

FLAT EARTH THEATRE PRESENTS

Copenhagen  
BY MICHAEL FRAYN

Directed by Jake Scaltreto

January 6<sup>th</sup> - 14<sup>th</sup>, 2012  
The Factory Theatre  
Boston, MA

COPENHAGEN  
BY MICHAEL FRAYN  
Directed by Jake Scaltreto

CAST

WERNER HEISENBERG	Kevin Kordis
NEILS BOHR	Matthew Zahnzinger
MARGRETHE BOHR	Emily Hecht

CREW

PRODUCER	Coriana Hunt Swartz
STAGE MANAGER	Amy Lehrmitt
DRAMATURG	David N. Rogers
SCENIC DESIGN	James Hayward Jake Scaltreto
SCENIC DESIGN CONSULTANT	Nate Kruback
COSTUME DESIGN	Cara Chiaramonte
LIGHTING DESIGN	Matt Breton
SOUND DESIGN	Chris Larson
SOUND DESIGN ASSISTANCE	Kyle Lampe
GRAPHIC DESIGN	Amelia Fountain
TECHNICAL DIRECTOR	Karen Hart
ELECTRICIANS	Stewart Holmes Devon Jones
DIALECT COACH	Devon Jones
SOUND BOARD OP	Stewart Holmes
LIGHT BOARD OP	Devon Jones

ABOUT THE PLAYWRIGHT

Michael Frayn is a writer of fiction and non-fiction for print, stage, and screen. He is best known for the internationally beloved farce *Noises Off*, for which he received a Laurence Olivier award. He has also been the recipient of numerous other awards, including a Tony for *Copenhagen* in 2000. Frayn's work often uses humour to address complex philosophical questions. Frayn's other playwrighting credits include *Noises Off* (1982) and *Democracy* (2003).

**SPECIAL NOTE**

*Copenhagen* is produced by special arrangement with Samuel French, Inc.

Flat Earth is a proud member of the

**small theatre**  
**ALLIANCE**  
**of boston**

## CAST BIOS

**Kevin Kordis (Heisenberg)**, a 2007 graduate of Umass Amherst, has spent the last four years working in the Boston theater community and has found a home in Flat Earth Theatre. Past company work includes *R.U.R.*, *Twelve Angry Jurors*, *Blood Relations* and *On This Moon* (premier). Also performed in the one-man show *The Bomb*, which premiered at the Anarchist Theater Festival '10 in Montreal. Other works include *The Illusion*, *Arms and the Man*, and *Titus Andronicus*. He is very grateful to have many good friends and family who support him in his endeavors.

**Matthew Zahnzinger (Bohr)** is thrilled to be acting again with Flat Earth. A Brockton native, Matthew has most recently worked with Moonbox Productions in *Lucky Stiff* (Harry Witherspoon). In the greater Boston area, Matthew has also performed with the Longwood Players in *The Secret Garden* (Archibald Craven) and *As You Like It* (Usher; DASH nominee), as well as the Riverside Theatre Works and Holland Productions. He was also in the premier of *Love Letters Made Easy* at the Lost Nation Theatre in Montpelier, VT, and has spent two summers with the Peterborough Players in New Hampshire, past productions including *The Torchbearers*, *Tom Sawyer*, and *Our Town* with James Whitmore. Matthew has studied at the Gaiety School of Acting in Dublin, Ireland, and has a B.A. in Theatre and English from Northeastern University.

**Emily Hecht (Margrethe)** is thrilled to be working with Flat Earth Theatre for the second time. After graduating from Harvard in May of this year, she performed in several Boston area productions, including *Bug* with Flat Earth, and *T: An MBTA Musical* and *Gorefest IX* with ImprovBoston. She was recently a 2011 BroadwayWorld Boston Awards nominee for Best Actress in a Musical (Small/Fringe) for *MBTA*. University credits include *The Mineola Twins* (Myra/Myrna), *tick, tick... BOOM!* (Susan/Karessa), *Hamlet* (Rosencrantz), and *Godspell* (Joanne). She would like to thank Mom and Dad and lots of other people.

## SPECIAL THANKS

The Factory Theatre  
Church of the Good Shepherd  
James Donna  
MIT  
Boston Light & Sound  
Leigh Downes

### Extra Special Thanks To Our Pantheon Members:

Joseph Scaltreto  
Sarah Smith & Fred Perry  
Stephen Burgay  
Mark Steadman

## ALSO THIS SEASON...

### *Pirate Lives! The Musical!*

By David Marino with music by Steve Gilbane  
April 20th - 28th, 2012  
Arsenal Center for the Arts, Watertown

### *The Pillowman*

By Martin MacDonaugh  
August 10th - 18th, 2012  
The Factory Theatre, Boston

## TIMELINE OF EVENTS

- 1885 Birth of Niels Bohr.
- 1890 Birth of Margrethe Norlund.
- 1900 German physicist Max Planck theorizes that light travels in discrete units called “quanta” - singular “quantum.”
- 1901 Birth of Werner Heisenberg.
- 1905 Albert Einstein proposes special relativity.
- 1911 Ernest Rutherford proposes existence of the atomic nucleus.
- 1912 Marriage of Niels Bohr and Margrethe Norlund.
- 1913 Bohr develops first “quantum theory” to explain the wavelengths of light emitted from hydrogen atoms.
- 1915 Einstein proposes general relativity.
- 1919 The Treaty of Versailles is signed, ending World War I. The harsh terms of the treaty will impoverish Germany throughout the 1920s.
- 1922 First meeting of Bohr and Heisenberg.
- 1925 Heisenberg develops matrix mechanics to describe the movement of electrons in an atom.
- 1926 Erwin Schrodinger proposes the waveform function or Schrodinger Equation as an alternative to matrix mechanics.
- 1927 Heisenberg proposes the Uncertainty Principle.
- 1928 Bohr proposes complementarity. Core elements of the Copenhagen Interpretation are now in place.
- 1932 James Chadwick discovers the neutron, a key aspect of nuclear fission.
- 1933 The Nazi Party comes to power in Germany.
- 1937 Heisenberg meets and marries Elisabeth Schumacher.  
“Heisenberg Affair.” The Deutsche Physik movement targets Heisenberg as a “White Jew” as part of a broader effort to politicize physics in Germany.
- 1938 Otto Hahn and Fritz Stassman observe unexpected transmutation of uranium into beryllium; Lise Meitner and Otto Frisch are the first to correctly interpret this result as nuclear fission in action.
- 1939 Germany invades Poland, beginning World War II. German nuclear program begins, with Heisenberg involved.
- 1940 Germany invades Denmark. Denmark surrenders.
- 1941 *September: Heisenberg visits the Bohrs in occupied Copenhagen.*
- 1942 June: Heisenberg meets with Albert Speer, German Minister of Armaments, and gives a pessimistic assessment of the possible relevance of nuclear research to the war effort. The German nuclear project continues with minimal funding.  
December: A team led by Enrico Fermi produces the first controlled nuclear chain reaction in Chicago. The US government begins the Manhattan Project.
- 1943 “Rescue of the Jews” - With the help of sympathetic German officials, the Danish resistance organizes the evacuation of almost all Danish Jews to Sweden. Niels and Margrethe Bohr escape Denmark; Niels goes to America and joins the Manhattan Project.
- 1944 D-Day. The war starts to turn decisively against the Germans.
- 1945 May: Germany surrenders. Heisenberg captured by the Allies.  
August: Atomic weapons used on Hiroshima and Nagasaki. Japan surrenders.
- 1962 Death of Niels Bohr.
- 1976 Death of Werner Heisenberg.
- 1984 Death of Margrethe Bohr.