



# Ecoscenography

An Introduction to Ecological Design  
for Performance

Tanja Beer

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# Ecoscenography

“*Ecoscenography* addresses the urgent challenge of sustainable theatre practice from the perspective of scenography. Using a wealth of global examples, Beer examines the potential for scenography that is aligned with an ecological agenda. Through her own pioneering practice, she shows how ecological thinking challenges traditional modes of production. She proposes new approaches to making and viewing performance within a broader understanding of human and more-than-human relationships and shows how materials are co-creators in performance.”

—Dr Joslin McKinney, *Associate Professor in Scenography,*  
*University of Leeds, UK*

“Beer’s book, *Ecoscenography*, is a 21st Century hopeful response to previous generations of theatre making in a capitalist paradigm. She articulates the need for the theatre artist and artist/makers in general to bust out of technocratic thinking, move beyond the quantitative analysis of how much ruin we are creating or avoiding, and ‘widen our identity’ to include ways of knowing, seeing, being, and making that are relational to the complex ecosystem in which we live and work. This book is well-crafted response and necessary now most especially because she gives us hope that we are not lost but that art can actually transform us as individuals and us as a society. ‘Hooray!’ for hopeful thinking and ‘Hooray!’ for Tanja Beer!”

—April Viczko, *Associate Professor, University of Calgary &*  
*Project Lead, World Stage Design 2022*

“This statement from Tanja Beer’s *Ecoscenography: An Introduction to Ecological Design for Performance* is very clearly summing up our inevitable situation: ‘We are standing at the precipice of a burgeoning movement, one that has the potential to drastically change the way we make theatre in the years to come.’ We are indeed in the midst of a serious and exciting change where many artists are realizing that a different approach is needed to start healing the planet. This book reveals many different possibilities to create sustainably, with communities, places, environments and ‘engage in acts of care’. Tanja Beer’s writing and her own practice inspire, energize and empower all readers to open up to ecological consciousness, make it core of their own collaborations and connect in building a holistic sustainable culture of creators.”

—Markéta Fantová, *Artistic Director, Prague Quadrennial of*  
*Performance Design and Space*

“With *Ecoscenography: An Introduction to Ecological Design for Performance*, Tanja Beer provokes and encourages all theatre makers to embrace the transformational potentialities of a sustainable ethic. More than a guide, this book celebrates scenography as an agency for ‘worlding-with’, offering remarkable insights and tools for theatre making in the 21st century. As a performance designer, I clearly sense that there is no possible scenography other than Ecoscenography!”

—Dr Carolina E. Santo, *designer and Curator of Performance, Prague Quadrennial of Performance Design and Space 2022*

“Tanja Beer makes a compelling case for the need to embrace ecoscenography as an exciting new field that can contribute to the healing of our societies and our planet. With beautiful examples of ecological design in action, the book is a must that should be on the reading list of every theatre student and theatre maker.”

—Chantal Bilodeau, *Artistic Director of The Arctic Cycle & Co-founder of Climate Change Theatre Action*

“In *Ecoscenography*, Tanja Beer takes the reader on a fascinating journey from ecological thinking towards sustainable practice, demonstrating how sustainability—far from being a limitation—opens up a new world of creative opportunities. Stage designers, but also theatre scholars and other practitioners in the field of performing arts, are introduced to an expanded concept of scenography, where the ideas of innovation, high-quality aesthetics, inspiration, ingenuity, become enriched and revitalised by an ecological ethic.”

—Iphigenia Taxopoulou, *General Secretary of mitos21 European Theatre Network*

“If you are a designer, scenographer, artist or somebody that cares deeply about the future of our world then this is a book for you. Beautifully written, this thought-provoking introduction to Eco-Scenography introduces ecologic design solutions that are urgently needed. It is inspiring and exciting and deeply considered work that I highly recommend be a staple in education and on your personal bookshelf.”

—Eliza Sweeney, *designer and eco-drama therapist*

“Tanja Beer’s *Ec scenography: An Introduction to Ecological Design for Performance* is a field-defining book for performance scholars and practitioners alike. Beer coined the term Ec scenography in 2012 and the book offers a lucid, accessible and inspiring account of both the theoretical and practical dimension of ec scenographic approaches. Accompanied by exquisite illustrations, the book charts the conceptual underpinnings of Ec scenography—‘ecological thinking’, the history of sustainable theatre design, finishing with a detailed description of Beer’s own framework for ec scenographic practice. This is an important book for designers, performance-makers and anyone working in the performance sector interested in responding to climate emergency.”

—Dr Kathryn Kelly, *Lecturer in Drama, School of Creative Practice,  
Queensland University of Technology*

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*For Schatzi, with love  
and  
For all performance designers and theatremakers, past,  
present and emerging, with gratitude*

## Foreword



Being an environmentalist for as long as I can remember, considering the ecological impacts of my work has been a long-established value. Yet opportunities to practice ecologically have also been hard won in a discipline that is resistant to change. Chances to collaborate with this mindset have come slowly, while the urgency to act increases year-on-year. I have

the advantage of my privilege as a cis het white man with ties to two wealthy nations. Relative wealth and mobility have allowed me to participate in the foundation of a sustainable theatrical design practice, including the creation of the Centre for Sustainable Practice in the Arts in 2008. But I, and any other individual scenographer with similar advantages, serve as mere novelties within the larger world of performance design if collective action eludes us. This is why this book is necessary: our survival on this planet requires all of us to engage with our environmental future, and this volume provides guidance and instruction to drive this change amongst all performance makers.

Have you noticed the changes happening around you? Can you sense the urgency of action? Is it the strength of hurricanes each season? Is it the massive wildfires across Australia, pacific and western Canada, or California? Or might it be something less apocalyptic.

In 2012, I moved to Toronto from Los Angeles to take on the unique position of Professor of Ecological Design for Performance at York University. My first winters here were grim: sub-zero for months, with snow and ice storms sweeping in with regularity. Sidewalks were single-file canyons of cleared snow for weeks. Those since have seemed milder. Snowfall hasn't fallen off precipitously, but we've not seen persistent accumulation. Streets are now rarely lined with snowdrifts from the plowed roads for very long. In these years—under a decade—the reality of climate change has become clear. Milder winters in Toronto have been a subtle person signal, but the explosive global events of this time period show us that climate change is here, and we must act—as citizens and professionals—to tackle it.

Movement in the performing arts is underway. I first met Tanja Beer at the Earth Matters on Stage Festival and Symposium hosted at Carnegie Mellon University in 2012, after coming to be aware of each other's work a little time before that. There were few theatrical designers working on sustainability issues at the time, and it was thrilling to know that there was someone also concerned about this topic, even if they were working on the opposite side of the planet. The following year, I served as the coordinator for the sustainability focused People, Planet, Profit track at

World Stage Design in Cardiff, where Tanja and I had the chance to work together formally. In 2016, I traveled to Australia for the Performance Studies International conference in Melbourne and a pre-conference meeting of the Performance+Design Working Group in Tasmania. Tanja was also involved in the working group, and we collectively programmed a sequence of panels on Expanded Scenography at the conference. Looking back, these events were at the beginning of the ecological turn in the performing arts, and the momentum is now building swiftly.

You may ask why sustainability and ecological consciousness matters for performance makers. Isn't our contribution to biodiversity loss and climate change negligible? The answer—at least for me—lies in the function of art, and especially performance, in society. It is how we construct and share our identities, both individually and collectively. Performance serves as a modelling exercise in which we gather to imagine society through a variety of lenses with the potential to envision other ways of seeing and being. If our current ways of living are not sustainable, we must engage in this practice to reconfigure our relations for survivability. Later in this book, Tanja states that 'ecological aesthetics asks us to consider how something can possibly be perceived as beautiful if it taxes and degrades living ecosystems'. My own position has coalesced with this ethos, and today I see performance through this prism. And so, what excites me about this book is that it provides a road map to rebuild our practices to serve an ecological purpose, and to reconfigure our relations to each other and to the non-human.

To close, I will commend this book to you by highlighting one more element. In Chap. 4, you will come to the section on co-creation (the start of the Ecoscenographic cycle), where you will find the idea of 'worlding-with'—the notion of co-creating mutually beneficial more-than-human partnerships. I sincerely hope this book will function as an act of co-creation and worlding-with for you.

York University, Toronto, ON, Canada  
January 2021

Ian Garrett

## Preface



Like many stage designers, my interest in sustainability emanates from the scale of the environmental challenges our society faces and the desire to contribute to a positive future. Looking back, it is difficult to pinpoint a single moment that ignited my passion for ecological practice. Was it seeing my set thrown in a skip one too many times? Or perhaps feeling

physically ill from the toxic fumes inhaled while expending several cans of spray paint on a single prop? Or being confronted by Al Gore's *The Inconvenient Truth* and its uncompromising depiction of the threat climate change represents to current and future generations? No doubt each of these events has played a role.

I have been passionate about environmental and social issues for as long as I can remember. I grew up with a strong desire (and indeed, privilege) to incorporate ecological considerations into my day-to-day life: buying food from local markets, taking public transport, avoiding single-use plastics, turning off lights, recycling and composting. However, when I walked into the theatre, all these considerations seemed to fall away. Somehow theatre gave me a licence to do the things I would never do at home. Perhaps it was because I was never taught to critique theatre practices from an ecological perspective, or query the consequences of my design intentions. Decadence was not questioned in my era of design education; on the contrary, it was encouraged if the budget would allow for it. We were trained to work towards Opening Night. How we got there, or what happened to our sets and costumes after the production ended, was neither a priority nor a consideration. I simply did not know how to integrate ecological concerns with my creative endeavours.

This changed in 2008, when I had the opportunity to work as an exhibition designer at one of Australia's major museums. The job came with a unique selling point: a team of ecologically conscious designers who were keen to put sustainability at the heart of what they did. Part of my job was to conduct research into sustainable strategies and products—a challenging task for a designer with no prior knowledge or experience in this area. It was not long until I was confronted with the uncomfortable realisation that my values were at odds with my design practices. Suddenly, I had deep concerns about the materials, products and life-cycle of my sets and costumes. I realised that despite only scratching the surface on the sustainability agenda, I already knew too much. There was no turning back.

In 2008 there was very little material available on the subject of ecological design for performance. I clearly remember searching the Internet and being dismayed at the lack of resources on the subject. While I found material on sustainable practices from other design fields, there seemed to

be a gaping hole when it came to theatre. Why weren't we thinking about the consequences of what we design? Why had I myself only started to question it now? This questioning sparked a series of investigations into my own practice and finally the commencement of my PhD thesis on the topic three years later, in 2011.

This book provides an introduction to ecological design for performance, outlining my own research in the field over the last decade and showcasing the burgeoning body of work being produced by ecological theatre makers around the world. I am, of course, not alone in engaging with this topic. In recent years, sustainability has emerged as a significant part of many high-profile performance platforms—both in programming and in practice—across the globe. Pioneers in ecological theatre practice are demonstrating how the performing arts can be a unique and powerful platform to imagine and inspire new realities, with productions designed on sustainable principles demonstrating new approaches and artistic insights.

My motivation here is to synthesise the field for both established theatre makers wanting to engage with the topic and the next generation who—my own experience tells me—are yearning to contribute to their rapidly changing world. As we collectively face the reality that our practices have consequences, we are also presented with an opportunity to remake our profession. This 'ecological turning' is a pivotal point in the history of the performing arts, to be defined by the theatre makers of today, but particularly by those of tomorrow. The aim of this book is to catalyse ecological practices in performance design, providing a foundation from which new practices, new aesthetics and novel thinking can emerge.

The urgency for this reimagining has never been greater. Climate change, mass species loss, drought, forest felling and acidifying oceans pose immense threats to our environment, our society and our culture. In *This Is Not a Drill: An Extinction Rebellion Handbook* (2019), climate activist Dougald Hine summed up this era as, 'times in which impossible things happen'. Hine's prophetic words were at the forefront of my mind as I sat down to write this book in early January 2020, when my adopted homeland of Australia was literally on fire. By the end of what is now known as the 'Black Summer', wildfires had burnt 19 million hectares, destroyed 2779 homes and killed 34 people. An estimated one billion

mammals, birds, reptiles and amphibians perished, and the fires contributed more CO<sub>2</sub> to the atmosphere than Australia's annual emissions. Smoke turned the sky red in New Zealand and blanketed its glaciers in smoke and ash. The fires—driven by unprecedented drought and heat—brought home the urgency of the climate crisis and the need to reshape our relations with the environment that supports us. I strongly believe that art and culture have a powerful role to play in this reformation.

We also stand at a unique moment in time to pursue an ecological turn in the performing arts. The last 12 months, spanning 2020/2021, has brought with it a global pandemic that has enforced a pause in our practices. Just as there have been calls to re-start our economy with a green revolution, so too can we re-start theatre practices with a new ecological ethic. The pandemic has also brought home the inherent inequality that underlines and intersects with our climate crisis, demonstrating that the ecological is social and political. We must convene to tackle this moment in our history with humility, gusto and resourcefulness.

For me, the underlying spirit of this movement is one of opportunity. Enforced sustainable practices infer the negative; they suggest unwelcome constraints. On the contrary, I am interested in how the coming decades can be framed as the time of potential, an era when theatre artists rise to the challenge of what it means to bring an ecological perspective into their work, not because they are forced to, but because they embrace the transformative potential that it brings. Related industries, such as architecture, product design and fashion, have already shown us how an ecological ethic can reap enormous rewards.

It is my hope that this book will help reveal these opportunities to performance designers and theatre makers alike and, as outlined above, provide a foundation from which ecological practices can build in the coming decades. There is already more than a whiff of revolution in the air. Sustainability with a capital 'S' is finally here. The time is now to seize the potential that this new era in the performing arts brings.

Southport, QLD, Australia

Tanja Beer

# Acknowledgements

First and foremost, I would like to express my deep gratitude to the Traditional Owners of the many Countries that make up Australia, upon whose lands I have had the benefit of writing and conducting my research and creative projects. Particularly, the people of the Kulin Nation, of the Woi Wurrung and Boon Wurrung language groups and the Yugambeh language group of the Gold Coast region, where much of this book was written. I recognise that all constructed environments and cultural activities in Australia take place on First Nations Country, which have histories of more than 60,000 years of careful custodianship. I acknowledge that Australia was founded on the genocide and dispossession of First Nations people, and sovereignty was never ceded. Australia always was, and always will be Aboriginal land. I believe that a core part of engaging with sustainability begins with recognising the violent colonial mindsets and actions that have depleted our intimate connections with living systems. Indigenous Australian approaches to environmental custodianship provide vital inspiration and guidance when considering how we co-create cultural practices that are in tune with living systems. First Peoples have long demonstrated how the ecological is cultural and that the merging of art, land and story must be part of our collective healing. We must make space to listen.

This book would not have been possible without my PhD and post-doctoral research undertaken at the University of Melbourne from 2011

to 2019. I am grateful for all the support that I received during my time at the Faculty of Architecture, Building and Planning, which shaped my thinking and artistic practice deeply. My extraordinary supervisor and mentor Dominique Hes was vital in developing my understanding of sustainability and introducing me to the foundations of ecological design thinking, which underpins this book. These concepts have been further enriched by the wonderful Janet McGaw, who welcomed me into the world of architecture with open arms and helped me to expand my philosophical readings. I am also grateful for my PhD supervisor Alyson Campbell (Victorian College of the Arts), whose acute attention to detail and much-needed objectivity provided me with valuable feedback throughout my thesis journey. Thank you also to the marvellous Sally Mackey, who was my 'exchange-supervisor' during my time at the Royal Central School of Speech and Drama (London, 2013/2014) and my erudite and benevolent PhD reviewers Dorita Hannah and Raymond Cole, who provided much-needed critique along my research journey.

Learning has been a big part of my life, and I am equally grateful for my time at the Universität für Musik und darstellende Kunst Graz (1995–2000) and the Victorian College of the Arts (2001–2002), where I first learnt the art of performance design and theatre making respectively. More recently, I could not have completed this book without the support of my new colleagues at the Queensland College of Art (Griffith University). I am also grateful to all my fellow academics and thought-provoking students who helped expand my viewpoints and challenged and nurtured me from the sidelines over the last decade.

Writing a book is a solitary process, yet we do not write alone. I have been blessed with a supportive community of writers and thinkers who have helped bring this book forth. Thank you Aby Cohen, Iphigenia Taxopoulou, Hannah Harding and Ashlee Hughes for all your support and feedback during this process, and especially, to Ian Garrett and Rachel Hann for their thoughtful and valued contributions to this book. I am particularly grateful for my collaborator Lisa Woynarski, whose writings in the fields of performance and ecology continue to inspire my thinking and practice. A special mention must also go to my research assistant Brittany Laidlaw, who undertook the painstaking task of compiling and documenting all the references for this text.

I am tremendously grateful to have had the opportunity to work with my exceptionally talented sister, Gisela, who created all the illustrations for this book. Thank you Gisela for all your incredible work in making Ecoscenography come alive through your beautiful drawings—I am so in awe of your artistic abilities. Thank you also for helping me with the Index!

I have been fortunate to share many of the concepts of this book across multiple platforms, both internationally and nationally. Thank you to all the members of the Ecoscenography Facebook Group, who have helped provide a platform for ecological thinking in performance practice. I would also like to express my sincere gratitude to the Melbourne Museum, Julies Bicycle, the Society of British Theatre Designers, the Prague Quadrennial, World Stage Design, *Theatre and Performance Design Journal* and the IFTR Scenography and Architecture and Theatre Working Groups, who have provided a rich platform for discussing ideas and connecting with fellow eco-minded designers and theatre makers over the years. A special mention must go to all the wonderful thinkers who have supported and enriched my work over the last decade: Pamela Howard, Wallace Heim, Una Chaudhuri, Sofia Pantouvaki, Jane Collins, Joslin McKinney, Scott Palmer, Thea Brejzek, Chantal Bilodeau, Jeremy Pickard, Lanxing Fu, Annett Baumast, Angela Campbell and Michael Mehler. Thank you for your generosity, wisdom and writings.

I am exceedingly grateful to all the extraordinary artists and thinkers that are featured in the book, especially those that have shared their insights and photographs of their work with me, especially: Noémie Avidar, Andrea Carr, Annike Flo, Ingvill Fossheim, Ian Garrett, Marie-Renée Bourget Harvey, Mona Kastell, Silje Kise, Thierry Leonardi, Aris Pretelin-Esteves, Janne Robberstad, Imogen Ross, Ruth Stringer, Xiao Ting and Donyale Werle. Their resilience and creativity continues to inspire and give me hope that we are indeed on a path to a more ecological practice.

I am indebted to the hundreds of wonderful collaborators who have worked with me on many ecological projects across the world, especially on the various iterations of *This Is Not Rubbish*, *The Living Stage* and *Running Wild*, the credits for which are featured at the back of this book. In particular, I want to thank my longstanding eco-collaborators Jennifer Tran, Ashlee Hughes, Pia Guilliat and Cristina Hernandez Santin for

their problem-solving prowess and patience, and for always having my back.

I owe a debt of appreciation to my parents Brigitte and Gernot for their continuous encouragement in my quest for learning, as well as instilling a love for art and ecology throughout my childhood. Thank you for your love and support throughout my career as well as giving me the confidence and freedom to follow my creative dreams as a young girl. Thank you also to Armin and Christa, who not only supported me during my educational foundations in Austria, but have always nurtured my artistic and academic pursuits with such love and encouragement. My Austrian heritage, with its strong affinity with nature and culture, is still one of the greatest influences on the work I do today as an ecological designer and community artist.

My eternal gratitude is also extended to Milton, who has been an incredible support throughout my career, from filling sandbags and lugging apple boxes during the installation of the first Living Stage, to being the dedicated 'plant waterer' on almost all subsequent Living Stage projects, providing financial support when the kitty was running low, and finally, to proofreading this entire book. I cannot thank you enough Milton for your love and dedication. I am so grateful to have you in my life.

Finally, to Geoff who has nurtured this journey from the sidelines on a daily basis over the last eight years, who graciously listened to my ideas and provided much-needed editing support, and most importantly, whose work as an ecologist and deep connection to the natural world continue to inspire me to be a better person and citizen of the earth.

## A Brief Outline of the Book

This book provides an overview of the philosophies and practices that encompass my conceptualisation of ecological design for performance. It begins with an *Introduction*, which summarises the status of sustainability in the performing arts, particularly how it has evolved in recent years—from early developments of environmental consciousness in the 1990s, to more recent shifts in ecologically engaged theatre making and design. Tensions and opportunities of sustainable production are interrogated, revealing new insights for responses to the environmental challenges of the coming decades. Drawing upon contemporary understandings of the field, I introduce the concept of ‘Ecoscenography’, the fundamental tenets of which are investigated in the subsequent chapters of the book.

*Chapter Two: Ecological Thinking* outlines the conceptual and philosophical underpinnings of Ecoscenography and explores ways in which theatre makers can consider their practice within the broader system of ecological organisation. By reviewing literature from a variety of fields across systems thinking, environmental humanities, aesthetics and eco-materialism, I examine how expanded ideas of material entanglement can be integrated with the ephemerality of scenographic practice to create work that encompasses environmental, social and political potential.

*Chapter Three: Ecological Practice* draws upon a range of ecological design theories and precedents and explores their application to

Ecoscenography. The chapter examines ways in which theatre makers might move beyond eco-efficiencies or 'less bad' consequences to integrate design processes that are in tune with living systems. It includes a broad range of tangible examples across a range of fields to highlight the potential of sustainable practice. While there are challenges and barriers to implementing sustainable practice, I argue that Ecoscenography opens up avenues for exploration in both conventional practice and more expansive areas of scenographic activation, encompassing novel ways through which scenographies are designed, constructed and distributed.

*Chapter Four: Ecoscenography in Three Acts* proposes three stages of Ecoscenography—co-creation (pre-production), celebration (production) and circulation (post-production)—which are considered equally fundamental to the aesthetic consideration of the work. The chapter provides examples of scenographers who have pioneered new practices and aesthetics for a sustainable future and introduces the Ecoscenography trajectory, outlining challenges and opportunities of practice.

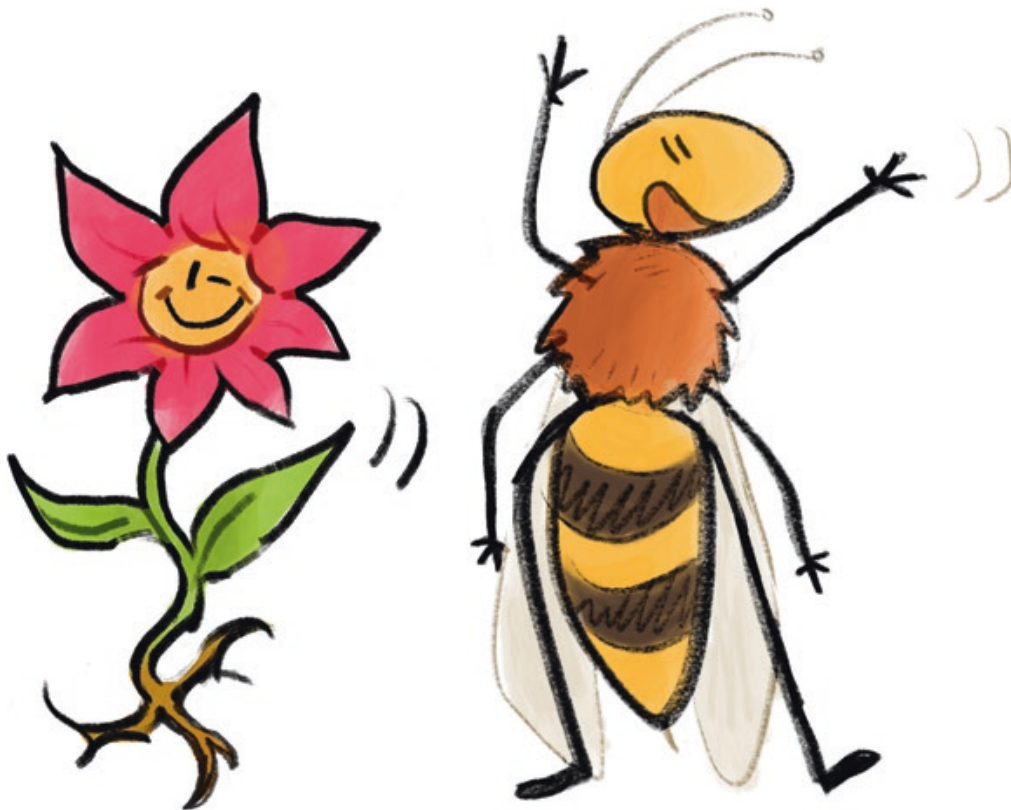
*Chapter Five: Two Case Studies in Ecoscenography* introduces examples from my own practice—*The Living Stage* and *This Is Not Rubbish*—where the possibilities of Ecoscenography are explored beyond the confines of traditional theatre practice. The chapter is to be read in conjunction with a selection of digital recordings of the creative work, which can be accessed via my website [www.ecoscenography.com](http://www.ecoscenography.com). I close by considering ways forward for Ecoscenographic futures.

The *Conclusion* offers a concise summary of the key arguments of the book drawing out implications for scenographic scholarship and practice. I contend that considering wider socio-ecological factors of performance design leads to a renewed investigation of scenographic materials, processes, aesthetics, roles and partnerships that can guide a positive future.

As well as featuring images of ecological design projects from multiple artists, the book also includes a series of illustrations by Gisela Beer, which seek to depict key concepts of Ecoscenography and offer a visual perspective to the text. Their intention is to bring the concepts and theories of Ecoscenography to life. The use of the 'bee and the sunflower' to explain the cycles of Ecoscenography is our combined concept.

In addition to the book, a selection of interviews, photographic and film documentations are available on my Ecoscenography website ([www.ecoscenography.com](http://www.ecoscenography.com)).

ecoscenography.com) to complement the writing and provide additional ways of articulating and evidencing the work. While I am aware that the reader cannot experience the referenced 'scenographic moments' as they were originally conceived, executed and activated in their original physical and spatial realm, my hope is that the corresponding digital media will allow readers to comprehend the projects in greater depth.



# Clarification of Terms and Scope

Many of the terms that I use in this book can be interpreted in numerous ways, some of which are contradictory. As such, it is important to clarify the meanings here. Firstly, my conceptualisation of scenography refers to the interrelationships between ‘performers, space, object, material, light and sound’ (following Palmer 2011, 52). Thus, scenography encompasses sound, light and costume under the banner of spatial design. Nevertheless, my focus in this book has largely been on the ‘set and costume design’ elements of scenography, in keeping with my practice over the last 20 years. I acknowledge that this is somewhat of a restrictive lens, but the intention has been to focus on my area of expertise and to bring in other examples where I could.

I refer to the term ‘designer’ and ‘scenographer’ interchangeably. While these terms can be considered separately (e.g., in Howard 2009), they are more often paired together in practice (Collins and Nisbet 2010, 1). In Australia, the term ‘scenographer’ is rarely used outside of academia and is commonly replaced by the term ‘designer’. As this book references broader perspectives of design from the field of built environments and sustainability, the use of the term ‘designer’ is also helpful as it works across disciplinary fields and thus breaks down perceived binaries. It also encompasses the term ‘performance design’, which as a ‘porous, fluctuating term—works across a broad spectrum that embraces the theatrical, historical and quotidian’ (Hannah and Harsløf 2008, 12). While this

book is written from the perspective of a performance designer, I use the term ‘theatre artist’, ‘theatre maker’ or ‘performance maker’ to include any practitioner who works within the performing arts (who directly or indirectly engages with scenography).

I also use the terms ‘performance’, ‘performing arts’ and ‘theatre’ interchangeably. By this, I am incorporating all aspects of performance, including (but not limited to) text-based theatre, dance, opera, music theatre, physical theatre, circus and the more expansive and unconventional realms of live art and/or performance art.

The term ‘sustainability’ and ‘sustainable design’ have been frequently redefined and contested. Here, I use ‘sustainability’ to mean the continuing relationship between humans and ecological systems, where ‘sustainability integrates natural systems with human patterns and celebrates continuity, uniqueness and placemaking’ (Early 1993). I also incorporate Margaret Robertson’s approach to ‘sustainability’ both as an idea and as discipline:

‘Sustainability’ as an idea refers to the body of knowledge that deals with how dynamic systems work on this planet we call home, including what we know about the current health or decline of those systems. ‘Sustainability’ as a discipline refers to humanity’s rapidly-evolving response to the urgent planetary challenges we all face, a response that includes emerging professional opportunities. (Robertson 2014, 3)

I use the terms ‘ecology’ and ‘ecological’ to mean the integration of environmental, social, political and cultural aspects. In some cases, the term ‘socio-ecological’ is used to draw attention to the social aspects of ecology. ‘Ecological design’ and ‘sustainable design’ are often used interchangeably; however, I tend to use ‘ecological design’ when referring to practices that explicitly integrate ecological or relational thinking in their work (further discussed in Chaps. 2 and 3).

A key priority in writing this book has been to ensure its accessibility to a range of readers, including theatre practitioners and researchers. It is my hope that this book might act as a source of contemplation and inspiration as to how an ecological approach to scenography and production

can be pursued—both in academia and in practice—with a focus on integrating critical and holistic ideas of sustainability with real-world examples. As the concept of Ecoscenography is still in its infancy, I have opted for an introductory text that aims to sketch out the potential of the field in its early stages of theoretical and practical development. It is by no means comprehensive but a starting point for further dialogue and discussion.

While I have endeavoured to cover a range of sustainability perspectives in the performing arts, my access to writings and precedents has been largely limited to the Global North, which I readily acknowledge does not account for the full array of artists and commentators working in this area. I am a white educated cisgendered woman of European heritage, who has been fortunate to grow up in a privileged middle-class society. As such, I am aware that this book is written from one particular perspective and does not cover the full spectrum of voices and experiences that are part of this field. I am deeply passionate about social-ecological justice and also accept full responsibility for any unintentional errors that I will undoubtedly make in the writing of this book. While I have attempted to diversify my sources and precedents, it is important to note that this book provides only a glimpse into the possibilities of this rapidly growing field. It is my hope that as the intersection of theatre and sustainability gains currency, we will see a more substantial and diverse picture of what this entails across cultures.

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# 1

## Introduction



As the world enters a new age of environmental uncertainty, the performing arts faces a choice: it can embrace the ecological turn sweeping across society or it can shirk the challenge. The choice is not merely a moral or ethical one, but one that has significant implications for the industry's relevance, vitality and innovation through the twenty-first century. In her speech at World Stage Design in 2013, eco-arts scholar Wallace Heim argued that the time will soon come when theatres will need to justify excessive and unsustainable behaviour—when 'those who want massive spectacles, world tours, and blazing lights will have to openly justify and account for those technologies and excessive and exceptional drains' (2013). Of course, this shift is already underway across our global society; conventional practices modelled on the unethical and unsustainable realities of the modern era are fast becoming outdated. Priorities are shifting to consider practices that are not only environmentally conscious, but also more culturally diverse and inclusive. Things that seemed 'acceptable' a few years ago—disposable coffee cups, single-use plastic, meat-heavy diets and frequent air travel—are becoming increasingly unacceptable. Hastened by the pace of climate change, our prevalent mechanistic, imperialist and rationalist worldview, built upon a mandate of progress, capitalism and modernity, is rapidly coming undone. As Naomi Klein (2014, 21) writes, we have been 'at war' with the very life that sustains us.

In this age of environmental awareness, I argue that we need a new philosophy for theatre production that promotes ecological, holistic, interconnected and symbiotic practices. This new philosophy will be a seismic shift, at least in some quarters. As highlighted above, scenographers—including myself—have been trained to work towards Opening Night. How we 'get there' or what happens to our sets and costumes after the production ends has been neither a priority nor a consideration. Our focus as designers has typically been to create 'experiences of impermanence'—often extravagant spectacles with little regard for the prevailing permanence of unwanted remains. This emphasis on the new and disposable in theatre practice has largely mirrored the consumptive habits of the modern era. Up until the 1970s, the reuse of scenery and stock items in large theatre companies was still standard practice with scenic drops, stairs, flats and furniture being repainted or repurposed to provide new

opportunities for design (Morris 2007, 29–30). However, by the mid-1980s, theatre companies were throwing away scenery ‘as if it were an investment that had lost all its glimmer’, contributing to the tons of demolition waste that is most prevalent in our landfills (1–2, 43).

It is true that the environmental impacts of the performing arts do not match those from other industries; however, theatre’s prominent ‘take, make, dispose’ attitude is fast becoming outdated. Related industries such as architecture and fashion have been steadily accruing a long list of environmental resources, tools and precedents over the past decades. In contrast, sustainability has continued to be a niche (albeit growing) concern amongst theatre makers, both those in practice and those in academia. The environmental impacts of theatrical design are yet to be adequately and widely documented, nor has there been well-researched attempts to examine means by which current theatre practices can be reimaged to comply with ecological principles (Morris 2007; Brunner and Mehler 2013; Omen 2014; Peeters 2012). Ecological design for performance is arguably the most challenging and least investigated component of sustainability (Brunner and Mehler 2013, 32), and the perception remains among many that ‘sustainability and theatre do not mix’.

This book seeks explicitly to break this assumption and—responding directly to Heim’s call in 2013—explore what it might mean to embrace an ecological ethic in performance design, not as a limitation but as an opportunity. In addition to the environmental imperatives, I also seek to define this opportunity in terms of the continued rise of scenographers as agents of change. Recent machinations in the field have rendered an increased captivation with what ‘scenography’ *does*, rather than what it *is* (McKinney and Palmer 2017, 19). Scenography as a verb has opened up our discipline to one which embraces not only the things that make up performance, but also the interrelationships between things, beings, places and communities (Beer et al. 2018). While the early decades of the twenty-first century have been preoccupied with defining and redefining of scenography, I propose that over the next two decades, we must pivot to further interrogate the agentic capacities of our field, not only in terms of the wondrous ‘worlds’ and ‘experiences’ that we create for our audiences, but also in terms of the ecological, social and political consequences, impacts and messaging behind our work. I view the pursuit of

an ecological ethic as an opportunity for scenographers to continue their evolution to being artists and thinkers in their own right. Artists that critique the past and propose the future, artists that have impact well beyond the confines of the theatre.

This chapter provides an introduction to the burgeoning field of theatre and sustainability. It ‘sets the scene’ for the emerging concept of Ecoscenography—a neologism that I use to encapsulate the integration of an ecological ethic with performance design. The intersection of design and sustainability traverses many disciplines and foci in the performing arts. This chapter provides an overview of the context, background, dialogue and perspectives that underpin this founding concept across theatre production, performance making and scenography. While sustainability in theatre and performance design is growing, there is still a need for more diverse scholarship and practice engaged in ecological thinking across a range of ethnic, racial and geographic contexts.

## Setting the Eco-scene

The emergence of a sustainability movement for theatre production can be traced to Larry K. Fried and Teresa J. May’s *Greening Up Our Houses: A Guidebook to an Ecologically Sensitive Theatre Organization*, published in 1992. Fried and May sought to educate the performing arts community on its increasingly wasteful practices and inspire an ecological ethic that would jolt the industry out of environmental complacency. Nevertheless, while the work generated considerable academic interest, it largely failed to shift the industry, which predominantly remained oblivious and unwelcoming of ecological concerns during the 1990s (Butler 2009, 110). In a pointed discussion of the issue more than 15 years later, theatre maker and scholar Damond Morris (2007, 2, 43) concluded:

The theatrical industry is broken, plundering the earth of valuable resources without a thought for the wellbeing of future generations. While other industries are taking on board green practices, the theatre industry is painfully unaware...In the 20th century there were, modestly, hundreds of thousands of productions that moved through millions...of tons of waste.

This waste, classified as construction and demolition waste, is one of the most prevalent materials in our landfills. To curb the waste we create in the theatre industry we must find new ways of thinking and new ways of working without it.

Stinging critiques, such as those of Morris, have raised the profile of sustainable practice in the performing arts over the last decade, but it is worth interrogating why the performing arts did not progress sooner on the environmental agenda. At a green theatre event that I attended in Melbourne in 2012, negative preconceptions of sustainability—‘expensive’, ‘boring’, ‘time-consuming’ and ‘incompatible with high-quality aesthetics’—were identified as the main contributors to environmental complacency. Another contributing factor may have been the fact that the theatre industry has been far too preoccupied with its own battles to acknowledge, or tackle, its effect on the environment (Butler 2009, 110). Many theatres have struggled for years to merely survive economically, even contemplating environmental sustainability bordered on hubris (Stancato 2010, 36). However, there was also a sense of entitlement and complacency in some sections of the performing arts with regard to environmental concerns. As performance artist Mojisola Adebayo (2009) described in her interview on *The Ashton Directory* website:

Some people in theatre believe they are above climate change...that theatre is inherently good for you and, therefore, nothing in our work could be harmful. The attitude that we are above this subject needs to change.

Adebayo’s comments were founded in the larger societal shift in ecological awareness that was developing in the first decade of the twenty-first century. Broader media coverage (such as those that were highlighted at international climate change summits) and documentary films such as Al Gore’s *An Inconvenient Truth* (2006) presented a call for action that has begun to filter through to even the most reluctant sectors and industries. Bill McKibben’s essay, ‘What the warming world needs now is art, sweet art’ (2005), was widely shared and cited, giving birth to a series of ecological artworks. In her second edition of *What Is Scenography?* (2009),

renowned scenographer Pamela Howard drew attention to theatre's unsustainable habits, claiming that performance makers:

have a responsibility in these times to address the problems of today and to fuel change and alternatives...to show that rich and beautiful theatre can be made without creating mountains of waste...scenic construction that can rarely be used again does not set a good example to spectators who diligently recycle bottles and newspapers, and grow their own vegetables. (Howard 2009, 216, 222)

In 2008, two major campaigns were independently announced for reducing environmental impacts in the performing arts: the Mayor of London's Green Theatre Plan and the Broadway Green Alliance campaign. Many organisations<sup>1</sup> worldwide have followed suit, offering tools, case studies and seminars dedicated to greening the industry, with an increasing number of theatre companies and festivals developing sustainable production policies and strategies.

In addition to these initiatives, two major events have been particularly influential in spurring on the rise of a sustainable consciousness in performance design. In 2013, Ian Garrett—co-founder and director of the Centre for Sustainable Practice in the Arts (CSPA) and Associate Professor of Ecological Design for Performance<sup>2</sup>—led the first 'People, Profit, Planet' sustainability programme at the World Stage Design (WSD) congress in Cardiff, UK. The year before, Arts Council England became the first national arts funding body to 'legislate' to reduce carbon emissions, through its Environmental Action Plan. Since then, the sustainability movement in the performing arts has progressed rapidly, with companies such as the Sydney Theatre Company turning to renewable energy sources.

Response to ecological urgency surged in the 2010s, with a proliferation of international theatre festivals, conferences, symposiums, initiatives, books and articles focused on the intersection between sustainability, performance and ecology. Major events<sup>3</sup> included Performance Studies International (Performing Climates, Melbourne, 2016) and, more recently, the International Federation of Theatre Research conference (*Ecologies: Environments, Sustainability, and Politics*, Galway 2021). In

Australia, national initiatives such as Tipping Point, Greener Live Performances and Greening the Arts provided sustainability guides and carbon calculator tools for theatre production. The ‘surge’ of the last decade has kept pace with, and been fuelled by, the broader societal movement that seeks to change the course of human impact on our environment and climate. The dire warnings of the Intergovernmental Panel on Climate Change (IPCC), activism from Extinction Rebellion and prolific campaigning by youth climate activists such as Greta Thunberg, have brought environmental concerns to the forefront of mainstream consciousness. As Paul Brunner and Olivia Ranseen (2017, 20) contend:

Today, we know more than ever about the human role in climate change, and a growing collection of literature examines the intersection of sustainability and theatre arts, further legitimizing this small pioneering field of study.

While sustainable theatre practices continue to encounter a number of challenges and obstacles (as I detail in the next section), the movement is now well established and growing. Scenic designer and sustainability advocate Sandra Goldmark (2017, 28) explains how:

As designers and theatre makers, we must make it part of our job to think of our work in a larger context—we must think about the materials and objects we use, where they come from, what they are made of, where they will go after we use them, and the impact they have at each of these steps.

It is clear that sustainability as a key concern for theatre has arrived. The industry’s ‘ecological turn’ has begun, and the twenty-first century will be one in which environmental concerns are at the forefront of our stories, our aesthetics and our designs.

## The Design Problem

Theatre makers all over the world are heeding the call of environmentally conscious practices, yet notions of sustainability are still dominated by trepidations of creative limitations. Rather than embracing the

possibilities of ecological challenges as part of their creative practice, even the most devoted sustainability advocates ‘are focused on doing less harm, on using fewer resources’ rather than exploring new forms of theatre making (Brunner and Mehler 2013, 32). As theatre artist Zoe Svensen (2019) writes:

For so many of us living in cultures built on fossil fuel use, it is much easier to see losses and sacrifices than it is to see what might be gained by a transition to a world that faced up to the crisis.

The idea that artistic integrity cannot be compromised for a more sustainable production also reflects the opinion of many performing arts organisations who consider theatrical production to be inherently uncondusive to sustainable practice (Morris 2007, 5). This has been escalated by the number of artists who have felt the need to be unencumbered by sustainability measures in order to have the freedom and independence to execute their creative vision regardless of its ecological consequences (Barnard and Briscoe 2015). As dramaturge Jeroen Peeters (2012) has observed:

With slogans such as ‘artistic autonomy’ as talisman, makers appear to be ignoring the social-ecological crisis, and managers treat it simply as a case of efficient building management. Ecology is not considered a theme and field of research worthy of attention on its own, but rather is reduced to a necessary evil or altruistic engagement.

Contributing to this mindset is the fact that ecological thinking contradicts conventional contexts of theatre making that reflects wider socio-economic and mechanistic structures that privilege economic wealth over ecological vitality (Heim 2013). The ‘urgency’ of the social-ecological crisis has led theatre makers to implement efficient solutions ‘without thoroughly analysing or calling into question the current system’ (Peeters 2012, 86). Brunner and Mehler (2013, 26) make the implication explicit, arguing that embracing an ecological mindset requires that practitioners must first question theatre’s unsustainable mode of production and consumption. Playwright Chantal Bilodeau (2019) emphasises how:

Discrimination, economic and environmental injustice, and resource depletion are all manifestations of the same system gone awry. And to change that system, we can't just tinker with individual elements—we have to rethink the whole synergetic mess.

Resistance to a sustainable approach is also entrenched in the industry's appetite for spectacle and the need to continuously begin anew. No artistic director will tell their designers to limit themselves in order to reduce consumption and waste generated by their productions (Lawler 2008, 59). Current notions of sustainability, often limited to the principles of reduce, reuse and recycle, do not fit the model of extravagance to which the industry aspires. Many producers and directors encourage designers to create a visual experience that serves the audience's high-quality expectations: a world that is both sophisticated and entirely different from other designs seen previously (Morris 2007). Theatre's highly collaborative nature also requires a team effort in reaching sustainability goals. Sustainability entails a collective focus:

One designer trying to be sustainable won't work if the director is not on the same page, or the rest of the team doesn't understand why. Directors, producers, and stage managers can become great leaders in this area as they are in charge of large portions of the production itself. (Cattenazzi 2019, 7)

While the above speaks to resistance to the embrace of an ecological ethic in the performing arts, it is also true that part of the sector's sluggishness to embrace sustainability results from inherent limitations. Even when there is openness to collaboratively explore creative and evocative approaches to sustainable design, theatre companies' tight budgets, precarious funding and short production schedules allow little opportunity for experimentation (Allen et al. 2014, 14). Larger sectors, such as architecture and fashion, have much more substantial budgets, produce longer-lasting designs and have more opportunities to repeat sustainable strategies across projects. In the theatre, every stage design is unique in every aspect, from its size and materials to the people involved, making it hard to standardise an approach. A stage designer's greatest priority is on creating a 'world' that supports the dramatic work. The use of sustainable

materials and technologies is generally not perceived as part of the artistic purpose; it is not part of ‘serving the play’ (Garrett 2012, 201). Thus, designing for the stage includes a unique set of constraints that can make an ecological approach more problematic than traditional construction (202). As French sustainability consultant Thierry Leonardi explains with regard to the Circular Economy project OSCaR (Opera Sceneries Circularity and Resource efficiency):

It could be said of the design and production of sets that they are an “economy of prototypes”: no standardization and no mass production is possible. They are the result of artistic creation; they are the translation of a concept that could be said to be unique, linked to dramaturgy and a staging project. And they are protected by copyright. In addition...opera theatres have the objective of programming a single work on several occasions, over an indefinite period of time, which is often counted in years. This results in the need to store the sets; this storage induces a financial cost for theatres through rentals, energy and maintenance, and an environmental and financial cost for the regions (land use). (Leonardi 2018)

Time is also a major constraint for testing out new ways of doing, something with which the theatre industry struggles already (Brunner and Mehler 2013, 29). Designers are often forced into investing their own time, commitments and resources in experimenting with new materials and processes—often at the risk of receiving little acknowledgement or benefit for this investment from theatre organisations. Indeed, many are concerned that they may lose out on work prospects due to their commitment to sustainability being at odds with directors and producers. With designers frequently overworked and underpaid, it comes as no surprise that many professionals are still shying away from embracing (or even highlighting) ecological practice as part of their process. Incorporating sustainability in production meetings and discussions can ‘require stretching out standard timelines’ (Brunner and Mehler 2013, 30). In addition, designers are not usually responsible for what happens to their work after closing night; sets and costumes are often entrusted to the production manager, whose job is to decide if an item is destined for storage, reuse, recycling or landfill.

While there has been an effort to address the above issues, literature and case studies that investigate the deeper issues and potential of the subject are still scarce. In many cases, sustainable practice has been dominated by the idea that artists ‘should get on with being creative’ leaving the job of sustainability in the hands of production managers and technical staff (Barnard and Briscoe 2015). Without the adequate structures, tools and enthusiasm, many practitioners will find little opportunity to pursue sustainability.

Nevertheless, ‘theatre cannot wait for sluggish institutions to take the lead, just like climate change cannot wait for governments to regulate or big corporations to smarten up’ (Bilodeau 2015a). Challenging conventions is necessary for artistic practice to engage with more ecological views (Heim 2013). As Brunner and Mehler (2013, 26) argue, ‘we cannot dismantle the system within which we work, but we can attempt to alter that system a bit at a time’. Subsequently, Brunner and Ranseen (2017, 22) contend that this does not need to be seen as a limitation:

Theatre designers, production professionals, and technologists develop team-oriented and innovative solutions, working under tight time constraints to clearly identify problems, seek solutions, and carry out ideas. As such, they are well prepared to envision new approaches to making art—solutions that can have profound and positive impacts on our communities. If theatre is to assume a leadership role as a change agent for sustainability, then it’s important to understand how to better identify the reasons for resistance and discuss methods to overcome them.

Tony award-winning sustainability pioneers such as British lighting designer Paule Constable (*War Horse*) and American set designer Donyale Werle (*Peter and the Starcatcher*) have long demonstrated the potential of taking matters into their own hands, despite working within conventional circumstances of commercial and high-art sectors. For Constable and Werle (whom I feature later in this book), neither working with an ecological ethic is seen as a limitation, nor are sustainability and high-quality aesthetics seen as mutually exclusive. Working sustainably celebrates innovation and challenges them to think about what is at hand, as well as what is possible.

In summary, holding onto old paradigms has led to sustainable design being construed largely as one of ‘limiting’ or ‘restricting’ existing artistic practices. In reality this need not be the case, but the perception is one that must be overcome to progress ecological design for performance. Defining our lives in the negative—focused on what *not* to do or forcing old paradigms to be ‘less bad’—will not motivate significant change (McDonough and Braungart 2002). Ecological action needs to be innovative, stimulating and deeply creative for the performing arts to embrace new ways of thinking that will overturn existing and intrinsically unsustainable modes of practice. Richard Heinberg, Senior Fellow of the Post Carbon Institute, sums it up simply: ‘If it’s not fun you’re not doing it right’ (Heinberg and Lerch 2010, 446).

## Ecological Approaches to Performance Making

Sustainability initiatives in theatre production have played a vital role in advocating and supporting ecological change, but their focus has been largely pursued as an exercise in economic and technological efficiency—a ‘technocratic’ focus that has not integrated cultural potential. Combining arts and sustainability has been largely limited to ‘an instrumental tick-box exercise’ (Allen et al. 2014, 5). However, in recent years, the field has evolved from one in which sustainability has been behind the scenes, to one in which the stage has become a platform to engage theatre audiences with ecological issues. Theatre artists have increasingly called for the need to:

promote sustainability in its full sense, enabling individuals and organizations to see that it is not simply about reducing carbon emissions but about more efficient and effective allocation of resources, meaningful interactions with communities, ideas and aspiration, social justice—it’s about the society we want to be, it’s about leading the discussion. (Evans in Allen et al. 2014, 29)

Artists exploring ecological issues ‘can serve as a beacon’ by helping us to ‘weave together the fabric of values that will inform our future decisions’ (Bilodeau 2015b). This cultural change is already underway:

It’s happening on theatre, concert hall, and festival stages; in museums, parks, and public libraries; at music labels and recording studios; and in the products and ideas of countless creatives, designers, artisans, experimentalists, and visionaries. (Latham 2019)

The ecological imperative has seen a number of artists turning towards unconventional forms of performance and devising hybrids (Heim 2013). For example, the Arts Council Wales Emergence Culture Shift report on sustainable arts practice (Allen et al. 2014) demonstrated how ecologically engaged artists are increasingly identifying a sense of civic responsibility in the way in which they practise.<sup>4</sup> The objective of these artists has progressively become one of creating ‘relational’, ‘empathic’, ‘participatory’, ‘collective’ and ‘community-orientated’ practices rather than exemplifying personal expression (Allen et al. 2014, 12–13, 27–28, 36). The focus of sustainability has shifted from individual artists or collectives, to embracing communities and giving them a central role in creative practice (Bilodeau 2015c). With landfills, ocean plastic and food waste becoming a growing concern of the twenty-first century, artists of all disciplines have increasingly embraced the potential of the discarded to counteract the unfettered capitalist ‘myth of endless seamless progress’ and ‘continual creation of the new’ (Edensor 2005, 101).

Not only are many independent theatre practitioners rethinking their roles as artists, they are also questioning what it means to be ‘successful’<sup>5</sup> in response to the current global context (Allen et al. 2014, 14). Rather than following a ‘traditional model’ of success measured by flagship and high-profile venues, artists are increasingly ‘re-addressing or re-making’ their own practices, letting go of former ‘reputations or identities in favour of uncertainty and potential isolation’ (Ibid.). Ecological-orientated artists ‘often make new types of work, in surprising and unconventional spaces. They are not just making the art, they are making the

very spaces in which the art happens' (Ibid.). Here, ecologically engaged practice is less 'a vision of self-expression and more about creating the conditions for change to occur' (Ariana Jordao in Allen et al. 2014, 22). Expanding further:

There is a sense in which these artists put themselves in a position where they can be 'acted through'. The artist then becomes spokesperson, agitator, mediator, medium and, in some cases, healer... These artists tend to mix more with scientists, builders, economists, energy specialists, farmers and future scenario planners than with the peers they might have trained with... they are fluid and flexible and their activity either suggests adaptive changes that re-establish equilibrium or creates a new order... This demands a great deal of risk-taking and trust in imagination... an ability to withstand oppositional points of view, uncertainty and transitional states. (Allen et al. 2014, 27–282)

In the Howlround series on *Theatre in the Age of Climate Change*, Bilodeau (2015c) identified characteristics emerging in ecological performance making, particularly in response to climate change. They included an increased awareness of human-nature connection, stronger transdisciplinary engagement between artists and ecologically orientated disciplines, a growing interest in hybridity and non-conventional formats, a closer engagement with audiences through participatory initiatives, a willingness to embrace sustainability as a creative challenge and an effort to take 'work outside of traditional venues and into communities'. These characteristics are also synergistic with the 'social turn' (Bishop 2012) where 'artists work in forms of context-responsive and collaborative practice with communities, using a range of aesthetic, political and educational strategies to identify and affect local issues' (Badham 2013; Badham et al. 2020). Artists are now asking: 'How can we transform ecological concerns into compelling and environmentally-conscious theatrical experiences?'

## The Agency and Potential of Scenography

Recent developments in the field of scenographic scholarship offer a platform from which to consider the role of the theatre designer for an ecological paradigm. Since the second half of the twentieth century, the term ‘scenography’ has rapidly expanded and now represents a progressive field that is moving far beyond traditional scenic illustration and naturalistic representation (Pitches and Popat 2011). As Arnold Aronson (2008, 23) writes, ‘In recent years, scenographic and performative borders have shifted in ways so profound as to call into question the very notion of theatre and performance as it has been understood for over 2,500 years’. This means that ‘opportunities for the designer have never been so varied or the territory so uncharted...we seem to be in a particularly acute stage of transition or collision in an indeterminate and shifting field’ (Collins and Nisbet 2010, 1). No longer considered a mere backdrop for action, performance design has moved out of the shadows to not only confront but also blur traditional theatrical hierarchies of roles and functions. This blurring of boundaries is expanding our discipline to one that I suggest makes it more conducive to socio-ecological processes.

The most recent shift in scenographic discourse is arguably one that acknowledges scenography as an ‘expanded disciplinary field’ no longer bound by former traditions of theatre practice (Lotker 2015, 7). Under the notion of the ‘expanded’, narrative, performative and process-based strategies of scenography are re-explored to consider spatial politics and social agency (Brejzek 2010, 112). Here, ‘the scenographer emerges not as the spatial organizer of scripted narratives but rather as the author of constructed situations and as an agent of interaction and communication’ (2011, 14). The scenographer as world-maker (Hann 2018) gives agency to the designer’s capacity to transform literal and hypothetical worlds, creating distinct atmospheres that affect the way in which we view and engage with our environments. Contemporary performance designers are increasingly finding themselves straddling multiple disciplines and navigating diverse communities to seek possibilities for political, social, cultural and ecological revitalisation well beyond the confines of the theatre building (Irwin 2010, 2017; Lotker and Gough 2013;

McKinney and Palmer 2017; Hann 2018). Never before have we seen such a focus on the ‘interactive relationships between buildings and bodies, between symbols of power and authority that structure public space and lived experience’ (McKinney and Palmer 2017, 15).

Scenographer and scholar Kathleen Irwin (2017, 121) explains how designers in the realm of expanded scenography operate ‘inside a burgeoning network of possibilities, interconnectivities and co-constituted intra-actions, working to make the most of the situation in relation to what is afforded by the circumstances’. Expanded scenography has opened up our discipline to not only start questioning ‘conventional roles and sites of theatre’ (Hannah 2015, 128) but also query long and tightly held assumptions about how we make theatre. This new-found porosity also makes space for theatre makers and designers within more traditional theatre venues and contexts to question conventional ways of doing things.

In the introduction to ‘On Scenography’ edition of *Performance Research* (2013, 6), editors Sodja Lotker and Richard Gough summarised ‘scenographies as places, sites and locations where bodies and environments collide; scenographies as territories to be occupied, acted in and acted through but more than anything, territories where we have to take responsibility’. If the notion of the scenographer ‘taking responsibility’ is becoming an active phenomenon in contemporary practice, then perhaps it needs to be taken more seriously. Theatre makers and performance designers work across a diversity of platforms, from high-art cultural institutions and commercial sectors to grassroots initiatives. Our ability to simultaneously navigate a wide range of projects is at the crux of what makes us versatile, effective and employable as practitioners: ‘theatre can serve as a kind of petri dish, a microcosm of the larger world where artists can test ideas, imagine new modes, and model change’ (Goldmark 2019, 21).

While the expanded realm has opened up our sector to one which may be more accessible to integrating ecological ways of doing things, failing to navigate sustainability across a variety of platforms will reinforce its place only at the fringes of practice. Sustainability must be accessible to all practitioners, regardless of their workplace. As this ecological opportunity gains currency, the way in which the contemporary theatre maker navigates through this complex terrain also presents an exciting new challenge.

## Proposing Ecoscenography

In *Performance and Ecology: What Can Theatre Do?* (2016, 229), Carl Lavery posits that ‘if theatre is to contribute to a more progressive environmental future, then it is incumbent on practitioners and scholars to reflect, rigorously, on how theatre works as a medium, while at the same time remaining vigilant with respect to its supposed efficacy’. If, as Lavery posits, theatre has the ‘capacity to alter how we exist in the world by troubling conventional modes of thinking and feeling’, what does that mean for the way we make theatre? Could an ecological approach to performance practice entail what dramaturge Dillon Slagle (2013) refers to as ‘an advancement in the craft of theatre creation akin to electric lighting, microphones, or the shift to realism’?

Beyond the necessity of energy and waste reduction, it is incumbent upon us to interrogate what an ecological approach to scenography *does*—how it influences our ways of thinking and working—as well as how it might be defined within and beyond the performing arts. In *Performing Nature* (2005), editors Gabriella Giannachi and Nigel Stewart (2005, 20) define ecology as ‘an important model for cultural observation’ explaining that it is the ‘interface between ecology and the arts that some of the most aesthetically inspiring *and* politically challenging works are found’ (emphasis in the original). However, in *Readings in Performance and Ecology* (2012) editors Wendy Arons and Theresa J. May (2012, 1) explain how ‘performance and ecology do not easily or readily share space together, either materially or ontologically’ and require that practitioners overcome preconceived binaries between performance and nature. While ‘thinking about nature in performative terms can be challenging and disorientating’, ecology opens up new forms of knowledge in which performance practice can be re-examined and re-invented (Szerszynski et al. 2003, 10).

In the *Performance Research* issue *On Ecology* (2012), Steve Bottoms, Aaron Franks, and Paula Kramer explain how ecological performance differs from notions of ‘environmental theatre’ and other site-based performance which ultimately views our surroundings (or the environment) as ‘the scenic backdrop to an anthropocentric drama’ in which

‘definitions of environments refer to surroundings or external conditions, implicitly reaffirming humans as the centre of the conceptual equation’ (Bottoms et al. 2012, 1). Instead, an ecological ethos is one that ‘focuses on the development of a reciprocal, relational approach when working with people, place, context or material...the meaning and nature of which emerge through immersive, time and place-based processes’ (Green 2015). Critical to differentiating the ecological ethos is viewing place as ‘relational, part of a network, something connected’ (Lavery and Whitehead 2012, 117). We should view place as the spatial manifestation of a broader system with which we wish to engage.

My premise in bringing an ecological approach to scenography—what I propose as ‘Ecoscenography’—is to shift performance design to an increased awareness of broader ecologies and global issues: to conceptualise ways in which an ecological ethic can be incorporated into theatre practices (Beer 2015). Ecoscenography builds on contemporary reconsiderations of performance design, where creative and environmentally conscious processes align to become a fundamental part of the scenographer’s ideas, practices and aesthetics. Being ‘ecological’ means integrating an awareness that no decision stands on its own: every design choice is intertwined with social, environmental, economic and political consequences that are far reaching and capable of having long-term effects and, ultimately, benefits.

Ecoscenography calls for a new approach to theatre production that overturns traditional production models. Like the revolution taking place in our societies and economies, this shift will not be easy. Yet, if issues such as climate change are ‘driven by cultural values, logic suggests it can be tackled by shifting them’ (Latham 2019). The key will be to see our current ecological crisis as a social, cultural, political and environmental opportunity. It is only by embracing the creative potential of sustainability that the performing arts will find its own path on the eco-agenda.

I propose that it is by moving beyond ecological narratives of despair that ‘forays into a culture of repair, recuperation, and mutual value’ (Svensen 2019) can occur. Ideas of ‘hope’, ‘mutuality’ and ‘reparation’ are at the crux of Ecoscenography, and ultimately at the transition to an ecological approach to theatre production.

The chapter that follows seeks to embed this ethos—this aspiration—in the broader concepts of ecological thinking. My aim is to demonstrate the theoretical foundations of Ecoscenography and outline the concepts—many of which are well established in related fields—that will enable eco-literate performance makers to put their intentions into practice. In short, what follows is an introduction to the ‘thinking’ that can power theatre’s ecological transformation.

## Notes

1. Examples include Julies Bicycle (UK), Creative Carbon Scotland (UK), Ecostage (UK), Sustainability in Production Alliance (UK), Green Arts Alliance (EU), Mitos21 (EU), Center for Sustainable Practice in the Arts (US/Canada), Greener Live Performances (Australia), Greenie in Residence (Australia), Howl Round Theatre in the Age of Climate Change series (USA), Theatre Green Book (UK), Ecosceno (Quebec, Canada) and Sustainable Performing Arts Now (Denmark).
2. Garrett took up this position at York University, Canada, in 2012. It is arguably still the only position of its kind in the world.
3. Notable events included Performance, Ecology and Responsibility symposium (Canterbury Christ Church University, UK); a colloquium on the Non-human and the Inhuman in Performing Arts (Theatre Academy Helsinki, Finland); UNFIX Festival of Performance and Ecology (Glasgow, UK); ART+CLIMATE=CHANGE (Melbourne, Australia); ArtCOP21 (worldwide); Performance Studies International (Performing Climates, Melbourne, 2016); Critical Theatre Ecologies (29th Annual CDE Conference, Augsburg, 2020).
4. Many of these artists have no doubt been influenced by the ecologically inspired performance artists of the 1960s, such as Joseph Beuys, Agnes Denes and Mierle Laderman Ukeles, as well as more recent work of artist/biologist Kathryn Miller, engineer/artist Natalie Jeremijenko and visual artists Lucy and Jorge Orta to name but a few.
5. Rather than following a ‘traditional model’ of success measured by flagship and high-profile venues, artists are increasingly ‘re-addressing or re-making’ their own practices, letting go of former ‘reputations or identities in favour of uncertainty and potential isolation’ (Allen et al. [2014](#), 14).

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