

· A L O O · T H E S O L A R S Y S T E M · M R . L U B E L L  
P R O J E C T 2 · B A D A S T R O N O M Y

All scientific fields carry some fairly heavy baggage. Despite being the manifestation of purely logical and rational methods, science is continually criticized, mocked, questioned, and abused. Granted, people are more than allowed to question scientific proceedings; indeed, questions and skepticism are a big part of the scientific process. However, all too often, such skepticism leads to a blatant lack of understanding or regard for the reality of a situation. Astronomy is a field that has a very unique position in our society. After articles on health and medicine, those on astronomy are by far the most popular of science writings for a general audience. And yet, despite this apparent level of respect for the field, misconceptions abound. For this project, it is your task to explore the manifold ways astronomy has been distorted by society. More specifically, you'll be considering instances of "bad astronomy" in pop culture and the general public conscience. To do this, please consider the following items:

1. Visit the website of Phil Plait:

<http://www.badastronomy.com/bad/index.html>

Dr. Plait is an astronomer who has made it a mission of his to increase awareness of astronomical blunders in film, television, and the world at large. Click on the link to **Bad Movies** and peruse his list. Also, click on the link to **Popular misconceptions** and take a look at all the articles.

2. After having explored the bad movies and their problems, choose **one** common type of problem that you have found to be a source of angst in **at least two** films.
3. After having browsed the list of misconceptions, choose **two**, each from a different category, and consider them in depth. They need not be related to the problem you choose to explore in the films.
4. Write a paper summarizing your results in the following manner:
  - A. Discuss the different ways the movie problem you chose was manifested in the two films of choice.
  - B. Discuss what the filmmakers got right (if anything) in relation to the problem of choice.
  - C. Discuss why the problem was a problem to begin with.
  - D. For each of the popular misconceptions, explain in detail what the misconception is, why popular opinion is incorrect, and thus, what people should *really* think.
  - E. Address which, if any, of the items you came across seemed surprising to you and why such was the case.

Your paper should be **typed** and **stapled**. It must be done using a standard font size and format (for example, size 12, double-spaced) and be between 3 and 5 pages in length. Projects that do not meet these basic criteria will be penalized. If you consult sources external to Dr. Plait's website, you must cite them in the format of your choice. The projects are due in class on **Tuesday, July 25<sup>th</sup>**. If you have any questions or need help with any aspect of the project, please feel free to contact me.

## EXTRA CREDIT

Bad astronomy also creeps up in song lyrics more often than I'd like it to. For extra credit, find a song that you think may have some bad astronomy embedded within it. In your paper, discuss why what the singer says that is "bad" and offer a suggestion of what could have been sung instead. Please provide the full details of the artist, song, album, and lyrics.

## GRADING OUTLINE

Your projects will be graded on a scale of 1-20, with a maximum of 4 points of extra credit. Distribution of the points will be roughly as follows:

- I. Content
  - A. Adequate discussion of film problems (6 points)
  - B. Adequate discussion of misconceptions (6 points)
  - C. Personal reactions (4 points)
- II. Style
  - A. Organization (2 points)
  - B. Language (2 points)
- III. Other
  - A. Papers that fail to address the basic content requirements as outlined above will not be eligible for full credit
  - B. I reserve the right to subtract points at will for other insufficiencies as I see fit