

KEPLER'S TRIAL OPERA WORKSHOP

The Opera

Kepler's Trial is an opera by Tim Watts based on the book, *The Astronomer and the Witch*, by Ulinka Rublack, Professor of Early Modern History at the University of Cambridge. It tells the story of the witchcraft trial of the mother of the famous astronomer, Johannes Kepler (1571-1630). After its premiere at St John's College, Cambridge, in 2016 it was produced at London's Victoria & Albert Museum as part of the exhibition, 'Opera: Passion, Power and Politics' in 2017.

The following workshop plans were the basis for a project organised through the Faculty of Music, University of Cambridge, for pupils attending **Music+** Hubs in London and Manchester in Autumn 2017-Spring 2018. The project was led by Tim Watts and Cerys Purser (mezzo-soprano, Katharina) They may be used or adapted as the basis for lesson plans, workshops and composition projects.

Aims

- to demonstrate some of the elements that have gone into the composition of this historical opera, with particular focus on the following three areas:
 - (i) 'Katharina's Voice' - how do words, music and performer give voice to the accused?
 - (ii) 'Museum Pieces - composing with historical source materials.
 - (iii) 'Music of the Spheres' - musical realisations of cosmic imagery.
- to consider opera as an interdisciplinary art form with the capacity to fuse not only music, literature and visual arts, but to interact with a wide range of humanities and sciences.
- to explore some creative techniques, drawing on stimuli from the opera.

Historical Background

Johannes Kepler is still one of the most admired astronomers who ever lived. A scholarship boy, he came from an ordinary family, but became a major figure in the scientific revolution, who defended Copernicus' idea that the sun was at the centre of the universe and defined three laws of planetary motion.

Less well-known is the fact that in 1620, he abandoned his research to defend his elderly mother, Katharina, from charges of witchcraft. This took place at the height of Europe's infamous "witch-craze", during which thousands of people - mostly women - were executed for supposed dealings in the occult, and whole families were torn apart in a climate of distrust. About 25,000 people were executed for witchcraft in the German lands during the 16th and 17th Centuries.

Katharina was accused in 1615 in the small Lutheran town of Leonberg, in the south-west of Germany. A local woman called Ursula Reinbold, who was chronically ill, accused Katharina of giving her wine to drink, which had caused these symptoms. Some other members of the local community started to claim that Katharina had made them lame. *Kepler's Trial* tells the remarkable tale of Katharina's six-year ordeal, and her son's dogged, and ultimately successful, defence. The process led Kepler to question how old women were viewed, who defined boundaries between scientific knowledge and magic, and whether differences between different Christian religions should matter as much as they did at the time, as the Thirty Years' War began to rage.

Further information about the making of the opera may be found at: <http://keplers-trial.com/>

Katharina's Voice

The libretto for Scene 2 in the opera is given below:

SCENE 2: Katharina alone

Katharina: At ten a child,
At twenty a maid,
At thirty a wife,
At forty a matron,
At fifty a grandmother,
At sixty age-worn,
At seventy, barren and grown cold.

How cold I am to the touch.
It's August, yet my body shivers,
as if mid-winter's come for it
and left the rest of me
unlimbed.

No natural winter, though,
this sudden chill:
and no spring to come.

How can one word
have changed the weather so entirely,
and do to me in an instant
what nearly seventy years
had not quite done?
One short word casts shadow
on me now.
One little word of woman's breath,
less weighty than a wasp,
now fills all ears,
and gathers a storm
that I may not withstand.
Is sorcery no more than this?

O God to me be welcome
on Sun- and sunny days.
Come riding here to one
who asks, O Father, Son
and Holy Ghost, O threefold
God, and to such folk
give blood and flesh and health.

How cold I am.
The child of ten, the maid, the wife
could never have believed
what I've become.
How cold.



16th-century statue of an old woman

TASK

- Imagine being unjustly accused of something terrible. How does it feel? What thoughts go through your mind? What are the physical sensations?
- Write down some words and phrases and read them out aloud.
- How many different ways of speaking these words can you come up with?
- Listen to the rhythm and intonation ('rise and fall') of the spoken words and phrases and try notating them using either graphic or standard forms of notation.

'Museum Pieces'

Several pieces of 16th- and 17th-century music are woven into the score of *Kepler's Trial*.



Sketch of a man playing a sackbut

Johan Hermann Schein (1586-1630): *Ihr Brüder, lieben Brüder; Post-Martinum* (Madrigals/Drinking Songs)

Melchior Vulpius (1570-1615): *Hinunter ist die Sonnenschein; Der Tag bricht an* (Chorales)

Orlando di Lasso (c. 1530-1594): *In me transierunt* (Motet)

Michael Meier (1568-1622): *Atalanta Fugiens* (Canon)

In Scene 1 one of the drinking songs by Schein is used as the basis melody sung by Katharina's accuser, Ursula Reinbold:

Ex. 1 Drinking Song: *Ihr Brüder, lieben Brüder*

1. Ihr Brüder, lieben Brüder mein, laßt uns heut all fein lu-stig sein, li-ri-
2. So trin-ken wir und lu-stig sein, so schlän-gen wir den gu-ten wein.

[Translation: 'You brothers, dear brothers of mine, let us today all merry be']

Ex. 2 Ursula Reinbold's accusation

99 ♩ = 150
For-give me, Go-vernor Ein-horn, Per-haps you think it'swine that makes me

stag-ger A-las, a dar-ker brew dis-tilled in the De-vil's name by that Kep-ler hag-

The first of two chorales in the opera (Vulpius's *Hinunter ist die Sonnenschein*) is then sung by the chorus as they react to the accusation of witchcraft that has just been made against Katharina Kepler. Before the choir sing it, the melody is introduced by a sackbut (an early trombone) which accompanies the response of the local Governor as he resolves to take action:

Ex. 3 The Governor responds

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URS.

EIN.

This is a troub - ling tale. A go-vernor should not fail to tho-rough-ly in - ves - ti-gate.

Later on, further rumours about Katherina appear over the chorale, until the watchmen tell everyone to go home to bed. The rumours are melodically related to the tune sung by Ursula Reinbold:

Ex. 4 Rumours spread

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Asides 1

Asides 2

S.

A.

T.

B.

Eaves-drop - ping, ga-the-ring black - mail, si-lent-ly

I've heard she takes on fe-line form and prowls a - bout doing who knows what.

sins we pray...

sins we pray...

sins we pray...

sins we pray...

The Music of the Spheres

In his book, *Harmonices Mundi* (The Harmony of the World), Johannes Kepler derives imaginary melodies for each of the six (then-discovered) planets by relating the variation in the frequencies of their orbits to pitch frequencies.

The image displays two sets of musical staves. The top set shows planetary melodies in modern notation. The bottom set shows the same melodies in Kepler's original notation. The staves are arranged in two rows of three. The first row contains Saturn, Jupiter, Mars approx., and Earth. The second row contains Venus, Mercury, and Moon. Each staff consists of a series of short vertical dashes representing musical notes. The key signature and time signature for each planet are indicated at the beginning of its respective staff.

He writes: 'the motions of the heavens are nothing but a kind of perennial harmony (in thought not in sound)...Thus it is no longer surprising that Man, aping his Creator, has at last found a method of singing in harmony...so that he might play...the perpetuity of cosmic time in some brief fraction of an hour...'

Two other operas about Johannes Kepler take inspiration from his ideas about cosmic harmony. These are *Die Harmonie der Welt* (The Harmony of the World) by Paul Hindemith (1895-1963) and *Kepler* by Philip Glass (b.1937). Both make use of ostinato (a repeating musical pattern of some sort) to evoke the rotation of the planets. In Hindemith's case, the opera ends with a Passacaglia.

In *Kepler's Trial*, some of the film sequences by the artist Aura Satz depict rotating astronomical instruments to evoke Kepler's work.

Task

- Compose six ostinatos of different lengths (consider using fragments of historical pieces of music or Kepler's planetary melodies; or make up your own).
- Layer them up and hear how the relationships between the ostinato patterns and the harmony they produce shifts.
- How long would it take for them to return to the same alignment as at the beginning?

Composition Briefs

Here are three possible composition briefs derived from the topics explored above.

Brief 1: Katharina's Voice

Compose a piece for voice (with or without instruments) that imagines a response to a serious accusation. The scenario might be related to the accusation of witchcraft against Katharina Kepler, but it could also explore a different historical or fictional context. The specifics of the case need not, necessarily, be made explicit in the text. The score could use standard or graphic notation or a combination.

Brief 2: Museum Pieces

Compose a piece based on an existing 17th-century work. Links to some suitable examples are given here, but students may also source their own.

Music used in the score of *Kepler's Trial*

Chorales by Melchior Vulpius (1570-1615)

[http://imslp.org/wiki/Hinunter_ist_der_Sonne_Schein_\(Vulpius%2C_Melchior\)](http://imslp.org/wiki/Hinunter_ist_der_Sonne_Schein_(Vulpius%2C_Melchior))

<https://imslp.nl/imglnks/usimg/b/b3/IMSLP189562-WIMA.0fda-vulpius-bestzei-ltr.pdf>

Drinking Songs by Johann Hermann Schein (1586-1630)

https://imslp.nl/imglnks/usimg/c/c1/IMSLP166053-WIMA.c465-25_post_martinum.pdf

https://imslp.nl/imglnks/usimg/9/99/IMSLP99761-PMLP204870-Schein_Ihr_Bruder_lieben.pdf

Motet by Orlando di Lassus

http://www3.cpdl.org/wiki/images/f/ff/Lassus_In_me_transierunt.pdf

Other composers to explore:

Michael Praetorius (1571-1621) http://imslp.org/wiki/Category:Praetorius,_Michael

Heinrich Schütz (1585-1672) http://imslp.org/wiki/Category:Sch%C3%BCtz,_Heinrich

Samuel Scheidt (1587-1654) http://imslp.org/wiki/Category:Scheidt,_Samuel

Some suggested ways of using these pieces are as follows:

(i) 'Arrange' – arrange the material for a new combination of voices or instruments; parts could be adapted (a bit or a lot) to suit the new medium; rhythmic feel could be altered; decorations and/or reharmonisations might be added.

(ii) 'Graffiti' – arrange the existing material and compose a new vocal or instrumental part over the top of it.

(iii) 'Chords' – a harmonic progression may be 'borrowed' from an existing source and used as the basis for some or all (in the manner of a chaconne, for example) of a new piece.

(iv) 'Tunes' – melodic material could be re-used and developed in a different harmonic context.

Brief 3: Music of the Spheres

Compose a piece using interlocking ostinati or musical cycles of other kinds to represent planetary orbits.