

Bibliography

Aczel, Amir D. The Mystery of the Aleph: Mathematics, the Kabbalah, and the search For Infinity. New York: Four Walls Eight Windows Publishing, 2000.

This book has a great history section, although heavily along religious/philosophical lines, and then it kind of bounces around from set theory, Bolzano and Galileo, to Kabbalah and Cantor. Aczel covers a very wide range of topics and has a considerable interest in metaphysics. I probably won't use it much for my project but I am definitely going to buy it for my own personal use.

Maor, Eli. To Infinity and Beyond. Boston: Birkhauser, 1997.

This book gives a brief summary of the history of infinity and then continues with some applications of it in the math as well as the cultural world. Maor touches on many subjects that include the idea of the infinite such as art, philosophy, topology, and a number of interesting paradoxes that arise from the contemplation of the infinite. This is a very accessible book and will probably be used as my main source.

Rucker, Rudy. Infinity and the Mind: The Science and Philosophy of the Infinite. Boston: Birkhauser, 1982.

Rucker's book is sort of a combination of all the others. It has a small history section, a nice description of various sorts of infinities, both mathematical and non-mathematical, and then a dive into metaphysics with a small section on Cantor towards the end.

Zippin, Leo. Uses of Infinity. New York: Random House, 1962.

Another accessible book for me, this one doesn't have much history and deals with infinity strictly in the mathematical sense. Topics include limits, transfinite numbers, a great section on constructing proofs and the square root of two. The square root of two is interesting, it is the only thing that has consistently appeared in each and every source I have acquired.

www.mathacademy.com/pr/minitext/infinity/index.asp#hist

This is a really good history of infinity website, very straightforward and contains the philosophical roots of the concept as well as today's mathematical utility of infinity. The site discusses Cardinals and the origins of Cantor's set theory as well.

www-gap.dcs.st-and.ac.uk/~history/histtopics/infinity.html

This is quite possibly the greatest math history website on the planet. J.J. O'Connor and E.F. Robinson consistently provide me with great information and resources for whatever it is I am researching, at least mathematically. A very detailed history is provided, along with links to nearly every historical figure mentioned in the development of infinity as a tool of mathematics. Highly recommended.

<http://scidiv.bcc.ctc.edu/Math/infinity.html>

A very general and brief website that I used for my semicircle/infinite line construction.

http://www.iro.umontreal.ca/~paquetse/knoweb/one-to-one_mapping.html

I used this site only for its excellent definition of one to one mapping which I used on my worksheet.