

The Making of the Fathers of Astronomy Exhibit

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Key Words

IYA2009
Exhibitions
History of Astronomy

Summary

The International Year of Astronomy 2009 stretched a few days into 2010 here in Louisville, Kentucky — the Fathers of Astronomy exhibit at the Frazier International History Museum did not close until 3 January 2010. Fathers of Astronomy, which was open for five months, told the story of Galileo through authentic original editions of three books — the 1493 *Nuremberg Chronicle*, Nicolas Copernicus's 1543 *On the Revolutions of Heavenly Spheres*, and Galileo Galilei's 1632 *Dialogue Concerning the two Chief World Systems*. The success of "Fathers" resulted from three very different partners coming together and combining resources to produce a history-themed IYA2009 programme of the highest quality at minimal cost. Lessons learned from the exhibit may be of value to people interested in communicating astronomy to the public.

Introduction

The three partners behind the Fathers of Astronomy exhibit were the Frazier International History Museum, the University of Louisville Libraries, and Otter Creek–South Harrison Observatory. Each partner made a unique contribution without which "Fathers" could not have existed.

The Frazier International History Museum (Figure 1) in Louisville seeks to bring history to life through live interpretations by costumed interpreters, multimedia presentations, educational programming and hands-on learning. The museum's exhibits

include the Frazier's permanent collection and a substantial collection from Britain's Royal Armouries. The Frazier contributed the space for the Fathers of Astronomy exhibit; the professional resources to properly handle, display and keep safe the extremely rare books that were the centrepiece of the exhibit; and the marketing expertise to get word of the exhibit to the public.

The University of Louisville (UofL) Libraries' Department of Rare Books and Special Collections supports the academic programmes of the University of Louisville. The collections are available for use by all faculty and students. In addition, the staff produce

exhibitions, special lectures and other presentations to enhance the quality of classroom teaching and to present the collections to a wider public audience. Within Rare Books is the William Marshall Bullitt Collection of rare first editions of key publications in the history of science, including works by Gauss, Copernicus, Newton, Euclid and Kepler. UofL contributed to Fathers of Astronomy the artefacts of the exhibit — the books themselves.

Otter Creek–South Harrison Observatory is a small public observatory. This observatory is jointly operated by Jefferson Community & Technical College of Louisville, Kentucky,

and the Parks and Recreation department of Harrison County, Indiana. Its primary mission is education and outreach, but it is also the site of an active programme of research in the area of historical astronomy. Otter Creek–South Harrison Observatory contributed to Fathers of Astronomy the initial impetus for the exhibit, some key networking, and the explanatory materials (display panels) for the exhibit.

Fathers of Astronomy was conceived when I approached Delinda Buie, Curator of Rare Books at UofL, about doing a IYA2009 programme with a history of astronomy theme. Buie was excited about the idea; she wanted a programme in which the public could get significant direct exposure to the key scientific works of the Copernican Revolution in the Bullitt Collection — the original works of Copernicus and Galileo. The question was, where could these valuable works be publicly displayed? Few institutions in Louisville could handle such artefacts, but somewhat providentially, Buie suggested a place where it would be suitable — the Frazier. Before long Buie, Madeleine Burnside (the Frazier's Executive Director) and I were sitting down for a meeting, and Fathers of Astronomy began to come together in earnest.

Creating "Fathers" required all parties to learn. No one had a steeper learning curve than the astronomer on the team — me. The pages of this journal have included various references to astronomers' skill (or lack thereof) in communicating with the public. I received a crash course from the Frazier's staff in how to write for the visiting public. Informative panels were to contain no more than 150 words, plus up to three images that could feature captions of 50 words maximum.

Astronomer (outraged): "One hundred and fifty words? You must be joking."

Frazier staff (patiently): "If you go longer than that, people will be overwhelmed and will not read it."

Astronomer (still outraged): "What point is there in making an exhibit with no content?"

Frazier staff (still patiently): "You do not have to eliminate content — you just have to figure out precisely what you want people to know, and then say just that, and succinctly. You can do it."

Indeed, I learned that I could! I cut the word count of my original drafts for the informative panels by over 60%. In the end I became convinced that following the Frazier's guidelines resulted in a final product that did not sacrifice content, and that was vastly improved.

There were other compromises. Buie and I envisioned a short exhibit, but Burnside urged that it run for half a year. I pushed for the exhibit to focus on Galileo's story from a scientific perspective — what he did and saw and why his work was influential — and to stay away from broader "science and society" or "science and religion" themes. Then there was the question of which books would be in the exhibit — *On the Revolutions* and the *Dialogue*, yes, but should they be accompanied by the Bullitt collection's original edition of Newton's *Principia*? That would help to illustrate the direction of science after Galileo. Or perhaps they should be accompanied by the *Nuremberg Chronicle*, a large and beautiful book that would help to illustrate a pre-Copernican worldview. Finally, the space available did not allow for all four books to be displayed. Ultimately we settled on a five-month long exhibit, with the *Chronicle* accompanying *On the Revolutions* and the *Dialogue*; the display panels presented a strongly scientific focus, but there

was some mention of broader themes in the book labels.

The exhibit could never have happened were it not for 21st century technology — or at least it could never have happened without a much larger budget. The Frazier had materials on hand for creating exhibits, but no resources specific to the history of astronomy. To provide historical background, explanatory information, and just nice pictures for people to look at, we used high resolution images of books from the Bullitt Collection. What's more, the University of Oklahoma Libraries' History of Science Collection granted us permission to use high resolution images from their online archive. Therefore our display material included images from books such as Galileo's 1610 *Starry Messenger* and the works of Tycho Brahe. To develop museum-quality panels we simply created what we wanted in very high resolution PDF format and dropped the PDFs off at a local print shop with a large-format printer. They did a fine job creating the panels and a large backdrop for one of the exhibit cases (see Figures 2 and 3) for a very reasonable cost. The visiting public never knew that this exhibit of books was put together for so little cost, using local resources.

The three partners for Fathers of Astronomy would have liked the public to know more about the local nature of the exhibit. The Frazier was quite successful in getting the media's attention. Two regional TV stations had coverage of "Fathers" on their news programmes, complete with camera footage of the exhibit and commentary from the Frazier staff. One of Kentucky's major newspapers ran a story, as did the local public radio station. "Fathers" even garnered some brief national exposure, being the Event of the Day on NBC's *Early Today* show (Figure 4). But the local nature of the exhibit was not featured in the media coverage. All three exhibit

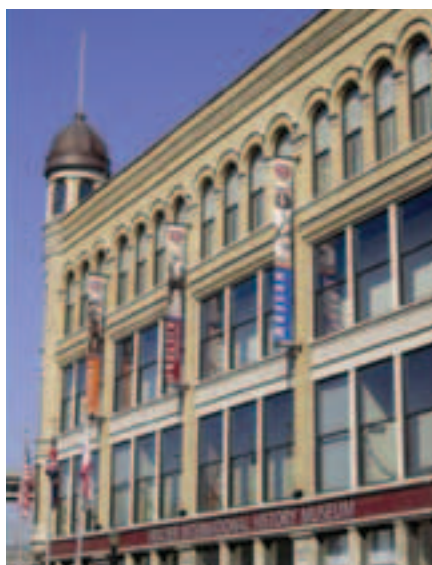


Figure 1. The Frazier International History Museum in Louisville, Kentucky.

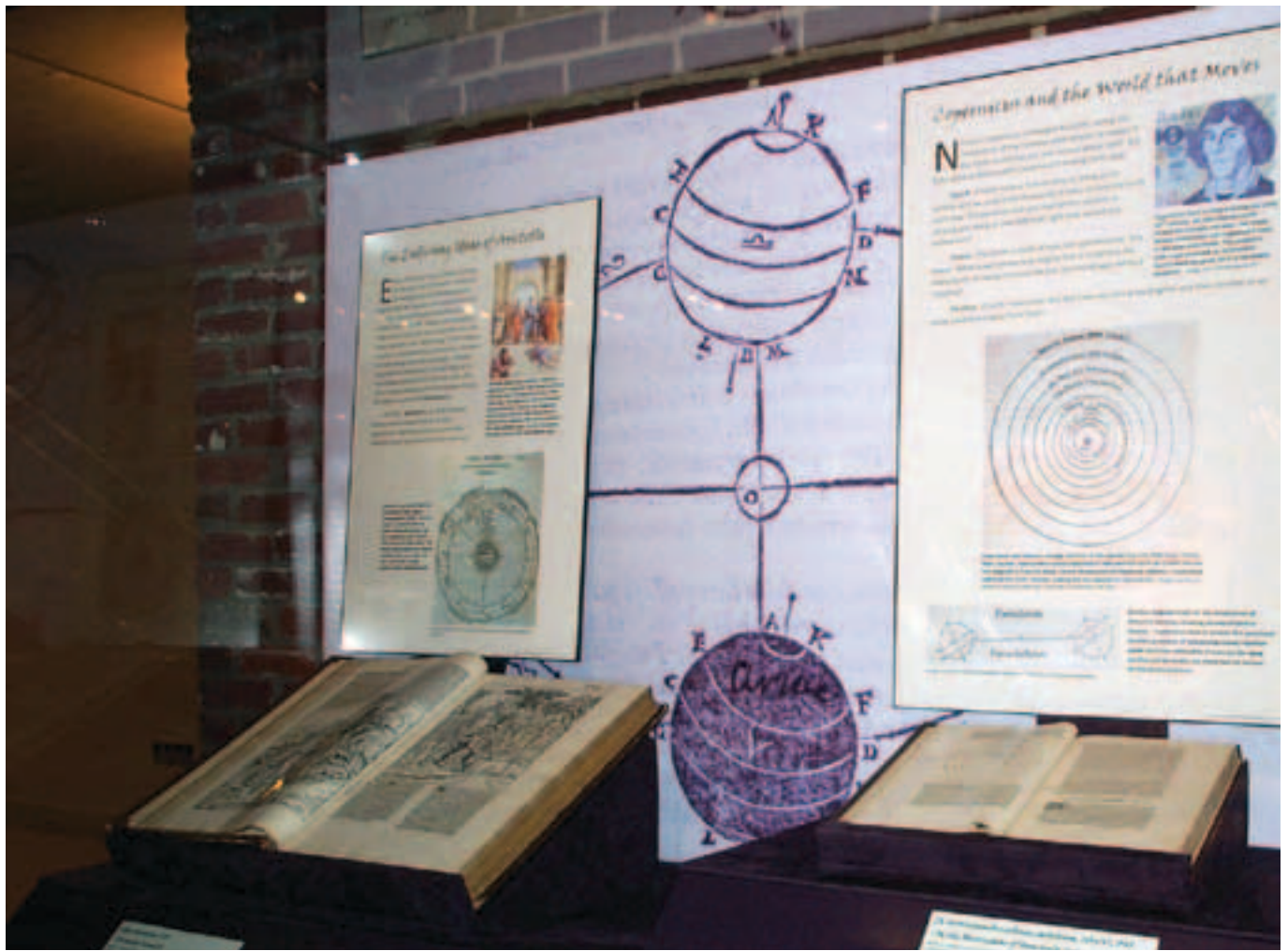


Figure 2. Display of original editions of the Nuremberg Chronicle and On the Revolutions of Heavenly Spheres, in the Fathers of Astronomy exhibit at the Frazier international History Museum.

partners have an ongoing interest in communicating to the public of Kentucky that local resources exist — be it a museum, a collection of rare books, or a public observatory with outreach and research. The challenging nature of communicating the local aspect of Fathers of Astronomy probably means that

the media coverage will not translate into a wider awareness of, for example, the existence of the Bullitt Collection's astronomical treasures.

Another challenge revealed itself over time. The Frazier reports that interest in Fathers of

Astronomy was strong. People who saw the exhibit liked it. People came to the museum specifically for "Fathers". However, as an astronomer, I was disappointed in many people's reactions to it — or to be more specific, their lack of reactions. My family has a membership at the Frazier and my wife is a long-



Figure 3. Informative panels in the Fathers of Astronomy exhibit.



Figure 4. History of Astronomy was the Event of the Day for 23 September 2009. NBC's commented, "Open your minds to books from centuries past written by groundbreaking scientists and dealing with the skies above, at 'Fathers of Astronomy' at the Frazier International History Museum."

time volunteer, so I had plenty of opportunity to surreptitiously watch people going by the exhibit, which was prominently located near the doors of the museum. In doing so, I had the humbling experience of seeing people, who had paid admission to visit a museum and therefore already demonstrated some interest in learning, walk right past something I think is absolutely fascinating. We astronomers tend to think that people will love — LOVE! — the things we think are

interesting, if only we expose them properly. Fathers of Astronomy disabused me of that notion! Yes, plenty of people took a real interest in "Fathers". But plenty more did not even glance at it as they walked by. Were we to do the exhibit again I might suggest a large interactive device — a telescope set up to look at a little picture of the Moon on the far wall, or a coin well to demonstrate orbital motion — but would that simply get some of those who just walked by the exhibit to merely glance at the telescope or play with the coin well? Despite the International Year of Astronomy 2009; despite Galileo's work being unbelievably influential in making our modern world what it is today; despite having his original work in the exhibit; despite the exhibit being in a beautiful, fantastic museum with a supremely competent staff; in short, despite having ideal conditions to communicate this aspect of astronomy to the public, to many people Galileo and the story of astronomy is "not even uninteresting". This does not take away from the exhibit's success. But it does offer a sobering lesson in the realities of trying to communicate astronomy to even the museum-going public.

But the lesson was not too sobering. All three partners are very happy with Fathers of Astronomy, as evidenced by the plans afoot for further collaboration in an exhibit on Isaac Newton! We are all very happy to have been able to bring the story of Galileo and an original *Dialogue Concerning the two Chief World Systems* to the public during the International Year of Astronomy 2009 (Figure 5).

Biography

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Figure 5. An original edition of Galileo's *Dialogue* on display at Fathers of Astronomy.