

<b>Institution:</b> University of Cambridge		
<b>Unit of Assessment:</b> UoA 28		
<b>Title of case study:</b> The Astronomer and the Witch: Uncovering the History of Johannes and Katharina Kepler		
<b>Period when the underpinning research was undertaken:</b> 2010 - 2015		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>  Ulinka Rublack	<b>Role(s) (e.g. job title):</b>  Professor of Early Modern European History	<b>Period(s) employed by submitting HEI:</b> 1996 - present
<b>Period when the claimed impact occurred:</b> 2015 - 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<p><b>1. Summary of the impact</b> (indicative maximum 100 words)</p> <p>In 2015, Ulinka Rublack published <i>The Astronomer and the Witch: Johannes Kepler's Fight for His Mother</i> with Oxford University Press [R1]. Based on archival and printed sources, the book tells the story of how the famous astronomer Johannes Kepler (1571-1630) and his family responded to the accusation that their mother Katharina was a witch. In the Anglo-American fiction and non-fiction literature on this trial, Katharina has consistently been portrayed as a witch-like woman. Rublack's book overturns this account. Through documentaries, media appearances, press coverage, and the book's readership, Rublack has changed the way the public in the UK and Germany perceive Kepler and Katharina and provided fresh insight into the personal and familial effects of the witch trials. Her re-appraisal of Katharina's life has also inspired an opera, performed in Cambridge and Tübingen, as well as a film, in which Helen Mirren will act as Katharina.</p>		
<p><b>2. Underpinning research</b> (indicative maximum 500 words)</p> <p>73,000 men and women were tried for witchcraft and 40,000 executed in Europe between 1500 and 1700. More than half of all victims were executed in the German lands from 1560. 75% of those accused were women.</p> <p>One of these women was Katharina Kepler, the sixty-eight-year-old, illiterate mother of the famous astronomer Johannes Kepler, who was accused in the South-West German town of Leonberg in 1615. Katharina vehemently denied the charge and her family were equally outraged. The astronomer took over her legal defence. Yet it took six years for the old woman to be acquitted, by which time she was so frail that she died within months.</p> <p>Professor Rublack of the Cambridge University History Faculty came across this trial in the Württemberg state archives thirty years ago. She began to research her book in 2010. Unusually so, the files of the trial were completely preserved. In addition, Rublack discovered that Johannes Kepler frequently had written in surprisingly observing and intimate terms about his life and the accusation. Moreover, the local community in which Katharina Kepler lived turned out to be one of the best documented for this period.</p> <p>As Rublack read all these records, she understood how they could take us into the life of a community, woman and her family to understand just what could make an old woman vulnerable at a particular point in time and how much it took to protect her. The Keplers suddenly found themselves part of a drama to save their mother from a trial, torture, and the possibility of being burnt at the stake.</p>		

Rublack reconstructed Katharina's life and the belief systems of the time. Johannes Kepler was at the height of his career during these years. From the very beginning, his tone was highly emotive as he set out to defend his own reputation at all costs. He became closer to his mother as he took over her defence. When his mother was finally acquitted, he was utterly exhausted. To revive his spirits, Kepler published a pioneering treatise that critiqued the notion that scientific and magic knowledge could be safely distinguished.

The Keplers' trial tells us that the victims of Germany's witch craze were not just women. Every member of the Kepler family, including two further siblings, reacted in different ways to their mother and the strain of a charge against her. 73,000 trials hint at such experiences shared by hundreds of thousands.

Rublack's book hence recasts the way we approach the social impact of the witchcraze and how we think about the attitude of a leading natural philosopher towards knowledge. No previous publication had used the trial to discuss Kepler's understanding of natural philosophy. The book was published by Oxford University Press (Trade) and translated into Chinese, Arabic, Italian, Hungarian and German, where it became a listed bestselling book within months, now in its fifth edition, having sold 10,000 copies.

### 3. References to the research (indicative maximum of six references)

[R1] Ulinka Rublack, *The Astronomer and the Witch: Johannes Kepler's Fight for His Mother* (Oxford: Oxford University Press, 2015), ISBN: 9780198736783

### 4. Details of the impact (indicative maximum 750 words)

The impact of Rublack's book is threefold.

#### Promoting Public Understanding of the Kepler Trial

It, first, led to talks aimed at a wider public at literary and history festivals, book presentations, in schools and at summer-schools, which reached around 3,000 listeners in the UK and Germany. In the UK, Rublack presented the book at the 2016 Hay Festival, the 2018 Wimpole History Festival and the Dartington Music Summer School. It also led to radio presentations, appearances on In Our Time (Radio 4), blogs and prominent book reviews in three languages.

[E1] One of these was in the Guardian, another in the German newspaper Die Zeit. It was shortlisted by the British Society for the History of Science for the Dingle Book Prize and nominated for Observer Book of the Year. This impact started in 2015 and continues, as the German edition was only published in October 2018. In July 2019, Rublack was awarded the German *Historiker*-prize for her lifetime achievements and especially for *The Astronomer and the Witch* – a prize that is only awarded every three years and is the country's most prestigious award for historians. [E2]

#### Inspiring an Opera

The book, secondly, led to the creation of an entirely new opera, *Kepler's Trial*, which was publicly performed at the Cambridge Festival of Ideas, the Victoria and Albert Museum, and, most recently, in parts and with new additions at Tübingen University, Germany. In sum, 750 people from the wider public as well as pupils who attended with their class listened to the opera live, while a YouTube film with a complete live-recording counts 2,800 views to date. [E3]

The opera resulted from two terms of structured thematic discussions with a team of interdisciplinary scholars and composer Tim Watts in Cambridge, October 2015 to April 2016, as well as film artist Aura Satz. Watts based the libretto and entire composition on the book and close discussions with Rublack and her colleagues in order to depart from previous portrayals of Kepler as distant from his mother's world in operas by Hindemith and Glass. In Hindemith, Katharina features as deranged woman, whereas *Kepler's Trial* engages with her humanity and plight. *Kepler's Trial* moreover shows how much the relationship with his mother mattered for Kepler's own understanding of knowledge and its use. It closely engages with Kepler's time,

both musically and through the involvement of visual art that was projected onto an elliptical screen. [E4]

Rublack closely worked together with Aura Satz and the Fitzwilliam Museum Collections. They chose the sculpture of an old, naked woman from c.1530 that Rublack had used in her book to become a central feature in the film to communicate the harrowing experience of an aged mother accused of witchcraft. Satz had previously worked on Joan of Arc and is particularly interested in bringing out the voices of resisting women in past societies. She then further collaborated with Rublack to produce a further short film around this theme that was screened at film festivals. [E5]

The opera and film performances were accompanied by extensive, free programme brochures and supported by a website which features numerous resources aimed at the broader public and teachers. The website includes, for example, the first English-language translation of Kepler's legal defence of his mother. [E6]

The performance at the Victoria and Albert Museum was accompanied by a discussion with Dame Marina Warner and its innovative nature not least attracted interest by music specialists. Acclaimed pianist Dame Joanna McGregor therefore invited Rublack to lecture at the Dartington summer-school 2018. Watts has since then performed scenes from the opera in Tübingen, to an audience of 300, and then in Munich in November 2019, for an audience of 500. [E7]

All of these activities changed people's sense of Kepler. He becomes visible as a man who lived in relation to women and their knowledge, and to a world in which modern boundaries between religion and magic were far from clear-cut.

#### Developing a Major "Hollywood" Movie

Thirdly, in January 2018 the book attracted the interest of acclaimed film director Michael Hoffman and his production company Sympathetic Ink. Hoffman writes:

Ulinka Rublack, early in her book *The Astronomer and the Witch*, makes clear her intention to write an intimate history. While it deals with Johannes Kepler and supplies a wealth of detail about his life and thought, by choosing to center her narrative on his complex relationship with his mother, a woman accused of witchcraft at the height of the German witch craze, Rublack brings home the challenge and pain of lives pulled apart by the tension between a dying medieval world and the birth of the enlightenment. It was this very human dimension of the conception and the writing of *The Astronomer and the Witch* that made me see in it the potential for a film. Kepler emerges as brilliant scientist, yes, but as a father too, and a son. Her razor-sharp description of the town of Leonberg and the profiles of its inhabitants built painstakingly from civil documents and trial records created a world so specific and at the same time so universal, that the translation from the book to the screenplay was a deeply rewarding opportunity. The fact that Academy Award winner, Helen Mirren, saw immediately the potential in the role of Katharina Kepler is again a testament to the depth and power of Dr. Rublack's research. Michael Hoffman [E8]

After contacting Rublack in February 2018, Hoffman worked together with Roland Walters to write a film script closely based on the book and intense discussions with Rublack. Their collaboration is ongoing. Rublack has so far read and commented on twelve versions of the script, provided copious advice on secondary sources and questions of detail. She also organised a discussion of Hoffman and Walters with the interdisciplinary team of scholars involved in the making of the opera. In relation to the script, Rublack in particular ensured that the historical myth that Katharina's aunt was burnt as a witch was not reproduced. There were intense discussions about the extent to which Katharina was involved in healing, and her possible relationship to magic. Focused discussions about how to convey Kepler's personality and ideas are ongoing. Rublack took Hoffman and Walters to see locations related to Kepler's life in Germany, and showed them archival records relating to Katharina. Not only then has her

book fascinated these writers and directors, but the script also evolves in constant dialogue with her historical research and analysis.

Meanwhile, the casting has begun. Helen Mirren has confirmed that she will act as Katharina. A world-leading actor has expressed his enthusiasm for the script and strong interest in the role of Kepler. Finalising the cast and the production of the film have been delayed due to COVID, as this will be a major international coproduction for the cinema and it continues to be difficult to confirm schedules. The production company is Sympathetic Ink, directed by Andy Paterson. Paterson confirmed in January 2020 that extensive location shooting had been completed.

Rublack's research thus has clearly impacted on the UK's arts and culture and will change widely held ideas about the witchcraze as targeting "old crones" active as healing women as well as about a scientific revolution championed by men who wholeheartedly repudiated "magic".

Rublack has moreover been interviewed as sole historian in a documentary by SWR/ Film Gruppe 5 on Kepler that was shown across channels ranging from ARTE to Czech television in spring 2020 and is available on YouTube. Her interview led to the inclusion of Katharina's story in the film, which was not previously envisaged. [E9]

##### 5. Sources to corroborate the impact (indicative maximum of 10 references)

[E1] [In Our Time](#) 29.12.2016 on Kepler. [In Our Time](#) 06.12.2018 on the Thirty Years War. John Banville, who wrote a prominent novel about Kepler in which he portrayed Katharina as a witch-like woman, reviewed Rublack's book in the [Literary Review](#), apologising for his previous account – "mea culpa"! Rublack's appearance at the 2016 [Hay Festival](#); the 2018 [Wimpoole History Festival](#); and the 2018 Dartington Music Summer School. <https://www.facebook.com/DartingtonArts/posts/1827434160671936>

The award of the 2019 Historiker-prize featured in a large number of German newspapers, see, for instance, <https://www.boersenblatt.net/2019-07-03-artikel-preis-des-historischen-kollegs-2019.1686615.html> <https://www.welt.de/regionales/bayern/article196301535/Der-Astronom-und-die-Hexe-Autorin-erhaelt-Historikerpreis.html>

[E2] [Guardian Article](#) 21.10.2015; [Zeit Article](#) 21.11.2018; 2017 [Dingle Prize](#). Rublack's engagement with local German communities in which Kepler lived and her raising of awareness about the circumstances of his life and the trial, and how we should remember it through local monuments, has been documented by newspapers, see, for instance: <https://www.stuttgarter-zeitung.de/inhalt.ulinka-rublack-in-leonberg-ein-neues-denkmal-fuer-katharina-kepler.8e7ac68f-bbe4-4966-a4a1-72e40b3c9438.html>

[E3] [YouTube](#) of Opera Performance.

[E4] The opera reviewed at length in the Talking Humanities blog as well as the Seen and Heard International website <https://talkinghumanities.blogs.sas.ac.uk/2017/12/05/keplers-trial-out-of-many-disciplines-one-opera/> <https://seenandheard-international.com/2017/11/at-the-va-tim-watts-musically-and-dramatically-compelling-keplers-trial/>

[E5] <https://www.iamanagram.com/KeplersTrial.php> <https://www.youtube.com/watch?v=KTZmZP0oTUA>

[E6] The opera was performed in Cambridge and at the Victoria and Albert Museum, as featured on its project website: <http://keplers-trial.com/>

Scenes from it were recently staged and reviewed in Tübingen, Germany, and accompanied by a website, and turned into a post-doctoral student project as a production, <https://uni-tuebingen.de/en/forschung/forschungsschwerpunkte/graduierntenkollegs/gk-religioeses-wissen/praxisprojekte/keplers-welten/#c774573> advertised and very favourably reviewed in local newspapers.

[E7] The popular magazine [History Today](#) featured an article on the book and Malcolm Gaskill's review of the book in the [London Review of Books](#) caught Michael Hoffman's eye.

[E8] Testimonial from Sympathetic Ink

[E9] <http://gruppe5film.de/en/produktionen/johannes-kepler>