

THEATRE

Ten years of science off Broadway

Alan Packer

Breaking down the walls that divide scientists from the rest of society is the goal of the First Light Festival of plays about science and technology, produced by the Ensemble Studio Theatre in New York City, with the support of the Alfred P. Sloan Foundation. The festival celebrates its tenth anniversary this month.

Each year, the theatre solicits proposals for science-related plays, especially those that challenge stereotypes. "The ones that get lost in the research tend to be dry, but those that portray scientists as fully three-dimensional human beings, and show the context of their lives, are more successful," says current artistic director William Carden.

A dozen projects are awarded grants ranging from US\$500 to \$10,000, and the annual festival presents the plays in various stages of production during its month-long run. Playwrights are paired with academic advisers, such as physicist Brian Greene and biologist Darcy Kelley.

This year's productions include *Pure* by Rey Pamatmat, about the British mathematician Alan Turing; *The Flower Hunter*, a specially



Damien Atkins's 2007 play *Lucy* explores teenage autism.

commissioned work by distinguished playwright Romulus Linney, which dramatizes the life and work of William Bartram, one of America's first naturalists; and Amy Fox's play about sudden infant death syndrome, *By Proxy*.

Founded as a developmental theatre in 1972

by the late Curt Dempster, who served as its artistic director for 35 years, the Ensemble Studio Theatre's reach is much greater than its modest home on West 52nd Street in Manhattan suggests. It nurtures new artists and plays by commissioning works and offering ongoing development and a venue.

Past plays have featured celebrated actors such as Cynthia Nixon, and have gone on to theatres around the world to much acclaim. Noteworthy productions include Arthur Giron's *Moving Bodies*, which dramatized physicist Richard Feynman's colourful life and career, Paul Mullin's *Louis Slotin Sonata*, about the fatal slip of a Los Alamos physicist, Bob Clyman's *Secret Order*, on battles between scientists on the verge of a breakthrough in cancer research, and *String Fever* by Jacqueline Reingold, which infuses string theory into the romantic life of the main character.

A *New York Times* reviewer wrote in 2006 that the series was "always guaranteed to send audiences out with plenty to think about". Although the cultural impact is difficult to gauge, exposing theatregoers to nuanced portrayals could reshape the view of scientists in the popular imagination.

Alan Packer is senior editor at *Nature Genetics*.

The First Light Festival runs until 26 April
(www.ensemblestudiotheatre.org).

HISTORY

An astrolabe for the people

Philip Ball

The fate of a rare fourteenth-century astrolabe quadrant — a kind of medieval pocket calculator — hangs in the balance while the British Museum in London tries to raise £350,000 (US\$700,000) to acquire it before its deferred release to a private buyer. The palm-sized brass device can be used to determine the time of day from the position of the Sun and to calculate the date of Easter, among other functions.

The simplicity of the instrument suggests that, in the Middle Ages, some sections of English society were surprisingly literate in basic mathematics and astronomy. Most surviving astrolabes, whether standard disc-shaped devices or quarter-circle quadrants, are elaborate instruments capable of astrological calculations that require specialist academic knowledge. This one is a stripped-down, everyday item — something that a cleric or a merchant could have carried for convenient time-keeping. "You had to know some

astronomy to work one of these devices," says Jim Bennett, director of the Museum of the History of Science in Oxford, UK. It suggests, he says, that people of the time "had a closer astronomical awareness than we do now".

Found in 2005 at Canterbury, UK, the quadrant has been dated to about 1388, around the time that Geoffrey Chaucer began to write *The Canterbury Tales*. Chaucer was highly informed about astronomy and astrology. In 1391, he wrote a treatise on astrolabes that became the standard reference text for several centuries. The Canterbury quadrant was excavated from beneath a series of clay floors on the site of an old inn, just outside the city's walls on the main road towards London. Perhaps it was lost at the inn by a merchant travelling to or from Canterbury, rather like Chaucer's pilgrims.

The instrument was initially put up for sale in 2007 by the London auctioneers Bonhams, and was expected to fetch £60,000–£100,000. Subsequent private

Palm-sized 'calculator' for medieval pockets.



dealings led to an agreed sale at more than three times the original figure.

The identities of the dealer and the latest buyer have not been made public.

Because of the cultural importance of the astrolabe quadrant, Britain's culture minister, Margaret Hodge, was persuaded by a review committee to defer granting an export licence for it until June 2008 to give the British Museum time to try to buy the instrument for its new medieval gallery. Such deferrals are more usually applied to works of fine art than to scientific items.

The existence of this practical

device in Chaucer's time sheds new light on his astrolabe treatise. His dedication of the book to his son had left scholars bemused. It seemed hard to believe that a young person would have understood how to use an astrolabe. The Canterbury quadrant "supports the idea that Chaucer could write such a treatise at a popular level", Bennett explains. "It suggests that this kind of knowledge wasn't too arcane or academic."

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