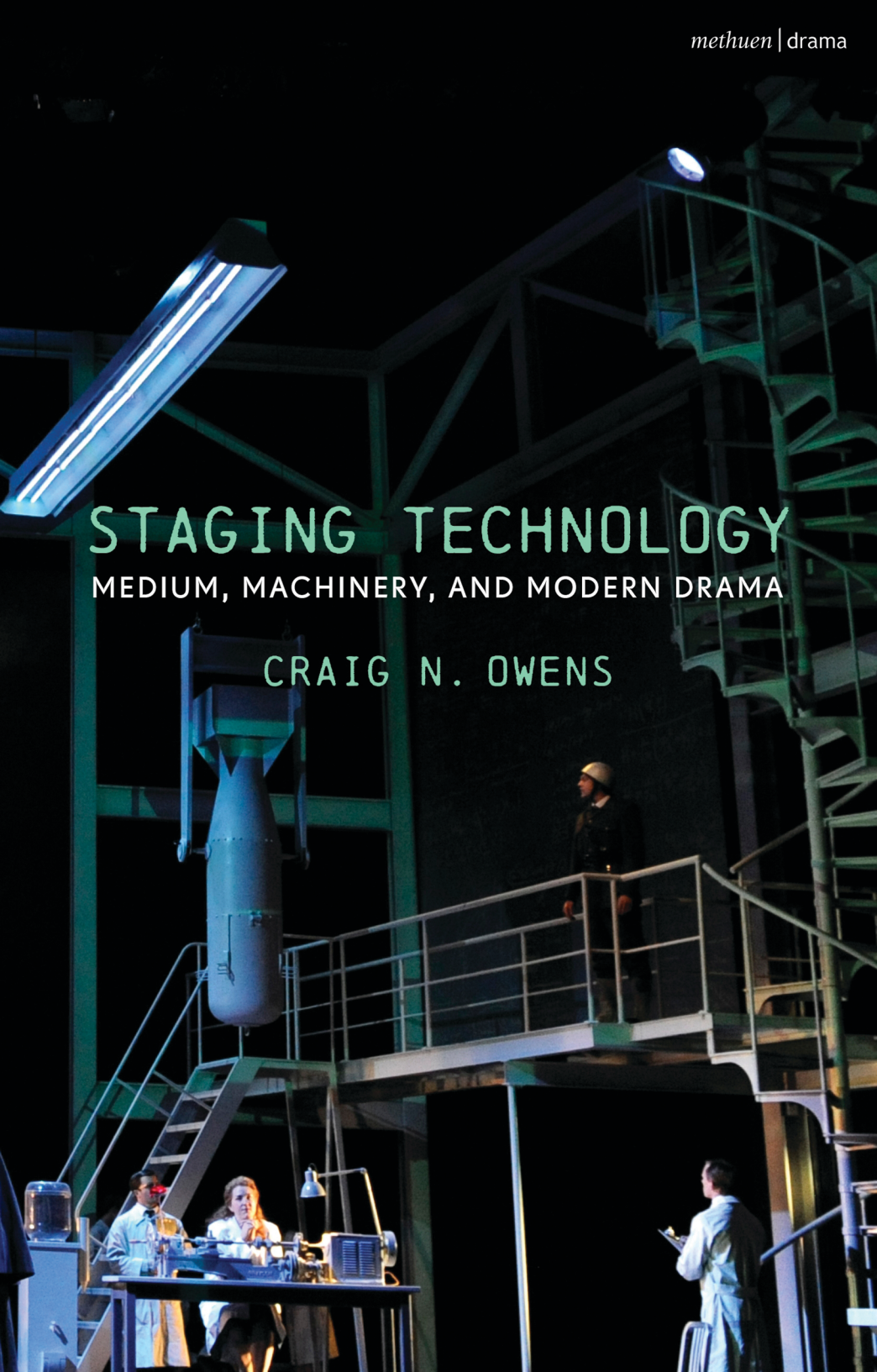


STAGING TECHNOLOGY

MEDIUM, MACHINERY, AND MODERN DRAMA

CRAIG N. OWENS



Staging Technology

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*For Graham,
ever game*

Contents

Acknowledgments	ix
Introduction: Staging Technology	1
1 Avant-Garde Assemblages: Tristan Tzara, Jean Cocteau, and Eugène Ionesco	35
2 Machineries of Nostalgia and American Modernity: Sophie Treadwell, Elmer Rice, Arthur Miller, and Isaac Gomez	69
3 Alienating Devices: Bertolt Brecht & Kurt Weill, John Adams & Alice Goodman, Don DeLillo, and Athol Fugard	101
4 Machineries of Constraint: Samuel Beckett, Harold Pinter, and Badal Sircar	149
5 Post-Human Recursivity: Heiner Müller, Julie Taymor, and Tod Machover & Robert Pinsky	185
Coda: Medium, Machinery, and the Present Moment	223
Notes	229
Bibliography	257
Index	269

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Introduction: Staging Technology

*Hier is der Apparat.
Steig Ein!*

—Bertolt Brecht¹

Imagine the empty stage—void of set and properties, swept clean at the end of the last show’s strike, maybe a single safety light and a pair of exit signs casting their meager glow upon the playing space. The curtains are flown, the torma and legs drawn back; the overhead door leading through the cinder-block back wall into the scene shop and loading dock beyond is shut. Cables and rigging coiled, bound, and hung, grid and rails bare of instruments, circuit couplings decoupled, and the catwalk cleared of obstacles, the iron and steel networks overhead are as empty as the stage and auditorium below. There is no sound. And yet, a kind of performance is taking place: the still dance and dumb show of dramatic theatre’s millennia-long technological accrual. The space performs a motionless, silent retrospective of its own history, the centuries of innovations and innovators, the mores and aesthetics that have made theatre production possible. In this moment, the theatre reveals itself as an apparatus and, as such, a paean to the conditions of its own possibility—social, economic, technological, and ideological.

For theatre, unlike other modes of artistic and literary representation, stubbornly preserves its most ancient technologies, deploying them along with its most advanced. Digitally synthesized sound effects mingle with the human voice, with the catgut and horsehair of the strings in the pit and with the footfalls of actors strutting boards, both literal and metaphorical. The robot and the puppet interact with the

human body and attenuate and extend it. Sunlight, firelight, flashlight, lightbulb, and diode illuminate the scenes, often simultaneously, while painters and carpenters ply their craft alongside electricians, videographers, projectionists, computer programmers, and advanced materials engineers. The light board's analog rheostats and the manually controlled follow spots consort with their programmable, digital progeny. Pulleys, cables, inclines, augers, hinges, levers, revolves, and windlasses, the simple machines of ancient, medieval, and renaissance theatre, articulate to electric motors literally plugged into the power grid and, figuratively, into a webwork of regulation, finance, and global trade. Theatre's machineries, overseen by professionals whose conditions of employment are determined, in part, by the kind of collective action that grew out of industrial labor, often also answer to digital code first developed for applications in aerospace, communications, professional athletics, and warfare. The theatre, in other words, is not simply an architectural artifact; it is also a machine and an archaeology, a cabinet of curiosities collected over thousands of years, always on the verge of reawakening into a radically synchronic choreography. More than any other art form, theatre manifests its entanglement in the flows of capital and power, flows it receives as inputs, transforms in its internal dynamics, and dispenses as outputs.

From the moment the first stage was built, wherever in the world it happened, the theatre has been a technological space, a "machine" that one must continually "step into," to echo the first sung line of Bertolt Brecht and Kurt Weill's *Lindbergh's Flight* (1929), quoted in the epigraph above. But, as in other forms of creative expression and cultural production, the early technological innovations that made theatre possible were, for most of the history of the form, secondary—or tertiary—to other matters. Through the twentieth century, however, painting and dance, and in the early twenty-first century, narrative started to come to terms with the materiality of their media. Clement Greenberg's remarks on the rise of abstraction in European and American painting, dance's reckoning with the surfaces and technologies of the spaces it occupied, and Marshall McLuhan's oft-quoted maxim "the medium is the message"

laid the groundwork for a new awareness of materiality in the study of the fine arts and media.² N. Katherine Hayles's slim volume *Writing Machines* (2002)—part theory, part criticism, part autobiography, and part manifesto—called for a similar shift in perspective with respect to the reception and interpretation of texts in the age of electronically produced and mediated writing, and fifteen years or so hence, new media studies are mainstays of many rhetoric, English, and writing studies programs. Since the 1980s, some strains of the academic study of avant-garde performance, often situating the performing body within highly technologically mediated environments—and sometimes blurring the lines between the organic and inorganic elements of performance—have also taken note of technology and technologically sustained media as an important element of the performance event.³ The academic study of narrative drama, by contrast, has yet to attend fully to the materiality, mediation, and the technological conditions of performance production and reception as sites of critical analysis and interpretation.

In some ways, the persistence of text-centered orientations in drama studies in contrast to the practical, application-focused considerations of technical theatre studies would seem surprising, especially given the degree to which theatre and drama are so technologically circumscribed and enmeshed in their own media. We might have expected the emergence of dramatic theatre's media and technologies into stark salience to have preceded that in other arts. For drama would seem especially well positioned to reveal the resonances among representation, the technologies of staging, and the conditions that govern and mediate the everyday lives of its participants and audiences. After all, over the past five hundred years, and especially the last two hundred years, dramatic representation, as a practice, and theatres themselves, as technologically mediated spaces, have seen quite rapid and frequently transformative innovation. The salience of theatre's production technologies not only as enablers but also as bearers of meaning would seem to follow naturally upon highly synthetic nature of dramatic theatre itself as a set of representational practices, which combine elements of sound, embodied performance, lighting,

painting, architecture, movement and rhythm, music, and, especially since the final decades of the twentieth century, film, video, and digital programming, so that innovations in any one of these areas have repercussions in theatrical production practices. While technological innovation in musical instruments or architecture may occur relatively slowly, or in bursts of novelty punctuating otherwise long spells of stasis, in bringing these various media together, dramatic theatre finds itself in an almost constant state of technological flux and high innovation density. Because innovation in theatre, and particularly in dramatic theatre, comprises innovation in all other arts, no medium of artistic or creative expression has changed as much as theatre has over the past five hundred years, for theatre always embeds any other individual medium's changes within its expansive repertoire of technologies and techniques. Indeed, in the context of such rapid technological change, we should be surprised in noting that a great deal of formal stability has endured in Western dramatic drama since even before the time of Aristotle's *Poetics*.

It is curious, then, that theatrical production and the study of drama and dramatic theatre so often elide their medium's technological positionality and the multiple materialities of its machineries. With relatively rare exceptions, the technologies of production—the material substrate of the visual and auditory spectacle—seem to fade or disappear entirely into the dramatic effects they produce, including, principally, character, narrative, and scene. The projected images, the cascades of light, the scenic transformations, the sounds of wind, weather, tumult, and triumph often present themselves, as if *ex nihilo*, as the effects of the staged environment rather than products of a technologically sophisticated, professionally designed, carefully managed *techne*. Even when we can clearly perceive the mechanisms that produce the effects—the concentric revolves that move actors and properties from place to place, for instance, in Lin-Manuel Miranda's Broadway hit *Hamilton* (2015) or the modest *periaktoi* manually turned between scenes of Jeff Talbot's *The Submission* at the off-Broadway Lucille Lortel Theatre (2010)—conventions of spectation insist that we not acknowledge them

or that we bracket them off as something other than representation, the way readers might ignore a book's page numbers, chapter headings, copyright pages, and other paratexts typical of a printed work.

Paratext, Gerard Genette's term for such seemingly ancillary texts that frame and render legible a central text—a narrative, an account, an argument—offers one way of naming the machineries and systems on the margins of theatrical representation, and thus of making the materialities of dramatic performance available as part of a sign system subject to analysis and interpretation. Genette characterizes a printed text's paratexts as “more than a boundary or a sealed border” marking an “undefined zone” or “vestibule” that both demarcates a central text from the world and connects it to that world: they are “thresholds of interpretation,” to quote the subtitle of Genette's book on the subject⁴:

[A]lthough we do not always know whether these productions are to be regarded as belonging to the text, in any case they surround it and extend it, precisely to *present* it, in the usual sense of this verb but also in the strongest sense: to *make present*, to ensure the text's presence in the world, its reception and consumption in the form (nowadays, at least) of a book.⁵

Much the same can be said for the theatre's apparatus: Like a book's paratexts, they are essential to mounting a dramatic performance, making it present to its audience, enabling “its reception and consumption in the form” of a theatrical production. Like a book's paratexts, in dramatic theatre in particular, production technologies typically do not present themselves as objects of inquiry, scrutiny, or analysis; the spectator must intentionally pay critical attention to them, a task often rendered difficult by the more central spectacle of these technologies' effects. By virtue of their articulation to literal and metaphorical systems of power, they too are “more than a boundary or sealed border”: They frame a production without quite enclosing it, suturing it to more or less attenuated, more or less abstract notions of systematicity and technology outside theatre practice.

In order to make these technologies and their function as interpretive “thresholds” visible and available to analysis, *Staging Technology* approaches the intersection of dramatic theatre, production, and technology from a perspective informed in part by the strain of continental and post-structuralist theory, philosophy, and linguistics that focuses its attention on materiality as it emerges at the margins of representation and on recovering, revealing, or making newly visible often overlooked or forgotten, elements of a “text” rendered in any medium. Such a perspective allows us to examine the interconnections among dramatic text, production, and technology and between them and the conditions of their existence and persistence. This way of reading, seeing, and knowing draws partly upon a combination of Foucaultian “archaeology,” deconstruction’s attention to the margins—the *outwork*, *hors-du-texte*, and *exergues*, to use Jacques Derrida’s terminology—and the rhizomic, playful flux central to Gilles Deleuze and Félix Guattari’s analysis of culture, power, and signification. As Michel Foucault explains in the introduction to *The Archaeology of Knowledge*, “Beneath the great continuities of thought [...] are the *epistemological acts and thresholds* [...], *displacements* and [...] the distinction [...] between *microscopic* and *macroscopic scales* [...], *recurrent redistributions* [...], and] *architectonic unities* of systems.”⁶ While Foucault’s remarks pertain to historiography, and to the history of scientific knowledge in particular, these elements complicate the practice of dramatic theatre and lay them open to analyses that re-center the marginal, the technological, and the material elements so frequently elided from these fields.

Likewise, Deleuze and Guattari’s notion of the “assemblage,” the loosely connected, hybrid, contingent, temporary, and discontinuous systems of knowledge production and dissemination, power consolidation and distribution, and social ordering and reordering, becomes particularly useful to the project of making visible and making sense of the materialities of theatre, drama, and performance.⁷ Deleuze and Guattari’s analyses disrupt the linear, unified, and hegemonic coherence of the systems they examine by tracing “the minor”—that is, the marginal, deprived remainders that persist within dominant

or conventional forms.⁸ Thus, a Deleuzo-Guattarian reading of theatre, drama, and performance, following lines of flight, flows of information, and rhizomic vectors as they coalesce into nodes and plateaus of more or less organized sense, reveals systematicities that, if they do not quite undermine conventions of narrative, spectacle, and performed representation, offer possibilities for seeing alternative structures of meaning. In the chapters to follow, such a perspective, while it will often remain implicit, animating my analyses without my continuously invoking its theoretical discourse, will frequently inform my readings.

More generally, useful as post-structuralist perspectives are in bringing to light the elements of performance and production necessary to this project, throughout *Staging Technology* I have as far as possible avoided the dense, often elliptical prose stylings for which deconstructive, rhizomatic, and Foucaultian analyses are so often derided. While I appreciate, and indeed enjoy, the ways such prosody does not just convey but also enacts its own critique of language, meaning, and ideology, I am much more concerned that the theoretical and critical moves *Staging Technology* makes are as clear and readable as I can make them, especially since drama studies so rarely disports with this body of theory in the first place, particularly in contrast to performance studies and analyses of postdramatic or postmodern theatre practices. With apologies to high theorists among my readers, I do not see the value in reproducing the kind of opacity that marks the writing of Derrida, Foucault, and Deleuze and Guattari if my hope is to establish the usefulness of a critical perspective that provides alternatives to established ways of reading and understanding dramatic theatre.

To my mind, Hayles, whose insights will reappear in the chapters to follow, provides a useful and accessible vocabulary for characterizing my project and naming its goals and objects of inquiry. Returning, then, to *Writing Machines*, we find that much of what Hayles has to say about the text-centered impulse of literary scholarship in the mid-to-late twentieth century still applies to scholarship on dramatic theatre. In noting that “literary studies [had] generally

been content to treat [...] narrative worlds as if they were entirely products of the imagination” by ignoring materiality and the text’s conditions of existence, *Writing Machines* echoes Janet H. Murray’s somewhat less nuanced articulation of the same problem five years earlier: “Academic theorists reduce literature to a system of arbitrary symbols that do not point toward anything but other texts.”⁹ Hayles and Murray alike argue against an approach to literary criticism that sees “literature as immaterial verbal constructions” and “relegat[es] to the specialized fields of bibliography, manuscript culture, and book production the rigorous study of the materiality of literary artifacts.”¹⁰ Clear analogs in drama studies present themselves. Just as literary critics have often marginalized considerations of the text-object’s materiality, so too does drama studies, particularly as it emphasizes textual drama and tends to de-materialize their objects of inquiry as a species of literary criticism that prizes the immaterial “products of the imagination.” Like Foucaultian archaeology and Deleuzo-Guattarian rhizomics, Hayles in particular wants to see representation’s various modalities—its materiality, the historical conditions of its existence, its semantics, its narrative, and so on—as “interpenetrating and simultaneous” within a work rather than as delineated from one another, “linear and sequential.”¹¹ With respect to literary study, then, Hayles outlines an approach much more sensitive to the materiality of the text-as-object, an approach she calls “media-specific analysis.” She demonstrates her media-specific orientation throughout *Writing Machines* by focusing on works that foreground their own technologically mediated materialities—works she calls “technotexts”: “works that strengthen, foreground, and thematize the connections between themselves as material artifacts and the imaginative real of verbal/semiotic signifiers they instantiate.” These kinds of works, she says, “open a window on the larger connections that unite literature as a verbal art to its material forms.”¹² In addition to having found Hayles’s approach a useful model for much of what follows, I also continue to appreciate the clarity and elegance with which she frames her analyses, across the

body of her work, refreshing and attractive—a feature of her work that I have tried to make a feature of mine, as well.

Staging Technology is not, I hasten to add, a mere exercise in theory. Attending to the material facts of dramatic theatre and theatre production enriches the reading of particular works for performance, often complicating and deepening them, revealing layers of complexity, particularly with respect to their relationship to their material manifestations in time and space. To the extent, then, that *Staging Technology* wishes to intervene in the practice of representational theatre and drama criticism by rendering theatre's representational technologies visible and available to critical interpretation, it also offers a kind of extended essay on method. Borrowing freely from the work of such historians, philosophers, and theorists of literature and culture as Walter Benjamin, Siegfried Zielinski, Jürgen Habermas, Fredric Jameson, and Anson Rabinbach, in addition to Hayles, Foucault, Derrida, and Deleuze and Guattari, whom I have already cited, *Staging Technology* draws critical attention to the complex interrelationship of performance, text, theatre, and material culture.

The circumscribed practices of drama studies notwithstanding, one way in which theatre and drama have at least partially begun to liberate themselves from the bounded and hermetic unities that post-structural and media-specific analysis wish to reveal and question has to do with the position of the playwright. In contrast to the fixity and finality of most authored texts—poems, essays, stories, novels, monographs, and so on—a dramatic text almost always opens itself to interpretations that exceed what we might imagine to be the playwright's "intention." Reading a play, we imagine voices, settings, bodies, and movements that may be both licensed by the text and yet unimagined by the playwright. Even productions in which the playwright has been involved exceed the text and yet are only provisional—temporary, ephemeral, open to reinterpretation or rejection. We cannot therefore speak of an "authoritative" production of a play as one might speak of authoritative editions of other kinds of literary texts. As a consequence, outside the scholarly context, it is common for performances of plays

to be spoken of and advertised with little or no attention to the name of the author—even quite famous or popular pieces. Indeed, there is a strong correlation between a work's textual fixity and its connection to the name of the author and their oeuvre, such that we can imagine a spectrum on one end of which highly fixed texts, such as poems, retain a strong connection to authorial identity, while on the other, radically open, dynamic texts—recipes, for example, but also plays—maintain a weak connection, if any, to their author. To the extent that the collaborative nature of the theatrical enterprise, coupled with the impermanence of any particular production, much less of any particular performance, has somewhat loosened the idea of a play from the idea of literary authorship, drama already shows a susceptibility to innovative, synthetic approaches.

Earlier, I said that the technologies of theatrical performance—including plays, musicals, and opera—tend to recede or disappear *with relatively rare exceptions*. In order to bring these technologies into view, this book focuses on some of those exceptions: fifteen or so works of the twentieth- and twenty-first-century canon of European and American narrative performance that, in one way or another, implicate the technologies of the stage, and by extension, the ideological, political, economic, and social apparatus that make it possible, into the scene of representation. These works are “technotexts” in precisely the way the literary texts Hayles’s *Writing Machines* examines are. They include works of the French avant-garde, Brechtian epic theatre, American modernism, European absurdism, postmodern experimental opera, and musical theatre, although within these modes there is considerable variation in the way the apparatus makes itself perceptible and the degrees to which it is literalized on stage.

Thus, *Staging Technology* asks what becomes visible, what interpretive possibilities emerge, when we encounter plays, operas, and musicals that are themselves in one way or another *about* fraught human-machine interfaces with the apparatus of theatre production in mind. What can theatrical production tell us about the way technology functions as an element of ideology and power? About the limits of the human? About

the nature of agency and autonomy? About how we conceive of space, time, and movement in real and virtual environments? About big data, information, and cybernetics? Similarly, when we attend to the extra-theatrical history of technological development over the past one-hundred years in the areas of industrial production, digital computing, media studies, aerospace engineering, and elsewhere, what can we learn about the possibilities and limits of theatrical representation? About its implication into nontheatrical flows of knowledge, power, and capital? And, not least, what new ways of reading and interpreting theatrical works become available to us? What sorts of critical understanding do they yield?

In addressing such questions, *Staging Technology* offers one way of bridging the divide that frequently separates theatre studies, which often focuses attention on the technical deployment of theatre technology, on the one hand, and drama studies' critical, analytical reading of performance texts, which privileges the literary text over the exigencies of performance, on the other. *Staging Technology* thus weaves together threads spun from theatre history, theatre practice, dramaturgy, drama criticism, and technology and media studies to read theatre technologies as bearers of meaning and to read performance texts as articulated to technologies not just of production, but of spectation, ideology, and commodity production and consumption more broadly.

In some of the pieces under discussion, the technology is staged quite literally and quite explicitly: Beckett's *Krapp's Last Tape* (1958) gives far more discourse to its reel-to-reel tape recorder, central in the mise-en-scène, than to the human actor playing the title character. Similarly, Tod Machover's operatic setting of Robert Pinsky's libretto for *Death and the Powers: A Robot Opera* (2010), imagines a post-organic world in which robotic modules perform again and again a now ancient, seemingly prehistoric saga of a billionaire inventor who succeeds in uploading his consciousness to a digital computing network and leaving his organic body behind, shuffling off his mortal coil. In others, the technologies in question are less central, more attenuated in their representation: In Act One of John Adams and Alice Goodman's *Nixon in China*, Nixon,

who has arrived *ex machina* from the flies on a nearly full-size replica of the presidential airplane, sings of the heroic human quest to reach the moon and of the wonders of media broadcast. In Cocteau's *Eiffel Tower Wedding Party* (1921), styled as a "ballet," characters struggle to act in a world where photography, sound recording, communications, and transportation technologies enter a state of flux, always on the verge of becoming other. And in still other plays, the machine emerges as a trace, a logic, or a remainder of mechanical processes of articulation and assembly, as when the human head in Tzara's *The Gas Heart* (1921) is rendered as its several features, each of which performs its role separately, or when Heiner Müller's *Hamletmachine* (1977) enacts the emerging logic of digitality, recursivity, and hyperspace. In these examples, technology operates at several registers, sometimes simultaneously: as a literal object of representation; as a process or logic according to which the world is ordered and flows of force and information are managed; and as a metaphor for the workings of ideological apparatus, financial and economic systems, and modes of social control.

The fact that theatre technologies and their relationship to staged representation have not more often been the objects of sustained reading and reflection is attributable, in part, to the way theatre, drama, and performance studies get distributed across academic disciplines and to the disconnect between the concerns that animate the academic study of theatre and drama from the goals and exigencies that motivate theatrical production. Drama studies, more than other approaches to performance works, sometimes deploys post-structuralist and continental critical methods common to English, Comparative Literature, Rhetoric, Cultural Studies, and to some extent, History departments, at least in the United States. Theatre and Drama programs, by contrast, have largely focused on methods for realizing plays and other performance pieces in a particular way, in a particular place, at a particular time. In these programs, textual interpretation, production history, and script analysis are oriented not toward critical interpretation for its own sake but rather toward eventually mounting

a show. The production-oriented posture of the usual theatre-and-drama approach is little abetted by the ambiguities and plays of meaning that multiply in the text subjected to post-structural analysis. A performance, after all, is the result of innumerable interpretive choices; while opening up interpretive possibilities and discovering thematic and motific resonances across diverse modes and moments of theatrical production may be a salutary preliminary exercise, the work of production—design, staging, characterization—requires and enacts at least temporary fixities that demand bracketing off interpretive possibility and imposing provisional constraints on the play of meaning.

Moreover, the persistence of a linear, causal mode of imagining theatre and drama history and the predominance of author-centered approaches in drama studies as they are pursued outside theatre departments constrain the kind of semiotic play, interpretive ambiguity, and material complexity that grow out of more open interpretive methods. While theatre practice—and particularly, publicity for theatrical productions—often elide the name of the author, it is not uncommon for drama scholars to identify themselves as interested in the works of one or a few particular playwrights. John Willett's association with Bertolt Brecht, Christopher Bigsby's with Arthur Miller, and James Knowlson's with Samuel Beckett are only three of the highest profile examples of well-established playwright-scholar dyads in twentieth-century drama studies. Single-playwright societies, such as the Harold Pinter Society, over which I presided for three years, and single-playwright journals, such as *Shaw*, often serve to reinforce the idea of the individual author-genius whose "life and times" get deployed to authorize readings of their works. Other modes of organizing theatre and drama studies mirror those in studies of other literatures, as well: a focus on a particular national tradition (Irish drama, East German theatre), ethnic tradition (Black theatre, Latino drama), historical period (early modern, restoration, modernist), or genre (realism, absurdism, epic drama, environmental theatre, New Brutalism).

Finally, the predominance of phenomenology (as a way for the analysis of literary drama to imagine performance), cultural

anthropology (particularly in performance studies), and New Historicism (particularly in studies of historically distant drama) resist a media-specific approach to theatre and drama studies. Each of these modes seeks to organize knowledge about plays, performance, theatre production according to modalities established around one or a few settled truths. New Historicism, for instance, frequently circumscribes the understanding of a text by limiting it to what was thinkable at the historical moment of its creation; phenomenology, likewise, typically limits itself to what is perceptible and legible at the moment of performance and privileges the perceiving body as the site of meaning-making. This limiting function is not, I want to emphasize, a failure of these approaches; or, rather, it is not a failure particular to these approaches. Rather, it enacts the very conditions of existence for something like a discipline or a methodology in the first place.

These ideas about disciplinarity, too, derive from Foucault. In *The Discourse on Language* (1970), Foucault describes disciplinarity as “a relative, mobile principle” that “enables us to construct” statements “within a narrow framework.”¹³ Foucault goes on to explain that

disciplines are defined by groups of objects, methods, their corpus of propositions considered to be true, the interplay of rules and definitions, of techniques and tools: all these constitute a sort of anonymous system. [...] In a discipline [...], what is supposed at the point of departure is not some meaning which must be rediscovered, nor an identity to be reiterated; it is that which is required for the construction of new statements. For a discipline to exist, there must be the possibility of formulating [...] fresh propositions.¹⁴

As a consequence, “[d]isciplines constitute a system of control in the production of discourse [...] taking the form of a permanent reactivation of the rules” for the construction and validation of propositions. Delimited by their objects of study, their methods of analysis, their criteria for validating interpretive or truth-claims, and the ends they seek to advance beyond mere self-perpetuation, disciplines such as drama studies, or subdisciplines, like those that focus on a

particular genre, period, national or ethnic origin, or author's oeuvre, are reinforced in their disciplinarity by the organization of knowledge as it manifests in colleges and universities, academic and trade presses, institutional accreditation and licensing criteria, and, above all, historical and ideological exigencies.

In attempting to work across these disciplinary divides, *Staging Technology* considers text, performance, media, and materiality alike as, themselves, effects of larger systems—sign systems, value systems, political systems, and economic systems. Theatre technologies are not, according to this approach, ideologically neutral tools or autonomous systems independent of the meanings they bear and the constraints they impose or the possibilities they liberate. Rather, they activate meanings, sometimes resisting deployment, sometimes amplifying a production's themes, and sometimes doing both at once. Thus, while *Staging Technology* relies extensively on historical and technical examinations of theatre's technologies, it does not reproduce the linear, developmental narratives or utilitarian purposes such works often offer. Likewise, my focus on materiality and mediation render the metaphysics of actorly and spectatorial experience mostly irrelevant to the work *Staging Technology* wishes to carry out. I do not mean to say that phenomenology, as a critical approach to understanding some aspects of the theatre event, does not account for much of what happens when performance takes place before an audience. Rather, I wish to note the distinction between my project, which takes the actorly and spectatorial sensorium as part of the theatrical sign system and techne, from one that focuses on affect, presence, and the experience of being that, together, resist or exceed signification.¹⁵

At the same time that *Staging Technology* pursues a method distinct from those that animate much of theatre and performance studies, it also goes beyond critical approaches to textuality and literary interpretation often deployed in drama studies. My adherence to rigorously theorized, analytical, and interpretive close reading notwithstanding, *Staging Technology* treats the text as only one component of the complete scene of signification. Moreover, just as it attempts to read the theatrical

margins as signifying in their own right, this book attends carefully to the non- and extra-diegetic elements of the performance text, including stage directions; descriptions of setting, spectacle, and sound effects; and the musical score, components of the text often seen as marginal—paratextual—to the main business of characterization, dialogue, and action. Finally, while *Staging Technology* attends to the historical conditions within which a given performance took place and often uses historical documents and historiographical accounts to support its readings, it is not a work of historicism, new or otherwise. Rather, material, cultural, and aesthetic history is one component of a complex assemblage of signs and systems that enable this book's critical project.

I do not wish to suggest that questions of technology and the scene of theatrical representation have never been raised before in the critical literature. Indeed, the chapters that compose *Staging Technology* rely from time to time on essays, articles, book chapters, and books that consider the representation of technology on the stage or the use of technology in production. However, these works often focus on a particular play, the work of a particular author, or a consideration of a narrowly defined class of technology. A relatively recent case in point is Dennis Jerz's *Technology in American Drama: 1920–1950: Soul and Society in the Age of the Machine*.¹⁶ As the kitchen-sink title suggests, it is an uneasy blend of theatre history, formalist criticism, and linear historicism concerned with the grand metanarratives of individual, aesthetic, and cultural progress. While it takes technology as a recurring theme in three decades of American drama, it uncritically maintains such age-old structuring binaries as human/machine and theatre/society and hews to a progressivist, linear account of aesthetic development. Similarly, *Technology in American Drama* repeatedly allows itself to be drawn into theatre and drama's representational illusions, for instance, by reading characters not as signs but rather as fully self-conscious human agents. Their actions, in Jerz's readings, follow upon their willful decisions and intentions, despite the ways technology repeatedly attenuates that foundational concept of human subjectivity to begin with.

By contrast, *Staging Technology* views the theatre apparatus and staged representations of human–technology interfaces as extensions of and elaborations upon a complex and contradictory cultural logic: Theatre, drama, and performance do not merely reflect their cultural moments; they also process, critique, rework, and resist them in ways that go beyond their explicit theses or surface readings of character and action. By maintaining its focus primarily on the internal literary dynamics of the works it examines, Jerz’s book does not account for how the theatre apparatus complicates the very notions of the human, the actor, and the character, not just in technoplays, but in all performed representation. So, while *Technology in American Drama* offers occasional insights and findings useful to my project—especially to Chapter 2—its reliance on expressions of authorial intention, formalist criticism, and aesthetic judgment and on an explicatory rather than dialectical critical perspective is more typical of the strain of drama criticism into which *Staging Technology* wishes to intervene.

Still, in enumerating the ways *Staging Technology* departs from more standard approaches to theatre and drama studies, I do not mean to reject the relevance of these approaches to my project. One of the most concise and compelling articulations of the critical possibilities of an approach that attends to the materialities and technologies of dramatic theatre production comes in Christopher Baugh’s introduction to *Theatre, Performance and Technology* (2005). His opening remarks to this comprehensive examination of the development of stage technologies in the twentieth century summarizes centuries of technological innovation in theatre, from the ancient Greeks’ painted sceneries and famous crane-like machine, through the increasingly sophisticated staging of opera and stage spectacles in the seventeenth and eighteenth centuries, on to the sensational melodrama and the box-set naturalism that predominated at the end of the nineteenth century. In providing this overview, Baugh rightly notes that “[t]echnologies may have meanings in and of themselves, and are not simple servants to the mechanistic needs of scenic representation. They are an expression

of a relationship with the world and reflect complex human values and beliefs”¹⁷:

Complex technologies in performance [...] serve as symbols of power and authority, at the simplest where the stage knows or “owns” something that the spectator does not. More subtly, in the knowledge and ownership of technology there may also dwell the colonial power of the nation, the patriarchal power of the monarch, duke and state, the power of the owner of the theatre and its means of presentation. Dramaturgical power and efficacy may also reside in technology; the theatre of Greek antiquity used a *mêchanê*—a mechanized lifting arm or crane to suspend gods over the concluding action of its tragedy. Their suitably elevated status illustrated their ability to provide dramatic resolution to the drama—hence the *deus ex machina*, “god out of a machine.”¹⁸

Baugh is right in directing us to the way theatre technologies do not just enable effects but convey ideological, political, and social meanings as well. Implicit in his remarks is the way technologies of the stage can function both as signs—a bearer of meaning—and tools for the production of effects at the same time. Stage technology thus inhabits a double ontology: As a sign, it can be read for its signifying potential, analyzed in order to read out of it encoded or implicit messages about power, value, and belief; but it can also be understood as an apparatus that produces other effects, themselves open to critical interpretation. Throughout this book, I have tried to remain mindful of both qualities and not to let the effects occlude the machine, on the one hand, or the facticity of the machine as such to detract attention from its representational outputs. Rather, I see the theatre apparatus as such and its effects as part of a continuum of meaning-making, a process for producing meanings and for producing other processes at the same time. In short, stage technology emerges in *Staging Technology* as part of a dynamic system of production, interpretation, ideology, and self-reproduction.

Baugh raises these questions in passing, gesturing toward analytical concerns that go beyond the purview of his book, which enacts a relatively straightforward form of theatre history more in line with

the historical narratives of teleology and causality that Foucault critiques. The bounded, linear unity of Baugh's project is signaled by the word "development" in his title and by the book's overall thesis that a modernist aesthetic of rejection was the primary motivating force of theatre's technological innovations. Still, the kind of detailed recapitulation of modern theatre's technology Baugh provides is essential to the media-specific analyses *Staging Technology* offers, and I have made use of Baugh's perspective, along with those of other theatre and design historians, to enable a rhizomic, analytical, and interpretive reading of staged and stage machineries.

And so, the point of *Staging Technology* here is not to denigrate more standard approaches to theatre and drama studies. My own work as a critic, scholar, performer, director, and teacher has benefited from New Historicism, phenomenology, theatre history, and single-author, single-genre, and nation-of-origin perspectives on theatre and drama, and I have contributed articles and essays to journals and volumes organized around these kinds of inquiry. In the pages that follow, I have drawn freely and often deeply from such works. Depending on the uses to which I wish to put a reading, I have knowingly adopted this or that set of limitations, finding them occasionally salutary and necessary. After all, one must somehow draw boundaries, however provisional, around the field of inquiry or risk becoming a kind of mad Casaubon seeking a universal and unconstructed—and thus, precisely impossible—point of view on all knowledge. In what follows, however, thematic, motific, or formal consonances take clear precedence over national, ethnic, linguistic, historical, and generic boundaries. Thus, the reader will find utterances by US presidents, for example, in conversation with those of literary critics, theatre practitioners, historians, computer programmers, mathematicians, media theorists, inventors, and social scientists. The analytical and interpretive moves this book makes emerge from my view of theatre and drama as a radically interdisciplinary, synthetic, and ever-changing set of practices and approaches. Again, the theatre space itself, with its blend of old and new, of organic bodies and inorganic materials, of music, rhythm,