

STEM Society Meeting, July 13, 2010

James Emery

8/3/2010

Contents

1	The Meeting Location, Time, and Topics	1
2	About the STEM Society and the STEM Society Website	2
3	Announcement of the Meeting	2
4	Meeting Notes	3
5	Les Dixon: The Dogons and Their Advanced Knowledge of Sirius	4
6	Jim Emery: Sirius	4
7	Jim Emery: An Astronomy Device for Locating Stars	4
8	Rick Hines: New Very Bright LED, and the Carroll Cave Flooding	4

1 The Meeting Location, Time, and Topics

The July meeting of the STEM Society took place on the second Tuesday of the month, July 13, 2010, at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The starting time was 6PM.

Topics included *Sirius, the Dogons, Astronomy, Cave Flooding, and Lighting LEDs*

The Stem Society WEB link is:

<http://stem2.org/>

2 About the STEM Society and the STEM Society Website

STEM is an abbreviation for Science, Technology, Engineering and Mathematics. There are about 60 people on the mailing list, although usually a much smaller group attends any one meeting. We meet on the second Tuesday of each month at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The meetings are open to all. We make presentations, have discussions, and sometimes have scientific demonstrations. The topics range from General Relativity to scientific experiments for kids.

The set of meeting notes may be viewed by going down the list of notes appearing on the front page of the site. These notes contains links to documents, which may be viewed or downloaded by clicking the link. Other documents can be reached by clicking the heading "Documents and Downloads" that appears on the left side of the front page. Then click on "documents." The meeting notes may also be viewed in an archive file in the list of documents. Most of the documents are PDF files. They may be viewed or downloaded to the computer by clicking, provided Adobe Reader is present, or another program capable of reading PDF files. There are often more documents available at the site than are listed under "Documents" because they may not have been added to the documents.htm file yet. The web site is at

<http://stem2.org/>

To go directly to the "Documents" list:

<http://stem2.org/je/documents.htm>

3 Announcement of the Meeting

The July meeting of the STEM Society will take place on the second Tuesday of the month, July 13, 2010, at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The starting time will be 6PM.

One topic is: *The brightest star in the sky, Sirius, the Dogons, and some Astronomy Definitions.* Rich Kauffman has suggested that we go through the

derivation of the structure of the hydrogen Atom using Quantum Mechanics. So I invite anyone to make a start on this. Last week I viewed a C-Span book TV talk on a book about the philosopher Spinoza. He lived around the same time as Descartes, who believed that both the mind and body exists. Spinoza on the other hand believed that only the body exists. Spinoza presented much of his philosophy in a logical way in the style of Euclid. Spinoza was excommunicated from the Jewish community of Amsterdam for his views. He earned his living grinding lenses.

The Spinoza book is: "Betraying Spinoza: The Renegade Jew Who Gave Us Modernity" by author Rebecca Goldstein.

So I invite someone to talk about Spinoza.

There was a recent series of talks at Linda Hall Library called something like "Are we Alone?" It concerned the possibility of intelligent life in other parts of the universe. One talk on time travel I found especially interesting was given by Sean Carroll of Cal-Tech. He is a young leading expert on General Relativity. He works with Kip Thorne. I had a brief but interesting conversation with him. He has a semi-popular book on time travel called "From Infinity to Here." And I actually bought it for 26.95, which is saying something, since I very seldom pay more than a buck or two for books. He also has a general relativity book which I have not looked up yet. I asked him how it compared to the classic book "Gravitation." He said his book is shorter.

As always, all are encouraged to bring topics and projects to the meeting for discussion. That actually is the real purpose of our group.

I have recently updated the meeting notes archive:

<http://stem2.org/je/archive.pdf>

The Stem Society WEB link is:

<http://stem2.org/>

4 Meeting Notes

Dixon: the Dogons

Emery: Astronomy and a device to illustrate right ascension and declination.

Rick Hines: (1)Powering a very bright LED giving off very bright light. Perhaps these LEDs will become the new standard lighting devices.

(2) The Flooding of Carroll Cave.

5 Les Dixon: The Dogons and Their Advanced Knowledge of Sirius

Les gave a talk on the Dogon people of Mali and their advanced knowledge of the star Sirius, the brightest star in the sky. See "The Amazing and Intriguing Dogons," By Leon Dixon (2010), by clicking below.

<http://stem2.org/je/dogonsdixon.pdf>

The main Dogon village at the present time is Bandiarara Mali, which is at latitude 14.349328 degrees north and latitude -3.610765 (west).

6 Jim Emery: Sirius

The star Sirius is at Right Ascension 6 hours 45 minutes and 9 seconds and Declination -16.71 degrees. Sirius is actually a pair of stars called Sirius A and Sirius B. Sirius B is a white dwarf. Bessel in the 19th century provided indirect evidence that Sirius was a pair of stars, but a clear image of the pair has only been gained in recent years using the space telescope.

7 Jim Emery: An Astronomy Device for Locating Stars

8 Rick Hines: New Very Bright LED, and the Carroll Cave Flooding