



# **The Day the World Discovered the Sun: An Extraordinary Story of Scientific Adventure and the Race to Track the Transit of Venus**

*Mark Anderson*

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On June 3, 1769, the planet Venus briefly passed across the face of the sun in a cosmic alignment that occurs twice per century. Anticipation of the rare celestial event sparked a worldwide competition among aspiring global superpowers, each sending their own scientific expeditions to far-flung destinations to time the planet's trek. These pioneers used the "Venus Transit" to discover the physical dimensions of the solar system and refine the methods of discovering longitude at sea. In this fast-paced narrative, Mark Anderson reveals the stories of three Venus Transit voyages--to the heart of the Arctic, the New World, and the Pacific--that risked every mortal peril of a candlelit age. With time running out, each expedition struggles to reach its destination—a quest that races to an unforgettable climax on a momentous summer day when the universe suddenly became much larger than anyone had dared to imagine.

*The Day the World Discovered the Sun* tells an epic story of the enduring human desire to understand our place in the universe.

## **The Day the World Discovered the Sun: An Extraordinary Story of Scientific Adventure and the Race to Track the Transit of Venus Details**

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## **From Reader Review The Day the World Discovered the Sun: An Extraordinary Story of Scientific Adventure and the Race to Track the Transit of Venus for online ebook**

### **Adam Tierney-eliot says**

It was OK. The writing was pretty good if a tad overwrought at times. The story is a compelling one.

The real problem, though, is that it exists in a competitive arena of popular scientific/adventure history. Roughly 1/3 of this book is about James Cook, Joseph Banks et. al. They are well documented elsewhere.

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### **Tara says**

There are some technical aspects to this book, but mostly it involves the great historical and scientific triumph of the 1769 endeavor to calculate the course of Venus as it traveled between Earth and the Sun. Embarking to such far-flung places such as Siberia, Tahiti, and Vardø, these scientists battled against the elements, typhus, scurvy, and native populations (sometimes friendly, sometimes not), to gather the data they needed. Considering that this event only occurs twice within a century, it was of vital importance that the most accurate data was collected. For anyone who enjoys stories of adventure in the days of exploration and discovery, this would be a book that you would like.

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### **Jillian Greenawalt says**

I was really excited to read this, and the first chapter was fast paced and interesting, but the rest of the book was so slow, and bogged down in details that weren't interesting or relevant.

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### **Chad says**

For some reason I love learning about the history of scientific advancement. This book reads like an adventure novel. If anything, in fact, its focus on the hardships of the requisite travel that each team undertook in preparation for the observations was, to me at least, a distraction, albeit a pleasant one, from the more pressing questions of scientific progress undertaken by this worldwide collaboration.

The idea, presented by Edmund Halley, of Halley's Comet fame, was nothing short of ingenious: record as accurately as possible the beginning and ending of the transit of Venus across the face of the sun as seen from various vantage points on Earth, and with that data, the distance to the sun could be triangulated. For the first time in history, mankind would know the size of the solar system. The only problem? Venus transits the sun only twice about every 150 years. 1761 and 1769 are the two transits detailed in this book. Due to inclement weather in several of the locations chosen as well as some surprising optical effects poorly understood at the time, the data gathered during the 1761 transit were inconsistent and inconclusive. The world's scientists had one more chance, in 1769, which if they missed, would mean another century and a

half would pass before another attempt could be made.

This book details the travails of a handful of the teams that set out to record both the 1761 as well as the more successful 1769 transit. I enjoyed learning the kind of dedication the men on these teams exhibited, as well as the hardships they endured. Particularly admirable, I thought, was the account of Jean-Baptiste Chappe d'Auteroche, who was involved in both transits and who ultimately gave his life in his determination to further the cause of science. Also of note was that the famous Captain Cook was a key player on one of the transit teams.

A very interesting read. The Epilogue and the Technical Appendix are not to be missed, especially to those more interested in the history of science than the tales of adventure that comprise the bulk of this book.

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### **Ritchie says**

The Day the World Discovered the Sun covers the historical adventures involved in, and the build-up surrounding, the 1761 and 1769 transits of Venus.

It was posited by Edmund Halley that by using these transits it would be possible to calculate the distance between the Earth and Sun to a 98% certainty and so it proved, unfortunately Halley died before the transit occurred.

The book details, in addition to the myriad far-flung voyages to record the transits (Vienna, St. Petersburg, Mexico, Baja California, Siberia, Paris, arctic-circle Norway, South Pacific islands, Barbados, Cape Town, Tierra del Fuego, Copenhagen, Jakarta, Cadiz, Rio de Janeiro) the critical leaps in progress made in oceanic navigation, and in astronomical calculations such as the precise distance from the earth to the sun, during this fruitful period.

As well as about the transits its the people involved and the sheer obsession to record the transits.

i didnt feel it was the most gripping of books, whilst interesting it didn't fully engage me.

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### **Janet says**

A very interesting book about a subject I did not know at all. This is about the scientists of the 18th century, known as 'natural philosophers' and their striving to understand navigation, the planets, math, etc. The story focuses on their journey to figure out the exact distance from the sun to the earth and also to find an accurate way to know longitude while at sea. They used the 'Venus Transit', when Venus traveled across the sun, to get measurements to solve these questions. The transit took place in 1761 and 1769. The natural philosophers traveled to locations all over the earth to get measurements, for instance, Lapland, Siberia, Baja Peninsula, Tahiti. The book tells the story of their travels to these new and sometimes dangerous places. I found it very interesting even though the math and calculations were a bit over my head. One of my favorite incidents was when a Hungarian scientist in Lapland realized the Sami language is related to his native tongue, Hungarian. Highly recommend this book.

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### **Jenny says**

This is a wonderful story of adventure, political intrigue and more. I never realized how important the Transit of Venus was in centuries past, but the book makes me want to learn more. And I'm sorry that I didn't know about this in 2012 when the last transite of Venus occurred in this century. But it makes me want to find out about other wonders of the heavens that I need to be aware of.

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### **Tara says**

This book details the race to the ends of the earth to catch a glimpse of the Venus transit, which occurs only twice every 150 years. It was posited by Edmund Halley that by using this transit it would be possible to calculate the distance between the Earth and Sun to a 98% certainty AND HE WAS RIGHT! Be sure to read this book if you love adventure, science and astronomy! THE DAY THE WORLD DISCOVERED THE SUN has it all in one amazing read!

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### **Bruce says**

What did the invention of carbonated drinks, the European discovery of Australia, bureaucratic personalities rewriting scientific data to the detriment of the planet and a forgotten legacy that allowed Britain to rule the waves have in common? Read it and you'll find out.

A notably cheery book on what has the potential of a rather dry read, I really liked this book and my hat's off to Mark Anderson for telling the tale and placing so many things in perspective.

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### **Norman Weatherly says**

A thoroughly enjoyable read.

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### **John C. says**

The Day the World Discovered the Sun © 2012  
By Mark Anderson (Non-Fiction) – Non-Fiction – Venus Transit expeditions 1769

I'm not sure the title does this literature justice. It comes off sounding like a cheap Sci-Fi juvenile literature rag. The truth is this is anything but.

Mid eighteenth century, June 3rd, 1769 to be exact, a phenomenon was predicted to occur whereas the planet Venus would navigate across our sun in its entirety. On this occasion Venus would do so while also allowing a full observation from us here on Earth. This event rarely occurs every 100 years or more. The latest such event was last month on June 6th, 2012 and the next will not be until 2117.

Although entirely factual this novel reads nothing like a university level textbook. Rather it's more of a grand adventure story than a history lesson. Captain Cook figures prominently amongst other such notables

commissioned by their respective countries to venture to the far harsh reaches of our globe to attain the coveted measurements on that specific day. Most astronomers and their crews never even made it back alive. So what's the big deal? I'll spare the mathematical jargon but the astronomers of the day, as well as Kings and heads of State, were quite keen on measuring this event from different viewpoints around the globe. So keen in fact that all the world leaders put aside their indifferences, even ongoing war, to collaborate and allow the specific detailed measurements to transpire. The results were then calculated and shared with one another the world over. Such global cooperation has never been attempted before this time and has also never been equaled since!

These calculations would reveal for the first time our explicit place in the universe. Particularly distances as in how far away the sun is, our neighbouring planets and so on measured in miles. The religious overtones for such mysteries of the day ran deep. Amongst this and other answers, the finer establishment of 'longitude' navigational skills would also come about. The multitude of lost sailing vessels and lives due to miscalculations in longitude were epidemic up until this time. Battles were lost due to war ships crashing into reefs of simply missing their intended mark by hundreds of miles.

This novel is undoubtedly the best way to get a History lesson hidden within a globetrotting adventure story. I recommend the effort.

By John Archibald, July 2012

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### **Sylvia Walker says**

Very engrossing, this book read like an adventure novel.

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### **Nick says**

This is a useful addition to the wealth of stories out there that are related to the effort to graph the two transits of Venus in the 1860s. The first voyage of Captain Cook with Joseph Banks is well known. This book also follows an expedition that ended up in Baja California and another that went to Lapland. Inclement weather, rough travel conditions, politics, epidemics, fractious native peoples, and finally, rocky data analysis dogged the project, which was one of the first global "big science" efforts. The AU or astronomical unit of 93,000,000 miles was indeed calculated, and the book has a nice appendix on the mathematical techniques involved in getting to that number. The author also does a good job of discussing why accurate observations and painstakingly calculated lunar and stellar almanacs were vitally important, as the celebrated Harrison chronometers did not become widely available for some years.

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### **Laurie Murphy says**

I don't give 5-star reviews lightly but this book made the cut. Drawing heavily on the diaries and available documents of the scientists, the book recounts their adventures as they traveled to remote parts of the globe to chart the two transits of Venus across the sun that occurred in the 1700s. The purpose was to discover the dimensions of the solar system by determining the distance from the Earth to the Sun and, as a by-product, contribute to the methodology of accurately determining longitude at sea. The ordeals of just getting to the locations with their cumbersome equipment (the tip of Africa, north of Finland, remote Russia and what is now Baja California) was just the start. Once there they had to construct observatories, deal with

superstitious natives and just for fun, a bout of the plague that decimated their ranks. In between the two occurrences was the politics involved among the competing countries and attempting to determine whose calculations were correct. Captain Cook and Mason and Dixon were among the notable figures involved. This is a fast-paced narrative that is both an adventure tale and a peek into the evolving scientific methodologies in the 1700s.

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### **Julian Simioni says**

It took me a long time to get through this book. I actually read through half way almost a year ago, tried to pick up where I left off, and had to restart from the beginning. Partially, it's because of the way this book is structured: it tracks multiple simultaneous happenings at any one time, and so it's hard to keep track of what is happening where relative to anything else. And more, the writing style, while enjoyable and sometimes wonderful, is hard to read through without focus, making this book hard to get through when reading just before bed after a long day, as I usually do. But, it's a great set of stories, about an interesting time and subject, so I enjoyed it.

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