PART FOUR STAGING

In his history of British theatrical scenery, Richard Southern refers to the nineteenth century as "a century of change."[1] On the contrary, we largely treat the period between the middle eighteenth and the early twentieth century as a single block, taking what a historian of nineteenth-century theatre would see as a period of variation and change as essentially constant and homogeneous. This difference is partly one of perspective. Historians have a vested interest in change in their objects; we ourselves are probably second to none in insisting on the rapidity with which film style changed in the relatively short period we are dealing with in the 1910s, and on national and even individual variations in filmmaking practice during the same period. When considering the influence of theatre on cinema during these years, however, we are less interested in immediate connections, such as a filmmaker's attempt to imitate a particular stage production or a fashionable theatrical trend, than in such filmmakers' general sense of what was theatrical, what might, if translated somehow into film, raise film to the recognized aesthetic status of the legitimate stage. We would argue nonetheless that this homogenization is not just a matter of perspective; it reflects a conception of the theatrical that emerged in the middle of the eighteenth century, continued unchallenged until the middle of the nineteenth, and survived in all but very narrow circles of theatrical activity until well into the twentieth.

This periodization is hardly novel, of course. Southern himself goes on to note that: "The eighteenth century has seen the consolidation of the system of changeable scenery as part of the spectacle of the show; throughout the nineteenth century changeable scenery will remain as the scenic principle of the time, but towards the end — at the dawn of our present period — it will lose a feature that once was essential to it, for the changes will no longer be visible."[2] Southern's last point will be discussed further below, but in other respects this suggests a basic constancy in the period we take as that of the pictorial stage.

Our dates also correspond to those suggested by the subtitle "David Garrick to D.W. Griffith" of *Stage to Screen*. However, while accepting Vardac's chronological limits, we have rejected his characterization of this period, and hence his account of its origins and demise. Without trying to pinpoint precisely the beginning, we would locate it at the point at which the spectacular staging characteristic of musical drama — masque, opera, ballet — in the seventeenth century was applied to spoken drama, tragedy and comedy. Both of these had hitherto been acted either (in England) in front of the proscenium arch on a long forestage, with the scenery forming a generally appropriate background, or (in France and Italy, where forestages were shorter) in unchangeable standing sets representing palaces or streets. By the middle of the eighteenth century, acts and even scenes in tragedies and comedies began to be played before changeable scenery more specifically appropriate to the action of that scene (in France such divisions characterized by their own scenery began to be called "*tableaux*"); this scenery increasingly included practicable elements and thus became a location for the action rather than a mere background — indeed increasingly participated in it, with breaking bridges, volcanoes and other active elements of the décor. Other significant changes noted at the time were: the shift from the usually axial backdrops of the musical stage to oblique views (attributed in France to Servandoni, but best illustrated in surviving designs by the work of the Bibienas); the abandonment of the traditional cloud border for extensions of the wings carrying architectural elements beyond the upper limit of the field of view and closing in the tops of settings with architectural borders (interiors) or tree branches (exteriors); the extensive adoption of ground rows to conceal the stage floor (attributed in England to de Loutherbourg); and finally the use of receding series of cut cloths or *fermes* so that a relatively light backdrop is viewed through a series of frames progressively darkening to the front (sometimes attributed to Daguerre, and certainly a basic principle of his dioramas as well as his stage sets, but already found in de Loutherbourg's sets for the Drury Lane Theatre).[3]

Such sets are often counterposed (as "romantic") to the everyday contemporary room sets, sometimes ceilinged box sets, furnished with real modern furniture, used by Madame Vestris, for example, for domestic comedies at the Olympic Theatre in London in the 1830s. Vestris's quest for consistency within her settings and between

the setting and the action has led to her being considered as the progenitor of a line leading, via the Bancrofts, to a fully-blown naturalism.[4]

The problem with this view is that it tends to turn the history of theatre in the nineteenth century into a steady evolution from romanticism to realism to naturalism, with symbolism and then the various twentieth-century theatrical avant-gardes as a reaction to this whole trend. On the contrary, we would see theatrical pictorialism as much more persistent, and naturalism as constituting the radical break, but one that affected a much narrower range of theatrical practice, leaving most of both popular and respectable early twentieth-century theatre still hewing to the pictorialist line. There certainly was a desire for enhanced stage illusion in most nineteenth-century theatre. But this desire was not for a perceptual identity between what was seen and heard on the stage and everyday experience outside the theatre. As has been discussed in relation to realism in Chapter 1, theatrical illusion was a matter of the utilization of specific devices, rendering rather than simulating reality in Chion's terms,[5] and the constitution of what were recognizably pictures in the sense we have used this term was part of that rendering. What distinguished the naturalist theatre was not so much an increase in the degree of perceptual identity, i.e., that it looked "more real" than previous kinds of theatre, but, rather, the rejection of the explicit solicitation of the audience involved in offering them a recognizable stage picture. This rejection is clear in the following remark of Stanislavsky's:

> The usual impression is that a director uses all of his material means, such as the set, the lighting, sound effects, and other accessories, for the primary purpose of impressing the public. On the contrary. We use these means more for their effect on the actors. We try in every way to facilitate the concentration of their attention on the stage.[6]

Illusionism *for the audience* is of no importance to Stanislavsky:

> Imagine a beautiful set, designed by some artist highly gifted in the use of colour, line and perspective. You look at the set from the auditorium and it creates a complete illusion. And yet if you come up close to it you are disillusioned, you are ill at ease with it. Why? Because it is a set made from the painter's point of view, in two and not in three dimensions, it has no value in the theatre. It has width and height but lacks the depth, without which, as far as the stage is concerned, it is lifeless.[7]

The conformity of this idea with Stanislavsky's insistence that the actor should ignore how he looks to the audience, discussed in Part 3, is obvious. In both acting and staging, pictorial theatre concentrates on the effect what happens on the stage has on an audience, on how the stage looks to the audience; naturalism is focused on the action as such, freed as far as possible from any consideration of appearance to an audience. Although naturalism achieved this with what can be considered a whole series of illusory techniques, and by a very rigorous distinction between the stage and the auditorium (the "fourth wall" and "*Guckkästchentheater*" pilloried by twentieth-century theatrical reformers), there is a direct line between this conception and the quasi-abstract ramps, curtains and stairs of twentieth-century avant-garde staging, where the stage is simply a place of action, one that became able to include the audience again, as participants rather than onlookers. On the other hand, for many nineteenth-century audience members, actors, and directors who went to, acted in and produced naturalist plays, they "looked real," and hence could still be conceived as an extension of pictorial theatre. It is perhaps for this reason that theatrical naturalism was able to function as a crossroads, both between pictorial theatre and modern theatre, and between nineteenth- and twentieth-century distinctions between respectable and popular theatre.

Yet this same ambiguity makes it only too easy for modern commentators to read naturalist staging, and especially the critique of it produced by the early twentieth-century theatrical reformers, back into what we would see as "normal" nineteenth-century theatre. Thus, when Christopher Baugh summarizes the transformation brought about by Garrick and de Loutherbourg as "a change from theatre as a participatory and rhetorical event to a theatre of passive spectacle,"[8] we would endorse the opposition between rhetoric and spectacle, but not that between participation and passivity, which seems an anachronistic attempt to bring the spectacular stage into the sights of anti-naturalistic guns. Whether or no the audiences for French neoclassical drama, English Restoration comedy and their coevals (for which we might adopt Allardyce Nicoll's name, the "baroque and its legacy")[9] were noisier than those for nineteenth-century theatre, more participation does not seem inscribed in baroque dramaturgy. The latter is more rhetorical insofar as more of the action is conveyed in the characters' speeches, but these are mostly overheard by the audience, as they are in later theatre; even asides are only indirectly addressed to the audience, and they, of course, flourished in nineteenth-century pictorial theatre. On the other hand, while, as the earliest proponents of pictorial theatre emphasized, in that theatre action is conveyed visually rather than verbally, the pictures involved are not, *pace* Diderot, pictures that pretend the audience is absent; there is a highly conscious complicity between a stage presenting a picture and an audience admiring it in what could be quite appropriately called a kind of participation.

Contrast Stanislavsky's dismissal of illusion with a passage in which Percy Fitzgerald condemns the idea that

> the closer reality is imitated, the more nearly effect is produced.[. . .] The scenic artist [. . .] paints falsely to produce a true effect. The inexperienced goes up to a scene, and is amazed at the coarseness and roughness — the absolute no-shape and no-colour — all streak and daub. Yet the artist has in his own mind a finished picture utterly dissimilar, and sees it as a result all the time.[10]

Fitzgerald's insistence that illusion is always an "effect," a kind of magical transformation by the audience of "no-shape and no-colour" into a beautiful picture, might seem old-fashioned, and, indeed, much of his theatrical commentary is nostalgic for an earlier era. This makes his response to an 1880 innovation all the more interesting.

In that year, the Haymarket Theatre was redesigned so that the front of the stage coincided completely with the proscenium arch, and a gilded and molded frame, like a picture frame, surrounded the proscenium opening. This innovation is discussed by most historians of nineteenth-century British theatre, and seen as emblematic of the character of that theatre. Thus, for Michael Booth: "The union of stage and painting was publicly and officially consummated when Squire Bancroft had a 2-foot wide picture-frame moulded and gilded right round the proscenium of the Haymarket in 1880, the bottom of the frame corresponding exactly with the front of the stage. Other theatres followed suit."[11] For many commentators, this is seen as the fulfillment of a tendency to exclude the spectator implicit in pictorial theatre from the beginning (what Allardyce Nicoll, generalizing a phrase of Richard Wagner's, calls the "mystic gulf").[12]

In his 1881 book *The World behind the Scenes*, Percy Fitzgerald, too, was enthusiastic:

> In the New Haymarket, as altered and recently reconstructed by Mr. Phipps, Mr. Bancroft, the manager, has introduced a novel arrangement which favours the view here given. A rich and elaborate gold border, about two feet broad, after the pattern of a picture frame, is continued all round the proscenium, and carried even below the actors' feet. Some singularly pleasing effects flow from this. There can be no doubt the sense of illusion is increased, and for the reason just given; there is no borderland or platform in front; and, stranger still, the whole has the air of a picture projected on a surface. There is a dreamy softened air about the whole that is very pleasing.[13]

The "view here given" refers to a long polemic against the forestage, clearly still a living part of the theatre in England. Thus, here Fitzgerald seems to be celebrating the transformation of the proscenium opening into a window onto a represented world, in a conception of staging shared with naturalist theatre.

Other passages from the same chapter suggest, however, that Fitzgerald rejects elements of naturalistic scene design. He attacks the box set because the realism of three of its walls draws attention to the absence of the fourth. "It will be seen that this supposes quite a fallacious theory of the relation of the audience to the scene, and assumes that the fourth side of the room has been conveniently removed to allow them to look in and see what is going on."[14] And he criticizes the use of cutaway practicable multiple-room sets:

> "Jonathan Bradford, or the Murder at the Roadside Inn," produced at the Surrey in 1833, was one of the earliest of those curious attempts at dividing the stage into various rooms.[...] The precedent has been followed a good deal since, more particularly in dividing the stage into two rooms. But it would seem that nothing is gained by this device; and, indeed, anything mysterious or effective that is thus presented loses in illusion by the clumsy air of the mechanical arrangement. The more the stage is considered as "the scene"— a sort of generality, as one would speak of "the country"— the more will the sense of illusion be carried out. But if we become literal and circumstantial, i.e. present a "room" with sides and ceiling, the fourth side removed to let us look in, the joining with the outer world becomes too palpable. The true theory should be that we are in the room, which encloses us all; and all action and plot should be arranged on this basis.[15]

In his hostility to box sets, the "fourth wall" and décors with multiple practicable interiors, Fitzgerald is a supporter of the "traditional" rather than what Vardac might consider the "proto-cinematic" theatre. He is, indeed, as noted above, conservative and nostalgic in much of his commentary, disliking particularly the gas lighting that he felt clashed with the painted shadows on the flats. It might seem a mere inconsistency therefore that he should praise the 1880 novelty of the picture-frame stage, and approve the disappearance of the forestage. But the praise is for the same properties for which he preferred the old flats and wings to the box set — the pictorial effect, and an increase in the power of the illusion, with "illusion" here having a meaning rather distinct from "real."

Much of Fitzgerald's criticism of excessive realism is devoted to the inconsistency between real and artificial elements in it — "There must be a consistency in this mysterious stage world, and all must be of a piece"[16] — and it is in the name of just such consistency that he praises the picture-frame stage and denounces the forestage (a criticism that was not new, for Fitzgerald supports it with a quotation from Francesco Algarotti's *Saggio sopra l'opera in musica* of 1763).[17] However, in the construction of an essentially unreal décor capable of summoning an audience's participation in an illusory effect, what a particular spectator finds "jarring" will depend on his or her taste, and Fitzgerald's is clearly too fastidious to accommodate a melodrama like *Jonathan Bradford*. Within as generically and socially diverse a field as nineteenth-century pictorial drama, the point at which particular spectators' belief in the scenic illusion would break down in response to particular productions of particular plays can be expected to differ. Thus, plays such as *Jonathan Bradford* should not be considered unpictorial (*a fortiori*, not proto-cinematic) simply because Fitzgerald found the multiple-room sets undermined the illusion for him. Multiple-room sets are perfectly compatible with stage pictures, indeed, as we shall see, they do not disappear with the rise of a cinematic ubiquity based on editing. On the other hand, the Bancrofts' picture-frame stage should not be used to align pictorial theatre with a "realist" as opposed to a "conventional" staging. Rather one should look for stage pictures that solicit audience participation in an illusory effect, often with a contradictory mixture of devices.

The Bancrofts' innovation also suggests a cinema screen — many early screens were surrounded on all four sides by a molding recalling a picture frame. In our examination of staging, we take the analogy between stage and screen picture as our guide rather than the question of realism or the lack of it. In order to understand both theatre and cinema in pictorial terms, that is, to give more than a pejorative connotation to the idea of theatre and cinema as spectacle, as *opsis* in Aristotle's sense, they have to be considered as optical machines. One needs to understand, in concrete detail, the practical and technical aspects of staging — the limitations of the playing area, the use of real depth, and the construction of perspective. Moreover, as we will emphasize in the chapters that follow, while both media could be vehicles for pictorialism, the optical differences between them ensure that pictorial staging in theatre and cinema posed the producers of plays and films with very different problems.

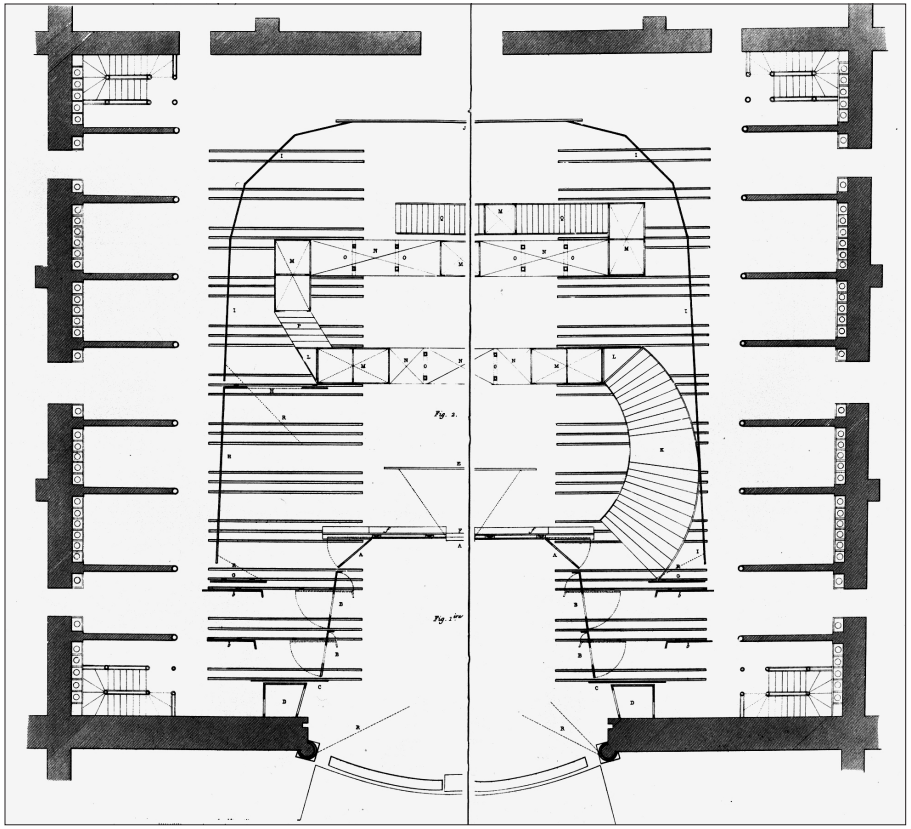
CHAPTER 8 Pictorial Staging in the Theatre

Pictorial staging can be thought of as a historically restricted theatrical style. Nevertheless, no more than cinematic pictorialism can it be considered independently of the machinery that allowed it to be realized. At the heart of this machinery is the stage in the literal sense. This stage is very different in construction from that in most modern theatres, and, despite important national differences that will be discussed below, remarkably uniform from the late baroque period to the beginning of the twentieth century.[18]

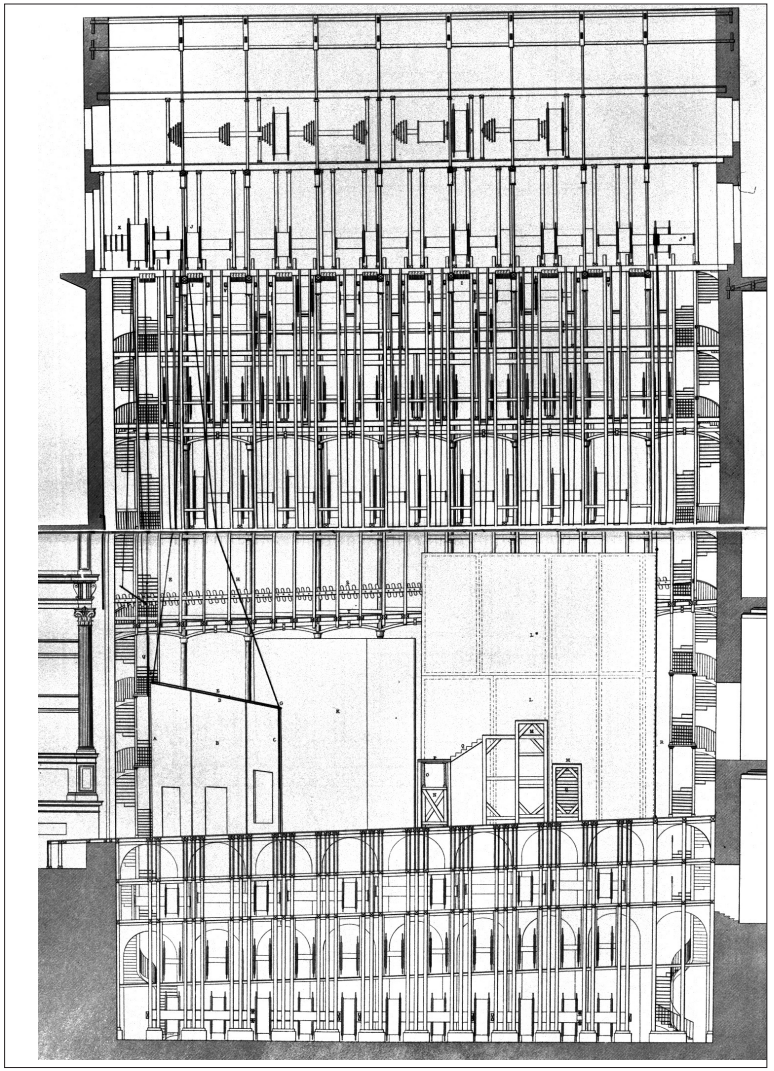
The most basic feature of this stage was its floor. This was almost always made of wood, and sloped gently down from the back wall of the theatre to the footlights at the division between stage and orchestra pit, usually extending a little beyond the proscenium arch in a short forestage that sometimes carried forward the rake. This floor had between two and four stories of sub-stage space beneath it, and was divided in very complex ways by openings running across the stage, perpendicular to the axis of stage and auditorium. Indeed, so few were the axial structural elements of these stages, especially those in the French style, as to constitute a serious structural weakness, so that they tended to creep forward under their own weight.[19] The basic transverse units were numbered from front to rear and called "entrances" in England, "*plans*" in France; the number varies according to the size of the theatre and the depth of each entrance, but that depth had to be large enough to allow characters and stage furniture to come and go.

In French and most other continental-European stages (see Figures 4.1 to 4.3, Clément Contant's illustrations of the plan, transverse and longitudinal sections of a "French-system" stage containing a closed decor),[20] the *plans* were divided into two zones, the "*rue*," a relatively wide band of the stage, with a floor made up of "*trappes*" that could be slid aside to allow characters and three-dimensional furniture or properties to enter from below stage; and between each *rue*, a number of much narrower "*fausses rues*," made up of "*trapillons*" or little traps, that could also be slid aside so that a flat piece of scenery could be raised through the slot thus created. The two or three *fausses rues* between each *rue* were separated by "*costières*," narrow slots running right across the stage. In the first sub-stage story below, there was a corresponding iron rail on which ran two-wheeled "*chariots*," supporting a mast that came up through the slot. "*Châssis*" or wing flats (sometimes hinged or raked) were hung on the masts in two large *chariots* on either side of the stage; smaller pieces of scenery could be hung in the same way on masts in removable small *chariots* between the main *chariots*. The presence of more than one *costière* between each *rue* allowed for wings to be removed and replaced simultaneously in an open-stage scene change, in a well-equipped theatre entirely by machinery, powered essentially by counter-weighted pulleys. Beneath the first sub-stage story the lower stories housed the windlasses, counter-weights and other machines that moved the stage floor, raised and lowered elements of scenery through it, and moved the chariots from side to side.

English and American stages (see Figure 4.4, Contant's cross-section of an English-system stage) had "bridges" corresponding to the *trappes* making up the *rues*, and "sloats," "slotes," or "cuts" across the space between the wings, corresponding to the *fausses rues* and accommodating flat scenery such as ground rows. Instead of *costières* for the wing flats, however, they had a system of "grooves." Flat battens with a number of raised tongues and hence grooves between them were bolted to the stage floor in the wing area on either side of the stage, usually parallel to the stage front, more rarely slightly obliquely, raked towards the rear center of the stage (wings in oblique grooves better concealed the offstage area in the wings from laterally placed audience members, but made the stage less accessible by sight, hearing, and in entering and exiting, and hence hindered the performance; they were also more difficult to paint in effective perspective). Above each bottom groove, a corresponding top groove was bolted to the floor of the first fly corridor above the wing. The bottom grooves could be removed entirely if they were not to be used; the top grooves were hinged and could be folded up if they would obstruct a hanging border or ceiling cloth, or be visible to the audience. Wing flats were slid on from the wings in these grooves (which were lubricated with graphite); the multiple grooves, like the multiple *costières*, allowed simultaneous withdrawal and replacement of different sets of wings, sometimes mechanically (though less commonly than with French stages). In the seventeenth and eighteenth centuries, at least one set of grooves



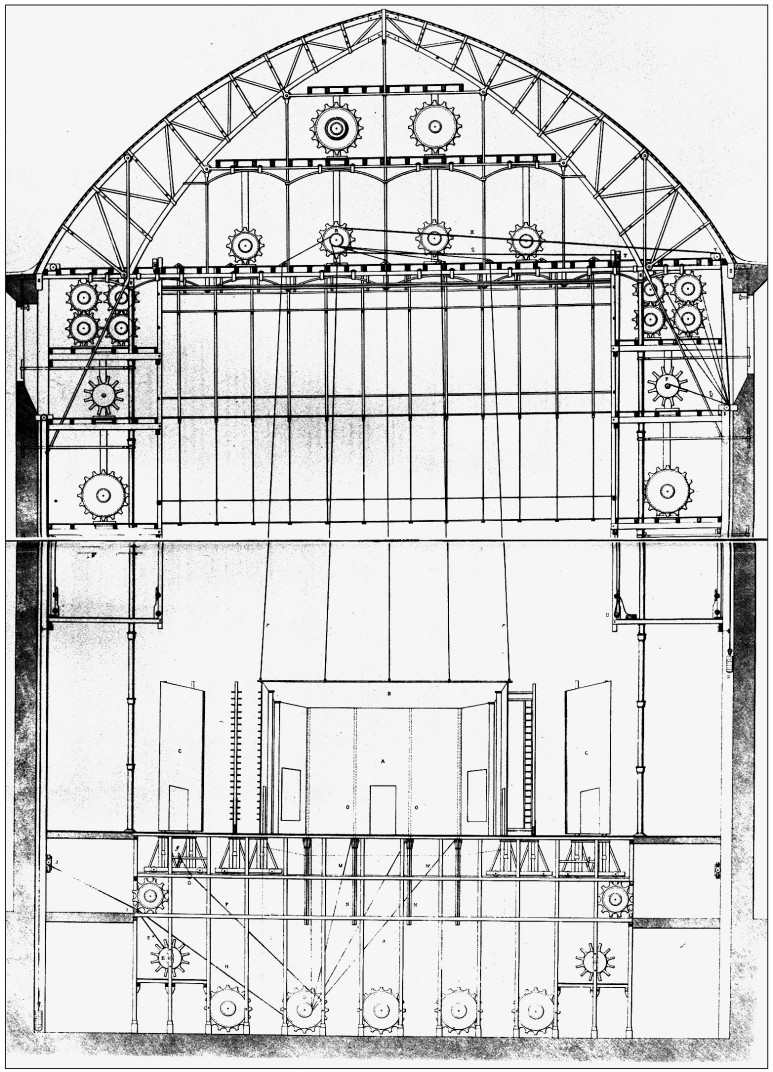
4.1



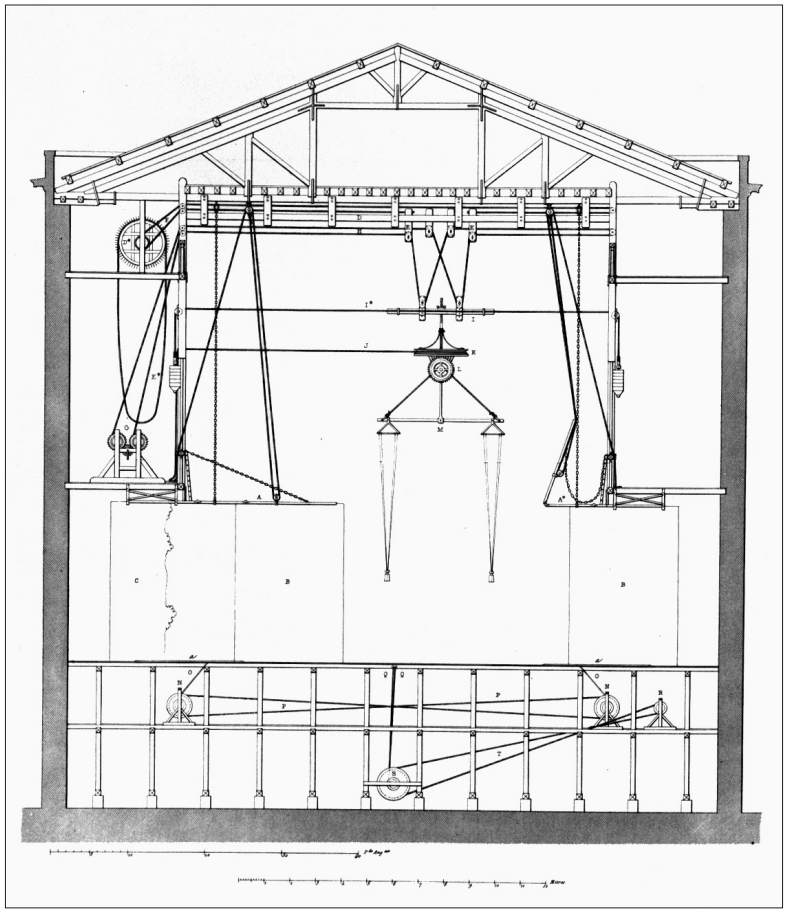
4.2

towards the rear of the stage ran right across, and was used for the two-leafed "rear shutters," the perspective-painted vista that closed the back of a scene; these rear shutters could be changed, like the wing shutters, and slid apart for a "discovery" scene. By the end of the eighteenth century, the rear shutters fell into disuse, usually being replaced by a hanging backcloth. Around the same time, the bottom grooves began to be abandoned, the wing flats resting directly on the stage, only their tops held by a groove. By the end of the next century, the top grooves too had fallen into disuse, and flats of all types were supported by weighted props behind them. The term "grooves" had always also been used to indicate a stage depth ("the first grooves," etc.), and this use survived the disappearance of actual working grooves.

Above both French and English stages was a fly-tower in which scenery painted on cloths was hung, either unfolded, if the tower was high enough, or folded or rolled if there was too little height to contain a whole drop. Above the wings on either side of the stage were several stories of fly corridors, housing the ropes that controlled the cloths, and catwalks linked the fly corridors, enabling stagehands to reach snagged lines or cloths over center stage. The top floor (or floors) ran right across but was more an open grid than a continuous floor. It housed the machinery needed to handle the move-



4.3



4.4

ment of the cloths and special effects like flying characters and apotheoses.

Scenery thus consisted of back-cloths; "borders" or "*frises*" (short cloths representing sky, ceilings or treetops, blocking discovery of the fly area); shutters and large flats ("*fermes*") raised through sloats or *fausses rues*; "ground rows" or "*terrains*," short flats raised through sloats or *fausses rues*, representing surface features such as ground, water, sloping hillocks, fences, etc.; wing flats, either in grooves or on masts; and set pieces, *ad hoc* constructions of flats, platforms and other elements resting directly on the stage floor.

As we shall see, hardly any of this complex machinery was adopted by early filmmakers in their studios. However, filmmakers, like pictorialist theatrical producers, saw themselves as presenting to audiences pictures of spaces in a represented world through a more or less fixed frame, and hence many of their problems were analogous to those of their theatrical contemporaries, however different their

technical means. Comparisons and contrasts with the cinema will serve as out guide in our examination of the stage as a pictorial machine.

Perhaps the most basic characteristic of the live stage that needs to be thus compared and contrasted with its cinematic equivalent is the scalar fixity of the former. The audience sits in front of a stage on which real actors are deployed within a small range of distances from those spectators, and they remain so for the whole of a performance. Stages and auditoriums differ in size, so the actual distances and ranges will vary from performance to performance, but the basic spatial setup is constant. It is not hard to imagine ways in which this scalar homogeneity might be differentiated. For example, pantomimes and *féeries* such as *Alice in Wonderland* and the many versions of *Gulliver's Travels* surrounded actors representing people magically shrunken or magnified, or naturally Lilliputian, with sets or costumes representing plants and insects grotesquely magnified. However, even in such exceptional examples, the rule in pictorial theatre was that "the natural size of the human body should be the unchanging unit of measurement," a rule whose absence in the film version of *Quo Vadis?* was deplored by Felix Salten, as we have seen.[21] Despite this protest (and as the fact that it could be made suggests), early filmmaking was by no means free of scalar constraints, but technically there is nothing to prevent the film picture representing objects at any scale whatsoever. From very early the moving-picture camera was used at a wide variety of distances, and with even a relatively wide range of focal-length lenses, resulting in pictures at a very wide range of scales.

Second, the stage is wide. Again, particular theatres differ considerably in how wide the proscenium opening is, varying from the 20 feet cited by Vardac for the Wagner Opera House in Garrett, Indiana, via the 23 feet of the court theatre at Weimar under Goethe, the 30 feet of the 1792 Royal Theatre in Copenhagen, the 35 feet of Carl Friedrich Schinkel's Neues Schauspielhaus in Berlin (1820) and the Britannia, Hoxton (1858), the 38 feet of the 1812 Drury Lane Theatre, London, the 47 feet of Louis Sullivan and Dankmar Adler's Auditorium Theatre, Chicago (1889), to 53 feet for the Paris Opéra (completed 1875).[22] However, in all these cases, even for the back seats, the stage occupies a considerable part of the spectator's field of view, and allows many people to stand side by side across it. It was possible to narrow the playing area with shutters or curtains (the French had a set of side and top cloths immediately behind the proscenium, the *manteau d'Arlequin*, which could usually be adjusted in this way) and Hubert Herkomer advocated and introduced in his Bushey theatre a mechanically variable proscenium.[23] However, collections of scene designs and, later, stage photographs, show how rare and slight such modification was. Even "scenes in one" or "carpenter's scenes," the scenes acted before a backdrop in one of the front grooves while a set scene was changed behind them, usually occupied the full stage width. As a result, every environment in a play tended to be more or less the same size, however this might contradict the dramatic context. Denis Bablet notes the absurdity of this in relation to the décor for Faust's cabinet in the Paris Opéra's production of Gounod's opera in 1892, and that the same objection had been raised by a contemporary critic to the setting for the same scene in the production of 1869.[24] He does not point out that the same remark might be made of Ménessier's décor for Act 2 of Antoine's 1902 production of *La Terre*, a barn interior, which the stage photograph reproduced in his figure 29 shows to be more than 30 feet wide (compare the cramped spaces of all the interior scenes in Antoine's 1918 film from the same novel). The film director Urban Gad remarked how different theatre and film were in this respect:

> Cinematic décor is more real than theatrical scene painting, its dimensions are genuine and not obtained by painted perspective — but its greatest advantage over theatrical décor is that it can represent *small* spaces. Everyone knows the theatre's failings in this respect. A play demands a small confined room, the action presupposes it, the dialogue refers to it; and what do we see: a hall, larger in height and breadth than a banqueting room. Why? Because the theatre uses every inch of the auditorium for seats, right up to the roof, from where nothing at all would be visible if the décor were really of low height, because the *manteau d'Arlequin* (usually a flat cloth) would conceal everything happening on the stage. Similarly, spectators at the sides would see nothing if the décor were really as narrow as the prescribed small room requires. The cinema is quite different; the thousands of eyes of the spectators are all pressed to the one tiny peephole of the camera, so one can make one's settings as small and narrow as one wishes.[25]

Moreover, characters tend to be spread across the great width of the theatrical stage. One reason for this is, as Gad noted, the relative breadth of the auditorium, and the need to provide as good a view of the action on stage (and as good a "picture," i.e., as effective a composition) as possible to as many members of the audience as possible. A broad shallow grouping of a number of characters in a tableau such as those described in Chapter 3, above, is visible to a wide arc of spectators, and reasonably preserves its significant composition for most of them. Hence the typical prompt-book representation of a scene-end tableau, such as the one at the end of Act 1 of *The Whip* (London, 1909):[26]

CROWD grouped around precipice at back
RAYNER
LADY D holding BRANCASTER's head on her knee
BRANCASTER
BEVERLEY SARTORYS
LADY ANTROBUS HARRY
LAMBERT MYRTLE

Furnishings and practicable elements of the set are similarly arranged to facilitate these wide compositions. This is illustrated by the photograph of Act 2 scene 3 of *The Whip*, the Great Hall at Falconhurst, with the banqueting table set for the Hunt Breakfast (see Figure 4.77, below).[27] The set is slightly

oblique (the corner opened up to much more than the right angle it is supposed to represent), with the table parallel to its longer wall, i.e., at a very low angle to the front of the stage. Compare the set for the same scene in the 1917 film of *The Whip*, where the table's foot is at the bottom of the stairs, and, in the only overall views of the room we get, is photographed down its length to the stairs in the far rear (see Figure 4.78, below).

Depth is somewhat more complex. Many nineteenth-century stages were quite deep, though the tendency in the design of new theatres was to make them shallower. Pictorial theatre inherited the buildings (or at any rate the sites, as the actual buildings were destroyed by fire fairly regularly) of baroque theatre, and musical theatre in the seventeenth and eighteenth centuries required very deep stages (the stage of the Salle des Machines, built in Paris in 1662, was 141 feet deep).[28] The Comédie at Lyon, built in 1756, was 52 feet deep from the proscenium arch to the rear wall of the stage, with a room beyond that wall that could be opened to give a further ten feet. The Britannia, Hoxton (1858), was 60 feet deep. The Opéra's stage was 88 feet deep, with a possible extension of 68 feet. On the other hand, the Weimar court theatre was only 34 feet deep with a 16-foot extension, and the Munich Künstlertheater of 1908 only 31 feet with a 7-foot extension.[29] The baroque theatre used its very deep spaces for "scenes of relieve": the area beyond the rear shutters (often only half way to the rear wall of the stage), and especially the extensions (in the later theatres usually used as rehearsal rooms or storage spaces behind the stage with large doors linking them to the stage proper for the rare occasions they were brought into play to extend it) were not occupied by actors, singers or dancers, but by recessions of perspective-painted flats and set scenes representing spectacular vistas.[30] Garnier included an extension in his design for the Paris Opéra that usually served as a rehearsal and warming-up room for ballet dancers but which he conceived might be used for pyrotechnic effects, its remoteness and separability from the stage helping protect the audience from the danger of fire.[31]

However, the uses that could be made of this depth were limited. It is a defining feature of the pictorial tradition that the action should take place in the décor and not in front of it, as had been characteristic of baroque theatre with changeable scenery. But a whole series of pressures tended to drive the action to the front of the stage, and helped to retain small forestages through most of our period.[32]

One of these pressures came from lighting. Whereas most of the stage machinery described by Sonrel in 1943 differed little from that discussed in the corresponding sections of the *Encyclopédie*,[33] his account of stage lighting is entirely devoted to incandescent electrical lighting. Lighting is the area in which stage technology changed most during the nineteenth century. In the eighteenth century, almost all the light on stage came from the house lights, which remained fully lit throughout the performance, supplemented by smaller chandeliers on stage and the row of footlights at the front of the stage. From its beginnings, pictorial staging was associated with changes in lighting, as patent oil lamps (Argand lamps or *quinquets*) replaced wax candles. De Loutherbourg used colored gauzes as gels for groups of these suspended behind wing flats to produce night and day effects on the front of the flat behind. Such lights were necessitated, apart from particular spectacular effects, by the fact that the footlights also increased in brightness, and hence without additional light from the wings, shadows of each wing flat would appear on the one behind, hindering the illusion of the three-dimensional features painted on these flat cloths. Thus, although the picture beyond the proscenium became much brighter, it remained dark relative to the forestage, and this continued to be the site of most of the action. Moreover, the new lamps also increased the overall brightness of the auditorium, in turn necessitating brighter footlights and stage lights. Objections to the footlights because of the unnatural direction of their source were common from the beginning of the nineteenth century. Thus Jean Baptiste Pujoulx complained:

> The illusion arising from the truthfulness of the scenery is one of the major ways to increase the theatrical illusion; but it is only too true that, despite the talent of our painters and machinists, we are still in the infancy of this art, if, as I believe, the art of providing scenery for a theatre is simply that of transporting onto the stage the various effects of nature. The main error, the one that destroys any kind of truth, arises from the nature of the illumination. Seeing the beam of light that rises from the actor's feet, would one not say that he is lit by the fires of Tartarus? What! In our fields, in houses, the light always comes to us from heaven, yet we are eternally condemned in the theatre to receive it only from hell!

But Pujoulx immediately goes on to point out that to abolish this unnatural effect, house lights would have to be lowered during the performance of the play:

> No, this method is nothing but obstinacy, and it is only persisted in because everything is sacrificed to that part of the building in which the spectators serve as spectacle for each other, whereas everything should be sacrificed to illusion on the stage. The intensity of the illumination in our theatrical auditoriums has increased so much that, in order to be able to light the stage proportionately, the number of quinquets has had to be doubled, and yet the decor seems less well lit than it used to. I believe, and have long argued, that the brilliance of the auditoriums and the clarity necessary for the scenery could be reconciled by adapting to the chandelier a simple machine whereby it could be veiled during the play, casting only a gentle light; this would restore to the stage its necessary clarity; it would of course be unveiled again between the acts.[34]

The introduction of gas lighting at the end of the 1810s in England and a few years later on the continent allowed a great increase in the amount of light falling on the stage beyond the proscenium arch

and the flats and drops forming the picture there. If Pujoulx was right, and it was already possible to dowse an oil-lit chandelier, gas certainly made it much easier to change the level of the house lights to suit the action.[35] It was not until late in the century that it became customary to follow Pujoulx's advice and lower the house lights to very low levels except during intervals. Wagner did this at the opening of the Bayreuth Festspielhaus in 1876, but Irving was still seen as an innovator in England when, at the beginning of the 1880s, he played scenes at the Lyceum with reduced house lights, and lowered them as far as gas lights could be without going out during open-stage scene changes.[36] Nevertheless, it became not uncommon to play night scenes under blue light and with the house lights lowered, creating a pictorial illusion of darkness instead of the traditional mimed one.[37] As a result, it became possible for the action to be visible beyond the proscenium. However, as Fitzgerald noticed, because the individual gas jets were a relatively weak light source, they had to be used in large numbers, constituting large-area and hence very diffuse sources. The effect of such diffuse overall light is visible in the many films of the first fifteen years of moving pictures that employ similarly diffuse light sources (diffused sunlight or mercury-vapor lamps); they yield good figure molding but no true shadows. Often the effect of the brighter light was to show up the artificiality of the chiaroscuro shadows painted on sets that had been convincing when dimly visible under oil lamps.[38] Limelights and electric arc lamps provided strongly directional sources that did create true shadows, but they could rarely be located at the represented source of the light, and hence inhibited free movement on the stage, insofar as such movement draws attention to the real source.[39] These problems were not solved by the move to incandescent electric light occasionally supplemented by arcs or limes that began at the end of the 1880s, but these lights combined greater flexibility in control and placement with much less encumbrance of the stage floor with piping, helping to free the actors' movement.[40]

Advances in lighting did thus make the depth of the stage more available as an arena of the action rather than a pictorial background. Other factors continued to pull in the opposite direction. Francesco Algarotti deplored the tendency of opera singers to advance beyond the proscenium, but recognized that one of the reasons they did so was the poor acoustics of the stage.[41] By the end of the eighteenth century, most metropolitan theatres had fly towers tall enough to hold full scene drops suspended over the stage without folding or rolling, as well as equally deep sub-stages to hold *fermes*. Most of the power of the voice was thus lost unless the singer or speaker stood near the front of the stage, as, in opera, the principal singers still largely do.

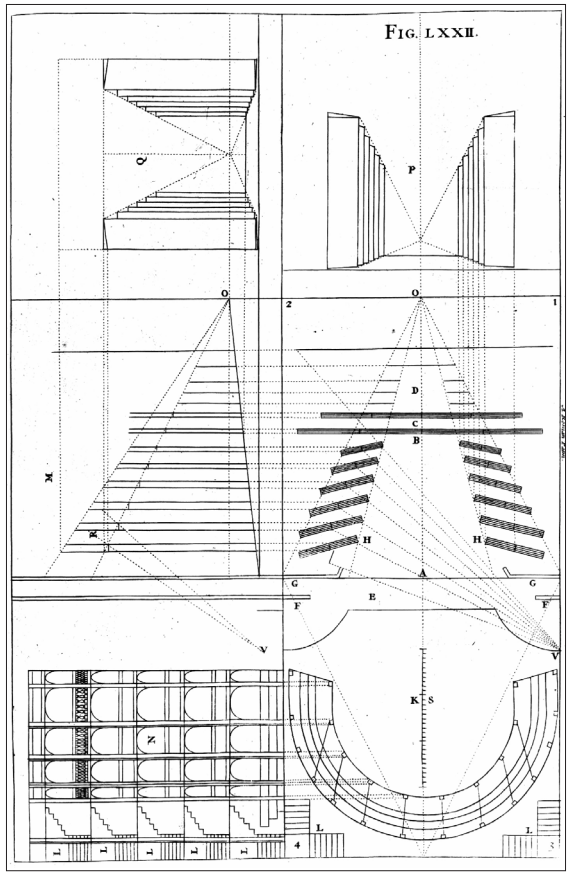
More important than this, however, is the problem of the visibility of action deep in the stage. Many of the audience are seated well to the side of the axis of the stage, and also well above it (and some even well below it). Spectators in the upper galleries see rather little of the back wall of a modest box set, let alone an effect 50 feet from the proscenium. Even if such an effect is within their sight lines, any visual composition arranged in depth changes greatly with changes in its angle of view, so the deeper the arrangement of significant figures and scenic elements on the stage, the more different it looked to the spectators in seats remote from the "center of vision" to which perspective effects were addressed.

This brings us to perhaps the most decisive feature of pictorial staging that inhibited free movement in the depth of the stage. Even a stage as big as that of the Paris Opéra was often called on to represent spaces larger and deeper than the stage itself. This was achieved by using the techniques of both artificial and natural (or aerial) perspective to give an illusory sense of depth of any magnitude desired. Such techniques work very well, even for spectators who are not at the true center of the perspective projection, so long as the picture itself is flat, as the painted backdrop is (and the cinema screen — hence its success in this respect). However, painted spaces are not practicable. False perspective was also applied to the real three-dimensional space of the stage, using fairly straightforward adaptations of the standard devices for constructing artificial perspective on flat picture planes. Assuming that the wings represent parallel receding lines — the two sides of a street, or receding bays in a Gothic interior — a real distance is chosen for the represented infinite horizon, and a horizon height selected. The inner edges of the wing flats should then be on two lines that meet at that horizon line. If the base of a wing is supposed to be level with the one in front of it, but further behind it than it actually is, it also has to be higher. To ensure that the foot of each wing is the correct distance above the horizontal level of the front of the stage, that stage should ascend evenly from its front edge to the horizon, being cut off, however, by the rear wall of the stage, or by suspending the grade before the horizon is reached. Thus the rake of the stage, a structural feature not normally variable from production to production, is (theoretically) established by the rules of *perspectiva artificialis*. As Peter Nicholson put it in his article on "Scenography" in the *Cyclopaedia, or Universal Dictionary of Arts, Sciences and Literature* (1819):

> That part of the stage which lies before the curtain is generally horizontal, but the part which lies beyond the curtain is made to incline upwards. The reason of this is, that if the plane of that part of the stage which lies within the theatre were parallel to the horizon, it could only then appear as any other floor or pavement, and every object placed upon it being of its true size and shape, the whole would only be a geometrical model of what is intended to be represented without reference to the rules [of perspective], as there could be no apparent fore-shortening in this case, but what was the natural

effect of direct vision, and thus nothing upon the stage would appear of any larger extent than what that floor or piece of ground might contain, and the whole appearance of the theatre could be no other than that of a room, wherein the real objects were placed in their true dimensions and situations; but the art of constructing a theatre is making it appear of greater extent than it is in reality, and thus giving it a more ample and extended prospect; the stage or ground should be made to appear enlarged, and the distance between one object and another increased; not merely as a picture painted on a flat wall, but as something more real and solid; and thus in a space which is only the size of a room, whole countries, towns, villages, &c. may be exhibited, and the objects may be made to appear as remote as may be conceived in nature.[42]

In very deep baroque stages the rake usually stopped at the rear shutters, the floor of the stage being horizontal thereafter, but invisible to the audience (and of course bare of actors). Andrea Pozzo in his *De perspectiva pictorum et architectorum* of 1693 turns a practical account of scene design on such a stage into an extraordinary baroque conceit. The diagram illustrating the basic perspective plan of a theatre (Figure 4.5) shows a room divided exactly into two squares by the proscenium arch, with a semicircle of galleries of seating in one half and a stage in the other. The stage is divided half way up by the grooves for the rear shutters, which point he calls the "poscene" (*poscenium* or *postscaenium*, i.e., the rear stage, or rather the area behind the *scaenium* or façade of the stage house). Between the poscene and the proscenium arch are six pairs of oblique wing grooves; beyond the poscene are four further pairs of grooves parallel to the stage front. The constructed horizon is placed precisely at the back wall of the stage, where the lines joining the ends of the grooves on either side meet (what Nicholson called the "center of contraction"), while the "center of vision," the viewing point from which the stage so constructed presents perfectly a window onto the represented world, is symmetrical to it at the rear wall of the auditorium. As a result,



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when the back shutters are opened for scenes of relieve or long scenes, the whole universe can be represented on the stage (in three dimensions, not just as a flat painted vista), and elements of scenery in the backstage become infinitesimally small and represent infinitely large objects as they approach the rear wall of the theatre.[43]

By the time of Nicholson's *Cyclopaedia* article, scenes of relieve in the baroque sense had become obsolete, and the back shutters had lost their "discovery" function, indeed, were usually replaced by a rolled or flown backcloth, so Pozzo's rear stage seemed simply a waste of space:

But as it is not necessary that the place of the eye should be confined to the extremity of the house, but be nearer to the centre of that part which is allotted to the spectators, so that the inconveniency necessarily arising from different situations out of the true point of sight may be more equally distributed among the company, and the effect of the scenery be generally exhibited to more advantage; so neither is it necessary that the centre of contraction should fall exactly on the opposite wall, but rather at a distance beyond it, to prevent the too quick decrease of the back scenes; whereby a considerable part of the depth of the theatre might be rendered useless: it being evident, that the nearer the centre of contraction is to the curtain, the quicker is the decrease of the back scenes, which become so small, that the theatre behind them is of no farther use for the scenery.

In conformity with this conception, it became the norm to use a rake that implied a horizon line beyond the rear wall and to carry the rake to that wall, abolishing the rear shutters.[44]

A rake was nearly universal in nineteenth-century stages. All the theatres illustrated in Clément Contant's *Parallèle des principaux théâtres modernes de l'Europe* of 1860 have one. The theatre architect Edwin O. Sachs, writing in 1898 in the third volume of his *Modern Opera Houses and Theatres*, notes that "all our [i.e., English] stage floors, with one exception, are laid to the same 'rake,' namely with a fall of one half inch to every foot from back to front,[45] and it is strange how accustomed actors and dancers become to this sloping floor, and how 'all at sea' they are if, by any chance, they have to perform upon a level platform."

Sachs goes on to note that "horizontal stages have been introduced in other countries, and recently by Herbert Beerbohm Tree in 'Her Majesty's' Theatre, London."[46] Nevertheless, only two European theatres illustrated in the three volumes of his book have flat stages, the Munich Opernhaus and the Raimund Theater, Vienna.[47] In 1900, Sachs himself replaced the stage of the Covent Garden Theatre in London with a horizontal one, and one of the most influential early twentieth-century

German theatres, the Munich Künstlertheater, designed by Max Littmann and opened in 1908, had a horizontal stage.[48] Later in the century the flat stage became the rule. In 1939, Richard Southern states categorically that "a stage floor should be flat. Stage rake is a tradition connected with perspective scenery." After dismissing various purported advantages of the raked stage (all unlinked to the rules of perspective), and enlisting the support of a German authority, he notes the difficulties box sets present on a raked stage — "The side flats of all chamber sets must be shaped at the bottom to suit the rake, hence those built for one side of the stage will not suit the other, nor can they be used at the back of the set"— and that "on a raked stage scene handling by means of trucks is far more difficult."[49] Although many modern stages allow tilting of various parts of the stage floor, and can thus create a rake if one is desired, in practice the basic rule now is that a stage is flat.[50]

While commentators at the beginning of the nineteenth century, not only Peter Nicholson, but also Johannes Jelgerhuis,[51] clearly linked the stage rake to the problem of theatrical perspective, as did the theatre historian Southern after its demise, there seems to have been much less awareness of this connection as the turn of the century approached. Charles Garnier discusses the architectural problems of the stage and the problems of stage perspective in his *Le Théâtre* of 1871, but nowhere mentions the rake, although the stage of the Paris Opéra, which was being built to his design as the book was written, has a rake of 5 centimeters per meter.[52] Sachs believed the function of the stage rake was simply to make the actors visible from the pit: "The slope of the stage is [. . .] by no means a necessity.[. . .] It is only a question of arranging the 'sighting lines' of the auditorium to enable the occupants of the area to see the actor as he retires 'up' the stage."[53] In the same vein, when discussing the flat stage of Her Majesty's Theatre in 1897, a correspondent for *The Builder* attributes the general prevalence of the rake to "the height of the 'float' of the footlights, which was liable to hide the feet of the performers," and even claims that "the perspective effect of a rising stage is always unfortunate."[54] The last remark might just be the result of an architectural journalist who is not a theatre specialist getting the wrong end of the stick. It might also be a reference to the growing problem of the treatment of simple box sets on an inclined stage, discussed in more detail below. At any rate, it seems clear that, well before the rake began to be abandoned in new theatres and when stages were rebuilt in old ones, its original purpose had faded from many theatrical practitioners' awareness.[55]

Pozzo's 1693 plan is, of course, concerned with the standard baroque setting with symmetrical wings and a backcloth. As we noted above, at the beginning of the pictorialist period, such simple axial stage plans tend to be replaced with more asymmetrical ones, with more varied buildings set at various angles to the stage axis. Such settings are much more spatially vague, to some extent relaxing the problem of their precise perspectival recession, and hence demanding a much less strict correspondence between the rake and the perspectival construction of the stage picture. Similarly, the use of multiple ground rows and "dioramatic" vistas through holes in cut cloths or *fermes* largely concealed the stage floor, and thus made its precise rake much less critical. Natural or aerial rather than artificial perspective — a succession of planes lighter in color and more brightly lit from front to rear — became the key to the illusory representation of great depth on a relatively shallow stage. Hence, presumably, the amnesia about the original function of the rake.

One of the problems of the raked stage, however, was that it was an architectural feature of the theatre, and, until the development of hydraulically supported stages late in the nineteenth century, could not easily be varied from scene to scene or even from production to production. As Emanaud puts it, "the slope of the stage floor is given *a priori*."[56] It is noteworthy that none of the guides to stage perspective that we have consulted offers a derivation of the appropriate rake from perspective principles; they all simply state that "the stage rake in most theatres is such and such" (although, as we have seen, the figures they give for "such and such" can differ considerably). With a fixed stage rake, the only way to retain correct perspectival proportions and yet vary the distance of the constructed horizon behind the front of the stage is to raise or lower the horizon line (since a higher line will meet the raked stage or its virtual product further back, and vice versa). Nicholson suggests this as an appropriate procedure, but for others, e.g., Jelgerhuis, the level of the horizon is determined by the eye level of a "best seat," either an actual preferred seat, or a position such that the maximum number of seats will be close to the center of vision. Under this construction, the rake of the stage functions as a kind of magnifying glass, establishing a fixed relationship between the true and apparent size of any perspectivally precise decor.

This is not a serious problem with settings represented as large, but it becomes so as soon as one wants to represent one as small. As we have suggested, in exterior settings, and even in romantic interiors like grottos or ruins, the mathematical precision of artificial perspective can be displaced by the vaguer system of natural perspective. Even architectural elements were traditionally fudged by, for example, treating perspective below the horizon line orthogonally, i.e., representing supposedly receding parallel horizontal lines below eye level on frontal flats as parallel to the horizon, and concealing the feet of the flats with furniture and ground rows.[57] Simple contemporary room sets, however, can be cheated in such ways much less easily. With them, the disadvantage of the raked stage is not simply Southern's one that the necessarily raked bottom of oblique flats makes them usable in only

a single position, but also that right angles have to be opened up to make the back wall appear to recede further, so either the room is excessively confined for the actors, or it appears very large to the spectators.

Closed décors, with highly oblique side flats rather than the traditional receding array of frontal or only slightly oblique wings, and ceiling cloths rather than borders, began to appear in France and perhaps in England at the end of the eighteenth century.[58] They were treated in perspective like everything else on the stage, and when the side flats were hung on masts in chariots in the *costières*, as on a French stage, the machinery to handle them differed little from that for any other kind of setting. In England, as the side flats could not be held in the grooves, they were necessarily set scenes, and were more difficult to change, so they contribute, along with the practicable set pieces of the sensation scene, to the increasing elaboration and length of scene changes. However, it is clear from the growing attention to the constructions for perspective projection onto oblique flats in the later nineteenth-century treatments of stage perspective, that they were also increasingly a design problem. In effect, the raked stage makes it impossible simply to reconstruct a real space on the stage (unless one can somehow demonstrably incorporate the rake into the space, i.e., represent the stage floor as sloping, which with such low-angle slopes is obviously very difficult). It is thus radically incompatible with the Stanislavskian conception of decor as essentially for the actors. There is a connection between the abandonment of the raked stage in the twentieth century and the importance of box sets to quasi-realistic early twentieth-century decor.

Algarotti noted one of the problems of the perspective stage. Entrances and exits must be made near the front (he assumes that all the action will take place there), or else the contrast between the diminutive size of the supposedly distant doorway and the actual size of the actor becomes too glaring:

> Characters are seen only too often coming from the rear of the stage, because that is where the entrance to the scene is usually placed; and everyone must have noticed the awkwardness of this and the offense it presents to the eye. The apparent size of an object depends on the size of its image combined with the judgment we make as to how distant it is. Thus, given an image of the same size, the object will be seen as bigger the further away it is judged to be. Hence characters who approach from the back of the stage seem to be towering giants; the perspective, and the artificiality of the scene causing them to be judged to be much further away. And these giants diminish and become dwarfs as they come forward, closer to the eye. The same is true of supernumeraries, who one would rather not see so far back that their shoulders or even their waists are the same height as the capitals of the columns; the result is to destroy the scenic illusion.[59]

As the reference to the capitals of columns indicates, Algarotti is talking about what might be called the artificial perspective stage. When quoting this passage, Fitzgerald remarks, "This perspective fashion, that of lines of columns, trees, and houses, etc., diminishing to a central point, led to the destruction of illusion,"[60] implying, uncommonly for him, that the modern theatre had surpassed this problem. But it is still basically applicable to the stage of natural perspective. Garnier noted:

> Thus, in distance effects, great care is taken never to allow the actors to go further upstage than a certain distance from the backcloth, and they are made to restrict themselves to the fore parts of the stage, where the sets still have more or less the real dimensions of the objects represented, and in every case, even in a big theatre where there is no lack of space, soloists and crowds hardly ever go more than fifty feet from the proscenium opening.[61]

There were certain ways to extend the action into the depth of the stage, thus avoiding the tendency for the picture to become a mere background. Jules de la Gournerie stated that "the shortest extras or even children can be made to occupy the back rows,"[62] and, as we have seen in Part 2, the stage directions for Charles Hermann's 1853 London version of *Uncle Tom's Cabin* suggest that when Eliza Harris crosses the half-frozen Ohio River, she should be carried off on a moving ice floe, and then a child representing her should reappear in the rear at the other bank, to be rescued by another child representing Phineas Fletcher. According to Denis Bablet, the executioners in one scene in the 1835 première of Meyerbeer's *La Juive* were played by children for the same reason.[63] Georges Moynet describes a production of *Die Walküre* at the Paris Opéra in the early 1890s in which the Valkyries were seen riding through a distant cloudscape in the sky, disappearing off left, then entering left on foot on the practicable rocks nearer the front of the stage. The distant figures were papier-mâché horses mounted by children rolling down an incline between two cloud flats (see Figures 4.6 to 4.8).[64] Dummies or models alone were also used, if the motion could be allowed to be so stereotyped as to be performed by an automaton. The same technique was much more frequently employed with vehicles such as carriages, automobiles and railway trains, which appear first in the rear as miniature models, exit, and then re-enter the same side of the stage full-size and containing practicable compartments with live actors in them. In all these cases, the exit and entrance is required, since the miniatures have to stay in the same plane, as do the full-size figures further forward; hence all the movement is lateral.

Indeed, as Algarotti and most other people who discuss the problem remark, the scalar discrepancies of perspective stages are aggravated by movement in depth. As long as characters remain in the same plane, unless there is some immediate and grotesque standard of comparison, like Algarotti's columns, these discrepancies will not be anything like so visible as if they move from the rear to the front or vice versa. The avoidance of an open central stage floor leading from the front of the stage to the backdrop, blocking it with

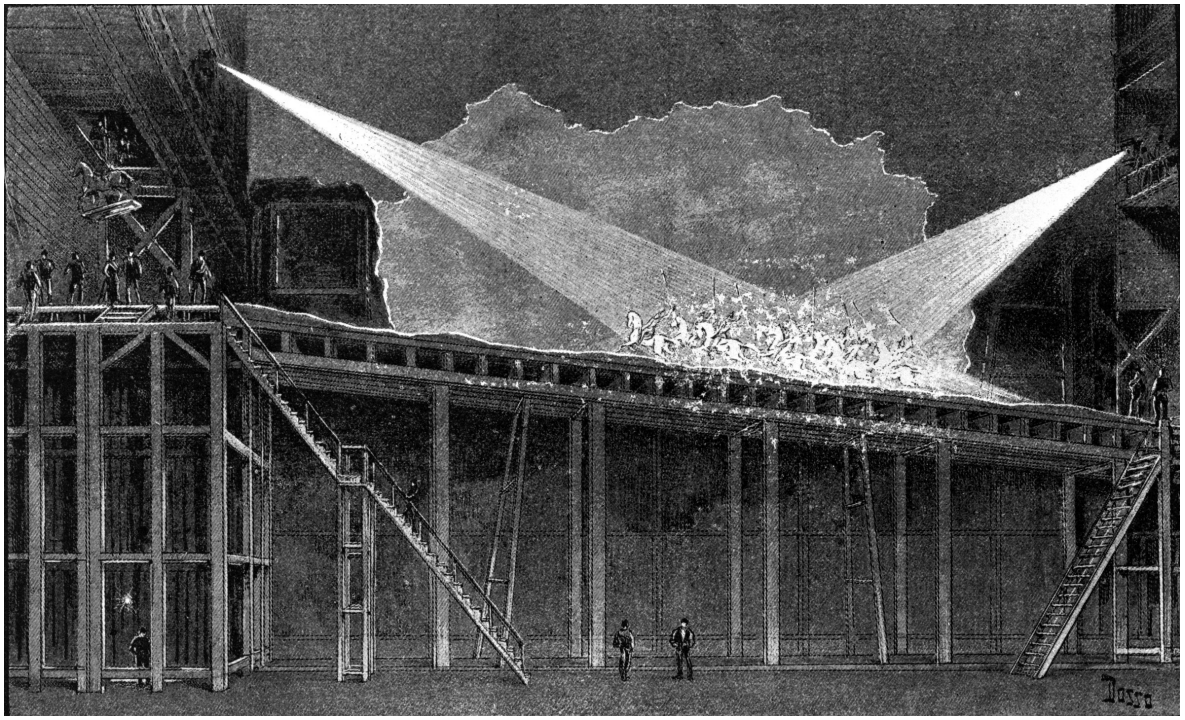
4.6

set scenery, ground rows and cut cloths, a precondition of the natural-perspective system, also made it difficult for actors to move up the stage without zigzagging obliquely across it or exiting and re-entering. Much movement on nineteenth-century pictorial stages must have resembled the toy theatres of the epoch, in which a figure that has been pushed on at the Right Upper Entrance on the end of a stick or wire must perforce re-exit RUE before it can re-enter R1E. This establishes the action on stage as a series of planar arenas entered laterally rather than a single space in which characters can move freely backwards and forwards. Thus, the prevalence of false perspective, whether this was predominantly artificial or natural, further inhibited movement in depth, so that the principal actors spent most of their onstage time at the front of the stage, with crowds of extras essentially lined up behind them.

That pictorial staging should involve these questions of both two-dimensional and three-dimensional space is obvious; perhaps less so are the temporal aspects of such staging. The "tableau" in Pougin's sense of "certain material divisions in works which are complicated in their staging" and defined by a "change in the setting" is a relatively long-lasting picture. At the other extreme, "tableau" in his final sense, the stage picture discussed at length in Part 2 of this book, is much more brief. Even in the sense of "picture" that this chapter has been concerned with, the picture as the décor in general, temporal characteristics shorter than the whole material division of a scene occupying a single setting are important.

First, even where the picture does not change during the scene, the points at which it is most significant and where most attention is drawn to it will vary. The commonest such point is the beginning of the scene. We referred earlier to the stage direction in the 1890 play *Men and Women* calling for the timing of the rise of the curtain on the third act by a clock striking midnight: "At the eighth stroke the curtain is raised, being timed so as to reveal the whole stage picture on the twelfth stroke."[65] In Donizetti's opera *Lucia di Lammermoor* (1835), there is a long purely orchestral passage at the beginning of Act 1 scene 2, in which the music paints a picture of the fountain in the castle garden by moonlight, which the spectators can also admire on the stage (the Tams-Witmark prompt script in the Mills Music Library of the University of Wisconsin–Madison shows a setting consisting of foliage wings and borders, steps to a terrace in front of a "fancy garden drop" at the rear, and steps to the castle stage left, with a practicable fountain with a light in it stage right), before the characters enter and the action-advancing singing begins. The sort of inconsistencies complained of by Algarotti and Fitzgerald often arose because of switches of attention of this kind — a wholly consistent picture would give way, say, to the entrance of an out-of-scale character at an upstage doorway, but most members of the audience were now preoccupied with the advance of the plot and did not find the inconsistency illusion-shattering.

As well as pictures constituted by an empty stage with a spectacular décor, there were also many occasions when crowd scenes constituted pictures. The cotton-picking scenes in *Uncle Tom's Cabin*, discussed in Part two, evolved into full-scale dance scenes, recalling the role of the ballet in grand opera and *féerie*; these can also be considered as populated pictures. The same pictorial function is performed by the processions so popular in spectacular historical drama. Such processions had a tendency to grow in scale in order to increase the



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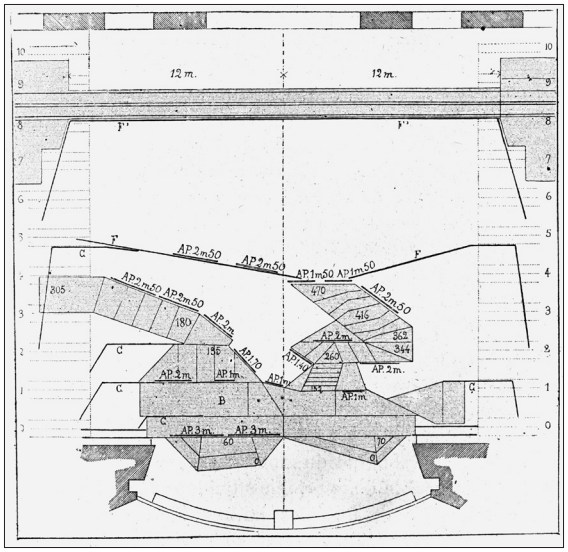

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spectacle as far as resources would allow, with the result that large-scale productions multiplied retinues to fill the stage and arrayed them in more and more glorious costume, often with little attention to narrative motivation. In Shakespeare's *Richard III*, to the stage direction "Enter the corse of Henry the Sixth with Halberds to guard it, Lady Anne being the mourner, attended by Tressel, Berkeley and other gentlemen" (Act 1 scene 2), Edward Capell in 1768 added "slenderly attended," as this is a hole-and-corner funeral. Yet Charles Kean's 1857 production at the Princess's Theatre had a "procession of monks with torches, priests with a golden cross, 59 bannermen and so on."[66] Pierre Victor complained in 1827 about the multiplication of retinues in Comédie Française productions: "Does this Mr. Taylor claim the honor of having introduced extras from the Opéra to the Théâtre-Français and having had the idea of furnishing every new play with a suite of pages?"[67] Although the crowd scenes of the Meininger, the Duke of Saxe-Meiningen's theatrical company under the direction of Ludwig Chronegk, which toured German and then European cities between 1874 and 1890, presaged something new and had an enormous influence on naturalist theatre, they can also be seen as part of this tradition of the spectacular procession scene, and complaints about their distracting character echo similar complaints about Charles Kean's "excesses."[68]

Pictorial effects also crucially involved transformations of the stage picture. These, of course, varied very greatly in type. The most basic is the scene change itself. Richard Southern has given a history of the curtain, which can be summarized as follows.[69] From the beginnings of the enclosed theatre with changeable scenery, a front curtain was raised and lowered (or moved sideways across the stage) at the beginning and end of the performance, but originally all other scene changes were performed on the open stage. Towards the end of the eighteenth century, the longest units of a play, the acts, were separated by lowering a cloth for the duration of the interval, the so-called "act drop," usually a flat cloth with an elaborately painted scene or allegory hung in the first grooves. Other changes continued to be made in full view of the audiences. As the nineteenth century progressed, and the time needed for each scene change increased, lights were lowered, sometimes to near darkness, to conceal the inter-scene on-stage activity, and soon the act drop was used for scene changes throughout. Finally, by the end of the century (when fire regulations also began to require the lowering of a safety curtain at some point in the performance), the modern practice of using the main curtains for act and often scene changes came into use.

With a décor consisting of wings, shutters, and

drops, major scene changes could be carried out on an open stage with great speed, liveried stage servants rapidly removing and replacing the few pieces of practicable furniture needed for the scene, while other hands slid off the old wing flats and shutters and replaced them by new ones, and new drops were lowered in front of old ones. Better equipped theatres could carry out the whole process mechanically, a system of pulleys, winches and counterweights enabling a single hand to move many flats simultaneously in their grooves or *costières*. Nostalgic nineteenth-century accounts are full of memories of the stage manager's whistle that signaled these near miraculous transformations of the scene. With increasing numbers of increasingly elaborate set scenes, involving three-dimensional practical structures built on the stage floor rather than in grooves or *costières*, scene-to-scene intervals became longer and longer, despite the interpolation of simplified carpenter's scenes to enable the dismantling and setting up of these sets to proceed while the play continued downstage of them. The length of the waits, and the interference caused by the noise of the scene setters during the inevitably dialogue-heavy carpenter's scenes, were standard targets of theatrical reformers by the end of the century. These problems led to a variety of experiments with mechanical means of reducing delays, like Steele McKay's elevator stage at the Madison Square Garden Theatre, New York, in 1879 (in which whole décors could be set up above the stage and lowered into position on it, whereupon the previous scene's would be dismantled below the stage), and the adoption from *kabuki* of the revolving stage at the Munich Residenztheater in 1897.[70]

Despite the more frequent use of the curtain, scene changes did not lose their importance for the pictorial tradition. They provided opportunities for the kind of opening tableaux discussed above, and the scene-end tableaux examined in Part 2, and rapid transformations of the stage picture remained a crucial part of spectacular and sensational drama.

One theatrical genre is almost defined by the persistence of the open-stage scene change, with the change in décor sometimes representing a change in place or time as in the standard scene change, more commonly with it standing for a magical transformation of the situation. This genre is that of the *féerie* or pantomime. Changes by simultaneously sliding off and on old and new wings and shutters in grooves or *costières* were accompanied by raising *fermes* from below the stage and lowering drops and the deployment of three-dimensional and practicable machines such as the "*grand bâti pour une apothéose avec parallèles*" illustrated in J. Moynet's *L'Envers du théâtre* and described by Booth,[71] as well as specialized devices designed for a particular effect in a particular production.[72] Scrims and transparently painted flats could also play a big part, changes in levels of lighting on either side radically changing their relative opacity, as in a diorama.

Such effects were not limited to this genre, however. Although the sensation scene in nineteenth-century drama is linked to the plot as the depiction of a particular sort of situation, it is also characterized by specialized staging that often corresponded very closely with the magical transformations of the *féerie*. This is true of those transformations that represented visions, such as that of the death of one of the *Corsican Brothers* in a duel, first seen in Act 1, then, from the other point of view, in Act 2, or the scene of Mathias's memory of the murder of the Polish Jew in *The Bells*, and the dreamt trial at the end of the same play.[73] It is also true of objective sensational events, the volcanic eruptions in *La Muette de Portici* (Paris Opéra, 1828, décor by Cicéri), *Masaniello*, and *The Last Days of Pompeii*, the escape from prison in Dion Boucicault's *Arrah-na-Pogue* (1864), the fire scene at the end of his *The Poor of New York* (1857), the marine collision of *The Price of Peace* (Drury Lane Theatre, 1900), the train crash of *The Whip* and so on.[74] In every case, an elaborate stage picture is rapidly transformed on an open stage, using a variety of scene-change devices: transparent décors for vision scenes, or a sink and rise, especially before the introduction of powerful arc lights that made it possible to achieve similar effects with transparent paint and light alone; a sink and rise extended into a wall "panoraming" vertically for the prison escape in *Arrah-na-Pogue*; combinations of transparent décor, lighting and burning lycopodium for fire scenes and volcanic eruptions; panoramas and treadmills for race scenes and the moving train of *The Whip*; finally the construction of elaborate practical sets that could be moved as a whole — the deck of a yacht rocking in a storm before sinking, as in *The Price of Peace*, crashing automobiles and locomotives, as in *The Whip*. In all these cases, the effectiveness of the illusion is enhanced, even induced, by the intensity of the dramatic situation. Inversely, this also heightens the disappointment if the illusion should fail — hence the extremely contradictory reports of the success of these scenes in contemporary criticism, as noted by Vardac and others.

Rapid transformations were also deployed where the sensation was the product of a strong situation rather than the representation of a large-scale event. In *Alias Jimmy Valentine*, the play that Paul Armstrong adapted from O. Henry's short story "A Retrieved Reformation," Act 3 ends with the eponymous hero having reformed and assumed the identity of Lee Randall, a respectable bank employee. He has just outbluffed his nemesis, the police detective Doyle, and persuaded him that he is not the notorious safe-cracker Valentine with the miraculous ability to open a safe by feeling the tumblers turning. As Doyle leaves, Valentine's former criminal associate Red Joclyn, now a watchman in the bank, rushes in calling "Jimmy," to tell him that the owner's daughter Kitty is locked in the new bank vault, to which no one but her absent father knows the combination. Act 4 is set in the vault with the safe rear center; Jimmy uses his skill to open the safe and rescue Kitty, watched not only by Doyle, but by

his fiancée, Rose, from whom he has always concealed his criminal past. The set for Act 3 is a corner set of Jimmy's office; the scene transition is a brief curtain or possibly blackout (less than a minute according to playbills), during which the two walls of the set and Jimmy's desk and chairs are removed, and the lights and/or curtain go up to reveal the barred windows of a basement and the safe rear center. The rapidity of the transition contributed to the high tension of the situation; as a reviewer put it: "One of the tensest situations imaginable is produced when the scene magically changes to the cellar of the bank, and Randall accompanied by the bank watchman is seen in a state of feverish excitement working in the semi-gloom to open the combination by the phenomenal sense of feeling with which nature has endowed him. From an open door the sleuth is seen watching the efforts of his prey, while in another door, contemplating the scene, stands Rose."[75]

Sensation scenes were a specialty of melodrama. Even *Alias Jimmy Valentine* was treated by contemporary reviewers as a high-class melodrama.[76] However, equivalents, involving pictorial effects that changed over time rather than in an instant, existed in more respectable forms of theatre. An example is the slow changes of lighting that were a feature of David Belasco's productions throughout his career, and often written into the plays he wrote for other producers before becoming a director himself. These changes are usually motivated as "astronomic" or "meteorological" effects: sunrise or sunset effects in *The Girl I Left behind Me* (New York, 1893), *Madame Butterfly* (New York, 1900), and *The Girl of the Golden West* (New York, 1906); the moon appearing from behind clouds in *Men and Women* (New York, 1890); an eclipse of the sun in *The Wife* (New York, 1887). This kind of change was not invented by Belasco, of course. In 1875, Frederick Lloyds gave detailed descriptions of ways to create such effects using relatively simple lights and elaborately painted drops and transparent cloths.[77] In his own productions at the Belasco Theatre, however, Belasco achieved them by the use of incandescent electric lights of various colors on dimmers controlled centrally so that sets of lights could be coupled to dimmer shafts and raised and lowered simultaneously, or one color raised and another lowered with a single rotation of the shaft. These effects, too, are linked to situations: the dawn in *The Girl I Left behind Me* is expected to bring the final, fatal Indian attack on the beleaguered fort, but in fact brings the rescuing cavalry; that in *Madame Butterfly* will end with the return of the married Pinkerton to the unsuspecting Cho Cho San to reclaim his son.[78]

Nineteenth-century staging is thus characterized by a stage picture of a relatively fixed and large size, with often great perspective-rendered depth. These perspective effects enforced a planar organization of the space, with little movement in depth and action distributed across the stage; the demand for visibility of the action to a widely distributed audience, and for a large proportion of the audience to see a relatively similar pictorial composition, drove the principal action to the front of the stage, as did problems of audibility. Despite the gradual suppression of the open-stage scene change during the nineteenth century, transformation effects remained a crucial element of pictorial staging in both comic and serious genres, and both popular and respectable theatre, but these transformations were tied to situational high points rather than to a simple change of place.

As we have often noted in passing, the optical properties of the cinema are very different, and create a very different kind of "stage" for cinematic performance. Before examining the extension of the pictorial tradition to the cinema, we need to understand the nature of this cinematic stage.

CHAPTER 9 The Cinematic Stage

We have noted the relative freedom of the cinema from the constraints of a constant scale based on the "natural size of the human body." However, this freedom long remained only a relative one. One avenue to the exploration both of the continuities between nineteenth-century theatre and early cinema, and of the differences between the staging traditions in the two media, is provided by the persistent demand that moving pictures should be "life-size."

The first public screenings of projected moving pictures in 1895 and 1896 were usually described as "life-size" (or "*grandeur naturelle*" in France). The immediate motive seems to have been to distinguish them from the moving pictures in Kinetoscope machines, which were seen as "small" since they were viewed through a lens in a smallish box (though really it makes little sense to attempt to give a scalar description of a peep-show image, which is viewed without contextual cues with the eye focused at infinity). Thus *Le Radical* of 30 September 1895, reviewing one of the private previews of the Cinématographe Lumière, noted: "Whatever the nature of the scene thus taken and however large the number of people thus caught in their daily activities, you see them again, natural size, in color, with perspective, distant skies, houses, streets, and all the illusion of real life."[79] Charles Musser reproduces a number of similar descriptions of the Vitascope projector's first appearances in New York: "Life size presentations they are and will be, and you won't have to squint into a little hole to see them" (*New York World*, 28 May 1895); "For two hours, dancing girls and groups of figures, all of life size, seemed to exist as realities on the big white screen which had been built at one end of the experimenting rooms" (*New York Journal*, 28 March 1896); "In the Vitascope, the figures of the Kinetoscope are projected, enlarged to life-size, upon a screen" (*New York Mail and Express*, 24 April 1896).[80]

These early uses of "life-size" clearly partake of journalistic hyperbole (note *Le Radical*'s reference to color in the Lumière Cinématographe's pictures), and are not very reliable as accounts of actual practice. Moreover, the intention to differentiate projected images from the peep-show picture might suggest that all that is meant is "large." However, the notion of the film image as "life-size" outlasts the period of competition between projection and peep show as outlets for moving images.

A question frequently asked of the writers of the regular columns on projection matters that began to appear in the American moving-picture trade press at the beginning of the 1910s was this: how bright a projection lamp did a movie house need for a certain throw? The standard answer was that the throw was not the issue; what mattered was the size of the eventual projected image, equal-sized images needing the same amount of light at the source however near or far away. The experts consulted then, however, went on to say how large that image should be, indicating that projection lenses should be selected to give a "life-size" picture. Thus, F. H. Richardson, in his "Operator's Column" in the *Moving Picture World* in 1910 called for a "ten foot by twelve foot (life-size) screen"; and, in an article on moving-picture house design in the *Architectural Record* in November 1915, John Klaber recommended 9 feet by 12 feet, to give an "approximately life size" picture. Similarly, when discussing how close subjects ought to be photographed for the cinema, the same prescription appears; in the *Moving Picture World* in 1911, an anonymous polemicist stated that "no figure should appear larger than life-size to the eye."[81]

These articles in the cinematic trade press and architectural journals clearly carry more authority than the early journalistic comments as precise recommendations by technical experts to practicing exhibitors and architects. Nevertheless, the prescription that figures on the screen should be "life-size" is an odd one, in several respects.

First, it is odd to present-day viewers, who are used to dealing with moving images of sizes varying from a fifteen-inch television screen to the thirty-foot screen in a metropolitan movie house. Devotees of "real cinema" may argue that the experience of moving pictures requires a big screen, but everyone interprets film images in more or less the same way irrespective of their size. From such a standpoint, the answer to the question as to how large the screen should be is that it depends on the size of the auditorium; the bigger the latter is, and the further away, therefore, the average seat is placed, the bigger the projected image should be. This is, indeed, the prescription that begins to be given towards the end of the 1910s in the trade press, although screens remained small by modern standards throughout the silent period, even in very large houses.[82]

Second, it is odd insofar as the term "life-size" is not commonly used for flat pictures. Most of the early citations for "life-size" or "life-sized" given by the *Oxford English Dictionary* apply it to sculpture, i.e., to three-dimensional representations; the earliest example for an ordinary picture is "two life-size portraits on panels" in *Tess of the d'Urbervilles* in 1891. There are, however, two earlier citations for specialized kinds of picture: "A life-sized cartoon," in 1847; and "'The Birds of America' [. . .] containing 448 plates, life-sized and colored," in 1879. Thus, the term and the related "natural size" do have a longer history in connection with flat pictures when those pictures are technical drawings or scientific illustrations. Even without the term, it is clear that the idea has a much longer history in such contexts. Thus the plates in Christian Conrad Sprengel's *Das entdeckte Geheimniss der Natur im Bau und in der Befruchtung der Blumen* (Berlin: Friedrich Vieweg Sr., 1793) have numbers next to each item included in the crowded image indicating a scale or ratio, such that "1/1" means life-size, "2/1" twice life-size, and so on.[83] However, such pictures, and especially these last examples, are pictures that make no attempt to represent space, except insofar as one leaf of a plant is in front of another. Although there have been attempts to introduce perspective renditions of space into botanical, zoological and paleontological illustration throughout its history, they remain exceptions, because of the scalar ambiguity they introduce into a picture that is intended to aid the recognition and classification of specimens. Paintings proper, however, while often classified in terms of their absolute size (from "miniature" to "monumental"), are not usually considered in terms of the relation between the size of the image and the size of what that image represents, precisely because, in a perspective tradition, that relation is a representation of the distance between the viewer and the people or objects represented.

However, the tradition of theatrical perspective discussed above gives a clear indication of what is meant when the flat image projected in a movie house is described as "life-size." According to Maurice Emanaud, on a perspectivally conceived stage, "the plane of the *manteau d'Arlequin*, which the actors keep close to, is the frontal plane of true sizes."[84] In other words, objects in the plane of the stage opening are full-size or life-size, whereas further back they should be smaller than life-size (which, of course, actors cannot usually be, except by the subterfuge of the substitution of children for adults mentioned above). Transferred to film, this means that the images of actors who appear to be in the picture plane (which is taken to mean actors who are in the front plane of the action, i.e., this is where "the actors keep close to" as Emanaud puts it) should be full-size, or about 6 feet tall.

The way moving pictures were taken (especially in fiction films, where conditions were much more controllable by the filmmaker than in actualities) and the way they were projected in the first twenty years of cinema broadly bear out this understanding of the relation between the audience and the figures on the screen. Before about 1905, the moving picture camera was mounted on a tripod with its lens axis more or less horizontal and more or less at eye level. The actors were then told not to come closer to the camera than a line marked on the studio floor with chalk, a rope or other objects, such that their feet remained in view, and the principals rarely retreated much behind the same line. Hence they occupied about half the height of the image when projected, with their heads halfway up the frame and their feet close to the bottom frame line, i.e., the bottom of the screen. Clearly, such a picture will be "life-size" in the sense indicated if the screen is about twelve feet tall. The principal venue for projected films up to this date was the variety theatre — *café-concert* in France, music hall in England, *Varieté* theatre in Germany, or vaudeville house in the United States — and such houses were often large, with a stage big enough easily to accommodate a screen twelve feet by sixteen feet. The few pictures we have seen of such screens suggest they were of such a size.[85]

After 1906, however, the principal locations for film projection changed, from the large variety theatres to much smaller shop-front theatres, the theatres called "nickelodeons" in the United States. Such theatres were shoe-box shaped, accommodated 50 to 299 seats in 15 to 30 rows, sometimes without a rake, and in big cities were often restricted in height by the upper floors of the multi-story building whose ground floor they occupied.[86] Such venues could not easily accommodate a screen twelve feet high; optimal sight lines were usually achieved with one less than nine feet high. Even the Omnia Pathé, Pathé's Paris flagship house, inaugurated in December 1906, had a screen only 4 metres by 3.5 metres (13 feet by 11 foot 6 inches — but a 13-foot wide screen can only accommodate a picture 9 foot 9 inches high).[87] It is a striking fact that one of the very few nearly universal stylistic shifts in filmmaking between 1905 and 1909 is that the standard size of the principal actors on screen grew to fill the frame height, more or less. This was achieved by bringing the camera closer to the actors, and by lowering it or tilting it downward, or a combination of the two, so that the characters' heads are in the top quarter of the frame and their feet close to the bottom frame line. It seems plausible to suggest that, as screens became smaller, filmmakers adapted their methods to ensure that characters on typical screens remained "life-size."

However, as is well known, in the next few years the camera was often brought even closer to the actors than the distance guaranteeing a life-sized figure on a smallish screen. Unlike the earlier tendency, however, this was by no means universal, being much less marked in Europe than in the

United States. It should be emphasized that we are not here talking about "close-ups" in the modern sense of cut-ins from the main view of the scene. Closer shots of characters or objects in scenes that were shown complete for most of a film had been regularly used since at least 1900, when such shots were called "magnified views."[88] Although they become rare in dramatic films around 1908–9, they persisted in comedies and trick films, and were used in dramatic ones to convey emphatic narrative information (e.g., to show that the hero's cast-off mistress is injecting poison into candy destined for his new fiancée in *Drive for a Life*, Biograph, 1909) and in the opening and closing "emblematic" shots discussed in Part 2. Here, on the contrary, we are talking about the standard framing of a dramatic scene. By 1911, the actors in such scenes occupied a position such that they were considerably larger than life-size on a 9-foot by 12-foot screen.

A larger-than-life-size image on a flat screen may be understood in three ways. The first can be called "scalar relativism," and is the one we are most familiar with today. In this conception, however large or small the image is, from one inch to twenty feet, it is interpreted as a normal-sized person or a nine-inch elf in relation to the fictional context and the likely size of the décor surrounding it.

Second, the spectator can take his or her binocular perception that all of the picture is on the screen as the standard, and interpret the object's size accordingly, with the result that the image of half a man 5 feet high means that the picture is of a man 10 feet tall. Maurice Noverre records statements by Georges Méliès criticizing "modern film technique" (i.e., the films of the 1920s) that suggest that this is how he tended to interpret closer shots: "What is there to say [. . .] about [. . .] characters who suddenly grow larger or whose hands and feet become enormous so a detail can be made visible?"[89] Méliès clearly has his tongue in his cheek to some extent here, and perhaps "understanding" or "interpreting" are not the most appropriate terms for this spatial literalism. No one believed that they were supposed to think the medicine had made the kitten grow suddenly larger in the close-up of it that is introduced into *The Little Doctor and the Sick Kitten* (G. A. Smith, 1901), in the way they did think the inventor's head was supposed to be inflated in *L'Homme à la tête en caoutchouc* (The Man with the India-Rubber Head, Star Film, 1902). They simply found the larger views grotesque and objected to the sudden changes in scale from shot to shot. As an editorial in the *Moving Picture World* put it in 1909:

> The figures in this picture [an unnamed recent film] arrested our attention. Or we should say a part of the picture. These figures were so large that they occupied the entire perpendicular dimension of the sheet, that is, the figures that were nearest to the camera. The consequence was that the people in the theater had the idea that the film showed a story that was being enacted, or had been enacted, rather, by a race of giants or giantesses. A little later on in the course of the picture the figures had been photographed at a greater distance from the camera and were so less monstrous to the eye; while, in even a third part of the picture, the figures were so far away from the camera that they appeared of their natural size — an effect which was more agreeable to the audience. [. . .] Where the fault lay was in the disregard of uniformity of conditions evinced either by the photographer or by the producer, or both. If these figures had been photographed at equal distances from the camera, then they would have appeared of equal size on the screen, instead of varying between the dimensions of a Brobdignagian monstrosity and Lilliputian pigmies.[90]

The problem was not so much how to understand these pictures, as how to take them seriously. As Felix Salten put it:

> At one moment people appear larger than life size, at the next diminutively small. In one way or the other they are rendered grotesque, more or less like clowns. In the same narrow frame of the projection screen we see now an individual actor, overwhelming, all too close, all too magnified, a second later we see him shrunk down walking along a street, a dwarf among other dwarfs, and it becomes inconceivable that we could observe his acting, have it affect us seriously or comically.[91]

In the third understanding, the larger-than-life-size image can be interpreted as a normal-sized figure, but one that is closer to the spectator than the screen. In the case of the standard three-quarter-length framing that became typical in American and to a lesser degree European films around 1911, this meant that the figures seemed to hang in the air in front of the screen without feet.

The issue of "cutting off the feet" and the unease it clearly aroused in many commentators,[92] should be considered in the light of the optics of the live stage. Audiences were quite familiar with actors coming closer to them than the plane of the *manteau d'Arlequin*, given the persistence of short forestages to the end of the nineteenth century. However, if larger-than-life-size figures are interpreted as closer to the audience than the screen, their lack of feet is a problem when there is no stage edge or footlight float to mask them. The cutting off of the feet produces an ambiguity about how the image is to be interpreted. During the wave of 3-D films in the 1950s, it was normal to keep the actors behind the front plane of the picture, precisely to avoid this effect of figures lacking their lower limbs, yet floating in the air in front of the screen. Writing in 1953, Charles G. Clarke remarks:

> Some readers may recall that in the very early days of filmmaking it was a hard and fast rule that the feet of the actor must always be shown. Audiences had to see what the characters were standing on! This seems ridiculous now that we are educated to seeing close-ups with no visible means of support; but it took many years to get audiences adjusted to this technique of the cinema. Likewise, it will take some time before audiences will accept persons or objects standing out in front of the screen in 3-D films, where in reality they

> belong. In time this will come about of course, but for the present it is probably better not to include objects too close to the foreground or ahead of convergence.[93]

Spectators in the 1900s and 1910s were undoubtedly accustomed to all three ways of thinking about images. When they looked at the illustrations of novels, or at monumental sculptures, they applied scalar relativism. But in the theatre, the other two were more familiar. Although different interpretations were used by audiences in the period, and scalar relativism gradually gained ground as the standard cinematic expectation, during the 1910s cinematic space was still in many ways more rigid, less plastic than it subsequently became. It was an extension of the space in the auditorium, as the stage space in a theatre is; in the closest views it even interpenetrated the auditorium space. The relative reluctance to cut within a scene, and the even greater reluctance to change the angle of view can partly be understood in relation to this spatial rigidity.

Although most of the editing patterns typical of the cinema of the 1920s and later are already to be found in films made by 1911, these occurrences are usually isolated, both in the sense that the films in which they occur are rare, and in the sense that they are infrequent or unique in the films in which they do. By contrast, the typical classical narrative film has large numbers of examples of reverse shots, alternations, or cut-ins, and they occur in almost every film. Before 1917, the overwhelmingly preponderant editing patterns are of three types: filming the whole of an action in a single shot, with the front protagonists in either a long-shot or medium-long-shot framing; alternating between fragments of scenes to show two simultaneous actions, or two parts of a single action; and filming a scene as in the first type, but interpolating one or more closer views from the same angle as the main view. A fourth type might be added: filming a scene divided by a door or window by alternating between framings from either side of the partition at 180 degrees to one another; in very rare cases, the partition has such a large opening as to constitute a single space viewed from two sides. With the exception of this fourth type, therefore, the only fragmentation of a single space is the cut-in from a full view of the scene to a detail within it. It is worth adding that the same setting is also usually filmed from the same angle and in the same framing whenever it appears. The theatrical character of these patterns is obvious.

Despite all these homologies, film space presented a very different stage for actors from that of the live theatre. It is a space defined by the optics of cinematography, the basic parameters of which were established quite early in the history of the cinema, and once established changed very little.

First, W. K. L. Dickson at the Edison laboratories fixed the size and shape of the image photographed and projected in the cinema, a size and shape that lasted until the end of the silent period, despite various short-lived early experiments with wider film.[94] The film designed for the original Edison camera and the Kinetoscope viewing machine was the film nowadays called 35mm, vertically fed from above into the camera and projector or viewing-machine gates, with sixteen frames to a foot, each frame occupying the full width between the two rows of sprocket-holes, and the full height pulled down by the claw for each exposure, i.e., each frame being one inch by three-quarters of an inch.[95] We have never seen any discussion of this choice of frame proportions, let alone an explanation for it, and it is an odd one for either a peepshow machine or a projection system, where the most efficient shape for the image (the shape making the best use of light from a point source) is circular, or, if the visual stability of a rectangular frame is desired, square. Most lantern slides were either round or square, and the frames in the earliest Edison experimental moving pictures were circular.[96] The 1.33:1 landscape image suggests that Dickson was looking for a broad picture reminiscent of a stage (proscenium arches are usually slightly taller than they are wide, but the top of the arch is filled in with drapery, so that the stage opening approaches the shape of the moving-picture frame).[97] Size and shape of the projected image became more or less fixed, varied only by such devices as diptychs and triptychs, and vignetting. Despite Salten's demand for a variable-sized frame, and Sergei Eisenstein's lecture to the Academy of Motion Picture Arts and Sciences in 1930 on the "dynamic square" that proposes a variably shaped one,[98] for most of the time the frame projected onto the cinema screen is as fixed a value as the proscenium opening in the nineteenth-century stage.

A second characteristic of filmic space, and one in which cinema and theatre differed more strikingly, is a matter of lens optics. It is generally agreed that, in the 1900s the standard lens for studio cinematography became a 50mm one, or, as it was usually called in England and America, the "two-inch lens." By the late 1910s, this is evidenced by many sources. According to Urban Gad in 1919, "lenses of 50mm are most often used," and, in the 1917 edition of his *Guide to Kinematography*, Colin Bennett says, "Kinematograph camera lenses range from two to six or more inches focus. Two inches is usual for work in the studio."[99] Before the War, professional cinematographers were too few to constitute a market for technical manuals, they lacked the corporate self-consciousness to establish professional technical journals, and their training was solely "on-the-job." There is thus very little written evidence on the matter, and what there is seems to suggest a longer focal-length lens as the norm. In the 1913 edition of his manual, Bennett argues that "for ordinary purposes, the focus of a kinematograph lens should be anything between two inches and three and a half inches, the shorter focus being more useful for topical filming in restricted situations, and the longer for scenic and artistic work, where there is plenty of elbow room at the camera man's command."[100] In a 1914 article

in the *Kinematograph and Lantern Weekly*, he is even more categorical:

> The angle of the 3 in. kinematograph lens is, in fact, only about 19 degrees, which in the terms of the still view photographer, would be described as "extreme narrow angle." Yet the moving picture man has established it in his industry as a normal focus, and in this he has for once been absolutely in the right. The reason is that in order for a photograph to look natural the performance of the lens with which it was taken ought to approach as nearly as possible to that of the human eye. The angle included by the human eye when working at its best is never much over 16 degrees, so that it follows that a lens using only 19 degrees of view will give a much more faithful rendering than would one which included more than twice as much of any scene as the human eye could have observed at one moment from the like view point.[101]

And in the U.S. in 1911, David Hulfish also calls a three-inch lens the "standard lens," and a two-inch one the "wide-angle lens."[102] The only contemporary reference we have been able to find to the two-inch lens as in regular studio use before 1917 is an exclamation from C. H. Claudy in 1908, and he clearly implies that such a lens was considered very short: "Motion-picture people will tell you — some of them — that you can't have foreground sharp with the distance. And they use lenses of a couple of inches in focal length!"[103]

Barry Salt notes that "some people regarded a 3-inch lens as a standard lens during this period [1907–13], but this seems to be a reflection of newsreel and 'topical' filmmaking attitudes rather than being the best professional practice in fictional filmmaking."[104] "Topical" is perhaps not the most appropriate term to use in this argument, because, as Bennett himself remarked, news cinematographers had the same preference for short lenses that news still photographers still do — they allow the photographer to work close to his subject and thus unblocked by bystanders with the minimum need to adjust focus. However, there is no doubt that Bennett's (and probably Hulfish's) readership was not the studio cameraman, but the cinema manager who had purchased a camera in order to be able to add local-interest films to his programs, and Bennett expected such cameramen to emulate the often self-consciously "artistic" scenics as well as topicals.

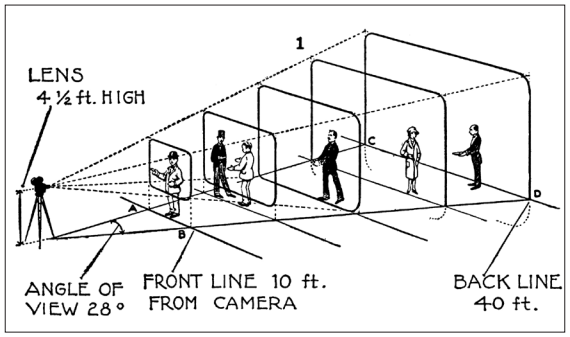
Despite Bennett's further claim that most available cine-cameras could not accommodate a two-inch lens,[105] all the American advertisements for such cameras that we have seen suggest they came with a two-inch lens as standard, and all the cameras we have seen in film museums in America and Europe (which would mostly be such quasi-amateur models rather than true studio machines) seem to have a two-inch lens fitted.

More significantly, there is plenty of evidence that, in American studio filmmaking in the early 1910s, the standard front position for actors became "the ten-foot line" or "the nine-foot line,"[106] and surviving films from the period usually have the actors in medium-long-shot (three-quarter height) in that front position. With a three-inch lens, an actor on the ten-foot line would be in medium-close-up, a framing hardly ever used as the basic scene framing at this time; a two-inch lens would produce the characteristic medium-long-shot framing. It is possible that the manuals are conservative, and longer lenses were used earlier (the very long and narrow Edison Black Maria would seem suited to a narrow-angle lens, but it is hard to see how Méliès could have used one in his relatively short studio). Thus, a cameraman in the 1910s might think "I usually use my wide-angle lens," rather than "My standard lens is a two-inch one." On the whole, it seems safe to claim that in practice the two-inch lens was the standard for studio cinematography by the end of the 1900s, i.e., as soon as actors began to come close enough to the camera for the choice of lens to have much impact on film staging and style.[107]

Although there is general agreement on this point, the reasons for the choice have rarely been discussed. In still photography, it was conventional to use a lens with a focal length equal to the diagonal of the photographic plate. This means that, if viewed from the center of vision — the point at which the photograph would coincide with a view through a similar-sized window onto the world originally photographed, i.e., a point the focal length in front of the photograph on a line perpendicular to it from the crossing-point of the diagonals — the resultant picture will more or less fill the spectator's field of vision. In other words, spectators are intended to view pictures from the "center of vision," i.e., from a distance equal to the focal length of the lens used (multiplied by any degree of subsequent magnification of the picture), and they are expected to choose a distance at which they can just see all the picture at once.[108] The diagonal of a one-inch by three-quarter-inch image is one inch and a quarter, appreciably less than two inches, let alone three, but a cinematic image photographed on 35mm film with a two-inch lens and projected as an image twelve feet wide has a center of vision twenty-four feet in front of it, which means that, in a nickelodeon, a reasonable proportion of the seats would be close to the center of vision, i.e., close to the position giving the perspectivally most "correct" view, and this may thus be the explanation for the adoption of this standard. This is corroborated by C. L. Gregory in 1920: "Lenses for general purposes [i.e., for still photography] are calculated for an angle of about 60 degrees. [. . .] As a motion picture is customarily viewed at a distance relatively greater than a still photo the angle of view averaging nearest normal is about 28 degrees, using the base and not the diagonal as a basis for calculation. This is the angle subtended by a two-inch lens on the standard ¾ by 1 inch aperture or picture frame."[109]

The field of view of a moving-picture camera is a rectangular pyramid with its apex at the camera

lens, and with the lens axis constituting the line joining the apex to the centre of its base (see Figure 4.9).[110] The cross-section perpendicular to that axis at any distance from the camera is a rectangle of the same proportions as the image that will be projected onto the screen, and every visible object at that distance within that rectangle and not blocked by something closer to the camera will appear on the screen, while nothing outside it will. With 35mm film and a two-inch lens, the angle of the triangle subtended at the apex by the sides of this image rectangle will (as C. L. Gregory noted) be 28 degrees, that by the top and bottom 21 degrees. With a three-inch lens, the corresponding figures are 19 degrees and 14 degrees. The stage within which people and things that are going to be visible on screen must be deployed is thus a very tall pyramid, usually set more or less on its side, with its lowest face, the bottom of the field of view, intersecting with the ground a certain distance away from the camera, that distance depending on the height of the camera, its precise angle, and any declivity of the ground. A horizontal 35mm moving-picture camera with a two-inch lens 4 feet 6 inches from the ground can show the full height of characters standing in the front plane 24 feet from those characters on a level floor (a horizontal one 3 feet from the ground will do so at 16 feet; one at eye level tilted down to do the same thing will be about 7 inches closer). Ten feet from the camera, the image rectangle will be 3 feet 9 inches by 5 feet; 40 feet from the camera, the image rectangle will be 20 feet wide, and its top will be 12 feet above the ground.



4.9

This field, narrow and low at the front and wide and high at the back, is the precise opposite of the characteristic stage playing space. For Peter Nicholson, "the part of the theatre which is employed for the exhibition of scenery, is a recess from the great room where the spectators sit, and is in the form of a truncated pyramid, the base being what is called the curtain; and the vertex, which is the remote end of the pyramid, is called the point of contraction. The aperture, being thus diminished as it is more remote from the spectator, is of infinite advantage in representing an extended space in a small compass." The perspective stage narrows as it recedes, in order to give the impression that the rear planes are further away than they are; but even a décor where the stage space is of exactly the same dimensions as the space represented effectively narrows toward the rear, since members of the audience in extreme positions on either side can see less of the rear stage on their side of the house, their view being blocked by the proscenium arch, side flats, and actors.

Thus, while for stage actors, the nearer they approach the footlights, the more room for manoeuvre they have, for film actors it is the opposite. As Eustace Hale Ball put it:

> The stage of the theatre is fan-shaped, with the curve of the fan — the apron or front of the stage, under the proscenium arch — as the place for leading action. The entire space across the stage, directly in front of the orchestra, can be used, and thus the actors have great latitude. It is exactly the reverse with the cinematographic camera. Its field is fan-shaped, but the eye of the camera is at the small end of the fan. The most important business must be performed as closely as possible to this fan-point, in order that the images may appear large and distinctly upon the film. [. . .] To work in the few feet allotted — amounting to a stage width of six or eight feet, at a distance of ten feet from the lens, — is a tremendous problem many times.[111]

On the other hand, the single viewpoint of the moving-picture camera solves the problem of blocking out positions so that the stage picture is visible (and reasonably similar) for as many of the members of the audience as possible, since anything that is visible to the camera is visible to all members of the cinema audience, however far to the side or above or below the screen they are sitting. Although film viewers in extreme positions see a distorted picture in which figures are laterally or vertically compressed, those figures have the same relationship to one another for the whole audience, however small their angular separation may have been for the camera. To repeat Urban Gad's words, "the thousands of eyes of the spectators are all pressed to the one tiny peephole of the camera." As a result, compositions can be used in which some important elements are very close to the camera and some very distant without, as in the live theatre, presenting a very different picture to different parts of the auditorium.

Exploiting this unique viewpoint of the camera in stagings that place some elements of a setting much closer than others does, however, involve the possibility of exceeding depth of field, that is, that some of those elements will be out of focus, something that will not happen in the live theatre for members of the audience with normal or normally corrected vision. The historical significance of the emergence of a trend to exploit a very high depth of field in the American cinema in the 1940s and the technological feat this exploitation represented have perhaps made us overestimate the importance of the technical aspects of so-called "primitive deep focus," but something should be said about it here.

First, until the end of the 1910s, almost all commentators expect a cinematic picture that is in sharp focus throughout. In 1919, Henri Diamant-

Berger wrote: "The sharpness of vision should be the same in every plane. At the present time, we are often shown very sharp foregrounds against soft horizons. If there is insufficient latitude to keep the horizon in focus, then such foregrounds should be avoided, or cheated, as can very easily be done."[112] This insistence is remarkable, given the fact that the dominant style in late nineteenth-century still photography (and in early twentieth-century still photography, too, with the exception of a few avant-gardists) is the style known as "pictorialism" (pictorialism here not having the broad meaning we are giving the term in this book, but rather signifying the introduction of painterly effects into photography, most of which encourage a softer image, either one whose overall definition is lower, or one in which all but the central subject is softened in the name of "aerial perspective"). Urban Gad remarked on this contradiction:

> It is a well-known fact that in photography effects have been striven for that come close to artistic productions. By appropriate shooting and later printing a softness of outlines and tones has been sought that is highly reminiscent of the personal stylization of nature by an artist. However, these means are inappropriate for cinematography, because technical difficulties make them impossible, and because films, as well as pictorial demands, must also meet dramatic ones. The pictures cannot be so painterly in tone that facial features, in the last analysis the only means by which film can attain access to the soul, are vague and confused. The pictures must be so clear and sharp that everything that helps to reveal mental activity can be clearly and vividly shown.[113]

In general, then, moving pictures were expected to be fully in focus throughout, and indeed, the most primitive form of film criticism is the complaint that the pictures are out of focus. However, this requirement was not usually as rigidly prescribed as by Diamant-Berger, nor was it rigorously adhered to. Yuri Tsivian notes that several early commentators deprecated the unselective nature of film images in terms that suggest they objected to the uniformity of focus. In the *New Review* in May 1896, O. Winter compared the moving pictures with Pre-Raphaelite paintings: "Both the Cinematograph and the Pre-Raphaelite suffer from the same vice. The one and the other are incapable of selection; they grasp at every straw that comes in their way; they see the trivial and important, the near and the distant, with the same fecklessly impartial eye." And the Russian cinematographer Alexander Digmelov, in his unpublished memoirs, cited an 1896 Russian newspaper article that complained about the moving pictures' "lack of aerial perspective."[114] In his 1913 manual, Colin Bennett argued that distant backgrounds should be thrown slightly out of focus to ensure good figure-ground separation for the subject of a film scene.[115] By the time Gad was writing, the very first examples of a cinematic "soft style" were beginning to appear,[116] and he himself agrees that, once a clear view of the characters' faces has been given, "in other shots one can use photographic means to enhance the mood of the scene; then effects lighting, half-lit faces and painterly effects of every kind are appropriate, insofar as they do not hinder, but help the actors' performances."[117]

In practice, too, partly out-of-focus images were fairly common in the cinema of the 1900s and 1910s. Although in some insert close-ups the objects or faces were isolated from their environments against a neutral light or dark background, and in others the detail was placed very close to a wall flat or other background feature that could thus be kept in focus, simply filming such a detail from close up with a two-inch lens in the setting of the scene would almost always throw the background out of focus, and this was very often done. Even in longer basic scene framings, an out-of-focus background is not uncommon in films in the 1910s (e.g., in many scenes in *The Coming of Angelo*, Biograph 1913), and occasionally even principals are softer than their environment. In a deep-staged scene in *The Inherited Taint* (Vitagraph, 1911), the hero in medium-long-shot in the foreground is sharply focused, but the flirtation of his fiancée with another man that he is witnessing in the background is noticeably soft. In Georg af Klercker's *Kärleken segrar* (Love's Victory, Hasselblad, 1916), a whole scene in an automobile salesroom has the cars and one character in the background sharply focused, while all the other characters in the foreground are markedly blurred. Although one might conceive of reasons why this was done deliberately (the scene reintroduces the villain, the sharply focused background character), it seems more likely that it was a mistake on the part of the cameraman, but not one felt to be sufficiently serious to warrant reshooting.

As is well known, the depth of field of a photographic image, that is, the range of distances from the lens within which objects will appear in the photograph as sharply focused, depends directly on the absolute distance from the lens of the closest of those objects, and inversely on the focal length of the lens, and the lens aperture. Reducing the aperture reduces the amount of light admitted by the lens, and with a moving picture camera the exposure time cannot be raised to compensate for this reduction to more than a value of about half the sixteenth of a second before which the frame is replaced in the gate by its successor. There is thus potential conflict between increasing depth of field and adequate levels of exposure, especially if the front plane of significant elements of the image is close to the lens.

However, in films of the 1900s and 1910s, this front plane is never, in the basic scene shots that are the ones that involve depth of staging, much closer than 9 feet from the camera in the United States, and usually even further away in Europe. With a two-inch lens, sharp focus (defined as a circle of confusion under 0.002 inches)[118] can be achieved from 9 feet to infinity at an aperture of f11 and from 9 feet to 30 feet at f5.6, and the standard apertures for studio shooting were within this range. Gad

remarks, "if one works in a Northern zone, where the quantity of light is limited, especially in an enclosed glass studio, the cameraman has to work with a wider aperture, which can easily lead to the background being blurred if the foreground is going to be sharp — as it should always be, as that is where the action takes place."[119] But under most conditions, depths of field of this order presented filmmakers with no problems.[120] Indeed, in the passage referred to above, in which Colin Bennett advocated a shallow depth of field to isolate the significant plane from those in front and behind it — a common prescription in still photography — he remarks that this may not be practicable in moving-picture photography, because the high apertures required will necessitate reductions of exposure time to the extent of eliminating movement blur in individual frames, producing a stroboscopic effect in projection rather than the desired illusion of continuous movement.[121] In other words, his concern is that there is too much light to achieve low depths of field rather than that there is too little for high ones. It is thus not surprising that Gad is exceptional in perceiving serious technical difficulties in staging action in depth, especially given the fact established above that a certain amount of softness of the image was regularly tolerated.

There were, however, other aesthetic difficulties with such staging. The remarks by Winter and the Russian journalist cited by Digmelov, mentioned above in connection with "aerial perspective," also involved the problem that as figures advanced towards or receded from the camera they seemed to change size in a grotesquely exaggerated way.[122] The same complaint was still being made in the 1910s by Salten: "Our theatre has both a natural and an artificially illusory perspective. Film, on the contrary, is completely unperspectival. A photographed person who goes towards the background in a photographed room, say to the door, is already ridiculously small at the third step."[123] As noted above, spectators in a nickelodeon-type theatre, and even many in the larger theatres of the 1910s, could well be sitting close to the center of vision of the picture on the screen, and therefore, as far as the angle figures on screen subtended at the eye was concerned, the change as they move in depth was no more than it would have been seeing those figures in real life. In life, however, depth is also perceived via adjustment of the eye's focus, and stereoscopically via the different angle of view of each eye. Our knowledge of depth from these sources offsets the changes in subtended angle, so we perceive the size of the images of figures moving in depth as changing less than it actually does. In the cinema these offsetting factors are absent, which in part accounts for the complaints about the supposedly exaggerated dwindling and expanding of cinematic figures as they recede from and approach the camera.

These constants of human perception are not the only issues in play, however. Modern spectators usually view screen images from a long way behind the center of vision from which they were photographed (standard lenses have become progressively shorter over the history of the cinema, and cinemas have become larger, with the average seat further away from the screen), resulting in an effectively wider-angle picture, but we do not experience people approaching the camera as growing in size at a ridiculous rate. Rather, we are much more familiar with such wide-angle pictures than were spectators at the turn of the century, not only from the cinema, but also from the dissemination of newspaper photographs, often taken with relatively wide-angle lenses and habitually viewed from a distance many times the product of the focal length and the enlargement. Traditional paintings exaggerated aerial perspective to justify the scalar differences produced by artificial perspective. As noted above, movement in depth on the stage tended to be kept as oblique as possible, and when actors did move to the front or rear, their apparent size increased or decreased less than it would have had they moved as far as the stage perspective made them seem to. The earliest spectators thus found movement in depth in the cinema problematic, and theatrically based writers like Salten still had the same difficulties in the 1910s. However, the prevalence of staging in depth in films from all countries in the early 1910s suggests that ordinary spectators had already adjusted to "wide-angularism."

In practice, despite these optical disparities between theatre and cinema, the difference between the staging patterns in the two media is slight, so long as the film actors remain a long way from the camera, and the backdrop is set up only a short distance beyond them (or they never move more than a few feet from their front line). This is the space characteristic of much early fiction cinema, most notoriously that of Méliès. Even a film where characters approach to about 18 feet from the lens, such as *L'Assassinat du duc de Guise*, can have sets relatively similar in disposition to stage sets, and its actors can behave on the film stage in much the way they might have acted in similar scenes in the theatre, although the stage implied is very small, in this case with a proscenium opening of only 10 feet (perhaps 12, if the very closest figures are thought of as on a short forestage).

Once, however, the front line of the action was brought closer to the camera, to the "ten-foot line" in American films by 1911, usually not quite so close in Europe, the difference between the two stages became crucial. This is constantly mentioned by actors who moved from one medium to the other (as most did — very few cinema actors before 1917 lacked live theatrical experience). The confined nature of the front playing space made it difficult for actors to do much there; expressive movement was restricted, not necessarily by any concern for "realism" or "underacting," but simply by the need to stay in frame. As Victorin Jasset noted of American films in 1911, "The Americans had perceived the fascination of facial expressions in close shots, and had resorted to them, sacrificing the setting

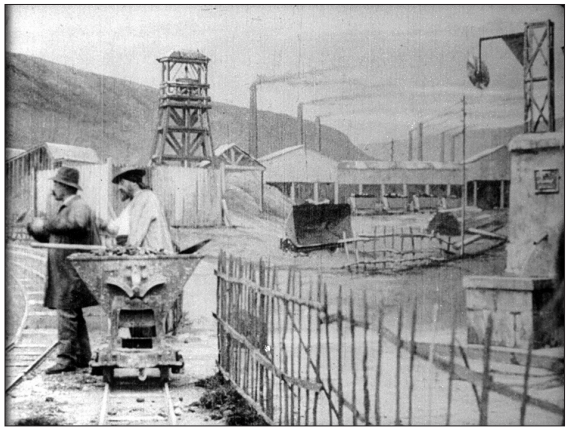
and the scene as a whole when necessary to present to the audience the faces of characters who remain more or less motionless."[124] If expressive movement is restricted, the same is even more true of any kind of physical action. These difficulties are very clear in the version of *Hamlet* filmed by the Hepworth company in 1913. In the exterior scenes, shot on a beach and in woods, the cameraman is forced into awkward pans in an often unsuccessful attempt to keep Johnston Forbes-Robertson in the scene. In the studio-shot interiors, the effect is much less marked, presumably because it was easier to arrange the acting areas in ways that forced the actor to keep to the visible field.

As this last example suggests, panning and tilting might be deployed to extend the area in which the actors could move. Panning tripod heads were introduced by 1900 — the Biograph film taken of Dreyfus during his second court martial in Rennes in 1899 contains several pans that are both smooth and fast, which would be impossible without some kind of panning head, especially with the heavy 68mm Biograph camera — tilting ones several years later, but the mechanisms remained relatively clumsy, utilizing ratchet and pinion drives with separate handles for vertical and horizontal plane movement.[125] It was particularly difficult to pan and tilt simultaneously. In practice if the camera had to follow, say, characters moving down a slope, pans and tilts alternated, producing a kind of zigzag stepped movement, which exacerbated the difficulty of coordinating the camera's and the actors' movements when close to the camera.

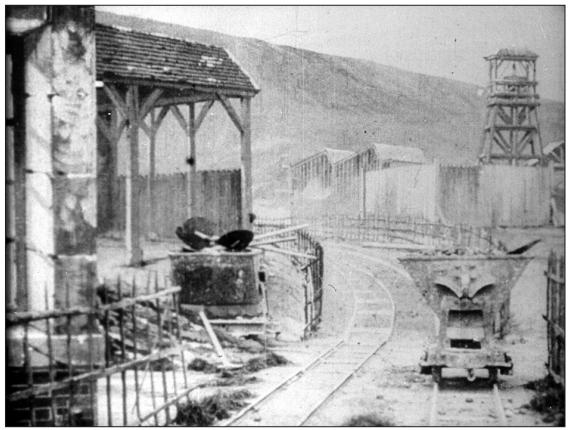
At more distant framings, pans were used in both France and America to extend the playing area laterally, adapting the panoramic backcloth of the theatre, but also the reframing pans used by actuality cameramen as soon as their tripods had panning heads, and the specialized actuality genre of the "panoramic view," which was either a track, usually from a moving vehicle, or a large, even 360-degree pan over a landscape. *Cowboys and Indians Fording River in a Wagon*, an Edison film of 1904, follows its simple action in a real location with a long pan. In 1905–6, Pathé dramas and *féeries* included much more striking long pans over painted landscapes in certain scenes, most notably the walk from the miner's house to the pithead in *Au pays noir* (1905), and the hard-labor scene in *Au bagne* (Convict Life, 1905). In the former (see Figures 4.10 to 4.13), the pan convincingly conveys the transition from the street of a mining village to a relatively distant mine in open country; in the latter, the scene begins at the door from the prison building to the yard, the camera then pans left following a group of convicts who enter from the prison carrying a huge beam, stops when they put it down in the yard, then starts to move further left as another group of convicts enters front right carrying heavy sacks, and follows them until they climb a gangplank onto a ship moored by the yard. These are among the most striking shots in the whole of early cinema. The same technique is used in *Aladin ou la lampe merveilleuse* (Aladdin, or the Wonderful Lamp, 1906) to take the hero from the entrance to

4.10

4.11



4.12



4.13

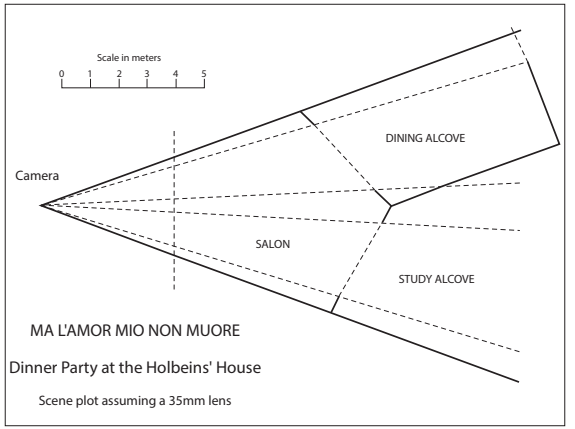
the underground cavern to the shrine housing the magic lamp and back again.

Much shorter pans and tilts that maintain the principal actors roughly in the center of the screen, like those used in *Hamlet*, are much more common than these spectacular examples. These, too, are essentially reframing pans, maintaining the key characters center screen. In the 1910s, European films in particular frequently pan between the rooms of a two-room set, panning "through" the wall or across a doorway. This is often used for scenes of overhearing (e.g., Sjöström's *Havsgamar* (Sea Vultures, 1916)) but occasionally the dramatic function becomes more complex. In *Die Sumpfblume* (The Swamp Flower) (Viggo Larsen, 1913), Sandra, who is modeling for the amateur sculptor Edgar von Schmetting in his Paris apartment, has a cast made of her foot in the studio; a pan right leaves the studio with the couple as they enter the dining room. Von Schmetting later exits left back into the studio as Sandra explores the dining room. She opens curtains rear right, revealing an alcove with von Schmetting's bed behind. She exits through the curtains closing them behind her. Pan left to the studio to show von Schmetting at his desk. He rises, pan right as he returns to the dining room. He looks around for Sandra, then, not seeing her, advances towards the curtains. The scene breaks off, whether because of a censorship cut in the Dutch print we have seen or as a deliberate ellipsis is unclear. Finally, there is at least one example where the reframing pan is taken much further. As well as having such pans in almost every scene, *Das Mädchen ohne Vaterland* (The Girl without a Country, 1912) has one scene that exploits their impossibility if the actors move independently of one another. Lieutenant Ipanoff's apartment in a central European fortress is L-shaped, with a window in the left-hand wall at the front, a door midground left in the front-facing wall, Ipanoff's desk front right, and, behind it, a sitting-room alcove rear right. When Ipanoff is confined to quarters for allowing Zidra, a gypsy girl, to see secret parts of the fortress, she steals past sentries to visit him, climbing into the apartment via the window. After a while, there is a knock at the door. Zidra hides behind the window curtain and Ipanoff invites the visitor, a fellow officer, to sit with him in the sitting-room. Zidra, invisible from the alcove, comes out from behind the curtains and leaves by the door. Returning to the main room on a pretext, Ipanoff looks for her, and finds her gone. Later, having stolen plans of the fortress, Zidra returns to the room and hides behind the curtain again, coming out when the fellow officer leaves, and pretending to have been there all the time. The camera position and lens with which this decor is always shot cannot take in the area by the window and the rear right sitting-room simultaneously; when Ipanoff and his friend go off into the sitting-room, the camera must pan from one area to the other, producing an alternation within the shot reminiscent of the "masking" frame André Bazin saw as characteristic of the film style of Jean Renoir in the 1930s.[126]

Renoir, of course, used tracking movements (movements in which the camera changes position as well as turning) to produce such effects, and such movements, too, are found in films in our period. Tracking movements were used to reframe moving characters, especially when they were moving in a vehicle. There are exceptional examples very early, but by 1913 they are common in both American and European cinema.[127] Tracks require elaborate preparation, and would not be used merely to give the actors a little latitude in a narrow stage, as pans were. In *Cabiria* (1914), however, tracks are used independently of the actors' movements, in relation to the sets. In the next few years directors everywhere include at least one spectacular tracking shot in their films, but in America they did not emulate Pastrone's displacement of the actors from the center of attention, but, on the contrary, tracked in on or out from the principals in a scene, usually one that was spectacular in its most distant framing irrespective of the movement.[128]

Another much more uncommon solution is to use a wider-angled lens. Thus, the scene in the Holbeins' salon in *Ma l'amor mio non muore!* is filmed with a lens with a focal length of about 35mm rather than 50mm (see Figures 4.14 and 4.15). This produces a highly dynamic space, with strong scalar differences as characters move in depth in the three

4.14



4.15

rooms visible from the camera's unchanging position, but a wide middle ground, allowing some of the most important action to be staged laterally (Elsa and Sthar at the piano left, while her father and Colonel Theubner examine the plans in the alcove office right).

Ma l'amor mio non muore! also uses another method of extending the arena of action typical of European films in the 1910s, the staging of some of the action outside the space directly visible to the camera, but at a point where it is indirectly visible in a mirror in that space. As mentioned in Part 3, the set for Elsa's dressing room includes a large three-pane mirror set up midground left, and so placed that from the single camera position used for this set the mirror shows the dressing room door off right. In the first scene in this set, after Elsa's Paris début, a group of admirers follow her in from the door on the right. As she gets ready to change for her next number, the impresario Schaudard ushers them out, but one man sits proprietorially on Elsa's sofa. When she becomes aware of this (seeing him in the mirror), she turns and asks him what he wants, whereupon he rises and tries to embrace her. She rings and her maid enters rear left (the door to her room is invisible behind the mirror). Elsa indicates that the gentleman is leaving, and the maid shows him out; he lingers as long as possible before, in the mirror, we see him shrug and exit. The same movement (but with the opposite emotional tone) is repeated in the last scene in the dressing-room. When Maximilian reappears in her dressing room after she has tried to break off their relationship, he is first seen by Elsa and the spectators at the door, in the mirror (Figure 4.16). Later, when Elsa tells Maximilian that she will go back to him, he leaves to watch her performance, visible to the spectators in the mirror as he goes out of the door, while she, having said farewell, takes the poison that will kill her on stage a few minutes later.

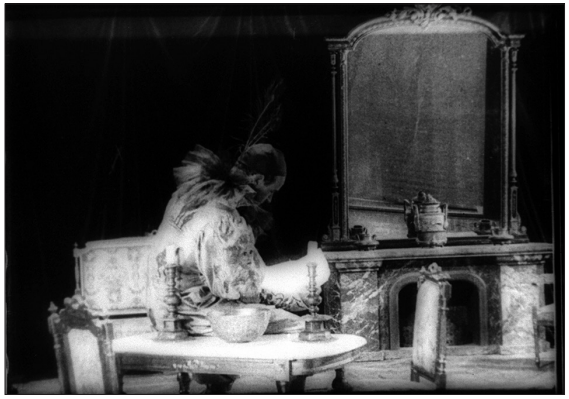
The device had been used in Danish films since

4.16

1911; Barry Salt notes (and illustrates) an example from *Ved fængslets Port* (At the Prison Gates; Nordisk, August Blom, 1911); John Fullerton discusses the way Swedish directors used mirrors to extend the arena of action into the space occupied by the spectator without reverse-angle cutting, for example in *Mysteriet Natten till den 25:e* (Mystery of the Eve of the 25th; Hasselblad, 1917); and Yuri Tsivian has remarked on the importance of mirror shots for Russian films of the 1910s — *Korol' Parizha* (1918) has a spectacular example, where a staircase in a ball scene has a mirror as one of its side walls, creating an almost unreadable space, even when one has seen the film several times on an editing table.[129]

A more complex example is found in *Klovnen* (Nordisk, 1917), one in which the symbolic role of the mirror is as important as its purely spatial function. The clown Joe Higgins has achieved fame and married his sweetheart Daisy. His happiness is shattered when he catches his wife kissing a stage-door Johnny, Count Henri. The discovery scene takes place in the green room of the variety theatre where Joe is performing (see Figure 4.22). The wide double doors to the green room open directly onto the rear of the stage, blocked from the auditorium only by the backcloth. The wall opposite has a large mirror over the fireplace, used by performers to check their appearance immediately before their entrance. The sequence is as follows:

1 The stage-right wings of a variety theatre. Joe, left, in medium long shot, is offered a contract by an impresario, right, as he leaves the stage after his act. He signals off front left to the green room, and he and the impresario exit front left as pageboys enter rear left from the stage carrying the large bouquets retrieved after Joe's performance, which they deposit in the wings.
2 The green room, filmed from the stage side (Set up A in the plan). A man in Chinese costume is examining his appearance in the mirror rear center. The green room door, visible in the mirror, slides open from left to right, revealing Joe and the impresario. As the man in Chinese costume exits left, they come forward; Joe enters the directly visible space of the scene midground right in long-shot framing, and (in the mirror) the impresario closes the door behind them. The impresario enters the directly visible space midground right; a reframing pan left follows Joe and him across until only half the mirror is in shot rear right. The impresario helps Joe take off the outsize lute that is his principal prop. A stage hand enters rear left and re-exits, taking the lute with him. Three performers in evening dress, one a midget, enter rear left, cross to the mirror, examine their appearance (the midget has to be lifted to the mirror to manage this), and exit directly visible space front right. The impresario exits rear left. Joe comes to front left and reads the contract. In the mirror, the three performers can be seen to slide the green room door aside and exit across the left edge of the mirror, leaving the door open and showing the back of the drop across the rear of the stage. Joe sits on a table facing rear right, his eyes on the contract. A pan right brings the whole mirror back into view.
3 The stage-left wings (Set up B). The Count and Daisy stand front center in medium long shot, a wing flat behind them. Stage hands and firemen can be seen rear left looking off right at the stage. One stage hand runs from rear left out front right. Daisy looks anxiously off front right (towards the green room). The Count makes a gesture of contempt in the same direction. He tries to kiss Daisy, but she turns violently away, saying she cannot. Finally, she yields and kisses the Count.



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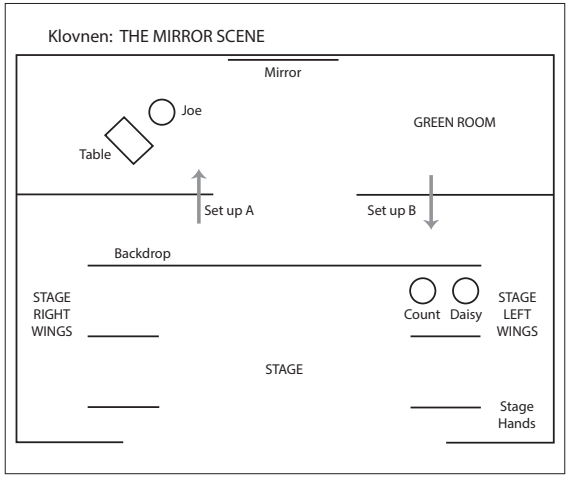

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4 The same angle as 2, but closer in, showing the top of the table with Joe sitting on it front left, still in long shot, and the whole of the mirror (Figure 4.17). The backdrop visible in the mirror suddenly rolls up, revealing Daisy kissing the Count. Joe looks up and sees them (Figure 4.18). Aghast, he leans back, picks up a candlestick from the table, and hurls it at the mirror, which shatters (Figure 4.19).

5 As 3. Daisy and the Count look off front right in surprise (Figure 4.20). Daisy runs off front right.

6 As 4. Joe is standing in front of the mirror, by the fireplace, looking off midground right. In a remaining shard of the mirror, Daisy can be seen looking directly toward camera (Figure 4.21). The impresario and a dresser run in rear left and go to Joe. Daisy runs into directly visible space midground right and goes to Joe. Performers and stage hands run in from left and right as Joe pushes Daisy away and exits midground left. Daisy expresses her mystification to the impresario, then follows Joe off left.

The mirror here serves to emphasize Joe's seeing his wife's adultery, and, as is commonly the case with such devices, also draws attention to the partial and hence unreliable nature of a character's vision. Not that Joe is mis-seeing here — his wife really is about to commit adultery — but his overreaction to the sight makes any subsequent reconciliation with Daisy (as when she pleads with Joe in the scene analyzed in Chapter 7, above) impossible, and ruins both their lives. However, the mirror does also serve a more strictly spatial function. It allows the viewer and what he sees to be staged in the same scene while retaining plausibility that the objects of the vision should be confident of their invisibility — not, that is, appealing to an arbitrary switch from invisibility to visibility such as is re-

sorted to by Benjamin Christensen in the scene in *Det hemmelighedsfulde X* (The Mysterious X, 1914) discussed in the next chapter.

More typical and more important than these attempts to extend the playing area laterally is the exploitation of that area in depth, taking advantage of the visibility guaranteed by the single viewpoint. A simple form of this can be seen in theatrical adaptations, once directors and actors of these adopted the forward playing position. In *Shylock*, the 1913 Eclipse version of *The Merchant of Venice*, the casket scene and the trial scene are staged with Portia and the Doge, respectively, in the far rear, and Bassanio, and Antonio and Shylock, respectively, in the foreground position (Figures 4.23 and 4.24). The trial scene is an adaptation of a standard way of staging the same scenes in the theatre, e.g., Charles Kean's Princess's Theatre staging of 1858 (Figure 4.25),[130] but with the playing space much deeper and narrower. The Hepworth *Hamlet* adopted the same kind of staging, using narrow aisles of fat romanesque pillars stretching deep into the rear for the scenes inside Elsinore castle. In Act 3, scene 2, the play-within-a-play scene, for example, the players' stage is located in the far rear, Claudius and Gertrude are seated front right facing left, Ophelia front left facing right with Hamlet sitting at her feet. This is a very traditional setting — compare H. Cuthbert's design for Kean's 1858 production[131] — except that characters and scenery have been brought in on either side at the front, leaving a long tunnel between the on-screen spectators to a remote view of the players' stage in the far rear. Chapter 10 of this book has several detailed accounts of deep-staged scenes in 1910s films.[132]

The single viewpoint of the cinema also affected the adaptation to filmmaking of illusory stage techniques. Although the architecture of the movie house did not restrict the space that could be represented on the screen in the way that of the theatre did what can be seen on the stage, and

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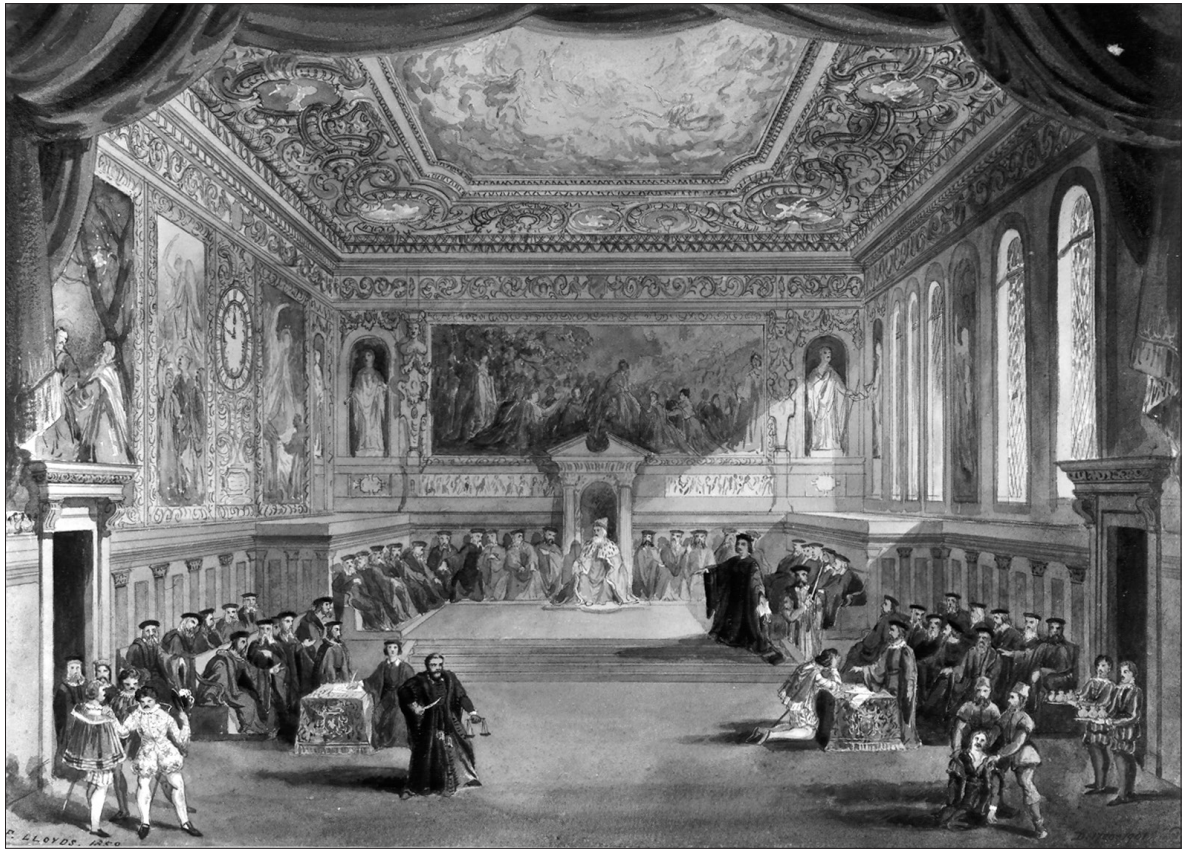

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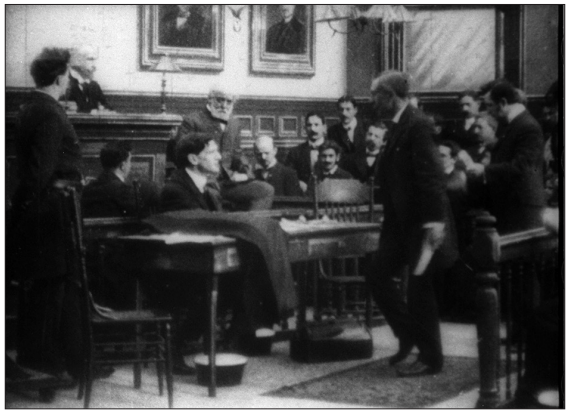
hence there was not the same need for a perspective stage, almost all interiors, and many exteriors representing exotic places or remote epochs, were still filmed in a studio, and the studio might well lack sufficient space to lay out the setting in its true three dimensions, or such laying out was avoided to save expense. In such cases, illusory techniques continued, and continue, to be used.

Many early filmmakers built relatively small studios that divided the floor into an acting and a viewing area, for example, the Edison Black Maria and the rooftop stage built by the same company in New York in 1901, George Albert Smith's Hove studio in which a camera in the open air filmed action on a raised platform behind the large double doors of a barn, and, most notoriously, Georges Méliès, whose 1896 glass-house studio had a stage end that, by 1900, had acquired a few of the features of a *féerie* stage — two lines of traps, a single sub-stage story, a cantilevered frame from which drops could be hung, and possibly one set of *costières*.[133] Soon, however, larger studios were built, creating an entirely flexible floor space within a glass-roofed and walled shed, and the idea of filming action on a "stage" at one end of the building disappeared. Pathé built such a studio in Vincennes in 1902 with a smaller dimension of 42 feet, and although the travelling crane suspended under the roof probably made it easier to hang large drops directly across the width, set scenes were built on the floor in any disposition convenient for light and the coordination of the simultaneous filming of several subjects.[134] The company erected an even larger studio at Montreuil in 1905. The studio built by the Vitagraph Company of America in Brooklyn in 1906 was of comparable size. Although such studios often had freight elevators for moving large elements of décor or furniture from storage, and these elevators are occasionally used as props in films (e.g., for the mine elevator in Pathé's *Au pays noir* of 1905), the relatively fixed elements of stage floor machinery (traps and grooves or *costières*) were abandoned as incompatible with the efficient deployment of studio space.

However, despite the abandonment of the fixed relationship between a camera and a "stage" in almost all film studios after the turn of the century, many scenes continued to be filmed with backdrops perpendicular to the lens axis, painted, if the setting required it, with perspectival renditions of deeper space. Often such backdrops would be joined by short, usually splayed side wings, forming a shallow three-wall set. As the camera approached the action, however, such one- or three-wall sets began to give way to two-wall sets, with the two sides, often genuinely at right-angles, oblique to the lens axis. Such corner sets are found, for example, in the Vitagraph *Foul Play* of 1907 (Figure 4.26). Once characters act for large parts of the scene near the ten-foot line, the film stage cuts out of an interior space a narrow-based trapezium, leaving most of the walls invisible; these rooms are thus freed from the kinds of demands of plausibility associated with any theatrical chamber set. In a film like the Vitagraph *Daisies* (1910), the heroine's student lodging at Vassar has a most unlikely re-entrant corner immediately opposite the camera (Figure 4.27), and in the same company's *Wig Wag* of 1911, a room has a corner of considerably less than ninety degrees (Figure 4.28); such free sets are characteristic of filmmaking in short films in the early 1910s, when many rooms are only seen in a single framing that omits most of the space of the room, and most of the walls. A slightly different form of the same freedom from constraint in set construction is found in the features of Léonce Perret, e.g., *L'Enfant de Paris* (Child of Paris, 1913) — see the illustrations below — and *Le Roman d'un mousse* (The Story of a Cabin Boy, 1914), where big rooms, often in wealthy homes, are created by raising rear lobbies up flights of steps, and arranging furnishings in groups, each separately lit, often with practical arcs in light fittings on the set, the darkness swathing much of the



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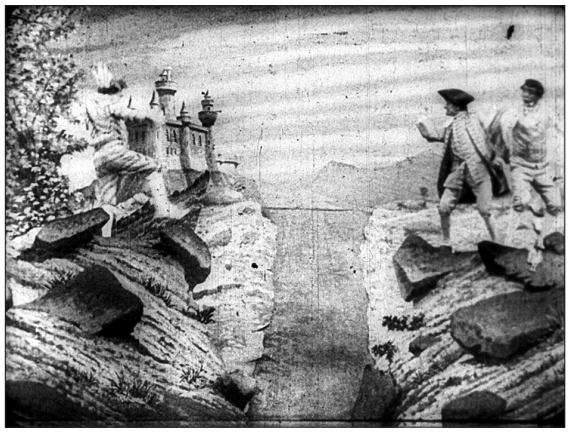

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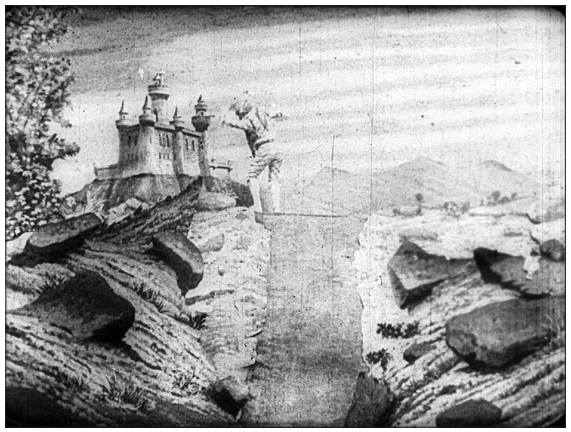

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rest of the space concealing its rather perfunctory character.

A further consequence of the closer approach of the camera is a change in the way certain perspective effects are achieved. In the Pathé *féerie La Légende de Polichinelle* (The Legend of Mr. Punch, 1907), in a scene where Polichinelle, pursued by the staff of the toy store whence he has escaped, runs off into the distance, the actor representing him (Max Linder) runs into scene front right in front of a painted backdrop of a hill (Figure 4.29). He exits right slightly further back, running up a ramp concealed by a ground row representing the rocky base of the hill (Figure 4.30), then a model version of him re-enters right and runs off left up the slope of the hill, as his pursuers enter front right and point towards the model (Figure 4.31). This is exactly the way the ride of the Valkyries was handled in the Paris Opéra production of *Die Walküre* discussed by Georges Moynet, mentioned above. This theatrical approach to illusory depth persists in a later scene where Polichinelle escapes the same pursuers by running over a bridge across a chasm. The chasm runs from rear to front center, and is in fact a fairly steep slide from the horizon down off bottom of frame, but represents a long canyon, with a castle on one side in the far distance. After he has crossed the bridge and his pursuers have been foiled by its collapse (Figure 4.32), Polichinelle goes to the rear and falls onto the slide, disappearing off the bottom of the picture. As he goes to the rear, his nearly constant height destroys the perspective effect of the distant castle (Figure 4.33).

The unique viewpoint of the cinema allowed a different approach to such illusions. Méliès had already exploited it to produce an expanding human head in *L'Homme à la tête en caoutchouc*, in which a man (Méliès himself) lying on a trolley with only his head visible to camera was pushed up a slope towards that camera, and the resultant picture superimposed on another view of Méliès and a second actor in a constantly framed laboratory in which a decapitated human head is blown up with bellows. This device was adapted in *féeries* such as *Aladin* (1907, see Figure 4.34) and *Le Petit Poucet* (Tom Thumb, 1909) to create giants by running a ramp up the bottom face of the visual pyramid and allowing certain actors to stand further forward than the basic front line; as their feet are on the same level in the frame as the rest of the cast, the larger

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size of their image is interpreted as a larger actual size. Conversely, films like *En avant la musique!* (Forward, Music!, 1907) have characters near the front in medium long shot, framing an empty space revealing far to the rear other characters, who are thus made to appear Lilliputian (Figure 4.35).

Deployed as a more concealed illusion, such kinds of staging led by the end of the 1910s to the characteristic filmic way of combining a flat perspective painting and a three-dimensional arena of action to give an illusion of a much greater space than the action was actually shot in, that is, the glass shot. Here the painting, instead of being a backdrop to the three-dimensional scene, is in front of it, painted on glass relatively close to the camera (as close as sustainable depth of field will allow) and the action is seen through transparent parts of the glass picture. Crude forms of the glass process go back to 1907; glass matte shots, in which the painted scene and the action are combined by superimposition (thus avoiding the depth-of-field problem), were perfected by 1911, and were in regular use in the U.S. by the end of the 1910s.[135] The same kind of effect can be achieved using models. Thus a train crash in *Le Manoir de la peur* (The Manorhouse of Fear, 1927) has the train pass obliquely across the rear from right to left, beginning to curve to the front as it exits; the train then reappears left nearer the front now moving in the opposite direction, and falls from the broken viaduct front right. The train that crossed the rear was a real, full-sized train; the one that crossed the front and crashed was a model much closer to the camera than the real train.[136]

Thus the moving picture camera set very different parameters for the representation of space from those that had governed the stage since the eighteenth century. The theatrical stage was broad at the front and narrow at the rear, and the multiple viewpoints of the audience and the perspectival cheating of the actual stage space hindered movement or immediate interaction of characters parallel to the axis of the stage; the main action occurred at or near the proscenium arch, and was arranged across the stage. The cinematic screen, by contrast, was narrow — barely half the size of even that of a small variety theatre. Given the relatively small size of cinematic screens, staging actions in the cinema in ways closely modeled on those of the theatre was possible only if the theatrical "stage" photographed was very small by the standards of popular nineteenth-century theatre, particularly as defined by those genres (whether sensational melodrama or the costume dramas of Irving and Belasco) that depended upon spectacle. The early cinema solved this problem by moving rapidly away from a theatrical model of stage space and creating new forms where characters were brought forward to a position near the camera in which they were seen as very close to the spectators in an arena only a few feet across. This resulted in a space that was narrow at the front and wide at the back. The monocular viewpoint shared by all the spectators also allowed complex composition in depth. Action could be staged along lines parallel to the lens axis; indeed, it had to be if many characters were to be seen simultaneously without reducing the principals to dwarfish size. Editing also allowed the alternation of such close views with much longer shots in which characters appeared much less than life-size, but natural scenery and monumental architecture could be shown in full, in a way impossible on stage except in the outdoor arenas used for pyrotechnical drama (which could not handle the more intimate scenes, too). This flexibility also made it possible to show humble surroundings where appropriate without absurd discrepancies of scale.

Despite all these differences, the ways filmmakers used their apparatuses to present space for dramatic purposes can be shown to return to and rework stage conventions. By the 1910s, the cinema was technically highly independent of the theatre, but its treatment of space is more profoundly indebted to theatrical models than the editing-based accounts of film history would suggest.

CHAPTER 10 Staging and Editing

Most of the examples discussed here so far have been concerned with space in a scene filmed as a single take, i.e., continuously from either a single position or a continuously moving one. This requires no special justification in many cases, since in the 1910s fiction films largely consist of such scenes linked by relatively elliptical breaks, usually covered by an intertitle; these breaks closely resemble scene changes in a stage play. But in many other cases, devices of a similar kind appear in sequences that consist of shots edited together. Here the theatrical analogy is much less clear-cut. Considerations of the relations between camera and filmed space are not necessarily adequate to deal with questions of cinematic space in a series of shots as opposed to a single one.

The standard modern ways of conceiving this problem derive from one of Kuleshov's experiments. A shot of Aleksandra Khoklova walking down Petrov Street in Moscow was followed in turn by a shot of Leonid Obolensky walking along the embankment of the Moscow River, a shot of them shaking hands on the Boulevard Prechistensk, also in Moscow, and then looking off, and a shot of the White House in Washington.[137] The result is a place that never existed in the real world — a city in which remote Moscow streets are next to one another, and also to a famous building in the United States. Cinematic space thus becomes a matter of the synthesis of a set of views by positing plausible connections between them — connections of action, such as a character walking out of one scene and entering into the next; connections via looks, such as a character looking out of one scene, with the second a view they might plausibly be able to see; and connections via overlapping elements, such as furniture, or body parts seen from different angles and distances in different views, but plausibly posited as identical.

Clearly, theatrical scenes have to be linked in similar ways; the castle has to be the appropriate distance from the forest for characters to move from one to the other in the interval between the scenes implied by the plot. The earliest multiple-shot films related their shots in the same fashion. Most notably, in chase films characters run through succeeding landscapes in a single pursuit, such that the landscapes have to be conceived as more or less, but not necessarily precisely, adjacent to one another. However, the Kuleshovian schema supposes a much closer relationship between the different views than this — a relationship where physical and mental actions in one view have immediate repercussions in the next. The expectation, in this schema, is that each element of the action will be isolated in a shot that is a link in the chain of shots, and that the space will exist solely as an inference from this sequence. The pictorial tradition in the theatre, on the contrary, tries to bring the elements of a causal concatenation together into the single space of a scene, conceived as the simultaneous representation of a situation.

A typical instance of this tendency to unify the space of dramatically important action is provided by the multiple-room set. As we have seen, Percy Fitzgerald criticized such sets in *Jonathan Bradford* because they attempted to occult the real space of the theatre and replace it with an artificial one constituted by the fiction. Hassan El Nouty makes the same point in relation to the first scene of Dumas *père*'s *La Reine Margot* (1847), which shows action simultaneously in two rooms of an inn and the street outside. El Nouty goes on to link this artificial space to the typical space in the Kuleshovian notion of cinema, a space in which the camera is ubiquitous, insofar as it can be placed anywhere, but only in a sequence of shots, not in the simultaneity of a single scene. The multiple-room set in the theatre is thus for El Nouty a false compromise of proto-cinematic theatre. Rather than showing two spaces simultaneously, the scene should alternate between views of each of these spaces in turn, as it does in the cinema.[138] If El Nouty is correct, multiple-room sets would be expected to disappear from the cinematic representation of situations in which the nineteenth-century theatre resorted to them.

Multiple-room sets are, in fact, found quite frequently in films made before 1910 for the representation of simultaneous actions in different but adjacent spaces. In the films produced by the Vitagraph Company of America between 1906 and 1908, such a set is probably the commonest way to represent a character in one room overhearing something in the next, e.g., in *Foul Play* (1907), *Father's Quiet Sunday* (1907), and *Circumstantial Evidence* (1908) (Figure 4.36). However, the alternative of a cut from a view of one space to one of another was possible. By 1908, Vitagraph films regularly use room-to-room cutting for more or less

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simultaneous action in different adjacent spaces, e.g., in *The Boy, the Bust, and the Bath*.

D.W. Griffith at Biograph adopted this method of construction for his interiors. By early 1911, a film like *Three Sisters* has a climactic sequence of 28 shots alternating between three set-ups — long-shot views of three rooms, a kitchen, a hall, and a bedroom, which movements from room to room that coincide with cuts establish as side by side. As Griffith is careful (in interiors) to preserve screen direction — a character who leaves the scene of one shot on the left will enter the scene of the next on the right, and vice versa — and films each space frontally, along a room axis, the total space of the house is like a doll's house, the front wall of the three adjacent rooms being as it were transparent to the camera (Figures 4.37 to 4.40). However, unlike the practicable multiple-room sets of *Jonathan Bradford* or *La Reine Margot*, this doll's house only exists by inference. All the scenes on each set would have been shot together in the Biograph Studio, then that set struck and the set for the next mounted, and so on — the whole house never existed, even in the studio.

Thus far, the standard account would seem to be borne out: a theatrical simultaneity is succeeded by a cinematic fragmentation and linearization. Yet handling strictly simultaneous actions remains a problem. In a relatively early use of room-to-room cutting by Griffith, the 1908 film *An Awful Moment*, at the climax of the alternation between setups around a crucial door a multiple-room set is introduced. The wife of a jailed Black Hand gangster seeks to revenge herself on the judge in the case. She stupefies the judge's wife and ties her to a chair with a shotgun rigged pointing at her, its trigger tied by a cord to the door knob. On his return, the judge, opening the door, will bring about the shooting of his own wife. At the last minute, as the judge is reaching for the door knob, their little daughter unhooks the cord from the knob on the other side of the door. The surviving print of the film (a copyright deposit paper print) is out of order, grouping all scenes on each set together (presumably preserving a shooting order), but the regular appearance and disappearance of coats, hats and parcels makes it possible to reconstruct the likely sequence of these scenes, including an alternation around the

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door as the judge goes towards it looking for his wife. But the shot in which he opens the door, and his daughter takes off the cord, shows both rooms at once, with the door at the center.

In general thereafter Griffith (while by no means abandoning a predilection for suspenseful climaxes produced by infernal machines) avoided situations that demanded such an immediate association of actions in two different rooms; in *A Lonely Villa* (1909) and *The Lonedale Operator* (1911), the final confrontations occur in the rooms in which the heroines have sequestered themselves; in *The Coming of Angelo* and *Fate* (both 1913), the heroes escape the room in which a bomb is planted, and the villain and his son respectively are there when the bomb explodes — the explosion is filmed in the interior in the first case and the exterior in the second. When the simultaneous actions have more duration, as in scenes of eavesdropping or watching others from hiding, Griffith does use alternation between spaces. Thus, in *The Voice of the Child* (1912), when the husband learns his wife is about to elope, he hides round the corner of their house with a gun, intending to shoot the seducer. The seducer drives up, the wife comes down the steps, but before she can get into the car, her little daughter comes running out of the house; unable to desert her, the wife rejects the lover and returns to the house. The seducer drives off, and the husband rejoins his wife. While the husband is in hiding there are a series of identically framed shots of him looking off front left, while his wife, the seducer and the daughter are seen in two views (neither point-of-view shots), by the house door and at the garden gate (Figures 4.41 to 4.44).

The Vitagraph Company devised a different way of handling such situations when they, too, abandoned multiple-room sets around 1909. When Eliza overhears her master selling little Harry and Tom to Haley, in the Vitagraph *Uncle Tom's Cabin*, she is just visible through the double sliding doors at the rear center of the set representing the Shelbys' dining room. There is then a 180-degree cut to a closer (medium-long-shot) view of Eliza listening on the other side of the doors (Figures 4.45 and 4.46). All the principal actors involved in the situation are visible in both shots, but the reversal of the viewpoint brings out the contrast between one group and another. In Griffith's alternation, on the contrary, the simultaneity of the theatrical tableau is replaced by the repetition of different framings in the film sequence.

Alternation remains one of the key ways of emphasizing the simultaneity of differently located actions in the cinema. In a sense this extends the plausible space of the stage picture and obviates such distortions of verisimilitudinous action as the return of characters who have exited simply to be part of the act-end tableau. However, the option of alternation did not spell the end of the multiple-room set in the cinema. On the contrary, the early feature seems to have given it a new life. For a now lost film, *The Hand of Peril* (Paragon for World,

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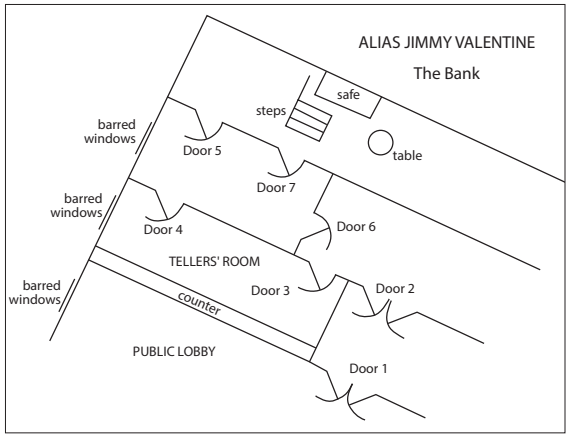
1916), Maurice Tourneur's set designer Ben Carré built a nine-room house set, with all the rooms on one side of a house visible simultaneously or separately.[139] Perhaps even more striking, because it adopts an angle of view impossible in the theatre, is the bank set in the opening sequence of Tourneur's *Alias Jimmy Valentine* (1915). The scene in the bank occurs neither in the 1909 play by Paul Armstrong on which the film is based, nor in the short story by O. Henry, "A Retrieved Reformation," which provided the starting point for the play. The latter begins in the Warden's office at Sing Sing prison with the hero already a prisoner; the short story begins even later with the safe-cracker's arrival in the city in which he decides to go straight. The film starts earlier than either, with the crime for which Lee Randall, alias Jimmy Valentine, is arrested and sent to Sing Sing.

After a credit sequence with a portrait of Lee Randall and a dissolve to Jimmy in convict garb, Randall is seen leaving his office and going to an apartment in a poor quarter, setting his alarm clock and going to sleep. Waking in the small hours, he goes to a rendezvous in waste ground with two accomplices, Red Joclyn and Bill Avery. Outside a bank they meet the fourth member of the gang, Cotton. While Avery stays outside as lookout, the other three men enter the bank by a back-alley basement entrance. So far the film has used a découpage with shots of moderate length simply following the principal actors, usually with somewhat elliptical connections between the shots, and only minimal alternation for the scenes of the two rendezvous. As soon as Valentine, Red and Cotton disappear down the basement trap-door and Avery settles to wait as lookout, the whole of the bank interior is shown in a single bird's-eye view, not from directly above but obliquely, and at an angle to the prevailing direction of the walls (see the plan, Figure 4.47). As this is the double-height ground floor of a bank, the walls we can see the tops of might plausibly be partitions that do not reach all the way to the ceiling, but even so, it looks impossible for a camera actually in a real bank to have such a comprehensive view of all the interior spaces. Throughout the subsequent robbery, this is the only view of the ground-floor bank interior that we get, apart from one final closer view of the tellers' counter.

1 Very high-angle very long shot of the bank interior. The interior is dark, and all the doors through the partitions are closed, except door 1. Valentine, Red, and Cotton enter front center (Figure 4.48). Red periodically consults a plan he carries in one hand, and then advises Valentine of the route.



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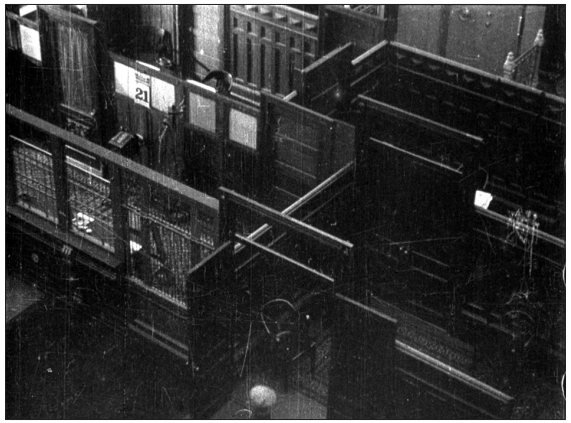
Although the action is quite fast (the whole shot is 79 seconds at 16 frames per second), it is choreographed to produce a series of attitudes, with all the actors freezing when each door in the set is opened, as the thieves wait to be sure no one has seen or heard them.

> After entering, Valentine, Red and Cotton go cautiously through doors 1, 2, and 3, arriving in the tellers' room, separated from the public lobby front left by a series of counter grilles. Pan left as Red goes to the window left and looks out (Figure 4.49). He tells Valentine the route, and Valentine opens door 4, as Cotton watches the way they came through door 3 (Figure 4.50). Valentine goes through door 4 and looks out of the window rear left, Red follows him through, consulting his plan, while Cotton comes to door 4 (Figure 4.51). Valentine opens door 5 (Figure 4.52). Pan right as Valentine, then Red, go through door 5, round and down the steps to the safe rear right, and Cotton goes to door 5 and waits. Red lights a lamp (Figure 4.53).

A small arc concealed behind the partition wall in front of the safe goes on — presumably a dark lantern in the fiction.

> Valentine and Red take off their jackets and start to work on the combination, while Cotton goes back from door 5 through doors 4, 3, and 2, and stands watching at door 1 (Figure 4.54).



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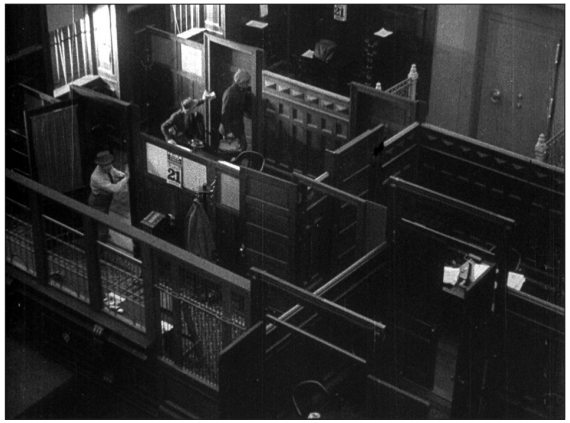

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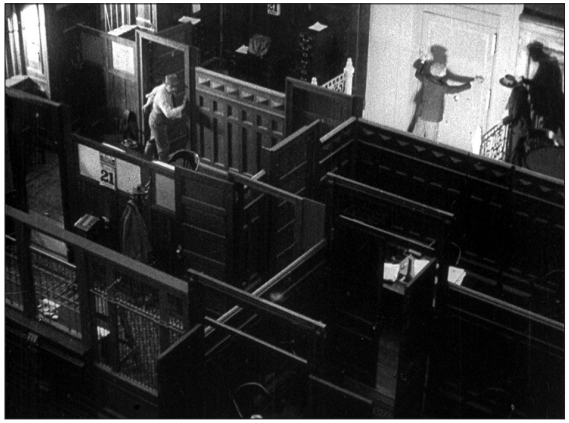

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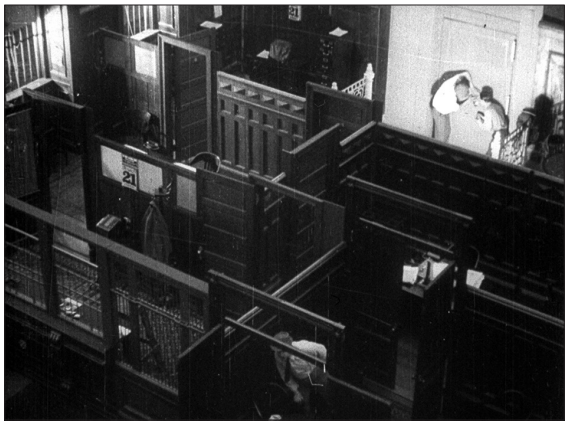

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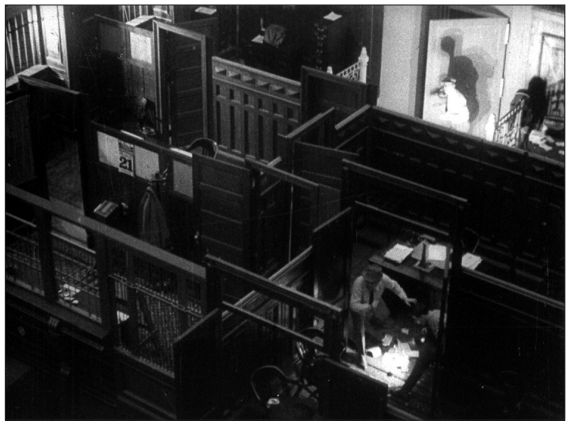

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2 Avery is standing in medium long shot by the trapdoor to the basement entrance, more or less facing camera. He waits.

This cutaway covers the lengthy business of finding the safe combination and opening the safe.

3 As 1. The safe is open; Jimmy is packing some of its contents into a bag, while Red is walking the path to Cotton near the door they entered, carrying a tray of money or jewelry. When Red hands the tray to Cotton, the latter drops it, and all three freeze. (Figure 4.55)
4 The bars of a cage with a dog behind, jumping and barking furiously.
5 As 2. Avery reacts.
6 A room in the bank basement. The nightwatchman is asleep in his chair rear center in medium long shot, his timer key hanging on the wall left. He stirs, and looks slowly off left.
7 As 4. The dog barks.
8 As 1. The three burglars are frozen in the positions of the end of shot 3.
9 As 2. Avery looks off front right in alarm.
10 As 6. The nightwatchman rises, picks up a truncheon from the table left, and exits cautiously front left.
11 Another basement room, with cleaning equipment and an electrical cupboard on the whitewashed wall rear center. The nightwatchman enters right in medium long shot, opens the cupboard and turns a switch. Lights go on off front left. He exits front left with trepidation.
12 As 1, but now lit from above, with the dark lantern out. No one is in sight, and the safe is closed.

The reappearance in shot 12 of the same view of the bank, but with the characters who were frozen to the spot at the end of shot 3 and still in the same positions in shot 8 now nowhere to be seen, obviously creates suspense as to what has become of them, but also draws attention to the highly motivated tableau they constituted during the freeze.

The nightwatchman enters midground right in the room beyond door 2, goes cautiously through doors 6 and 7 to get to the safe, notices nothing amiss, comes through door 5 and looks out of the window left. Valentine and Red come out from inside the safe and tiptoe to door 5. As the nightwatchman comes forward through door 4 into the tellers' room, Cotton steps from behind the door and attacks him, dragging him back through door 4 into the room behind, where they are joined by Jimmy and Red from door 5. The nightwatchman breaks free and draws a gun. Jimmy and Red flee through door 5, closing it behind them, as Cotton runs through door 4 and towards door 3, pursued by the nightwatchman, who shoots but misses. Cotton runs through doors 3 and 6, still pursued by the nightwatchman. Valentine and Red grab their bags from in front of the safe. Cotton and the nightwatchman run through door 4 into the tellers' room, as Valentine and Red come through door 7. Cotton runs through door 3, closing it, and off through doors 2 and 1. As the nightwatchman vainly tries to open door 3, Valentine tiptoes to door 4. The nightwatchman turns, sees him, and aims his gun (Figure 4.56), but Valentine closes and locks door 4. Valentine and Red go through door 6 towards doors 2 and 1 as the nightwatchman, now locked in the tellers' room, starts to front left.
13 View through the tellers' grille as the nightwatchman, in medium shot, puts down his gun, and pulls out and blows a whistle.

After a short sequence showing Avery spotted, pursued and arrested by three policemen, we see the other three re-emerge from the basement trapdoor and run off.

In *An Awful Moment*, the resort to a multiple-room set at the climax might seem almost a matter of desperation, or a lack of confidence in what, to the director, was the relatively novel device of alternation. In *Alias Jimmy Valentine*, however, it is exploited for its spectacular effect, even in a context in which simultaneity via editing is standard. (Compare the cutaways to Avery, the barking dog, and the nightwatchman, followed by the cut back to the frozen burglars.) By showing a complex spatial layout as a whole, the divided set aids the suspense of the tiptoed break-in and the subsequent search by the nightwatchman. It also makes the movements of the characters from space to space comprehensible in a way that would have been extremely difficult if no view exceeded the visible space of a single room. It allows the burglary to be presented as a kind of ballet; this reinforces one of the running themes of the film — crime as a jubilatory exercise of skill. (Indeed, as opposed to the play, which never shows any actual crime, the film's speeches condemning crime never really outweigh its visual celebration of it.) *Alias Jimmy Valentine* here finds a way to represent a situation and a theme in a picture, thus demonstrating an appeal to a theatrical tradition while using a technique, the bird's-eye view, which is virtually unknown in the theatre.[140]

The suspenseful wait while the nightwatchman searches for the criminals is a typical situation, but this does not seem to be the principal motivation for the bird's-eye-view staging. This scene, and everything that follows up to Detective Doyle's discovery of the dropped cufflink that implicates Jimmy in the robbery, is exposition — it can be thought of as an expansion of the opening dissolve between Lee Randall and Jimmy Valentine. As a picture, it has more in common with the beginning of the slave-auction scene in *Uncle Tom's Cabin* than the scene on a rocky pass in these plays and films. It offers a typical view of crime before introducing the particular story of the hero.

While *Alias Jimmy Valentine* harkens back to the theatrical tradition of the multiple-room set in its construction of this pictorial effect, other films of the 1910s utilize the kind of deep space that is specific to the cinematic stage in order to provide all-inclusive framings of the principal actors in key dramatic situations. In many cases, too, this kind of staging is retained even when the films otherwise employ a high degree of editing. An example is the sequence in *L'Enfant de Paris* (Gaumont, 1913) where Captain de Valen attempts to ransom his daughter from her apache kidnappers.

Captain de Valen is reported dead after a Berber attack on his North African fort, and his wife dies of grief soon after, leaving a young orphan, Marie-

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Laure. Marie-Laure is unhappy in her boarding school, and runs away. She is found by an apache gang-leader, Le Bachelier, who discovers who she is from a locket she is wearing, and decides to wait to see if he can turn the find to his advantage. He gives her to be looked after to Tiron, a drunken shoemaker, whose assistant, the young hunchback Le Bosco, befriends her. De Valen turns out to have been captured, not killed; he escapes and returns to Paris, to find his wife dead and his daughter missing. When he advertises for news of Marie-Laure, Le Bachelier sees his chance. He invites the Captain to meet him, advising him to bring his checkbook. The Captain goes to the rendezvous and is led to the back room of a slum bar.

The situation that develops resembles the deadlock in Puff's play in Sheridan's *The Critic*. De Valen is cautious and reluctant to sign a check before securing his daughter's release, while the apaches are determined to maintain control of the girl and secure the money. The deadlock is broken by Le Bachelier violently seizing control of the situation, only to lose the initiative thanks to an external intervention by the police.

The back room of the bar is filmed with the largely glassed partition to the bar at the rear, up a short flight of steps, with the door in the center. Another flight of stairs leads to a door rear right, giving on to the upper floors of the building. The furniture in the room consists of two tables front left and right, with several chairs round the right-hand table, and especially behind it, and two chairs at the table left. The set is lit in a way that emphasises its depth: the moderately lit bar is visible through the partition in the rear, and the front is brightly lit by a single high front arc, with no front fill from below; the middle ground is almost entirely in darkness (a characteristic of the set design and lighting in Perret's films, as noted above).

Le Bachelier and his apache henchmen occupy the front of the scene at the beginning (Figure 4.57). A lookout enters the bar in the rear from the right, and announces de Valen 's arrival through the rear center partition door. As de Valen enters following the lookout and stands in the doorway to accustom himself to the gloom, the apaches scatter and sit at the tables casually drinking, while Le Bachelier goes to greet de Valen rear left (Figure 4.58). De Valen comes forward and is invited to sit front center, as Le Bachelier introduces him to the apaches. De Valen does not sit but draws a revolver. The apaches jump, except for Le Bachelier who laughs and says de Valen will not need it. Finally de Valen agrees to sit down. Le Bachelier asks him to sign a check for 50,000 francs (title). As he gets out his checkbook, Le Bachelier's second-in-command attempts to secure the gun he has laid on the table, but de Valen spots the manoeuvre and grabs the gun. Le Bachelier reproves his henchman and apologizes to de Valen. De Valen signs the check (insert) and hands it to Le Bachelier (Figure 4.59). Le Bachelier leaves, and de Valen settles down to wait, surrounded by the apaches, whose offer of a drink he refuses.

There follows a 27-shot sequence in which Le Bachelier visits Tiron's apartment, Le Bosco helps get Marie-Laure ready, and Le Bachelier takes her away, followed unseen by Le Bosco, who watches them enter the bar and runs for the police. A closer view through the partition to the bar from the back room (i.e., from the same angle as the earlier scene in the back room) shows Le Bachelier, holding Marie Laure, in discussion with his second-in-command (Figure 4.60). The second-in-command comes forward into the lair, closes the door and exits front left (Figure 4.61). In a return to the original framing, he comes to de Valen and indicates the door behind them. It opens, and Le Bachelier holds up Marie-Laure (Figure 4.62). De Valen runs towards her, and the

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second-in-command secures de Valen's revolver from the table, and covers him, ordering him to stop. Le Bachelier enters through the door, and demands a further 50,000 francs (title). De Valen agrees, if he can embrace his daughter (Figure 4.63). He sits at the table and writes the check. Marie-Laure is brought to him, but held by Le Bachelier, who demands he sign. De Valen hesitates, eager to embrace his daughter yet afraid the apaches will spirit her away, creating a tableau (Figure 4.64). Le Bachelier allows him to kiss Marie-Laure, and he signs. Le Bachelier immediately hands Marie-Laure to two henchmen who carry her off right, seizes the check and gives a signal for de Valen to be overpowered, and taken from the room.

In the police raid that follows, in which de Valen is rescued, but Le Bachelier escapes with Marie-Laure, followed only by Le Bosco, the same basic framing is used twice more, at the beginning of the raid, as a look-out announces the arrival of the police, and at the end, as Le Bosco sets out in search of Marie-Laure.

In this scene, the characteristic shape of the cinematic stage is used to emphasize the way the gang menacingly regroup themselves around de Valen, who spends most of the scene sitting or standing

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more or less front center in a long-shot to medium-long-shot framing, while in the wider shadowy space behind, the second-in-command makes first an unsuccessful, then a successful attempt to secure de Valen's revolver, and Le Bachelier, usually close to de Valen and to his right, treats him with oily courtesy, showing complete unconcern at the first appearance of the gun (in marked contrast to everyone else), and acting as de Valen's apparent ally until the very moment that he gives the signal to overpower him. Marie-Laure's appearance gives rise to a true tableau, although, as usual in the cinema, this is brief and well motivated by the action.

Despite the interpolation of three sequences outside the apache lair — the trip to the shoemaker's garret, the carrying of the tied-up de Valen into an attic, and his subsequent rescue by the police, the film insistently returns to the same framing of a deep space, with the principals grouped in the brightly lit area at the front. It is the use of this framing, as well as the distinct tableaux realized by the actors, that constitutes the pictorial organization of this scene, contrasting de Valen's cautious movements with the elaborate machinations of his enemies.

The tendency to maintain the high points of situations in a single scene, often in a complex,

deeply staged set, is further illustrated by a climactic sequence in the 1914 Danish film *Det hemmelighedsfulde X*. The wife of the naval Lieutenant van Houven is courted by a rich foreigner, Count Spinelli, who has persuaded her to give him a photograph of herself, which he promises to return in exchange for a final meeting (or possibly she sends him a photograph in exchange for a promise that he will cease to importune her).[141] War is declared, and van Houven is given command of a naval squadron, with sealed orders as to its course and actions. Spinelli is, in fact, a spy acting for the enemy power. The scene described then follows.

The crucial action here is staged in the film's most complex set, representing the van Houvens' sitting room and the vestibule leading to the front door of their house. The sitting room occupies two floors of the house, while the vestibule is a single-story room opening off it, with van Houven's office above it, access to the office being provided by a gallery over the opening to the vestibule with a balustrade overlooking the sitting room. This set is always filmed from the same side, although various parts of it are isolated in a series of set-ups with a roughly parallel lens axis. In the most inclusive framing, the front right is occupied by a fireplace in a projecting embrasure with a mantelpiece over it. Further back, there is a door in the right-hand wall leading to Fru van Houven's boudoir and the sons' bedroom; beyond this door is a second one leading to stairs that go up to the gallery. Beyond this second door are a pair of French doors leading to the garden, angled across the rear corner of the sitting room. Rear left a few steps lead up to the vestibule, which has a large mirror on its rear wall, tilted forward so that it reflects the vestibule floor. The main house door is off rear left.

At the opening of the sequence, Spinelli is driven to the front gates of the van Houven house, climbs over them and steals up the drive. (Shots are numbered from the beginning of the prints of the film that we have seen.)

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106 The van Houvens' sitting room. Fru van Houven is sitting in an armchair front left in medium long shot. Spinelli enters through the French doors rear right (Figure 4.65), comes forward, puts his overcoat on another chair, and touches her shoulder. She rises and leans against the mantelpiece right, and they argue — she seems to be demanding he leave her alone, he imploring her to continue the affair. As Spinelli becomes insistent, Fru van Houven turns on the lights using a switch by the fireplace (Figure 4.66). They hear someone coming, and she pushes Spinelli front right so that he is hidden by the chimney embrasure, but can see and hear what happens in the room, and remains largely visible to the spectator, though reframing movements of the camera nearly cut him off at times. She tucks the overcoat under a chair cushion as her elder son runs in from the midground right door. She asks what is the matter.

107 Title: *"What do you want, child?" "To pray for papa, who is going off to war."*

108 As 106. She embraces him, they come to front center and the son kneels and prays with his head in his mother's lap, while she glares at Spinelli front right (Figure 4.67).

109 Closer view, same angle as 106. The son's head in Fru van Houven's lap lower left, Fru van Houven looking down at the boy, left, Spinelli right, all in medium shot (Figure 4.68).

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110 Gates of the house as a car with van Houven and other naval officers enters rear right and stops. Van Houven gets down and opens the gates. One of the officers also gets down, shows van Houven his watch and signals with two fingers (presumably "you only have two minutes"), and van Houven exits front right up the drive.

111 As 106, but slightly panned to the right. Van Houven enters through the French doors and greets Fru van Houven and his son; he shows her the briefcase.

112 Title *"We start tonight. Here are the sealed orders."*

113 As 106. He puts the briefcase on the mantelpiece, and exits midground right with his son. Fru van Houven makes sure they are gone, then shows Spinelli out through the French doors, comes back to the door to the bedrooms and exits through it. Spinelli re-enters through the French doors, comes to the fireplace, picks up the briefcase, opens it, takes out the orders and reads.

114 Insert: *Orders for the 2nd squadron. Up anchor at dawn, course South-South-West.*

115 As 106. Spinelli expresses amazement.

A five-shot sequence follows in the sons' bedroom, where Van Houven finds a paper elephant that the children's nurse had cut from a letter from Spinelli to Fru van Houven, the fragmentary text of which seems to imply that she has been unfaithful (insert). Van Houven rejects his wife's offered embrace, to her mystification, and exits; she ponders for a moment, then has a dawning suspicion and follows him off.

121 As 106. Spinelli finishes reading the orders, replaces them in the briefcase, and puts it back on the mantelpiece. He starts for the French doors, but retreats to his hiding place front right as van Houven and his wife enter midground right and quarrel. Van Houven collapses into the front left armchair, his head in his hands, and Fru van Houven demands to see the paper. Spinelli tries to tiptoe to the French doors, thus revealing his continued presence to Fru van Houven, but van Houven lifts his head, and Spinelli is forced back into his hiding place. The officer with the watch enters through the French doors; he kisses Fru van Houven's hand and turns to van Houven, who rises. Turning his back to the officer to hide his discomposure (Figure 4.69), he sees Spinelli front right (Figure 4.70). Spinelli starts to come forward to make some explanation, but van Houven thrusts him back and signals him not to say a word. The officer speaks to van Houven.

122 Title: *"Lieutenant, we must leave, we are very late!"*

123 As 106. Van Houven nods, and the officer exits through the French doors. Van Houven picks up the briefcase from the mantelpiece and walks to the rear. As he passes his wife, he turns to her and accuses her, pointing to Spinelli front right. He seizes her and pushes her towards Spinelli, then exits through the French doors. Fru van Houven staggers to front left staring vacantly off towards camera. Spinelli comes front right to her and says something.

124 Fru van Houven left, Spinelli right, in medium shot from the same angle. She turns to him, he mumbles an apology, goes rear right and exits through the French doors. She comes forward and gazes towards camera again, expressing grief. She turns away to the right, leans on the mantelpiece and buries her head in her arms. After a moment she rises and goes towards the rear.

125 Title (text missing in the prints we have seen).

126 As 106. She picks up Spinelli's coat and exits right toward the bedrooms.

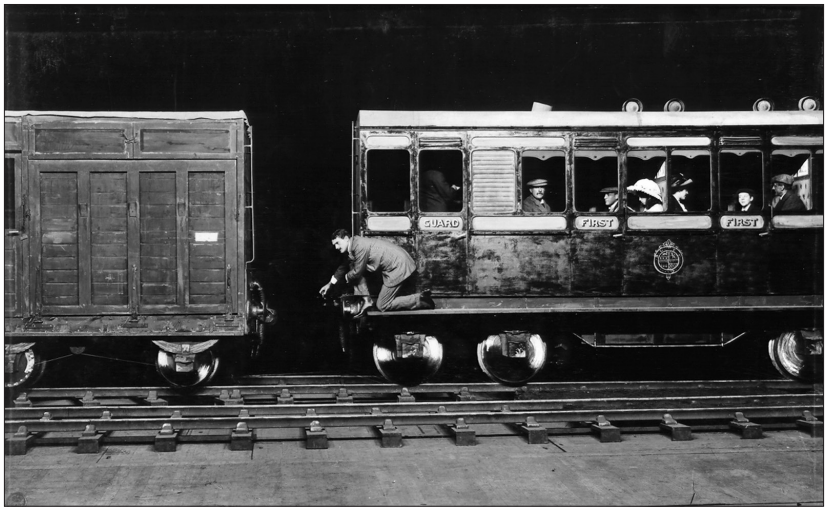
In her dark boudoir, we see her put the coat into a closet; then there is a sequence in which Spinelli walks to the old mill on his estate and sends a pigeon with the news.

This sequence thus sets up the most important situation for the film: Van Houven will not exculpate himself from a charge of espionage after the theft of the orders has been discovered by his superiors, even when condemned to death, because he believes to do so will irredeemably tarnish his wife's reputation and hence his own honor. He is powerless to resolve this situation, and his wife is prevented from solving it by his stubborn insistence on undermining every effort she makes to shift the blame to Spinelli, who cannot be found until the last minute; even when her husband is cleared of the charge through her realizing where Spinelli is, finding him in the middle of a battle, and securing a signed confession, this is not enough to persuade her husband of her fidelity. It is in this scene that the family drama of adultery and the patriotic one of war and espionage are fatefully locked together.

Three spaces are represented here: the gates of the van Houven house, the sons' bedroom, and the sitting room. Whereas in the first two, shots are brief, with simple action, the bulk of the sequence takes place in the sitting room, which is shown in two framings, a long shot showing the whole room, and a medium shot isolating the figures in the front center; ignoring titles and the cutaway

shots and sequences, the sitting room is shown in long shot, in medium shot, in long shot again, in medium shot, and again in long shot. Both long shots and medium shots contain a few reframing pans, but these are slight, and simply ensure that all the significant characters remain in view; they neither isolate some characters from others, nor conceal any character (unlike the reframings in *Das Mädchen ohne Vaterland* and *Die Sumpfblume*). Indeed, the medium shots are used purely as a form of emphasis, since they show exactly the same characters from the same angle as the long shots (unlike the cut-ins to medium shot in the Holbeins' dinner sequence in *Ma l'amor mio non muore!*). Achieving this involves an extreme stretching of verisimilitude. In the long shots and even one of the medium shots, Spinelli has to remain for long periods unseen by one of the other characters in the same shot. In the long shots, when he is hiding front right Spinelli is framed from the knees up, and the front playing space is six feet across (i.e., he is less than twelve feet from the lens, assuming a two-inch lens is being used); both the van Houvens' elder son and van Houven himself come to front center and stay there for long periods, unaware of his existence only two feet away from them. The narrative action could have been much more plausibly handled by having him hide in a closet or outside a door front right (or indeed anywhere else adjoining the sitting room), with cutaways to indicate his seeing and hearing what was necessary for him to secure the sealed orders. Christensen, however, sacrifices verisimilitude in order to bring the elements of the situation, the characters linked together and isolated from one another by partial knowledge and misconceptions, into the same frame.

These examples show that the emergence of much more highly edited scenes in feature films in the 1910s in both Europe and America by no means displaced a situational emphasis on the co-presence in space and time of significantly contrasted characters in the interests of some notion of cinematic ubiquity. Indeed, rapid editing and even alternation, the device that has been taken as typical of that cinematic ubiquity, have another function in the 1910s that we have already remarked on in relation to the World version of *Uncle Tom's Cabin* — the use of flurries of shots, often with contrasting scales and angles, to orchestrate a situation, notably in that film's presentation of the canonical scene on a rocky pass, and the newly invented sequence of the trip up the Red River to Legree's plantation. The same principle can be seen at work even more starkly in *The Whip*.



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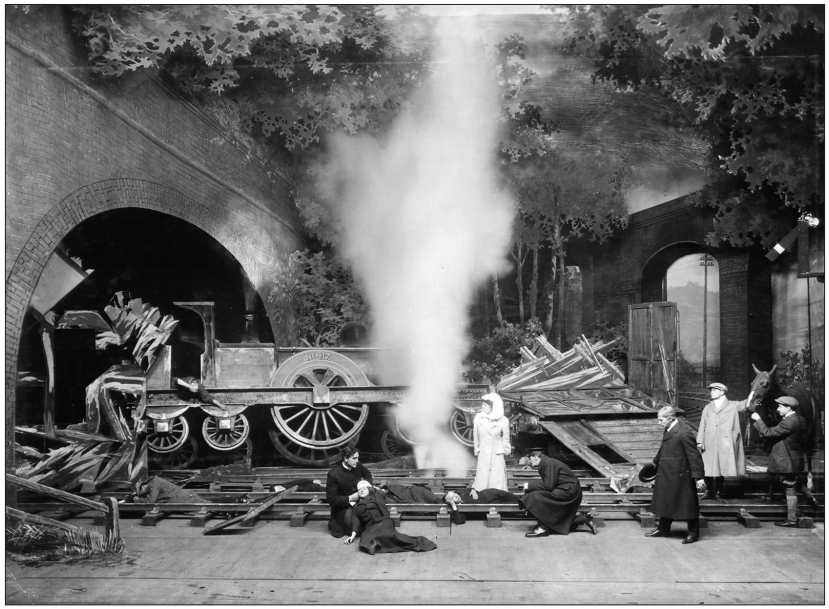
This Drury Lane autumn melodrama, written by Cecil Raleigh and Henry Hamilton and first produced 9 September 1909 at Drury Lane by Arthur Collins with sets by Henry Emden, R. McCleery, and Bruce Smith, and then, with the same sets, at the Manhattan Opera House, New York, on 16 December 1912, has many sensation scenes, but the most sensational was probably the train crash that ends Act 3. In the play, the villains, Captain Greville Sartorys and Mrs. D'Aquila, depend on the Marquis of Beverley's horse The Whip losing in the Two Thousand Guineas at Newmarket. Knowing that the horse is to travel in a car attached to the local train at Falconhurst station, then to be unhitched at Manston junction and attached to the express to Newmarket, they plan to slip the horsebox earlier, near the mouth of Falconhurst tunnel, so that it will be destroyed by the oncoming express. Their plans are overheard by the horse's trainer, Tom Lambert, in Madame Tussaud's, but before he can warn Beverley, he is locked into the Chamber of Horrors in the waxworks show for the weekend. By the time he is able to reach a telephone and call Beverley, The Whip is already in the horsebox and Sartorys on the train. Mrs Beamish, a widowed relative of Beverley's who is the companion of his granddaughter Diana (and the object of Lambert's persistent suit), sets off in an automobile to ride after the train.

A first spectacular staging, using a panoramic backdrop, enables the train's trip from the station to the tunnel to be shown, with Sartorys coming out of his compartment while the train is in the tunnel, inching along the running board and uncoupling the horsebox (Figure 4.71). The local then disappears off stage right, while the horsebox comes to



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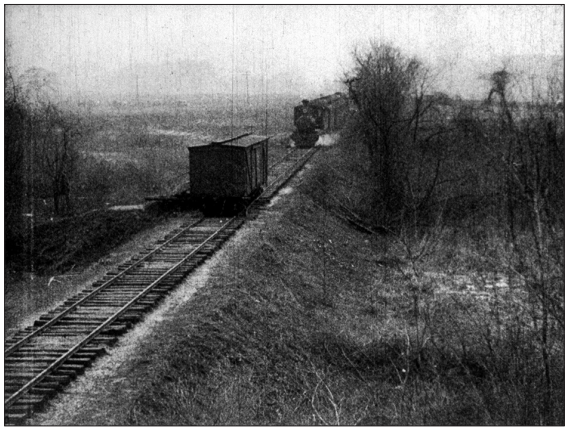
rest in the mouth of the tunnel. As the express is heard approaching through the tunnel from the left, Mrs. Beamish arrives in her car, knocks on the box, waking the jockey Harry Anson who is traveling with the horse, and together they manage to get The Whip out of the box. The express emerges from the tunnel and crashes into the box, smashing it to pieces; the locomotive is derailed, falling back from the tracks in a huge cloud of steam, and injured passengers are strewn all over the forestage. As Mrs Beamish's car arrives, the script indicates, "when motor horn sounds, train music, sections I, II, & IV when train smashes." The curtain falls, then rises again to show Vernon Haslam, the drunken curate whom Sartorys had blackmailed into abetting his plans, redeeming himself by heroically attending to injured passengers while himself wounded in the crash (Figure 4.72).

It is sensation scenes such as this that have led commentators like Vardac to argue that nineteenth-century spectacular theatre is essentially anti-theatrical, and that the cinema was a far more appropriate medium for them. An illusionistic representation of an event like a train crash might seem next to impossible on stage, whereas a real train crash could be photographed with a moving-picture camera and projected in a movie house, its illusionistic effect guaranteed by the photographic instrument used to record and reproduce it. When *The Whip* was made into a film by Maurice Tourneur's Paragon company in 1917, the filmmakers did indeed photograph a real train crash for the scene, but before discussing that moment, and how it works in the film as a whole, it is necessary to indicate some significant changes in the story introduced in the adaptation of the play by Charles Everard Whitaker. First, the scene of the action is moved to the United States, with Lord Beverley becoming a Long Island judge, Madame Tussaud's the New York Eden Musée, Newmarket Saratoga Springs, and only the villains remaining a European aristocrat and *demi-mondaine*. More important for the train-crash scene, the adaptation eliminates Tom Lambert and Mrs Beamish, the traditional comic man and comic woman of nineteenth-century melodrama, and assigns most of their action to the romantic hero and heroine, Hubert Brancaster and Diana Beverley. Thus, it is Diana who overhears Sartoris (spelt with an "i" in the film's intertitles) and Mrs. D'Aquila plotting the crash in the Eden Musée and is then locked in for the weekend; and she calls Brancaster rather than her father when she manages to get to a telephone, so he drives to the rescue of The Whip.

The photographic record of the train crash itself consists of four relatively short shots in a five-shot segment (the fifth is a cutaway reaction shot). All four are in very-long-shot framing, from relatively high positions beside the tracks. The part of those tracks where the horsebox comes to rest after it is slipped from the train is on an embankment in fairly open country, not a tunnel mouth, as in the play. The sequence is as follows:

1. Slight high-angle very long shot. The tracks cross the field of view from rear right to front left, with the horsebox midground center. As the shot begins, the train is steaming in from the rear right (Figure 4.73). The locomotive hits the horsebox, pushes it to front left, and begins to fall forward off the embankment to the front right (Figure 4.74).
2. Slight high-angle very long shot from further to the right (Figure 4.75). Very precise matching of the position of the locomotive at the end of shot 1. Pan left as the locomotive and its tender fall towards front center.
3. Medium long shot. Brancaster facing camera, with a telegraph pole behind him, and a background cornfield. He gazes off front right, expresses horror (Figure 4.76), covers his face with his hands, turns, and buries hands and face in the pole.
4. Slight high-angle very long shot, from the other side of the tracks. Pan right across derailed but upright carriages past a steam-filled gap where the locomotive has fallen off the embankment to the rear to the remains of the horsebox right. The pan reverses as the steam begins to disperse (this shot and the next



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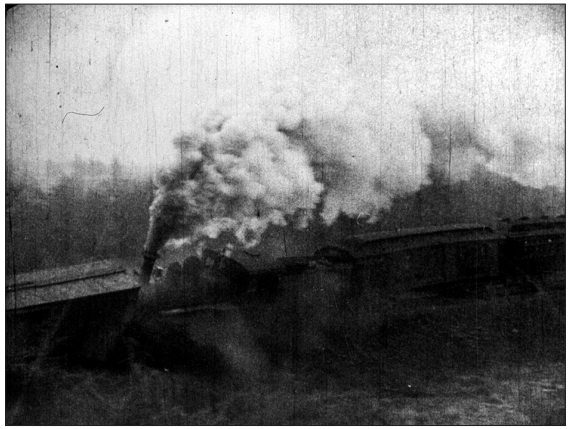

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could not be illustrated because of the quality of the print and the nature of the shot).

5 Slight high-angle very long shot. The shot, rather short in this print, is so steam-filled that the precise position of the camera is impossible to determine; it shows billowing steam and smoke in front of vaguely visible wreckage. Fade out.

It is clear that the filmmakers crashed a real locomotive and carriages (presumably condemned machines bought as scrap) into a horsebox and filmed the crash simultaneously from at least three positions (though the third shot of the crash might possibly have been filmed with one of the cameras brought over from the other side of the tracks while the wreckage was still steaming). It is possible, given the obviously corrupt state of the surviving print in the Library of Congress American Film Institute collection, that there were once more shots of the crash, but it seems unlikely that they would have been able to do much more than redundantly repeat the content of these. No more action is needed once the crash has occurred (the adaptation has also eliminated Vernon Haslam, so scenes of the succor of the injured would have no narrative function). It therefore seems unlikely that the sequence was much prolonged in time. Closer camera positions would have been visible in the very long shots, and too dangerously close to the train as it tumbled down the embankment to have been risked.[142] The sequence thus reveals the difficulties of making a sensation scene by simply recording a spectacular event with a moving-picture camera. The actual collision of a train with an obstacle on the track takes very little time, and can only be rendered with intelligibility (not to speak of safety) if shot from a distance that turns the locomotive and its surroundings into toys. The moment is a sensational one, nonetheless, but its sensational character is rendered not by photography but by resort to alternation.

On stage the train crash as a narrative action occupies two (perhaps really three) scenes — Act 3, scene 4, the morning room at Falconhurst, and scene 5, Falconhurst station, leading (via the panoramic backcloth, after a curtain as the train leaves the station) to Falconhurst tunnel and its mouth (described in the script as separate "tableaux" within the same scene). Lambert's rescue from the Chamber of Horrors and conveyance of the news of the conspiracy against The Whip is handled at long distance, on the telephone, and Mrs Beamish's drive to the tunnel entrance occurs off, while the audience sees Sartorys's activity on the local train. In fact, there is a temporal overlap, with the scene in the morning room occupying the same diegetic time as the first part of the scene at the station. Scene 4 ends with a train whistle off, and Lord Beverley proclaiming, "Hark! The train has started." The same whistle occurs just before the curtain in scene 5.[143] In the Library of Congress print of the film, the same action occupies more than one hundred shots (including intertitles). It is not uncommon for the cutting rate of surviving prints of films from this era to have been raised by increasing alternation — cutting two scenes in half and putting the first half

of the second before the second half of the first, thus making four scenes out of two; this print has certainly undergone re-editing by a distributor or collector at some point, and some of the shots in this sequence in it look suspiciously like the same footage reprinted. Nevertheless, there can be no doubt that there were always a relatively large number of shots in the sequence. The play's two sites of action, Falconhurst house and the train, become multiple in the film: Falconhurst station, the Chamber of Horrors and an office at the Eden Musée, Brancaster's home, the hotel where he is staying, Sartoris's compartment on the train, the horse box, the exterior of the moving train as Sartoris slips the box, Brancaster's car as it races with the express to reach the stationary horsebox, the crash site. The Whip is loaded into the box and Sartoris boards the local; then Diana and Myrtle Anson (who is trapped in the Musée with her) succeed in attracting the attention of a watchman, are taken to his office, and call Brancaster's home. His butler answers, telling them that Brancaster is staying at Hollybush Inn. Diana calls the inn, and speaks to Brancaster. This alternation has several brief cutaways to a speeding train (it is never quite clear which train, the local or the express). Brancaster hangs up and goes to his car, as Diana and Myrtle embrace in relief. Sartoris climbs to the roof of the train, crawls to the end of the last carriage, climbs down and uncouples the box; the sequence has a cutaway to Brancaster driving furiously, before we see the box come to a stop on the embankment, and Sartoris returns to his compartment. There follows a title — "The Saratoga Express"— and an alternation between shots of a train speeding along, and of Brancaster driving furiously, the two finally appearing in the same shot, as Brancaster stops at a level crossing to let the train past. A series of shots shows the car drawing ahead of the train. Then we see Anson asleep in the box and the box on its embankment, then Brancaster arriving by the box. He climbs to it, pounds on the door, Anson wakes and they get The Whip out. There follow the five shots of the crash already described.

We have no doubt that the simple presentation of the crash on a stage, by virtue of its relative closeness to the audience and its large scale, the continuity of space achieved in the tunnel sequence of the unhitching of the car, and the mere feat of having an event like a train crash occur on the stage of a theatre, was far more spectacular than the four shots of a real train crash in the film. The climactic sense of the train crash as a situation in the film is assured not primarily by the reality of the photographed crash, but by its orchestration through alternation. And this alternation is not really a filmic method of representing space and time à la Kuleshov — in some elements of the alternation, like the first shots of a train, we do not even know which train this is, and in many others the supposed location is quite indeterminate, so the shots provide the spectator with no new spatio-temporal information — but rather a cinematic equivalent of the music that underscored the stage presentation of the crash; such music would, of course, also have been present during screenings of the film, so the editing is not a substitute for it, but rather a supplement to it — an essentially "non-realistic" means of emotionally underscoring a crucial narrative situation.

The same principle is at work in the film's version of another of the sensation scenes in the play — not one involving a physically hyperbolic event like the train crash, but an extreme dramatic situation. This is the hunt breakfast scene (Act 2, scene 3).

Diana Beverley, Lord Beverley's granddaughter, nurses back to health a neighbor, Hubert, Earl of Brancaster, after a car crash that has destroyed his short-term memory. Brancaster has hitherto been ostracized by local society for his dissolute life-style; in particular, because he has been living with a notorious divorcée, Mrs. D'Aquila. Mrs. D'Aquila had nearly succeeded in persuading Brancaster to marry her; he had gone so far as to fill out a marriage license, but had then refused to go through with the ceremony on learning of one of her divorces. Immediately after the crash, when there seems a good chance Brancaster will die, and the doctor says that if he recovers he will suffer from memory loss, Sartorys, who desperately needs money to cover gambling debts and has been rejected by the heiress Diana, points out to Mrs. D'Aquila that if they can forge an entry in a marriage register, no one, not even Brancaster, will be able to claim that the marriage has not taken place. He knows of Vernon Haslam's secret past, and offers to use this knowledge to blackmail Haslam into allowing the entry to be made in his register. After his recovery, Brancaster falls in love with Diana and rejects Mrs. D'Aquila and his whole former lifestyle. He is welcomed back into local society, and his recovery is celebrated at a hunt breakfast, during which he is offered the position of Master of the Beverley Hunt, but refuses it on health and other grounds, and instead, to great acclaim, suggests the honor go to Diana. Lord Beverley proposes a toast:

> MARQUIS: *(Rising)* Gentlemen, the hounds wait! It's time for a stirrup cup. Fill your glasses. I give you a toast.
> *(Shouts of "The Whip! the Whip! Lady Di!")*
> Yes, the Whip and Lady Di — and not only the Whip and my dear Di — for the Whip may soon have a new handle to its name. *(General murmur)* Falconhurst and the Rievers may be bound by a new thong. On a day like this it's a great pleasure to ask you to drink not only to your new Whip, to my grandchild Di, but to the future —
> FOOTMAN: *(at door R.)* Lady Brancaster!
> *(Sensation. Some rise. All turn to R. Haslam rises and takes a step towards Sartorys. Enter Mrs. D'Aquila, who comes down slowly R.)*
> MARQUIS: Madam!
> MRS. D'AQUILA: Lord Beverley, pray forgive this — er — intrusion. Certain rumours having reached my ears, I had come to ask for a private interview with a view to obviating a public scandal. But happily — or unhappily — I have just heard the words that have

> fallen from your lips. Therefore, though I regret the pain that I may cause, it is due to myself that I should speak here, as publicly as you have spoken, and say that — I am Lord Brancaster's wife.

As noted above, the Hall at Falconhurst is a two-wall set, with the breakfast table near the rear left corner (as usual, directions here are given in film terms, i.e., from the viewpoint of the audience or the camera, except in quotations from the script, which uses stage conventions), parallel to the long axis of the room, and at an acute angle with the front of the stage; it is essentially viewed by the audience from its long side. Behind it, rear center right, a flight of stairs rises to a landing. There is a grand doorway front left. (The New York set is for a smaller stage than Drury Lane's and therefore less elaborate, but the essential dispositions are the same.) The footman enters from the doorway front left, followed by Mrs. D'Aquila.[144] She pauses as all rise and look at her, then moves to front center-left (where she is in all the photographs of the scene that we have seen) for the confrontation with Beverley and Brancaster, which ends when Haslam reluctantly perjures himself by confirming the truth of the marriage, Beverley orders Brancaster from the house, Diana collapses in Beverley's arms, and the principals form a line: Mrs. D'Aquila — Brancaster — Beverley — Diana — Haslam — Sartorys, with the guests grouped behind them (Figure 4.77, from the London production); the curtain falls (the stage direction reads "*pictures*," implying several curtains with variations on this arrangement for each call).

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Mrs. D'Aquila's entrance here recalls the example of the dramatic entrance at the top of the stairs adduced by John Emerson and Anita Loos as most appropriately representable in film by a tableau (see p. 29 above). The film version of *The Whip* does fulfill that prescription to some degree, though by no means simply. The dramatic intensity of the situation, however, is marked by suspense rather than, as in the stage version, by surprise.

Although a relatively wide range of camera angles is used, the inclusive ones that really display the space of the hall are along its long axis. The stairs down to the hall are placed on the short rather than the long wall, and the long breakfast table has its short side facing the stairs, which are in the rear of these inclusive shots. The long wall of the hall to the left of the stairs (seen in only one framing and three shots) has large windows in it; the opposite side has two fireplaces (they are never seen in the same shot, so they may possibly be one — but if so, camera angles and directions of glance are considerably cheated to bring characters standing at the fireplace closer to the stairs in some parts of the scene than they are at others). The sequence begins with a very long shot parallel to the axis of the room, but to the right of the table and stairs, which are more or less in that axis (Figure 4.78 — compare Figure 4.77). Four shots from this setup showing preparations for the breakfast, and culminating with Beverley informally telling some of the guests

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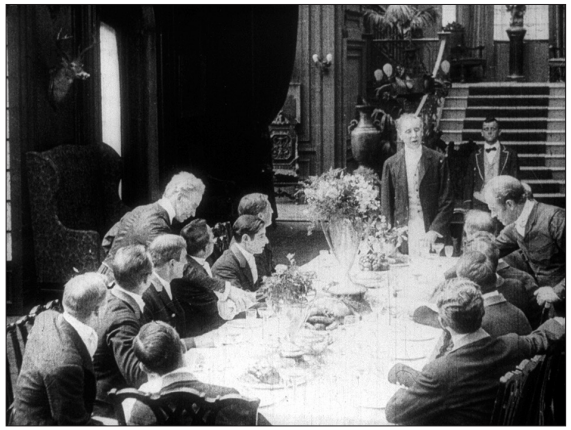

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about the impending engagement (intertitle), are intercut with a series of shots of Brancaster dressing for the breakfast and reading a letter from his bankers about a check drawn on his account to the bookie Kelly that he evidently cannot remember having signed, and two shots of Mrs. D'Aquila getting into a car and being driven through the countryside in it. A closer (but still long-shot) framing of the table down its axis towards the stairs (Figure 4.79) alternates with a set of detailed views, some from the stairs end of the table, showing speeches made by guests and Beverley, and Brancaster's, then Diana's entrances, the former down the stairs from rear left, the latter from a door at the hall level rear right. Diana is declared Mistress of the Hunt. Then follows the sequence of Mrs. D'Aquila's entrance (shots are numbered from the title that begins the Hunt Breakfast sequence):

35 Sartoris in medium long shot leaning against the mantelpiece. He reaches for his fob watch, looking anxiously off left (Figure 4.80).

36 A dark hallway to an outside door with steps leading down to a stationary car rear center facing right. A servant is holding the car's rear door open (Figure 4.81). Mrs. D'Aquila, in long shot, gets down and comes forward through the door front center as the car drives off right.

37 As 35. Sartoris looks anxiously at his watch (Figure 4.82).

38 Very long shot parallel to the axis of the hall. The table is front left, the stairs go up rear left, and the doorway through which Diana entered is visible rear right (Figure 4.83). Beverley leads Diana's companions from the rear to front center down the right side of the table, and proposes a toast to Brancaster and Diana. Brancaster and Diana enter front left. As the toast is drunk, a servant enters rear right on the landing, followed by Mrs. D'Aquila.

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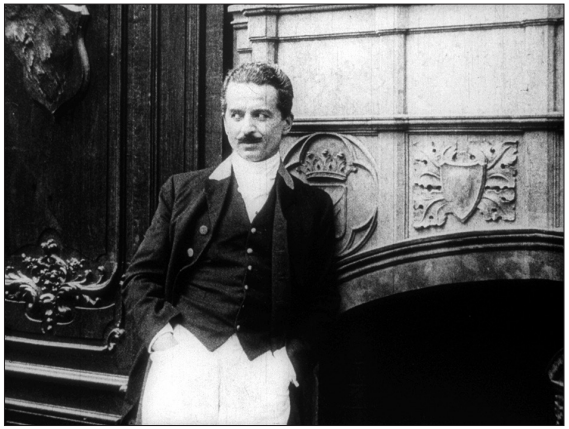

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39 Title, decorated with a drawing of a spider's web with Mrs. D'Aquila's face at its center: *The uninvited guest*. (Figure 4.84)

40 The landing with the stairs descending off front left. Mrs. D'Aquila, in long shot, is entering from the rear right, richly dressed and carrying a parasol. She stands at the top of the stairs and looks down off left with an insolent expression on her face (Figure 4.85).

41 The guests at the table turn and look off front center in long shot (Figure 4.86).

42 As 40 (Figure 4.87).

43 As 35. Sartoris smiles sardonically (Figure 4.88).

44 As 38. Mrs. D'Aquila stands at the top of the stairs, a servant next to her, and everyone else gazes up towards her, their backs to camera (Figure 4.89).

In the framing of shot 40, Mrs. D'Aquila starts to come down the stairs. Another reverse angle shows Brancaster and Diana approaching the stairs from the left side of the hall, then follows a closer view of Mrs. D'Aquila as she speaks. Title: *"I see I am in time to stop rumors about Mr. Brancaster's future. We are to be married shortly."*

A series of shots isolate characters or pairs of characters more or less in medium long shot as Mrs. D'Aquila presents Beverley with the license, Brancaster is helpless to deny its genuineness, Sartoris corroborates it as a witness (replacing Haslam, who has been eliminated from the film version), Diana runs from Brancaster to fall into Beverley's arms, and Beverley points up the stairs and shouts at Brancaster (title): *"Get out of my house!"* Brancaster tries to appeal to Diana and then exits up the stairs in a similar shot. The final

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shot of the sequence is a return to the opening very-long-shot framing, as the guests gathered at the foot of the stairs watch Brancaster, followed by Mrs. D'Aquila, go up the stairs to the rear center (Figure 4.90).

There is thus one very long shot (44) on Mrs. D'Aquila's entrance, more or less in the middle of the sequence, in which, as in the stage version, all the guests turn and look as she stands and surveys them. This is not, however, the first shot of Mrs. D'Aquila in the sequence, or even in the hall itself. The alternation of shots of her trip to Falconhurst and shots of an anxious Sartoris anticipates her arrival, and she is shown arriving at the top of the stairs in the very-long-shot framing. Then there is an introductory title and a reverse-angle sequence of her on the stairs and the staring guests, before the overall "tableau" view is produced (difficulties with the timing of titles and the ways the dialogue in them can be attributed to characters presumably prompted the filmmakers not to attempt the stage version's substitution of the footman's "Mrs Brancaster" for the same words in Beverley's speech). As in the train-crash scene, cutting is used, here not alternation between significantly remote sites within a complex arena of action, but fragmentation of a single room space into less inclusive framings from a variety of angles, what is usually called "scene dissection." The editing does not establish a synthetic space — what could have been truly synthetic in it, such as the two fireplaces that might be one, is unsuccessful insofar as it remains spatially ambiguous — but stands in for, or more precisely, supplements, the frozen moment of the tableau of surprise as Mrs D'Aquila enters to assume the position of Brancaster's rightful wife.

In these examples we see a range of dramatic situations — from the epitomizing view of crime in the opening of *Alias Jimmy Valentine*, to the misunderstandings and emotional impasses produced by the interventions of the villain in *Det hemmelighedsfulde X* and the hunt breakfast scene in *The Whip*, to the deadlock produced by the threat of violence in *L'Enfant de Paris*, to the more purely spectacular train crash of *The Whip*. While a variety of strategies for staging these scenes are also employed, significant and often contrasting elements are brought together in a unified picture, not simply through the use of tableaux by the actors, but more generally through the framing of the scene. In *Alias Jimmy Valentine* this is achieved through the use of the bird's eye view, while in *L'Enfant de Paris* and *Det hemmelighedsfulde X* deep staging is utilised. These options are "specific" to the cinematic stage, in the sense that they exploit the distinctive shape of the playing area in the cinema — narrow in front and wide at the back, as opposed to the playing space of the theatre which was narrow at the back and wide at the front — and depend on complex uses of depth made possible by the camera's single viewpoint on the action — as opposed to the theatre in which such blocking options are restricted by the fact that it must accommodate spectators in many viewing positions. But nonetheless the relation between situation and picture established in the theatrical tradition remains in evidence. This is so even in the case of highly edited scenes like those in *The Whip*, where alternation serves to augment the spectacular effect of the train crash, and scene dissection to elaborate upon the dramatic revelation and tableau of the hunt breakfast scene. This demonstrates the importance of spectacular theatre as a model for the utilization of new cinematic devices. The development of cinematic staging and editing in the 1910s were not attempts to lay the basis for a specifically cinematic approach to narration, but the pursuit of goals well-established in nineteenth-century theatre with new means that imposed a different approach to represented space.

Notes to Part Four

1 *Changeable Scenery, Its Origin and Development in the British Theatre* (London: Faber & Faber, 1952), 249.
2 Ibid.
3 See Pierre Sonrel, *Traité de scénographie, évolution du matériel scénique, inventaire et mise en œuvre du matériel scénique actuel, technique de l'établissement des décors, perspective théâtrale, autres scènes en usage* (Paris: O. Lieutier, 1943), 76–8; and Christopher Baugh, *Garrick and Loutherbourg* (Cambridge: Chadwick-Healey in association with the Consortium for Drama and Media in Higher Education, 1990), slide 29: "The Cavern at Castleton or Peak's Hole, sections of scene model for *The Wonders of Derbyshire*, Drury Lane Theatre January 1779," and the commentary on pp. 74–6.
4 See, for example, Sybil Rosenfeld, *A Short History of Scene Design in Great Britain* (Oxford: Blackwell, 1973), 111–15.
5 Chion, "Quiet Revolution," 71–2; see ch. 1, p. 6 above.
6 *An Actor Prepares*, trans. Elizabeth Reynolds Hapgood (New York: Theatre Arts, 1936), 173; cit. Denis Bablet, *Esthétique générale du décor du théâtre de 1870 à 1914* (Paris: Éditions du Centre National de la Recherche Scientifique, 1965), 114. The idea became a naturalist truism, expressed more pithily by Frank Napier in *Curtains for Stage Settings: A Practical Guide to Their Use with the Necessary Adjuncts* (London: F. Muller, 1937), 9 (cit. Southern, *Changeable Scenery*, 99), as "The fundamental purpose of scenery is to help the actor and nothing else."
7 *An Actor Prepares*, 171.
8 Baugh, *Garrick and Loutherberg*, 10.
9 Allardyce Nicoll, *The Development of the Theatre, A Study of Theatrical Art from the Beginnings to the Present Day*, 5th rev. ed. (New York: Harcourt Brace Jovanovich, 1966), ch. 7.
10 *Principles of Comedy and Dramatic Effect*, 28–31.
11 Booth, *Victorian Spectacular Theatre*, 11. Compare Rosenfeld, *Scene Design*, 116: "The logical conclusion of a picture stage was reached by the Haymarket in 1880, when the forestage was abolished and the proscenium surrounded by a gilded frame." The Bancrofts' innovation had already been discussed by Richard Southern in "The Picture Frame Proscenium of 1880," *Theatre Notebook* 5 (Apr. 1951): 59–61. It is also noted by Martin Meisel, *Realizations*, 44.
12 Nicoll, *Development of the Theatre*, 201–2. Wagner took the phrase from a letter of 26 Nov. 1865 from the architect of his projected Munich theatre, Gottfried Semper. See Carlson, *German Stage*, 182.
13 Fitzgerald, *World behind the Scenes*, 20–1.
14 Ibid., 10.
15 Ibid., 37–8. For the set in *Jonathan Bradford* and the playtext of the scene there enacted, see M. St. Clare Byrne, "Early Multiple Settings in England," *Theatre Notebook* 8 (1954): 81–6; and Peter Winn, "Multiple Settings on the Early Nineteenth-Century London Stage," *Theatre Notebook* 35 (1981), 17–24.
16 Fitzgerald, *Principles of Comedy and Dramatic Effect*, 31–2.
17 Francesco Algarotti, *Saggio sopra l'opera in musica* (Livorno: Marco Coltellini, 1763; repr., ed. Annalisa Bini, Lucca: Libreria Musicale Italiana Editrice, 1989), 76: "The actors should necessarily stand beyond the stage opening, within the scenery, far from the spectator's eye; they too should form part of the sweet illusion which governs everything in stage representations." Cit. (in a slightly different translation) Fitzgerald, *World behind the Scenes*, 20.
18 For more detailed accounts and bibliography, see Southern, *Changeable Scenery*, and Sonrel, *Traité*.
19 See Georges Moynet, *La Machinerie théâtrale: trucs et décors* (Paris: Librairie Illustrée, n.d. [1893]), 20–1.
20 Clément Contant and Joseph de Filippi, *Parallèle des principaux théâtres modernes de l'Europe et des machines théâtrales françaises, allemandes et anglaises*, rev. ed. (Paris: Lévy, 1860 (first published 1842); repr. New York: Benjamin Blom, 1968).
21 Salten, "Zu einem Kinodramen, Anmerkungen," 365.
22 See, for the Wagner Opera House, Garrett, Indiana, Julius Cahn, *Official Theatrical Guide* (New York: Publication Office, Empire Theatre), vol. 1 (1896–7), 275, cit. Vardac, *Stage to Screen*, 4–5; for the Weimar Hoftheater, Alexander Weichberger, *Goethe und das Komödienhaus in Weimar 1779–1825: Ein Beitrag zur Theaterbaugeschichte, Theatergeschichtliche Forschungen*, established by Berthold Litzman, ed. Julius Petersen, no. 39 (Leipzig: Leopold Voss, 1928), 48 (Carlson, *German Stage*, 14, gives a width of 30 feet); for the Royal Theatre, Copenhagen, Contant and de Filippi, *Parallèle*, plate 76; for the Neues Schauspielhaus, Berlin, ibid. plate 46; for the Britannia, Hoxton, *The Builder* (25 Sept. 1858), cit. Jim Davis, ed., *The Britannia Diaries 1863–1875: Selections from the Diaries of Frederick C. Wilton* (London: Society for Theatre Research, 1992), 14; for the Drury Lane Theatre, Contant and de Filippi, *Parallèle*, plate 38, and an original plan of Benjamin Wyatt's remodeled Drury Lane in the Victoria & Albert Museum, reproduced in Nicoll, *Development of the Theatre*, figure 202; for the Auditorium, Chicago, Dankmar Adler, "The Chicago Auditorium," *Architectural Record* 1, no. 4 (Apr.–June 1892): 415–34, repr. in William C. Young, ed., *Famous American Playhouses 1716–1899: Documents of American Theatre History* (Chicago: American Library Association, 1973), 1:298; for the Opéra, Paris, Charles Garnier, *Le Théâtre* (Paris: Hachette, 1871), 470, and Edwin O. Sachs and Ernest A. Woodrow, *Modern Opera Houses and Theatres*, 3 volumes (London: Batsford, 1896, 1897, and 1898; repr. New York: Benjamin Blom, 1968), vol. 3, suppl. 1: "Stage Construction," 23.
23 For the *manteau d'Arlequin*, see Sonrel, *Traité*, 128 and Sachs and Woodrow, *Modern Opera Houses*, vol 3, suppl. 1, p. 7, where Herkomer's proscenium is also discussed and illustrated. Rosenfeld, *Scene Design*, 143–4, also mentions Herkomer's innovation: "He proposed a mobile proscenium so that the opening could be made large or small as occasion demanded, but this had already been done by means of sliding panels in the Drury Lane of 1842."
24 Bablet, *Esthétique générale*, 27–8 and figure 5 (the 1892 décor by Philippe Chaperon). Of the 1869 one, by J.-B. Lavastre and Édouard, Désiré, and Joseph Despléchin, Paul de Saint-Victor wrote: "The large size of the opening (*cadre*) is the thing that most harms the effect of the first scene. Who would recognize Faust's mysterious cell in this warehouse full of retorts, alembics and flasks, reminding one of the Physics Hall in the Exposition?" (cit. Charles Reynaud, *Musée rétrospectif de la classe 18, Théâtre, à l'Exposition Universelle Internationale de 1900 à Paris*, report of the committee of installation (Saint-Cloud: Belin Frères, 1903), 123, with an illustration of the setting on p. 124.
25 Urban Gad, *Filmen, dens midler og maal* (Copenhagen: Gyldendalske Boghandel/Nordisk Forlag, 1919), 122.
26 We are indebted to David Mayer for generously giving us a collated version of the script of *The Whip* including this tableau, which is not in the Lord Chamberlain's copy.
27 See also figure 7 in Booth, *Victorian Spectacular Theatre*.
28 Nicoll, *Development of the Theatre*, 180 and figure 206.
29 For the Lyon Comédie, see Sonrel, *Traité*, 95–6, and plate 34; for the Britannia, Hoxton, Jim Davis, ed., *Britannia Diaries*, 14; for the Paris Opéra, Garnier, *Le Théâtre*, 470 and Sachs and Woodrow, *Modern Opera Houses*, vol. 3, suppl. 1, p. 23; for the Weimar Hoftheater, Weichberger, *Goethe*, 48; for the Munich Künstlertheater, Sonrel, *Traité*, 101 and plate 39.
30 See Southern, *Changeable Scenery*, 57–81.
31 Sonrel, *Traité*, 97 and 129 n1.
32 Allardyce Nicoll's statement (*Development of the Theatre*, 159) that the forestage "finally departed during the Victorian era" should not be taken to imply that it was moribund long before the end of the century. Marvin Carlson, in "*Hernani*'s Revolt from the Tradition of French Stage Composition," *Theatre Survey* 13, no., 1 (May 1972): 1–27, and "French Stage Composition from Hugo to Zola," argues on the basis of an extensive study of *livrets de*

mise en scène (semi-published or archived accounts of the staging and blocking of plays rather than the hand-annotated stage manager's promptbooks familiar in the study of English and American theatre), that, between 1830 and 1880, there was a steady evolution from stagings dominated by lining up principal characters across front center to a free deployment of all the depth of the stage. We have already indicated our scepticism of such evolutionism, and believe that (apart from a few passing remarks about lighting), Carlson ignores the pressures that continued to drive the action to the front of the stage throughout the nineteenth century. In particular, his reconstructed plans of sets take no account of the perspectival stage, and thus exaggerate the depth; compare them with Sonrel's extraordinarily shallow plans, which do.

33 The plates in the *Encyclopédie* are most easily available in Denis Diderot and Jean le Rond d'Alembert, eds., *Theatre Architecture and Stage Machines, Engravings from the Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers* (New York: Benjamin Blom, 1969).

34 Jean Baptiste Pujoulx, *Paris à la fin du XVIII^e siècle, ou esquisse historique et morale des monumens et des ruines de cette capitale; de l'état des sciences, des arts et de l'industrie à cette époque, ainsi que des mœurs et des ridicules de ses habitans* (Paris: Brigite Mathé, an IX/1801), 128–9 and note.

35 For the introduction of gas, limelight, and electric arc lighting in Britain, see Terence Rees, *Theatre Lighting in the Age of Gas* (London: The Society for Theatre Research, 1978).

36 Booth, *Victorian Spectacular Theatre*, 96.

37 On baroque stages, the audience knew it was night from the narrative context and because the actors carried lanterns and felt their way round the stage. Such mime is as illusionistic (and as conventional) as the use of blue light (or silent film's use of blue tinting or toning) for the same purpose.

38 Fitzgerald, *Principles of Comedy and Dramatic Effect*, 30.

39 Id., *World behind the Scenes*, 16.

40 The incandescent lights installed in theatres during the nineteenth century had individual bulbs with a maximum of 16 candle-power, so they still had to be used in groups and thus constituted a diffuse source much like the gas lights they replaced; indeed, the basic light housings remained essentially the same. Georges Moynet regarded directional light as more or less inappropriate to the stage: "Light falling parallel to one direction is impossible in the theatre, because the wings would cast shadows on each other, producing an extraordinary cacophony.[. . .] Light must come from all sides, so that shadows cancel each other out. This produces some rather odd effects. For example, a projecting pillar in an architectural décor is seen to cast a strong shadow on the wall it decorates. An actor comes and leans against this pillar, so common sense would suggest that his outline should be added to the shadow of the pillar, but if the shadow is painted, the actor, lit from above by the battens, from below by the footlights, and from each side by the wing lights, resembles that Hoffmann character who had sold his shadow. But the spectator ignores this detail. If he does notice it, he accepts it without a word, just as he accepts the dusty wooden floor, hatched by *costières*, splashed with the damp spirals of the watering can, which represents the burning sands of the desert, the flower-studded turf of the prairie, or the rich mosaics of the palace and the temple. It is just one more convention" (p. 240).

41 Algarotti, *Saggio sopra l'opera in musica*, 75: "The forestage, on which the actors stand, means that they are advanced several feet into the pit. As this places the actors more or less in the middle of the audience, there is no danger that they will not be perfectly audible to everyone." He maintained that the problem could be solved by an elliptical auditorium, but this seems dubious.

42 Peter Nicholson, article "Scenography," in *Cyclopaedia, or Universal Dictionary of Arts, Sciences and Literature, Illustrated with Numerous Engravings*, ed. Abraham Rees, vol. 31 (London: Longman, Hurst, Orne, and Brown, 1819). Most entries in the *Cyclopaedia* are anonymous, but the author of the article on "Scenography" refers to himself by name. In "Peter Nicholson and the Scenographic Art," *Theatre Notebook* 8 (Oct. 1953 to July 1954): 91–6, William A. Armstrong notes that this volume of the *Cyclopaedia* was in fact first published in 1815, and explains that Nicholson was a carpenter (in modern terms, something more like a "timber construction consultant") and architect.

43 Andrea Pozzo (Puteus), *Rules and Examples of Perspective proper for Painters and Architects, &c.*, in English and Latin, English translation, from the edition in Latin and Italian published in Rome in 1693 by John James (London: printed for J. Senex and R. Gosling in Fleet-street; W. Innys in St. Pauls Church Yard; J. Osborn and T. Longman in Paternoster Row, n.d. [1709?]), figures 72–5, esp. 72, reproduced here. Nicoll, *Development of the Theatre*, reproduces two of Pozzo's beautiful designs for wings and shutters representing curved arcades as his figures 125 and 126. For more on Pozzo, and on the perspective-stage tradition more generally, see Günther Schöne, *Die Entwicklung der Perspektivbühne von Serlio bis Galli-Bibiena nach der Perspektivbüchern, Theatergeschichtliche Forschungen*, established by Berthold Litzmann, ed. Julius Petersen, no. 43 (Leipzig: Leopold Voss, 1933; repr. Neudeln, Liechtenstein, 1977).

44 The rake of the 1875 Paris Opéra stage continued to the back wall of the main stage, but not across the 22 feet of the rear stage corridor. The *foyer de la danse* that could be opened up as a further extension of 46 feet was raked like the stage, but in the opposite direction (see Sachs and Woodrow, *Modern Opera Houses*, vol. 2, plate 4). It needed a rake, because this reproduced stage conditions for the dancers who used it for rehearsals and warming up.

45 Pozzo, by contrast, claimed that "in laying the Floor of the Stage, this Rule is commonly observ'd, [. . .] that the Rise of the Floor [. . .], be about a Ninth or Tenth Part of the Length" (figure 74). Nicholson criticizes Pozzo explicitly: "The rule given by Pozzo for the declivity of the stage is too much, being inconvenient for the actors, and perhaps one foot in twelve is a much better proportion." The anonymous author of the article on "Dramatic Machinery" in the same *Cyclopaedia* (clearly not Nicholson, since the article contradicts the one on "Scenography" in a number of points), on the other hand, states that "it is usual to allow one inch of perpendicular ascent for every 36 inches of length from the front to the back of the stage." Jules de la Gournerie's *Traité de perspective linéaire, contenant les tracés pour les bas-reliefs et les décorations théâtrales, avec une théorie des effets de perspective*, 2nd ed. (Paris: Gauthier-Villars, 1884), 194, remarks: "The slope of stage floors [. . .] can go as high as 4 centimeters per meter." The same figure is given by Maurice Emanaud in his *Géométrie perspective* (Paris: Doin, 1921), 360. These figures seem to suggest that stage rakes became less pronounced between 1700 and 1900, but also perhaps the *ad hoc* character of these "rules." An examination of the longitudinal sections of stages in Gabriel Pierre Martin Dumont's *Parallèle de plans des plus belles salles de spectacles d'Italie et de France* (Paris: published by the author, n.d. [c. 1774]; repr. New York: Benjamin Blom, 1968), in Contant and de Filippi, *Parallèle*, and in Sachs and Woodrow, *Modern Opera Houses* (three works conceived as complementing and updating one another) suggests that, while a rake of around 1 in 18 remained the most frequent, in the later nineteenth century the median shifted from about 1 in 18 to about 1 in 25, largely because many European stages built in this period had rakes lower than 1 in 50, which we have never seen prescribed; such low rakes are not found at all in earlier theatres.

46 Sachs and Woodrow, *Modern Opera Houses*, vol 3, suppl. 1, p. 11.

47 See ibid., vol. 2, plate 74 and vol. 3, suppl. 1, p.68. The Raimund Theater (1893) had an "Asphaleia-system" stage, one in which all parts of the highly divided stage floor were mounted on hydraulic supports that enabled them to be raised, lowered and tilted at will (though not usually very quickly). The Munich Opernhaus (not

completed when Sachs was writing) had a stage revolve. The most advanced American stages were already flat by the 1890s (Edward Kinsila saw this as one of the few theatrical innovations that crossed the Atlantic from West to East, see *Modern Theatre Construction* (New York: Chalmers, 1917), 70). The Chicago Auditorium of 1889 had a stage described as related to the Asphaleia system (Adler, "Chicago Auditorium," 1:295); by no means all such stages were basically flat (Sachs discusses many, but the Raimund Theater is the only one whose longitudinal section shows no rake), but the Auditorium's seems to have been. This flat stage and other advanced features, such as the possession of a cyclorama, the lack of borders and, apparently, wings — "All scenic effects are produced by drops extending across the entire stage, perforated where necessary"— should not be taken as a token that staging at the Auditorium had moved beyond the pictorial tradition, since these drops were "so treated as regards perspective effect as to produce all the illusions of closed stage setting" (Adler, ibid. 1:297).

48 Richard Leacroft, *The Development of the English Playhouse* (London: Eyre Methuen, 1973), 289; and Sonrel, *Traité*, plate 39.

49 *Proscenium and Sight-Lines, A Complete System of Scenery Planning and a Guide to the Laying Out of Stages* (London: Faber, 1939), 38–9. Southern's authority is Friedrich Kranich, *Bühnentechnik der Gegenwart* (Munich: R. Oldenbourg, 1929), 1:117 ff.

50 It is noteworthy that Henry Morgan's *Perspective Drawing for the Theatre* (New York: Drama Book Specialists, 1979) not only assumes that all stages are horizontal, the book is not a treatise on stage perspective in the sense of any of the earlier ones we have cited; it is simply an account of how to produce perspectival flat pictures of three-dimensional stage settings.

51 Jelgerhuis, *Theoretische Lessen*, 15–32 and plates 1 and 2.

52 Sachs and Woodrow, *Modern Opera Houses*, vol. 3, suppl. 1, p. 24. Georges Moynet gives the rake of the Opéra stage as "exactly 0.0492 metres per metre" (*Machinerie théâtrale*, 176), and does still link this rake to perspective effects: "The *rues* and *fausses rues* are narrower than in most theatres, which, in combination with the fairly steep rake of nearly 0.05 meters per meter, aids the perspective of the décor and effects of depth" (p. 196).

53 Sachs and Woodrow, *Modern Opera Houses*, vol. 3, suppl. 1, p. 11.

54 *The Builder* (13 Mar. 1897), cit. Leacroft, *Development of the English Playhouse*, 251. The article on "Dramatic Machinery" in the *Cyclopaedia* already attributes the rake entirely to the problem of the visibility of the stage: "This inclination is considered to be of advantage to the vision lines, supposed to come from the eye of the spectator in the front of the house, to any given point in the stage. It particularly places it in the power of the architect to keep the back part of the pit lower, than could be done without injuring the vision, were the flooring of the stage horizontal." This argument was not unknown to the proponents of stage perspective. Both Jelgerhuis (*Theoretische Lessen*, 22) and de la Gournerie (*Traité*, 194) note that the rake is sometimes steeper than the rules of perspective would recommend, because the stage front is lowered to increase the visibility of the stage from the pit.

55 In *Practical Guide to Scene Painting and Painting in Distemper* (London: G. Romney and Co., n.d. [1875]), 53–9, Frederick Lloyds discusses stage perspective fairly briefly and vaguely in relation to wings and borders, devoting much more precision to the perspective painting of backdrops. French treatises on perspective geometry continue to have sections on theatrical perspective until Emanaud's of 1921, but this seems to be because the topic became part of the standard curriculum in technical drawing courses rather than because the live theatre retained a strong sense of its importance. However, the fact that Sonrel includes a discussion of the practical problems of the perspective drawing of sets in his *Traité de Scénographie* of 1943 suggests that the tradition was more alive in France than elsewhere.

56 Emanaud, *Géométrie perspective*, 373.

57 De la Gournerie, *Traité*, 191; Emanaud, *Géométrie perspective*, 368; and Lloyds, *Practical Guide*, 53–4.

58 Pujoulx, *Paris à la fin du XVIII^e siècle*, 130–1 and note, refers to "the closed rooms that have been tried in a number of plays," but deplores the fact that "wings still prevail, and I know of only one machinist who believes they [i.e., the closed décors] should be adopted all the time," that machinist being Boulle. Southern suggests (*Changeable Scenery*, 236–7), on the basis of a 1769 print, that the opera *The Padlock*, as produced at Drury Lane in 1768, had a set with a back flat and two oblique side flats; as an exterior, it had no ceiling. *The Conquering Game*, produced by Madame Vestris at the Olympic in 1832, is more commonly taken as the first box set in England, but the only evidence of its having had a ceiling is a very conventional representation of one in the frontispiece of a published playtext. See James H. Butler, "Early Nineteenth-Century Stage Settings in the British Theatre," *Theatre Survey* 6 no. 1 (May 1965): 54–64, and Rosenfeld, *Scene Design*, 112 and plate 27.

59 Algarotti, *Saggio sopra l'opera in musica*, 67.

60 *World behind the Scenes*, 14.

61 Garnier, *Le Théâtre*, 253. See also J. Moynet, *L'Envers du théâtre: machines et décorations* (Paris: Hachette, 1873), 116: "As the stage is occupied by living people, they cannot grow smaller as they move towards the rear, as the figures in a painting do. The scene painter takes the necessary precautions to prevent the actors encroaching on the remote and diminishing parts of his composition. He is obliged to invent obstacles so there is no offense against verisimilitude."

62 De la Gournerie, *Traité*, 194, n.; cit. Bablet, *Esthétique générale*, 32n59.

63 Bablet, ibid.

64 G. Moynet, *Machinerie théâtrale*, 359–76. This was presumably the French première, at the Opéra, opening 12 May 1893.

65 De Mille and Belasco, *Men and Women*, 313.

66 Anthony Hammond, "Introduction," in William Shakespeare, *King Richard III*, the Arden Edition of the Works of William Shakespeare (London: Methuen, 1981; repr. Routledge, 1994), 70. In the notes to the passage, Hammond adds: "[A.C.] Sprague has remarked that in the 19th and early 20th centuries the scene was so far misunderstood as to be turned into an immense ceremonial, with a funeral procession numbering 70 or 80. This would make the ensuing wooing scene absurd instead of merely outrageous."

67 *Mémoire contre le Baron Taylor* (Paris: Ponthieu, 1827), 75; cit. Marie-Antoinette Allevy (Akakia Viala), *Édition critique d'une mise en scène romantique, indications générales pour la mise en scène de "Henri III et sa cour" (drame historique en cinq actes, en prose, de M. A. Dumas) par Albertin, directeur de la scène près le Théâtre Français (1929)* (Paris: Droz, 1938; repr. Geneva: Slatkine Reprints, 1976), 14.

68 "Whenever it is possible in these Meininger productions to introduce shouting, ringing, singing, chanting, fighting, jostling, pushing, these are never under any circumstances omitted. Two citizens cannot begin a conversation without the bustle of a market-place erupting behind them, so that we are willy-nilly distracted from the important dialogue. When Brutus and Cassius take center stage to hold a council of war before the battle of Philippi, several archers of the advance guard at stage left engage in an exciting skirmish — imagine! — only about four or five steps from the war council of the leading generals!" (Hans Hopfen, "Die Meininger in Berlin," in *Streitfragen und Erinnerungen* (Stuttgart: J.G. Cotta, 1876), 241; cit. Carlson, *German Stage*, 177). This critique of the Meiningers' *Julius Caesar* as presented during their 1874 visit to Berlin goes on to compare their productions with the contemporary London stage, i.e., by implication with Charles Kean: "If we want to find a country where no money is spared to deck the words of the play with every conceivable ostentation, with every archaeological finesse or mechanical marvel, we only need to look at England today, where

dramatic art has sunk to the lowest level among European nations" (245–6).

69 Southern, *Changeable Scenery*, 163–76.

70 Nicoll, *Development of the Theatre*, 203.

71 J. Moynet, *L'Envers du théâtre*, 101, fig. 22; Booth, *Victorian Spectacular Theatre*, 80.

72 Georges Moynet gives descriptions of elaborate transformations of complex set scenes, such as a prison tower that magically changes into a flight of stairs (*La Machinerie théâtrale*, 122–40) and a ship that leaves harbor, goes through a storm, and eventually founders (pp. 78–100).

73 Lewis, *Henry Irving and "The Bells,"* 34, 49, 62, 67, 84 n. 21 and 91nn10–14.

74 For *La Muette de Portici*, see Marie-Antoinette Allevy (Akakia Viala), *La Mise en scène en France dans la première moitié du dix-neuvième siècle* (Paris: Droz, 1938; repr. Geneva: Slatkine Reprints, 1976), 59 and plate 11; for an 1829 English production of *Masaniello* (first staged in 1827), Booth, *Victorian Spectacular Theatre*, 61; for *Arrah-na-Pogue*, Vardac, *Stage to Screen*, 25–9; for *The Poor of New York*, Booth, 63–4, and Rees, *Theatre Lighting*, 149; for *The Price of Peace*, Dennis Castle, *Sensation Smith of Drury Lane* (London: Charles Skilton, 1984), 126, and Booth, *Victorian Spectacular Theatre*, figures 4 and 5; *The Whip* is described in more detail below.

75 "The Plays of the Week," *New York Dramatic Mirror* 63, no. 1623 (29 Jan. 1910): 6. Some of the playscripts we have seen call the final scene Act 3, scene 2, rather than Act 4, emphasizing the continuity of the action. According to a Wallack's Theatre (New York) playbill in the scrapbooks of the Daniel Blum Collection of the Wisconsin Center for Film and Theater Research (vol. 28 (1909–10), microfilm reel 4 frame 854), "between Acts III and IV there will be an interval of but one minute."

76 See Otis Colburn, "Chicago Stage Gossip," *New York Dramatic Mirror* 62, no. 1620 (8 Jan. 1910): 12, for the first staging at the Chicago Studebaker, 24 Dec. 1909, with Hal B. Warner as Jimmy; "Plays and Players," *Hampton's Magazine* 24 (May 1910): 701, for the staging by the same company at Wallack's Theatre, New York, 21 Jan. 1910; and "Art, Music and the Drama," *Illustrated London News* 136 (9 Apr. 1910): 536, for the Comedy Theatre, London, production with Gerald Du Maurier as Jimmy.

77 Lloyds, *Practical Guide*, 78–82, cit. Rees, *Theatre Lighting*, 133–5.

78 See Jacobs, "Belasco, DeMille and the Development of Lasky Lighting", esp. 408–12.

79 "Le Cinématographe. Une merveille photographique," *Le Radical*, 30 Sept. 1895; repr. in Georges Sadoul, *Louis Lumière*, Cinéma d'aujourd'hui 29 (Paris: Seghers, 1964), 117–18.

80 Musser, *Emergence of Cinema*, 96 and 116–17. There is one curious exception. Reporting on the same event as the last quotation above, the debut of the Vitascope at Koster and Bial's, the *New York Times* of 24 Apr. 1896 stated: "The moving figures are about half life size." (In "The Motion Picture Theater and Film Exhibition 1896–1932," Ph.D. thesis, Northwestern University, Evanston, Illinois, 1980, 9, Charlotte Herzberg says "the vaudeville screen was continually referred to as [. . .] framed like a picture with half life-size figures," but she only gives this one example, and we know of no others.) The *Times* reporter may have been more careful than his colleagues, but he may also have been confused by the knowledge that one's image in a mirror subtends half its dimensions on the mirror surface, and hence self-portraits tend to do the same on the picture plane, and other portraits follow suit — essentially implying that the sitter is the same distance behind the picture plane as the viewer is in front, but at any rate producing pictures of heads half the size of real human heads. The picture of the Koster and Bial's show of April–May 1896 reproduced from the National Archives by Musser in *Emergence of Cinema*, 117, does show what seems to be a rather small screen. On the other hand, the advertisement for the Milwaukee Academy Theater's presentation of the Vitascope in the *Milwaukee Sentinel* for 26 July 1896, reproduced in *Emergence of Cinema*, 125, shows a screen with dancing girls on it, and a live presenter standing next to the screen. In this case, the dancing girls are the same height as the presenter. Both these illustrations are drawings rather than photographs, of course.

81 *Moving Picture World* 7, no. 9 (27 Aug. 1910): 470; John Klaber, "Planning the Moving Picture Theatre," *Architectural Record* 38, no. 5 (Nov. 1915): 540, cit. Richard Koszarski, *An Evening's Entertainment: The Age of the Silent Feature Picture 1915–1928*, vol. 3 of Charles Harpole, ed., *History of the American Cinema* (New York: Scribner's, 1990), 10; "Too Near the Camera," *Moving Picture World* 8, no. 12 (25 Mar. 1911): 634.

82 For an early example, Colin Bennett in "Knotty Points Answered," *Kinematograph and Lantern Weekly* 20, no. 447 (18 Nov. 1915): 71, recommends a 10 to 12 feet wide screen for a throw of 45 feet, and a 15 to 19 feet wide screen for a throw of 80 feet. In 1917, the architect Edward Kinsila grafts the two schemata together: "The size of a picture depends upon the distance of the throw and the amperage of the light. A twelve-foot picture is considered 'life size'. A well lighted picture of this size should be the limit for a fifty-foot throw, a fifteen-foot picture for a seventy-five-foot throw, and for a hundred-foot throw or longer any size that may be brilliantly illuminated and that will not show living figures that appear from the rear seats much larger than normal" (*Modern Theatre Construction*, 106).

83 See Wilfrid Blunt and William T. Stearn, *The Art of Botanical Illustration*, rev. ed. (Kew: Royal Botanical Gardens, 1994), plate 48.

84 Emanaud, *Géométrie perspective*, 373.

85 For example, the advertisement mentioned above, reproduced in Musser, *Emergence of Cinema*, 125. As far as one can tell from a drawing, the screen here is about 14 feet by 18 feet. The same picture was reproduced as part of the heading of the notepaper of the New York Vitascope Company (see Musser, *Emergence of Cinema*, 132). *Scientific American* of 17 Apr. 1897 includes a drawing of "The Biograph at work in a New York theater" showing a truly monumental screen, able to show a locomotive "life-size," let alone a person (reproduced in Musser, *Emergence of Cinema*, 182). Finally, the movies projected on a vaudeville stage in the Edison film *Uncle Josh at the Moving Picture Show* (1902) include life-size figures (but they would have to, or the story would not work).

86 In the U.S., the numbers were partly determined by city ordinances that called for more stringent licensing conditions for theatres than for amusements or common shows, the difference being determined by capacity. See Herzberg, "Motion Picture Theater and Film Exhibition," 38n39.

87 For the Omnia Pathé, see the elevations submitted with the application for building permission, reproduced from the originals in the Archives of the City of Paris in Deslandes and Richard, *Histoire comparée du cinéma*, 2:496 and 2:499.

88 *"Grandma's Reading Glass.* A most successful film. Grandma is sewing, and her little grandson amuses himself by viewing the surrounding objects through her large reading glass. Circular and magnified views are shown of the objects he beholds, viz: the works of his watch, the canary in its cage, his grandma's eye, the cat's head, etc." (*Charles Urban Trading Co. Catalogue*, Nov. 1903, p. 106). The film so described, George Albert Smith's *Grandma's Reading Glass*, was first advertised in September 1900.

89 Maurice Noverre, "Le Gala Méliès," *Le Nouvel art cinématographique*, 2nd ser., no. 5 (Jan. 1930), 71–90; cit. Deslandes and Richard, *Histoire comparée du cinéma*, 2:468–70.

90 J.P. Chalmers and Thomas Bedding, "The Factor of Uniformity," *Moving Picture World* 5, no. 4 (24 July 1909): 115–16. The same objection had been raised against lantern slides by Duncan Moore in 1894: "Pictures exhibited much above their normal size have a more or less grotesque appearance, especially if containing figures. [. . .] The screen proclaims their unreality, which is at once strikingly apparent" ("Size or Realism?" *Optical*

Magic Lantern Journal and Photographic Enlarger 5, no. 58 (1 Mar. 1894): 56; cit. Burch, *Life to Those Shadows*, 89).

91 Salten, "Zu einem Kinodramen, Anmerkungen," 364–65. Yuri Tsivian discusses the nature of this objection at length in his book *Early Cinema in Russia and its Cultural Reception*, trans. Alan Bodger (London: Routledge, 1994), esp. pp. 131–4 and 199–201. Among other examples he cites (p. 131) the Russian critic E. Stark, who, like Salten, objects that the variation in scale makes it impossible to appreciate the acting: "The directors are clearly people with no idea of artistic taste: the slightest hint of emotion in a scene and for some reason they immediately shoot figures and faces enlarged almost to twice life size. Imagine what it is like to see a huge nose, a vast mouth, monstrous lips, all leering down at you. And when all these bits of a face belonging to a visitor from outer space begin to move, to express profound emotion — well, the sadder the scene is meant to be, the more grotesque and totally ridiculous is the effect" ("S nogami na stole," *Teatr i iskusstvo* 39 (1913): 770).

92 See H.F. Hoffman, "Cutting off the Feet," *Moving Picture World* 12, no. 1 (6 Apr. 1912): 53.

93 "Practical Filming Techniques for Three-dimension and Wide-screen Motion Pictures," *American Cinematographer* (Mar. 1953): 107. Although Clarke makes no distinction between people and things in his prescription, it seems clear that people without feet are more problematic than furniture ditto. *Dial M for Murder* (1954), almost entirely set in a single apartment, furnishes that apartment with a large low three-piece suite, thus ensuring that in most of its closer shots of characters, the bottom of the screen and the stereoscopically perceptible frontmost plane is filled by the top of a couch or armchair, thus concealing the disappearance of the characters' feet off the bottom of the picture. Non-stereoscopic films in the 1910s often put furniture in the frontmost plane for the same reasons.

94 The most important of these is the Biograph 68mm film also introduced by Dickson and intended to provide a picture quality that would outdo Edison filmmakers and others, like the Lumière brothers, who had adopted standard Edison-type film.

95 Fred H. Detmers, ed., *American Cinematographer Manual*, 6th edition (Hollywood: A.S.C. Press, 1986), 3, gives the dimensions of 0.980 inches by 0.735 inches for non-squeezed photography where the camera aperture fills the four-perforation area and the full space between perforations. This format is now used by cinematographers only for special effects duplication (and for restoring silent films, of course), and in the early years of cinema, there were no prescribed standards. The difference between these figures and 1 inch by ¾ inches is an allowance for slight variations in registration in cameras and projectors.

96 See Musser, *Emergence of Cinema*, 62–72.

97 Richard Southern notes in *Changeable Scenery*, 177–82 and with relation to plate 29, that one reason why the upper grooves of British baroque stages were hinged was so that they could be tucked out of the way in order to allow certain scenes to deploy the full height of the proscenium in a portrait-format picture. This practice seems to have died out before the rise of pictorialist theatre in our sense, though the Byron Collection of the Museum of the City of New York includes a set of four photographs for David Belasco's production of *The Girl of the Golden West* (New York, 1905) that show what seems to be either an act drop or a shallow staging with a backdrop in one of the front grooves representing the Californian Sierras; the trunks of two giant trees occupy the foreground, and they are carried right up to the limit of the proscenium opening, onto the curtain running across its top fifth. The four views are differently lit, with the sun in the center of the drop brighter and darker and higher or lower, so presumably they represent a sunrise or sunset. However, the setting seems incompatible with the only sunrise or sunset in the play, the epilogue as Minny and Ramirez leave California for ever, so we are not sure what the photographs depict.

98 Eisenstein's lecture of 17 Sept. 1930 was reworked as "The Dynamic Square," published in *Close-Up* (Mar. and June 1931), and repr. in *Film Essays and a Lecture*, ed. Jay Leyda (New York: Praeger, 1970), 48–65.

99 Gad, *Filmen*, 83; Colin N. Bennett, *The Guide to Kinematography* (London: E. T. Heron, 1917), 27. See also C. L. Gregory, ed., *Motion Picture Photography* (New York: New York Photographic Society, 1920), 65, and F. Paul Liesegang, *Handbuch der praktischen Kinematographie*, 5th ed. (Düsseldorf: Ed. Liesegang, 1918), 326.

100 Colin N. Bennett, et al., *The Handbook of Kinematography*, 2nd ed. (London: Kinematograph Weekly, 1913), 18.

101 "Knotty Points Answered," *Kinematograph and Lantern Weekly* 14, no. 352 (22 Jan.1914): 74–5. The argument is spurious, because it ignores the fact that the spectator can (indeed must) move his or her eyes from side to side, and one can take in much more than 16 degrees that way without turning one's head, which the cinema spectator can easily do, too; it also assumes that the screen should occupy no more nor less than the full field visible to the stationary eye, a still-photography prescription that is by no means obviously extendable to the situation in a moving-picture house.

102 David S. Hulfish, *Cyclopedia of Motion-Picture Work* (Chicago: American Technical Society, 1911), 131–2 (section "Motography," 63–4). The prescription is reprinted unchanged in the 1915 edition of the book, entitled *Motion Picture Work*.

103 "The Degradation of the Motion Picture," *Photo-Era* 21, no. 4 (Oct. 1908): 163–4; cit. Kristin Thompson, in Bordwell et al., *Classical Hollywood Cinema*, 221. (For the problem of depth of field at issue here, see below.) Writing much later, in 1939, but describing standard Edison-film cameras contemporaneous with the wide-film Biograph, i.e., cameras of the 1900s, G. W. Bitzer notes: "There were other drawbacks in Biograph cameras. The lenses had to be of longer focus to cover the wider film. The optical formula then being that of a two-inch focus to cover a one inch field. The sprocket-hole 35mm film cameras were using that as a standard lens, a 50mm or two-inch lens" ("The Biograph Camera," *Journal of the Society of Operating Cameramen* 5, no. 1 (Spring 1995): 8). It should be said that there are indirect contemporary references to the two-inch lens. In *Technique of the Photoplay*, 2nd ed. (New York: Moving Picture World, 1913), 21, Epes Winthrop Sargent says: "Generally diagrams are made of the sets, either in free hand or to scale. In the latter way paper lightly ruled into squares is used. Each of these squares represents a square foot of space. At one point a line is drawn across six of these squares. This is known as the *front line* and corresponds to the footlights of the dramatic stage. The Editor [i.e., the studio's scenario editor] knows that the lens his cameraman uses will just take in the six foot line if placed twelve and a half feet back of the line." To the extent that these figures can be trusted (see n. 107 below), this lens is a two-inch one, allowing the actors a small latitude to stray beyond the strict six feet.

104 Salt, *Film Style and Technology*, 84

105 "It is not usual to go below two and a half inches on the short side, and indeed only a few of the cameras on the market would be able to be fitted with a shorter focal length than this" (*Handbook*, 31). But in *Practical Cinematography and Its Applications* (London: Heinemann, 1913), Frederick A. Talbot takes the Williamson "Topical" camera, a cheap non-professional model, as his standard example, and says of it that it "is fitted with a Zeiss-Tessar 2-inch lens" (p. 24).

106 For example, James Slevin, *On Picture-Play Writing: A Hand-Book of Workmanship* (Cedar Grove, NJ: Farmer Smith, 1912), 85: "In producing a picture-play [. . .] a certain wedge-shaped space is laid out and marked with lines. The narrow end of this space, about five to eight feet wide, starts about eight or ten feet of the camera." This implies a slightly shorter lens than two inches, while the most restricted framing he refers to is "when the principal characters are brought very close to the camera and are cut off at the knees or waist" (p. 86). Eustace Hale Ball, *The Art of the Photoplay*, 2nd ed. (New

York: G.W. Dillingham, 1913), 19, gives "a stage width of six or eight feet, at a distance of ten feet from the lens," implying a somewhat shorter lens (too short for one to be confident in the accuracy of his figures). In a much later interview, James Morrison, a Vitagraph stock-company member from 1912, recalled: "We were the first people to bring people up to within nine feet of the camera. . . .] The next innovation in the movies was when Griffith did the close-up. We thought of the nine-foot line, but we didn't think of the close-up" (Kevin Brownlow, *The Parade's Gone By* (London: Secker and Warburg, 1968), 18). Note that Morrison is clear that the nine-foot position did not put the actor into close-up. See the extensive discussion of this development in Salt, *Film Style and Technology*, 88–90; Thompson, in Bordwell et al., *Classical Hollywood Cinema*, 190–1; and Bowser, *Transformation of Cinema*, 93–102.

107 Unfortunately, most of the evidence in this question, apart from the look of the films themselves, derives from screen-writing manuals, in the sections where the authors are explaining to their would-be screenwriter readership the peculiarities of filmmaking. The figures they give for the distance of the front line from the camera and the width of that line differ greatly, and are rarely compatible with plausible lens lengths, or even internally consistent. J. Berg Esenwein and Arthur Leeds, in *Writing the Photoplay* (Springfield, Mass.: Home Correspondence School, 1913), 160, present what purports to be a producer's diagram of the film stage "the same as the one used by at least three Licensed and two Independent producing companies" (p. 161). The camera's angle of view in this diagram is exactly 25 degrees, i.e., the lens assumed is about 2¼ inches. But figures written on the plan say the front line is 14 feet from the camera and 4 feet 1¼ inches wide, which implies a lens of nearly 3½ inches.

108 See Leslie Stroebel, John Compton, Ira Current, and Richard Zakia, *Photographic Materials and Processes* (Boston: Focal Press, 1986), 159.

109 Gregory, *Motion Picture Photography*, 65. What appears to most spectators as a "natural" view and a view from the center of vision are not necessarily the same thing, however. See the discussion of movement in depth, below.

110 E.G. Lutz, *The Motion-Picture Cameraman* (New York: C. Scribner's Sons, 1927; repr. New York: Arno Press, 1972), 79, figure 1. Although this book was written outside our period, this set-up is frequently found in American filmmaking within it. Before the frequent use of scenes with less than full figures, Pathé cameramen in France usually used a lower camera, about three feet from the ground, and therefore appreciably closer to those figures.

111 Ball, *Art of the Photoplay*, 18–19. Similarly, Slevin (*On Picture-Play Writing*, 85) remarks of the cinematic stage, "you see at a glance that this is just contrary to an ordinary stage setting where the widest end of a more or less wedgeshaped space is toward the audience and is usually painted in perspective."

112 *Le Cinéma* (Paris: La Renaissance du Livre, 1919), 95.

113 Gad, *Filmen*, 76.

114 O. Winter, "The Cinematograph," *New Review* (May 1896), repr. *Sight and Sound* 51, no. 4 (Autumn 1982): 295; and A. D. Digmelov, "50 let nazad," typescript in the V. Vishnevsky archive, Gosfilmofond, Moscow, cit. Tsivian, *Early Cinema in Russia*, 145–6.

115 Bennett, *Handbook*, 28. The subject discussed is a waterfall rather than a character, confirming the specialized nature of the field in which Bennett was offering advice.

116 The earliest example usually cited is the 1919 film *Broken Blossoms*, which has a few soft atmospheric establishing shots. Yuri Tsivian (*Early Cinema in Russia*, 107–8) says that in the same year, Aleksandr Sanin's film *Polikushka* was soft throughout, as a result of the use of defective stock, but that the effect was so admired that later films recreated it artificially.

117 Gad, *Filmen*, 77.

118 Modern definitions of focus for 35mm film demand a circle of confusion less than 0.001 inches, but this is to allow for the greater magnification in projection of anamorphic and wide-screen formats. The circle of confusion implied by figures for depth of field given by Talbot in 1913 (*Practical Cinematography*, 47) and Bennett in 1917 (*Guide to Kinematography*, 28) is about one four-hundredth of an inch, i.e., 0.0025. The only direct statement we have found from our period of the appropriate circle of confusion is by C. L. Gregory (*Motion Picture Photography*, 361): "Usually taken at 0.01 inch but for critical definition 0.005 is necessary." This seems very large, and may perhaps be a figure taken over carelessly from formulae appropriate to full- and half-plate still photography. However, Lutz in 1927 (*Motion Picture Cameraman*, 65) gives figures for hyperfocal distance and depth of field with a two-inch lens that imply a circle of confusion of 0.004 inches. Does this reflect the prevalence of the "soft style" of cinematography in the later 1920s?

119 Gad, *Filmen*, 122.

120 It was possible, with appropriate development, to achieve an exposure index of about 25 ISO with the film stocks of this period; in a note in Karl Brown, *Adventures with D.W. Griffith*, ed. Kevin Brownlow (London: Secker & Warburg, 1973), 18, George J. Mitchell suggests this as the speed of film when Karl Brown started working in 1914, and Colin Bennett's 1913 advice that "generally speaking [. . .] a stop of about f8 with the shutter opening of about one third of a circle [i.e., an exposure of 1/48th second at 16 fps] is right for most things" implies about the same speed if he is using a rule of thumb equivalent to the modern one that in bright daylight exposure at f16 should be the reciprocal of the ISO speed of the film in seconds (see Stroebel et al., *Photographic Materials*, 112). At this exposure index, shooting at f16 would require illumination of around 5-6,000 foot-candles, well within the range of unassisted daylight. In Northern Europe and the East coast of the U.S., the light for studio-shot interiors involving this kind of deep staging was always boosted artificially with arc or mercury-vapor lamps; in California and Italy, for most of the year such light levels could be guaranteed without any addition to daylight.

121 *Handbook*, 29. Cecil Hepworth had deprecated the tendency to film at full aperture for the same reason much earlier, in 1900: "If a smaller stop be used, all parts of the view, both near and distant, may be kept well in focus, while rapidly moving objects will not be caught with sufficient speed to prevent a slight blurring of their outlines. It is a question whether such objects are better portrayed with absolute crispness of detail when, as projected, they will appear to cross the sheet in a series of very rapid jerks, or whether it is better to have the stiller objects in perfect focus, and those that move rapidly to betray their movement by slight blurring of their vertical lines" (*Animated Photography, the ABC of the Cinematograph* (London: Hazell, Watson & Viney, 1900), 91).

122 See n. 114. Compare Cecil Hepworth in 1900: "Again, the use of a wide-angle lens, nearly always reprehensible, is generally most abominable in connection with the production of a living photograph. The mere movement of the objects from place to place in the picture is sufficient to lend to it a heightened perspective effect, which, in a single photograph, would be by no means as marked, and the exaggerated perspective of wide-angularism becomes horribly exaggerated. For instance, what could be much more ridiculous than a representation of a boxing match, intended to inspire the spectators with excitement and dread, when the participants alternately dwindle to Lilliputian pigmies and swell into ungainly giants, as they dance around one another in the ring?" (*Animated Photography*, 97–8).

123 Salten, "Zu einem Kinodramen, Anmerkungen," 364.

124 Victorin Hyppolite Jasset, "Étude sur la *mise-en-scène* en cinématographie," *Ciné-Journal* (21 Oct.–25 Nov. 1911), repr. in Marcel Lapierre, ed., *Anthologie du cinéma* (Paris: La Nouvelle Édition, 1946), 97. See also Esenwein and Leeds, *Writing the Photoplay*, 194: "The actors must be constantly on the alert to avoid 'getting out of the picture'."

125 See Salt, *Film Style and Technology*, 32–3 and 81–2.

126 "Théâtre et cinéma," *Esprit* (June and July–Aug. 1951); repr. in *Qu'est-ce-que le cinéma? Édition définitive* (Paris: Éditions du Cerf, 1978), 160.

127 Nevertheless, there were complaints about them, and in 1912, F .H. Richardson reported in the *Moving Picture World* that Vitagraph had decided to abandon the device. See "Projection Department," *Moving Picture World* 13, no. 5 (3 Aug. 1912): 449; and 13, no. 7 (17 Aug. 1912): 666.

128 Salt, *Film Style and Technology*, 127.

129 Ibid., 70; John Fullerton, "The 'Golden Age' of Swedish Film: Towards a New Historiography," unpublished paper delivered at Milestones of Cinema, a conference at the University of Wisconsin–Madison, October 1995; Yuri Tsivian, "Portraits, Mirrors, Death: On Some Decadent Clichés in Early Russian Films," paper presented at Le Portrait peint au cinéma/The Painted Portrait in Film, a conference held at the Musée du Louvre, Apr. 1991, published in *iris* 14–15 (1992): 67–8.

130 Reproduced in the microfiche collection *Theatre Set Designs in the Victoria and Albert Museum* (Haslemere: Emmett Publishing, 1985), fiche 14 frames E11 & 12.

131 Ibid., fiche 12 frame E11.

132 See also Brewster, "La mise en scène en profondeur dans les films français"; and David Bordwell, "La Nouvelle Mission de Feuillade; or, What Was Mise en Scène?" *Velvet Light Trap* 37 (Spring 1996): 10–29.

133 For Edison, see Musser, *Emergence of Cinema*, 80; and *Before the Nickelodeon*, 160; for Smith, Rachael Low and Roger Manvell, *The History of the British Film*, vol. 1: *1896–1906* (London: Allen & Unwin, 1948), plate 4, and compare James Williamson's and R. W. Paul's studios in plates 3 and 6; for Méliès, Maurice Noverre, "L'Œuvre de Georges Méliès," *Le Nouvel Art cinématographique*, 2nd ser., no. 3 (July 1929), and for an English translation of the most important passages, John Frazer, *Artificially Arranged Scenes: The Films of Georges Méliès* (Boston: G.K. Hall, 1979), 38–41.

134 See Richard Abel, *The Ciné Goes to Town: French Cinema 1896–1914* (Berkeley: University of California Press, 1994), 20–1.

135 See Salt, *Film Style and Technology*, 134–5; and Raymond Fielding, "Norman O. Dawn: Pioneer Worker in Special-Effects Cinematography," *Journal of the Society of Motion Picture Engineers* 72 (Jan. 1963), repr. in Raymond Fielding, ed., *A Technological History of Motion Pictures and Television* (Berkeley: University of California Press, 1967), 141–9.

136 The "theatrical" disposition of live action and model was not entirely abandoned, however. In *Swing Time* (1936), when the hero and heroine visit a country lodge in midwinter, their arrival is filmed with the lodge midground left, its driveway across the front, and a snowy landscape rear right. An automobile is seen to enter from behind the lodge, very small, far off in the snowy landscape. It exits rear right, then re-enters front right, stops, and the passengers descend. The rear right landscape is a model (or part glass part model), as is the car that crosses it.

137 Lev Kuleshov, "Art of the Cinema," in *Kuleshov on Film, Writings of Lev Kuleshov*, trans. Ronald Levaco (Berkeley: University of California Press, 1974), 52.

138 El Nouty, *Théâtre et pré-cinéma*, 87.

139 See Kevin Brownlow, "Ben Carré," *Sight and Sound* 49, no. 1 (Winter 1979–80): 46–50, esp. the illustration on 49.

140 Other film directors at this period made somewhat similar use of the bird's-eye view to hold two related but distinct elements of an action in the same frame. In Evgenii Bauer's 1914 film *Nemye svideteli*, the wedding breakfast at which the heroine, the maid in a rich household, has to serve the guests as she watches the man she loves, her young master, about to leave with the bride who she knows is unfaithful to him, is filmed from a similar position, as Nastya takes drinks round to the family and friends, then coats as they dress for the honeymoon trip.

141 Both prints we have seen, a 16mm copy in the Museum of Modern Art, New York, and a 35mm one in the Cinémathèque Royale, Brussels, derive from the same copy, one whose titles are missing (their places indicated by a few frames of blank leader or, in a small number of cases, by a flash title in German), whose length is more than 1,600 35mm feet shorter than the original release length, and which may therefore be missing scenes as well as titles. In this form, the film gives no explanation of the relations between Fru van Houven and Spinelli before the start of the action, so we remain slightly uncertain about the status of the photograph of Fru van Houven that Spinelli is holding the first time we see him, that seems to be what gives him some hold over her that induces her to make compromising assignations with him, that he eventually relinquishes to her with his dying confession of his espionage activities, that she passes to a soldier to convey to the Admiral of the fleet, her husband's father, that the soldier eventually gives to the van Houven boys' nurse, Jane, that Jane nearly burns, that van Houven eventually finds and that has something written on the reverse that exculpates Fru van Houven in his eyes. According to Ronald Mottram, who has seen a print or prints at the Dansk Filmmuseum, Fru van Houven sends Spinelli a picture of herself with a rejection of his suit written on the reverse (see *The Danish Cinema before Dreyer* (Metuchen, N.J.: Scarecrow Press, 1988), 113). Mottram also gives the family name as van Hauen; we have used the form found in the flash titles in the prints we have seen.

142 Long lenses to produce apparently closer shots from a safe distance were certainly available at this time, but we do not know of any examples of their use for scenes such as this.

143 This overlap is of the same type as the notorious one in *Life of an American Fireman* (see Burch, *Life to Those Shadows*, 204–7), which, as André Gaudreault notes, also if less patently characterizes the relationship between the scene in the mail car and that on the locomotive footplate, and between the robbery scenes and those in the telegrapher's office and the barroom in *The Great Train Robbery* ("Les Détours du récit filmique: sur la naissance du montage parallèle," *Cahiers de la Cinémathèque* 29 (Winter 1979): 88–107). By 1917, such marked overlap between sequences was rare in films.

144 The stage directions seem clear about this ("*At door R.*"), and at least one New York stage photograph (in the file for *The Whip* in the theatre collections of the Museum of the City of New York) also suggests it — it shows Mrs. D'Aquila center left holding the license out to Beverley center, and a footman stands prominently left in the position one would expect of a servant who has just announced an arrival via a door immediately to the left. An entrance down the staircase rear right would seem more striking, but Diana and her companions have already entered that way, which seems to mark it as leading further into the house, not to the outside doors.