Christopher M. Graney  
Otter Creek–South Harrison Observatory  
Jefferson Community & Technical College, USA  
E-mail: christopher.graney@kctcs.edu

The Making of the Fathers of Astronomy Exhibit

Christopher M. Graney  
Otter Creek–South Harrison Observatory  
Jefferson Community & Technical College, USA  
E-mail: christopher.graney@kctcs.edu

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,
Fathers of Astronomy was conceived when I approached Delinda Buie, Curator of Rare Books at UofL, about doing a IYA2009 pro-
gramme 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 public-
displayed? Few institutions in Louisville could handle such artefacts, but somewhat
provocatively, 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 vari-
ous 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 guide-
lines 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 origi-
nal 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 pre-
sented 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 dis-
play 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 pro-
grammes, 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 sta-
tion. “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 fea-
tured in the media coverage. All three exhibit

Figure 1. The Frazier International History Museum in Louisville, Kentucky.
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-
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 some-
thing 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 inter-
est 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 inter-
active 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 unbeliev-
ably 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 try-
ing 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 Inter-
national Year of Astronomy 2009 (Figure 5).

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 writ-
ten by groundbreaking scientists and dealing with
the skies above, at ‘Fathers of Astronomy’ at the
Frazier International History Museum.”

Figure 5. An original edition of Galileo’s
Dialogue Concerning the two Chief
World Systems on display at Fathers of Astronomy.

Biography

Christopher M. Graney is an astronomer
at the Otter Creek–South Harrison Ob-
servatory and professor of Physics at the
Jefferson Community & Technical College,
Louisville, KY. Personal website: http://
legacy.jefferson.kctcs.edu/faculty/graney/