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## Did Men Of Taste And Civilization Save The Stage?

**Theater-Going In Rotterdam, 1860—1916. A Statistical Analysis of Ticket Sales**

**Henk Gras**

*Research Institute of History and Culture University of Utrecht*

**Philip Hans Franses**

*Econometric Institute, Erasmus University*

**Marius Ooms<sup>1</sup>**

*Free University Amsterdam*

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### 1. Prologue

The subject of this article is the question of improved quality in the Dutch theater, roughly in the period 1860—1914. In essence it will statistically test the dominant historiographical narrative, which treats the era from 1875—1914 as a period of recovery of the stage after a decline which set in after about 1815 and which claims a related change in social class base. Using the immense theater archives of the city of Rotterdam, we will try to find an answer to the question: what, actually, can be maintained of the success story told by Dutch theater historians from about 1875 to the present day? To answer this question, the ticket sales data, plus data about the repertoire and the performers will be used to perform time series analyses. We used comparable methods in an earlier article, to statistically test (and reject) the hypothesis of a decline of the theater in the first half of the nineteenth century.<sup>2</sup> Though our research is involved with one city in a country not particularly known, in the nineteenth century, for its important theater culture, we think that our approach has relevance, not only by way of the roughly comparable discussions about the state of the theater in Europe at that time, but also with respect to method. The social contours of theater can be much more precisely probed, at a crucial juncture in social-cultural history.

### 2. General Information on Dutch Theater in the 19th Century

The development of theater life in the 19th century in the Netherlands meshes with the European experience, although it could nowhere compete with centers like Paris, London, or Vienna. As everywhere, at the end of the 18th c. classicism was rivaled by the *drame bourgeois* in prose; at the beginning of the 19th c. classicism was opposed by romanticism, and in the middle of the century realism and the well-made play ascended, followed by naturalism and symbolism. Due to the lack of a flourishing drama tradition, most of the repertoire in Dutch theaters was translated from the French and German (only after about 1890 did English, Scandinavian, and Italian drama become important). Without substantial state support, theaters depended on the free market (on its structure, see below). However, censorship was mild to the verge of non-existent. This state of affairs meant that there was no profound need (nor the support) for a [End Page 615] 'revolutionary' movement of 'free theaters', when naturalism entered in a field, dominated, like elsewhere, by realism, a struggle for historical veracity and an improvement of productions by way of box sets and an increasing influence for directors.

<sup>3</sup> In Rotterdam, Le Gras had by 1875 established himself as the country's most esteemed realistic director. Naturalism became the preferred style in some smaller theaters, such as the Rotterdam Tivoli theater, founded in 1890. Symbolism largely remained an amateur matter, although some major authors, related to the 'new esthetics of the 1880s', like Van Eeden, flirted with it. Its impact was largest in the performances of classics (Shakespeare, Vondel), and a new vogue of staging medieval drama. The actor-manager-director Verkade idolized Craig, and as a result mise-en-scene benefitted from the creative genius of a Wijdeveld and Lensveld. The Amsterdam Theater Exposition, 1922, pronounced to the world that Holland had become an adult theater nation, too.

Traditional Dutch theater historiography has always interpreted the development of the repertoire in terms of social class. In the late 18th c. classicist tragedy and comedy was supposed to be preferred by "the civilized elite," whereas "the common spectators, of lower middle class origin, and the populace," preferred farces. <sup>4</sup> Plays in the tradition of the *drame bourgeois*, romantic drama, and particularly melodrama in the early decades of the 19th c., were not only related to a middle class audience and worse, but particularly also to revolution and class struggle. <sup>5</sup> This interpretation is part of the dominant historical narrative of Dutch theater, which characterized the years ca. 1815—1870 as the 'decline of the stage': melodrama chased the better sort of audience out of the theater, to which came the lower middle classes and even unskilled laborers. The views on a class-based preference for certain genres translated into the occupation rate of theater ranks: the elite in the boxes preferred classicism; the rabble in the galleries preferred melodrama. Since actor-managers tended to cater to the galleries, theater art got lost. <sup>6</sup>

None of these historical narratives, however, relied on 'hard evidence' about ticket sales per rank, or data on the social composition of the audience. The more melodrama, the more evident it was that the elite had left the theater. Recent research has cast doubt upon the traditional view. Ruitenbeek calculated that even the lower middle classes would not have been able to afford a theater ticket in the Amsterdam City Theater in the period ca. 1815—1840. Gras & Franses rejected the traditional view of the relation between theatrical genres and class/rank, arguing that the calendar and audience loyalty were the most important factors in theater going in Rotterdam, 1802—1853; Gras analyzed the social composition of the season ticket holders in Rotterdam, 1773—1843, concluding that the city elite continued frequenting the theater after the French Revolution. <sup>7</sup>

Also, the later 19th c. developments in the theater (realism and its successors, archeologic mise-en-scene, impact of the director), which form the object of this essay, were in an important measure approached from a social point of view by theater historians. These developments go under the heading 'recovery of the stage'. It is to this thesis of recovery that we will turn now. [End Page 616]

### 3. The Conjecture of a Recovery of the Stage in Dutch

## Theater Historiography

What is behind the phrase 'recovery of the stage'? Particularly from about 1880 to 1910 a pack of theater critics envisaged the recovery of the quality of the stage after about five decennia of decline. Among them were Rössing, Loffelt, Browne, De Meester, and Haverkorn van Rijsewijk. The master narrative of theater history they helped to create reads like a fairy tale. The Muses of dramatic poetry were saved from their captivity in blood-and-thunder plays by daring men of taste and civilization. J.H. Rössing, a daily newspaper journalist involved in several initiatives regarding the theatrical infrastructure after 1870, says: "around 1850 the decline of the stage was immense: an almost exclusive dependence on inferior or badly translated stage plays, a generation of players poor in education and civilization."<sup>8</sup> The Amsterdam theater had fallen into an artistic coma, "the acting style was still fully based on the pathos and mannerism, originating from solemn tragedy."<sup>9</sup> The repertoire of this most prestigious theater in the country consisted of "foreign fare, translated in the Dutch of costermongers or cattle-dealers."<sup>10</sup>

The stage in The Hague, the royal residence, was in an even worse condition: "the stage there, had fallen so low, that before the reformation (...) common bourgeois seldom visited the theater, and persons of quality and civilization looked down on the national stage with disdain."<sup>11</sup> Here, too, acting style is criticized: "convention, formality, mannerism, affectation characterized acting and speech. Comedians resembled puppets rather than human beings."<sup>12</sup>

Both Rössing and Haverkorn were convinced that the stage was raised out of its decline by efforts in which they both participated. The most important was the foundation of the Dutch Stage League in 1870, and Society The Dutch Stage in 1876 (from 1881 onwards, Royal Society). The Dutch Stage League aspired after improvement of knowledge and refinement of taste in actors, by founding a drama school (1874), and elevation of public taste, by founding a critical journal (*The Dutch Stage*, 1871). Society The Dutch Stage developed out of the desire of the banker Schimmel to prevent graduates from the new drama school from sullying themselves with the blood-and-thunder styles dominating the stage (as he saw it). Also, it aimed to fulfill the dream of a National Theater, one large company of excellent players performing on the three main stages of the country: Amsterdam, The Hague, and Rotterdam. To reach his goal, Schimmel found support with another banker, Wertheim, and the lawyer Van Tienhoven, later to become mayor of Amsterdam. Time had come, thus, to translate plays into the Dutch of oligarchs and bankers.

The reformers quickly boasted of success. In The Hague, Rössing noticed, "high society (...), even the nobility" showed themselves at the performances of the Society The Dutch Stage. "All turned to the best," he adds, "when (...) H.M. Queen Sophie soon attended a performance of *The Danicheffs*." But that was, understandably, a play in the Dutch of—J.H. Rössing!<sup>13</sup>

Haverkorn, in his 1901 lecture to the actor Derk Haspels, declared, "the sad times were gone, when the rabble had an influence in the Dutch stage. Persons of [End Page 617] quality interested themselves in letters and fine art."<sup>14</sup> Rössing also emphasized that the new school system for the bourgeois classes was a factor of importance in the elevation of public taste.<sup>15</sup>

The changes effected by this movement led, according to these critics themselves, to a shift in the repertoire. Rössing narrates a success story in which the repertoire was upgraded in three phases.<sup>16</sup> The first was dominated by Schimmel. Schimmel himself, he concedes, wrote in the 'German vogue' (blank verse), but the French bourgeois dramatists (Scribe and Sardou) were pushed by him as the 'school of common sense'.<sup>17</sup> Schimmel fiercely opposed the stage's social commitment, or any educative zeal,<sup>18</sup> because it stood at right angles to his view that Art concerned everlasting values. The mood thus emphasized sticking to realism and a new, refined, type of historical verse drama. Yet, socially committed drama— influenced by naturalism—gained centrality in

the second phase, which saw the eclipse of Schimmel and the rise of Ibsen and German social drama, propagandized by men like Rössing himself.<sup>19</sup> In the third and final phase French drama was at last overruled by German drama, while home-grown plays were in the ascendancy—at least, according to Rössing. The tendency of this 'new Dutch drama' on the whole was naturalistic, but an influence of symbolism was sometimes noticeable. Also there were performances of Shakespeare in 'literary' versions and even of Greek tragedies.

The restoration view has largely been taken over by theater historians in the twentieth century, many of whom were directly connected with the critical circles mentioned.<sup>20</sup> Hunningher echoes Haverkorn in his conviction that the "gutter lost ground to quality street" because of the actions of the bankers of taste and civilization.<sup>21</sup> Although he still sees too many efforts to please the rabble, he is firm in his conviction that only melodrama drew audiences from the lower classes,<sup>22</sup> while the civilized (on the expensive seats) preferred 'classical' tragedy, drawing-room plays, and drama.

In 1975, De Leeuwe, who focused on Rotterdam, the city which is the object of analysis in this paper, sketched the context of Le Gras' ascendancy as a pre-naturalistic director in Rotterdam in the last three decennia of the nineteenth century as an aspect of recovery. For him, the stage crisis, dating from 1840 onwards, had a socially determinated character. Repertoire and acting style became dominated by the sphere of interest of the lower middle classes, since the upper classes were no longer interested in Dutch-spoken drama. So, the troupes had to please the remaining lower middle-class audience. Le Gras' activities, De Leeuwe continues, came in the wake of the attempts of intellectual bourgeois to regain the stage for their class.<sup>23</sup> Here, too, the notion is, that more first-rank spectators entered the theater (the idea of a 'return to quality'), and that this new elite audience had a preference for home-grown plays and for such foreign drama as was 'modern-realistic' ('naturalistic drama' in the stricter sense included).

The theater archives of Rotterdam permit us to statistically test this dominant narrative. So to this city we turn now. **[End Page 618]**

#### 4. The Rotterdam Theater

The municipal archive of Rotterdam stores the archives of the Rotterdam Theater Company, owner of the second Grand Theater at the Coolsingel (1853—1887), and of several of the drama and opera troupes, which acted as its principal lessees (1853—1916).<sup>24</sup> After 1887 these stage companies had the new Grand Theater in the Aert van Nesstraat for their house. Together these archives contain the accounts of the ticket sales per rank per day, and of incoming coupons per rank per day. For the Dutch-speaking companies the series covers the years 1853—1916, except 1881—1885, and for the Rotterdam German Opera (1860—1891) it covers the seasons 1860—1869 and 1872—1879. Exact numbers of season tickets for Dutch-spoken drama per rank are missing for some seasons, but from 1860 onwards the number of season tickets dwindled to a mere handful, because of the introduction of coupons, and in 1875 season tickets were abolished until 1892. The missing numbers of season tickets have been ignored in the period 1860—1875 and from 1892—1916 there are enough data again to estimate the number of season tickets for those seasons where listings are lacking.<sup>25</sup> Opera, however, had to be left out of consideration altogether, due to a gap of three years in the ticket sales accounts (1869—1872), and because of missing data for season tickets in the 1870s. From 1878 till 1891, the dissolution of the Rotterdam German opera, there are no accounts at all. Our analysis, therefore, only takes into account Dutch-spoken drama by the principal troupes. We only take a look at opera to shed light upon the ticket sales for drama.

For Dutch-spoken drama, the period 1860—1916 clearly shows changes. The first season considered here, 1860—61, marked an important shift in Rotterdam theater life. That season the Rotterdam Theater Society leased the accommodation to one single,

new organization, The Rotterdam Society for the Founding and Exploitation of Dutch Drama and German Opera. In fact this boiled down to engaging the recently fired Amsterdam theater manager Jan E. de Vries and his Dutch-speaking stage company. De Vries had shown great interest in German opera. He did not, however, succeed in drawing good audiences for Dutch-spoken drama, supposedly because of his repertoire. De Vries left Rotterdam, September 1867.

His company was taken over by two of its actors, Jan Albregt and Daan van Ollefen. During their management the Dutch Stage League was founded. In Rotterdam Albregt & Van Ollefen were continuously attacked in the liberal press, but outside the city their troupe was considered the best stage company in the Netherlands. It was on this basis that agents of the Dutch Stage League persuaded them in 1874 to combine playing the Rotterdam theater with the prestigious City Theater of Amsterdam. In fact Amsterdam took over the company, which, in view of the violent rivalry already traditional between the two cities, caused a Gorgonic howl at the river Meuse.

The result was that the troupe split. Some of the actors, led by the Haspel brothers, the comic actor Van Zuijlen, and Le Gras, by then already recognized as the country's best director, set up their own company in the New Theater, [End Page 619] where they found support of the citizens (600 of them formed a guarantee fund). After two years of stage war, in which political contests mixed up with esthetic conflicts, Albregt & Van Ollefen definitively went over to Amsterdam and Le Gras c.s. took over the Grand Theater Coolsingel (1876—1877). Le Gras c.s. were forced as well as willing to follow the Stage League's artistic demands. As in all Dutch cities where the League's departments sponsored the stage companies, they also discouraged the staging of melodrama. As a result Le Gras' financial position was undermined. In 1881 he joined the Amsterdam-centered Society The Dutch Stage, as its Rotterdam department. This association was no success. It was dissolved at the end of the 1884—85 season. Under the management of Le Gras and J. Haspels, the old company resumed its independence.

The activities of the Dutch Stage League, together with too costly demands, made by the city, to renovate the old theater at the Coolsingel, led to a third effort to build a new theater from private means. Plans were made in 1881, but it is characteristic of the changing tides of private enterprise in theater business, that it took about six years to raise a sum of money considered sufficient to start the building process. Despite the shortage of money, the board of the new stock company decided on a rather magnificent plan. The Grand Theater in the Aert van Nesstraat opened September 1887. The high cost of building and the resultant mortgage led to a high rent for Opera and Drama. These, in turn, had to raise the seat prices. As a result, the Rotterdam Opera, for which the theater was chiefly meant, went bankrupt in 1891. Its fall caused the bankruptcy of the new theater. A new society for the exploitation was founded, which lasted till 1976. <sup>26</sup> In 1900 the aging troupe of Le Gras, which was literally dying out, went bankrupt, too. It was restructured as the Rotterdam Stage Company by the younger generation of actors, under the management of van Eijsden, husband to the leading lady Mary Van Eijsden Vink. After the outbreak of the war in 1914, Van Eijsden faced bankruptcy and fused in 1915 with Eduard Verkade, an innovating director but a bad manager. This fusion lasted one year, the last season for which we have data.

Seat prices were rather inflexible in Rotterdam from the eighteenth century till the 1850s. The general tendency after 1860 for Dutch-spoken drama was to increase the prices of first rank seats and lower those for pit and galleries. In the [End Page 620] Grand Theater Coolsingel, prices of gallery seats dropped about 60 per cent, those of first rank seats rose about 15 per cent. The most important rank, the pit, also benefitted from the drop of prices, particularly during the management of Albregt & Van Ollefen. Price policy was mainly inspired by the competition between Rotterdam's two theaters, and, after 1876, by the rise in production costs. [Table 1](#) gives prices at the box office. Season tickets were a bargain, relatively speaking, and coupons, which were introduced in the 1862—63 season, were often slightly cheaper than box office tickets. As the

administration of coupons was done by price, and not by rank, we had to take the ticket sales of same-priced ranks together.

From 1853 till the end in 1887, the seating capacity in the Grand Theater Coolsingel also changed. Alterations in seating capacity between 1860 and 1881 are given in [Table 2](#). In 1860, the founders of the opera wanted to have stalls in the theater, and expanded them at the expense of the pit. From 1875 onwards [\[End Page 621\]](#) [\[Begin Page 623\]](#) even more banks from the pit were redefined, and formed a parquet, at prices equal to the boxes. Seating capacity in the pit was maintained more or less, by arranging for 60 loose spare chairs, in case of a full house. Overall, there was a mild tendency to prefer a good view on the stage. The elite came to prefer stalls over the U-shaped ring of boxes.

The Grand Theater Aert van Nesstraat was technically very imperfect. Acoustics failed in the rings, so that the management repeatedly had to change prices for seats and the division of ranks (see [Table 3](#)). This resulted in a very fragmented system of ranks, even more sub-divided on Sundays. Because of the fragmentation of ranks, and also because same-priced coupons for different ranks were booked together, we formed six container ranks (see [table 5](#)). Due to the destruction of the theater in 1940, we only have ticket sales data till 1916 for the principal drama companies.

A word now on theater ranks and social class. As we made clear, Dutch theater historiography interpreted developments in the 19th c. stage rather often in terms of social stratification, equating social class with the price of a seat (hence, with theater rank), and linking both to theatrical authors and genres. Social stratification is implicitly regarded as being dependent on wealth and status (the 'rich and mighty'). It is common usage in theater history to speak of 'higher' and 'lower' ranks, when it actually concerns the price of a place and hence, the quality of the view. In fact 'lower ranks' are normally in the upper parts of a theater, the upper galleries, and the 'highest' ranks are formed by the stalls and dress circle (balcony, baignoires). The common use of the terms silently fuses together social class difference and spatial position.

As stated above, traditional theater historians hardly ever used 'hard data' such as ticket sales accounts or subscription lists to support their views. Now that we are about to statistically test the conjecture that there is a link between social class and repertoire in the period 1860—1916 we must stress both the benefits and limits of our analysis, with respect to insight into the social composition of the audience per rank.

The time series analyses we offer here are based on the ticket sales per rank (weekly rank occupation rates). Hence, we are not using data which of themselves illuminate social class. We are analyzing aggregated behavior of anonymous consumers of theater, subdivided into the price classes of the theatrical ranks. Traditional historiography assumes that theater rank and social class match, putting e.g. the 'civilized elite' in the stalls and boxes and unskilled labor force in the galleries. Using time series analyses, we ask whether the supposed relations between preferences for a certain repertoire, shown by persons buying a ticket for a certain rank, which traditional theater history assumes to have existed, are valid. This is something short of empirically proving that social class differences indeed match theater ranks, but far better than conjecturing rank-based preferences for a certain repertoire, in which rank is silently identified with social class, as theater historians have commonly done. For Rotterdam, there is ample opportunity to research the precise social background of theater goers who bought coupons or season tickets. The analysis of these data is of a different, complementary nature to the one offered here. It is a prosopographical analysis, [\[End Page 623\]](#) comparable to a (not anonymous) survey. This time-consuming project we have not yet finished.

Yet these time series analyses have direct connections with at least cultural differentiation, likely corresponding with the more 'objective' characteristics of social class (presumably wealth, occupation, and status). If different theatrical preferences are found on the basis of price/view differentiations implied by theatrical rank, they must at least allow hypotheses of being 'caused' by difference in social class.

Such an explanation meshes with 19th c. views. The idea that there was a strong relation between social class and theater rank was a salient one in the consciousness of the 19th c. mentality and practice. We only have to refer to seating in church and school. A common contemporary opinion was that theater rank, social class and 'civilization', or 'education' went hand in hand. This comes to the fore in reviewers' remarks. Even Heijermans strongly insisted on this link. He asked the attention of the "more civilized and educated" audience, "in whose hands the management of the Dutch Theater has been laid" (meaning, the Stage League); <sup>27</sup> he thought a well-established position within the elite a precondition for a successful academic study. <sup>28</sup> In the request of Le Gras c.s. to lease the Royal Theater in The Hague, they state that their performances in The Hague had been successful, "as appears from the generous entrance of the first ranks, ergo, the more civilized and educated parts of the audience." <sup>29</sup> Such examples can be multiplied. We find remarks supporting the link between rank and class also in letters from (potential) theater goers to the editors of the newspapers. In 1867 a middle class man complained in the *Nieuwe Rotterdamsche Courant* that the prices of seats in the pit for the opera were too expensive—he could not be expected to sit in the gallery! Shortly after the opening of the Grand Theater, Aert van Nesstraat, gallery spectators complained in the same journal that they had to enter the theater from the back-side, "as if a theater normally did not do enough to make class differences visible." <sup>30</sup> Also memoirs and letters of theater goers suggest a strong sensitivity for class and theater rank. The Amsterdam university librarian Mendes da Costa remembered: "I had no money [to see Lilla von Bulyowski as Marguérite Gautier] for the evening before I saw her *Mary Stuart*; no possibility to come to a guilder for a seat in the pit. At last I braced myself to sit in the gallery for 50 cents; and I did not regret it, although I had to endure the bantering of my fellow students for it; one of them, a true gallant from the bend in the Herengracht had seen me and ignored me in a very dignified way from the lower position where he sat [the pit]." <sup>31</sup> A difference in status could be expressed with reference to theater rank. The young ship-owner Daniel Theodore Ruijs reproached his father for undue haughtiness towards his old and trusted companion, after having arranged a good match for his son. He behaved, he wrote to another of his brothers: "I am Ruijs, (...) and take balcony seats in the theater; thou art a peasant, whose place is in the pit." <sup>32</sup> This is a clear example of how a sense of heightened status is expressed in terms of one's place in the theater.

So far as we can deduce now, our prosopographical data support the relation between theater rank and status, albeit with qualifications. We calculated that all season ticket holders in the years 1773—1843 belonged to the decent middle class and above, French opera subscribers being more wealthy than season ticket **[End Page 624]** holders for Dutch-spoken drama. This concerns spectators in the pit and boxes. <sup>33</sup> Also first-rank season ticket holders participated in more cultural and social clubs, and held more political and social functions than those on other ranks. <sup>34</sup> Hence, we hypothesize on the basis of the prosopographical data so far as we have them now, that there is indeed a social differentiation between the audiences on the diverse ranks, though we hope to prove it more fully in due course. **[End Page 625]** The qualification is, that we found extremely little evidence for members of the working class visiting the grand theater. Even in the pit (fourth rank) and the upper side boxes (fifth rank), the occupations of the spectators are 'bourgeois' (small retailers, civil servants, nurses and teachers, etc.). <sup>35</sup> As Mendes da Costa suggests, the galleries may have contained not so much workers, but students and comparable liminal groups, lacking a status/income position which would however come to them in due time.

The 'bourgeois' nature of the audience of the grand theater has probably much to do with the structure of income in the city, which in itself structured the market for theatrical goods. Theater entrepreneurs in Holland generally faced problems of a shortage of demand, due to both the relative smallness of the cities and the unequal division of income. Dutch cities were notorious for pauperism. This situation must have affected the extent of the market for cultural goods, including the theater. For sake of space we will not here elaborate this issue. <sup>36</sup> The key point is that social differentiations were narrower than generalizations about elites and mobs usually suggest, but they did delineate class and age distinctions within the middle and upper classes.

## 5. Hypothesizing the Return of the Better Sort of People in the Theater

The tendency in the dominant narrative is one of change. Change in the composition of troupes, in acting style, in repertoire, in mise-en-scène and directing plays; change, also, in audience taste. This latter development is assumed on the basis of narrative documents, based on the view of individual contemporaries. Such authors often have their own agendas in stating their opinions. Dutch theater history writing has from the start been very selective in the choice of sources, and relied primarily on the Stage League and the Society The Dutch Stage view of things. It ignored critical counterpoints. Heijermans e.g., sympathetic to the Stage League's program but critical of Amsterdam influence, doubted elite enthusiasm for the theater. On the contrary, he argued in his *Zondagsblad*, that the failure of the elite to support civilized drama unavoidably invited the management to supply melodrama. His voice is hardly heard in the dominant historical narrative. As late as 1916 his successor, Johan de Meester, who belonged to the school of new esthetics (the 'men of the eighties') even denied the troupe of Le Gras its 'recovery-status'. For him the Haspels brothers exemplified a blockade to recovery, which to his view only came with Verkade. A typical Stage League critic like Haverkorn van Rijsewijk would have been perplexed at such heresy. For him the Haspels brothers exemplified the aristocracy of acting.<sup>37</sup> Such a state of affairs asks for a critical test, that is a test between two outspoken, different conjectures: did the 'elite' flock into the theater to support the newer forms of drama, or did they not; did or didn't the lower ranks shun the newer drama, and take interest merely in spectacle?

## 6. The First Analysis: Gradual Change of Quality?

A central claim of the recovery hypothesis is a gradual change from low to higher quality. One way to statistically examine this aspect of gradual change is using long-memory time series. We were able to work out such an analysis [End Page 626] on the weekly ticket sales, concerning the boxes, pit, galleries, and the house as a whole, in the Coolsingel Theater, for the period 1860—1881.<sup>38</sup> The data series for this period fulfilled the preconditions for such an analysis, although it remains to be seen whether the outcome was significant.

The reason for analyzing the hypothesis of gradual change using such time series observations is motivated by the following. If the gradual change hypothesis is valid, it would imply a gradually higher quality of plays and performance, while at the same time different audiences were being attracted to the theater. In other words, innovations in programming, that is, a different repertoire with improved quality plays and players, would have established long-run effects on the mean and variance of theater going. For example, plays that were once popular, were dismissed due to a lack of interest, while new and higher quality plays were introduced which turned out to be successful. Translated into the language of time series analysis, one would say that innovations had a long-run, though not necessarily permanent, effect on the weekly ticket sales data.<sup>39</sup> A useful time series model to describe such a long-run effect is called a long-memory time series model. We will estimate the relevant parameters in such a model, and we examine whether there is a long-run effect of innovations. If there is, we take this as an indication that the gradual change hypothesis should not be rejected.

The main idea is to put forward theoretical and empirical considerations, which imply that the ticket sales data display certain time series properties. These properties concern what is called long memory. This concept does not have much to do with the notion that individuals might have short or long memory regarding the quality of theater performance, it merely says that exogenous shocks to the cultural economic process of interest have long-lasting, though not permanent effect. As this could also have been established by structural breaks, caused by exogenous deterministic shifts in management or permanent changes in prices, we include in our time series model the

relevant variables in order to correct for their potential impact.

As such, and as with almost any time series model, our model framework is what is called a reduced-form model. In contrast, a structural-form model would have contained various equations including price-setting behavior, quality decisions of management, variables which measure economic trends, and perhaps others. This would lead to a multiple-equations model, which requires the joint estimation of parameters. We have chosen to consider a reduced-form model for at least two reasons. The first is that we simply lack enough data and outside information in order to reliably specify such a multiple-equations model. The second reason is that we believe that price-setting and quality decisions are most likely to be based on past ticket sales, and hence there is not much information lost if we consider only the ticket sales equation. Additionally, if the multiple-equations model would allow for long-memory properties, which by the way is a far from trivial econometric model at present, then the implied univariate models would also be long-memory. Therefore, it seems to us that not much is to be gained by looking at such a complicated model, if the sole purpose is to see if there is time series evidence for a gradual change in the cultural economic process of interest. We deal with some details of the time series model we use to empirically validate the hypothesis of gradual change in [appendix 1](#). We **[End Page 627]** aim there to avoid technicalities, and we refer to the relevant literature when appropriate.

As indicated above, we selected additional variables in order to correct the effect of long memory. Upon examining the seasonal average rank occupation rates (see Graph 1), we noticed that Dutch-spoken drama slowly but surely drew more first rank spectators. In fact, in 1886—87 the first rank's occupation rate for the first time since 1773, when Rotterdam got a theater, matched that of the pit. Le Gras initially drew more first rank spectators to drama, than there were in the opera (see Graph 2). Also, prices changed more often and to a larger extent in the period 1860—1881 than in the 85 years before. Gallery audiences for drama hardly responded to lowering of prices, but pit audiences did. Le Gras c.s. succeeded in chasing their pit audience out of the theater within three seasons.

Thus, we can identify three causes of gradual change to have been involved at least hypothetically in average rank occupation rates in Dutch-spoken drama over the years 1860—1881. The first is the succession of managements in this period (De Vries, 1860—1867; Albrect & Van Ollefen, 1867—1876; Le Gras c.s., 1876—1881). The second is the development of prices, which almost concurs with the changes in management, but still is worth considering as an independent factor. The third is a change of taste. Historiography suggests a gradual change due to the growing influence of the 'recovery movement', led by such organizations as the Dutch Stage League and the Society The Dutch Stage. This involved the shifts in repertoire, acting style, and mise-en-scene. This change largely corroborates the changing managements, De Vries being farthest away from 'reform', Le Gras being in the midst of it. Repertoire indeed changed, as did the acting style. If old-style actors were often cried down for shouting and sawing the air, the new-style ones were notorious for whispering and dignified controlled movement.

Closer inspection of the Rotterdam production data reveals that there were, as regards drama, other changes in the period. The repertoire system (every night another play; every star excelling in all genres) gradually gave way to a system of longer runs of plays, every play cast with actors most fitting the roles, interspersed by a re-staging of old plays—as it were, a mixed repertoire system. This started with De Vries. The first runs of plays were those of the home-grown *Emma Berthold* (Cremer), and *The Man with the Waxen Figures* (Xavier de Montepin, both 1865—66) and *Klaasje Zevenster*, and adaptation of Van Lennep's novel (1866—67). All ran for more than ten performances in a row. Also it appears that the proportions of audiences per rank for opera and drama changed, but due to the gaps in the series of opera data, we could not statistically analyze their relation here.

With respect to the aspect of gradual change in audience behavior in the period 1860—1880, we also must ask, whether this change affected all ranks. The prediction on the basis of theater historiography should be that it was primarily a matter for stalls and balcony and the gallery. When we analyze this gradual change, we should examine if it is robust against shifts in management and in prices. We put forward a time series model with exogenous variables, which can be useful for the quantitative analysis of the gradual change hypothesis. Details of the model are given in [appendix 1](#). [\[End Page 628\]](#)

## 7. Gradual Change Confirmed for the Period 1860—1880

The final estimation results of our long-memory time series analysis are summarized in [Table 4](#). Price is important for all ranks but for gallery. This result hardly comes as a surprise as the gallery price remained relatively stable, whereas that of the pit (which most influences the result of the house) shows the largest fluctuations.

If we follow our empirical strategy, it appears that for two series (pit and house) we can collect the management dummies into a single intercept term. Notice that these dummies and intercept should be interpreted against the seasonal terms that are also included. The managements are a relevant factor in theater going, but for neither pit nor house can the three managements mentioned significantly be distinguished from each other. The three management dummies have a strong and distinguishable impact on rank 1, rank 2, and gallery. Hence, the different acting troupes and their style/repertoire are of importance in theater going. It is interesting, though, that the effect of management change on the first rank is relatively large (large differences between dummies) as compared with the other ranks. This seems in line with the narrative of recovery, which put De Vries furthest from elite taste, and Le Gras as closest.

For reasons of space, we will not elaborate the results for the seasonal variables, because the interpretation of the parameters is not so relevant for the present purpose and the impact is relatively small. There is a long-term dynamic seasonal effect for all five series. Short-run dynamics do not appear relevant for rank 1, rank 2 and pit. The overall significance of long-term dynamics indicates a non-negligible effect of audience loyalty.

The most interesting result, however, is that the long-memory parameter  $d$  [\[End Page 629\]](#) is significantly different from 0 for four of the five series (at the 1 per cent significance level), and this parameter is approximately equal to 0.2 for these series. Only for the gallery data do we find no evidence of long memory. In sum, we find supportive evidence for our gradual change hypothesis for rank 1, rank 2, pit, and the house. The gallery did not partake in this change. Hence, any evidence for gradual changes for this rank is caused by changes in management.

This means that changes in theatrical production indeed had long-term effects in the two decades 1860—1881. This is important, for the recovery movement is situated in the middle of these decades. However, there is no evidence for a continuation of such gradual change of quality after 1881. It cannot be concluded that it simply faded away, for after 1887 we deal with a different data set. The rank system in the Aert van Nesstraat Theater cannot be compared to that in the Coolsingel Theater and therefore, the correlations between the rank occupation rates are different. The data set 1887—1916 did not fulfill the preconditions for a long-memory analysis. Hence, although the absence of long-term effects after 1887 cannot directly be related to the process of gradual change, found in the decades 1860—1881, it is still true that theater production in the period 1887—1916 no longer had long-run effects on the mean and variance of theater going. There is no direct answer to the question of why this was so.

## 8. Testing the Dominant Narrative With Respect to Repertoire

The aspect of gradual change (of quality) in 1860—1881 shows that there were things going on in the theater, that had a long-term effect on theater going in these two decennia. But a long-memory analysis as performed above is silent on the question of whether the 'higher' and 'lower' ranks divided with respect to the repertoire. We noticed that the galleries were actually untouched by the gradual changes, but responded to the different managements. The validation of the gradual change hypothesis for the years 1860—1881, thus, is not yet a general validation of the historiographical narrative of the recovery of the stage. This narrative is emphatically specific about which particular plays and authors drew the first rank audience back to the theater and which drew the galleries. To test this aspect, more analysis is needed, since it was, of course, impossible to add dummy variables for authors and plays into the model used above.

We therefore also performed time series analyses for the periods 1860—1887 (Coolsingel) and 1887—1916 (Aert van Nesstraat), comparable to those used to test the conjecture of stage decline in the first half of the nineteenth century, in which we used dummy variables for repertoire categories and managements, and seasonal variables.<sup>40</sup> This time series measures the impact of the managements and the repertoire on the average rank occupation rates, corrected for the impact of seasonal influence and the effects of audience loyalty. Different from our time series analysis of the period 1802—1853, we could now use average rank occupation rates per week, instead of per month. Doing so, however, we had to leave the years 1853—1860 out of consideration, since on a weekly basis there were too many gaps in the series for that period. After 1860 the supply of plays became much more dense. In [appendix 2](#), we will first discuss the model, using [\[End Page 630\]](#) the Coolsingel Theater for example. For the Aert van Nesstraat Theater the model basically is the same.

We selected the dummy variables on the basis of production figures and the Rotterdam reviews. By way of the reviews we roughly categorized the repertoire variables into a class of 'civilizing' drama (drama of the 'recovery', drama for the first ranks), or 'drama for the rabble' (melodrama, spectacles, plays for the fair, box office plays). There is a small group of neutral variables, to wit, variables that contain both sorts of drama (e.g. 'German comedy'). This categorization was not always easy, because the critics sometimes did not offer value judgements with respect to the 'recovery process' (though they mostly did). We should expect that the 'civilized' repertoire filled the first ranks and caused empty chairs on the lower ranks, whereas the 'rabble plays' worked a reverse effect. For contemporary critics a *reconquista* of the stage by the civilized bourgeoisie was at stake. Still, there are reasons to expect different results in some cases, although traditional Dutch theater historiography is silent on that point. Unduly 'modern' plays, e.g. might put too many 'esthetic' demands on a chic audience from the merchant classes. One may also wonder whether the average harbor baron would have exposed his wife and daughters to all of the socially engaged plays, which Rössing classified as part of the arsenal of the *reconquista* from about 1890, and in which the emancipation of women and labor force, the claims of sexual liberation, the right to divorce, or egalitarianism were common themes. It is noteworthy that after about 1870 first nights were relatively poorly attended at the first ranks, whose audience preferred first to read the reviews (which always discussed the 'morality' of the play). Individual authors might for different reasons score unanticipated results. Stage reviews praise e.g. the verse tragedies of Wiselius and Schimmel. This, however, had a largely ideological reason, founded in conservative views of state and culture. It might well be, that the Rotterdam liberal merchant elite was less charmed by such reactionary ideas. Multatuli, too, could well score differently from the general expectation implied in the hypothesis of recovery. In his case, the city elite (presumably the first rank audience) would weigh unfavorably his political radicalism and his professed atheism against his good relations with the stage management in Rotterdam and his well acknowledged literary qualities. A 'popular' playwright such as Rosier Faassen, on the contrary, might well score better on the first ranks, because he was also a highly respected actor, and because the leading lady, Catharina Beersmans, often starred in his plays.

## 9. Empirical results

From [Table 5](#) it appears that the most salient result of the analysis is the insignificance of most of the 'product variables' in theater going. This counts for all ranks, but we must stress that the 'better' ranks in both theaters (Coolsingel and Aert van Nesstraat) hardly supported the repertoire of recovery. Even truly Rotterdam authors of civilized drama, like Henri Dekking, Willem Schürmann, Albert van Waasdijk and Josine Simons-Mees did not draw an extra number of first rank spectators, and the same holds for authors of Stage League award winning plays (Roodhuijzen, Mulder). The lower ranks, for their part, did not [\[End Page 631\]](#) respond as expected to the 'uncultivated' dramas related to the taste of the rabble occupying these ranks. A second general aspect of the behavior of the cultivated classes with respect to the repertoire is their relatively tolerant attitude towards 'rabble plays'. Targets of offence in the eyes of the critics, like—in the period 1860—1887—Peijpers, the old dramas of Von Kotzebue and Iffland, even the monstrous works of Ziegler and Zschokke (*Abällino*), did not score the expected negative effects on the higher ranks, nor the expected positive effects on the gallery—Zschokke excepted. In the period 1887—1916 the farce, which became at that time a stock genre in the repertoire, did not particularly draw a lower rank audience, nor did the new North- and South European drama repulse these ranks.

As might be expected, there is some support for the recovery hypothesis. The intuition of contemporary critics did not fail completely, but suffered from a narrow view. French melodrama is the category which fulfills best the preconditions of the hypothesis of recovery. This form of drama, to be sure, had been the main offender for critics since its birth as the child of Revolution and Rabble. The first ranks shunned it during the whole period (1860—1916), whereas the lower ranks went for it. However, the gallery was not indiscriminately attracted towards it. In the period 1860—1887 the gallery does *not* opt for romantic-historical melodrama, of which Anicet Bourgeois was a specific representative. The opposition between the first ranks and the gallery with respect to melodrama categories on the whole is more outspoken than in the period 1802—1853, when a positive response from the galleries was negligible.<sup>41</sup> In the period 1860—1887, German comedy with songs (yet not just operetta) also fulfills the criteria. It is interesting to notice, however, the difference in response to German song-drama on the gallery and French song-drama on the pit. French plays of this kind were considered to be primarily erotic, whereas German plays were considered to be supported by absurd situations. It is tempting to deduce that the lower middle class in the gallery more fully internalized the ideology of prudery.

The effect of French melodrama disappears after 1887, but it must be said that old-style melodrama itself practically died. We now find this opposition effect for the historical drama (akin to old-style melodrama). Raeder (*Robert and Betram*) also fulfills the condition. The first rank audience had no respect for Faassen as an author. His drama fulfills the norm of the recovery hypothesis. Although the new Scandinavian drama (1887—1916) drew good audiences to the first ranks, the lower ranks did not respond negatively. Shakespeare appealed foremost to lower middle class taste, which is in line with the results found for the Tivoli theater, 1890—1895.<sup>42</sup>

High tragedy provided the most contradictory outcome of the analysis. Tragedy, considered both by contemporary critics and modern historians to cater to elite taste, found increasingly more spectators as the seat price lowered. Particularly Schiller (*Mary Stuart*) and Shakespeare (*Othello*) were responsible for that effect. Vondel's *Gijsbrecht* partakes in this success. This result for tragedy continues the tendency found before 1853.<sup>43</sup> The common consent about an elite audience for tragedies may be called the most systematic error in Dutch theater historiography. Noticeable, but anecdotic, is the contrary effect of some individual plays, such as Meijer Forster's *Old Heidelberg*, which also drew lower rank audiences, or [\[End Page 632\]](#) [\[Begin Page 636\]](#) *Marguérite Gautier*, which also appealed to the first ranks, although it was often given as popular performance with reduced prices (Monday, once a month).

For sake of space we refer to [Table 5](#) for the rest of the results with respect to the repertoire, which have mainly anecdotal value and hardly show patterns that are very

relevant for the recovery hypothesis. One item is of some interest, since it relates to the difficult exploitation of the theater in the Aert van Nesstraat and the theatrical habits of spectators for the cheaper ranks. In the period 1887—1916 [End Page 636] rather many French drama categories have a good score on these ranks: Sardou (main works: *Rabagas* and *Madame Sans Gêne*), the comedian Croisset, Daudet (related to Zola's naturalism), the play *Opstanding* [ *Resurrection* ] by Bataille after Tolstoj's novel, and Dennery's *Twee Weezen* [ *Two Orphans* ]. Some Dutch and German plays show scores of a comparable kind, but less pregnantly (cf. Johan Fabricius' Dutch drama, Kadelberg's comedies). Part of this repertoire was often given as a Sunday play, or as a special popular performance. The interpretation of these findings must include that most of the cheaper ranks in the Aert van Nesstraat normally had a notoriously low occupation rate. The managers succeeded in drawing audiences to these ranks with this kind of (French) drama. These ranks were either very empty or very full—which shows itself in a standard deviation, which, on the fifth rank, equals the mean on 'normal' days (Tuesday, Friday). It is highly likely that the impact is calendarbound, Sunday simply being the only day in which the lower (middle) classes could or wanted to go out. From the start (in 1858), Sundays drew less first and second rank spectators for any play or opera. Perhaps 'popular taste' was merely the product of theatrical management and not of an innate urge from these spectators, since they just had to eat what the cook put on the table. Even then, the managers were experienced enough to know which plays drew a good house on Sunday, and in the end, stimulated Sunday theater going by reducing prices. With respect to the recovery movement, it is important to notice that the Stage League in 1876 forbade Le Gras to give further performances of Dennery's *Two Orphans* and other plays of that kind (for otherwise they would not pay his lease). In 1908 the shareholders of Van Eijsden's troupe, many of them linked to the Stage League, urged this manager to stage *Two Orphans* again, search for other plays of the same kind, in order to provide dividends, and somewhat later, to prevent bankruptcy. The bankers' taste proved negotiable after all. As we see in the results of the analysis for the house as a whole, this type of drama and the maligned historical drama was the repertoire which had most impact in the Grand Theater Aert van Nesstraat. The explanatory force of the models is good. <sup>44</sup>

Also with respect to the succeeding managements, the evidence supporting the recovery hypothesis is meager (see [Table 5](#)). In the Theater Coolsingel the impact of management, and hence the troupe (actors, style, etc.) was very considerable and more important than that of the individual repertoire categories discussed above, except for the gallery. All three managements score strong positive effects on the first rank, Albregt & Van Ollefen being comparable with the results of Le Gras I. Le Gras II (1885—1887) scores less strikingly but still very well. For a clear confirmation of the recovery hypothesis, though, far less support for Albregt & Van Ollefen should have been expected. The elite theater-goers apparently supported the troupes with a relatively undifferentiated taste as regards the repertoire. They ignored the differences critics like Heijermans constructed between the management of Albregt & Van Ollefen and that of Le Gras, which, in view of the different repertoires of these two troupes, does not support the recovery thesis. Also in the Tivoli theater, advertised as the temple of good (naturalistic) taste *par excellence*, the first rank audience had the least differentiated taste with respect to repertoire and was only attracted by the first comedian, Van Zuijlen. <sup>45</sup> Albregt & Van Ollefen also score well on the boxes and pit, but with different rates of decrease Le Gras I and Le Gras II lose impact. [End Page 637] This can, particularly in the case of the pit, be interpreted as a defeat of the recovery movement.

In the Theater Aert van Nesstraat, Van Eijsden scores well on rank 3, 5, and 6. The positive score on rank 3 shows the impact of Sundays, when this rank in particular was reduced in price. The positive effect of rank 5 and 6 harmonize with such an interpretation. These two ranks only drew audiences when box office plays were given. It is, therefore, understandable why Van Eijsden often had a bad press in elite journals, which is echoed in theater history. The first rank (like the pit, the fourth rank) scored neutral, but the second rank was not pleased with his repertoire. The results suggest that the movement of recovery came to a stop under his management. The effect of the innovative and 'arty' Eduard Verkade (1915—1916), however, shows itself only in a

negative effect on the gallery and the third rank, which were very sensitive to Sunday play-going. Thus, in spite of De Meester's high opinion of him, there is no positive support for Verkade's performances from the supposed theater elite. Rumor held that this audience flocked to Royaards' fashionable English drawing-room comedies.<sup>46</sup> This result is against the idea of recovery. The effect of the managements after 1887 is considerably less than in the period 1860—1887.<sup>47</sup>

Again, we will not here fully discuss the outcome of loyalty and seasonality, since they are less relevant and less important for the hypothesis of recovery of the theater by the first ranks, who preferred 'civil' drama.<sup>48</sup> The calendar was of little influence, as compared to the period 1802—1853 when it was large (see Gras & Franses, 1998). December is of importance: the first half because it drew very few spectators (on all ranks), the second half because it drew remarkably many. Cheaper ranks responded positively to September (continuation of the fair play); expensive ranks to the season's end (benefits). Loyalty, very important in the period 1802—1853, gives a ragged pattern for all ranks although in the Coolsingel theater the short term is of more importance than the long term, which figures more strongly in the Aert van Nesstraat. In 1860—1887 seasonal factors counted most for the gallery. From these most salient results we must conclude that the *reconquista* of the stage by the upper classes, which desired new, refined drama, was, in terms of repertoire categories, largely a fiction, created by a segment of the critics and other writing members of the Stage League—a fiction later taken over by the historians of the theater. Even if the bankers of taste and civilization succeeded in drawing more spectators to the most expensive ranks, this was entirely insufficient to make a real impact, and, what was worse, to keep the business going. This actually should have alerted the "civilizers" of the cleft between what they regarded the function of theater (an institution of art and education) and what the 'common audience' (on all ranks) found (a place for diversion and excitement).

## 11. The Hypothesis of Recovery for the Most Part Rejected

The fact that not all variables that were important in the first model return as such in the second, does not need to disturb us. We presented two models. The first explains Y by x1, x2, and x3 (x1 is season, x2 is fractional dynamics, x3 the management dummies). The second explains Y by x4, x5 and x6 (x4 being the season, but slightly different from x1, x5 the dynamics, x6 the supply [End Page 638] dummies). x1 approaches x4; x2 approaches x5, x3 is less extended than x6. One cannot include all factors in one model. This would make it too intricate. The fact that 'price' for instance hardly played a part in our first model, but it did not in our second, is a consequence of the model chosen. We might say, it is 'only' statistical significance, and models are 'just' models. There are hundreds of models for the American GDP, which all claim to be the best. We still deal with interpretations, with constructions of reality—and no model is capable of giving a Solomon's judgement.

There is substantial evidence for a gradual change in quality in the period 1860—1881. This change, however, cannot be explained, apparently, according to the consensus narrative of recovery, which predicted specific supply-audience relations, which we did not find. With respect to the increase of first-rank spectators after 1875, we must also include the effect of external causes which we cannot statistically capture, for instance internal shifts within the theater audience (from opera to drama, from boxes and parquet to balcony and stalls), and of the innovations in the troupe, mise-en-scene, and acting style under the impact of Le Gras. Evidence for a gradual change in quality disappears after 1881, while the outcome of the analysis of the effect of product variables for the period 1887—1916 gives very little support to the recovery hypothesis. On the basis of the figures presented here, the hypothesis of the recovery of the stage, specified as the *reconquista* of the theater from the rabble by the elite, does not find significant support. Only some repertoire categories point to the predicted cleft of taste between spectators of the first ranks and those of the cheaper ranks, while others directly contradicted the suppositions of theater history. With respect to repertoire preferences of the theater elite, Heijermans had a better insight than Rössing, and the crew of Dutch theater historians

followed the wrong opinion leaders. A key question is whether the findings for Rotterdam apply to other cases of claimed elite-mass divisions in the later 19th century.

Why is there such a discrepancy between the critical discourse and the figures? We can only offer some suggestions. First, the ideological content and function of the discourse of the stage should be researched more precisely. Theater criticism was not just theater criticism, it implicitly contained general discussions of the desirable standards of taste and social order as well. Also critics apparently often saw what they wanted to see, and blew up statistically unimportant tendencies to basic structures. As there was a close relation between nineteenth-century critics and twentieth-century theater historians, empirical errors gained a life of their own. Another factor to explain the unexpectedly small effect of classy plays can also be sought in two other directions. First it can be compared with the discourse and facts in present-day Dutch film industry. Opinion leaders and politicians presume that Dutch film is important. It wins subsidies and the attention of the cultural elite, but in fact the cinemas remain relatively empty and the audience, thus, rather select.<sup>49</sup> We cannot test a comparable effect for the stage in the second half of the nineteenth century, but possibly a *systematic* analysis of reviews and reviewers might give answers. Another probable element involved management's unintentionally 'killing' plays, by repeatedly performing them precisely *because* they had a good press. To milk dry a play that was found good also had a function in the repertoire system, for although giving plays in runs slowly became a habit after 1865, actors still had to invest much time in [End Page 639] learning new roles. Old gold formed a resting-point in the repertoire, without management's running the risk of being accused that it catered to the rabble. We suspect that Von Kotzebue and Iffland had largely fulfilled such a function in the first half of the century. This can be researched, but not here. This aspect, of course, does not count for original Dutch plays alone.

As noticed above, there is no simple explanation as to why the gradual change of quality could no longer be detected after 1881. It is interesting, though, that as soon as the accommodation was adapted to the standards of the discourse of recovery (a bourgeois temple of the Muses replacing the old 'barn' at the Coolsingel), the long-term effects due to improved quality disappeared. This has perhaps much to do with the structure of the ranks in the new Theater Aert van Nesstraat, which contained far too large first ranks, and admitted the lower-rank audiences through the back door to ranks where acoustics were very unfavorable. Such structural changes affect the correlations between the rank occupation rates drastically, so that it is impossible to compare the outcome of the analysis of the Coolsingel with the Aert van Nesstraat. Perhaps, however, quality got lost from the point of view of the cultural elite, or perhaps the cultural elite lost quality.

From about 1890 onwards, e.g. we notice, also in Rotterdam, a differentiation in the theatrical landscape: smaller ('intimate') venues, like the Tivoli Theater (built 1890) rivaled the Grand Theaters with their 'bourgeois amusement', and styled themselves as 'art theaters'. Art styles, like naturalism, symbolism, etc. differentiated taste in other respects, and did much to format cultural profiles, which Bourdieu came to describe as 'high brow' versus 'middle brow' taste, carried by possessors of cultural capital versus possessors of economic capital: educated and merchant professions drifted apart. The 1894 yearly report of the Kunstkring (Art Circle, founded 1892) makes this very clear when it states about the merchant elite that it only cares for business and that its recreation consists of visits of variety shows, clubs, and the theater only when they play *Charley's Aunt* or *Nervous Women*—but surely not when they stage Ibsen!<sup>50</sup> This statement (going hand in hand with a complaint that three quarters of the audience of concerts consisted of women), is a typical 'artist's' view on merchant taste. In fact it was the view of De Vos and Royaards, the central men behind the Tivoli Theater. It is not entirely new, but it gains in impact. It suggests indeed a loss of quality of the cultural elite.

Such a change of taste in the cultural elite is often related to a change in class division. It is, indeed, a commonplace to say that the old class society, which had many traits of the estate-based society of the old regime, developed after about 1860—1870 into a new

class society in which new economic activity created new opportunities and new types of wealthy and poor. Since Paul van de Laar's inaugural address on the historical images of the 'commercial town' of Rotterdam, this change has, for Rotterdam, centered on the shift from commerce towards transit trade.<sup>51</sup> The traditional view is that the merchant was replaced by the shipbroker and that this had an immense impact on cultural life. Shipbrokers were vulgar, merchants were educated; the latter cared for the city, the former cared only for the harbor and the money it brought them. It remains to be seen, from our prosopographical analysis of theater goers, whether this view can [End Page 640] be sustained with respect to the theater. Before concluding that the different outcomes of our statistical analyses are explained by this process, it must be kept in mind that this new type of economy, of class society, had not yet altered the huge sense of social inequality, nor diminished the objective income cleft that existed between the highest and the middle classes. In 1910 as in 1860 still about 65 per cent of the population earned less than the tax threshold and though new opportunities were created, and the rich got richer so that the gap between the rich and the middle classes increased rather than decreased in time. There is, hence, no fundamental redress in inequality of wealth that might explain the outcome of our long-memory analysis (1860—1881/87 and 1887—1916). Moreover, the outcomes of the repertoire analyses are not so dramatically different after all for all ranks. All three time series analyses we performed (Tivoli, Coolsingel, Aert van Nesstraat), show an strongly diminished impact of seasonal impact and audience loyalty. Also they all show that the first rank spectators, who were regarded the chief pillars supporting the stage (by far the most coupon and season tickets were sold to first rank spectators), did not support the repertoire they were supposed to support by the cultural gurus, whether newspaper critics or culturally active members of their own class. In fact their taste is largely indeed almost completely blank and the opinion about first rank spectators in the 1894 Art Circle report is, by the way, not supported by our analyses. All three analyses show tendencies going systematically against the suppositions of the experts, be they critics or historians (tragedy, Shakespeare, and so on). All this does not suggest that the macro-changes in the structure of society, taking place from 1870 onwards, were a factor of importance in the (slight) differences in outcomes of the time series analyses.

The analyses also do not suggest that 'elite' and 'popular' taste (or cultural goods) were really opposite. Only in some, ideologically significant, types of drama (some forms of melodrama foremost), we see not only a virulent critical debate, but also a significant difference between the occupation rates of expensive and less expensive ranks. We must, however, recall that this can hardly be considered as a difference between bourgeois and working classes. In fact we see what is at present (at least in the Netherlands) considered to be a 'recent' feature, to wit, that reputedly 'low cultural forms' are dominated by the educated and /or wealthy persons. The extent to which cultural forms in the 19th century, like theater (and even the amusements at the fair) already prove to have been essentially bourgeois and not 'working class', did indeed surprise us, because it shows so vividly the need to do more empirical research in this area in order to test tenaciously repeated historical narratives. Recent research has stressed the impact of the bourgeois (or at least of the highly educated) on most post-World-War-II cultural forms (sport, film, musicals, pop concerts, etc.), which traditionally were deemed 'popular' in the sense of 'working class', and new research into 19th century 'popular' cultural forms, such as the entertainments at the Fair, or the membership of 'popular' theater and musical societies, suggests its bourgeois (middle class) nature.<sup>52</sup> In fact, the question arises, with respect to participation in cultural forms in the Netherlands, where actually we really can find 'the real lower classes'. Here, too, the question is valid for almost all 'civilizing' initiatives in the 19th century. Even the activities of the Society for the [End Page 641] Refinement of Popular Amusements were, about 1900, to a large extent, dominated by middle class persons, often clerks in the firms whose patrons supported this Society financially.

Finally, this analysis, again, draws our attention to the contradictory aspirations of the upper bourgeois class with the theater. In De Leeuw's terms, the recovery movement was said to aim at reconquering the theater for the bourgeois class.<sup>53</sup> De Leeuw was keenly aware that this had a political (or ideological) sting it itself, and the battle against

melodrama had very much been a battle against class struggle on the stage. Hence, the movement aimed at a more selective repertoire for a more selective audience. In a certain sense it succeeded in this: Le Gras quickly lost pit audience and never succeeded in winning back the galleries, which from about 1835 onwards left the Grand Theater. At the same time, the recovery movement is linked with the civilizing offensive and pictured as the beginning of what was to become the first stage of the debate over state subsidy for the theater in order to bring 'civilized drama' to the lower classes and the provincials (a normal but strange equation). This impulse came from the perceived dangers of the social tensions at the beginning of the 20th century. There was much concern about keeping the low-paid middle-brow intelligentsia (civil servants, schoolmasters, etc.) on board the bourgeois ship, and prevent it from engaging itself with the 'proletarians'.<sup>54</sup> This process can certainly be termed as culturally hegemonic, silently assuming that the forms of amusement which pleased the upper classes were *per se* ennobling. But like most of these processes of civilizing activity—the Society for the Benefit of the Commonwealth (the 'Nut') is the best example—the Stage League's members suffered from the chasm within its upper bourgeois membership between striving to transform the 'lower classes' to its image and likeness, while avoiding rubbing shoulders with them. The implicit cultural values which legitimated subsidizing the bourgeois stage were formed in the Enlightenment. The process was not successful, but it was not until the late 1960s that its values were challenged and changed in a movement not so much aiming at reconquering the bourgeois stage for the working classes, as benefitting from its subsidies. Indeed, a policy of diversification of state support set in, first, along lines of 'objective class difference'; next along lines of 'innovating artists' and finally along lines of cultural identity as well. The 'modern', centralized view of the blessings of theater became a postmodern, fragmented view, in which the 'grand theaters' were as it were recognized as a force shaping bourgeois identity. The recently established program to forceably stimulate grand-theater going in schools, hence, reminds us that politics at least are still firmly bourgeois.

## Appendix 1

### The Model for the Long-Memory Time Series Analysis

We have weekly ticket sales data for the seasons 1860—1861 until 1880—1881, concerning performances of Dutch-spoken drama at the Grand Theater in Rotterdam. The ticket sales translate into occupation rates, denoted as  $z_{i,t}$ , where  $i$  is an index for rank and  $t$  for time. We have ticket sales for rank 1 (balcony and stalls), rank 2 (boxes and parquet), pit, gallery (including amphitheater), and the house, hence  $i$  runs from 1 to 5. To introduce some symmetry into the data, we apply the following transformation, **[End Page 642]**

$$y_{i,t} = \log (z_{i,t} + c_i), \quad (1)$$

where we take  $c_1 = 0.05$  and  $c_2 = c_3 = c_4 = c_5 = 0.10$ , and where *log* denotes the natural logarithm.

As an additional variable we have  $q_{i,t}$ , which denotes the price index for rank  $i$ , where we set = 100. We also transform this price index, that is, in the sequel we will use

$$p_{i,t} = \log (q_{i,t}) - \overline{\log q_i}, \quad (2)$$

where  $\overline{\log q_i}$  is the sample mean of  $\log (q_{i,t})$ . Next, the three different management boards are represented by 1 - 0 dummy variables, denoted as  $d_{k,t}$ . More precise,  $d_{1,t}$  is 1 for 1860—1867 and 0 elsewhere,  $d_{2,t}$  is 1 for 1867—1876 and 0 elsewhere, and  $d_{3,t}$  is 1 for 1876—1881 and 0 elsewhere. We use the same management variables for each

rank.

As the weekly occupancy rates show signs of seasonality, we introduce a few seasonal variables. These variables are based on a week index  $j(t)$  which starts at 1 at the beginning of each theater season and ends at 32 for the last week of each season. There are 7 such seasonal variables. We use the same seasonal variables for each rank, but the effects of the variables are different across <sup>55</sup>

The most suitable model for the present purpose turns out to be an autoregressive model for a possible fractionally integrated time series variable, where we include additional explanatory variables. For further reference we abbreviate this model as ARFI-X. The autoregressive (AR) part of the model should account for possible short-run and seasonal dynamics. The fractional integration (FI) part can take account of long-memory properties of the data. This approach has been introduced in Granger and Joyeux and in Hosking, and there are several recent studies in economics, finance, and political science, where this model class has been successfully applied. <sup>56</sup> The explanatory variables are included in the model in order to make sure that apparent long-memory properties are not due to neglected variables. For example, Bos, Franses and Ooms find that taking account of level shifts (like the management dummies in our case) can reduce the evidence of long-memory. <sup>57</sup>

Some preliminary analysis indicated that we should account for autoregressive effects at lags 2 and 32, where 32 corresponds with the observation in the same week in the previous theater season. In time series notation, the ARFI-X model can now be summarized as

$$(y_{i,t} = x_{i,t}'\beta) (1 - L)^d (1 - \phi_2 L^2 - \phi_{32} L^{32}) = \varepsilon_t \quad (3)$$

where  $L$  denotes the familiar backward shift operator defined by  $Ly_t = y_{t-1}$ ,  $\varepsilon_t$  is an independent and identically distributed normal random variable with mean zero and variance  $\sigma^2$ . The AR part of the model concerns  $(1 - \phi_2 L^2 - \phi_{32} L^{32})$  the X part is  $x_{i,t}'\beta$  and the long memory part is  $(1 - L)^d$ , where  $d$  is called the long-memory parameter. The vector  $x_{i,t}$  contains eleven variables, that is, three management dummies, seven seasonal variables and a price variable  $p_{i,t}$  [End Page 643]

To estimate the parameters we use the modified profile likelihood method, proposed in Doornik and Ooms and Doornik. <sup>58</sup> Other asymptotically first order equivalent estimation methods like maximum likelihood gave similar results, and the results are not reported here. The empirical strategy we follow is that we first estimate the parameters of (3) and then subsequently delete insignificant variables. We do, however, always retain the long-memory parameter  $d$ , that is, we do not set it equal to 0 even though it can be insignificant. This is simply because this parameter is the focal parameter of our analysis, which is to be interpreted as providing evidence for or against our gradual change hypothesis. Indeed, when  $d$  differs from 0, and is also not equal to 1, we have evidence in favor of our hypothesis.

## Appendix 2

### The Model for the Time Series Analysis of Repertoire Effects

The period from 1860—61 to 1886—87 contains twenty-seven theater seasons. For 1881—85 (four seasons) all figures except receipts are missing. We have, supported by the fact that the receipts for these four years do not indicate serious changes, constructed continuity here, by linking 1880—1881 to 1885—1886. This results in twenty-three theater seasons, of which we could analyze week 5 to and including week

36, a sum total of 736 valid observations. We call the occupation-rate variables  $Y_t$ , so  $t = 1, 2, \dots, 736$ . The second series of data, the period from 1887–88 to 1915–16 contains 29 theater seasons. One season (1899–1900) is missing, but the again the receipts made clear that no serious changes occurred. Hence we constructed continuity, resulting in 28 seasons, of which we could analyze week 4 to and including 35, a sum total of 896 valid observations, which can be modeled in the same way as the first series. <sup>59</sup>

It is fair to suppose that the occupation rates of theater ranks are influenced by the season, for it is reasonable to assume that some parts of the year are more, others less favorable for theater-going. It is also fair to suppose that occupation rates also depend on audience loyalty. Loyalty can be analyzed by including the observations of previous weeks in our model. In short, this means that we made  $Y_t$  depend on  $D_{1,t}, \dots, D_{32,t}$  (variables, which indicate that theater-going may have changed by the week, in which the index '1' corresponds with week 4 and '32' with week 36 (Coolsingel)), and depend on  $Y_{t-1}, Y_{t-2}, \dots, Y_{t-13}$  (Coolsingel), variables, which indicate that theater-going in the present week may have depended on that in fore-going weeks, the above-mentioned dynamics, or loyalty. Because we lose thirteen observations by including  $Y_{t-13}$  in our model of the data of the Coolsingel, the parameters are estimated with 729 (736 – 13) observations. We also analyzed the contribution of the left-out variables to the model, but these did not add to the explanation. <sup>60</sup> The data for the Aert van Nesstraat have been modeled along the same lines. <sup>61</sup>

Moreover, we may assume that occupation rates are influenced by aspects of the supply, such as special events (first night, benefit), actors, authors, companies, etc. To examine these aspects, our model contains for the Coolsingel 42 '0 or 1 dummy variables' (normally called '0/1 dummies'). These '0/1 dummies' have [End Page 644] the value '1' if a particular feature occurs in a certain week, and '0', if this is not the case. <sup>62</sup> We call these  $X_{1,t}$  to  $X_{42,t}$ . These forty-two '0/1 dummies' have been deduced from the narrative documents of the history of the Rotterdam theater (reviews, essays, play-bills, etc.), they are called 'supply' variables. They include the various managements. For 1860–1887 these were De Vries, 1860–1867; Albrect & Van Ollefen, 1867–1876; Le Gras c.s. I, 1876–1881; Le Gras c.s. II, 1885–1887. The largest group of dummy variables consisted in repertoire categories (authors and plays). <sup>63</sup> For the Aert van Nesstraat, we likewise modeled 59 '0/1 dummies', including as managements Le Gras c.s. II, 1887–1899; Van Eijsden, 1900–1916; Verkade 1915–1916). The specifications of the repertoire dummies will be given in [appendix 3](#). For the Coolsingel they included five dummies for managers, and for the Aert van Nesstraat three. We estimate the values of each variable with respect to a 'constant' (C), a composite variable, made up from several others (including e.g. week 31 and management 1 for the Coolsingel).

The model now is complete, and, in formula-form reads (for the Coolsingel):

$$(1) \quad Y_t = \delta_0 + \delta_1 D_{1,t} + \dots + \delta_{31} D_{31,t} \\ + \alpha_1 Y_{t-1} + \alpha_2 Y_{t-2} + \alpha_{13} Y_{t-13} \\ + \mu_1 X_{1,t} + \mu_2 X_{2,t} + \dots + \mu_{42} X_{42,t} + \epsilon_t$$

in which  $\epsilon_t$  is a disturbance term, and  $\delta_0$  to  $\delta_{31}$ ,  $\alpha_1$ , and  $\alpha_{13}$ , and  $\mu_1$  to  $\mu_{42}$  are the unknown parameters. If  $\mu_1 = \mu_2 = \mu_{42} = 0$ , than  $\delta_0$  can be considered as the last week included (early May), and  $\delta_1$  to  $\delta_{31}$  show the relative difference of the first week included (week 5, which is early October) to week 35 (which is late April) as compared to early May. We call  $\delta_1 - \delta_{31}$  the deterministic season (seasonal influence). If  $\delta_1 = \delta_2 = \dots = \delta_{31} = 0$ , than  $\delta_0$  would correspond with the effect of 'no relevant or determinable programming'. If the parameters of both groups are significant, it is difficult to interpret  $\delta_0$  unambiguously. We estimate the  $32 + 8 + 42 = 82$  parameters in this model with the ordinary least squares. The estimated residuals are examined for the possibility that (1) should include other weeks to measure the effect of loyalty. For all four ranks, and the house as a whole, this proved to be unnecessary.

Estimating the parameters of (1), it turned out that many did not differ significantly from 0. Step by step the least significant was eliminated, until we got a final model, containing only variables significant at 5 per cent. On the whole, and different from the time series analysis over the period turned out to be of more significance in the period 1860—1887 (and 1887—1916) than  $\delta_1$  to  $\delta_{31}$  or  $\alpha_1, \alpha_2, \dots, \alpha_{13}$ . The  $\delta_1$  to  $\delta_{31}$  parameters can be interpreted as the seasonal influence. The  $\alpha_1, \alpha_2, \dots, \alpha_{13}$  parameters can be interpreted as the measure of loyalty. This latter entity is, *in concreto*, given by  $\alpha_1 + \alpha_2 + \dots + \alpha_{13}$ . Finally there is the  $R^2$  of (1), which indicates the percentage of explained variance in  $Y_t$  as explained by the model. The usefulness of the method we followed, lies in that conclusions are based on a current time-series model, which is specified in such a way as to leave little chance to get spurious effects. We, thus, analyze the effect of  $X_{1,t}$  to  $X_{42,t}$  (the dummy-variables), given that we correct for dynamics ('loyalty') and the seasonal pattern, which is a sensible strategy (Franses, 1998). **[End Page 645]**

## Appendix 3

### The 'product varilabes'

Product variables have been selected (a) on the basis of categories employed in reviews and historiography, and (b) on the basis of relevance for the hypothesis to be tested. Here  $t$  is an interplay between 'historically objectivated' criteria and considerations of the researchers. All critics think that a categorization in genre and country is relevant to say something about taste (and class). Both critics and historians group plays and authors. In a few cases we grouped plays or authors ourselves. We indicate that in the description. If not explicitly said, all typifications stem from contemporary Rotterdam critics. 'Civilized' plays are in CAPITALS, rabble plays in *italics*.

#### Coolsingel

|          |   |
|----------|---|
| Ballet2  | Critics disliked ballets, since they lacked 'sense' (language).   |
| Hist1    | Historical drama often had a melodramatic aspect and was not regarded cultivated drama.   |
| Melo1    | 'Melodrama' was surely a thing for the rabble.  |
| TREURA   | Tragedy still counted as 'noble' drama. Most often staged were Schiller's <i>Mary Stuart</i> and Shakespeare's <i>Othello</i> . Vondel's <i>Gijsbrecht</i> is filtered out.       |
| TreurB   | Plays advertised as tragedies, which did not stand the standard of good tragedy (Ducis) or simply were dramas (e.g. <i>Abällino</i> ). We grouped them ourselves under one label. |
| NL1      | Main piece is home-grown. Critics always welcomed such plays although they often found many things wrong with them. <i>Gijsbrecht</i> is left out.                                |
| NL2      | For a home-grown after-piece the same counts ( <i>Kloris en Roosje</i> , the after-piece of <i>Gijsbrecht</i> is left out).   |
| GIJS     | <i>Gijsbrecht van Aemstel</i> was the new-year's play until 1875.   |
| WISELIUS | Wiselius and Schimmel wrote 'educated' or at least pretentious romantic-historical verse drama.   |
| CREMER   | Cremer's <i>Emma Berthold</i> was the first play that got a run. It counted almost as the Renaissance of cultivated Dutch drama.  |
| MULTA    | Multatuli's <i>Vorstenschool</i> [ School for Princes] (first night,  |

|                 |  |
|-----------------|--|
|                 | 1875), was 'hot' for some time.  |
| GLANOR          | Glanor's <i>Uitgaan</i> [ <i>Going Out</i> ] symbolized Albregt & Van Ollefen's adherence to the cause of culture.   |
| MULDER          | Lodewijk Mulder wrote the Stage League awarded comedy <i>De Kiesvereeniging van Stellendijk</i> [ <i>The Election Association of Stellendijk.</i> ]  |
| ROODHUI         | Roodhuijzen wrote a Stage League awarded drama, <i>Uit den Achterhoek</i> [ <i>From the Outlying District</i> ], followed by <i>Roofvogels</i> [ <i>Birds of Prey</i> ] (from which the critics forced him to cut a 'melodramatic' scene for sake of upper class taste).<br><b>[End Page 646]</b>  |
| <i>Ruijsch</i>  | Wrote romantic-historical drama, which was considered to be 'popular'. His <i>Moederliefde en Heldenmoed</i> [ <i>A Mother's Love and a Hero's Courage</i> ] lived longest on the stage. He also wrote comedy.   |
| <i>Faassen</i>  | Actor-playwright in the troupe of Le Gras. Wrote many 'popular' dramas, which were considered to be journey-work.  |
| <i>Peijpers</i> | Chief master joiner of fair plays and master plagiarist of melodrama.  |
| ALBINI          | We grouped the plays of Albini, Kneisel, Mosenthal, Putlitz, Salingré, and Rosen. Rössing thought it a blessing that German drama and comedy pushed aside the French.  |
| MOSER           | Von Moser, Blumenthal, Schönthan, Treptow, Freytag. These dramas were mainly staged in the final seasons of Albregt & Van Ollefen, and by Le Gras. So, very new. Grouping made by us.  |
| BENEDIX         | Comedy writer. Had a good reputation.  |
| <i>Berg</i>     | German comedy with songs. Berg, Kalisch, Raymund, Nestroy, Raeder. Popular drama.  |
| <i>Iffland</i>  | Iffland and Von Kotzebue. Considered very old-fashioned and hence 'out of taste' with the elite.   |
| <i>Zschokke</i> | Zschokke and Ziegler. Plays, many degrees more vulgar than Iffland's or Von Kotzebue's.  |
| <i>Birch</i>    | Charlotte Birch-Pfeiffer was Von Kotzebue's rightful heir as the most-staged author. She dramatized novels. Her reputation suffered under the violent attacks in the <i>Spektator</i> .  |
| BRACH           | Drama by Brachvogel, Holtei, Ploetz, Weiszenthurm, and Goerner. The authors tried to create 'art' but often utterly failed to convince the critics.  |
| ARRONGE         | I'Arronges <i>Doctor Klaus</i> was considered a valuable asset for civilization!   |
| <i>Fraspec</i>  | Historic-Romantic Melodrama (among which old spectacles), grouped by us: Arnould & Fournier (e.g. <i>Gaston of France</i> ); Balzac ( <i>Mercadet</i> ); Bouchardy (e.g. <i>Lazaro the Herdsman</i> , <i>John the Bell-ringer</i> ); d'Amand ( <i>Maximillian I, Emperor and Martyr</i> ); Dumas-pére (e.g. <i>Catharine Howard and A Marriage</i> |

|                 |  |
|-----------------|--|
|                 | under Louis XV); Duval ( <i>Eduard in Scotland</i> and <i>Torquato Tasso</i> ); Feuillet (e.g. <i>Novel of a Poor Young Man</i> ); Hugo (e.g. <i>Angelo</i> , <i>Ruy Blas</i> , <i>Mary Tudor</i> , <i>The Miserables</i> ); Nus ( <i>Testament of Queen Elisabeth</i> ); Sand ( <i>Claudie</i> , <i>Marques of Villemer</i> ); Sue ( <i>Strolling Jew</i> ); Terrail ( <i>Youth of King Henry</i> ). Critical attitudes become more severe with respect to this form of drama.  |
| <i>Bourge</i>   | Plays by Anicet Bourgeois, often based on historical cases from the <i>ancien régime</i> . Highly uncivil.   |
| <i>Alboise</i>  | French (melo-)drama, grouped by us. The category contains work by Alboise ( <i>Margaretha Fortier</i> , <i>Marie Simon</i> ); Bayard ( <i>Gamin of Paris</i> ); Belot ( <i>Cora, or a Creole's Revenge</i> ); Brisebarre's <i>The Poor of Paris</i> ; Cogniard (e.g. <i>Alibaba</i> ); Cuvelier & Corse, ( <i>Begging Girl</i> ); Delacroix, ( <i>Paria</i> ); Desnoyer ( <i>Medusa</i> ); Ducange (e.g. <i>Life of to 21.5pc a Gamester</i> ); Fournier ( <i>Jocelin</i> ); Lafont ( <i>Jarvis</i> ); Melesville (e.g. to 21.5pc <i>She Is Insane and Sullivan</i> ); Montepin's <i>Man with the Waxen Figures</i> ; <b>[End Page 647]</b> Payat' <i>Rag-picker of Paris</i> ; Sejour's <i>Ben Leïl</i> and <i>Card-reader</i> ; Touroude (e.g. <i>Bastard</i> ). Surely not a civilized banker's choice. |
| <i>Dumanoir</i> | Drama by Dumanoir and Dennery (often together). E.g. <i>Prayer of the Ship-wrecked</i> ; <i>Knights of the Fog</i> ; <i>Mary Jeanne, the Woman from the People</i> ; <i>Martyr</i> , <i>Voyage around the World in 80 Days</i> ; <i>Don Cesar de Bazan</i> ; <i>Poor Nobleman</i> ; <i>Uncle Tom's Cabin</i> and <i>Old Corporal</i> . Not the tools of education.   |
| SCRIBE          | Scribe and Legouvé: by bankers' order proclaimed to be the School of Common Sense. The authors often worked together, though Legouvé tended more towards tragedy.  |
| AUGIER          | Augier and Sardou. 'Realistic' writers ascending and also put together by the critics as such. Soon considered as journeyman well-made plays by the cultural elite, but still defended by e.g. Heijermans around 1890.   |
| FRANEW          | Erckmann-Chatrian ( <i>Our Friend Frits</i> ); Newsky ( <i>Danicheffs</i> ) and Sandeau ( <i>Marcel</i> ): civilized! The Queen saw <i>Danicheffs</i> and culture was victorious.  |
| Dumas           | Dumas fils' plays were frowned on for moral reasons, but they were yet fodder for the educated bourgeois.  |
| <i>Frablij</i>  | French comedies of Angely, Barrière, Bayard, Girardin, Labiche, Rougemont, Soulié and Thiboust. French comedy was considered immoral. The grouping is ours.  |
| MOLIERE         | Constituted among the profligate French comedies a peak of educated art.   |
| <i>Frazang</i>  | French comedy with song, by Crémieux ( <i>Orpheus in the Underworld</i> ); Meilhac & Halévy. Also considered immoral. <i>Orpheus</i> caused scandal.   |

## Aert van Nesstraat (without Fair plays and Summer performances)

|                       |  |
|-----------------------|--|
| <i>Hist1</i>          | See under Coolsingel.  |
| TREUR                 | Schiller's <i>Mary Stuart</i> and Shakespeare's <i>Othello</i> remained the most often staged tragedies, but now also <i>Hamlet</i> , <i>The Merchant of Venice</i> , <i>The Maiden of Orleans</i> and <i>The Robbers</i> were staged.   |
| <i>Klucht</i>         | 'Farce' becomes an accepted genre description, set off against comedy. Considered not too 'cultivated'.  |
| NL1                   | See under Coolsingel. <i>Gijsbrecht</i> was no longer staged in Rotterdam.   |
| NL2                   | See under Coolsingel. <i>Kloris en Roosje</i> has been filtered out.   |
| <i>Kloris</i>         | The effect of new year's plays measured on the basis of <i>Kloris en Roosje</i> .  |
| MULTA                 | Multatuli's <i>Vorstenschool</i> and <i>Aleida</i> , a comedy.   |
| FABRI                 | John Fabricius wrote drama for Van Eijsden. <i>De Rechte Lijn</i> [ <i>The Straight Line</i> ] was the most succesful. Considered 'racist' in the sense of 'Blut und Boden' drama, and not surprisingly his work was loved by sympathizers of the nazis (though Fabricius was far from that ideology). |
| <b>[End Page 648]</b> |  |
| SCHUER                | Plays by the Rotterdam journalist-playwright and critic Willem Schürmann.  |
| EMANTS                | A pessimistic-naturalistic playwright.   |
| WAASDIJK              | Rotterdam author of 'psychological' and reflecting moralistic dramas. He also reviewed plays.  |
| NOORDWAL              | Typical 'Hague-ish' woman comedy writer.   |
| SIMONS                | A Rotterdam banker's daughter, married to a fervent 'civilizer'. High-class 'erve drama'.  |
| NLBLIJ                | Comedies by Mulder, the Rotterdam journalist, poet and critic Henri Dekking and Van Maurik.  |
| Faassen               | See under Coolsingel. His plays rapidly lost ground after 1900.  |
| DUIBLIJ               | All German comedies (mind, not All-Germanic comedies).   |
| BLUMEN                | Plays putting Blumenthal first on the bill. He was popular (12 plays performed).   |
| SCHON                 | Franz von Schönthan (father and son) were good for 14 plays (comedy).  |
| MOSER                 | Von Moser sold seven plays to the Rotterdam theater (mostly comedies).   |
| KADEL                 | Kadelburg, with or without Blumenthal, was a very popular writer of 'decent' farce and comedy.   |

|                |   |
|----------------|---|
| FULDA          | Fulda's comedy. Had not the impact of the other comedians.  |
| ARRONGE        | Still <i>Doctor Claus</i> . Other drama's from his pen were not as successful as his 'doktor'—but yet, civilized.   |
| <i>Raeder</i>  | Remained on the repertoire. See under Coolsingel.   |
| DUITON         | All German dramas.  |
| MEIJER         | Meijer Forster's <i>Old Heidelberg</i> , was very civilized—yet popular with all ranks.   |
| <i>Birch</i>   | Old German (melo)drama by Birch-Pfeiffer en Holtei. Now definitely passé.   |
| DUIDRA         | German drama from authors of comedy, Fulda, Schönthan en l'Arronge.   |
| VOSS           | Voss, Sudermann, and Wildenbruch can be considered as being 'socially engaged' new German dramas (see Rössing).   |
| PHILIPPI       | Author of modern drama such as <i>Benefactors to Humanity</i> and <i>The Thorny Way</i> .   |
| MOLNAR         | Originally a Hungarian author of realistic-satirical drama like <i>The Devil</i> and <i>The Tale of the Wolf</i> .  |
| SCHNITZ        | Van Eijsden staged three of Schnitzler's plays <i>Love Game</i> , <i>Riddles of the Soul</i> and <i>The Call of Life</i> . Typical 'nerve drama' for the haute bourgeoisie—if they would have come to see them. |
| SCHILLER       | Four plays of Schiller's were staged (see above, under tragedy).  |
| <i>Frablij</i> | French comedy. See under Coolsingel.  |
| BISSON         | Successful new comedy-writer (9 plays staged).  |
| MOLIERE        | Still canonized and sanctified, but hardly staged,  |
| Nieuwfra       | Modern French comedy, grouped by us: Capus, Gavault, Deflers, Bernard, Rivoire, and Veber.  |
| Croisset       | Successful author, particularly with the detective play <i>Arsène Lupin</i> . <b>[End Page 649]</b>   |
| Sardou         | Many of his plays still held the stage, but he was now mainly regarded as journey-work for the middle classes ( <i>Madame Sans-Gêne</i> , <i>Rabagas</i> , etc.).   |
| Tolstoi        | Bataille's adaptation of Tolstoi's <i>Resurrection</i> was very successful drama, though middle and lower class based.  |
| DUMASF         | Alexandre Dumas Fils was still taken seriously, although far less staged, except his:   |
| <i>Dame</i>    | <i>Marguérite Gautier</i> , <i>la Dame aux Camélias</i> , which became more and more a play for popular performances, probably in the wake of the opera version, <i>La Traviata</i> .                           |
| Wezen          | <i>Two Orphans</i> , by Dennery and Cormon counts as the popular melodrama <i>par excellence</i> .  |
| BRIEUX         | French naturalistic author (especially <i>Blanchette</i> ).   |

|         |   |
|---------|---|
| BLUM    | Blum and Toché wrote decent comedy for the upper classes.   |
| Oudfra  | Old French historic-romantic drama and old melodrama: Arnould & Fournier, Sand, Payat, Bourgeois. Lost quickly ground. Still considered very uneducated.  |
| SCRIBE  | Scribe and Legouvé now counted as <i>passé</i> to those who knew the standards of taste.  |
| AUGIER  | Augier, Newsky, Sandeau and Erckmann-Chatrian saw their reputation decline.   |
| OHNET   | Modern French drama (Ohnet, Capus, Lemaître, Bourget). Meant to appeal to the better classes.   |
| Daudet  | Drama by Richepin, Daudet, and Bernstein was—remarkably in some cases—by critics categorized as 'naturalistic' in the sense of Zola. This was not necessarily a compliment.   |
| MAETER  | Maeterlinck and Maupassant. Now canonized. The troupe staged <i>Monna Vanna</i> and <i>Musotte</i> .  |
| ITAL1   | Main piece is Italian, but without Giacometti. Italian drama was a new 'trouvé' in the genre of 'nerve drama'. Giacosa and Praga were staged.   |
| SCAN1   | Numerous critics considered Scandinavian drama to be nobler than South-European drama, because our cool Nordic nerves were believed to be more in sympathy with its ideas. Such critics, therefore, applauded the new viking invasion—although both form and content of Nordic drama were also sharply criticized. Meant to be elite stuff. Björnson and Ibsen dominated. |
| IBSEN   | Ibsen's status was apart ( <i>Nora</i> , <i>Johan Gabriel Borkman</i> , <i>Rosmersholm</i> en <i>Enemy of the People</i> ).   |
| Engels1 | English plays began to reach the Dutch stage from about 1890 onwards. Both farce and Shakespeare are contained in this variable.  |
| SHAKE   | Shakespeare, of course, was canonized. At last the moral objections lost ground to his magnificent verse. Burgersdijk's translation did much to the bard's success.   |
| SHAW    | Three plays of Shaw were given, among which <i>Man and Superman</i> . <b>[End Page 650]</b>   |

PO Box 1738  
NL-3000 DR Rotterdam  
Netherlands

Department of Econometrics  
De Boclaan 1105  
NL-1081 HV Amsterdam  
Netherlands

## Endnotes

- [1.](#) The division is basically that Henk Gras did the historical research; Philip Hans Franses performed and coordinated the time series analyses and wrote that part of the text; Marius Ooms provided the models and tests for the long-memory times series analysis. An earlier version of this article was presented at the 2000 ASTR Conference in New York. The research was subsidized by the Dutch Organization of Scientific Research.
- [2.](#) Henk Gras, and Philip Hans Franses, "Theater Going in Rotterdam, 1802—1853. A Statistical Analysis of Ticket Sales," *Theater Survey*, 39, 73—98.
- [3.](#) True, the first Ibsen performance ( *Nora* ) had to be given as a private affair, but it was immediately taken to the public stage.
- [4.](#) W. Hogendoorn, *et al.*, "Een Rotterdams koopman en zijn repertoirelijst (1774—79)," in: *Scenarium*, 8 (1984): 119—44. Cf. F. Hazewinkel, *Toneel in Rotterdam, 1945—86. Rapport van het gemeentelijk beleid* (Rotterdam, 1988): "Till about 1800 classicist theatre was dominant, though for the illiterate populace farces, and opera were tolerated" (p. 12, our translation).
- [5.](#) This view was strongly propagandized by Ben Hunningher, in his *Het dramatisch werk van Schimmel in verband met het Amsterdamsche Tooneel/leven in de 19e eeuw* (Amsterdam, 1931), and *Een eeuw Nederlands toneel* (Amsterdam, 1949). It remained influential. (E.g. Simon Koster, *Komedie in Gelderland* [Zutphen, 1979], pp. 156ff., and Marlies Hoff, *Johanna Cornelia Ziesenis-Wattier [1762—1827]*: 'de grootste actrice van Europa' [Leiden, 1996], Chapter 2). This view found its basis in the theatre periodical, *The Tooneelkijker* (1816—1819), which larded its views with conservative social-political opinion. Take for an example of its views: *The Magpie and the Virgin* was a success with the populace in London and Paris because it attacked "the first classes in society" and, thus, stiffened the populace's distrust in authority. This populace is set off against the "reasonable audience" which should stop such performances (I:9—10). Kotzebue's *Love Child* sets the 'populace/gallery' off against the 'grand monde /boxes'. The first category applauds the play as 'good', the second, with the *Tooneelkijker*, abhorred it, as being evil (I:273, our translations).
- [6.](#) For the narrative of stage decline, see, e.g., J.H. Rössing, "Het Tooneel," in: H. Smissert, ed., *Nederland in den aanvang der twintigsten eeuw* (Leiden, 1910), 425—452; the same, *De Koninklijke Vereeniging Het Nederlandsch Tooneel: Een bijdrage tot de geschiedenis van het tooneel in Nederland* (Amsterdam, 1916); Ben Hunningher, *Schimmel* (1931); Hunningher, *Een eeuw Nederlands toneel* (1949); Ben Albach, *Helden, draken en komedianten* (Amsterdam 1956); H.H.J. de Leeuwe, "De **[End Page 651]** geschiedenis van het Amsterdamsch tooneel in de negentiende eeuw (1795—1925)," in: A.E. d'Ailly (ed.), *Zeven eeuwen Amsterdam*, 6 vols. (Amsterdam [1948]) V; the same, "Stilepochen des holländischen Theaters im 19. Jahrhundert," in: *Maske und Kothurn*, 3:4 (1957), pp. 340—62; the same, "Antoine Jean le Gras, een Nederlands regisseur der negentiende eeuw in Rotterdam," in: *Rotterdams jaarboekje* (1975), 209—256; Simon Koster, *Komedie in Gelderland* (1979), pp. 156—166; Paul Post, "19

december 1870: Oprichtingsvergadering van het 'Nederlandsch Tooneelverbond'. Een keerpunt in het negentiende-eeuwse toneel," in: M.A. Schenkeveld-Van der Dussen, ed., *Nederlandse literatuur, een geschiedenis* (Groningen, 1993); Paul Post, "19 december 1870. Oprichtingsvergadering van het Nederlandsch Tooneelverbond. De strijd om de verheffing van het toneel," in: Erenstein, ed., *Een theatergeschiedenis* (1996), 446—453; Paul Post, "1881. Koning Willem III verleent de Vereeniging 'Het Nederlandsch Tooneel' het predikaat 'Koninklijk,'" in Erenstein, ed., *Een theatergeschiedenis* (1996), 480—487.

7. Henny Ruitenbeek, "Byna te arm tot schouwburgtdverdryf. Sociale geleding en levensstandaard van het publiek in de Amsterdamse Stadsschouwburg in de eerste helft van de negentiende eeuw," in: *Economisch en Sociaal-Historisch Jaarboek* (1993), pp. 95—150, challenged the view that laborers and even the lower middle classes could afford a theater ticket. Henk Gras, and Philip Hans Franses rejected the assumptions about preferences of the repertoire per rank in: "Theater Going in Rotterdam, 1802—1853" (1998). For a rejection of a change in the social composition of the audience due to the French Revolution, see Henk Gras, "De geschiedenis van de Rotterdamse schouwburg is die van het Nederlands toneel," in: *Historisch Tijdschrift Holland*, 32:1/2 (2000), pp. 76—88; also Henk Gras, "Interne verdeeldheid. Het onderzoek naar de smaak van het toneel- publiek in de negentiende eeuw," in: *De negentiende eeuw* 24:1 (maart 2000), 81—93.

8. Rössing, "Het Tooneel" (1910), 425.

9. Hunningher, *Schimmel* (1932), 142, echoing Rössing, *Koninklijke Vereeniging* (1916).

10 *Het Nederlandsch Tooneel* (1872), 331.

11 Rössing, "Het Tooneel" (1910), 428.

12 P. Haverkorn van Rijswijk, Lecture at the 30th Stage Anniversary of Derk Haspels, *Nieuwe Rotterdamsche Courant*, 23-4-1901.

13 Rössing, "Het Tooneel" (1910), 428.

14 Haverkorn, in *Nieuwe Rotterdamsche Courant*, 23-4-1901.

15 Rössing, *Koninklijke Vereeniging* (1916), 133, 137

16 Rössing, "Het Tooneel" (1910), *Koninklijke Vereeniging* (1916).

17 Rössing, "Het Tooneel" (1910), 249.

18 Hunningher, *Schimmel* (1931), 166—167; Rössing, *Koninklijke Vereeniging* (1916), 77ff., 134ff..

19 Rössing, "Het Tooneel" (1910), 431—33; *Koninklijke Vereeniging* (1916), 137ff.

20 Among the history-making journalists, often reviewers of theater and (or) editors of art- and theater journals, were names like Van Hall, Loffelt, Rössing, De Beer, and many others. For Rotterdam we must mention Haverkorn van Rijswijk and Johan de Meester, and the dramatist-reviewers Willem Schürmann, Henri Dekking, and Albert van Waasdijk. They were joined by scholars in literature, like Kalf, Worp (who wrote **[End Page 652]** a history of Dutch drama, 1908), Van Vloten and Walch (who both wrote on the 18th c. clash over classicism, the 'Punt-Corver conflict', 1872 and 1916), and their priggish caricature dr. Wap; or by early theater historians like the theology student C.N. Wybrands (a history of the Amsterdam theater, 1873), the German F. Hellwald (author of the first history of the Dutch stage, published in German, 1874), Haverkorn van Rijswijk

(history of the early Rotterdam theater, 1882), or Sorgen (history of the Utrecht theater, 1885). Both were active members in the Stage League. Their view on the *Werdegang* of the Dutch stage was largely taken over in the 20th c. by Albach, and particularly by Hunningher, as well as by De Leeuwe and Koster. The Amsterdam branch of theater studies continued it to the present day, cf. W. Hogendoorn, "Dutch Theater, 1600—1848" in: G. Brandt, ed., *German and Dutch Theater, 1600—1848* (Cambridge, 1993), which continues the myth that Dutch theater history equals the history of the Amsterdam City Theater, and, R.L. Erenstein, ed., *Een theatergeschiedenis* (1996).

21 Hunningher, *Schimmel* (1931), 140.

22 Hunningher, *Schimmel* (1931), 165.

23 De Leeuwe, "Antoine Jean le Gras" (1975), 211, 221.

24 Municipal Archive, Rotterdam (MAR), Grand Theater (1853—1887), inventory nrs. 121—135 (ticket sales accounts for Dutch-spoken drama and French opera, 1853—1881); 136—142 (ticket sales accounts German opera, 1868—69 and 1872—79)); nrs. 106—107 (minutes); nr. 108 (correspondence). MAR, Society for the Exploitation of Dutch Drama and German Opera (1860—1868), inventory nrs. 21—28 (ticket sales accounts, 1860—1868 (drama), 1860—1869 (German opera)). MAR, Manuscripts, Cat. nr. 3802. MAR, Stage Companies under the management of Le Gras c.s. (1875—1900), inventory nrs. 11—17, 37—51 (ticket sales accounts, 1874—1881 and 1885—1899). MAR, Rotterdam Stage Company (1900—1916), inventory nrs. 16—31.

25 That is to say, for the first, second, and third rank. For lower ranks the number of season tickets was usually under five and even then fluctuated so much that we ignored the missing items.

26 The Grand Theater Aert van Nesstraat was destroyed in May 1940 as a consequence of German bombing, but a new Grand Theater was built on the south bank of the river Meuse in 1954 (now the South Place Theater).

27 *Zondagsblad*, 9-1-1875.

28 *Zondagsblad*, 16-1-1875.

29 *Zondagsblad*, 1-1-1876.

30 *Nieuwe Rotterdamsche Courant*, 20-9-1887. The original is in Dutch.

31 Mendes da Costa, *Tooneel-Herinneringen* (Amsterdam, 1900), 88.

32 MAR, private papers of D.T. Ruijs, inv. nr. 69, letter of 25-11-1861 to Jan Daniel Ruijs. Father Ruijs indeed changed theater rank. In 1843 he took season tickets for the pit (French opera), in the 1860s we find him in the balcony (German opera). His companion, the ship-builder Fop Smit, in fact wasn't poor either.

33 The number of season tickets for Dutch-spoken drama for the years 1773—1792 (pit only) cannot be deemed representative of the pit audience at large; but those of 1824—1829 cover 50 per cent of the pit occupation rate per season. The 1836—1838 opera subscriptions, with seating arrangements, cover about 80 per cent of the capacity of the pit and boxes. **[End Page 653]**

34 Most coupons were taken by first rank spectators. Coupon takers are responsible for over 50 per cent of the occupation rate of this rank at normal performances. Many of them belonged to the very rich.

[35](#) The subscription list for the 1909 and 1911 performances of Wagner opera's in May, which covers about the whole capacity of the theater (ca. 1250 seats), but gives no indication of rank, so far [letters A—M] contains only one 'industrial workman'.

[36](#) On the nature of the market for theatrical goods, see Henk Gras, "Souper-minnende NRC -heren en andere bemoeials: de rol van de markt in het negentiende-eeuwse theaterbestel," *Boekman-Cahier*, nr. 51, March 2002, 45—61.

[37](#) See *NRC*, 21-11-1916. Commenting on a lecture by a typical 'recovery' supporter, Top Naeff, De Meester remarks that this recovery came in very recently indeed "in the city of the Haspelen" (he puns on the name of the brothers Haspels, 'to haspel', in Dutch, is 'to muddle along'). Compare Haverkorn's encomium of Derk Haspels in *NRC*, 23-4-1901.

[38](#) We did analyze the years 1885—1887 to see if our model (to be developed below) yielded adequate out-of-sample forecasts. Detailed results can be obtained from the authors ([henk.k.gras@let.uu.nl](mailto:henk.k.gras@let.uu.nl)). We also inspected weekly ticket sales for the Grand Theater, Aert van Nesstraat, 1887—1916, but these data did not fulfill the preconditions for a long-memory time series analysis.

[39](#) Philip Hans Franses, *Time Series Models for Business and Economic Forecasting* (Cambridge, 1998).

[40](#) Gras & Franses, "Theater Going in Rotterdam, 1802—1853" (1998).

[41](#) Gras & Franses, "Theater Going in Rotterdam, 1802—1853" (1998).

[42](#) Gras & Franses, "Theater Going in Rotterdam, 1802—1853" (1998).

[43](#) Gras & Franses, "Theater Going in Rotterdam, 1802—1853" (1998).

[44](#) For the Theater Coolsingel, 1860—1887, it was for ranks 1 to 4 respectively: 50, 33, 55 and 36 per cent. For the Theater Aert van Nesstraat, 1887—1916, it was for rank 1 to 6 respectively: 30, 26, 37, 36, 45, 45 and 36 per cent. For the house it was 37 and 36 per cent, respectively.

[45](#) Gras & Franses, "Theater Going in Rotterdam, 1802—1853" (1998).

[46](#) Particularly Albert van Waasdijk, reviewer in the *Weekblad Gewijd aan de Belangen van Rotterdam* in the season 1915—1916 drew attention to this phenomenon. Royaards was older than Verkade, who was more of an ambitious up-and-comer.

[47](#) It must be recalled that the management of De Vries, 1860—1867, and that of Le Gras II, 1887—1899, were included in the Constant (C) for the analysis of 1860—1887 and 1887—1916 respectively, so that the results of the managements as given here, which is a positive or negative deviation from C, partly are positive or negative results as compared to De Vries, or Le Gras II. Hence the high scores for the managements from 1867—1887 is not surprising, for De Vries had a very low attendance.

[48](#) Detailed information on the results can be obtained by the authors ([henk.k.gras@let.uu.nl](mailto:henk.k.gras@let.uu.nl)).

[49](#) Bart Hofstede, *Het Wereldfilmstelsel. Identiteit en organisatie van de Nederlandse film sedert 1945* (Delft, 2000) **[End Page 654]**

[50](#) Kunstkring, Jaarverslag 1894, pp. 4—5.

[51](#) P. Th. Van de Laar, *Veranderingen in het geschiedbeeld van de koopstad Rotterdam*, inaugural address for the chair of the history of Rotterdam (Rotterdam, 1998).

[52](#) H. Ganzeboom, *Cultuurdeelname in Nederland* (Meppel, 1989); W. Knulst, *Van vaudeville tot video* (Rijswijk, 1989), remain basic studies with respect to this aspect of participation in cultural forms. The history of early cinema, also in the Netherlands, tends to revise the view that it concerned a privileged 'proletarian' form of entertainment. On the (non-) participation of the working classes in all forms of theater (including the fair) in Rotterdam, ca. 1770—1860, Henk Gras prepares a booklength study.

[53](#) De Leeuwe, "Antoine Jean Le Gras" (1975).

[54](#) For this problem see the essays in M.G. Westen, ed., *Met den Tooverstaf van Ware Kunst. Cultuurspreiding en cultuuroverdracht in historisch perspectief* (Leiden, 1990).

[55](#) The seasonable variables are defined as follows. The seasonal pattern is approximately constant in the first 10 weeks, hence we take  $s_{1,10,t} = I_{(j(t)<11)} - (1/32)$  as the first seasonal variable, where  $I_a$  denotes an indicator variable which has a value 1 if the argument  $a$  is true, and 0 otherwise. Calendar effects give a bit of a ragged pattern at the end of the calendar year (Christmas), captured by five separate dummy variables  $s_{l,t} = I_{(j(t)=l)} - (10/32)$  where  $l = 11, 12, \dots, 15, \dots, 15$ . Finally, from week 16 onwards there seems to be a steady decline towards the end of the season. We describe this pattern by a seasonal constant and a trend, that is by  $s_{16,32,t} = I_{(j(t)>15)} - (17/32)$  and  $r_{16,32,t} = I_{(j(t)>16)} * (j - 24)$ , respectively.

[56](#) C.J.W. Granger and R. Joyeux, "An Introduction to Long-Memory Time Series Models and Fractional Differencing," *Journal of Time Series Analysis*, 1, 15—20.; J.R.M. Hosking, "Fractional Differencing," *Biometrika*, 68, 165—176.

[57](#) c.s. Bos, P.H. Franses and M. Ooms, "Long memory and Level Shifts: Reanalyzing Inflation Rates," *Empirical Economics*, 24, 427—449.

[58](#) J.A. Doornik and M. Ooms, "A Package for estimating, Forecasting and Simulating ARFIMA Models: ARFIMA Package 1.0 for Ox." Discussion Paper, Nuffield College, Oxford.(1999); J.A.Doornik, *Object-orientated Matrix Programming Using Ox* (London, 1998)

[59](#) The week containing September 1 has been given the number 1, and so on, till we reach the week containing August 31. Hence a weeknumber can be 53. In the first weeks of the season (September) the theater was not always open, hence we had to leave these weeks out; also in the summer period, the theater was only open on an irregular basis, so we also had to cut the weeks from May to August. Hence, the effects of the fair are not included in the following analyses. The fair was abolished in 1908 and soon after no performances were given any more in August.

[60](#) This has, moreover been controlled, by way of a diagnostic test.

[61](#) For the analysis of loyalty we used weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14.

[62](#) For instance, dummy variable nr. 1 is defined as 'troupe managed by De Vries'. If observation 91 contains performances of his company, it gets a '1' for this first variable. Observation 211, however, at a time when Bingley had left, gets a '0'.

[63](#) For 1860—1887, we also made 'price' a separate variable, but in this model almost no effects of price differences were noticeable, and we leave it out of consideration here.