
Pre-Symposium Dinner

SUNDAY, APRIL 14, 2019
FRICK CHEMISTRY LAB

5:30PM - 7PM

Drinks and hors d'oeuvres

5:30PM - 6PM

Self-guided tours of the Meggers Archive
(adjacent building)

6PM

Princeton's research on energy-efficient buildings in the 1970s and 1980s

Robert Socolow, Forrest Meggers, and building energy research alumni

7PM

Dinner begins

Blessing before the meal, Rabbi Arthur Waskow

Salad

Musical presentation, Andrew Lovett

Entrée

Toasts, Stephen Pacala, toastmaster

Dessert

10PM

Dinner adjourns

Introduction to the Music by Andrew Lovett

We begin the program with one of the great transforming moments in musical history: the opening of *L'Orfeo*, composed by Claudio Monteverdi in 1607. There is some debate about whether this is really the absolute first opera, but what is beyond debate is that Monteverdi demonstrated *how* to write music for opera. The pattern that he set is still essentially that which is followed by all composers since. I very much include myself as one of his followers!

The program concludes with a piece I have specially composed for this occasion. It is a setting of words from John Donne's *An Anatomy of the World*. The words were suggested by Rob Socolow in an article that he wrote: 'Truths we Must Tell Ourselves to Manage Climate Change' in the *Vanderbilt Law Review*. In this thoughtful overview of his ideas, Rob comments specifically on Donne's response to news of Galileo's *Starry Messenger*

"Donne realized that here was compelling evidence that the earth was not at the center of the universe, and that this news would be devastating to established political and social hierarchies."

The doubts and fears that Donne described are - as Rob explains - strikingly similar to the ones that we now face four hundred years later.

The piece concludes with an effect inspired by a tradition from St Mark's Basilica, Venice (where Monteverdi became organist and music director) called "*cori spezzati*": music *in* space. I hope that in drawing attention to the grandeur of the space of the Frick Building, we will be reminded of the larger architectures of the mind.

The Program

L'Orfeo (1607): Toccata and Prologue (“La Musica”)

Claudio Monteverdi (1567 - 1643)

(words by Alessandro Striggio)

A New Compass (2019)

Andrew Lovett (b 1962)

(words by John Donne)

The Musicians

Andrew Lovett (Princeton University Department of Music) composes small-scale operas, chamber music and electroacoustic works. His new comic opera, *The Analysing Engine*, was performed in Princeton at the Lewis Arts Complex in November 2017.

Heather O'Donovan (soprano) is a first-year Master's Degree candidate at the Manhattan School of Music. She recently graduated summa cum laude with a bachelor's degree in Music and a certificate in Vocal Performance from Princeton and has also studied at the Royal College of Music in London and at the American Institute of Musical Studies in Graz, Austria.

Lou Chen (conductor) is a senior majoring in Music with certificates in Orchestral Conducting and American Studies.

Arjun Guthal (trumpet) is a freshman and a prospective Molecular Biology major.

Daniel Kim (cello) is a sophomore majoring in Chemistry.

Kathryn Leung (violin) is a sophomore majoring in Operations Research and Financial Engineering, pursuing certificates in Applications of Computing, and Statistics and Machine Learning.

Nicholas Schmeller (violin), sophomore, majoring in Computer Science.

Christian Venturella (trumpet) is a sophomore majoring in Chemistry and pursuing certificates in Applied and Computational Mathematics.

L'Orfeo, Claudio Monteverdi

Prologue: Librettist, Alessandro Striggio

English Translation, Gilbert Blin

Dal mio Permesso amato a voi ne vegno,
incliti eroi, sangue gentil de' regi,
Di cui narra la fama eccelsi pregi,
Né giunge al ver, perch'è tropp'alto il segno.

From my beloved Permessus I come to you,
Glorious Heroes, noble bloodline of Rulers, Of
whom Fame relates high praise Without quite
attaining the truth, as it is too high a mark.

Io la Musica son, ch'ai dolci accenti
So far tranquillo ogni turbato core,
Et or di nobil ira et or d'amore
Poss'infiammar le più gelate menti.

I am Music, who in sweet accents, Can make
peaceful every troubled heart, And so with
noble anger, and so with love, Can I inflame
the coldest minds.

Io su cetera d'or cantando soglio
Mortal orecchio lusingar talora;
E in questa guisa all'armonia sonora
Della lira del ciel più l'alme invoglio.

Singing with my golden Lyre, I like To charm,
now and then, mortal ears, And in such a
fashion that I make their souls aspire more For
the resounding harmony of the lyre of Heaven.

Or mentre i canti alterno, or lieti or mesti,
Non si mova augellin fra queste piante,
Ne s'oda in queste rive onda sonante,
Et ogni aretta in suo cammin s'arresti.

While I vary my songs, now happy, now sad,
No small bird shall move among these bushes,
Nor on these banks a sounding wave be heard,
And every breeze shall stay its wanderings.

From An Anatomy of the World: First Anniversary (1611)

by John Donne (1572-1631)

And new philosophy calls all in doubt,
The element of fire is quite put out,
The sun is lost, and th'earth, and no man's wit
Can well direct him where to look for it.
And freely men confess that this world's spent,
When in the planets and the firmament
They seek so many new; they see that this
Is crumbled out again to his atomies.
'Tis all in pieces, all coherence gone
All just supply, and all relation;
Prince, subject, father, son are things forgot,
For every man alone thinks he hath got

To be a phoenix, and that then can be
None of that kind, of which he is, but he.
This is the world's condition now, and now
She that should all parts to reunion bow,
She that had all magnetic force alone,
To draw, and fasten sund'red parts in one;
She whom wise nature had invented then
When she observ'd that every sort of men
Did in their voyage in this world's sea stray,
And needed a new compass for their way
(lines 205-226)

Symposium

MONDAY, APRIL 15, 2019

MAEDER HALL, ANDLINGER CENTER FOR ENERGY AND THE ENVIRONMENT

This Symposium is open to the public. Seating will be limited. Livestreaming will be available on: <http://mediacentrallive.princeton.edu/>

7:45AM - 8:30AM

Breakfast

8:30AM - 8:40AM

Welcomes

Lynn Loo

Director, Andlinger Center for Energy and the Environment, Professor of Chemical and Biological Engineering, Princeton

Michael Celia

Director, Princeton Environmental Institute, Professor of Civil and Environmental Engineering, Princeton

8:40AM - 9AM

Rationale for the symposium

Robert Socolow, Princeton

9AM - 9:50AM

Conversation One: Climate science and risk assessment

Isaac Held

Geophysical Fluid Dynamics Laboratory and Princeton

Tapio Schneider

Environmental Science and Engineering, Caltech

Nadir Jeevanjee

Geosciences, Princeton

10:10AM - 11AM

Conversation Two: Planetary norms

Edith Brown Weiss

Georgetown Law

Melissa Lane

University Center for Human Values, Princeton

Harold Shapiro

President Emeritus, Economics and Public Affairs, Princeton

11AM - 11:50AM	Conversation Three: Toward denuclearization of the world Frank von Hippel Woodrow Wilson School, Princeton Robert Keohane Woodrow Wilson School, Princeton
11:50AM - 1PM	<i>Lunch</i>
1PM - 2PM	Conversation Four: Energy and development José Goldemberg University of São Paulo Ashok Gadgil Civil and Environmental Engineering, U.C. Berkeley Phillip Hannam The World Bank Christopher Greig University of Queensland and Andlinger Center, Princeton
2PM - 2:50PM	Conversation Five: Wedges from the biosphere Stephen Pacala Ecology and Evolutionary Biology, Princeton David Hawkins Natural Resources Defense Council
3:10PM - 4PM	Conversation Six: Energy technology and policy Robert Williams, Princeton Ryan Edwards, U.S. Congress Joseph Majkut, Niskanen Center John Holdren, Kennedy School, Harvard
4PM - 4:30PM	Reflections John Harte, Energy and Resources Group, U.C. Berkeley
4:30PM - 5PM	Closing remarks Robert Socolow, Princeton
5:30PM - 7:30PM	<i>Reception, Guyot Hall atrium</i>

Campus Map

