How new technologies can contribute to our understanding of seventeenth- and eighteenth-century drama: an Antwerp case study

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Abstract: The hundreds of Dutch-spoken plays written in Antwerp in the seventeenth and eighteenth century have rarely been considered within the context for which they were written: the Antwerp theatre stages. Literary and architectural evolutions influenced each other, and studying the relationship between the repertoire and the theatres can be quite revealing. However, all of the seventeenth- and eighteenth-century Antwerp theatres are long gone. This article explores the possibilities offered by the use of computer models in the field of theatre history and in particular in the reconstruction of the Antwerp theatres.

Keywords: Theatre History, Drama, Architecture, Digital Humanities, Computer Modeling, Seventeenth Century, Eighteenth Century, Antwerp

The reconstruction is perhaps the approach in theatre scholarship which comes closest to seizing the essence of the art [of theatre].

C.M. Fogarty and T. Lawrenson[1]

Introduction

Throughout the seventeenth and the first half of the eighteenth century hundreds of Dutch-spoken plays were written specifically for the stages of the Antwerp theatres, about one hundred of these plays survive and a certain number of them have been researched.[2] However, few have been considered within the original performance context and the theatre buildings and stages for which they were written. The evolution of the repertoire is often closely connected to developments within the organizations that ran the Antwerp theatres, to the objectives of these organizations, and to the design of the stages and larger theatre buildings. [29] The reason for the lack of interest in the physical context is simple: little information about the material circumstances of the original performances has survived, and (almost) no images of the theatres remain with us today. Those wishing to study these plays in relationship to the theatres they were performed in therefore have no visual references.

In an article published in *Theatre Survey* in 1984, the theatre scholar John Golder described what he saw as 'the potential which graphic computers have in the research into and rebuilding of theatres of the past.'[3] Golder supported his assertion with a simple but highly effective computer model of the Parisian Théâtre du Marais as it existed in 1644, demonstrating a new tool with which to research historical theatres. Indeed, one way to gain more insight into

the original performance conditions of a play has only relatively recently become available to us and consists in reconstructing these theatre venues under the guise of three-dimensional computer models. At the same time another theatre scholar, Robert K. Sarlós, also began using computer models, not only as a means to visualize the past, but also to prepare a performance of the Luzern Passion Play.[4] As John Golder wrote, 'the possibilities [of computer modelling], if not endless, are considerable'.[5]

Both Sarlós' and Golder's pioneering efforts have been followed by a number of researchers using computers and 3D-modelling software to assist and visualize their historical research. David Thomas took another look at the Théâtre du Marais, and also reconstructed the Theatre Royal of Drury Lane, London.[6] Christa Williford added several Parisian theatres to the list and created models of, among others, the Hôtel de Bourgogne, the Palais Royal and the Comédie Française.[7] Frank Mohler created highly intricate models of stage machinery following original manuscripts and treatises or based on the surviving Baroque theatres of Gripsholm, Drottningholm and Český Krumlov.[8] Finally, a team of international scholars was involved in the Theatron project,[9] which led to the creation of a series of web-based, educational 3D walkthroughs of emblematic, historical theatres including the Teatro Farnese and the theatres of Drottningholm and Drury Lane.[10] These researchers have amply demonstrated the possibilities of 3D modelling. None of them consider 3D modelling as a goal in itself, but merely as one of several means at their disposal to gain more insight into historical theatre practices and into the performance of plays.[11] Since 1984 computers have come a long way, as has modelling software. In the field of Dutch theatre history however, this approach to historical theatres has rarely been attempted. This essay seeks to highlight some aspects of the relationship between a play and its stage while at the same time exploring the role of computer models within the field of (the history of) Dutch drama.

The relationship between a text and its physical surroundings can manifest itself in many ways. One example is the very specific and literal relationship between the scenic and technical requirements of a play and the technical possibilities [30] and limitations of the stage for which the play was written. A rhetoricians' play, written by the chamber of rhetoric in a small Flemish village, will no doubt differ with regard to its technical demands when compared with *tragédies en musique* written for the Parisian Académie Royale de Musique.[12] Quite different, yet equally interesting, is the potential relationship between the content of a play and the layout, design and decorations of the immediate surroundings of the performance of that play. The location of a performance can shape the reception of a play by the audience and the interpretation of the meaning of its content. For example, the layout and decorations of the auditorium may carry a message of aesthetic or moral values or they may emphasize references to the sovereignty of the local rulers, whether civic, ecclesiastical or noble in nature.[13]

The methodology involving computer modelling will be illustrated by providing some examples taken from ongoing research into the Antwerp theatres of the seventeenth and eighteenth century and their repertoire. In 2006, at the Centre for Renaissance Literature (University of Antwerp, Belgium), a research project into the history of the theatres and the theatre life in Antwerp between 1610 and 1762 was initiated. Considering the historical and cultural value, research is, understandably, often focused on the large or famous theatres: Molière's Hôtel de Bourgogne, G.F. Handel's Haymarket Theatre, W.A. Mozart's Burgtheater or the Amsterdam City Theatre of 1637. Research into the Antwerp theatres was set up in order to gain a different view: the relatively small theatres that blossomed there may be less documented, but they represent the kind of venues that could also be found in a host of other

cities and provincial towns in the Low Countries throughout the seventeenth and eighteenth centuries.

Computer modelling

Computer modelling or Computer Aided Design (CAD), a technique that is common in product development, architectural design or movies, consists of using the computer to build three-dimensional, virtual objects or edifices based on, for example, two-dimensional drawings, written descriptions or simply one's own imagination. A virtual building consists of points, placed in a space along Cartesian axes, connected by lines – resulting in a wireframe model (fig. 1) – which in turn can be filled and coloured (textured) to look like walls, edges, floors, roofs, etc. Separate elements (doors, windows, columns, etc.) can then be assembled to form a building (cf. figs. 6, 7, 10 and 14). The appearance and intricacy of a computer model is only limited by the possibilities of the software, the strength of the computer and the competence of the designer. [31]

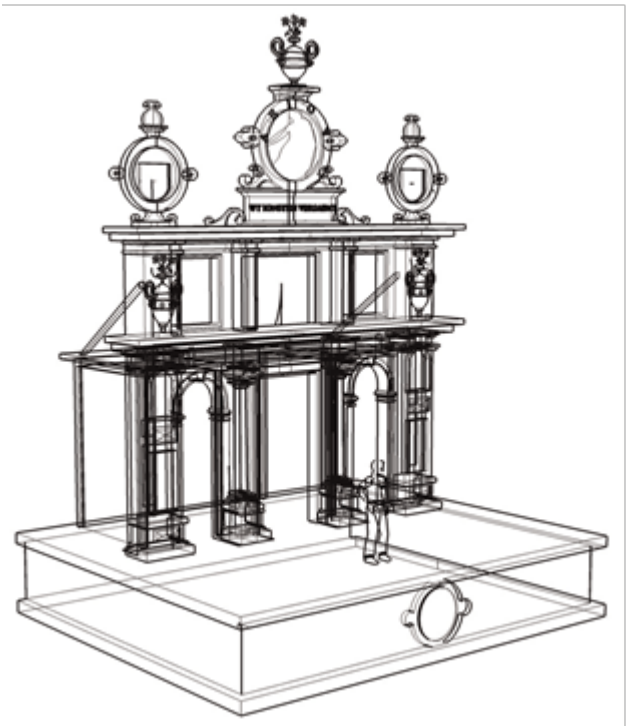

Fig. 1 A wireframe model of the stage of the Antwerp Landjuweel (Country Jewel) of 1561.

Unlike a textual description or a drawing on paper, a computer model allows us to view a building and study it from every imaginable angle, not impeded by the practical restrictions of a large, full-scale building or a physical scale model. When considering theatre buildings which burned down or were demolished in the seventeenth or eighteenth century, the most important advantage in using computer models is the fact that they allow us to visualize that which has disappeared. Or as Marc Gellert, involved in a project to virtually reconstruct the German synagogues destroyed before and during World War II, put it:

> 3D CAD simulation [...] has made possible the electronic representation of pre-existing architectural accomplishments long since destroyed. This form of reconstruction is not possible via traditional methods, such as drawings or architectural models. 3D CAD simulation makes it possible to enter a three-dimensional computer model and visualize it through every conceivable point of view within moments, gaining spatial impressions on a natural scale from the perspective of the beholder.[14] [32]

The most obvious and visible characteristic computer models have, is that they can show and illustrate, both to the specialized researcher and the public at large, that which has long gone, albeit in a hypothetical form of course.[15] While rebuilding the Globe Theatre on a real scale in order to study both the building and the plays Shakespeare wrote is a laudable undertaking and can help to visualize what is gone, many practical objections should be taken into account.[16]

First of all we must accept that when new archival information becomes available it is no easy feat to incorporate this new data into the actual building or a physical scale model.[17] Computer models however are highly flexible and no computer model is ever final. Unlike a physical scale model, a computer model can easily be changed and updated. The chronologically successive stages in the development of a theatre building, showing what has remained the same and what was changed (figs. 2-7) can also be reconstructed efficiently. With a few simple operations, the model of a building can be drastically altered, the proscenium arch enlarged, a row of shutters and wings added, etc. Or a few elements can be lifted out of the model and studied close-up (fig. 8).

Secondly, a real building, or even a physical scale model can give a false sense of comfort, of certainty. The reconstructed Globe Theatre looks like the original theatre, but it is not. On the contrary, it is the result of scholarly debate, academic guesswork and the selection of one of many possible outcomes. In this type of theatre historical research, the results are indeed always hypotheses and interpretations, based on archival sources and text-based research, not absolute certainties. Unlike a real building or a physical model, a computer model can easily reflect the different interpretations: alternative ideas concerning the lighting, layout, setup, decoration or even acoustics[18] can be tested, and several models can co-exist as different hypotheses, every scholar can alter the model according to his or her findings, alternatives can be tested in a simple manner and every model becomes (the proof of) a new hypothesis. Computer models '[provide] us with the best tool we have had so far for testing out theories economically. Rectification provides a "proof by construction" – *proof* in both senses: "confirmation", but also "trial". Once your theory is externalized in [a computer model], it is there to be critiqued, first by yourself, then by others.'[19] And once critiqued, the model can of course to be changed, corrected and updated. Creating a computer model is indeed more than 'just' drawing lines – even though a single model may contain millions of those lines – it is part of a larger research and thinking process. A researcher can experience the possibilities and impossibilities of a particular stage design first hand. Descriptions, dimensions and stage directions which seem to work on paper, may actually turn out to be physically impossible in reality and a computer model provides a researcher with immediate feedback. Robert K. Sarlós summarized the advantages of using computer models as follows: [33]

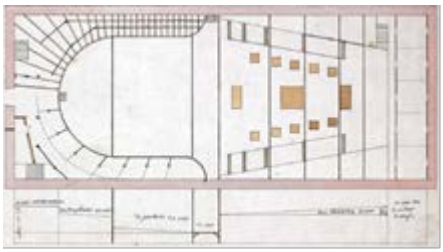

Fig. 2

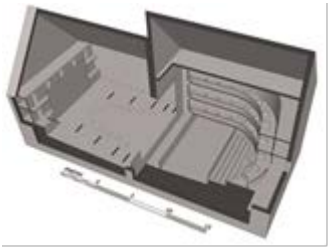

Fig. 3

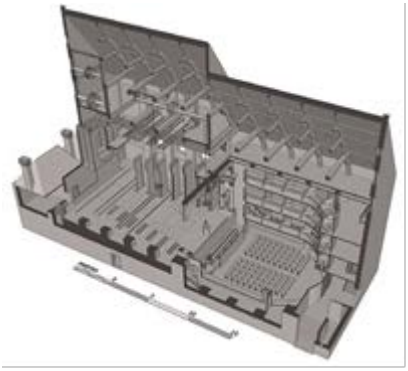

Fig. 4

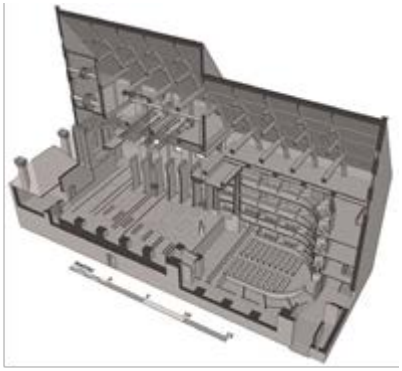

Fig. 5

Fig. 6

Fig. 7

Figs. 2-7 Different computer models of the Antwerp Theatre of the Tapestry Hall (1711, rebuilt following the original plans, around 1753). Figs. 2 and 3: the original drawing and a computer model of a rejected proposal (ca.1710). This design was rejected for several reasons, including a division of the auditorium which was most likely not suited to the Antwerp (social) situation. Figs. 4 and 5: the theatre as it looked in 1743 (fig. 4) and the theatre as it looked in 1776 (fig. 5). The changes concern the proscenium arch and the auditorium. Figs. 6 and 7: The interior as it looked in 1743. The computer allows us to design these different versions quite efficiently. [34]

Fig. 8 Some elements lifted from the model of the Theatre of the Tapestry Hall. Extracting such elements can help us to study them up close or to use them to explain the technical workings of a Baroque theatre.

> To the extent that [computer models] assist in reconciling contradictory information found in various manuscripts, in resolving alternate readings of unclear or ambiguous passages, or in testing conjectures intended to fill lacunae, they serve as a sophisticated tool in primary research – the historians' usual labor of unravelling what the sources do and do not reveal about a performance.[20]

Finally we must realize that chances that, for example, Jacob van Campen's (1637) theatre in Amsterdam will ever be rebuilt are slim, the public support being too small, the financial cost too high. Exactly like real buildings, computer models allow the specialized researcher, the student and the layman to enter the structure, experience the sightlines of the audience, observe the stage and the sets from different angles throughout the auditorium – an experience often central to the reception of a play in an age where illusion was of a vital importance.

However, like any other methodology, there are certain pitfalls a user of computer models should be mindful of and it is the builder's responsibility to be prepared to address these potential issues. First of all, like a physical scale model, a computer model is nothing but a model, a hypothetical reconstruction, and, again like a physical model or a full-scale reconstruction, it should not be mistaken for the real thing. A virtual wooden beam may behave quite differently from a real [35] seventeenth-century oak beam, just as the work of a seventeenth-century carpenter cannot be fully replaced by a virtual version of his work. However, as described above, in a virtual model it is much easier to compensate for these shortcomings, or correct them in a later stage, than in a physical reconstruction. At the same time, computer modelling software and computers themselves will become more powerful with time, until there is almost no difference between a photo of a real theatre and the image of a computer model. Nevertheless, the model remains nothing but an illusion, and the unsuspecting viewer should be told so. *The London Charter for the computer-based visualisation of cultural heritage*, a recent initiative consisting of a set of principles and guidelines, attempts to streamline the reconstruction process exactly by recognizing the limitations of computer modelling and by stressing the importance of the scientific use of sources, making sure that a computer model is embedded in sufficient information to distinguish fiction, hypothesis and reality from each other.[21] Although saying that a computer is

only as smart as its programmer and user may be a platitude, it is nevertheless correct. Anyone expecting a valid outcome of his study has to base his hypotheses on solid, basic research. Or as Robert Sarlós wrote:

> The dangers inherent in model building are nevertheless apparent; they become blatant when the theoretical reconstruction essays, based upon insufficient data, are turned into mass produced scale-model kits, or into pseudo-historical edifices for performances in a fake Shakespearean style.[22]

In short, in this type of research a computer model should never be a goal in itself, neither should it be an expression of nostalgia for what is no longer there. A computer model is one of many available academic tools, and it should always be considered in relation to a larger context, in our case the repertoire. This brings us to another matter: the relationship between a play and the theatre for which it was written.

The play and its stage

Many seventeenth- and eighteenth-century theatre plays and operas were written for very specific stages, and few works were written with performances outside the original context in mind. A well-known and very explicit example can be found in the works of the Dutch seventeenth-century playwright Joost van den Vondel (1587-1679) and, more specifically, in his play *Salmoneus* (1657). After performances of Vondel's tragedy *Lucifer* (1654) had been banned, the governors of the Amsterdam Theatre, the *Schouwburgh*, were left with lavish and expensive sets built specifically for that play. To put these set pieces to good use Vondel wrote *Salmoneus*. Understanding this context and keeping these sets in mind may help us to understand why *Salmoneus* is considered one of Vondel's dramatically weaker [36] plays, written as it was around a single set. It is but one of many possible approaches to the work, but a valid one nevertheless.

Another example again involves Vondel and shows that dramatic texts were often subject to changes in fashion. Vondel wrote Faëton in 1663 for the Amsterdam Theatre, but a year later this theatre was closed and replaced by a new building, which was designed following the latest advances in contemporary (read: Italian) stage design, and the play would not be performed until 1685, six years after Vondel's death. Vondel had written the work within the technical framework of the old *Schouwburgh*, and according to his own poetical notions. The climactic fall of Phaeton from the skies is shown off-stage, in accordance with the classical rules of tragedy, and possibly also motivated by the lack of stage machinery capable of showing this dramatic event. However, by 1685, the theatre had been completely redesigned and special effects had become *de rigueur*. The doctor and playwright Govert Bidloo therefore re-wrote *Faëton* and in his version Phaeton's fall took place on-stage. Not only that, but Bidloo, apparently added some new scenes in order to use as many special effects as possible, including the impressive wave machine.[23] In short, architectural and technical evolutions and changes in literary and theatrical fashion influenced the way these works were written and rewritten. It does not reduce every seventeenth and eighteenth-century play to occasional works (although, admittedly, many plays were), completely unable to exist outside their original context. This would do these works no justice, but the context is one of the factors that played a role in the genesis of these plays. Looking at the play tells us something about the stage, just as looking at the stage tells us something about the play.

Seventeenth- and eighteenth-century Antwerp makes an excellent case to further illustrate the relationship between a play and the theatre for which it was written as almost all of the roughly one hundred surviving texts of the Antwerp theatres were tailored to specific stages, including their technical possibilities and limitations, which often inherently effected how the play was written.

The Almoners' Theatre, 1661-1709

During the late Middle Ages and especially in the sixteenth-century, Antwerp (then a part of the Habsburg Netherlands) was a bustling, prosperous commercial city on the right bank of the River Scheldt. Around 1550, Antwerp, with more than 100,000 inhabitants, became the second largest city north of the Alps. Organized theatre life was dominated by the chambers of rhetoric, societies of poetry- and theatre-loving amateurs. Although they were indeed amateurs, the quality of their output could be quite high. Antwerp possessed three chambers: *De Olijftak* (*The Olive Branch*), *De Goudbloem* (*The Marigold*) and *De Violieren* (*The Gillyflowers*). These three chambers experienced a golden age in the first half of the sixteenth century, with the famous Antwerp *Landjuweel* or Country Jewel (a rhetoricians' [37] theatre contest) of 1561 as both the epitome of their success and the beginning of the decline of the rhetorician's culture.

Changes in the political, social, religious, economic and cultural (literary) climate and the consequences of the Eighty Years' War (1568-1648) meant that these chambers ran into trouble around 1600,[24] and by the middle of the seventeenth century many chambers throughout The Netherlands had disappeared or been pushed to the fringe of urban cultural life: the Antwerp chamber of The Marigold was to disappear around 1640, The Olive Branch ceased to exist a few years later, and The Gillyflowers' existence was a dormant one. The Antwerp almoners, wealthy citizens, responsible for the care of the elderly, the ill and the poor, saw a window of opportunity in this theatrical vacuum. The almoners ran the city's orphanages, hospices and hospitals, and money for those in need came from donations, wills, collections and the rent of houses. The appointed almoners were held accountable for any deficits. Theatre represented a new and (deceivingly) easy means of making extra money and the almoners' observed that colleagues in Amsterdam and Brussels were successfully collecting money from theatre performances.[25] Commercial theatre as a pastime was regarded with little respect. However, by setting up a theatre themselves, the almoners would control both the content of the plays and the money that was made, which is exactly what they did. In 1661 they opened the first permanent, commercial theatre of Antwerp.

One important difference between the rhetoricians and the almoners determined (the evolution of) both the repertoire and the design of the theatre buildings: contrary to the rhetoricians' theatres, the Almoners' Theatre was, from the start, a commercial institution hoping to make a profit which would then be used to support the poor and the ill. This meant that the almoners had to acknowledge the latest fashions in order to attract a paying audience, but it also meant that, again unlike the rhetoricians, they had, to a limited extent of course, the financial resources to do so.[26]

Our knowledge of the Almoners' Theatre is very limited. In an attempt to gain more insight in the relationship between the repertoire and the building, two steps should be taken. Firstly, the reconstruction of the theatre and the stage should be attempted through archival research[27] as well as by looking at the stage directions in the plays themselves, leading to a computer model. Secondly, the visualization of the repertoire within its physical context should be

attempted in order to understand how that context functioned. The few researchers who have studied the Almoners' Theatre have either had no idea about what it looked like and how it operated, or they had an idealized vision of the building, imagining it as a large Italian-style baroque theatre. No images or drawings of the theatre survive, and only by combining (written) information from the archives with information extracted from the plays are we able to make a hypothetical reconstruction. [38]

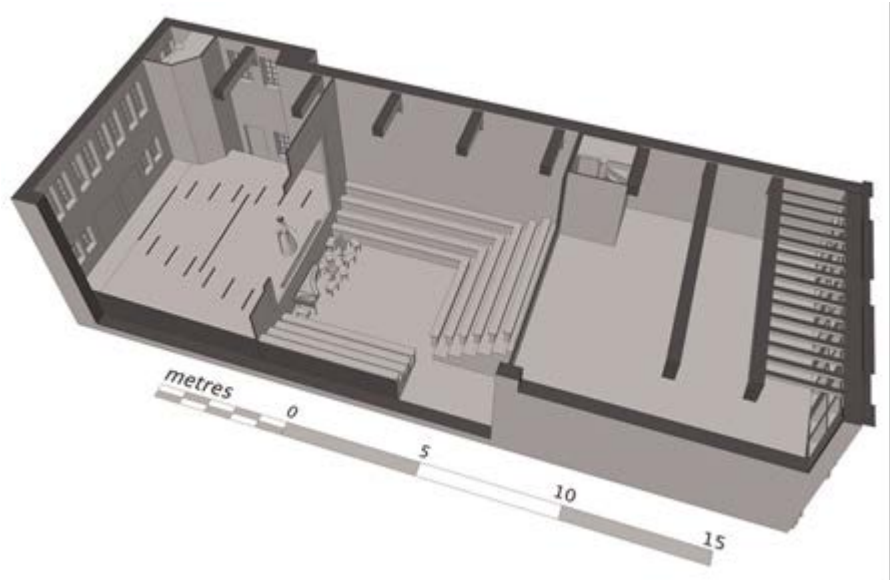

Fig. 9 Isometric view of a hypothetical reconstruction of the Almoners' Theatre as it looked around 1682, before the boxes were added.

A few contracts,[28] a rare description of a performance,[29] scattered notes of expenses made for building and (re)decorating the theatre:[30] these are the bits of information that help us to get a sense of what the venue must have looked like. One significant aide is this: the almoners rented the ground floor of a building which still exists today, the *Spanjepand*, the House of Spain. The House of Spain is one of the few original buildings at the Great Market Square of Antwerp whose façade has survived history relatively intact: most of the surrounding buildings are nineteenth- or twentieth-century reconstructions. The interior, however, has undergone quite a few changes. During the nineteenth and the early twentieth century the building was used as a warehouse and, nowadays serves as an office building. The height of the floors, position of staircases, size of the rooms have all been altered and no original drawings survive. However, both the archives and the building's exterior give us some ideas as to what the ground floor must have looked like. The theatre was about 16.5 m long, 8.4 m wide and 6.5 m high. The initial design of the theatre consisted of a simple raised stage, spanning the entire width of the building and decorated with curtains. The audience members were expected to stand or be seated on a small amphitheatre. These accommodations were seen as sufficient for both the audience and the actors, be it local or visiting companies. The plays reflect this simplicity and rely on spoken décor, while they forgo any kind of spectacle. The repertoire consisted of spoken plays – tragedies [39] and comedies, generally in Dutch – performed by both local actors, at first organized around the former rhetorician Peeter Meulewels,[31] and by travelling companies.

Throughout Europe, however, theatre was changing and the novelty of opera attracted the greatest interest. When the number of spectators of the Almoners' Theatre began to drop, a

drastic shift was necessary and in 1682 a local troupe introduced French opera. The theatre followed the new tastes and from 1682 onwards, the stage was regularly updated to modern expectations. First to arrive were six scenic wings on either side of the stage and a backdrop, a palace and an underworld set being among the first ones that were commissioned. The required machinery to change the sets was added – the wings were most likely moved on stage-mounted slats – but there was no fly loft to speak of. In the meantime, room was made for a tiny orchestra consisting of about six to eight musicians. The stage as it was redesigned in 1682 was the product of a shift in the cultural, and in particular the literary and the dramatic consumption patterns in Antwerp. Out went the old rhetorician-like plays, and in came the preference for all things French. The new genre, opera, brought in a new audience and to accommodate and attract these people, a handful of primitive boxes were probably installed on either side of the hall in 1695.

By the early eighteenth century opera would become so popular that the almoners left their old theatre and opened a new, much larger building, called the Theatre of the Tapestry Hall, in 1711 (figs. 4-7). In short, the penchant for the spectacular eventually led to the building of the Theatre of the Tapestry Hall which was equipped with 'un grand nombre de machines, [...] au grand étonnement et satisfaction des spectateurs'.[32]

Fig. 10 A hypothetical reconstruction of the Almoners' Theatre as it looked around 1695. The boxes on the left and right side replaced part of the old amphitheatre. [40]

Although the old Almoners' Theatre (1661-1709) was extremely small, it was the first Antwerp theatre to be recognizable as such to modern eyes. It had a proscenium stage with appropriate machinery and wing changes, a simple U-shaped auditorium including, eventually, boxes. In short, all the elements of the traditional box, pit and gallery theatre and a miniature version of a baroque theatre, foreshadowing things to come. A computer model not only quickly illustrates these elements, it is also a test bed for the various hypotheses that have been developed based on the above information and the model effectively ties together the many loose strands of information gained from archival research. Until now, no computer model has existed to provide a concrete visual image of this theatre; moreover it offers a model with which any play written for its stage can be envisaged.

The reconstruction and model should be taken one step further now, since both the repertoire and the architecture of the Almoners' Theatre reflected the evolution and changes of

the other. One example to consider is a play called *Den weerdigen gunsteling,*[33] written by Diego Duarte (1612-1691), an Antwerp jewel merchant and art lover. This play is interesting in many ways, not in the least because of its unique orthography (the author tried to introduce new, more logical spelling rules for vowels, but these did not catch on). It also contains a large number of stage directions concerning the use of sets and props, offering us a rare glimpse into the technical, practical workings of the theatre where it was performed.[34] However, the play was printed without date, and while the preface of the printed edition claims the work was performed in ''t Antwerps Schauborgh', the Antwerp Theatre, it does so without any additional and more specific information. Historical book research reveals that the publisher was only active between 1685 and 1688 and research into the preface of the work suggests that the work was probably performed in the Almoners' Theatre.[35] Diego Duarte's biography reveals that, for some time during the 1630s, he worked at the English court where he came into contact with a play called *The deserving favourite*, written by the English courtier and art lover Lodowick Carliell, printed in 1629 and probably performed at court earlier that same year.[36] Duarte brought a copy of this play to Antwerp, translated it and added end rhyme. At some point during Duarte's life this translation was performed in the Almoners' Theatre.

Duarte's translation differs significantly from Carliell's original in one respect: the original play contained hardly any stage directions, while Duarte's version contains numerous specific directions. The sets he requires and the quick scenic changes he demands confirm that the performance be linked with the Almoners' Theatre, the only theatre capable of these effects (from 1682 onward, that is), as can be seen in the computer model. It was probably Duarte's friend, Joannes de Haze (?-1685), who happened to be a member of the opera company, who persuaded Duarte to have the work performed. Although the play was not written specifically for the Antwerp stage, the stage directions were, which meant that [41] the play was tailored to the specific location. Indeed, as can be understood from these directions, the visual aspect of the play was an important part of the theatre experience. Understanding the architectural and technical history of the building – it was the first commercial theatre of Antwerp, the first Antwerp theatre with perspective scenery and the first to introduce opera – as visualized in the computer model, allows us not only to trace the performance of the play to a very specific location and to an approximate date for that performance (1682-1685), it also allows us to understand in what conditions the play was performed, what technical demands the play made of the stage and, reversely, what possibilities the stage offered for a performance. *Den weerdigen gunsteling* was performed with its very specific stage directions only because the introduction of opera had resulted in advances in the stage design.

6 WEERDIGEN
Lyf. Ick weet hou gy my mint, di's sal ick geenen tijt
Versuymen, oon by u met gou gelegentheyt
Te wesen, vaar dan wel.
Mar. Vaar wel myn weerde brouder.
Den hemel sy in als u eenighste behouder. *binnen.*
Toneel een staatelycke Saal. Heel open.
2. UYT KOMMEN.
KONINGH. UTRANTE. STAAT.
Koning. Kan dan u dochter tot dit hauw'lijck niet verstaan,
Myn Heer Utrante, wat is dit, wat gaat haar aan?
De grootste vrauwen in dit ryck als 't mooght geschien,
Dii saaden dit geluck versoncken op haar knien.
Daarom siet wat gy dout, gy weet hy my bestaat
In eer en blout, dees saack verheyst geen laag beraat.
HERTOGH *en Volgers uyt.*
Sau sy den dinst en min van sulck een Heer versinaden,
Syt seecker dat sy u met ramp sal overladen,
Soo sy op myn versoeck syn listste tegenstaar.
Hert. Ick bid dat uwe sorgh voor my soo hoogh niet gaat,
Dat gy de vryheyt aan Clarinda sant beletten,
Den Vader decygend' weer in hechtenis te setten,
De min, heer Koninck, kan niet wel gedwongen sijn.
Kon. Ick salse dwingen.
Hert. Soo vermeerdert gy haar pijn,
En laat tot my waarts.
Kon. 'k Sal haar dwingen u te trauwen.
Hert. De min en lydt geen dwangh, wilt dat voor seker hauwen,
De Liefd' is altijt vry.
Utra. Sy is berooft van reen,
Terwyl sy haar geluck en min oock derft verteen:
Maar 'k denck dat sy niet wel kan drucken in haar sinnen,
Dat uwe Hoogheyt sau soo slecht een Vrauw beminnen;
Schoon

Fig. 11 A page from Den weerdigen gunsteling with the stage direction 'Toneel een staatelijcke Saal. Heel open' ('The stage [depicts] a regal hall. Completely open.') (Heritage Library Hendrick Conscience 719165 [C2-644 c]). This direction was not present in Carliell's play but corresponds directly with the palais à volonté, the palace set which was painted for the Almoners' Theatre in 1682. [42]

The repertoire and its theatre building

The relationship between a play and the stage for which it is written is mainly of a direct, practical nature, based on stage directions and technical possibilities. Nevertheless, one can also take a step back and look at the broader setting: the elements of the theatre surrounding the stage. In the Renaissance and the Baroque eras, the auditorium, its seating plan and its decorations all influenced how the audience perceived a play. Peter Eversmann has pointed out that in the past theatre studies tended to focus on the text: 'the realization of a play through a performance' was for a long time considered subordinate to the text itself and its understanding. [37] That the plays – whether in print or manuscript – are often the only traces we have of a performance in a location now long gone, is of course part of the explanation of that focus. Research by, among others, Eversmann, Marvin Carlson,[38] Steven Mullaney[39] and Thomas Downing [40] – each researcher with his own, very specific paradigm and method, from semiotic analyses, over sociologically inspired approaches to architectural poetics – has shown that the surroundings often have a decisive impact on the audience's theatre experience. Moreover, the auditorium can also function as a mirror of the theatrical and poetical evolutions and changes in literary fashion undergone by the plays, including foreign, in casu French and Italian influences, or the introduction of music and, eventually, opera. The Almoners' Theatre (1661-1709) was replaced because the stage was simply not suited for 'les grandes representation [sic]',[41] namely operas, which, after 1682, became so popular that attending them seemed to be 'the only respectable pastime'.[42] Its successor, the Theatre of the Tapestry Hall, was equipped with all kinds of machines and dazzling sets simply because that was what

the Antwerp audience demanded. When comparing figures 4 and 9, the difference in size and complexity becomes immediately evident. Only with a theatre of the size of the Theatre of the Tapestry Hall was Antwerp able to fully expand its theatrical repertoire in the direction of opera.

The Rhetoricians' Theatre, 1664-1762

Inspired by the success of the Almoners' Theatre, the Antwerp rhetoricians attempted to reignite their old literary fire in 1662. In that year the only surviving chamber of rhetoric, the Chamber of the Gillyflowers, rather confusingly adopted the name of its old colleague, the Chamber of the Olive Branch, and the members began writing and performing new plays. The Chamber of the Gillyflowers had, since the late fifteenth century, operated under the wings of the Saint-Luke's Guild, the guild of the painters, book printers, instrument makers, engravers, etc. (amongst whose members we find Peter Paul Rubens, Jacob Jordaens and Anthony van Dyck). In 1663, members of the Saint-Luke's Guild founded the Academy of Fine Arts, and the following year the Guild, the Academy and the [43] Chamber of Rhetoric, in need of a larger place, moved to a wing of the Antwerp Stock Exchange.[43] There the rhetoricians constructed their new theatre in a large hall – about 28 m long, 6.2 m wide and 6 m high – they shared with the members of the Saint-Luke's Guild, and which was called the Great Painters' Hall.[44]

The chambers of rhetoric of the Low Countries had their origins in medieval urban society and its system of guilds. At the same time they had developed very specific literary genres, and by the second half of the sixteenth century many chambers had become hotbeds for radical (heretical) new ideas,[45] only to be severely restrained by the authorities a few decades later. Following their re-establishment in 1662, the Antwerp rhetoricians of the chamber of the Olive Branch attempted to retake some of their former glory and regain part of their old social position, while attempting to confirm Antwerp's cultural pre-eminence. All this should in turn be understood against the background of a post-war city in crisis, a city whose commercial artery, the River Scheldt, had been closed in 1585, whose population had been reduced drastically and whose artistic achievements did no longer match those of Rubens or Van Dyck.

For the next 100 years, from 1662 onwards, the Antwerp rhetoricians, the Academy and the Saint-Luke's Guild would constantly try to legitimize their very existence by positioning themselves as the guardians of the cultural past of the city, both in literature (*Poesis*) and in painting (*Pictura*), by presenting their art as the necessary counterpart to the commercial activities of the city and by stressing their continuing relevance and importance in the contemporary cultural field. This was reflected for example in paintings, created after the example set by Rubens and Van Dyck. But it was also reflected in the dramatic repertoire which, for the period between 1662 (the year in which the Chamber was re-established) and 1762 (the year in which the final rhetoricians' performances were given) can roughly be divided in two groups: commercial works that follow the changing fashions in order to attract a large (external) audience on the one hand, and allegorical works written to celebrate the Chamber, Guild and Academy on the other. Interestingly, both literary types were reflected by the design and decoration of the hall in which these works were performed.

Among the plays written to celebrate the Chamber, the Guild and the Academy we find works like Jozef de Lamorlet's, *Siet de ghenade, ontwaeckte Poesie, uyt-ghebeeldt inden triumpherende Olyftack*[46] (1677), Barbara Ogier's *Verwellecoming op de sale van Pictura*[47] (1693), *De zeghen-pralende Academia*[48] (1694) and *Den overwonnen Mars ende*

triumpherende Peys[49] (1699), Guillielmus Kerricx' *Apollo met Vrede vereenight triumpheren over den geboeyden Mars*[50] (1700), an anonymous *Prologue tusschen Poësis, Pictura ende Mercurius*[51] (1753) and even a post-rhetorician play by Jacob van der Sanden titled *De bloyende Konsten of Lauwerkrans van Apelles*[52] (1774). All these works featured characters such as *Poesis* (Poetry), *Pictura* (Painting), *Apollo*, *Mercury* (Commerce), *Scaldis* (the River Scheldt) and *Antverpia* (the city itself), often victorious over Mars (War). In short: poetry and painting, art and commerce, Antwerp and the River [44] Scheldt were all inseparably linked. What makes this repertoire truly fascinating is the one aspect we can no longer see unless the computer gives us a helping hand: the decorations surrounding the performance of these plays. By combining the analysis of the plays and extensive archival research (for example figs. 12 and 13) a computer model of the auditorium and the stage can be built (fig. 14).

Fig. 12 and 13 Two examples of archival sources. Left: a note with expenses made when building the theatre stage of the Great Painters' Hall in 1735. This stage replaced an earlier stage built in 1664. Right: a page with very specific instructions on how to stage Signoôr in China (1762, J.J. Emmerechts/J.T. Baustetter), a rhetoricians' opera. (Both images from the Saint-Luke's Archive, Artesis University College, Antwerp) [45]

Fig. 14 A hypothetical reconstruction of the rhetoricians' theatre as it looked around 1760. The images of the paintings were supplied by the Royal Museum of Fine Arts of Antwerp.

The auditorium had been decorated with some paintings from the older masters like Rubens and Quinten Metsijs, but many, often quite large paintings had been created specifically for this hall.[53] These included two ceiling paintings by Jacob Jordaens, called *Industry and commerce supporting the arts* (fig. 15, number 19) and *Pegasus* (not displayed in fig. 15), which together form *The allegory of the arts*, and one by Theodoor Boeyermans, entitled *Antwerp, nutrix of the painters* (fig. 15, number 17). These three works featured allegorical and mythical figures such as *Apollo*, *Mercury*, *Pictura*, *Poesis*, *Antverpia* and *Scaldis*. Other works in the room stressed the connection between poetry and painting or showed Mount Parnassus, the muses or Apollo. Texts on the paintings and on the ceiling beams further strengthened these themes. It becomes immediately clear that a spectator in the audience was not only expected to understand the meaning of the allegorical story acted out on stage, but he or she would be bombarded by the same themes within the room itself. This message was intended for the members of the Chamber and the Guild who wanted to reaffirm their own artistic relevance, for the bourgeoisie and the merchant class who wanted to see the artistic and commercial pre-eminence of themselves and their city confirmed, for the city officials who wanted to stress the city's might and for the rulers who visited the city. In short, pretending that Antwerp was a culturally and commercially important city, did not make it so, but the plays and the auditorium did come together to create a unique atmosphere of commercial and artistic aspirations, an elaborate form of romantic and nostalgic wishful thinking. This unity has largely gone unnoticed but is revealed [46] through the computer model. The model is therefore the visualization of a true Baroque *Gesamtkunstwerk* that can be said to have functioned as the locus of memory for a city and its population.

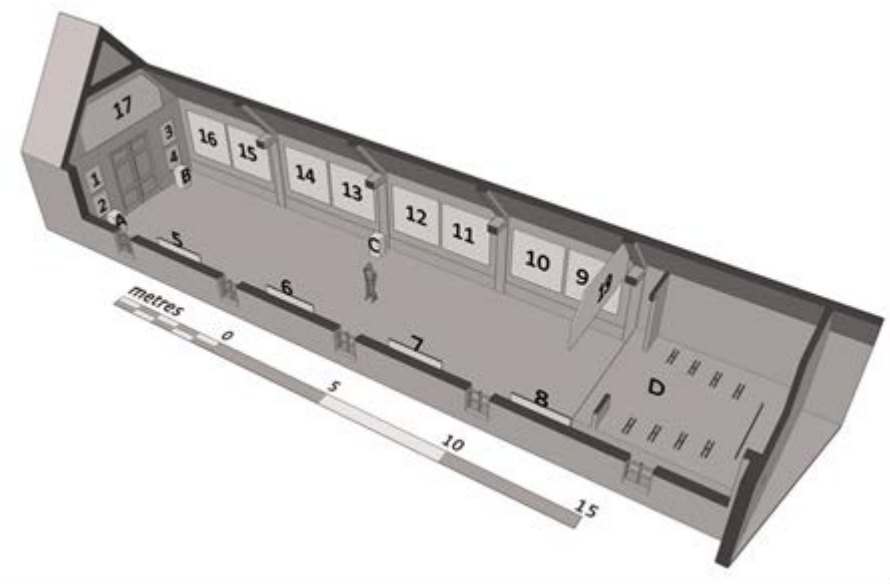

Fig. 15 Isometric view of a hypothetical, abstract reconstruction of the Great Painters' Hall or rhetoricians' theatre. Most paintings and statues were acquired and carefully arranged between 1664 and 1700 but a few were later moved from one wall to the other. The above model is therefore a depiction of the layout circa 1760. In 1735 the 1664 theatre stage was replaced by a new stage. A simple computer model like this allows us to add extra information: the numbers displayed refer to the titles of the different paintings which hung in this room; e.g. number five is Dirck van Deelen en Theodoor Boeyermans' *Allegory of the Arts* (also known as *The unification of Pictura and Poesis*), number fifteen is Godfried Maes' *The seven liberal arts* (also known as *Poesis*). In the blink of an eye the layout of the hall and the position of the different paintings vis-à-vis the theatre become clear. All these visual elements, when combined, tell the story of the importance of art, including literature, and commerce for Antwerp. [54]

Onstage however, we find another link between theatre architecture and the repertoire. As said, two types of plays could be distinguished: allegorical plays, such as the ones just described, and commercial, fashionable works. Throughout the final century of their existence the rhetoricians constantly attempted to counter their decline in popularity. One way to do this was to replace the old rhetoricians' repertoire by more fashionable genres and giving in to commercial pressure. When the almoners introduced opera in 1682, the rhetoricians began to perform [47] excerpts from the very same operas in 1685, which led to a heated judicial battle between the two organizations. In 1711 the almoners opened their Theatre of the Tapestry Hall, a venue which could accommodate over 600 spectators and was no match for the much smaller rhetoricians' theatre. In 1735 the rhetoricians completely redesigned their stage: the old stage which consisted of little more than a platform and curtains, was replaced by a stage with painted flats and machinery which allowed the quick change of sets, designed after the contemporary baroque theatres. This shift in design was accompanied by a drastic shift in repertoire: the old tragedies were abandoned once and for all, and opera was the new standard. This in turn led by the 1750s to the creation of a unique genre: *zangspelen*, works of lyrical drama inspired by the immensely popular genre of French *opéra comique* but on Dutch librettos. These works became highly popular in Antwerp and the most important author in this genre, Jacobus Josephus Emmerechts,[55] made clever use of the technical possibilities offered by the rhetoricians' stage, changing sets as often as possible and even focusing on stories of transformation in which not only the characters transformed in an instant, but the set as well.

Again the computer allows us to study the stage up close and to experiment with the actual plays in relation to the precise layout of the stage.

Conclusion

This article is, of course, far from an in-depth study of the history and the design of the Antwerp theatres between 1610 and 1762, nor is it an exhaustive description of the use and advantages of computer models. However, this article hopes to have given an idea of how attention for the relationship between a play and its original performance can be combined with computer modelling to create new insights. In the seventeenth and eighteenth centuries theatre was an increasingly visual discipline: Jean-Jacques Rousseau described opera as a combination of 'la Poëme', 'la Musique' and, last but not least, 'la Décoration'.[56] At times words are insufficient to describe the visual and technical part of drama, nor can they express the experience the original audience must have had, and computer models can help us out to some degree. As the American theatre scholar Barbara Coeyman wrote, theatres 'provide excellent venues in which to imagine the human participants – audiences and performers alike – at past performances and to clarify factors such as the placement of performers on stage, the acoustics in the hall, and the capacities of stage and audience areas', adding that this information is derived from the study of the theatre building, information which is 'not included in the primary sources of music and text alone.'[57] Computer models take this logic one step further, as they force the researcher to reassess the available sources and test them, through trial and error, in a 'real' context, which in turn results in a usable 3D reconstruction. [48]

Focusing on the original performance context is not an attempt to reduce the timeless, literary value of a work, but to acknowledge the temporal and geographical dimensions of a work's inception. Theatre architecture is not only representative of architectural and economic evolutions, but can also very often be a thermometer of literary evolutions: the design of a building can either follow these literary evolutions, or even proceed and steer them. The use of computer models is one of many valid methodologies that can be applied to bring to light the role of a theatre building, but it is without doubt the most visual one, both for researcher and layperson.

Added content

Added content: Downloadable computer model of the Theatre of the Tapestry Hall (1711-1746) as seen in fig. 4. To reduce the file size a number of objects have been removed from the model. The model can be found at this address: <http://ua.ac.be/main.aspx?c=*ISLN&n=91465>

Notes

1. C.M. Fogarty and Tom Lawrenson, 'The lessons of the reconstructed performance', Theatre Survey 22 (1981), 141-159 (p. 142).

2. August A. Keersmaekers studied the plays written by the Antwerp rhetorician Peter Meulewels (August A. Keersmaekers, 'Peter Meulewels (1602-1664). Antwerps schilder-dichter', Noordgouw Cultureel Tijdschrijft van de Provincie Antwerpen 15 (1975), pp. 35-61, 111-146 and those by Guilliam van Nieuwelandt (August A. Keersmaekers, De dichter Guilliam van Nieuwelandt en de Senecaans-klassieke tragedie in de Zuidelijke Nederlanden: bijdrage tot de studie van de Zuidnederlandse

literatuur der 17e eeuw (Gent: Standaard, 1957)). Gustaaf van Eemeren en Hubert Meeus give an overview of the content of the tragic plays written in Antwerp between 1575 and 1650 in Gustaaf van Eemeren, Elck raept wat. Inhoudsopgaven van de ernstige Nederlandstalige toneelstukken uit de periode 1575-1650. Deel 1 [1575-1617] (Antwerpen: Universiteit Antwerpen, 1991) and Gustaaf van Eemeren and Hubert Meeus, Elck raept wat. Inhoudsopgaven van de ernstige Nederlandstalige toneelstukken uit de periode 1575-1650. Deel 2 [1618-1650] (Antwerpen: Universiteit Antwerpen, 1994).

3. John Golder, 'The Théâtre du Marais in 1644: a new look at the old evidence concerning France's second public theatre', Theatre Survey 25 (1984), 127-152 (p. 146).

4. Robert K. Sarlós, 'Performance reconstruction: the virtual link between the past and the future', in Thomas Postlewait and Bruce A. McConachie (eds.), Interpreting the Theatrical Past. Essays in the Historiography of Performance. (Iowa City: University of Iowa Press 1989), pp. 198-247.

5. Golder Théatre, p. 150.

6. David Thomas, 'The design of the Théâtre du Marais and Wren's Theatre Royal, Drury Lane: A computer-based investigation', Theatre Notebook 53:3 (1999), 127-145. [49]

7. See, for example, Christa Williford, 'Computer Modelling Classical French Theatre Spaces: Three Reconstructions', in Philip Tomlinson (ed.), French 'Classical' Theatre Today. Teaching, Research, Performance (Amsterdam: Rodopi, 2001), pp. 155-164.

8. Many of Frank Mohler's models can be viewed on his webpage:

9. The project's website can be found at

10. The preceding list focuses on reconstructions of seventeenth- and eighteenth-century theatres and does therefore not list all virtual reconstructions of historic theatres. There are or have been of course many other projects and the website 3D Visualisation in the Arts Network, lists several of them under the header 'Theatre studies'. Some other projects are discussed in Iryna Kuksa, 'Scenography and New Media Technologies: History, Educational Applications and Visualization Techniques' (unpublished PhD thesis, University of Warwick, 2007).

11. I Important theoretical and practical aspects of computer modelling have been considered by Richard Beacham and Frank Mohler. See Richard Beacham, '"Eke out our performance with your mind": reconstructing the theatrical past with the aid of computer simulation', in Terry Coppock (ed.), Information Technology and Scholarship. Applications in the Humanities (London: The British Library 1999), pp. 131-154 and Frank Mohler, 'Computer Modeling as a Tool for the Reconstruction of Historic Theatrical Production Techniques', Theatre Journal 51:4 (1999), 417-431.

12. On stage directions in plays and their importance for understanding the original performance practice see, for example, Mieke Smits-Veldt en G. Teusink. Conventies in de mise-en-scène op het toneel van Van Campen (1637-1665): een onderzoek naar de voorstelling van de 'gespeelde ruimte' (Amsterdam: Intituut voor Neerlandistiek, 1978), Alan C. Dessen, Elizabethan stage conventions and modern interpreters (Cambridge: Cambridge University Press, 1984) and Wim M.H. Hummelen, 'The Stage Façade reflected in Narcissus ende Echo of Colijn Cailleu (ca. 1503)', in Martin Gosman and Rina Walthaus (eds.), European Theatre. 1470-1600. (Groningen: Egbert Fosten, 1996).

13. See, for example, Barbara Coeyman, 'Walking through Lully's opera theatre in the Palais Royal', in Jérôme de la Gorce and Herbert Schneider (eds.), Jean-Baptiste Lully: actes du colloque. Kongressbericht Saint-Germain-en-Laye – Heidelberg 1987 (Laaber: Laaber-Verlag, 1990), pp. 216-

242 and Alice Jarrard, Architecture as performance in seventeenth-century Europe: court ritual in Modena, Rome, and Paris (Cambridge: Cambridge University Press, 2003).

14. Marc Gellert, 'The Potential of New Media for Acts of Remembrance', in Synagogues in Germany. A Virtual Reconstruction (Basel: Birkhäuser, 2004), p. 28.

15. Alice Jarrard pointed out when studying the strategic and political use of the theatres of Duke Francesco d'Este: 'Since few seventeenth-century theaters have survived, the place of theater at court has frequently been misunderstood. Francesco d'Este's theaters are no exception. Relying on the few surviving printed images that conventionally record scenery rather than theater halls or their audiences, scholars have emphasized abstract symbolism rather than social function and practice, highlighting content rather than materials or use.' (Alice Jarrard, Architecture as performance, p. 53). Computer models can help to reposition that (misleading) emphasis and turn attention to the different parts of the building and to the building as a whole. [50]

16. An assessment of the authenticity of (performances in) the reconstructed Globe between 1996 and 2004 can be found in Rob Conkie, The Globe Theatre project: Shakespeare and authenticity (Lewiston: Edwin Mellen Press, 2006).

17. For a similar point of view see Mohler, 'Computer Modelling', 417-431.

18. On the use of 3D modelling in understanding the acoustics of (now lost) halls or theatres see, for example, Stefan Weinzierl, Beethoven Konzerträume. Raumakustik und symphonische Aufführungspraxis an der Schwelle zum modernen Konzertwesen (Frankfurt am Main: Erwin Bochinsky, 2002).

19. Meg Twycross, [no title], in John Terrence Coppock (ed.), Information Technology and Scholarship. Applications in the Humanities (London: The British Library, 1999), p. 153.

20. Robert K. Sarlós, 'Performance Reconstruction: The Vital Link between Past and Future', in Bruce A. McConachie and Thomas Postlewait (eds.), Interpreting the Theatrical Past (Iowa City: University of Iowa Press, 1989), p. 223.

21. The entire charter can be read on and downloaded from

22. Robert K. Sarlós, 'Creating objects and events: A Form of Theatre Research.' Theatre Research International 5 (1979-1980): 83-88 (p. 84). Sarlós goes on to point out that 'errors of this sort can often be eliminated by placing maquettes in thematic contexts along with authentic documents and careful planning', a point of view similar to that of the London Charter.

23. H.H.J. de Leeuwe, 'Vondel, Bidloo, Faëton en de Amsterdamse decorprenten', De nieuwe taalgids 82 (1989), 441-450.

24. Several articles in Bart Ramakers (ed.), Conformisten en Rebellen. Rederijkers in literatuur, cultuur en stedelijke netwerken (1400-1650) (Amsterdam: Amsterdam University Press, 2003) deal with these changes.

25. Antwerp City Archives, PK 757 Requestboeck 1660-1662: fol. 194v-195r.

26. Timothy De Paepe, 'Des operas avecq plus d'esclat: de eerste commerciële schouwburg van Antwerpen en de introductie van opera', De zeventiende eeuw: cultuur in de Nederlanden in interdisciplinair perspectief, 24:1 (2008), 25-37.

27. A parallel step, namely the creation of a list of works written specifically for this theatre and the reconstruction of the performance calendar, is of course also important, but falls outside the scope of this article.
28. For example, Maagdenhuis Museum/AOCMW HGT 112 (including contracts of 29 August 1682, 24 October 1684 and 16 June 1695) and Antwerp City Archives GA 4629: fol. 179r-v.
29. An anonymous letter, quoted in Ernst F. Kossman, Nieuwe bijdragen tot de geschiedenis van het Nederlandsche tooneel in de 17e en 18e eeuw ('s-Gravenhage: Martinus Nijhoff, 1915), p. 6.
30. For example, Maagdenhuis Museum/AOCMW HGT 112 (several separate notes detailing expenses made, including sets that were ordered) and KHR 967 Boeck vande iaerelycke requeninghen.
31. August A. Keersmaekers, 'Peter Meulewels (1602-1664. Antwerps schilder-dichter', pp. 35-61, 111-146, also see Timothy De Paepe, '"Une place pour les comedies". Geschiedenis, repertoire en inrichting van de Antwerpse theaters tussen 1610 en 1762', (forthcoming PhD-thesis, University of Antwerp).
32. Antwerp City Archives, PK 2946 [Fr. Mols, Essai sur le theatre d'Anvers], p. 1. [51]
33. 'The worthy favourite'.
34. Diego Duarte wrote to a friend, Susanna Huygens, that he was not involved in the publication of the play and was unable to edit. It is very likely that the printed work comes is very close to the text and instructions as performed, without any posterior changes by the author, or by the publisher, who seems to have printed verbatim the manuscript given to him. See Timothy De Paepe, '"Den heer Jacobi Duartes Weerdigen gunsteling." Diego II Duarte en de Antwerpse Almoezeniersschouwburg', De zeven- tiende eeuw: cultuur in de Nederlanden in interdisciplinair perspectief 26:1 (2010): 91-106 and Timothy De Paepe, 'Diego Duarte II (1612-1691): a converso's experience in seventeenth-century Antwerp', Jewish History 24:2 (2010): 169-193.
35. For example, one of the laudatory poems was written by an author who frequently worked for the Almoners' Theatre.
36. De Paepe, '"Den heer Jacobi"', 98-100.
37. Peter Eversmann, De ruimte van het theater. Een studie naar de invloed van de theaterruimte op de beleving van voorstellingen door de toeschouwer (Amsterdam: University of Amsterdam, 1996), p. 30.
38. Marvin A. Carlson, Places of performance: The semiotics of theatre architecture (Ithaca: Cornell University Press, 1993).
39. Steven Mullaney, The Place of the Stage. License, Play, and Power in Renaissance England (S.l.: University of Michigan Press, 1995).
40. Downing E. Thomas, 'Architectural visions of lyric theater and spectatorship in late-eighteenth-century France', Representations 52 (1995), 52-75.
41. Maagdenhuis Museum/AOCMW HGT 112, unfoliated.
42. Antwerp City Archives, PK 2946, [Fr. Mols, Essai sur le theatre d'Anvers], p. 1.
43. Following the death of two major Antwerp painters, Peter Paul Rubens in 1640 and Anthony van Dyck in 1641, the Antwerp school of painters went into decline. To counter this decline, the members of the Saint-Luke's Guild decided to create a permanent form of professional schooling in the arts,

thus founding the Academy of Fine Arts. To this end classrooms were required, which explains why the Saint-Luke's Guild, the Academy and the Chamber of Rhetoric moved to the Stock Exchange.

44. No drawings of this hall exist. However, by combining information from, among other sources, the account books of the Guild and the Chamber of Rhetoric (Saint-Luke's Archive 202, 237, 290, 291 and 297), inventories (Saint-Luke's Archive 1, 2 and 3), books with contracts and official decisions (Saint-Luke's Archive 81 and 82) and later plans of the Stock Exchange an hypothetical reconstruction becomes possible. See Timothy De Paepe, '"Two sisters are united": A virtual reconstruction of the Painters' Hall of the Antwerp Saint Luke's Guild, the Academy and the Chamber of Rhetoric' (article in preparation).
45. On the role rhetoricians throughout the Low Countries played in the political and religious changes, see Gary K. Waite, Reformers on stage. Popular drama and religious propaganda in the Low Countries of Charles V, 1515-1556 (Toronto: University of Toronto Press, 2000).
46. 'Behold the grace, awakened Poetry, performed by the triumphant Olive Branch'.
47. 'Welcome to the hall of Pictura'.
48. 'The triumphant Academia'. [52]
49. 'Defeated Mars and victorious Peace'.
50. 'Apollo and Peace united triumph over the chained Mars'.
51. 'Prologue between Poesis, Pictura and Mercury'.
52. 'The flowering arts or The laurel wreath of Apelles'. This work was written twelve years after the rhetoricians had ceased to exist, but was performed on their stage and hailed back to the old rhetoricians' traditions.
53. The precise composition of the collection can be reconstructed based on, among other sources, several inventories made by the Saint-Luke's Guild (Saint-Luke's Archive 1, 2 and 3), travel guides printed around the middle of the eighteenth century by Gerard Berbie, a manuscript on the history of the Saint-Luke's Guild, the Academy and the three Antwerp Chambers of Rhetoric (Antwerp City Archives PK 3080) and notes in the so-called Liggeren (published as Fernand Donnet, Het jonstich versaem der Violieren. Geschiedenis der rederijkerskamer de Olijftak sedert 1480 (Antwerpen: Buschmann, 1907)). Again a discussion of these sources can be found in De Paepe, '"Two sisters"': (article in preparation).
54. See Timothy De Paepe, '"Two sisters are united": A virtual reconstruction of the Painters' Hall of the Antwerp Saint Luke's Guild, the Academy and the Chamber of Rhetoric' (article in preparation).
55. Timothy De Paepe, 'Jacobus Josephus Emmerechts. De laatste Antwerpse rederijker en de zangspelen van De Olijftak', Jaarboek van de Koninklijke Soevereine Hoofdkamer De Fonteine 59 (forthcoming 2010).
56. Jean-Jacques Rousseau, Dictionnaire de musique (Parijs: Duchesne, 1768), p. 339.
57. Barbara Coeyman, 'Opera and Ballet in Seventeenth-Century French Theaters: Case Studies of the Salle des Machines and the Palais Royal Theater', in Mark A. Radice (ed.), Opera in Context. Essays on Historical Staging from the. Late Renaissance to the Time of Puccini (Portland: Amadeus Press, 2003).

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