Anathem, by Neal Stephenson

- **Paperback:** 981 pages

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Published in 2008, *Anathem* is a wonderful book, especially for mathematicians, and while it qualifies as a science-fiction book, it blurs the frontiers between the genres of science-fiction, speculative fiction, documentary writings and epistemology This explains why it was reviewed in Nature. In parallel, the book was awarded the 2009 Locus SF Award. And got top-rank best seller position in the New York Times. So *Anathem* has true sci-fi characteristics, including Arthur C. Clarke's bouts of space opera with a *Rama*-like vessel popping out of nowhere. But this is not the main feature that makes Stephensons book so unique and fascinating, enough to deserve a review in CHANCE.

> *"The Adrakhonic theorem, which stated that the square of a right triangle hypotenuse was equal to the sum of the squares of the other two sides..." (p.128)*

While the story is universal enough to appeal to all readers, witness the above-mentioned award, what I find most endearing about the book is the connection with mathematical thinking and the many ways mathematicians share characteristics with monks. The universe imagined by Stephenson segregates scientists and philosophers into convents, under strict rules that prevent any theoretical discovery to be turned into a technological application. This appears to have been imposed by the secular powers after scientific experiments on anti-matter, nuclear fusion or genetic engineering ran out of control. The final twist in the story is how the scientists manage to escape this prohibition while apparently adhering to it (and save the planet on the side).

> *"Do you think it is the case that for every proof you and the other Edharians work out on a slate, the aliens have a proof in their own system that corresponds to it? That says the same thingexpresses the same truth?" (p.314)*

Beside the attractive order of a monastic closed environment (and the appeal of being shut from the outside world!), one appeal of Stephensons construct is the almost detective enquiry of the "mathematical monks" who end up solving fundamental quantum theory questions about parallel universes. Toying with all those theories is obviously another appeal of *Anathem*, as is fishing for well-known principles like Occams razor, the travelling salesman problem, cord theory, Einsteinian causality cone, Schrdingers cat, Platonic realism, and so on. (There are just too many quotes I could have included in this review!) Some may find the deliberate hiding of standard theory behind a novlangue a nuisance but this is rather light and one quickly gets used to it. (Until the aliens start detailing their parallel universes, at least.) Maybe the title should have been *Amathem* rather than *Anathem*, given that the monastic communities are called math, but this is a minor quibble. (It took me a while to realize that anathem was not an English world, as I had extrapolated the French *anathème* to its English-sounding counterpart!)

> "I was playing the Teglon. The objective of the game was to build the pattern outward from one vertex and pave the entire Decagon in such a way that the groove formed a continuous, unbroken curve from the first vertex to the last." (p.552)

Compared with earlier works of Stephenson like the wonderful cyberpunk novel *Snow Crash*, *Anathem* is closer to *The Baroque Cycle*, a novelised account of 17th and 18th centuries science, involving characters like Newton and Leibnitz, and to the excellent *Cryptonomicon*. Both *Anathem* and *The Baroque Cycle* reflects on how deep is pondering on the nature of Science and the philosophy of scientific discovery. That Stephenson manages to turn those reflections into a lively and fascinating story—much more so here than in *The Baroque Cycle*—demonstrates how impressive an author he is. Even some readers may complain of lengthy passages, I think the book should greatly appeal to scientific minds for its wealth of considerations on mathematics, physics, and philosophy.

Further references

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