

## **Textbook Myths. . . and How to Deal with Them**

*Diana Waring & Dr. Jay Wile*

Most of us were taught that ancient people thought the earth was flat. According to what we learned, Columbus had trouble getting support for his voyage because most people thought he would fall off the edge of the earth. It turns out that's a myth.

The ancient Greeks knew the earth was a sphere. About 200 BC, Eratosthenes measured the length of a pole's shadow in Syene when the sun was directly overhead. He then traveled to Alexandria (about 500 miles away) and measured the same shadow on the same day the next year at the same time. Using geometry, he calculated the circumference of the earth to within 2% of its correct value!

The ancient Christians also knew the earth was a sphere. Basil of Caesarea (c. 330-379) wrote that the earth is a sphere that is nested inside the heavenly sphere. Other ancient Christian philosophers, like John Philoponus (490-570) agreed. He said that the idea of a flat earth was the product of an uneducated fool.

### **Where did the myth come from?**

“The myth that a flat earth was part of Christian doctrine in the Middle Ages appears to have originated with Sir Francis Bacon (1561 – 1626), who wrongly claimed that geographers had been put on trial for impiety after asserting the contrary.” -Dr. James Hannam, *The Genesis of Science*, Regnery Publishing 2011, p. 28

“The myth that people thought Columbus would sail off the edge of the earth was popularized by Washington Irving (1783-1859). According to respected Columbus biographer Samuel Eliot Morison, Irving's version the story is ‘pure moonshine. Washington Irving, scenting his opportunity for a picturesque and moving scene,’ created a fictitious account of this ‘nonexistent university council’ and ‘let his imagination go completely...the whole story is misleading and mischievous nonsense.’ - Jeffrey Burton Russell, *Inventing the flat earth: Columbus and modern historians*, Praeger Pub 1991, p. 53

### **Regardless of the facts, most people think otherwise:**

Students at California State University, Fullerton were asked what issue hampered Columbus in getting support for his voyage. 80% said the issue was that the earth was flat. Only 1% gave the correct answer: that the scholars of the day knew the earth's circumference was very large (roughly 25,000 miles). As a result, it was thought that no ship could make such a long voyage. ([psych.fullerton.edu/mbirnbaum/psych101/Columbus.ppt](http://psych.fullerton.edu/mbirnbaum/psych101/Columbus.ppt))

### **Why do myths like these persist?**

Most textbook authors don't rely on primary or secondary sources. They just repeat what other authors have said. In addition, it fits into our cultural stereotype of ancient people being ignorant and stupid.

### **Another myth: Blue Blood**

“The various body organs have used up the oxygen in this blood, so the returning venous blood is blue.”- Louis R. Caplan, *Stroke*, Accessible Publishing Systems 2008, p. 40

“Oxygen is extracted (removed from) the haemoglobin when the blood reaches the organs and cells. Red cells without oxygen look dark blue.” Clive Handler and Gerry Coghlan, *Pulmonary Arterial Hypertension*, Oxford University Press 2010, p. 19

This myth persists because medical illustrations often color the arteries red and the veins blue. Also, your veins look blue underneath your skin. Their blue appearance has to do with how light travels through skin, not the color of the veins. The veins and the blood in them are dark red.

### ***The First Thanksgiving?***

[As] a spirit of gratitude filled their hearts, they resolved to prepare a great feast of Thanksgiving, and invite to it their Indian friends who had helped to make all this possible. . . . What a dinner it must have been, and what a company to eat it! There sat the old Indian king Massasoit, at the head of the board, with Governor Bradford, while down the long table on each side sat the ninety braves and their white hosts, headed by Captain Standish. Back and forth from the kitchen went Priscilla and the other girls busily keeping the plates filled. Never was seen such a feast in the New World.

-J. Walker McSpadden, *The Book of Holidays* (New York: Thomas Y. Crowell Co., 1940), p. 290.

### **The real story:**

“In his letter—the main purpose of which was to convince the investors that they weren’t throwing their money away—Winslow described the houses the Pilgrims had built, listed the crops they had planted, and emphasized the success they had been blessed with. To underscore the latter, he added five sentences describing the abundance they now enjoyed.”

-Dr. Robert Tracy McKenzie, “First Thanksgiving”, 2013

### **The only mention of the actual first Thanksgiving:**

“Our harvest being gotten in, our Governor sent four men on fowling; that so we might, after a more special manner, rejoice together, after we had gathered the fruit of our labours. They four, in one day, killed as much fowl as, with a little help besides, served the Company almost a week. At which time, amongst other recreations, we exercised our Arms; many of the Indians coming amongst us. And amongst the rest, their greatest King, Massasoit, with some ninety men; whom, for three days, we entertained and feasted. And they went out, and killed five deer: which they brought to the Plantation; and bestowed on our Governor, and upon the Captain, and others.”

### **How do we know what to believe?**

For science: Be willing to be skeptical of what you read in a textbook. Just because it is in a textbook doesn’t mean it is correct.

For history:

Keep an open mind. History often challenges us—if it confirms everything you already believe, you’re probably not getting it from a good source.

### **Find reliable sources**

Check the author’s background, education, degrees.

Publications from university presses tend to be more reliable—though the academy is not always right.

Check copyright dates. New historical/archaeological finds may alter interpretation. Example: Jamestown.

### **When looking things up on the internet:**

1. Look at the extension - “.edu” means university or school.
2. Look for references to support the statements made, and CHECK THEM!
3. When you get a link to a specific article, erase everything after the extension and see what the “front page” is. This can help you determine the source.

### **Cultural bias**

Bias: prejudice in favor of or against one thing, person, or group compared with another, usually in a way considered to be unfair

The copyright of textbook/source book and the country of origin may reveal bias.

Examples:

Strong anti-Catholic bias in the 1800’s.

*Sweet Land of Liberty* by Charles Coffin

Racism in early WWI publications from Britain/USA.

### **When comparing works from a Christian viewpoint and works from a secular viewpoint, keep these three things in mind:**

1. A Christian text is just as likely to get a FACT wrong as is a secular text.
2. The main difference between Christian texts and secular texts is the INTERPRETATION of the facts. That’s where a Christian book is more likely to be superior—the interpretation is done from a more correct set of assumptions.
3. Be willing to question even the interpretation in a Christian text. Some Christian authors read far too much into the facts.

**Don’t be afraid! Education isn’t about “filling the bottle.” It is about discovering how to learn and how to investigate.**