine the topic

• WRITE!
Audience: use the journal

Geosphere

AUTHOR INFORMATION
Submit a manuscript
View the current issue

Geosphere is GSA's ambitious entry into electronic publication. The primary goal of this effort is to address the clear and growing need for timely publication of research results, data, software, and educational developments in ways that cannot be addressed by traditional formats. A secondary goal is building an interface with other efforts within the scientific community that seek improvement of access to and preservation of data along with easy access to resources such as GIS databases and modeling results. Compared to traditional formats, which it does NOT seek to replace, Geosphere will be innovative and evolutionary.

In order to maintain a broad scope and to encourage contributions in a variety of forms, several types of submissions are sought. All contributions will be peer-reviewed, and the initial list of categories of publications is:

- Research Papers — fundamental and complete research contributions on scientific and educational topics
- Research Notes — short research contributions that can take many forms
- Data Contributions — a forum for publishing data sets in an archive where long-term availability is assured
- Educational Contributions — an opportunity to publish short articles on new approaches to enhance learning, tutorials, best practices, and other topics
- Software Contributions — a forum for publishing new software. Web services, ontologies, and such that will be made freely available to the scientific and educational communities
- Comments and Replies — a forum in which published papers can be discussed

How is Geosphere like other broad-based, international journals?

- Geosphere seeks high-quality papers from a broad spectrum of geoscience disciplines.
- Review is rigorous.
- Papers are copy edited and formatted by GSA's professional staff.
- Geosphere's goal is a high impact factor.

How is it different?

- It is entirely electronic, and the format is extremely flexible.
- We encourage innovative approaches to scientific publication.
- Review and publication is rapid and devoid of considerations such as arbitrary page limits.
- Extensive use of color, animations, and interactivity is encouraged.
- Oversize figures (maps, cross sections, seismic sections, etc.) are welcome.
- Links to data archives allow for the presentation and preservation of basic data, images, etc.
- The journal will evolve with technological advances, and synergy with other GSA publications and those of its affiliated societies will be maintained.
Audience: use the journal

• Model how you construct the manuscript on a published paper (structure, formatting, diagrams, tables, etc.)
Audience

• keep in mind that if you are writing for a “general” journal, you must assume relatively little inferred knowledge (your reader knows much less about your topic than you do...)
Who are your co-authors?

• Everyone who had a substantial contribution in framing the problem and its resolution.
  • all authors must contribute to writing the paper, whether literally or through ideas
  • many journals require confirmation
• When in doubt, consult your dissertation / thesis / post-doc supervisor
What is important?

• Most ideas have value

• Frame your idea in a way that your officemate / partner / colleague can see its value: why would someone read about this?
Write!

• Hourglass structure
• IMRAD (Introduction, Methods, Results, and Discussion)
  • what parts of the paper will deliver the greatest impact of your work?
Hourglass structure

**Introduction**

findings (**Methods**, **data**, **_results, comparisons...**)  

**Discussion**

the ‘meat’

**BIG concepts & context**

relevance, synthesis, implications, predictions — more broad context
Write!

• Think very seriously about writing an outline first...
• Make a list of likely figures and insert them in the outline
Write the Introduction

• Follow the scientific method
  • what is known
  • what is not known / poorly understood / contradictory to the previous ideas: What is the problem?
Write the Introduction

• Follow the scientific method
  • why you used the method / field site / images you did – how it/they are THE way to solve the problem
  • a bit about your conclusions
  • SET THE STAGE for the paper
• MANY people write the Introduction last
The other parts

• Methods
  • sufficiently descriptive that they can be replicated
• Data (results):
  • all your results whether they support your ideas or not
  • no bias, no interpretation at this point
The other parts

• Discussion
  - your ideas and interpretations!
  - no new data in this section
  - how your data and ideas mesh with other studies

• The title (!!) (write this last)
  - why would someone choose to read your paper?
  - be descriptive and specific
Other tips for preparing the manuscript

• Write to your figures
  • “a picture paints a thousand words...” (what words are you replacing)?
  • how does a figure support the text?
  • a figure caption should concisely highlight the take-away points

• Write, put the manuscript down for three days, and rewrite
Other tips for preparing the manuscript

• Put your co-authors to work! At minimum, make them read a draft.
• When using contributions from co-authors, don’t hesitate to rewrite in your own voice.
Last but not least

• Never start your paper (Abstract or Introduction) with “We”. The paper is about rocks or techniques or many other things, but not about you.

➢ Don’t write to be understood, write so that you cannot be misunderstood