## Introduction. Intermediality and Virtuality in Performance: A Reflection on Twenty-First Century Mediaturgy

Our contemporary period is witnessing an ever renewing intermedial turn: "many works of art, cultural artifacts, literary texts and other cultural configurations either combine and juxtapose different media, genres and styles or refer to other media in a plethora of ways" (Rippl 2015, 1). The theatre has always been a multimodal form of expression, it is "inclusive and collaborative by its nature and has always encompassed various sectors of art, design and technology" (O'Dwyer 2021, 3). Chapple and Kattenbelt have defined it as a "hypermedium that incorporates all arts and media and [as] the stage of intermediality" (2006, 20).

The increased mediatisation of the theatre reflects the increased mediatisation of our everyday life; the spread of digital technologies has added to the theatre's multimodal dimension, with particular reference to the interplay between words, visual elements, sound and movement. It has been accompanied by, and grounded in, a techno-cultural turn, which can be considered as an updating of the two cultures debate. Technology has affected the image of the world, human identity, and their relationship; this finds a privileged expression in the theatrical experience, which engages its own technological context and fosters a reflection on the relationship between the body and technology, as well as the potentialities of digital interaction.

Digital theatre needs the collaboration between the arts and sciences: "The complexity of digital technology demands that performers, artists and designers work closely with technical experts, like electronic engineers and computer scientists... thereby synergistically expanding knowledge in both domains" (O'Dwyer 2021, 23). In digital culture performances, technology is not only employed in an ancillary way for the *mise en scène*, but through its specificities, it affects the overall dramaturgical design. This

<sup>\*</sup> University of Verona - sidia.fiorato@univr.it

calls for a dynamic reconsideration of theatrical performance that affects the conception of space, the human component of the performance, the relationship between stage forms and spectatorial attitudes. Causey speaks about a "theatre of monsters" to indicate "hybrid forms of performance [...which] bridge, extend and explore the gaps between the live and the mediated", as well as between an organic human entity and a "technologically integrated one" (Causey 2002, 182). The resort to the concept of monstrosity underlines the digital theatre's visual critical paradigm which exceeds and interrogates theatrical codifications within an ever-evolving context. As such, the theatre of monsters embodies the representational, ontological and epistemological anxieties of the twenty-first century.

Many critics remark upon a paradigm change from Peter Brook's empty stage to the digital stage, from the presence and the observation of a body in an empty space to the performer's interaction with digital interfaces and other users of the medium (see Elleström 2010, 30; see also Brook 1986). Brook asserted: "I can take an empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him, and this is all I need for an act of theatre to be engaged . . . Another aspect of the empty stage is that the emptiness is shared: it's the same space for everyone that's present" (1995). Upon this empty stage an idea was "given flesh and blood and emotional reality". The digital stage, instead, seems to have reduced the human body to one of the many signifiers of the performance, its primacy displaced by the co-presence of technological tools (screens, motion sensors) and their effects, such as the digital doubling of bodies, virtual bodies, robots and cyborgs (see Nelson 2010, 23). The stage is no longer empty but alredy in potentia, an open space for experimentation which determines a new spatial turn of the digital era, and the idea is given flesh, blood and technology in order to articulate a new emotional reality. As Masura asserts, "Theatre is an empty space left open to creative possibility" (2020, 17), to our imagination, and as also Causey observes, "The theatre is once again the test site, the replica, or laboratory, in which we can reconfigure our world and consciousness, witness its operations and play with its possibilities" (2002, 182).

The contemporary intermodal turn has led to the "possibility of transformation from the physical to the virtual in additional dimensions of space and time" (Nelson 2010, 14). In Virtual Theatre, "the work of art and the viewer are mediated" (Giannachi 2005, 4), and the medium disappears. As Susan Payne points out in her essay in the present special issue the word

<sup>&</sup>lt;sup>1</sup> This was a reaction to the ubiquity of cinematic and televisual media (see Balme 2008, 200, who mentions also Grotowski's theatre as based on the actor-spectator relationship, which forms a perceptual living community).

virtual is characterised by a complex semantic relationship with its apparent antonym real in particular in the philosophical field, and this reaches a significant point in the contemporary concept of hyperreality, when images substitute reality. Over time, the concepts of virtual and real seem to meld into one another, as virtual reality synthesises a shared reality (a lifelike environment) through technology, which can be interacted with through responsive hardware. According to Giannachi, virtual reality is not a copy nor a re-presentation of the real, therefore it must be part of it, although it is not synonymous with it. It "needs the real as its major point of reference" (2005, 133, emphasis in the original). This paradoxical relationship with the real characterises virtuality and its unstable ontological status. Virtuality does not only represent "the main 'other' to the real, an other that is able to simulate the real while maintaining its difference from it, but can stand in for the real, thereby ultimately representing a perfect rehearsal space for it. Hence, virtual reality is both in the real and a simulation of the real" (Giannachi 2005, 152).

The connection between the real and the virtual for Giannachi is given by the digital screen, which allows different modalities of interaction: immersive, desktop VR, third-person VR (see Giannachi 2005, 10). The computer screen becomes a prosthetic element for the viewer, as it makes him experience a 'reality', through a willing suspension of disbelief.

In intermedial theatre, the word 'virtual' is often used in connection with the different possibilities for the use of screens in dramaturgy. The digital stage is characterised at the same time by materiality and immateriality; the live and the mediatised are foregrounded as integrated through actual spaces and virtual projections, through bodies and projections on screen. The duality that posits the experience of virtuality posits the screen as a material and technological border that divides the material body from the computer simulacra: actually, virtuality allows to permeate such border establishing and experimenting multifarious relationships that contribute to the experience and articulation of subjectivity and its expression in performance. The border is porous and protean: on the one hand, we have the more technological aspect that posits the body in a feedback loop with a computer-generated image (see Hayles 1999, 14), on the other hand we have the exploration of the dramaturgical use of technology in intermedial theatre. In the overall cultural context, "[t]he perception of virtuality facilitates the development of virtual technologies, and the technologies reinforce the perception" (ibid.).

This cultural turn involves all aspects of the theatrical experience. Virtual theatre has recently assumed the meaning of on-line theatre and included the possibility of interaction with the performance. On the other hand, the audience as well has become virtual, in the sense that it is no longer

seen and does not participate in the theatrical event, so in this sense, 'virtual' provocatively suggests absence, as Payne observes in her article in the present special issue. This calls for a reconsideration of theatre's defining characteristic as "the social meeting between performer and spectator in the live presence of the here and now" (Kattenbelt 2006, 33), because spectators and performers do, or may, not occupy the same time and space, or else they may do so in virtual and not in actual space. The performance thus transgresses/exceeds contexts and environments: "The space of intermediality, in this regard, is not already there but can only be understood as a temporal, dynamic and highly complex spatial configuration, which is created within the process of the performance" (Wiens 2010, 94). As a consequence, "Definitions of space must be supplemented by a subcategory, medial space, the digitally-generated spaces in which theatre is composed" (95). The stage posits itself as an interface opening up real space to the digital one; as Wiens asserts, "real, imagined and virtual spaces can performatively reconfigure one another and create enlightening tensions" (94). The stage becomes "a discursive instrument" (ibid.) which calls for a dislocation of the traditional roles of performer and spectator.

Avra Sidiropoulou's work shows how new artforms enter the domain of dramaticity (2018a, 117). In these porous dramaturgies the screens articulate a digital textuality: "Set and digital design thus inscribe their own narrative onto the performance from the outset of the creative process, together with the text" (Sidiropoulou 2020). In these hybrid scenographies, screens open dramaturgy to digital storytelling processes; the private corporeal self becomes a public space and parallel storylines can be created as a commentary, insight, alternative development, additional information in a technological garden of forking and innesting paths. Media aesthetics combines with theatrical design to present experiences of non-linear storytelling which involve the actor's body, visual and digital scenography "where meaning is produced dialogically" (ibid.). Sidiropoulou has extensively worked on the copresence of video images and live performers as a metaphor for split subjectivity and expresses the need to investigate the cultural reasons for this intermedial representation of contemporary identity (see Sidiropoulou 2018b), in line with the two cultures debate. In this kind of visual dramaturgy, the actors "create and receive narratives: they interpret through movement and presence, but also receive and respond to the projection or broadcast of impressions and structures" (Sidiropoulou 2018b).



Frozen by Bryony Lavery. Directed by Avra Sidiropoulou. Performers: Stelios Kallistratis and Monika Meleki. Skala Theatre, Cyprus, 2020. Photo Credit: Sofoklis Kaskaounias.

The live dimension of theatre includes the interaction between performer, audience and the digital in multiple combinations. Starting with the architectural space of the theatre, the co-presence of all members of the audience has traditionally created the premise for a collective act of imagination based on a shared sense of community which is contrary to the isolation of technological contexts. This is the condition for Schechner's "showing doing", that calls for a relational aspect of the performance based on a simultaneous visual and physical sharing on the part both of performer and audience. This is the space of illusion, for the willing suspension of disbelief that cements the audience, but it is also the condition for the circulation of social (and cultural) energy that renders the theatre the mirror of its contemporary society. In this temporary shared space, the body theatrical is constituted (see Fiorato 2016), which witnesses and probates the performance (see Watt 2016). In our digital age, the audience can interact through on-line feedback or through audio or visual content; in this way, the audience members become co-creators of the performance and this aspect becomes ever more relevant in the contemporary predominance of performativity, so much so that Masura warns against the overpresence of solo performances in line with the twenty-fist century cogito: I perform therefore I am. As she underlines, "We need an audience to witness, to be the recipient of the actor's energy and the playwright's message" (2020, 197). In the participa-

tory nature of the theatre, the audience is the representative of the society that generates the performance and, at the same time, also the (active) recipient of the ideas presented through the performance itself. Digital media can connect the audience situated in different spaces, who can join online for an event, thus creating a community based on shared interest. As Masura observes, such "cyber or virtual community is a logical extension of the 'imagined community'" (2020, 239). In this global performance place, a new place technologically engendered out of the scattered (and divided) ones, a new kind of "community is formed by using *gesellschaft*" based on the interest for the performance, "to form *gemeinschaft*, a shared place" (242). And this both keeps the imaginative engagement of the audience and fosters the circulation of imaginative energy through its synaesthetic multimodality. As Lavender observes, "theatre" comes from the Greek *theatron* which indicates a seeing place; this indicates how the theatre encompasses the audience as well as the stage (2017, 344).

In the same way, digital media can expand the playing space by connecting performers situated in different locations, thus allowing the sharing of creative places by a geographically dispersed ensemble. In the case of *Ajax* examined by Simona Brunetti in the present special issue, a whole village was cabled in order to organise a network of screens connected to the three settings of the *mise en scène*. In this way, the audience at one location could be aware of what was happening at the other locations and



Sophocles, *Ajax*, By Scenica Frammenti (Civelleri-Lo Sicco ). Performer: Manuela Lo Sicco. Lari: Collinarea Festival, 2020

sometimes the screens created a mediaturgy as they affected the overall effect of the performance, in an updating of the polytopic space of medieval ancestry. In one scene for example, the female protagonists Athena uses a plastic cloth to cast a spell and in another location the group of actors is wrapped into a plastic cloth, with the screen on their background digitally duplicating Athena's action, thus creating the synaesthetic impression of the connection. The group of young actors projected on the screen represent Ajax's feelings and emotional reactions. In another moment of the performance, the video of Ajax's folly is posted online as a form of revenge against him by the other protagonists and it is actually showed on the background screens, as well as the followers' reactions. As Brunetti observes, the audience perceives the violence unleashed through the power of social media which nowadays affects human relationships; this determines the hero's isolation and estrangement which will lead to his suicide.

In the case of Rinde Eckert's *Breathing at the Boundaries*, multi-site performances create a layered and shared space between all of the performance sites through visual proximity which is created through technology (see Masura 2020, 239). This creates a new sense of "being there" both for the performers and the audience, through telepresence, which "dissolve[s] the spatial (but not the temporal) unity between performers and spectators and distribute[s] the scenic space into diverse remote sites [... in a] telematically mediated status of the performers' corporeality" (Glesner 2002).



Rinde Eckert. Breathing at the Boundaries. Crystal-Dawn Bell.

Eckert manages to convey the dimension of theatre as a site for a sensorial experience, a "conspiracy" in the etymological sense of "breathing together" (see Watt 2016, 190) which is reinterpreted according to the digital paradigm and the liminal experience and transcendence of the physical boundaries to form a new and contemporary body theatrical. The bodies cross ge-

ographical boudaries; they are "simultaneously 'here/now' and 'elsewhere/some-other-time'" (Chatzichristodoulou 2017, 321). What Lavender asserts about the relationship between Internet and the theatrical experience can be applied to the intermedial context as well:

Time, space, and event within theatre are coterminous (the space and events are accessed in time-experienced in the present), whilst in the internet thay are multi-synchronous (different spaces and events are accessed coterminously in time-experienced in the present, but may also be experienced in alternative relations – for example, by way of access after the event to material that was broadcast live). The Internet transmediates the theatre. (2017, 342)

It displaces space and "effaces, emphasises, and extends time" (346, emphasis in the original).² During the pandemic, artists like Eckert rendered their productions available on the internet through different platforms: the performance could be experienced in real time or accessed later in what became a composite virtual space. This layering of time and space becomes also part of Eckert's experience, as the performer on stage enters into dialogue with a pre-recorded performance either of him/herself or the other performers, and the audience watches the virtual space where the performers appear.

In Eckert's production we see how the body of the performer is split into and enters into dialogue with its screen image, or with the screen image of another performer, with his/her virtual presence. So he is subjected both to the gaze of the live audience, the cinematic perspective, and his/ her own gaze upon his mediated and unmediated self. The corpo-reality of the self gives way to its multiplicity and networked status, playing with the sense of presence/absence and resolving it into a hybrid condition which, according to Chatzichristodoulou (2009), calls for a new understanding of presence in performance beyond the constraints of oppositional discourses. In this dramaturgy of layering, "layers of physicality and digitality overlap and interweave to generate hybrid spaces; layers of past and present come together to confuse linear timelines; layers of actuality and virtuality interweave to generate hybrid bodies and presences." This "disrupt[s] the unity of the performance \*per se\*, as well as unified concepts of the body, the self, and presence". The virtual here refers to the potentialities of the performance, that actualises the possibilities of expression of the body.

The body is the essence of the agency of the actor, who expresses him/

<sup>&</sup>lt;sup>2</sup> Consider also: "If we access space *virtually*, we participate in time *vicariously*, both in the theatrical moment of construction and through ongoing and potentially reiterated consumption of the 'theatre' that has been constructed" (Lavender 2017, 347, emphasis of the original).

herself through his/her corporeality on the space/time of the stage: "the dramatic figure which appears on stage as unique cannot be conceived of or perceived without the actor's particular bodily being in-the-world" (Fischer-Lichte 2000, 73). However, as Ollivier Dyens notes, "Once digitized, the image of a human being . . . becomes a system unimpeded by any conceptual limits" (2001, 85), it can assume, and combine with, digital images and processes. As also Sidiropoulou observes in her article in the present issue, the projection of the characters on the digital screens lead to a "rebirth or reincarnation as hybrid, existing in a state of liminality between corporeality and imagination." And as in the case of Eckert's *Breathing at the Boundaries*, the performer can interact with his/her own projection on screen, a recorded projection of him/herself, the projection of other performers that are thus presentified and re-presented/re-mediated. The performer is a "border crosser" and the multimedia scenography interfaces



Rinde Eckert. *Breathing at the Boundaries*. Dalton Alexander and Gosh Indranil from India.

with the performers" (Klich and Scheer 2012, 11).

This attunes with Lehmann's observation that "theatrical experience essentially involves bodies: living, breathing bodies that shape experience even when they are explicitly presented to the observer as absent – say through the use of media and avatars" (2016, 129). Moreover, networked/internet – based performances challenge the notion of the fixed subject opening the possibilities for disembodied (inter)subjectivity, "combining biophysical gesture and articulation with [ . . . digital] means of expression" (O'Dwyer 2021, 18). This impacts conceptions of the real, as well as of the human. Technology has always accompanied human development. Stiegler considers technology as a prosthesis of the human body through his interpretation of the Epymetheus/Prometheus myth; he underlines how the latter gifted human beings with fire and skill to compensate for his brother's

lack of provision towards them (differently from the other species). In this way, *techne* was posited as a defining trait of human specificity, an empowering of the human body, a prosthesis that stretched the possibilities of potentialities of the body itself. Stiegler further observes that "A pros-thesis is what is placed in front, that is, what is outside, outside what it is placed in front of. However, if what is outside constitutes the very being of what it lies outside of, then this being is *outside itself*" (1998, 193; see also Worthen 2020), thus seemingly ponting to a confrontation of the human with itself and its potentialities. The digital age underlines how man is not subjected to technology but actively engages with it: therefore, "digital technologies are today part of the apparatus of theatre, not its other" (Worthen 2020, 10). As also Giannachi underlines, there is a strict connection between technology and art, based on the etymology of the word *techne* itself: "Just as art has repeatedly advanced through technology, technology has, via art, acquired aesthetic signification" (2005, 1).

Technology is not merely a tool for theatrical performance, but it plays a subjective role in the event (see Eckersall, Grehan, Scheer 2017, 3). On the digital stage, the performer's body undergoes a change in that it becomes an interface for the flow of digital data and/or becomes responsive to it (Balme 2008, 202). This calls for an engagement of the contemporary visual literacy to activate "new spatial organisations of processes of thinking and imagining" (Bleeker 2010, 40) which derive from the intersection between bodies and technologies and synaesthetic processes of perception. New Media Dramaturgy defines a kind of theatre in which technology does not simply represent part of the scenographic elements, but enters the dramaturgy of the production as a core component of it. Therefore, the "materiality of technical elements matters" (Eckersall, Grehan, Scheer 2017, 3) as it affects the creation, the performance and the reception of a production, as well as the conception of acting. New Media Dramaturgy observes how

images and objects perfor[m] alongside humans in ways that seem to refuse old binaries and notions that position the human and the machinic in opposition. Instead, these agentic objects now appear to engage in complex processes of negotiation and reflection on the emergent possibilities of a new order of experience between the machinic object and the active subject. (2-3)

As O'Dwyer observes, "technology becomes a performance counterpart and affects the choreographic and dramaturgical outcome of the work" (2021, 51): we therefore speak of technological agency. In this way, "new non-anthropocentric possibilities for choreography and dramaturgy at the intersection of human and software" open (45).

Through the use of video projections, the space is no longer merely il-

lustrative, but it becomes informatic: data-based images create immersive virtual spaces as the auratic analogic image disappears (see Eckersall, Grehan, Scheer 2017, 15 and 25). This brings about a "resensibilisation of perception in terms of separating the inwardness of experience and the outwardness of action, spatialising time and temporalising space; confronting the reality of illusion (the live) with the illusion of reality (the mediatised)" (Kattenbelt 2010, 35). Moreover, the projection of scenic backgrounds signals the overcoming of a static conception of place, as they change and morph into one another accompanying the development of the plot. They can have a role of illustration or commentary of events, or they can relate interactively with the character's mood and personality, the workings of their minds, thus synaesthetically affecting the dramatic action of the play. The digital landscape/virtual scenery thus becomes a character itself.

Masura defines the digital as "a conjuring of other places through expanded theatre magic" (2020, 42). Therefore, it transforms the theatrical place through the layering of media and the overlap between real and imagined landscapes, as well as a connection between the two. As Masura asserts: "In Digital Theatre we can make the imaginary "other" places appear in real-time as one place cohabits with another" (58).

The intermedial theatrical stage appeals to the perception of the observer, who is called to negotiate the relationship between the live and the mediated in an augmented sensorial experience and to reconsider the relationship between actor/performer and audience in theatrical "acts of presence in which phenomena of self, other and place are defined (Giannachi, Kaye, Shanks 2012, 1)". On the digital stage, mediums can combine in different ways affecting the perception of the audience and challenging established modalities of experience. With regard to this, Petersen Jensen observes that the mind and body of the spectator can morph into a hybrid site itself, the locus for receptive interactions and multimodalities of experience, which leads to new cultural ways of seeing (see Petersen Jensen 2007, 122-3 and Nelson 2010, 17). In particular, "Designing human—computer experience . . . is about creating imaginary worlds that have a special relationship to reality — worlds in which we can extend, amplify, and enrich our own capabilities to think, feel, and act" (Laurel 1993, 32-3).

Another use of screen projections takes place in Digital Costuming, whereby images are projected on the bodies of the actors "as a canvas for the media" (Saltz's interactive costumes; see his 2001 article, 124). They can render the actor's body nonhuman, or express the duality of identity, as well as "our perception of the edges of human form and essence" (Masura 2020, 86). In Sidiropoulous performances, screens are used to give visual form to the psychological aspects of the character and/or his/her memories, giving the impression he/she is reliving specific events referred to by

the performance. "This process of personality formation, reflected in the staging of the character as a series of projected memory fragments on and around the actor, function as an inner dialogue adding to the complexity of the character and providing context for his/her behavior" (ibid.). The media are used to create an alternative or subjective perspective. Moreover, screens are used to project upon one actor the body of another actor, thus giving form to the layering of identity. Converserly these devices can lead to erase the actor's body: "when the cloth becomes a surface for projection, the edges of character blur and shift between multiple bodies and screens"





*Phaedra I*—. Text-direction: Avra Sidiropoulou. Performer: Elena Pellone. Tristan Bates Theatre, UK, 2019. Photo credit: Michael Demetrius.

(4).

Intermedial theatre leads to a reflection on the relationship between technology and the human body: the actor's body can be both extended/enhanced and erased, "adding experiential meaning to the technical/scenic layer of theatre production—which alters the nature of being an actor itself", which has to take into account technological expertise. As Masura asserts, the actor becomes a human Everyman on the technological stage and fosters an engagement both on his/her part and on the audience's part in the "questioning of human value in the face of ever-present technology" (2020, 100). As the author further underlines, a performer can manipulate media and extend his body into the performance space, thus expanding his/her agency in three ways. Motion capture converts a performer's movements into digital data, which then can become patterns in space or can be

<sup>&</sup>lt;sup>3</sup> See Masura 2020, 99-100 for the whole concept.

"remapped onto [... digital] puppets [avatars]" and produce 3-D animations (Menache 1995, 1). Scheer refers to motion capture systems as "performative media" (2011, 36), which amplify (prosthetically) the body and foster experience in the hybrid space between the live and the mediated, which thus become "entangled" (see Salter 2010). The actor's body becomes a "transitional entity" (Masura 2020, 210), an interface between self and the world. The media become "part of [the performer's] gestural or performance vocabulary" (ibid.) who directly impacts the stage-world (101); through the movements of his/her arms or legs, the performer gives form/performs the audio and video world around him/her "becoming an architect of light, sound, and movement" (see Sharir 2000). The performance space reacts to the body's movement and engages in a dialogue with the performer's body, becoming a performing body itself (see Lovell 2000, 255). We witness here a process of digital synesthesia, whereby sensory, aesthetic and perceptual modes blend for new imaginative expression. For example, the volume and pitch of the voice of a performer can create a changing visual landscape of sound (Saltz's instrumental media). These are all examples of interactive media, which Saltz defines as adapting to the performer, rather than the other way round, i.e., requiring the performer to adapt to them, and in this way they merge the potentialities of both live and mediatised performance (see Saltz 2021, 109). Within this context, it is interesting to mention Stelarc's *Movatar*, which is based on a reversed motion capture system, whereby the body becomes a prosthesis for the expression of a virtual entity. In these examples the body comes to the forefront in its negotiations with technology and the surrounding environment.

Another aspect of virtual theatre that is analysed by Antonio Pizzo in his article in the present issue is the presence of AI on stage and how this affects the author's creation, the performance, as well as the audience's experience. It is based on a software system that aims to determine "how much computation and algorithm may shed a new light on the way we elaborate the notion of theatre and drama" (Pizzo, Damiano, Lombardo 2019, 20). After the first experiments in this sense in the 1960s, over the decades, programming has increasingly become a central part of some artists' creative process. In 2012 Annie Dorsen launched the idea of "Algorithmic Theatre", which focuses on the issue of presence and disembodiment in theatre, as well as on the tension between the written text and its performance on stage. The issue of control comes to the forefront as far as authorship directing is concerned, but also performing and assisting to the performance. The relationship between semiotics and performativity, meaning and experience collapses as the algorithm may be seen as text and performance at the same moment (as the instruction must precisely describe the execution), and the use of artificial agents collapses the differ-

ence between character and performer. Moreover, the live event does not develop through a sequencing of dramatic units, but similarly to a hypertext where each node may be the start of different continuations. As Pizzo observes, a new competence is required of the audience for decoding the intricate web of meaning created by interconnections of live and mediatised performance.

## **Works Cited**

- Balme, Christopher. 2008. *The Cambridge Introduction to Theatre Studies*. Cambridge: Cambridge University Press.
- Bleeker, Maaike. 2010. "Corporeal Literacy: New Modes of Embodied Interaction in Digital Culture". In *Mapping Intermediality in Performance*, edited by Sarah Bay-Cheng et al., 38-43. Amsterdam: Amsterdam University Press.
- Breathing at the Boundaries. Choreographic direction: Margaret Jenkins. Cinematographer and designer: Alexander V. Nichols. Writer, performer: Rinde Eckert with Michael Palmer. Dancer/collaborators: Kelly Del Rosario and Alex Carrington. Further info: www.mjdc.org (Accessed 6 June 2021).
- Brook, Peter. 1995. "The Slyness of Boredom". In *There Are No Secrets. Thoughts on Acting and Theatre*. London: Bloomsbury (ebook).
- −1986. *The Empty Space*. London: MacGibbon and Kee.
- Causey, Matthew. 2002. "A Theatre of Monsters: Live Performances in the Age of Digital Media". In *Theatre in Crisis? Performance Manifestos for a New Century*, 179-82. Manchester and New York: Manchester University Press.
- Chapple, Freda, and Chiel Kattenbelt. 2006. "Key Issues in Intermediality in Theatre and Performance". In *Intermediality in Theatre and Performance*, edited by Freda Chapple and Chiel Kattenbelt, 11-25. Amsterdam: Rodopi.
- Chatzichristodoulou Maria. 2017. "Introduction to Encountering the Digital in Performance: Deployment/Engagement/ Trace". *Contemporary Thetare Review* 27 (3): 311-23.
- 2009. "When Presence & Absence Turn into Pattern and Randomness: Can You See Me Now?". Leonardo Electronic Almanac 16 (4-5). https://leonardo.info/LEA/DispersiveAnatomies/DA\_chatzichristodoulou.pdf (Accessed 6 June 2021).
- Dyens, Ollivier. 2001. *Metal and Flesh: The Evolution of Man: Technology Takes Over.* Cambridge, MA: The MIT Press.
- Eckersall, Peter, Helena Grehan, Edward Scheer. 2017. New Media Dramaturgy, Performance, Media and New-Materialism. London: Palgrave Macmillan.
- Elleström, Lars. 2010."The Modalities of Media: A Model for Understanding Intermedial Relations". In *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, 11-48. Basingstoke: Palgrave Macmillan.
- Fischer-Lichte, Erika. 2000. "Embodiment: From Page to Stage –The Dramatic Figure". Assaph, *Studies in the Theatre* 16: 65-75.
- Fiorato, Sidia. 2016. "Introduction". In *Performing the Renaissance Body.* edited by Sidia Fiorato, John Drakakis. 1-26. Berlin and Boston: De Gruyter.

- Giannachi, Gabriella, Nick Kaye, Michael Shanks. 2012. "Introduction: Archaeologies of Presence". In *Archaeologies of Presence*, edited by Gabriella Giannachi, Nick Kaye, Michael Shanks 1-16. New York: Routledge.
- Giannachi, Gabriella. 2005. Virtual Theatres: An Introduction. London: Routledge.
- Glesner, Julia. 2002. "Internet Performances as Site-Specific Art". *Body Space and Technology 3* (1). https://www.bstjournal.com/articles/10.16995/bst.231/ (Accessed 6 June 2021).
- Hayles, Katherine. 1999. How We Became Posthuman. Virtual Bodies in Cybernetics, Literature and Informatics. Chicago and London: The University of Chicago Press.
- Kattenbelt, Chiel. 2010. "Intermediality in Performance and as a Mode of Performativity", in *Mapping Intermediality in Performance*, edited by Sarah Bay-Cheng et al., 29-37. Amsterdam: Amsterdam University Press.
- 2006. "Theatre as the Art of the Performer and the Stage of Intermediality". In
  *Intermediality in Theatre and Performance*, edited by Freda Chapple and Chiel Kattenbelt, 29-39. Amsterdam: Rodopi.
- Klich, Rosemary, and Edward Scheer. 2012. *Multimedia Performance*. London: Palgrave Macmillan.
- Laurel, Brenda. 1993. *Computers as Theatre*. Menlo Park: Addison Wesley Publishing. Lavender, Andy. 2017. "The Internet, Theatre, and Time: Transmediating the Theatron". *Contemporary Theatre Review* 27 (3): 340-52.
- Lehmann, Hans-Thies. 2016. Tragedy and Dramatic Theatre. London: Routledge.
- Lovell, Robb E. 2000. "Computer Intelligence in the Theatre". *New Theatre Quarter-ly* 16 (3): 255-62.
- Masura, Nadja. 2020. Digital Theatre. Live Mediated Performance, US & UK 1990-2020. London: Palgrave Macmillan.
- Menache, Alberto. 1995. *Understanding Motion Capture for Computer Animation and Video Games.* San Diego: Morgan Kauffmann.
- Nelson, Robin. 2010. "Introduction: Prospective Mapping and Network of Terms". In *Mapping Intermediality in Performance*, edited by Sarah Bay-Cheng et al., 13-23. Amsterdam: Amsterdam University Press.
- O'Dwyer, Néill. 2021. Digital Scenography. 30 Years of Experimentation and Innovation in Performance and Interactive Media. London: Methuen.
- Petersen Jensen, Amy. 2007. Theatre in a Media Culture: Production, Performance and Perception Since 1970. Jefferson: Mc Farland & Company Inc.
- Pizzo, Antonio, Vincenzo Lombardo, Rossana Damiano. 2019. "Algorithms and Interoperability Between Drama and Artificial Intelligence". *TDR: The Drama Review* 63 (4): 14-32.
- Rippl, Gabriele. 2015. "Introduction" In *Handbook of Intermediality*, edited by Gabriele Rippl, 1-31. Berlin/Boston: De Gruyter.
- Salter, Chris. 2010. Entangled: Technology and the Transformation of Performance. Cambridge, MA: The MIT Press.
- Saltz, David Z. 2001. "Live Media: Interactive Technology and Theatre". *Theatre Topics* 11 (2): 107-30.
- Scheer, Edward. 2011. Scenario. Sydney and Karlsruhe: UNSW Press.
- Sharir, Yacov. 2000. "Body Automatic Body Resistant". http://www.utexas.edu/co-

- fa/ courses/sharir/body.htm (Accessed 6 June 2021).
- Sidiropoulou, Avra. 2020. "Rethinking Authority, Creativity and Authorship in Twenty-First-Century Performance: The Director's Revised Role". *Critical Stages/Scènes Critiques. The IATC Journal / Revue de l'AICT* 22. https://www.critical-stages.org/22/rethinking-authority-creativity-and-authorship-in-twenty-first-century-performance-the-directors-revised-role/ (Accessed 6 June 2021).
- 2018a. *Directions for Directing. Theatre and Method.* New York: Routledge.
- 2018b. "Identity, Technology, Nostalgia: The Theater of Ivo van Hove, Robert Lepage and The Wooster Group". *Archee. Arts Médiatique & Cyberculture.* http://archee.qc.ca/wordpress/identity-technology-nostalgia-the-theater-of-ivo-van-hove-robert-lepage-and-the-wooster-group/ (Accessed 6 June 2021).
- Stiegler, Bernard. 1998. *Technics and Time. The Fault of Epimetheus.* Redwood City: Stanford University Press.
- Watt, Gary. 2016. Acts of Will. London: Bloomsbury.
- Wiens, Birgit. 2010. "Spatiality". In *Mapping Intermediality in Performance*, edited by Sarah Bay-Cheng et al., 91-96. Amsterdam: Amsterdam University Press.
- Worthen, W.B. 2020. *Shakespeare, Technicity and Theatre.* Cambridge: Cambridge University Press.