## Technologies of Spectacle – Knowledge Transfer in Early Modern Theater Cultures. Workshop

Veranstalter: Jan Lazardzig, Amsterdam; Hole Rössler, Wolfenbüttel

**Datum, Ort:** 14.11.2014–15.11.2014, Amsterdam

**Bericht von:** Barbara Tepper, Theatre Studies, University of Amsterdam

The innovations of the Italian Renaissance in stage design and technology are unmatched in theatre history but reached their zenith in Florence under the Medici Family in the early Baroque. To celebrate weddings and visits of foreign dignitaries, they organized festivals with sumptuous theatre spectacles. Immense amounts of money were spent and the expertise of hundreds of architects, designers, painters and engineers were required to execute the monumental plans. For contemporary audiences more interesting than the play itself were the intermedi, musical interludes before the play began and after each of its acts. Each intermedio had its own elaborate position on stage and was usually accompanied by a dazzling spectacle; a sea with moving waves from which a chariot emerged that was drawn by dolphins, gods levitating on clouds or demons rising out of fiery lakes. The job of the scenic designer, as we might think of it in modern times, was performed by architects and engineers. The demands of the complex stage spectacles required extensive training in perspective and engineering.<sup>1</sup> It's a wellknown fact that this architectural and technological knowledge transferred throughout Europe to achieve the status of codified and standardized knowledge. Less widely known is how this knowledge was transferred. The workshop addressed this neglected field of research and placed it in view of a broader con-

The starting point for the workshop was the rediscovery of the manuscript codex iconographicus 401 (Bavarian State Library), of which a transcript was provided for all participants. In their introduction JAN LAZARDZIG (Amsterdam) and HOLE RÖSSLER (Wolfenbüttel) ascribed this manuscript to the German architect Joseph

Furttenbach (1591-1667). It provides an understanding of early 17th century stage technology and centers machines and ornamentations created by the architect and stage designer Giulio Parigi (1571-1635), for the six intermedi of "Il Giudizio di Paride" (The Judgment of Paris) at the Uffizi theatre in Florence in 1608. The author of the manuscript elucidates the construction and use of the machines by detailed descriptions and drawings and etchings. Furttenbach was born in a family of patricians and merchants and was sent to Italy to receive an education as a merchant himself at the age of sixteen. He soon became interested in Italian architecture and engineering and attended Parigi's academy of art and engineering in Florence. Lazardzig and Rössler regard cod. icon. 401 to be by the hand of Furttenbach for several reasons. The first indication is the topic: Furttenbach was one of the few authors who included stage design and machinery. In addition he refers to Parigi on several occasions. A comparison with other works from Furttenbach's hand reveal similarities in handwriting, watermark, descriptions, numbering pages and blanks for later notes numbering. The conclusion drawn is that the author of the manuscript can be no one other than Joseph Furttenbach.

The document contains 56 pages and the paging shows that the manuscript is a fragment, probably written between 1617 and 1627. The first and third part offer new details of the scenery and describe several machines. The historian of architecture SIMON PAULUS (Stuttgart) considered the codex from the critical viewpoint of an engineer and argued that the sketches in the manuscript are not of high standard. There are no drawings in the second and fourth part of the codex and the illustrations in the third part are drawn within the text. Succeeding manuscripts by Furttenbach show an increased professionalism in drawing. Paulus' contribution led to a vivid discussion, raising questions about Furttenbach's architectural skills and the purpose of the manuscript. According to Lazardzig and

<sup>&</sup>lt;sup>1</sup>Oscar Brockett / Margaret Mitchell / Linda Hardberger, Making the scene: A history of stage design and technology in Europe and the United States, San Antonio 2010, pp. 77-78.

Rössler, the codex is similar to another document that was not meant for publication. Nonetheless, it is possible that this particular manuscript was meant for publication, for the reason that Furttenbach seems to address a wider audience.

SARA MAMONE (Florence), specialized in Florentine court theatre, contributed with a presentation about the theatrical practice in Florence in the sixteenth century. On the report of Mamone, the first episode of a new theatre started with the festivities that honored the wedding of Cosimo I de Medici and Eleonora of Toledo in 1539. Sebastiano da San Gallo, known for his perspective drawing, designed the setting for a comedy. His assistant was Giorgio Vasari. None of the designs for the production survived, but Vasari provided an account of the setting. A machine that must have left a considerable impression on the spectators was a machine that made the sun rise in the east at the beginning of the play and set in the west at the end, as to represent the passing of time. The lavish court spectacles the Medici wished to put on demanded a deep stage and room to accommodate the various sets and machinery. Vasari therefore designed a permanent theatre at the Uffizi. This "Teatro Mediceo" was only completed in 1686, by the hand of Bernardo Buontalenti (1531-1608), who had been a student of Vasari. It was approximately 70 feet wide, 190 feet deep and 48 feet high, large enough to accommodate perhaps the most elaborate theatrical performance ever held in Italy in its time. For the occasion of another Medici wedding, Buontalenti created the designs for "La Pellegrina" in 1689. An insight in the spectacle is provided by several etchings and engravings that were commanded by the grand duke himself.2

In 1608 Parigi staged "Il Giudizio di Paride", along with six *intermedi*, to celebrate the wedding of Ferdinando I de Medici and Christine of Lorraine. Unfortunately, the "Teatro Mediceo" was destroyed in 1857. The machinery was transferred to Palazzo Pitti, where it was stored as a relic of the ephemeral spectacle itself. DOMINIQUE LAUVERNIER (Caen) created a 3D model of the fourth *intermedio* of "Il Giudizio", the ship of the Florentine Amerigo Vespucci. In his virtual

model, one can look around in the "Teatro Mediceo" and view the stage from different perspectives. His contribution gave an insight in the functioning of periaktoi as well, which derive from the Greek theatre and provide a simple and quick way of changing scenes. The wooden construction rotates and has three to six sides, each side covered with a painted panel. The axis of the periaktos was fixed by a socket on stage and manually operated by a stagehand using a handle below the stage. Furttenbach described the functioning of triangular shaped periaktoi in detail in his "Mannhafter Kunstspiegel", published in 1663.3 However, the *periaktoi* in the Furttenbach manuscript are rectangular rather than triangular.

The descriptions in the manuscript provide some new information about the theatre machinery but moreover, the manuscript supplies us with a better understanding of Furttenbach's education in Florence and gives an idea of the migration of technique from Italy to Germany. Jan Lazardzig defined four aspects of knowledge transfer with regard to the Furttenbach manuscript: transfer as travelling, transfer as translating, transfer as teaching and transfer as putting knowledge into effect, that all applied to Furttenbach. In 1627 he published his "Newes Itinerarium Italiae", a travel guide that provided the reader with knowledge on accommodation and taverns but also on the theory and practice of architecture. Joseph Furttenbach was a mediator; he adopted and translated terms to make them available for his readers. It is assumed that he stayed in Italy for approximately ten years. Back in Germany he settled in Ulm, where he wrote a dozen books and established a Kunstkammer, based on objects brought from Italy. This cabinet of curiosities, for which the Uffizi served as role model, was a place of teaching and conversation that attracted many visitors who imagined themselves in cultural Italy. Furttenbach did not leave his homeland anymore.

The cod. icon. 401 gives an idea of the migration of technique from Italy to Germany. In his contribution theatre historian PETER EV-ERSMANN (Amsterdam) posed the question

<sup>&</sup>lt;sup>2</sup> Brockett, Making the scene, pp. 78-87.

<sup>&</sup>lt;sup>3</sup> Brockett, Making the scene, p. 71.

how technical and architectural information was transferred to the Netherlands and in particular, to Amsterdam. Little is known about the first permanent theatre in Amsterdam, which was built in 1617. In 1637 this theatre was succeeded by the Schouwburg of Jacob van Campen. The curator of the theatre collection of the University of Amsterdam WILLEM RODENHUIS (Amsterdam) presented visual documentation of the Schouwburg from the University's Special Collection. It holds two original engravings by Savery that depict auditorium and stage and a ground plan of the Schouwburg by Vingboons. There is no question that Jacob van Campen (1596-1657) was influenced by Italian theatre architecture. Eversmann mentioned the significance between the work of Palladio and the designs of Van Campen. Where, how and when van Campen acquired this knowledge is open for debate. Besides the possibility that he travelled to Italy himself, which can't be verified, he could have been influenced by Constantijn Huygens. There's evidence Huygens travelled to Venice and England and was very much taken by the Italian architecture. Another architect who could have influenced Van Campen was Inigo Jones, who - like Furttenbach - studied at Parigi's academy. A final possibility is that he acquired his knowledge from treatises written by Italian architects.

MATTEO VALLERIANI (Berlin) and STE-FAN HULFELD (Vienna) kept their contributions concise to leave space for discussion. Hulfeld concluded after reading the Furttenbach manuscript that it has the language of the engineer, in which players are no more than puppets. In a mechanical age, the actor was of minor importance. Nonetheless, Hulfeld argues, it were human beings who put this machinery into effect. There were sometimes over a hundred people working behind the scenes. The expertise of Valleriani is the history of mechanics. He emphasized that the functioning of the machinery was of major importance. The components of the machines did not only have to function, they had to operate flawlessly in view of the fact that there was an audience present. Every disturbance or noise would influence the performance. The early modern engineers therefore used traditional and new science as well as mathematical approaches.

Joseph Furttenbach's manuscript sheds new light on an era in theatre history that captured the imagination of many; the sumptuous theatre spectacles of the Italian Baroque. The approach to put this very specific aspect – the manuscript - in a broader context was educational and interesting. The speakers tried to widen the subject. However, the risk of enlarging a field is that focus on the essence can get lost. In my opinion the lectures during this workshop were not very concise. As a result there was not enough space for interaction and the exchange of ideas, which deviates a workshop from a conference. Nonetheless, the workshop provided enough fruitful thoughts for further research to tackle a desideratum in theatre history: the transfer of technical knowledge in early modern theatre cultures.

## **Conference Overview:**

Welcome / Introduction Jan Lazardzig (Amsterdam) / Hole Rössler (Wolfenbüttel)

Sara Mamone (Florence), The Uffizi Theatre: The Florentine Scene from Bernardo Buontalenti to Giulio and Alfonso Parigi

Willem Rodenhuis (Amsterdam), Presentation from the Performing Arts Special Collection "Theater in Nederland" (TIN)

Peter Eversmann (Amsterdam), The Amsterdam 'Schouwburg' of 1637: Design Influences and Technical Furnishings

Dominique Lauvernier (Caen), Presentation of a 3D model of the fourth intermezzo of "Il Giudizio di Paride"

Simon Paulus (Stuttgart), The View of an Engineer: Some Aspects of Spatial and Technical Perception in the "Furttenbach-Manuscript"

Matteo Valleriani (Berlin), Liberty of Action and Imitation: How to Achieve a Result by Any Means

Stefan Hulfeld (Vienna), A Theory of Acting for Stage Machinery

Tagungsbericht Technologies of Spectacle – Knowledge Transfer in Early Modern Theater Cultures. Workshop. 14.11.2014–15.11.2014, Ams-

terdam, in: H-Soz-Kult 10.07.2015.