

# GALILEO

VICTORIAN  
OPERA



**EDUCATION RESOURCE**  
BY KATE ELLIS, TIM RYAN AND CLAIRE WEARNE

**Victorian Opera respectfully acknowledges the Traditional Owners of the unceded land on which we work and live: the people of the Eastern Kulin Nation. We acknowledge these original owners and custodians of the lands and waterways and their enduring cultural practices of caring for Country. We pay respect to their Elders past and present.**

# ABOUT US

Victorian Opera is the state opera company of Victoria. Your state company. We make creative, accessible and relevant work for everyone while acknowledging the traditions and evolving our artform.

Recognised for our unique contribution to the country's operatic landscape, Victorian Opera joined the National Performing Arts Partnership Framework in 2021. Alongside other companies, Victorian Opera holds its rightful position in the national performing arts arena.

Commitment to the development and presentation of new Australian opera and musical theatre is forefront to our mission. We identify relative and topical material, commission and workshop new scores and librettos, and ultimately produce new productions. Victorian Opera premieres at least one new Australian opera or music theatre work each year, and have commissioned 36 new works since the company's formation.

The next generation of talent is developed from the ground up through our Emerging Artists Programs – The Victorian Opera Youth Chorus Ensemble (VOYCE), our VO Emerges project and our Emerging Artists Opera Prize scholarship. Creating future pathways for artists, artisans and technicians has become a driving focus for our organisation. We employ hundreds of people across the creative industries, recruit some of the finest local and national singers, and collaborate with Australia's leading companies, venues and learning institutions.

We embrace the new normal and continue to perform in exceptional theatres and concert halls to give you the best and safest experience. Join us to experience the human voice, the indefinable power of music and storytelling at its finest.

**And please, come as you are.**

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**“Men of Galilee,” they said,  
“why do you stand here looking  
into the sky?...”**

**ACTS 1:11**



# GALILEO DI VINCENZIO BONAIUTI DE' GALILEI

BORN: 15 FEBRUARY 1564

DIED: 8 JANUARY 1642

Galileo Galilei (as he was commonly referred to) was an Italian astronomer, physicist, and polymath who made significant contributions to various fields of science during the Renaissance. He is perhaps best known for his telescopic observations, which provided compelling evidence for the heliocentric model of the solar system proposed by Copernicus, with the sun at the center and the planets, including Earth, orbiting around it. Galileo's support for the heliocentric model led to conflicts with the Catholic Church, which at the time held a geocentric view, resulting in his trial and house arrest for heresy.




Galileo also made pioneering discoveries in the field of mechanics, formulated the laws of motion, and made notable observations of Earth's moon, sunspots, and Jupiter's moons. He is often referred to as the "father of modern science" for his use of the scientific method and empirical approach to understanding the natural world.

Galileo's work had a profound impact on the development of modern astronomy and physics. His writings, such as *Dialogue Concerning the Two Chief World Systems* (Dialogo sopra i due massimi sistemi del mondo) and *Discourses and Mathematical Demonstrations Relating to the Two New Sciences* (Discorsi e dimostrazioni matematiche intorno a due nuove scienze) remain significant in the history of science.

A portrait of Galileo Galilei, an elderly man with a long, white beard and hair, wearing a dark, high-collared garment. The background is a warm, brownish-gold color. In the bottom right corner, there is a stylized, cursive signature that reads "Galileo Galilei".

Galileo Galilei

# TIMELINE

<p><b>1534</b></p> <p>King Henry VIII of England pushes through the Act of Supremacy breaking ties with the Catholic Church</p>	<p><b>1543</b></p>  <p>Copernicus published his book, <i>On the Revolutions of Heavenly Spheres</i></p>	<p><b>1564</b></p> <p>Galileo Di Vincenzo Bonaiuti De' Galilei is born on February 15</p>	<p><b>1570</b></p> <p>Pope Pius V excommunicated Elizabeth I on the grounds of heresy calling upon English Catholics to remove her from the throne</p>	<p><b>1587</b></p>  <p>The Catholic Mary Queen of Scots executed for plotting to assassinate Queen Elizabeth I</p>	<p><b>1588</b></p> <p>The massive Spanish Armada led by the Catholic King Philip II is defeated by the English Fleet proving to be a major embarrassment to the Vatican</p>
<p><b>1589</b></p>  <p>Galileo becomes a professor of Mathematics at the University of Pisa</p>	<p><b>1592</b></p> <p>His first scientific work <i>La Balancitta</i> is published. It explored the hydrostatic balance</p>	<p><b>1609</b></p> <p>After learning about the Hans Lippershey's spy lens, Galileo significantly improves the design, in order to create his own telescope</p>	<p><b>1610</b></p> <p>With his new telescope he is able to observe the moons of Jupiter (now known as Galilean moons) and published his findings in <i>Sidereus Nuncius</i></p>	<p><b>1613</b></p> <p>Galileo vehemently defends the heliocentric model of the solar system proposed by Copernicus in his famous letter to The Grand Duchess, Christina de Medici</p>	<p><b>1615</b></p> <p>Galileo travelled to Rome to discuss his work on the heliocentric model with Church officials</p>

**1616**

The Catholic Church issued a decree condemning the heliocentric model as heretical and forbade the teaching of Copernican astronomy

**1626**



The main structures of St Peter's Basilica are completed

**1632**

*Dialogue Concerning the Two Chief World Systems* was published which presented arguments on heliocentrism in a balanced way

**1633**



Galileo was summoned to Rome by the Inquisition where he was tried and found guilty of heresy for supporting the heliocentric model. Because he recanted his views, he escaped with his life and was placed under house arrest for the rest of his life. It is said that as he rose from kneeling to receive his sentence he murmured, "and so it moves".

**1634**



His eldest daughter Virginia (Sister Maria Celeste) dies

**1638**

Galileo published *Two New Sciences* which contained ground-breaking work on the science of motion and the strength of materials

**1642**

Galileo Galilei dies at Arcetri, Florence, Italy



**1642 - 1651**

The English Civil War led to the Catholic King Charles I being executed in 1649 and the United Kingdoms of England, Scotland Wales and Ireland being formed in 1651

**1718**

The Roman Inquisition's ban on reprinting Galileo's works is partially lifted. It is not until 1758 that works on heliocentrism can be printed

**1992**

Pope John Paul II acknowledges that the Roman Inquisition was incorrect in its judgment of Galileo



# TERMINOLOGY

## GEOCENTRISM

A theory that the sun, moon and other planets moved around the Earth that was in a fixed position.

## DE MEDICI

A banking family who grew its wealth from the textile trade. It was granted the title of the Grand Duchy of Florence in 1532 and became a political powerhouse throughout the sixteenth and seventeenth centuries.

## HELIOCENTRISM

Drawn from Copernicus' theory and confirmed with Galileo's research, heliocentrism confirms that the planets move around the sun.

## PAPAL STATE

Areas of Italy that were under the direct control of the Pope from 754 until 1870 C.E.

## THE HOLY ROMAN CATHOLIC CHURCH

A Christian faith that draws its teachings from the Nicene Creed. It is run from the Vatican City in Rome with the Pope (or Bishop of Rome) as its head.

## PENITENTIAL RITE

Occurs at the beginning of the Catholic Mass as a way of absolving the sins of those participating so that they are pure for the Liturgy of the Word and Liturgy of the Eucharist.

## JESUIT

An order (grouping of people in the Holy Roman Catholic Church) for men who focus on education, research and cultural activities. Founded in 1540 by Ignatius of Loyola.

## LUTE

A stringed instrument that is plucked. Think of a guitar but with a neck with tuning pegs bent at ninety degrees to a short fingerboard attached to a large bulbous soundboard.

## DOMINICAN

Founded in 1216 by Dominic de Guzman (later Saint Dominic) as a preaching order for men and women to spread the good news and oppose heresy. The order is also known as the Hounds of God or Black Friars.

## ON THE REVOLUTIONS OF HEAVENLY SPHERES

A book published in 1543 by Polish polymath Nicolaus Copernicus. It was the first book to explore the heliocentric model of the solar system.

## POOR CLARES

Formal title is the Order of Saint Clare and was formed in 1212 as a contemplative order for women. Members dedicate themselves to a life of prayer.

## ACCADEMIA DELLE ARTI DEL DISEGNO

Founded in 1563 by Cosimo de Medici for eminent artists in the Medici court. Galileo obtained a position here teaching perspective and ways to manipulate light to create volume.

<b>FUNDAMENTALISM</b>	A literal interpretation of ideologies and written texts to the exclusion of other possibilities.	<b>ROMAN INQUISITION</b>	Founded in 1532 by Pope Paul III it formed part of the wider European Inquisition. Its main aim was to pursue those who were not working in union with Church law at a time when Protestantism was threatening the power of the Catholic Church.
<b>RELIGIOUS TRUTH</b>	In the Catholic Church, religious truth is rooted in the ever-present God being the creator of all things and that Jesus existed to save people from their sins.	<b>GALILEO AFFAIR</b>	The trial of Galileo in 1633 by the Roman Inquisition for his teachings on heliocentrism. Through this theory being seen as reinterpreting the Bible, his actions were seen as a form of Protestantism and he was charged with heresy. It resulted in Galileo being sentenced to house arrest.
<b>SCIENTIFIC TRUTH</b>	A new teaching in the Catholic Church that acknowledges that as people explore and seek understanding traditional religious truths may be challenged. This search for meaning is seen to be led by God and if broad and rigorous review is applied, it can peacefully sit next to religious truth and faith.	<b>ACCADEMIA DEI LINCEI</b>	Federico Cesi founded the Academy of the Lynx Eyed for scientists with the sole objective to keenly observe the natural world. With Galileo as its intellectual base it did not survive long after his death, being disbanded in 1651.
<b>COLLEGIO ROMANO</b>	The Roman College was founded in 1551 by the Jesuits to provide free education to men in classical languages and Christian doctrine.	<b>PROTESTANTISM</b>	A movement that protested against the supreme rule of the Pope over the Christian Faith. It sought to purify the Church of its extravagance and return to a focus on faith.
<b>ORRERY</b>	A mechanical model that displays the movement of planets and the principles of heliocentrism.	<b>POLYMATH</b>	A term used to describe a scholar who is able to draw on complex knowledge across a broad range of different subject areas, for example Mathematics, Sciences, Languages, Arts, Theology, Literature and Philosophy.



13th Century depiction of God plotting the path of the moon and sun around Earth

"Tremble before him, all the earth! The world is firmly established; it cannot be moved" **1 Chronicles 16:30**

"The Lord reigns, he is robed in majesty; the Lord is robed in majesty and armed with strength; indeed, the world is established, firm and secure" **Psalms 93:1**

"Say among the nations, 'The Lord reigns.' The world is firmly established, it cannot be moved; he will judge the peoples with equity" **Psalms 96:10**

"He set the earth on its foundations; it can never be moved" **Psalms 104:5**

"The sun rises and the sun sets, and hurries back to where it rises" **Ecclesiastes 1:5**

# GEOCENTRISM

Geocentrism is the name given to the theory that places the Earth in the centre of the universe, its literal translation is 'earth-centered'. It was formalised as a theory by Ptolemy in the 2nd Century CE and was maintained as the leading theory for some 1500 years. This dominance was no doubt due to the influence of the Church who never disputed geocentrism because the theory supported Earth, and therefore the Creator God, as the center of everything.

Plato (427-347 BCE) developed the first threads of the geocentric model in the 4th Century BCE. His theory saw Earth as a stationary sphere with the Moon, then the Sun and planets being carried on a sphere around Earth. Eudoxus (380 BCE), furthered the theory by creating a model where the entire universe operated on these orbits. This theory was interwoven with Greek theology with the universe seen as something controlled by Sirens and the Fates.

It was Ptolemy (a Greek astronomer, mathematician and geographer born in Egypt) in 2nd Century CE whose theory was most accepted as he placed Earth at the centre of the model. Previous models couldn't explain why some planets appear to move backwards, whereas Ptolemy's model suggested that planets moved within circles called epicycles. These in turn moved within a greater circle which Ptolemy called a deferent.

It is understandable how humans at this time would develop this theory given, at a glance, the sun, moon and stars, appear to move in a circular rotation in the sky. Without the scientific technology we have today, scientists (known then as philosophers) had their eyes and minds only to gaze and wonder.

Watch a video [here](#) to see this model in motion.



# HELIOCENTRISM

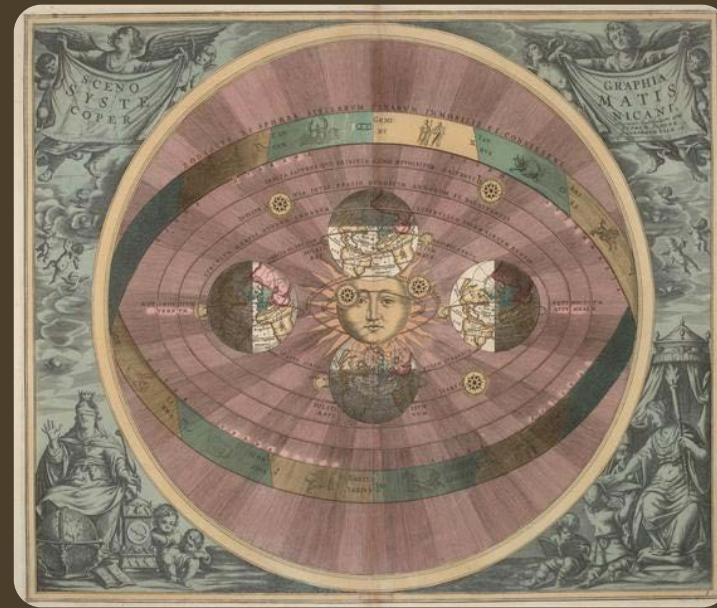
In contrast to geocentrism, heliocentrism states that the sun is at the centre of the universe, and that the planets revolve around it. Its literal translation is 'sun-centred'. It was not an overly popular idea, namely because it brought the teachings of the Church into question, but also because it could not be proven at the time.

Heliocentric theory is attributed to Nicholas Copernicus, a mathematician and astronomer who, at the beginning of the 16th Century, suggested that the planets orbited the sun. He further proposed that the Earth rotated in a way as to create an equinox. In the year of his death (1543), Copernicus published a work titled *On the Revolutions of the Heavenly Spheres*. Though greatly disputed by the Church, it was scientists such as Galileo who greatly supported the model and who later proved the validity of this theory with the development of the telescope providing indisputable evidence.

Galileo's support and proof was amplified in his own publication of *Dialogue Concerning the Two Chief World Systems* (1632), and saw the theory of heliocentrism begin to gain ground over geocentrism in scientific circles. The theory was not supported by the Church, or those in power, and this led to Galileo being found guilty of heresy by the Roman Inquisition. He escaped with his life but was placed under house arrest for until his death. Galileo was pardoned by the Roman Catholic Church 360 years after his death due to developments in technology and research.

Excitingly, the work of understanding the mysteries of natural science continues with scientists, and astronomers, making discoveries everyday. For instance, we now know that there are many galaxies and therefore perhaps no centre to the universe at all.

Watch [this video](#) to observe the difference between the geocentric model of Ptolemy and the heliocentric model of Copernicus.



# SYNOPSIS

## FOREWORD

*Galileo* is not a factual biography, although it is broadly based on the life events of an historical person. The work bases much of its process on late sixteenth and early seventeenth opera, and genres like the mythological pageant (such as those developed for the various Medici weddings during the 1500's), madrigal comedies like *L'Amfiparnasso* by Orazio Vecchi, (our Angels and Devils are in fact two opposing, 5-part madrigal consorts) the operas of Peri, Monteverdi and Cavalli, the Intermezzo and the Masque. Galileo himself becomes a mythic subject and we have embraced a dramaturgy and, in eventual production, a scenography, which tends towards manifestation and statement as opposed to analytical exploration.

The opera contemplates the human predicaments which arise in the spiritual journey of a great thinker. It is a large, moving, symphonic fresco constituted from real and conjectured images from the imagined progress of Galileo through this earthly life, a meditation on the fragility of truth and its relationship to power and the constant vulnerability of genius and basic human stability and happiness in a consistently violent and changeable world.

## ACT 1

We open our opera on a young Galileo learning to play the lute with his father Vincenzo. He is learning the language of the heavens. A chorus of angels, devils, and Florentines watch on and the debate between arts, science and religion begins. Galileo, already curious about the mysteries of life, understands that he must gain wisdom if he is to get closer to God.

It is now the time of the Renaissance, and the Paduans secure the intellect of a now older Galileo who has refined an instrument that becomes the modern telescope. He and his learned friends Guiducci and Arrighetti sing to the possibilities that such an instrument will give understanding and inspiration. They know the world will change.

The telescope also brings love...Galileo sees Marina Gamba, the woman with whom he has three children. But science wins in the end and Galileo leaves his family for Rome at the invitation of Pope Paul V.

## ACT 2

It is in Rome that he meets the Linceans and Cardinal Barberini - supporters of knowledge and truth, scholars of the stars and natural sciences. But it is also where his work begins to be scrutinised and he experiences forty years of 'attacks, censorship, such agony!' (*Galileo*, Act 2 Scene1)

Whilst a friar (Tommaso Caccini), a Grand Duchess (Christina de Medici) and a German Jesuit priest, astronomer, and physicist (Christopher Scheiner) wish him to go to trial, Cardinal Barberini, now Pope Urban VIII, wants Galileo at his side as he creates a vision of Rome where architects, sculptors, scientists, artists and philosophers can meet without mention of the word 'heresy'. However, it is Galileo's book, asserting that the earth moves around the sun which convinces the new Pope that Galileo is indeed a heretic, with theories that would mock the Church's understanding of the Earth.

His eldest daughter, now Sister Maria Celeste, supports Galileo through correspondence and the angels suggest that God will not forsake him. But, at 70 years of age, Galileo still has many questions about the mysteries of life and the natural sciences. In the end the devils have the last word, "...and yet it does move!" (*Galileo*, Act 2 Epilogue)





# CHARACTERS

CHARACTER	ABOUT
<b>GALILEO</b>	Galileo Galilei (1564–1642) was an Italian astronomer, physicist, and polymath who made significant contributions to various fields of science during the Renaissance. He developed and championed the heliocentric model of the solar system which challenged the geocentric model supported by the Catholic Church. This resulted in his trial by the Roman Inquisition and led to him being found guilty of heresy, but escaping with his life. In our opera, his curiosity has him in constant pursuit of an understanding behind the mysteries of the natural world.
<b>YOUNG GALILEO</b>	Born in 1564, the young Galileo was raised for the first ten years of his life amongst Pisa's medieval palaces and bridges across the 240km long Arno river. At a time when children did not always go to school, the young Galileo had learnt multiple languages, visual arts and the lute. The latter he learned from his father who was an accomplished musician. He was 17 when he applied to a university to continue satiating his curiosities.
<b>VINCENZIO (FATHER)</b>	Born in Florence in 1520, Vincenzo Galilei was an accomplished teacher, writer and musician. He also used mathematics to prove theories about music, in particular regarding acoustics, which had a great influence on Galileo. Vincenzo was a precursor to Johann Sebastian Bach in exploring the Well-Tempered Tuning System and supported the use of dissonance in passing notes of melody, along with the use of suspensions in harmony. He played music for the courts which allowed his family to be influenced by, and have access to, Italian royalty. He died in 1591.
<b>GUIDUCCI</b>	Mario Guiducci was born in 1583, Florence. He was a young friend and disciple (student) to Galileo and first listed as the sole author of <i>Discourse on Comets</i> . The book, inspired by three comets that appeared in quick succession in 1618, was rumored to have been written almost entirely by Galileo.
<b>ARRIGHETTI</b>	Niccolo Arrighetti was born in 1586 in Florence. Like Guiducci he was a friend and student of Galileo. He was a mathematician and philosopher who translated works by Plato. In 1623 he became Consul of the Accademia Fiorentina.
<b>MARINA GAMBA</b>	Marina Gamba, also known as Marina Gamba de Galilei, was born in 1570, and she and Galileo had three children together: Virginia, Livia, and Vincenzo. Their relationship began not long after Galileo took up his position at the University of Padua in 1598 and they never married. Upon his father's death in 1591 Galileo was financially responsible for his sister's dowries and the financial support of his younger brother. This financial strain likely led to him not marrying. Marina Gamba's life is entirely overshadowed by the fame of Galileo, despite having played a significant role in his personal life and the upbringing of their children. She died in 1649.

CHARACTER	ABOUT
<b>COSIMO DE MEDICI</b>	Cosimo de Medici, commonly known as Cosimo the Elder, was a prominent figure in the Italian Renaissance during the 15th century. He belonged to the powerful Medici family, and his political and financial acumen contributed significantly to the family's ascent to power and their patronage of the arts. Cosimo's leadership in Florence effectively made him the de facto ruler of the city-state. He supported humanism and the revival of classical learning, playing a crucial role in the sponsorship of artists and scholars, including figures like Donatello, Brunelleschi, and Fra Angelico. Under his guidance, Florence became a thriving centre of culture and art. His influence on the Medici family and the city of Florence laid the groundwork for the Medici's long and influential rule in both political and cultural spheres.
<b>VIRGINIA (LATER SISTER MARIA CELESTE)</b>	Born in 1600, Virginia Galilei was Galileo's eldest daughter. She moved to Florence with her father in 1610 and in 1616 she took her vows as a nun with the Poor Clare's taking the name Maria Celeste in honour of her father's discoveries. Sister Maria Celeste and her father had a close and affectionate relationship, exchanging numerous letters that have been preserved and provide insights into both their personal lives and the scientific work of Galileo. She supported her father's scientific endeavors and provided emotional and intellectual companionship during his challenges, including the trial by the Roman Inquisition. She passed away in 1634, and her correspondence with Galileo has since become an important historical resource for understanding the life and work of Galileo, as well as the broader cultural and scientific context of the 17th century.
<b>LIVIA</b>	Livia Galilei was the second daughter of Galileo. Born in 1601, Livia was sent to a convent and became Sister Arcangela. She was written about in letters between Galileo and Virginia (Sister Maria Celeste).
<b>VINCENZIO (SON)</b>	Vincenzio was born in 1606 . The illegitimate son of Galileo, he took his mother's last name for a time (Gamba) before becoming a Galilei in 1619. When his sisters moved to Florence with their father in 1610 he stayed with his mother in Padua for a short time before joining his father. In 1619 Galileo was able to have Vincenzio legitimised after petitioning the Grand Duke of Tuscany. He played the lute like his father and grandfather and took to scholarly pursuits, studying law.
<b>CESI</b>	Federico Cesi was born into a wealthy family in 1585. A great deal of his wealth had to do with connections to the Church, so when Cesi turned to science, his father was not happy. It was his mother who provided support including financial support. At 18 years of age, Cesi created the Lincean Academy that was dedicated to the pursuit of acquiring knowledge and sharing it with others. It was heavily criticised by the Church.
<b>DEMISIANI</b>	Giovanni Demisiani was a member of the aforementioned Lincean Academy. Born in Greece, he is credited as the person who named Galileo's telescope. He was a theologian, chemist and mathematician.
<b>STELLUTI</b>	Francesco Stelluti was one of the first naturalists to study using a microscope. He was also a founding member of the Lincean Academy where he met Galileo. His published works were the first of their kind and he took every opportunity to talk about the discoveries the Lincean Academy were making.

CHARACTER	ABOUT
DE FILIIS	Anastasio De Filis was another of the four founding members of the Lincean Academy. Born in 1577, a great deal of his published works have been lost. He was interested in astronomy and had an eclipsed moon as his emblem. Closely related to the Cesi family he was encouraged by Federico to continue his academic pursuits even though he was the least educated of all of them.
CARDINAL BARBERINI (LATER POPE URBAN VIII)	Cardinal Maffeo Barberini, later known as Pope Urban VIII, was a prominent figure in the Catholic Church during the 17th century. Born in 1568, he ascended to the Papacy in 1623 and reigned until his death in 1644. As Pope, Urban VIII was known for his patronage of the arts and his close association with notable artists, including Gian Lorenzo Bernini, who created many sculptures and architectural works in Rome during his pontificate. However, his Papacy was also marked by conflicts, most notably the ongoing tensions with the scientific community, including his condemnation of Galileo. His pontificate was a complex mix of artistic patronage, political maneuvering, and theological controversies, leaving a lasting impact on both the Catholic Church and the world of art.
POPE PAUL V	Pope Paul V, born Camillo Borghese in 1552, was the 233rd Pope of the Roman Catholic Church, serving from 1605 until his death in 1621. His papacy was marked by a strong commitment to reinforcing the authority of the Catholic Church, and he played a significant role in the early years of the Counter-Reformation, implementing various reforms and combating Protestantism. Pope Paul V is perhaps best known for his conflicts with the Republic of Venice and his efforts to assert the temporal power of the papacy, which resulted in the interdict placed on Venice and a strained relationship with various European monarchs.
GRAND DUCHESS CHRISTINA DE MEDICI	Grand Duchess Christina de Medici was a member of the prominent Medici family during the Renaissance in Italy. Born in 1565, she became the Grand Duchess of Tuscany upon her marriage to Ferdinand I, the Grand Duke of Tuscany, in 1589. Notably she was the granddaughter of Catherine de Medici, Queen of France. Christina was known for her patronage of the arts, and her court was a center of cultural activity. Her life was marked by the complex political dynamics of the time, and she played a role in the Medici family's efforts to maintain control over Tuscany and navigate the power struggles of the era.
TOMMASO CACCINI	Tommaso Caccini was an Italian Dominican friar and preacher known for his involvement in the controversy surrounding the ideas of Galileo and the broader Galileo affair. Caccini is notably remembered for his fiery and outspoken sermons against Galileo's heliocentric views, which he deemed heretical. In 1615, Caccini delivered a sermon in Florence denouncing Galileo's ideas, contributing to the tensions between the Catholic Church and proponents of the heliocentric model. His involvement in the Galileo affair and his vehement opposition to Galileo's ideas represent a significant chapter in the history of the conflict between science and religion during the 17th century.
CHRISTOPHER SCHEINER	Christopher Scheiner was a German Jesuit priest, astronomer, and physicist. He is best known for his independent work on sunspots, which he observed and studied through a telescope. Scheiner's detailed and systematic observations of sunspots were published in the book <i>Rosa Ursina</i> in 1626, which ignited a feud about plagiarism with Galileo who was studying this area of natural sciences at the same time.

CHARACTER	ABOUT
PLAGUE SOPRANO	The Plague Soprano represents the plague that affected Italy from 1629. There had also been a plague at the time of Galileo's youth, however this one is referenced in correspondence Galileo made as an adult and there are papers referencing how it changed the way Galileo researched, much like how COVID changed how we all worked in the 21st century.
CARDINAL BELLARMINO	Cardinal Robert Bellarmine was a prominent Italian Jesuit priest, theologian, and Cardinal of the Catholic Church during the Counter-Reformation period. He is known for his significant contributions to Catholic theology and his role in the Catholic Church's response to the challenges posed by the Protestant Reformation. Bellarmine was a prolific writer and engaged in theological debates of his time, including defending the Catholic Faith against Protestant doctrines. He is also known for his involvement in the Galileo affair, as he raised objections to the heliocentric model. His writings, such as <i>Disputationes de Controversiis Christianae Fidei</i> ( <i>Disputations on the Controversies of the Christian Faith</i> ), had a lasting impact on Catholic theology and apologetics. Cardinal Bellarmine was canonized as a Saint by the Catholic Church in 1930.
CHORUSES	
ANGELS	Traditionally, Italy is a culture made up most significantly of Catholics. In the Catholic Faith, angels are messengers between humans and God; they are spirits created by God. In this opera the angels support Galileo's curiosity and his pursuit in solving the mysteries of the natural world.
DEVILS	To the Catholic Church, devils are fallen angels. When it comes to their role in human life, devils also strive to make humans deviate from the course of God. In our opera, the Devils support the fundamentalist views of the Church and seek to stop Galileo's work.
FLORENTINES	The people of Florence, Italy. Florence was a major centre during the Renaissance, an exciting time of discovery in the arts and sciences. Galileo moved there when he was 10 years old to study logic and was held under house arrest in Florence up until his death.
PADUANS	The people of Padua, a city of northern Italy where Galileo was employed at the University of Padua. They were able to attract Galileo with a salary three times that of what he was earning in Pisa.
PISANS	The people of Pisa, Italy. Pisa is the birthplace of Galileo and where he was first educated and employed.
LINCEANS	Linceans refer to the members of the Lincean Academy. First established in 1603 it is the oldest and most established scientific academy recorded in European history.

<b>SCIENTISTS</b>	The word 'scientist' was first used in 1883. Previously, people who studied the pursuit of wisdom were called Philosophers. In our opera they celebrate the work of Galileo with praise.
<b>WOMEN</b>	During the span of Galileo's life, women in Italy were traditionally domestic and symbols of Catholic morality. Women were denied political rights and any who showed any literary or academic sense, were often labeled as witches or heretics. In our opera they provide the human side of the tragedy that was the Roman Plague (1629 - 1631) through providing strength to their dying children and displaying their grief.
<b>CHILDREN</b>	Children at the time of Galileo were often not taught in institutions, rather at home and a child's education depended on the circumstances the child was born into. In our opera, the children are the innocent victims of the Italian Plague (1629 - 1631).
<b>NUNS</b>	It is estimated that 1 in 20 women in Florence during the 16th and 17th centuries lived as nuns in convents. Research suggests those who chose to be nuns had a good life. However, those who were forced into this life, did not. Nuns did not have to marry or have children. In our opera the Poor Clare Sisters sing the hymn <i>Regina Caeli</i> whilst the duet between Galileo and his daughter Sister Maria Celeste is sung.

\* [GO TO WWW.VICTORIANOPERA.COM.AU/WP-CONTENT/UPLOADS/2023/10/VICTORIAN-OPERA-2023-GALILEO-PROGRAMME-FA-WEB-1.PDF](http://WWW.VICTORIANOPERA.COM.AU/WP-CONTENT/UPLOADS/2023/10/VICTORIAN-OPERA-2023-GALILEO-PROGRAMME-FA-WEB-1.PDF)  
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# SCENE DESCRIPTORS

## ACT 1

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
PROLOGUE	Vincenzio (father) Young Galileo Angels Devils Florentines	1574	Florence	Yearning for understanding and curiosity  Mischief and distortion	<p>Five Angels descend from heaven and dictate the tunings of the lute to Vincenzio, Galileo's father, and to Galileo as a little boy. Vincenzio tells Galileo that real practical experience is more important than theory: both are deeply moved by the beauty and mystery of tunings and their resonances. Five Devils appear, who are agents of chaos and mischief, throughout the opera. They parody the beauty of the lute tunings with smutty epithets – quoting the Sonetti Lussuriosi by Pietro Aretino (1499 – 1556) as response to the Angels singing fragments of Dante.</p> <p>A multi-layered ensemble ensues in which the Devils provoke a posse of curious Florentine citizens to mischief, as they invade Vincenzio's house to inspect his 'discoveries'. The Angels observe and assert the beauty of music and its purity and moral purpose, resonated by Vincenzio and little Galileo. The Devils respond cynically, "But what has he read before he plays?" and inspire further dispute among the invading and dimwitted Florentines: an image of the potential uncomprehending hostility of society towards otherworldly beauty.</p> <p>Exasperated, Vincenzio slams down a book on the table and drives the Devils and the Florentines out. Little Galileo reflects on what he has seen and vows to pursue the beauty of truth following the example of his father.</p>

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
1	Devils Paduans Pisans Vincenzio	1592	Pisa	Can a sense of value be found through money or community?	<p>Five Devils observe Vincenzio working with Galileo (now a young man), the Devils discourse on the hypocrisy of the world and the power of money, envy, hate, power, fear and greed and how they interact with love and sense of duty. "Do you believe in innocence", they sing "Give us an hour, you will see how the world descends to malice". Meanwhile, Vincenzio and Galileo affirm the purity and mystery of their work on lute tunings and affirm the secret language of mathematics as a key to exploring nature.</p> <p>Two groups of citizens invade having heard of the discoveries of young Galileo, one group from Pisa and one from Padua. Both vie for the attention of Galileo, offering money and privileges against a snide commentary by the Devils about pride and the magic of money and its power to provoke strife. Galileo chooses Padua and the Pisans leave disgusted: a Devil offers Galileo a drink and he reflects quietly on his choice and the intellectual generosity of Padua. His father blesses him and exits.</p>

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
2	Devils Angels Galileo Arrighetti Guiducci Marina Gamba	1609	Venice	Confirming heliocentrism	<p>A Devil states a proverb, "Devils make the pots" and an Angel replies, "However, Angels make the lids". Galileo and two associates, Guiducci and Arrighetti are working with Galileo's invention, the telescope. They study the heavens and find and name the moons of Jupiter, which they see as part of the cosmic dance, an image of eternal order previously reflected in the lute tunings and the angelic discourse of the prologue. Galileo says that he now has proof that the Earth is not the centre of the universe, but that it moves, "...eppur si muove". He continues studying the heavens and as day breaks, turns his telescope to Venice, where he spies Marina Gamba hanging out the washing on her balcony.</p> <p>He watches her sing an aubade to the Venetian sun, captivated he travels towards her. Marina is astonished Galileo can see the colour of her eyes through the telescope from the street, she descends, and they sing a love duet. A relationship is formed.</p>

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
3	Devils Angels Scientists Chorus Paduans	1609	Padua	Conflict between scientific endeavor and existing theory	<p>The Angels begin with a reversal of the old proverb, they sing, “Angels make the pots” and the Devils respond, “But we make the lids”. Galileo’s discovery of the telescope is now celebrated throughout Europe – it’s been commercialised with the populace enjoying mini-telescopes spying on each other. Two scientists affirm Galileo’s fame exclaiming, “Certo, certo, si si si si!”.</p> <p>Boys spy on girls and vice versa, and a Devil appears and spies on the audience with rude suggestions. The two scientists celebrate that Galileo has lifted a veil from over the heavens. Meanwhile, two citizens from Padua remind the crowd of the traditional view of the Earth as surrounded by nine spheres - an argument erupts, Angels and Devils appear, and the Angels hurl a comet towards Earth to stop the fighting. The Angels rebuke all with an exhortation to be humble and enquiring in the face of the mysteries of creation.</p>

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
4	Cosimo de Medici Marina Gamba Galileo Lavinia Virginia Vincenzio (son)	1610 - 1616	Florence	Personal sacrifice	Cosimo de Medici announces a "time for tears". He explains to Marina – now the mother of three children to Galileo – that Pope Paul V has summoned Galileo to Rome. Galileo explains to Marina that he has been called to share what he has discovered with the world. He takes leave of his family. Marina becomes increasingly bitter and angry despite the positive emotions of the three children, Virginia, Livia, and Vincenzio who are to be cared for in Cosimo's household in Tuscany. She curses the vanity of men, laments the fragility of love even through a tacit understanding of reality of her situation and the magnitude of Galileo's achievements. She is now a woman deprived of her partner and her children, like a used possession. She curses Galileo and longs for an early death.
5	Galileo Arrighetti Guiducci	1616	Journey to Rome	Awareness of Dangers	Galileo, Guiducci and Arrighetti journey to Rome. They are like pilgrims through the spring landscape. They pass San Casciano, Acquapendente and Viterbo, making celestial observations by night. In the distance they see Rome. Galileo thinks about the eternal city which has broken the spirits of Ariosto and Tasso, enabled the glories of Michaelangelo and Raphael, but which is also a sewer. Angels appear and sing to a sunrise of optimism.



SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
6	Linceans: Cesi, Demisiani, Stelluti, De Feliis Galileo Devils Diavoli	1616	Rome	Faith as power not truth	A festive toccata introduces the members of the Lincei, a group of scientists who with eyes like their mascot, the Lynx, observe nature keenly, and experiment then publish their findings. They welcome Galileo as one of their own and introduce him to Cardinal Barberini (Later Pope Urban VIII). The Devils have a cynical commentary in counterpoint. Barberini affirms his support for Galileo at the Papal Court. All proceed to a Papal audience with Pope Paul V, introduced by the Angels who counter the cynical observations of the Devils as the official Te Deum and procession begins. Amidst the might and pomp of ceremony, Pope Paul V welcomes Galileo with incomprehension of his work and affirming his disapproval of those who teach anything new or against scripture. One Devil says, "They say we are evil, the clergy are not much different". The Lincei and Galileo and his crew defer to Paul V with polite dismay. The Pope blesses the assembled throng in moments of sonic splendour. The Devils, lost for words, finally manifest themselves with a flourish, rejoicing in human vanity as a prelude to difficult things to come for Galileo.

## ACT 2

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
1	Galileo Devils Angels	1632 - 1633	Florence	The gift of grace in a time of adversity	Galileo, alone, meditates on his life, revisiting the pain of his separation from Marina who has died – her memory haunts him and he recognises his fault. He sees the need to keep going – his children are now adults, the two girls are in the Poor Clares, at the convent of San Matteo in Arcetri, and young Vincenzo is studying. Devils appear and encourage despair; Angels encourage steadfastness in vocation despite difficulties. Galileo affirms his loyalty to the Church; an attitude of obedience and humility that co-exists with his search for truth. Angels remind him of the images of eternal beauty he seeks in everything.
2	Barberini Devils	1632 - 1633	Rome	The realities of leadership in perilous times	Cardinal Barberini is now Pope Urban VIII. He has a vision for Rome as a haven for scientists, artists, architects, and sculptors – a place of beauty and respect for the intellect which will be famous throughout Europe. He insists that Galileo will be at the centre of his dream for civic splendour. Despite the clouds of rebellion emerging in the north and the danger of shipwreck for the sacred vessel of the institution of the Church, Pope Urban affirms his celebration of the human spirit and the value of art and intellectual enquiry as exemplified by Galileo. The Devils mock his idealism and begin their planned destruction of Galileo – calling for Cristina de Medici, “Where is Cristina today?”.

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
3	Cristina de Medici Caccini Scheiner Devils	1632 - 1633	Rome	Faith as power not truth	Cristina reads her bible; a Devil sits and listens. The Devils echo her phrases and begin to inspire a conspiracy of denunciation against Galileo. Cristina becomes enthusiastic in her disapproval and declares war on Galileo. Tommaso Caccini preaches a sermon at Santa Maria Novella in Florence; he echoes the stupid fundamentalism of Cristina. The Devils are delighted and proceed to a crazed Jesuit, Christopher Scheiner, who accuses Galileo of blasphemy and heresy. The trio of Cristina, Caccini and Scheiner commence a theatre of denunciation joined by the enthusiastic crowd.
4	Pope Urban VIII Women Children Plague Soprano Devils	1632 - 1633	Rome	No one is above the judgment of God	In the Papal apartments, Pope Urban VIII is apoplectic with rage as he thinks Galileo has betrayed his trust: he recognizes Galileo's pursuit of truth as worthy, but the survival of the Church against heresy becomes his overwhelming concern. Galileo is to be sacrificial to political expediency. Meanwhile the plague rages outside much to the delight of the Devils who extol the beauties of rats, sores, and blood. Women see their children perish and the Plague Soprano appears and sings her imperious aria of death, visiting destruction upon all. Pope Urban VIII sees this devastation as divine punishment and summons Galileo to Rome to appear before the Inquisition.

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
5	Galileo Nuns Sister Maria Celeste	1632 - 1633	Rome	The love of family provides strength	Galileo begins his winter pilgrimage to Rome. He is sustained by the memory of the convent at Arcetri where his daughters now live as Sister Archangela and Sister Marie Celeste who lovingly writes to him regularly. He reads her letters as solace on his solitary journey through a frozen landscape, revisiting San Casciano, Acquapendente and Viterbo, but nevertheless sees that the sap of life resides in the winter branches and vows to embrace the challenge of his trial with integrity and energy.
6	Galileo Pope Urban VIII Bellarmino Inquisitors Devils Scheiner Caccini Plague Soprano	1633	Rome	And so it moves	The court of the Roman Inquisition assembles with Pope Urban VIII and Cardinal Bellarmino prosecuting. Galileo replies and the Devils ignite the opprobrium of the assembled clerics, who create an unwitting parody of the scientists in Act 1, "Certo, certo, si si si si!". The Devils force Galileo to his knees and amid threats of torture and condemnation by the Pope to domestic imprisonment and scientific silence, he admits through grated teeth to heresy. But he still manages to mutter, "...and so it moves", at which Pope Urban VIII screeches, "The world is upside down", unleashing a torrent of chaos and the Plague Soprano who ushers in a pageant of societal disintegration, disease and strife which culminates in a universal dance of death.

SCENE	CHARACTERS	TIMEFRAME (APPROXIMATE)	GEOGRAPHY	FOCUS	DESCRIPTOR
7	Galileo Young Galileo Sister Maria Celeste Angels Devils	1642	Arcetri, Florence	Lifelong commitment to faith	Galileo, in confinement, reviews his life, his boyhood voice tells him to look into himself. Sister Marie Celeste encourages his reflection, urging him to read his life and look within. Angels comfort him. He prays the Penitential Psalms. Devils appear mocking and distracting. Galileo suddenly strong, silences them and dismisses them finally. His boyhood voice of innocence comforts him, and he recalls the phrase from the confessions of Saint Augustine, "Too late have I loved Thee, beauty so ancient and so new". Angels and the voice of Sister Marie Celeste surround him with a halo of sound, emblematic of spiritual peace, and the visitation of grace.
EPILOGUE	Galileo Devil	1642	Arcetri, Florence	Steadfast to the end	Galileo faces death, he reviews the enigma of his life, and addresses the audience telling them he can't see them anymore. He dies. A single Devil circles quietly, he moves the head of the dead Galileo from side to side and says, "....eppur si muove!" (and yet it does move!) with an enigmatic laugh.



# INTERVIEW WITH COMPOSER



**RICHARD MILLS AM**

## **Why use the story of Galileo for your last commission as Artistic Director with Victorian Opera?**

The story is about the world as it is now (and always has been essentially, albeit in variable and different circumstances), it's also about absolute things - moral choices, good and evil, significant relationships, truth, politics and power, death and a view of eternity, the wonder, beauty and mystery of creation and a great adventure of the inquiring spirit. The world of Galileo was always politically and civically volatile - as well as being on the cusp of new understandings of the physical universe. Our world seems at peak instability as I write this - and is also on the threshold of new understandings of reality, with scientific discovery on an exponential trajectory. So there are many correspondences with our contemporary world.

It is also a real company piece, an epic story sung by a community of singers who create the world of Galileo, including the Angels, harbingers of eternity, and Devils who are real agents of evil, as well as being humorous and sardonic, with a clear provenance from the traditions of Commedia dell'Arte. It is an opera of ensembles whose musical landscape is formed from the same synthetic energy that inspired composers like Cavalli and Monteverdi. There are two orchestras - a baroque orchestra whose sound would have been familiar to Galileo and his contemporaries - and many elaborate concertante pieces - inspired by the music Gabrieli for San Marco in Venice. The music is a love letter to the music of this age as well as the Italian tradition generally.

The piece is also a summation - in some ways - of my work with Victorian Opera, there are roles for many of the singers the company has mentored and supported over the years. It is a good subject for an old composer - it is retrospective, meditative and has great symphonic and dramatic potential.

## **What challenges have you faced writing for a combined Baroque and Symphony Orchestra?**

There are certain gestures that sit well on the consort of La Compania - as well as the need to pay due attention to the traditional tonalities that sit well on the instruments - to make the music sound well - so that needs to be factored into the overall tonal design.

**What compositional techniques have you employed to differentiate the characters?**

The characters often have their own harmonic gestures, so that the music for each character has, well, character. But there are other processes also, and different kinds of harmony, from 12 tone to purely modal with also synthetic modes and octatonic (scales made up of alternating whole tone and half tone steps and sometimes of limited transposition). There are many contrasts. The Angel's music is naturally sharply differentiated from the Devil's and the gestures of Pope Urban VIII are quite different to those of Cardinal Bellarmino and the other inquisitors. There are other formal structural devices - Act 1 Scene 4 is a passacaglia on a 12 tone ground bass and Act 1 Scene 6 concludes with an elaborate polyphonic utterance inspired by the 40 part motet of Tallis Spem in Numquam Alium Habui - but less complex in terms of the number of real voices as befits the theatre but still effective as an image of the complex energies of the Papal court. Many techniques evolved to suit the exigencies of storytelling at any particular juncture. The music is at the service of the drama and the composer is at the service of the musical impulses.

**In this opera, how are you creating a sense of time and place?**

Time has many frames in opera - there is real time - there is experiential time and there is frozen time and there are the time conventions of the narrative itself which leaps around a bit - though it roughly follows the progression of Galileo's own journey through life. So it's a bit like the conventions of cinema - it is not realistic. The piece is about a spiritual and a spatial journey, so it selects the times and places which are important to this focus. Opera is not, in this form, about realism or historical narrative, but

rather about a sequence of essential and defining actions which have deep symbolic potency. Place is defined by the locations of Galileo's Italy.

**What advice do you have for emerging composers?**

The first thing to say is that it's a tough life and often doesn't end well. So I would not do it unless there is an inner compulsion that overrides everything else. There is no guarantee of success or support, even for students with some talent. The reality is that there is more than enough music in existence already without the need for any more. The new creates its own need because of its quality or relevance. But if you must compose at a professional level, it is important to study and develop your craft - harmony, counterpoint, orchestration, stylistic imitation from the common practice periods are essential before any original note is written. Original ideas are not so uncommon - what is rare is the capacity to give them final form in notation.

As Thomas Beecham said : "My boy if you want a career in music by all means publish it, promote it, record it, conduct it if you must - but on absolutely no account play it or compose it". Good advice - being a composer is not for the faint hearted.

# INTERVIEW WITH LIBRETTIST



**MALCOLM ANGELUCCI**

*A complex life which came into conflict with the political and religious powers of the day, Galileo is a searching meditation amidst questions of faith in a violent, hostile and uncertain world.*

## **Is this a biographical opera about Galileo?**

It is definitely an opera on the life of Galileo, but I would not call it a biography. I learned from Richard (Mills) that opera implies a degree of marvel, and that the referential, biographical elements are a starting point for addressing something that goes beyond the life of the character. In biographies, the protagonist may become an exemplar, a point of reference to think about humans in general, our life, etc. In this opera, this does not come from an accurate depiction of 'what happened': the musical, lyrical and dramatic material is immediately translated into something that transcends history and the story. Our Galileo is a biography as much as *La bohème* is a documentary on poor artists, so to speak.

That said, we are trying to present to the public a work that goes beyond Galileo's infamous trial or his scientific discoveries; the material we work on is the life of a human being, with its hopes, questions, contradictions and desires. The springboard, in this sense, is the biographical.

## **What is the purpose of repetition in this libretto?**

If you mean repetition at the level of the lyrics, this has to do with the work with Richard, and his incredible experience and insight into the workings of opera. I tend to dramatise in a more theatrical way, but Richard is well aware of the need to anchor a scene or an aria using specific devices that he can develop musically to both clarify for the audience and further the poetic meaning of specific passages.

In terms of structural repetitions, the main issue for us was to keep the story tight. Abandoning the unity of time, place and action to cover the entire life of Galileo implies dealing with the problem of maintaining a coherent structure that is understandable for an audience. In this sense, references to past scenes, recurrent minor characters and structural repetition are some devices to address the potential problem.

## **What insights can you give about the narrative device of the Angel and Devil choruses?**

I can assure you that they are not realistic biographical elements... Richard wanted to have a clear and identifiable space to express the spirituality of the opera, of Galileo and of Richard himself. The Angels both signify and perform this aspect; we quoted from the Christian liturgy and from other sources, to try and punctuate the drama with 'vertical' moments in which the characters face important, universal questions.

The Devils, on the contrary, are our way to clearly identify the chaos, the mess, the mixture of greed, desire and havoc that provides the context in which the characters operate. There are oblique references to Commedia dell'Arte and the Italian theatrical tradition, and from the outset, the Devils quote the *Sonetti Lussuriosi* by Pietro Aretino (1492-1556), somehow transporting us back in time. In a way, Angels and Devils force us to go beyond the biography of Galileo; they are clear-cut elements that remind us that we are at the opera.

### **Do you follow a specific process when writing a libretto for opera?**

This was my first full libretto. I approached it with a strong focus on dramaturgy. It was thanks to the ongoing dialogue with Richard and through a process of elimination (painful at times), that the scenes reached the level of stylisation that we were aiming for. The scenes are in fact vignettes that introduce, contextualise and foreground the finale of each act; this requires a lot of constraint. In hindsight, I would suggest to others to begin from the lyrical aspect of the scenes and move backwards to the story. But we were facing the complicated task to present an entire life on stage, uncharted territory for us, so to speak. Narrative elements had to be made explicit.

In terms of research (my background is academic), the motto is: study a lot, but be ready to forget it when needed. We are writing an opera after all, not an essay. The grounding, both in historical and stylistic terms (e.g. the use of lines of eleven syllables, the structure of the rhymes etc) needs to be present, but only enough to allow the magic of music and singing to happen: the real story is told by these elements.

### **Given your academic work on 'poemproducing'\* and the 'voice apparatus', what is it like having your libretto brought to life through the human voice/song and technologies outside of the human body such as instruments and staging elements?**

Poemproducing is a term proposed by an incredibly talented electronic musician, AGF, AKA Antye Greie Ripatti. She writes poetry through the technologies of voice recording and manipulation, without making hierarchical distinctions between sound and meaning, human and digital, etc. It may be banal, but it is often forgotten that the human voice is always contextual. It is also a vehicle of language, which is something that precedes us and at the same time determines us. In other words: good luck finding your 'true voice', or your 'true inner self', for what counts.

Opera is the perfect example in this sense. It is the result of words, rhythm, music, bodies, air, language, architecture, setting, costumes, sound engineering, and it is dialogic in nature. When writing a libretto, the lines are determined by a foreshadowing of all these elements (who will sing it, where, what instrumentation, which audience, etc.), and at the same time will have their role in determining others. For *Galileo*, I felt that Richard was looking for something lyrical, singable, so to speak, something that allows the construction of set arias, perceived by the audience inside the context of traditional opera and not forcing its boundaries. A code that could be recognised, also in light of the fact that the story is indeed very complex. We thought about the singers and an ideal setting, and I worked from there. In the end, I hope that what we will hear is not my libretto, but the result of a creative dialogue.

\* "Poemproducing" implies a voice that is radically immanent, a voice which ultimate truth lies in its contingency" – Angelucci, M., (2017), *Contemplating the Voice Apparatus, SoundEffects*, vol. 7, no. 2, p. 6

**Galileo is in part the story of someone who thought and lived 'outside the box' and the epilogue is a beautiful summation of a person who dared to question. There are parallels to Galileo's story and the treatment of other people who worked and lived outside of the Church's belief systems, like the burning of witches and even more recently the persecution Malala Yousafzai faced from her own faith community. Having written Galileo, what ruminations have you had and where have you arrived, when it comes to the role of people who challenge 'the system'?**

Our *Galileo* tries to thematise the difficulties faced by a person who has ambitions inside a social, cultural and political system, and yet finds himself challenging it to its core. This is a very difficult position, as it is not an attempt at overthrowing society, so to speak, but rather a quest for recognition. While writing, I really learned to appreciate the difficult moral dilemma of a person who knows he is right and needs to navigate a world unwilling to acknowledge it. This made me reflect on my own life, and that of many other friends, colleagues, artists of more or less 'radical' persuasions, all nevertheless defining themselves inside the horizon of an institutionalised career. It is a comfortable position, I must admit, until a line is crossed, until we cannot avoid seeing the contradiction, the hypocrisy, etc. That line, I guess, is different for everybody - at least history teaches us so. I admire the people who recognised that moment and stood firm. As much as the world needs community and movement of people with a moral compass, with age I have come to appreciate these exemplary figures, their strength and maybe their tragic nature, and the iconography that accompanies them, inspiring others. Unfortunately, I am not one of those.

**What can the story of Galileo teach us in a world still debating, even at times violently, the role and relationship of politics, science and religion?**

In a sentence: that change is difficult and painful. I am not an optimist and jotting out a view in a few lines would sound rhetorical. During the writing of the libretto, Richard often stressed the view that any result, be it artistic, scientific, spiritual, ephemeral as it may be, is achieved inside a complex entanglement of power and greed, knowledge and ignorance, morality and immorality in which we are asked to situate ourselves. It is crushing, it is ruthless, it is often unbearably ideological and rhetorical. We see it every day.

# INSTRUMENTS YOU MAY NOT KNOW

As part of our performance, Orchestra Victoria will be joined by La Compañía. This ensemble was formed to perform the music of the Renaissance and early Baroque period and therefore uses the instruments of this time period. Some of these look very familiar even if their names are not, and are the precursors to many of the instruments we know and love today.

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## CHAMBER ORGAN

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Typically, a small to moderate sized pipe organ from the keyboard family of instruments.

Chamber organs were designed for small chapels and private residences. They often only have one keyboard and a limited number of pedals or no pedals at all. Traditionally the air was produced by foot pedals or by a second person operating bellows.

The chamber organ in our ensemble was built by Melbourne manufacturer Knud Smenge and comes to us from The University of Melbourne. It is played standing up and the back of the chamber organ faces the audience with louver doors that will be open showing the mechanism. The open doors also increase the volume.



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## TABOR

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A cylindrical drum with two skinned heads.

It is a member of the membranophone family of instruments due to the stretched skin vibrating when struck. It can be played with a hand or with a stick/s. Due to the cylinder being fully enclosed the sound produced is muted and mellow.

In English, "tabor" translates simply as "drum" and helps to provide the rhythmic pulse to music of this era, especially during processional music. It was common across Europe for tabor players to also play a pipe simultaneously as a one-person band.



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## THEORBO

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A plucked stringed instrument of the lute family.

Like the lute, it has a bulbous sound box and the player plucks, or strums, the strings with the right hand whilst pressing down the strings with the left hand. Its range is similar to that of the cello and the first 2 strings are tuned an octave lower than that of the lute.

Developed in the late 16th Century to suit the new form of opera appearing from the Florentine Camarata. This group, which included Galileo's father, developed the "recitative" where the singer sings free of strict rhythm almost as if speaking. The theorbo was used to provide tonality in these sections.



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## CORNETTO

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A wind instrument typically made from animal horns, ivory or wood.

Like a flute this instrument is a long hollow cylinder with a mouthpiece and holes covered by fingers to create different pitches. It is noted for its broad range of dynamics. Unlike a flute's mouthpiece, the cornetto's mouthpiece is like a brass instrument allowing the embouchure (tightness of the lips) to impact the pitch being generated.

The cornetto was used in a wide variety of music styles from state events to liturgies. It is thought to have developed from ancient and medieval animal horns and reached the peak of popularity in 16th to mid 17th Centuries. It is noted as being highly popular at St Mark's Basilica in Venice during this time.



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## VIOLA DA GAMBA

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A stringed instrument that can be bowed or plucked. The pitch of the smaller viols sits between the treble and tenor clef.

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## VIOLONE

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A stringed instrument that can be bowed or plucked. Similar in size to the modern day cello and double bass.

Whilst there are similarities to the violin family, the viols have sloped shoulders and a flat back, with 5 to 7 strings rather than 4. The fingerboard has frets like a guitar and the sound holes are also shaped more like the letter C rather than the letter F. Viols are played upright inbetween the legs like a modern day cello with the bow held with the palm of the hand facing upwards. The strings are tuned in fourths rather than fifths like the violin family.

Viols became particularly popular during the reign of Queen Elizabeth I and James I of England and were grouped in ensembles called consorts.



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## SACKBUT

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A wind instrument made from brass.

An early form of the trombone but much smaller in size and the bell is less flared. It has a slide to alter pitch which is impacted by the embouchure of the player.

This instrument emerged in the early 15th Century in France and then quickly spread across Europe. Its tone colour was considered noble in spirit lending itself to be written for music used in solemn processions. It also appeared on tombstones as a symbol of divine presence.



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