Science, Music and Theatre: 
An Interdisciplinary Approach 
to the Singing Tragic Chorus of Greek Tragedy

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ABSTRACT

This thesis argues for the relevance of the history of science, and its natural corollaries of music and space, in order to understand the chorus and its historical and cultural interconnections. The synchronous emergence of ancient natural philosophy, a new form of mousikê and theatre space during the birth of the tragic chorus is more than coincidence. In seminal productions of Greek tragedy throughout European history the singing tragic chorus will be aligned with concurrent modulations in scientific principles and in aesthetics.

My interdisciplinary approach recognizes an on-going interrelation between science and the arts based on shifting notions of the principles of order and disorder. Using a history of ideas framework, a scientific analogue describes the conceptual changes that emerge out of the tensions between tradition and innovation. The singing tragic chorus serves as a historical touchstone, each chapter focusing on an exemplary production in the performance history of Greek tragedy: Sophocles’ Oedipus Tyrannus in c. 429 BCE Athens (ancient), Oedipus Rex in 1585 Vicenza (renaissance), Antigone in 1841 Potsdam (classical/romantic), and Oedipus Rex in 1927 Paris (modernist). The chronological arrangement is structured as a comparative reading and not as a continuous historical narrative or comprehensive survey. The interface of science with music and theatre will be discussed from two standpoints which I have defined as Chorality and Theatricality. In Chorality, I look at the relationship of text and music. In Theatricality, I discuss the interaction of the chorus with theatre space.

Using the singing tragic chorus as a nexus for the interaction of science and art, I conclude that the dynamic coexistence of order and disorder, in both nature and the human condition, continually necessitates changes in the explanatory and descriptive language of both disciplines.
ACKNOWLEDGEMENTS

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As an undergraduate, interdisciplinary inspiration came from Professor Karl Peters at Rollins College (Florida). To my parents, whose heroic lives were visited with reversals of fortune, this work celebrates the fortunes of the mind. Finally, Professor David Balding whose intelligent, supportive and big big-hearted ways help make the statistically improbable ‘PhD in Middle C’ come true.
NOTES ON THE TEXT

When not cited by other authors, I give references to the following translations of works by Plato and Aristotle:


I have consulted several commentaries and modern translations of Sophocles' plays,\(^2\) but for references and citations of Sophocles' *Oedipus Tyrannus* and *Antigone* throughout this thesis, I use:


I refer frequently to the following collection of essays and books which I have abbreviated as follows:

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\begin{array}{ll}
CCGT & \text{The Cambridge Companion to Greek Tragedy, ed. P. E. Easterling (Cambridge: Cambridge University Press, 1997).} \\
TIA & \text{Wiles, David. *Tragedy in Athens: Performance space and theatrical meaning* (Cambridge: Cambridge University Press, 1997).} \\
\end{array}
\]

\(^1\) In this volume, I consulted specifically the translations of Benjamin Jowett, *Cratylus* (pp. 421-74) and *Timaeus* (pp. 1151-211), A. E. Taylor, *Laws* (pp.1225 – 516), and Paul Shorey, *Republic* (pp. 575-844).

Primary and secondary sources in French I have translated with the help of native speakers. For German, I have furnished my own translations with advice from tutors at the Goethe Institute (London). Titles of musical or literary works have been kept in the original language unless they are widely known by their English equivalent.

For a referencing system, I have been consistent throughout with citations and references, and for guidance used the *MLA Style Manual and Guide to Scholarly Publishing*, ed. Joseph Gibaldi (New York: The Modern Language Association of America, 1999). This was compared alongside recent publications in Performance Reception studies.
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INTRODUCTION

Preface.

In the modern history of theatre, the ancient Greek tragic chorus embodies and intones shifting socio-political, religious, philosophical, anthropological and cultural ideas. These meta-theatrical connections of the chorus originate perhaps in its own emergence in the Theatre of Dionysus, during a period of increasing complexity in nearly every human activity in Athens. Modern classicists inform us that its performance encompassed aspects of ritual, the collective voice of the polis, an emerging fictive voice, religious and cosmological concerns, or representations of the (non-Athenian) ‘Other’. When Plato and Aristotle bequeathed to Western Europe a particular view of the chorus from a world-view removed from the Hellenic one, it was a reaction to the sort of chorus which was witnessed and experienced emerging and developing within the context of a religious festival of the City Dionysia. Not withstanding Hellenism, the chorus’ inherent complexity fated reception, in terms of its meaning and function, to a variety of modern positions.

In Renaissance Italy, the chorus performed as dancing and singing intermedii, or aided in the birth of opera as the singing populace of myth and fable. In seventeenth-century France, the Enlightenment reception of Aristotelian teleology and the growing dramaturgical emphasis on plausibility and moral instruction encouraged a blanket quarantine of the chorus. In the eighteenth-century, as political theorists and philosophers argued and published the merits and failures of monarchy and the republic, the chorus re-emerged as a potent political voice. In the formation of nineteenth-German theatre aesthetics, following the Sturm und Drang period, the reflective and lofty chorus mediated the idealism of Weimar classicism and the romantic impulses. As German historicism gathered apace, the choral ensemble mirrored communality in context of nationhood. In the tumultuous history of the late-nineteenth century, the Apollo-Dionysus model was incorporated by Nietzsche; in his worldview, the chorus represents the dissolution of the rationalist-empiricist structure and individualistic free will. Meanwhile, in France, the neoclassical reception of ancient Greek culture was a buttress to the encroachment of Teutonic culture. The chorus was reduced to statue-like representations in the historically-accurate scenery
that depicting ancient sites. During the early twentieth century, in the interwar period, the French avant-garde stripped the chorus of its historical associations, and as an empty shell, it became the receptacle of the new music and drama. In contemporary theatre the chorus has experienced a fortunate peripeiteia. This has occurred alongside body-centred methods derived from physical theatre, and also as part of the postmodern tolerance for complex meaning and form.

In the organ of the mind, the chorus can be perceived as an ordered, synchronised and symmetrical ensemble. One can see in a well-organised or choreographed ensemble a species of team sport, military exercise, political assembly, domestic gathering, congregational worship, industrial workplace, civic organization or ritual practice. Likewise, when the chorus spontaneously gathers, moves, disperses, and comes to rest, emitting patterned sounds en route like, as the director Peter Hall remarked, 'a shoal of fish or flock of birds', it can be a mnemonic for the subliminal, or ancestral visions when humans collected together to hunt and survive. Its configurations and language cause us to speculate about impressions of order and chaos, of fixity and fluidity, of being and becoming. In short, the complexity of the chorus formulates one of the most fundamental quandaries of western European philosophy which is rooted in the epistemological and ontological birth of science, music and theatre space: what is the dynamic relationship of order and disorder?

This thesis investigates, in the history and performance reception of the singing tragic chorus, the intellectual development of an order-disorder continuum. I pursue this investigation on the synchronous emergence of ancient natural philosophy, new forms of mousikē, theatre space, and the birth of the tragic chorus. As an example of a history of ideas research, I take stock of 'net' developments in human thought, and locate concepts that have emerged as pivotal topics in intellectual history. There are paradigms for a kind of critical analysis that reconstruct intellectual history and locate

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1 Peter Stothard's interview of Peter Hall, in the National Theatre 'Platform Papers: The Oedipus Plays' (Olivier Theatre, 21 September 1996). Material is available on-line at 'Platform Papers' [http://www.nationaltheatre.org.uk] [accessed 01 September 2006].

2 Mousikē: a wide network of institutions and rules regarding song and dance in ancient Greece. This definition is drawn from Music and the Muses: the culture of mousikē in the Classical Athenian City', eds. Penelope Murray, and Peter Wilson (Oxford: Oxford University Press, 2004), a source I use in more detail in the chapter, 'Cosmological Chorus'.

3 I discuss this further on in a 'survey' of critical approaches and cover literary paradigms where science and theatre have converged.
amalgamations of concepts in socio-political, religious or cultural domains. Among the modern classicists, the Marxist-inflected relativism of Jean-Pierre Vernant analyses the emergence of tragedy as a specific historical juncture or ‘moment’, linking it to the rise of democracy and its intellectually and spiritually agonistic roots. In his *Myth and Thought among the Greeks*, Vernant addresses the relation of Anaximander’s cosmology to Athenian politics and justice. Richard Seaford combines social history, economic anthropology, and ancient cosmology in *Money and the early Greek mind*. David Wiles, in *A Short History of Western Performance Space*, applies a diachronic framework to his comprehensive study of theatre space. The changing relationship of the spectator and performer are linked to spatiotemporal identifications.

In this thesis, I pursue a similar analysis where the cognitive domains of science, music and theatre are seen to overlap. The theatre historian Helmar Schramm argues the overlapping view by suggesting an ‘etymological link’ exists between intellectual theory and theatre. The formalization of ideas in modern Europe, according to Schramm, became stylized as modes of perception, movement and language. The extent to which these categories are interactive in theatre can be matched historically in the intellectual activities of science. In a theatrical space, the interplay of random events (in both physical or aural events) challenges, or nullifies, *a priori* notions of order, symmetry and certainty. In laboratories and observatories, scientific theories of how order is perceived and described continually shift because of aberrations and irregularities in the data coming from Nature and the universe. The cognitive domains of both science and theatre have used perception, movement and language to explain, describe or demonstrate the relationship of order and disorder. Like Wiles, Schramm associates the ‘spatiotemporal organization of seeing, speaking and acting’ in European theatre space with the human act of observation. I concur with Schramm

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4 Simon Goldhill, ‘Modern Critical Approaches to Greek Tragedy’, in *CCGT*, pp. 324-47 (pp. 334-5).
that 'theatre studies would be able to intensify its search for the place from which it speaks by uncovering traces of its structure in the history of sciences as well'.

Because this research is concerned with the relationship of the history of ideas and of theatre performance, it comes under the heading of Performance Reception. A core concern of Performance Reception is how Greek tragedy, while resonating the values and performance practices so unlike our modern customs and traditions, continues to fascinate, inspire and infiltrate performance media like theatre, film, radio and literature.\textsuperscript{11} Lorna Hardwick makes the points that, 'artistic or intellectual processes [are] involved in selecting, imitating or adapting ancient works'.\textsuperscript{12} Thus, theatre studies, aesthetics, politics, philosophy, media, and music come into play when deciphering the processes and contexts of reception. In the case of the singing tragic chorus, I establish an interdisciplinary method to track the reception of the chorus, and I use a science analogue as a comparative and analytical tool to correlate science, music and theatre. Beforehand, I turn to a survey of modern critical theories regarding the tragic chorus in both the field of Classics and Performance Reception. I conclude with some reasons why science and music are left out of the analysis given to the chorus.

\textsuperscript{10} Schramm, ibid. The relationship of natural philosophy and music was firmly established in antiquity and has been addressed throughout history. In context of the singing tragic chorus, I will argue in this thesis how choral music in the theatre corresponds with intellectual developments in scientific thinking.

\textsuperscript{11} Recent publications, spearheaded for instance by the Archive of Performances of Greek and Roman Drama, exemplify the kind of content and extent of reception studies: Medea in Performance, 1500-2000; eds. Edith Hall, Fiona Macintosh, and Oliver Taplin (Oxford: Legenda, 2000), Dionysus Since 69: Greek Tragedy at the Dawn of the Third Millennium, eds. E. Hall, F. Macintosh, and Amanda Wrigley (Oxford: Oxford University Press, 2004); and Greek Tragedy and the British Theatre, 1660-1914, by Hall, Macintosh (Oxford: Oxford University Press, 2003). European research centres involved in similar archive and research projects include, for instance, the Antikerezeption in der deutschsprachigen Literatur nach 1945 (Freie Universität Berlin). Several websites provide the international scope of research, including conferences and publications in Performance Reception of the Classics. See links provided by

<http://www2.open.ac.uk/Classical/Studies/GreekPlays/Projectsite/links.html> and
<http://www.approved.ox.ac.uk/database.html> [last accessed 02 October 2006].

Survey of the Tragic Chorus

The Classicists.

Historical models cannot be nuanced enough to tell us what the tragic chorus meant for the ancients, then and there, in relation to us, here and now. The meaning and function of tragedy and the tragic chorus are argued from many standpoints. Simon Goldhill’s critical survey of modern approaches shows the influence of post-structuralism, modern linguistics and Marxist cultural theory. These have made an impact on the way the surviving plays of Aeschylus, Sophocles and Euripides are currently viewed less as literature, and more as texts that can be decoded for their sociological, cultural, political meanings, or even read as ‘scores’ or ‘notations’ of complex performance practices. A survey of modern theories regarding particularly the tragic chorus has come from the classicist and theatre historian, David Wiles. He perceives the ancients as having seen them as more than the sum of metrical parts, speech, or personae. The tragic chorus is a Gestaltic phenomenon, a holistic ensemble integrating dance, music and song, and cosmological space. In the survey ahead I argue that modern critical analysis of the chorus either tends toward using rationalist/structuralist frameworks (suggesting the tendency toward Aristotelian teleology), or post-structural/multi-disciplinary interpretations.

The centrality of the chorus to modern European discourse on Greek tragedy stands squarely on the mid-nineteenth-century shoulders of Friedrich Nietzsche. For Nietzsche, the coexistence of Apollonian and Dionysian forces was important for understanding the significance of Greek tragedy to modernity; the tragic chorus was the diffusion of individuality in the Dionysian collective. At the turn of the century, Nietzsche’s choral paradigm merged with an anthropology-based understanding of ritual and sacrifice. In England, the Cambridge Ritualists stylized the chorus in response to this particular convergence. In Europe, the Nietzschean spirit infused the

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16 I discuss Hegel and Nietzsche in my chapter, ‘Experimental Chorus’.
17 I do not discuss the Cambridge Ritualists in this thesis. For the latter, see both Goldhill, in ‘Modern critical approaches to Greek tragedy’, and Fiona Macintosh, in ‘Tragedy in performance: nineteenth- and twentieth-century productions’, in CCGT, pp. 284-323. The recently published Greek Tragedy and
mass choruses in the pre-war Max Reinhardt productions of *Oedipus* as well as Eva Palmer-Sikelianos’ interwar Delphi productions. Both in some way celebrated a return to a kind of total theatre, Reinhardt’s in uniting movement, sound and space, and Palmer-Sikelianos in combining dance, poetry, art and folk music. A theoretical view of the chorus that combines twentieth-century archaeological, historical and philological scholarship is proposed by A. W. Pickard-Cambridge and his systematic study of historical developments of Greek tragic and comic drama.

In Pickard-Cambridge’s work, the ancient Dionysian festival is reconstructed in context of socio-political structures and their archaic roots. The juxtaposition of history and archaeological findings sets the tone for modern interpretations of Greek tragedy. In an Enlightenment-Aristotelian framework, where all things have their proper structure and function in time and space, the chorus could be seen as an artefact of drama that could be labelled, dated and categorized. One might interpret this to be the case in T.B.L. Webster’s *The Greek Chorus*, where a strict chronological analysis prevails. Metric patterns in poetry correspond, according to Webster, to iconographic sources (mainly vases and relief) that depict dance movements. His point of view is indebted to quantitative studies of ancient metres and their relation to dance movement in A. M. Dale’s study *The Lyric Metres of Greek Drama*. Dale worked out the metrical forms and perceives the whole structure as part of a coherent system. Recent discussions of ancient artistic literacy, however, challenge vase paintings as strict or dependable iconographic representations of theatre productions.

*the British Theatre*, by E. Hall, and F. Macintosh, provides ample material on Gilbert Murray in context of reception.


A chronological reading is particularly problematic given that Attic dramatists were developing new choral styles and movements at different times throughout their career.

The view that every component of tragedy perfectly fits together draws from eighteenth-century reformation of Aristotelian teleology and its primarily deterministic and mechanistic worldview.\textsuperscript{21} René Hainaux, states in the preface of \textit{World Theatre}, published in 1957, that ‘Greek tragedy is an architectural composition in which all the parts are arranged in strict order [...] its structure is so precise that one could no more alter its proportions – even by a hair’s breadth – than one of the columns of the Parthenon, without immediately destroying the harmony of the world’.\textsuperscript{22} After World War II, classicists were part of a world-view that sought a return to tradition and an espousal of classical, ordering values. They would necessarily have shaped their analysis from a perspective of seeing the whole of a play as a coherent assemblage of the parts.

Oliver Taplin’s \textit{logos-driven} revelations of Aeschylean drama pay tribute to the post-World War II formalistic thinking of H.D.F. Kitto’s \textit{Form and Meaning in Drama} (1956) and John Gassner’s \textit{Form and Idea in Modern Theatre} (1956). As Taplin plainly puts it, ‘Greek tragedy is a structure of parts’.\textsuperscript{23} The action in the play becomes ‘the first and the final foundations of any theory’. Every action is claimed to cause a reaction: entrances and exits thus ‘inaugurate new actions’.\textsuperscript{24} Taplin disavows Aristotle’s \textit{Poetics},\textsuperscript{25} but nevertheless remains in tune with eighteenth-century reception of Aristotle, asserting a naturally-occurring principle in tragic plot and character, regulated by cause and effect, and always with some intrinsic end. The

\textsuperscript{21} For recent critical analysis of Aristotle’s teleology, one which differentiates the Enlightenment reception of teleology from Aristotle’s more critical evaluation of intrinsic cause and determinism, see Monte Ransom Johnson, \textit{Aristotle on Teleology} (Oxford: Oxford University Press, 2005).
\textsuperscript{24} Taplin, \textit{The Stagecraft of Aeschylus}, pp. 50-3.
\textsuperscript{25} Taplin, \textit{The Stagecraft of Aeschylus}, p. 50. For Wiles’ post-structural critique of Taplin’s Aristotelian-based viewing, see ‘The problem of space’, in \textit{TIA}, pp. 1-22.
chorus is marginalised because it is not considered to be part of the action." Taplin has since moved away from an overemphasis on the teleological framework at least in terms of analysing the relationship of Greek vase paintings and Greek drama.27 A kind of structural telos applies to William Scott’s analysis of the Aeschylean and Sophoclean choruses.28 Scott introduces ‘musical design’ as a seductive metaphor for the intrinsically ordered structure of the choral odes. ‘Musicality’ seems to impart the insights of Aristotelian structuralism which can at times overlook the more complex attributes that do not belong within an ordered scheme.29 For instance, the closed assessment leaves out how the unique contributions of archaic songs to tragic poetry and rhythmic innovations. Despite these shortcomings, Scott’s analysis is useful for theatre practitioners who might want to perform the basic rhythms of the choral odes.

R.W.B. Burton analyses the choral metres and maintains that the content and form are well matched. The poetic metres, apart from the text that shapes the actions of the protagonist, are patterned in such as manner that reinforces notions of choral character and overall coherence.30 Leo Aylen, in *The Greek Theatre*, also argues that there is enough in the formal structure of metres to imply a musical structure.31 Yet we know that ancient fifth-century choral music was comprised of an interrelated set of rules unlike those that apply to modern classical European music. Recent research in ancient musicology suggests, for instance, that the ‘long’ and ‘short’ stresses of fifth-century lyric poetry are beyond quantitative values of modern notation.32 The

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29 I critique Scott’s work more closely in the chapter, ‘Cosmological Chorus’. I concur with Joel Lidov who is unable to ‘make sense of Scott’s presentation of the metrical material’. See Lidov’s review of Scott’s *Musical Design in Sophoclean Theater*, in *Bryn Mawr Classical Review*, vol. 7 (1996), pp. 648-57.
musicality that Aylen, et al, attribute is perhaps derived from a structuralist approach that one might more appropriately apply to the rhythmic design of a Beethoven symphony. The skeletal outlines of rhythmic patterns in the ancient choral odes, which are derived from archaic forms and city-wide mousikē, constitute a complexity that does not belong to the structural analysis of the classical Viennese schools of Beethoven and Mozart.

The function of the chorus is submitted to a form of literary analysis in Cynthia P. Gardiner’s The Sophoclean Chorus and Rush Rehm’s Greek Tragic Theatre. Both are possibly drawn to the Aristotelian imperative that the chorus, as suggested in his Poetics (1456a, 25-30) should be like one of the characters. The chorus’ text is self-sufficient to disclose a sense of character. The text is deciphered for its metaphorical and analogical meaning as one would decipher the plot and characters of Chekhov, Ibsen or Shakespeare. The meaning of the chorus relates to the closed world of the play. By contrast, Maarit Kaimio’s account highlights a complex choral profile based on the shifting singularity and plurality of the chorus across several plays. In ancient times, the chorus and the chorus leader spoke and possibly moved, despite their visual ‘outward plurality’, in and out of the First Person Singular or First Person Plural. While Kaimio contends that the ‘number chosen contributes to the nuance of thought expressed in the context’ of drama, these nuances differ with a certain frequency and duration among, and within, the fifth-century Greek tragic plays. More recently, Stephen Esposito has examined how over the span of the fifth century the chorus-protagonist relationship is facilitated differently in the interplay of song and speech. Choral personae have more to do with the chorus-protagonist relationship than with autonomous definitions of the chorus.

34 Maarit Kaimio, The Chorus of Greek Drama within the Light of the Person and Number Used (Helsinki: Societas Scientiarum Fennica, 1970), p. 9-10.
The philosophical viewpoints of postmodernism sweep aside grand structural designs and deconstruct knowledge built on base-superstructures. Frameworks or models like cause and effect or the ‘classical’ ideal, are superseded by arguments more or less centred on socio-political and religious rubrics. *Nothing to Do with Dionysos?: Athenian Drama in its Social Context*, responding to the postmodern ‘methodological sparagmos’, offers multiple viewpoints linking the chorus to the ‘extra-textual aspects of tragedy’. Oddone Longo, in ‘The Theater of Polis’, focuses on the ‘communitarian aspects’ that give drama its socio-political voice. Ruth Padel, in ‘Making Space Speak’, engages with the ‘emotionally significant modes’ of expression in a binary dialectics of space. John Winkler seems to revive the notion of nineteenth-century German classical-romanticism, idealizing the singing tragic chorus in ‘The Ephebes’ Song’. According to Winkler, the chorus is a ‘still centre from which the tragic turbulence is surveyed and evaluated’.

The emergence of the tragic chorus in view of the developing *polis* is discussed in *Performance Culture and Athenian Democracy* (1999). As the *polis* developed out of archaic political organizations, fifth-century choral dance and song evolved as a unique genre that fused elements of archaic poetry and dance. A compilation of essays edited by Michael Silk, *Tragedy and the Tragic*, offers a wide-remit for historicism (and neo-historicism). Among the essays, John Gould and Simon Goldhill assert that the chorus, and its dramatic voice, are a distinctive outgrowth of its fictiveness (Gould), or to its elusive collectivity in relation to civic ideology (Goldhill). I refer to aspects of the chorus’ authorial voice in the discussion of the

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41 John Winkler, ‘The Ephebes’ Song’, in *Nothing to Do with Dionysos?*, pp. 20-62 (p. 43). The view that the chorus performed in rectangular Hoplite-like formation (shared also by Lillian Lawler and John Gould) is critiqued by Wiles in TIA, p. 95.
Dionysian discourse in Richard Sea ford’s and Rainer Friedrich’s analysis (see ‘Chorality’, chapter one).

Sociological concerns for ancient song and dance have considered the tragic chorus as a unique performance genre in the melting-pot of mousikê. The evolving species of new music is an accommodation and disturbance of new traditions clashing with traditional forms.\(^45\) The tensions, I argue, confirm the complementary forces represented by Dionysus and Apollo in the polis and, uniquely, in the theatre of Dionysus. In this thesis, I refer to Peter Wilson, Barbara Kowalzic, Eric Csan and Eva Stehle, whose viewpoints enrich the socio-political role of the chorus and in some instances (as I point out in the ‘Cosmological Chorus’ chapter) challenge classical organizational models of the choral odes.

Modern critical appraisal, as I mentioned at the start of the survey, also stems from anthropological insights into religion and ritual, and can be traced, among others, to the writings of Emile Durkheim, Walter Burkert and René Girard. The anthropological study of religion and its influence on the polis underscore Christiane Sourvinou-Inwood’s historical reconstruction of the origin and emergence of the tragic chorus in *Tragedy and Athenian Religion*.\(^46\) The complex features of the tragic chorus – its antiphonal and agonistic schemas, for instance – can be re-constructed from choruses performing ritual. In its fifth-century form, the tragic chorus was uniquely able to ‘telescope’ and ‘zoom’ archaic forms and practices in the theatre of Dionysus. Nicole Loraux focuses on choral language, reformulating the Apollo-Dionysus dichotomy of Nietzsche, emphasizing the fracturing phonê over the

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concretizing logos. It is in the chorus, and the choral vocalisation, that one apprehends the tension between Apollo and Dionysus. The historical reconstruction of religious experience and the re-visitation of Nietzschean philosophy in the polemics of late twentieth-century methodologies evidence a shift from linear, structural models to an engagement with the complexities of the chorus. The ritual-religion approach also challenges the domination of socio-political interpretations of Attic tragedy.

Correlations between politics, religion and tragedy are filtered through binary lenses in post-structuralism. In Vernant’s and Vidal-Naquet’s Myth and Tragedy in Ancient Greece, the tension of order and disorder is re-embodied in the anxious and agonistic multi-registers of the choral voice. In the text, complex networks of meanings reveal the double-vision of traditional myth and the emerging codes of the polis. Claude Calame’s semiotic analysis reveals internal structures operating within larger external structures (i.e. cult and myths); dichotomy in choral performance is expressed as one of signifier and signified. Albert Henrichs reflects on the chorus’ self-referential behaviour; its role, both in the fictional and cultic realm, is the source of the chorus’ enigmatic complexity. Charles Segal frames the discussion of tragedy in anthropological concepts such as family, city, nature, and gods. Segal grounds the chorus in ritual: it provides a ‘ritualized expression of communal sentiment’, complementing the heroic response. Anthropological structuralism can overlook performance culture, and it tells in Segal’s description of the chorus as entertaining

52 Segal, Oedipus Tyrannus: tragic heroism, p. 18.
‘divertimenti’.\textsuperscript{53} David Wiles maps the tragic chorus along socio-political and ritual/religion discourses. In respect of a binary framework, he has made it nearly impossible to bypass the interrelationship of choral text and performance space.\textsuperscript{54}

Like modern-day scientists, classicists are shaping and being shaped by the historical evidence as it is rediscovered and reworked in academic and performance settings. Forming the most suitable analysis seems to result in overarching structures or streamlined models, at times leaving invisible or glossed-over the irregular or enigmatic aspects that give the ancient chorus, in certain cases, its enduring complexity. In light of late twentieth-century readings, criticisms, and performances of Greek tragedy, Pat Easterling, in her preface to \textit{The Cambridge Companion to Greek Tragedy}, advises taking ‘note of changing patterns of reception, from antiquity to the present’.\textsuperscript{55} Since the mid-90s, Performance Reception has combined research in Classics, Literature and the history of performance to meet that need.

**Performance Reception.**

The frameworks that are considered in Performance Reception are overtly or suggestively multi-disciplinary (I discuss the issue of disciplinarity later under ‘Methods’). Yet with such wide-angled research, coverage of the singing tragic chorus is given a parcelled viewing confined to a program-guide listing of the composition, the composer, the librettist, and anecdotal commentary of classical, romantic or modern styles. The intellectual culture of science is completely left out of the reception frame.

**In Performance Reception,** socio-political and cultural subtexts in the performance afterlife of Greek tragedy are formed by diachronic and production-based analysis. In Peter Burian’s and Fiona Macintosh’s essays (both in \textit{CCGT}), intellectual or aesthetic issues are shown to impinge on the reception of the staging of a particular tragedy,\textsuperscript{56}

\footnotetext[53]{Segal, \textit{Sophocles’ Tragic World}, p. 183.}
\footnotetext[54]{\textsuperscript{54} For Wiles’ primary contribution to the text-space-chorus triangulation, see his TIA. Rush Rehm has also contributed to the formation of ancient theatre space and modern reception in \textit{The Play of Space: Spatial Transformation in Greek Tragedy} (Princeton: Princeton University Press, 2002). I compare both authors’ discussions in the chapter, ‘Cosmological Chorus’ (Theatricality).}
and in some cases the chorus. In the skilful horizontal, diachronic overlay of the material, vertical analysis can at times be left under-funded. Burian mentions Stravinsky’s *Oedipus Rex* as the ‘standard-bearer of musical neoclassicism’, but leaves out crucial discourses that currently interrogate musical neoclassicism which is accepted as a diffuse marker for artistic eclecticism, creative idiosyncrasies, and a subtle repatriation of romantic idioms. Also, in Wagner’s idea of Gesamtkunstwerk (the unity of text, dance and music), Burian suggests how the physicality of the tragic chorus disappears into the rhetorical drama of the orchestral writing. The interrelationship of musicological as well as theatrical ideologies has shaped views of the chorus since the development of opera. The return to Aeschylean chorality in Wagner’s world is part of the larger picture of making the chorus an integral part of the orchestral drama.\(^{56}\)

A closer inspection of the chorus in reception can be found in Fiona Macintosh’s and Edith Hall’s recent *Greek Tragedy and the British Theatre: 1660-1914*. Suppression of the chorus often reflected the anti-German movement in European history. The chorus however continued to have a vital role in expressing shifting views about royalty and the republic. One chapter gives a detailed analysis of the Druid chorus, in the 1776 production of William Mason’s politicized *Caractacus* (a play based loosely on *Oedipus at Colonus*). The discussion is unique in pointing out the relevance of musical styles, reception of ancient cosmology and political perspectives.\(^{57}\) In more general terms, it is argued that the chorus had a vital role in the way tragedy was received in the atmosphere of triumphal colonialism in Britain. The historical commentary of the book as a whole, however, does not claim to go deeply into the intellectual or socio-political climate of music of the times, nor indeed of science. Macintosh’s much-anticipated monograph of the history of *Oedipus* performances may touch on the historical correlations.\(^{58}\)

\(^{56}\) Peter Burian, ‘Tragedy adapted for stages and screens: the Renaissance to the present’, in *CCGT*, pp. 228-83 (p. 266, 268).


Wiles’ *Greek Theatre Performance* discusses the reception of the tragic chorus combining both the ancient world and modern performance theory. I already mentioned in this survey how Wiles’ analysis gives text and performance space equal footing. However, his focus on the body, text and space short-changes music in the bargain.\(^{59}\) Recent studies use the global reach of ancient Greek tragedy to combine (what can be known of) ancient performance practice, literary criticism and modern historical reception. Lorna Hardwick filters the material through post-colonial theory,\(^{60}\) while Rush Rehm, in *Radical Theatre*, gives overviews embracing how the ancients might have thought and how the present can try to understand their sense of ‘seeing’ and ‘hearing’ in ancient time and space. Both their foci are on productions as a whole rather than the chorus in any specifically systematic way. Robert Garland’s recent *Surviving Greek Tragedy* maps the ‘survival’ of the extant ancient plays, devoting one chapter to reception (‘Producers and Players’) and the chorus out of the main frame.\(^{61}\)

A distinguished career in Performance Reception characterizes Marianne McDonald’s panoramic approach to the field. Yet, despite her stated aim – a ‘balanced overview, adequately covering both performance, or text, or textual analysis’ – the chorus is sketchily analysed,\(^{62}\) relying at times on theoretical sound bytes rather than penetrating insight into musicology, aesthetics or intellectual history.\(^{63}\) For instance her account of Stravinsky’s *Oedipus Rex*, which draws primarily from a chapter in an earlier book, *Sing Sorrow: classics, history and heroines in opera* (2001),\(^{64}\) Oedipus’ passages are simply described as ‘whining’ and Jocasta’s arias as ‘regal’.\(^{65}\)


\(^{60}\) Lorna Hardwick offers an emerging methodology in post-colonial theory, in *Greek Drama and Anti-Colonialism*, *Dionysus Since 69: Greek Tragedy at the Dawn of the Third Millennium*, eds., Edith Hall, Fiona Macintosh, and Amanda Wrigley (Oxford: Oxford University Press, 2004), pp. 219-42. See also Hardwick’s *Translating Words, Translating Cultures* (London: Duckworth, 2000).


\(^{63}\) McDonald on Andre Gide’s 1930 *Edipe* comments how the play ‘is very amusing; like Cocteau’s version, this is a play of ideas’. Likewise, ‘Cocteau plays all the intellectual tricks for which the French are famous’. Marianne McDonald, *The Living Art of Greek Tragedy*, p. 63, 69.


\(^{65}\) McDonald, *The Living Art*, p. 67. McDonald is right to link Verdi on to Jocasta’s aria, as many Stravinsky specialists have done. It makes far less sense when applied to Oedipus’ vocal passages.
McDonald’s interpretation of the music and the chorus also seems skewed towards a ritualistic view without taking into account wider musicological and theatrical influences in Stravinsky’s intellectual environment. According to McDonald, romantic individualism is transcended in the dehumanised chorus and text. This somehow stems from the liturgical and ritual aspects of Stravinsky’s music, she overlooks the important and complex neoclassical discourse in the background. Penetrating insight accompanies her survey of modern productions of Greek tragedy in ‘Mapping Dionysus in New Global Space’, part of a series of contributions made by modern practitioners and scholars in (Dis) placing Classical Greek Theatre. In such a brief essay, the chorus is inevitably underrepresented. Her account of Lee Breuer’s Gospel at Colonus refers generally to an ‘Afro-American tradition’ of the choral music without contextualizing its gospel-ness as a hybrid of early Afro-American forms of musical worship and modern popular entertainment.

Aesthetic, intellectual and social conditions are given wide-ranging expositions in Dionysus since 69, a series of essays exploring modern performance reception of Greek tragedy within a short chronological span that starts with the theatrical epicentre of Richard Schechner’s production also by the same title. The contributions collectively convey the ever-present importance of the Aeschylean, Sophoclean and Euripidean tragic chorus as visual and aural prisms of the ‘real, dysfunctional, conflicted world of the late twentieth- and early twenty-first century’. Musicological issues are salient in Peter Brown’s chapter, ‘Greek Tragedy in the Opera House and Concert Hall of the Late Twentieth Century’. The extent to which ancient plays, or themes relating to Greek tragedy, have influenced operas is presented (as Brown himself admits) as a reference list. From the compiled productions list we can glean important contemporary preoccupations with rhythm, orchestration favouring woodwind and percussion over strings, the musical dislocation (or synthesis) of the chorus and protagonist, and the rhythmic characteristics of text. Without a formal analysis of contemporaneous formations of music theory (the Second Viennese

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66 McDonald, The Living Art, p. 67.
68 Hall’s introductory remarks in Dionysus Since 69, eds. Hall, et al, p. 2.
School in the United States; the Boulangier-Messiaen influence in Europe), emerging aesthetics (like the Columbia-Princeton Electronic Centre and its counterpart in Paris), and even science (in terms of stochastic theory and extensions of serialism), we cannot know in what context idiosyncratic and personal approaches to Greek tragedy were taken by significant composers Greek-inspired composers like Iannis Xenakis, Luigi Nono, Harrison Birtwistle, and Jacob Druckman.  

Systematic multidisciplinary and intellectual histories are disclosed in modern German scholarship. The concern for chorus is traceable to the classical-romantic era of Goethe’s Weimar to subsequent nineteenth-century philosophers like Schiller, Schlegel, Hegel and Nietzsche. Of the surveyed works, perhaps Susanne Boetius’ Bühnenfassungen mit Schauspielmusik 71 comes nearest to combining music and theatre space, albeit without discussions of the scientific culture, and staying strictly within the margins of nineteenth-century German culture. I refer to her work in my chapter on Mendelssohn’s 1842 Antigone, as I do Hellmut Flashar’s study of the Potsdam production which correlates political, cultural and intellectual events, and highlights musicological concerns in relation to the musical tragic chorus. 72 Erika Fischer-Lichte has presented comprehensive accounts of modern European history, initially in the wake of semiotic theory, and more recently in a neo-humanist study of European identity in the theatre. 73 Her more recent analysis of present-day productions of Greek tragedy investigates the legacy of Nietzsche and post-structural anthropology, particularly in terms of how ritual and the actions of sparagmos might be portrayed in the formation of a community (in a theatrical sense) within the

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70 A forthcoming book, Ancient Drama and Modern Opera, Peter Brown (ed.), may expand on these aesthetic issues in music.
production. Out of this combination has grown ideas concerning ‘choric theatre’ which in its unique capacity embodies socio-political concerns, definitions of community, and notions of identity in the era of post-German Unification.\textsuperscript{74} I am particularly fascinated by Fischer-Lichte’s use of ‘energy’ and ‘rhythm’ as descriptive terms for the complexity of choric theatre. These terms have intellectual and scientific antecedents in nineteenth-century Thermodynamics (as I spell out in chapter three).\textsuperscript{75} I have also used Fischer-Lichte’s discussions of German choric theatre in the analysis of \textit{Delphi, Texas}, my recently performed adaptation of Sophocles’ \textit{Oedipus Tyrannus}, in the final chapter (Coda).\textsuperscript{76}

European and non-European theatre practitioners whose theatre productions are distinguished in the use of the chorus include Jacques Lecoq, Ariane Mnouchkine, Peter Stein, Peter Hall, Klaus Michael Grüber, Einar Schleef, Michael Marmarinos, Theodoros Terzopoulos, Heiner Müller, Yukio Ninagawa, and Katie Mitchell.\textsuperscript{77} Modern practice has motivated research into aesthetic issues regarding the chorus today. I briefly discuss some of these practitioners in the Epilogue (Coda) chapter.

Summary of the Survey.

In this survey, Classicists, either under the guidance of Enlightenment-Aristotelian structuralism or postmodernism, have given very little coverage to the development of natural philosophy and ancient music alongside a formal analysis of the chorus text. The survey of Performance Reception also points out more deeply embedded clues to a strictly disciplinary approach: (1) In the modern day, classicists and historians lack corresponding terminology adequately to describe and explain the multiple agencies of the ancient tragic chorus, let alone the \textit{singing} tragic chorus; (2) In modern performance arts, singing is a specialized discipline. It is therefore difficult to describe


\textsuperscript{75} See, for concepts of ‘energy’ and ‘rhythm’, Fischer-Lichte, \textit{Theatre, Sacrifice, Ritual}, pp. 247-8.


\textsuperscript{77} A conference on ancient and modern productions of the Greek and Roman chorus was hosted by the Archive of Performances of Greek and Roman Drama in 2003. See <http://www.apgrd.ox.ac.uk/events/postgradsymp3.htm> [accessed 24 July 2006].
and explain an ancient performance culture where no such formal discourse existed;\(^78\) (3) The singing tragic chorus is a hybrid performance phenomenon that does not fit into formally defined genres like opera, ballet, or musical theatre. It is problematic to say whether, at the outset, the singing tragic chorus is more related to music history than to theatre history; (4) Aside from problems of taxonomy, musical skills are required to read and analyze choral music scores and to understand technical jargon. For this, researchers in Performance Reception can but apologize.\(^79\)

Overlooking the culture of science may have something also to do with formal research arrangements as well as in-built modern biases between the humanities and science. It may well be that the recent emergence of the history and philosophy of science as a discipline has had little time to profit from cross-disciplinary dialogue already occurring within the humanities. The problems mentioned above and the exclusion of science key into the main concerns of this interdisciplinary approach.

Method

Interdisciplinary Research in Performance Reception.

The rapid growth of Performance Reception in classics and theatre studies has outpaced formal considerations about theory and research methods. In an essay entitled, ‘Towards a Theory of Performance Reception’, Edith Hall outlines how the recent specificity of performance culture is a result of far-ranging, eclectic excavations of the ‘afterlife’ of ancient dramas.\(^80\) This recent reconnoissance of Performance Reception constitutes at the moment, according to Hall, ‘theory à la carte’.\(^81\) Hall is seeking an organizational framework that might clearly provide the ‘provenance of theoretical models’.\(^82\) Similarly, Lorna Hardwick pursues a systematic account influenced by hermeneutics in literary theory and the history of ideas.

\(^78\) Performance culture is a contentious term in Simon Goldhill’s ‘Programme Notes’, in *Performance Culture and Athenian Democracy*, pp. 1-29.

\(^79\) Hall’s and Macintosh’s critical contribution to Performance Reception in British theatre admits having to leave ‘embarrassingly untold the story of the musical contribution made by composers involved in staged versions of Greek tragedy’. See *Greek Tragedy and the British Theatre*, xix. It is also obvious that interdisciplinary connections between science and music might require some conversance with scientific theories and practice.


\(^81\) A forthcoming conference in September, 2007, at the APGRD (University of Oxford), will be devoted solely to Performance Reception theory.

\(^82\) Hall, ‘Towards a Theory of Performance Reception’, p. 52.
Hardwick is working towards a formal methodology and the use of terminology seems to reinforce this move. For example, she suggests (with no specific hierarchy of definitions) concepts such as 'acculturation', 'foreignization', 'transplant', etc., to inform modes of perception, interpretation and legitimization in the reception of tragedy.\textsuperscript{83} Both Hardwick and Hall, for example, take stock of what was and is happening in intellectual history, and how this shapes the reception and re-imagining of Greek and Roman drama. The call for a working theory in Performance Reception signals a critical mass in data and resulting knowledge emerging out of publications, colloquia, conference papers and electronic symposia. By moving towards theory, perhaps Performance Reception is asking if the sum of connectable parts can devolve from a particular method. The purpose in this section is twofold: to clarify the problems and objectives of interdisciplinarity in light of reception theory, and to explain how it might complement Performance Reception’s already multidisciplinary approach.

Recent History of Interdisciplinarity.

In the humanities and social sciences, erosions of epistemological bases have corresponded with increased interdisciplinary activities in academic institutions. In the United States, concern for increasing specialty within fields was counteracted, in liberal arts colleges primarily, by the creation, maintenance and justification (usually for fiscal reason) of new disciplines. The convergence of disciplines gathers under the broad umbrella of cultural studies, comparative literature, and post-feminist, gender, post-colonial theory. Interdisciplinary fields tested conventional ways of collecting or ‘reading’ literature or data, forming theory, and validating the outcome in core disciplines such as geography, sociology, anthropology and history. In light of the postmodern critique of the base knowledge of fields, specialty and interdisciplinarity have overlapped.\textsuperscript{84} Where disciplinary and interdisciplinary are apparently antithetical is in formal exchange of knowledge between science and the humanities. This was acutely experienced, historically, in increasingly divergent claims of science and


religion. In recent times, theoretical and historical convergences in science and religion, within the fields of philosophy, history, and theology, have resulted in vigorous and exciting dialogue.\textsuperscript{85}

A major pioneer of interdisciplinary theory, Julie Klein addresses how interdisciplinarity is a triangulation of horizontal paths (exposition), vertical paths (analysis), and synthesis.\textsuperscript{86} Synthesis creates new possibilities for the way one reads, analyzes and maps a field of data. I am not entirely convinced that ‘triangulation’ is unique to interdisciplinary research any more than to general disciplinary research. I believe interdisciplinarity’s strength is in proposing an intrinsic permeability or transaction of analysis across boundaries. Interdisciplinarity therefore assumes two prerequisite activities: a negotiation of terminology and an assumption that the subject under investigation involves the interrelation of disciplines.

Analogues as Terminology.

On the face of it, Performance Reception provides a kind of comparativist superstructure which lets postcolonial, materialist, postmodern, psychoanalytic, culture studies, or gender theory argue their own interdisciplinary corners and settle ownership of nomenclature. The question arises whether it is enough for Performance Reception to provide the multidisciplinary space and allow terms to transfer from one practice to another ‘as metaphor, \textit{façon de parler}.’\textsuperscript{87} What assumptions are made, for instance, when researchers claim that an idea like a scientific \textit{Zeitgeist}, that a production emitted certain \textit{energies}, that a system of thought is \textit{complex}, that a \textit{Gestaltic} effect was achieved in \textit{relative} space, or that an idea appeared out of \textit{thin air}?

In this thesis, analogues are drawn from the history of science to map material across disciplines. It is not advocated that scientific theories are the basis or root cause of

\textsuperscript{85} For example, the journal \textit{Zygon}, in the U.S., serves as one of the primary platforms for interdisciplinarity in science and religion. See their website, <www.zygonjournal.org>.


\textsuperscript{87} Marilyn Strathern’s phrase. Strathern explores the basis of knowledge across disciplinary borders in ‘Working Paper Two: Commons and Borderlands’, in \textit{Commons and Borderlands: working papers on interdisciplinarity and the Flow of Knowledge} (Wantage: Sean Kingston, 2004), pp. 36-50 (p. 36).
cultural ideas. Scientific theories, like aesthetic theories, provide structures within their own disciplines ‘which are propounded as standing in some representational relationship to actual and physically possible phenomena’. Analogical inference formally draws from conventional base knowledge and stimulates new conjectures and perspectives in more speculative regions of thought. In this respect I follow a perception of analogues in modern cognitive science.

In the cognitive sciences, Keith Holyoak describes two domains as analogous when they ‘share a common pattern of relationships among their constituent elements even though the elements themselves differ across the two situations’. Analogues work by connecting a base analogy (one that is generally validated and accepted within a field) to a target analogy (one that is methodologically unrelated). Holyoak advises that analogy is in effect a ‘mechanism for effecting conceptual change’. He uses as an example Charles Darwin who appropriated the selection process of agricultural breeding programmes into a speculative field of knowledge regarding nature and ‘natural selection’. In time, the amassed knowledge of biology and geology confirmed Darwin’s analogy by converting the concept of selection into a natural force. Analogues attract historical evidence closest to its conceptual framework and sets up a picture of historical synchronicity in the intellectual heritage of compared disciplines. Holyoak’s idea about analogies is both problematic and helpful. Identifying precisely when and how conceptual change takes place is difficult. However, in constructing history, one may establish a pattern of conceptual shifts, with a certain frequency and duration, suggesting events where conceptual change might be identified.

For example, late-Italian Renaissance perception of ‘harmony’ was derived from the particular development of humanistic cosmology, and signified the interplay of ancient theories about order and new observations that repeatedly challenged and reshaped them. Changing views of cosmology correlated with conceptual change in the

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harmonic arrangement of bodies in space, musical notation, and architectural design. In each of these areas, harmony described and explained the process of uniting concordant and discordant elements. Likewise, in nineteenth-century German classical-romanticism, the analogue of ‘experimental’ science was proposed in Goethe’s concept of the Versuch. The theory prompted new speculation about the subject-object dichotomy in Nature, but its cognitive framework was preconditioned by Enlightenment age of reason. One may further denote analogues in the way Freud was influenced by various analogical associations between the spectatorship of hysteria in a medical setting and the ‘proof’ which gave trans-historical validity to the Oedipus complex in the spectatorship within theatre. One may even suggest that the extraordinary leap of atomic analogues proposed by the ancient Atomists, was the philosophical prologue to a revolutionary scientific breakthrough of atomic physics in the early twentieth-century.

Modern interdisciplinary or multidisciplinary research tends to use (or assume the use of) ‘metaphor’ interchangeably with ‘analogy’ as a tool of comparative analysis. The differences between metaphor and analogy are too complex to elaborate in such a short space. Metaphors, like analogies, ‘re-describe reality’ and affect conceptual change. A metaphor does this through an accretion of semantically distant meanings that over time (and over use) blurs and deadens its interrelated correspondences.\(^92\) Zeitgeist might be said, for instance, to be a metaphor overcharged with cross-disciplinary meanings. In the context of this thesis, an analogy formally organizes ‘alignable differences’ (Holyoak) within and between science, music and theatre.\(^93\)

The paradox of multidisciplinary and interdisciplinary research.
Interdisciplinarity is claimed to contain a meta-level of discourse, a combination of methodologies that merges and creates a hybrid form of research. Multidisciplinarity is a comparative exercise of disciplines, leaving fundamentally unchallenged internal axioms (i.e., basic concepts operating in a field of knowledge).\(^94\) In the main, I view

\(^92\) For postmodern view of inductive inference and analogy, see Paul Ricoeur, The Rule of Metaphor: multi-disciplinary studies of the creation of meaning in language, tr. Robert Czerny, with Kathleen McLaughlin, and John Costello (Toronto: University of Toronto, 1977). For ‘models’ and ‘analogy’, p. 6, 6.
the current work in Performance Reception as a multidisciplinary enterprise. Interdisciplinarity, as a formal critical approach is problematic if, as Stanley Fish puts it, ‘authentic interdisciplinary critique is negated by routinization and institutionalization’.\(^{95}\) In other words, turning interdisciplinarity into a discipline may annul its unique attributes. This illuminates a paradoxical situation for Performance Reception. As it moves toward a working theory, Performance Reception may adopt, to use the implications of Fish’s argument, specific rules of engagement with data, fixed borders, and internal systems of verification; in other words, Performance Reception may create its own specific terminology and knowledge base.\(^{96}\) In the end, Performance Reception may not have to adapt such a tightly-scripted methodology, if it is already demonstrating, as Klein explains about interdisciplinarity, the overlap and conflict of disciplinary matrices that cannot be adequately addressed or described using singular methods.\(^{97}\)

The debate about interdisciplinary research has not resolved the paradox of turning interdisciplinarity into a discipline in its own right. What ‘moving toward theory’ would entail for Performance Reception in terms of a practical lexicon (if indeed one is required), or the creation of hyphenated fields of analysis that have sprung up in the human sciences and technology (e.g., neuro-anthropology or bioinformatics), remains to be seen. Problems of taxonomy, etymology, language and legitimacy surface when interdisciplinary research lays claim to being a discipline in its own right.\(^{98}\) Interdisciplinary work is often considered by traditional disciplines to have no core definition. At its best, the findings of interdisciplinary research cause disciplines to reflect on their own methods and sub-disciplines. A safe consensus assumes that whatever interdisciplinarity’s aims, it is valuable as long as disciplines remain internally rigorous and productive.\(^{99}\) I would further propose that interdisciplinarity

\(^{95}\) Klein, Crossing Boundaries, p. 170-1.

\(^{96}\) Klein, Crossing Boundaries, p. 1. I mentioned Hardwick’s use of terminology earlier.

\(^{97}\) Klein, Crossing Boundaries, p. 171.


applies to subjects like the singing tragic chorus that are by nature interdisciplinary, and where the accumulation of data and analysis can start to describe and explain its complexity rather than its simplicity.

This thesis is interdisciplinary in correlating science, music and theatre space and in using analogues as an analytical and comparative tool. My overall concern is to provide instances in which the order-disorder continuum is a marker for historical synchronicity.

Post-structural View of the Order-Disorder Continuum.
The ‘order-disorder continuum’ is a post-structural reworking of the Nietzschean model. I view the concepts of ‘order’ and ‘disorder’ as the general cultural embodiments, in ancient and modern history, of the unfixed but generally bipolar attributes of Apollo and Dionysus. I do not argue that Apollo strictly represents order or that Dionysus represents disorder. From a sociological viewpoint, as suggested by Corynne McSherry, these concepts might be perceived like ‘boundary objects’, which are formally defined by intellectual or sociological domains, but are also ‘imbued with enough shared meaning to facilitate their translation’ across worlds of knowledge. From a philosophical position, Bertrand Russell and Alfred North Whitehead posit that a definition of ‘order’ might be seen as a series of transitive and asymmetrical relations. From a poststructuralist perspective, the order-disorder continuum is a disintegration of autonomous (structural) frames of reference, and the implied interrelationship of perceived opposites. Post-structuralism, represented in various ways by Jacques Derrida, Michel Foucault, and Jean François Lyotard, challenges the ordering structures or tropes which hold meanings to be objective and

background in sociology accounts for notions of ‘flow’ and ownership in her understanding of knowledge.

100 I explain my use of the term ‘chorality’ at the end of the Introduction chapter.
101 Corynne McSherry, Who Owns Academic Work? Battling for Control of Intellectual Property, (Cambridge, Mass.: Harvard University Press, 2001). McSherry’s discussion of ‘epistemic regime’ and ‘intellectual property in terms of educational communities’, is argued in pp. 6-7, 14-16, and p. 69. Strathern’s discussion of Michel Callon’s model of ‘hot’ and ‘cold’ suggests a similar viewing of concepts as ‘objects’ attracting certain attitudes or valences (i.e., cold = ‘calculated, stable’ environments; hot = ‘unpredictable interaction of diverse factors’). These attributes are constantly shifting and adjusting through history. See Strathern, in ‘Introduction: In Crisis Mode – a comment on Interculturality’, in Commons and Borderlands, pp. 1-14 (p. 3).
102 The Concept of Order, ed. Paul G. Kuntz (Seattle: University of Washington Press, 1968), xxxii. In Whitehead and Russell’s Principia Mathematica (1910-13), and in Whitehead’s Process and Reality (1925), reality is defined as ‘occasions’ of becoming (i.e. order).
self-sufficient. My use of the word ‘continuum’ implies an infinite succession between conceptual polar opposites.

Interdisciplinary Paradigms.

Interdisciplinary paradigms that prompt this kind of research into the interrelationship between science, literature and the humanities are numerous. Both Stephen Kern’s books, *The Culture of Time and Space: 1880-1918* and, more recently, *A Cultural History of Causality: science, murder novels and systems of thought*, demonstrate the complex interaction of events and ideas in science and culture. As the literary historian Gillian Beer’s suggests, Kern presents historical material as ‘a shifting series of relations and momentary groupings [where] one form of experience has no supremacy’. Kern’s works are part post-causal thinking, and espouses the increasing ‘specificity’, ‘multiplicity’, ‘complexity’, ‘probability’, and ‘uncertainty’ of causality. In this thesis, a case-study approach organizes the ‘momentary groupings’ where science, music and theatre space correlate.

A number of scholars have mapped the historical convergences of science analogues, metaphors and models. Gillian Beer has surveyed scientists who throughout history wrote literature, and has investigated literary pieces that have in turn been influenced by scientific thinking. In the 1980s, Michel Serres combined philosophical analysis and historiography in *Hermes: literature, science, philosophy*. This work proposes the resolution of subjective and objective realms (of knowledge), which are ‘no longer at odds’ with each other, and are both seen in terms of the larger rubric of ‘order and

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103 The History of Ideas is a formal modern discourse. A browse of on-line indexes will easily demonstrate this.
disorder’. The metaphorical language of science hints at the intrinsic instability of meaning, and its transferability to non-scientific studies. Daniel Albright’s Quantum Poetics: Yeats, Pound, Eliot, and the Science of Modernism, puts forward, for example, the metaphysical relevance of the quantum analogue in discussing contemporary literature.

In the late 1980s and 1990s, chaos theory influenced views in theatre and literature that opposed strict binary structuralism. Katherine Hayles comprehensively spearheaded the ‘paradigmatic (scientific) shift’ in literary criticism, and in Chaos Bound, highlighted the prevailing cultural contexts. For the history of modern theatre and science, William Demastes’ Theatre of Chaos, and more expansively, Michael Vanden Heuvel’s Performance Drama/Dramatizing Performance, both emphasise chaos theory in the formation of ideas in avant-garde theatre. Along with chaos theory, complexity theory has made inroads into postmodernism. Cilliers’ Complexity and Postmodernism lays out the argument persuasively. Modern practitioners seem to use chaos and complexity interchangeably to delineate or account for enigmatic aspects in the tragic chorus, a topic I return to in the concluding

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107 Michel Serres, Hermes: literature, science, philosophy, tr. Josué V. Harari, and David F. Bell (Baltimore, Johns Hopkins University Press, 1982), xxi, p. 82.
chapter. Many theatre plays (perhaps more in recent times than in any other era) are also inspired by the history of science, or at least structured around scientific models. Given the established correlations between science and literature, it is surprising that their influence on current research in Classics or Performance Reception is hardly in evidence.

Thesis Plan
Each chapter focuses on an exemplary production in the performance history of a Greek tragedy: Sophocles’ *Oedipus Tyrannus* in c. 429 BCE Athens (ancient), *Oedipus Rex* in 1585 Vicenza (renaissance), *Antigone* in 1841 Potsdam (classical/romantic), and *Oedipus Rex* in 1927 Paris (modernist). The importance of Sophocles’ plays in the canon of European theatre is quite clear from the profile of case studies presented. Their historical reception forms part of the overall emphasis on the singing tragic chorus. The well-spaced chronologies in their cultural settings are not meant to indicate that these theatrical productions necessarily inspired the next on in succession. Moreover, the case studies are not presented as masterpiece productions, reflecting the apex of any particular performance genre. They act as historical markers particularly where major practitioners in science, music, poetry, architecture and theatre distil, within their own fields, the important discourses of the day. I have therefore excluded in this formal analysis productions where the chorus is singing (as was the case in Reinhardt’s Oedipus productions in England) but where the discourse on the relationship of music and text, for instance, does not connect interpenetrate significant prevailing musicology and the relationship with science and theatre space.

In each chapter, a science analogue establishes the cognitive link between science and the cultural world of the singing tragic chorus. As science accommodates old and new


115 Fischer-Lichte similarly explains her choice of particular drama texts as a structuring device. These have ‘significant intertextual effects’ which allow exploration of new concepts of identity. See Fischer-Lichte’s ‘Introduction’, in *History of European Drama and Theatre*, pp. 1-7 (p. 6-7).
perceptions of order and disorder, tensions develop in its descriptive and explanatory language. An analogue locates unresolved tensions of conflicting ideas, meaning or beliefs, which is reflected, or seen to be operating in, parallel disciplines. Analogues are ‘reflected’ or ‘operating’ in music and theatre because music and theatre evince synchronous oscillations between old conventions and new ideas. In modern theatre history, often the to and fro is observed as a classicizing tendency: how one era perceives or projects virtues in antiquity that correct, complement or legitimize emerging values and beliefs. In chapter one, I reconstruct the history of the fifth-century tragic chorus and use the analogue of ancient ‘cosmology’. In chapter two, the singing late-Italian Renaissance chorus is considered from the principle of cosmological ‘harmony’. In chapter three, the ‘experimental’ ethos in German science is the base analogue that transfers to classical-romantic theories about the tragic chorus. And in chapter four, the metaphysical claims of the ‘quantum’ era underscore modern neoclassicism and the reception of the tragic chorus in the avant-garde.

Chorality and Theatricality.
The interface of science with music and theatre will be discussed from two standpoints which I have defined as Chorality\textsuperscript{116} and Theatricality. In the section, entitled Chorality, I look at the relationship of text and music, and how the relationship reflects the scientific comprehension of order and disorder. In the ancient tragic chorus, I follow the history of mousikê in the time of Sophocles. Modern critical approaches analyse the creative innovations and the inherent tensions that grow out of the Apollo-Dionysus nexus. In the history of postclassical Europe the relationship of text and music signifies the tension between the accommodation or domination of traditional and emerging rules. In late-Renaissance Vicenza, Andrea Gabrieli and Orsatto Giustiniani worked in a cross-current of musicological and literary dictums, where poetry was prioritised over music. In Potsdam, Felix Mendelssohn, Ludwig Tieck and August Böckh sought to bring about unity amongst diverging principles in classicism and romanticism, even though music, as the most esteemed of the arts, threatened to overwhelm events in a small royal court. In 1927 Paris, Apollonian neoclassicism and Dionysian pathos was the Janus-faced mask of

\textsuperscript{116} In musicology, the term ‘chorality’ has no formal body of discourse.
Stravinsky's opera-oratorio. Text was used as part of complex rhythms to serve, ultimately, the music.

In contemporary discourse, the term ‘theatricality’ is a contentious and diffuse topic. In an introduction to a recent set of essays exploring theatricality’s topicality and applications, Tracy Davis and Thomas Postlewait mention a wealth of ‘interconnected explanations of theatricality but not a composite interpretation’.117 Any number and combination of discussions can apply to theatricality under the headings of ‘mimesis, antitheatricalism, religion, ritual, theatrum mundi, modernist theatricalism, metadrama, metatheatre, and metatheatricality’.118 Semiotics has also offered a comprehensive framework for understanding the notion of theatricality, disclosing how signs and symbols are transposed from culture to theatre.119 More recently, ‘performance art’ has come into its own, subverting the basic premise of what constitutes the theatrical event.120

Under theatricality, this thesis does not attempt a semiotic study of the chorus as the site of cultural signs and symbols. Nor does it define or analyse ‘dramatic’ space. The choral impact on the spectator is considered through reportage or historical accounts (when they are available), and not from any phenomenological or essentialist position. In my definition of theatricality, I discuss the physical representation of the chorus alongside the way theatre space is organized. David Wiles’ argues in A Short History of Theatre Space that theatre space is understood as a nexus of socio-political and cultural identifications imposed on spatiotemporal frameworks.121 I follow this

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118 Davis, and Postlewait, eds., Theatricality, p. 16.
120 For critique of semiotics, pp. 24-5; for aspects of ‘performance arts’, pp. 25-6, in Davis, and Postlewait, eds., Theatricality.
121 Wiles lays out his argument in the introduction to A Short History of Western Performance Space. His poststructuralist view in the late 1990s was shaped among others by Henri Lefebvre, Michel Foucault, and Anne Ubersfeld. The influence of French semiotics, particularly Anne Ubersfeld’s Lire
reasoning in as much as I mention the backdrop of socio-political issues regarding science, music and theatre space in their respective periods of history. I do not however engage in a one-to-one correspondence of historical nexus points and their spatiotemporal identifications. I demonstrate instead parallel transformations of ideas among the disciplines starting from the way space was considered in scientific thinking, moving analogously to spatiotemporal considerations in the performance of music, and finally to the way the body and space was conceived in theatre. Each chapter is labelled – ‘cosmological’, ‘harmonic’, ‘experimental’ and ‘quantum’ – reflecting this sequence of reading from science to art.

Using the singing tragic chorus as a historical touchstone, I conclude that the coexistence of order and disorder, in context of music alongside theatre space, necessitated an explanatory and descriptive language analogous to scientific thinking. Since their conception, Greek tragedies have awakened humans to the deceptiveness of certainty in their universe. The singing chorus, in particular historical performances, has been the aural and visual paradigm.

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31
COSMOLOGICAL CHORUS – c. 429 BCE

When Sophocles’ treatment of the Oedipus myth was performed at the City Dionysia, an allotted jury awarded his tragic chorus second place.¹ As a ‘canonical exemplar’² in the history of European theatre, this verdict raises questions about its secondary showing. Close-hand accounts of the ancient production however are mute to history, so we are left to guess whether such factors as an overzealous aulete, irregular choreography, the shrill sounds of a lamenting chorus of elders, or a complex combination of poetry and melos created an indigestible performance. Events occurring around 429 BCE³ suggest that there may have been both a tolerance of and wariness towards the complex innovations in tragedy which drew from radical and unsettling changes in the arts, mouiskê⁴, Attic religion, festival celebration, and the effects of a devastating plague.

By the middle of the fifth-century, Athens had experienced something of a Hellenic Ars nova. Under the auspices of Pericles,⁵ arts and architecture flourished in a manner that was unprecedented. Archaic notions of order found new expressions, often by openly and seamlessly embodying their own opposite.⁶ For example, in sculpture the human body combined the symmetrical overlay of geometric principles in the torso pivoting daringly on the asymmetrical contrapposto.⁷ Archaic principles of order extended to the formation of the body politic, a space imbued with opposition and

³ I give this date provisionally as the time of the play. In their ‘Chronology’, CCGT gives the time of the play as 430 – 428 BCE, p. 355. Alan Sommerstein gives the dates as c. 436-426 in Greek Drama and Dramatists (London: Routledge, 2002).
⁴ I mentioned in the Introduction chapter that mouiskê represented a wide network of institutions and rules regarding song and dance in ancient Greece.
⁵ Pericles came into political prominence around 461 BCE. Charles Segal: ‘Athens under Pericles was a place where many diverse currents of thought could mingle and conflict’. See Segal, Oedipus Tyrannus: tragic heroism and the limits of knowledge, pp. 8-9.
⁶ In terms of art and architecture, see representations of disorder (i.e., the ‘other’) in Not The Classical Ideal: Athens and the Construction of the Other in Greek Art, ed. Beth Cohen (Leiden, Boston: Brill, 2000). For the twinning of opposites in pottery, see John Onians, Classical Art and the Cultures of Greece and Rome (New Haven, Connecticut: Yale University Press, 1999).
equilibrium. Likewise, in civic spaces the rhetorical gamesmanship of sophistry made the weaker argument sound as though it was the stronger. A competitive drive in choral performance fostered innovations in the traditional dithyramb and new music. In the theatre of Dionysus, the tragic chorus may have embodied in performance the changing rubrics of poetry, music and dance.

The polis experienced no less dramatic changes in its religious and philosophical domains. According to the ancient historian, Robert Parker, politics and ideology developed in Athens with ‘startling speed’. Tensions were felt in polis religion because of the growing number of foreign gods and cults. The deconstruction of the Homeric gods continued apace in emerging natural philosophy. At times the city-state adopted an aggressive ‘militant’ stance towards many traditional values. Natural philosophy itself bifurcated. One side was broadly represented by Parmenides of Elea, who espoused unchanging ‘Being’ as part of a monistic worldview. The other side followed Empedocles of Acragas, who asserted qualitative pluralism and ongoing change. By the time the Atomists began to formalize the notions of atoms in a vortex-like void a major krisis in classical antiquity emerged.

In 431 BCE, in addition to the increasingly complex intellectual, political, religious, and artistic picture, the outbreak of hostilities against Sparta immediately coincided with a plague which was reportedly incomprehensible in its savagery. Thucydides mentions that ‘Doctors died the most. Human art and science were no help at all.

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9 A conference at Oxford University called ‘Song-Culture and Social Change: The Context of Dithyramb’ (11th – 13th July 2004), presented papers on this subject.
11 Robert Parker, *Athenian Religion: A History* (Oxford: Oxford University Press, 1996), p.123; for response of authority to religious practice, pp.132-57. For Parker, religious tensions in fifth-century polytheism were generated by the addition of new cults and their gods. The xenikoi theoi (foreign gods) brought their own religious innovations, including the much mentioned Pan of the tragedies, who was supposedly brought after the battle of Marathon (490 BCE). See p. 152 and 164.
Equally useless were prayers made in the temples, consultations of Oracles, people were so overcome by their sufferings that they paid no further attention to such things’ (2.47). The plague wiped out a vast portion of the population and claimed Pericles and his two sons.¹³

Given the pivotal status of Sophocles in civic, religious and dramatic matters, it is easy to imagine that his tragic chorus vocalised or physically articulated the acute tensions in the city-state. Robert Wallace remarks that the fifth-century playwrights ‘sought to write on themes of contemporary intellectual and political importance’.¹⁴ Simon Goldhill argues that tragedy shaped and was shaped by the city’s civic discourse.¹⁵ Pat Easterling reminds us of ritual action, appropriated from daily experience, and activated at many dramatic levels by tragedy and the tragic chorus.¹⁶ And the Dionysian complexity of tragedy, according to Richard Seaford, associates the chorus with the act of performing ‘ritual’ on behalf of the polis by the chorus.¹⁷ In this chapter I propose that Sophocles’ chorus of Theban Elders constituted a performance phenomenon intrinsically gifted, by virtue of its innovativeness and city-wide choral institution,¹⁸ to explore, tolerate and in some sense reflect, but in no way give an answer or decision to the ‘turning points’, or krisis, in fifth-century Athens.

Under the section on Science (which I treat in classical antiquity as ‘Natural Philosophy’), I trace the history of the fifth-century cosmological crisis that begins with the proclivity toward ‘objectification’ in Presocratic speculation.¹⁹ In pursuit of objectification, the Presocratics used a binary framework. Within this framework opposing phenomena were understood to coexist so long as a unifying force guaranteed order and organization in the universe. The cumulative effect of

¹⁹ The ‘relativism of truth’ is implied in my use of the term ‘objectification’. It can be argued that ‘relativism’ and ‘objectification’ are two philosophical processes. For the argument, see A. A. Long, ‘The Scope of early Greek Philosophy’, in The Cambridge Companion to Early Greek Philosophy, ed. A. A. Long (Cambridge: Cambridge University Press, 1999), pp. 1-21 (p. 16).
Presocratic thinking resulted in an increasingly complex descriptive and explanatory language. By the fifth-century, the Presocratic notion of *kosmos* as a beautiful arrangement of objects developed into a sense of dynamic equilibrium enshrined in the customs and laws of the *polis*. As the historian Paul Cartledge states, the ‘dogma of kosmos as unitary, divine, harmoniousness and mathematically ordered took shape only after the mid-fifth century’. \(^{20}\) Forms of natural philosophy crystallised into two distinct cosmological assertions based on monistic or pluralistic positions. The tension of opposing views was further complicated by the relativism of the sophists\(^{21}\) and the materialism of the Atomists. Other ideological tensions might have been experienced between the concept of permanence suggested in the *nomoi* of the city-state and of temporality in the *physis* of the natural world. The polyphonic congestion of ideas obscured the speculative field; an abiding sense of an *a priori* view of order became unalterably and indecipherably coextensive with notions of disorder.

In the section Chorality, I ask to what extent the ‘aurality’\(^{22}\) of the chorus (the word-tone relation) conveys a sense of the order-disorder continuum. Recent modern analyses of the tragic chorus have centred on the Apollo-Dionysus discourse. I interpolate the discourse as another way of talking about the ‘continuum’ between order and disorder. After I have established this connection, I will first explore the origins and development of the tragic chorus. In the fifth-century, the tragic chorus becomes part of a wider organised network of choral song and dance (i.e., *mousikē*). The competition of dithyrambs (presumably danced in honour of Dionysus)\(^{23}\) stirs up concomitant innovations in *new* music. Finally, I turn to a brief analysis of the choral odes. The order-disorder model guides my polyphonic analysis of the metric structure and the text, and forms an alternative viewpoint to a prevailing structural approach.

In Theatricality, I ask in what sense the tragic chorus’ physical movement in the fifth-century Attic theatre space might have mirrored cosmological complexity. We are


\(^{22}\) Aaurality refers to a virtual sense of the tragic choral music (the word-tone relationship) based on what can be inferred from surviving ancient Greek music and ancient commentary.

informed by classicists that in ancient thinking ‘seeing’ represented ‘knowing’.

The Protagoras (c. 481 – c. 420 BCE) epigram, that man is the measure of all things, confirmed humans as the visual microcosm of the universe and its movements. Seeing reinforced cosmological beliefs about the body, as well as the physical spaces inhabited or activated by the body. The tragic chorus, within the theatre of Dionysus (theatron), might have presented the ancient viewer with a conceptual facsimile of themselves in the universe, real enough to elicit deep communal experience, and abstract in ways that allowed reflection of their own bodies in space. First, I discuss the individual ancient body as a site of cosmological principles from geometry, politics, architecture and biology. Second, I will discuss the choral body in terms of its number, shape and movement. Finally, I shall survey recent interpretations of text and the theatre of Dionysus.

SCIENCE.

Ancient Science and Ancient Cosmology.

The problem of matching modern with ancient experience raises the notion of what is perceived as ancient ‘natural philosophy’ and what might be formally defined as ‘science’. Moreover, ancient ‘cosmology’ is not modern, systematic cosmology that combines scientific astronomy and astrophysics. Ancient speculation did not proceed by a purely mathematical-deductive processes or formal empirically-inductive reasoning. In Ancient Cosmologies, G. E. R. Lloyd states that there is nothing that constitutes the cosmological model. M. R. Wright offers a similar disclaimer: cosmology is not a ‘science of description or of explanation’. Richard Schlagel, in his comprehensive two-volume work, From Myth to Modern Mind, is similarly cautious about the allure of simple comprehensive theories and the complicated

25 In ancient Greek thinking, spaces were named after the human activity that occurred in them. Theatron = where the people went theasathai, or to watch; orchēstra = where the chorus entered to orcheisthai, to dance. See Ruth Padel’s chapter ‘Making Space Speak’, in Nothing to Do with Dionysos?, ed., Winkler, and Zeitlin, pp. 336-65 (p. 341).
26 Even in the Hellenistic era, ancient ‘science’ was not meant to observe, record, or even interpret heavenly portents. See G. E. R. Lloyd’s, ‘Science in Ancient Civilizations?’, in Ancient Worlds, Modern Reflection (Oxford: Oxford University Press, 2004), pp. 12-23 (p. 19). The search for truth which would lead to wisdom, or the sonum bonum, was different from the ‘truth’ that in a modern sense contributes to technology or prognosis.
historical development of ancient cosmology. It might serve us to think of ancient 'science' as a kind of contemplation (theōria) of nature, whereby the mythopoetic language of the past is scrutinised and at times abandoned under more objective speculation.

Ancient 'science' shares the cognitive endeavours of modern science by virtue of their 'analogous ambitions'. Both sciences attempt to understand nature and to construct a language that can describe, explain and to some degree predict its principles and processes. In ancient times this resulted in, as Lloyd asserts, a 'semantic stretch' in language that can also be found in the developments of early Greek poetry. Walter Burkert, in his philosophical analysis of ancient Greek religion, similarly proposes that a unique kind of 'perspective' and 'verbalization' took over in natural philosophy. Burkert describes an emerging cognitive process whereby traditional postulates such as physis, kosmos, meteora, and arche were turned into an 'intellectual project' to restore a world which appeared too often perturbed by reality, and bereft of relatively unsatisfactory explanations or predications. Early 'scientific' explanations and descriptions signalled the gradual objectification of the mythic metaphor and imagery of Homer's and Hesiod's world. Everyday objects and artefacts in the human environment served as models for objectification. Sieves being shaken, or vessels filled with substances, represented the macrocosm which contained and formed all the elements in nature. The craftsman or artisan personified the

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31 Lloyd states: 'Early Greek poetry provides plenty of examples where the stretch of a term seems particularly prominent [...]. Talk about the unseen, the imaginary, the abstract (so often the locus of battlefields, of the revolutions of wisdom) is an area where there is bound to be especially heavy demands on semantic stretch' (my italics). See Lloyd, The Revolution of Wisdom (Berkeley: University of California Press, 1987), p. 175. See, Walter Burkert, Greek Religion, tr. John Raffan (Oxford: Blackwell, 1985), p. 305.
32 See Walter Burkert, Greek Religion, tr. John Raffan (Oxford: Blackwell, 1985), pp. 305-7. Burkert defines the 'cognitive postulates' as follows: physis = process of becoming; kosmos = order; meteora = explanation of objects and events in the sky; arche = the beginning.
creative force administering or setting the elements in motion as did the gods or divine forces.\textsuperscript{34}

Modern historians are agreed about the significance of binary thinking in the process of objectification. Lloyd states that the Presocratics proposed ‘an antithetical view’ for every idea they put forward.\textsuperscript{35} As a simple rule, all matter could be reduced to primary substances,\textsuperscript{36} and separated or congealed matter represented their opposite effects such as hot or cold, air or mist, fire or water. The word kosmos is derived from the perception of ‘orderly formations’ of matter; thus, configurations, shapes or arrangements that were pleasing to observe and participate in were in a sense kosmological. Homer’s Odyssey (13.77) refers to kosmos as ‘soldiers sleeping with their place by the oars’. In the Iliad (14.187) the beautiful arrangement of ‘adornments’ relates to our modern concept of ‘cosmetics’. Kosmos is seen by Herodotus in the ‘well-regulated states’ of Sparta (Herodotus, 1.65). For Gorgias, kosmos means ‘both ordered and jewelled and various’ (fr. 6).\textsuperscript{37} Over time, as Athens became a vessel agitated with new ideas and political experiments, the ‘semantic stretch’ in the descriptive and explanatory language of the Presocratics appropriated socio-political, physiological and vitalist (biological) meanings.\textsuperscript{38}

Towards Crisis: the emergence of natural philosophy.

In the fifth-century, ancient cosmology represented an opposition between two fundamentally opposed ways of looking at the world. I trace the origin of this cosmological bifurcation from the three strands of intellectual speculation in the

\textsuperscript{34} Hesiod’s Pandora was ‘manufactured’ by Hephaestus. For ‘workshop’ imagery, see Plato’s Timaeus, 33b5, 37c7, 69e6, 73e7, 74e6.

\textsuperscript{35} G.E.R. Lloyd, Ancient Cosmologies (London: George Allen & Unwin, 1975), p. 205. Italics are Lloyd’s. His writings on ancient history and the philosophy of science are extensive. In Polarity and Analogy, the central tenet about the binary view is stated as: ‘Opposites are, or are among, the principles or elements on which the cosmological theories of other Presocratic philosophers are based’, p. 16.

\textsuperscript{36} Lloyd, Polarity and Analogy, p. 15.


\textsuperscript{38} Lloyd summarizes these appropriations as ‘political’, ‘artefact’ and ‘vitalist’, in Polarity & Analogy, pp. 210-303.
Presocratic era: the materialism of the Ionians, the mysticism of the Pythagoreans and the schools of thinking represented by Parmenides and Empedocles.\textsuperscript{39}

The Ionians were primarily concerned with the physics of nature (i.e., essential matter and its \textit{physis} – its potential growth). They saw the universe as a container of dynamic physical processes where one, or several elements, acted as the underlying physiological reality. In Miletus, Thales (625-547 BCE) initiated the physiological speculation. In Ionia, Miletus was a prosperous new city-state. Trade and wealth created political independence. Civic issues were debated as was the basis of rule. The influence of astrology and cosmology from Babylonia\textsuperscript{40} and Mesopotamia created another layer of intellectual prosperity and perhaps stirred critical analysis about the heavens. Thales was said to speculate about life (‘natural’) forces, and how these forces interpenetrated the causes and effects of everyday events. He observed for instance how an object like magnetic stone contained its specific power. His observations uniquely combined mysticism and materialism so that, as Aetius tells us, Thales could think ‘that mind of the world is god, and that the sum of things is besouled, and full of daimons; right through the elemental moisture there penetrates a divine power that moves it.’\textsuperscript{41} Physical changes occurred through the intervention of Soul which interacted, nonetheless, with a primary physical agent. Thales posited water as the primary physical agent, and Nature was observed to separate and be reconstituted out of water in drying (earth) and vaporizing (air).

For Anaximander (610-540 BCE), the Unlimited or Boundless was the underlying reality. Out of the Boundless, the opposition of forces produced the physicality of life.\textsuperscript{42} The dialectic of opposite forces that are ‘encroaching’ or ‘reciprocating’ on each other’s existence constituted the mechanism of Becoming; the explanation of one phenomenon (like cold) is that it has somehow usurped the space of the other


\textsuperscript{40} G.S. Kirk, J.E. Raven, and M. Schofield, The Presocratic Philosophers (Cambridge: Cambridge University Press, 1983), p. 98. Thales was able to extract technical advantages from careful observation of the skies (e.g., successfully predicting a solar eclipse, and a bountiful olive harvest) and thus provide some practical justification for philosophy. A famous prediction of an eclipse was made possible by his use of Babylonian records.

\textsuperscript{41} Kirk, Raven, and Schofield citing Aetius (after Theophrastus) I.7.II, in The Presocratic Philosophers, p. 97.

\textsuperscript{42} Lloyd, Polarity and Analogy, p. 16.
The one surviving fragment of Anaximander states 'for they [the elements] pay the penalty and recompense to one another for their injustice according to the assessment of time'.

His near contemporary Anaximenes (585-525 BCE) proposed air as the fundamental element in contrast to Thales’ water. The binary transmogrification of matter was dependent upon the dynamic processes operating in air which caused, for instance, rarity and density.

In Ephesus, around 500 BCE, Heraclitus refined speculations about the primary essence of life and how change occurred. He remained conventional in proposing a first principle – eternal fire, instead of air or water.

A significant contribution however was to imagine the world as being in a perpetual state of flux, and to assert the idea of the Logos as a cognitive repository of origination, proportion, division and arrangement of matter. A ‘unifying reality’ underscored the presupposed world of innumerable changes and the laws of contradiction in Ionian thinking; unity-through-variability simplified never-ending opposites.

Such a view was captured in the enduring aphorism of never ‘stepping [twice] into the same river, for other waters and yet others go ever flowing on’. Heraclitus was possibly the first ancient philosopher to grasp the essence of complexity: how it is possible to see the big picture as a unified sum of the incessant and transitory rise and fall of coming-to-be and passing-away. This complex view accommodated the paradoxical postulate that out of opposition the Logos can bring about concord and harmony. Heraclitus was the first in fact to describe the essence of the order-disorder continuum.

In contrast to Ionian materialism, the cult of Pythagoras (c.532 BCE) produced a body of doctrine during the two hundred years that followed his death. Pythagoras is said to have ‘mathematised’ cosmology; numbers, not physical matter, represented the first principle of the world. Pythagorean numbers did not form a generalized language where, as in algebra for instance, a relationship of symbols set up arithmetic rules of

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43 Lloyd, *Polarity and Analogy*, ibid. I discuss the political significance of Anaximander’s ideas in the context of political space in the section, Theatricality.

44 Wheelwright, *The Presocratics*, p. 84 (T.16 and T.17).

45 Kirk, et al, *The Presocratic Philosophers*, p. 187. Logos – as in ‘the story’ that constitutes the wisest way to think or speculate. For ancient sources on Heraclitus, see Plato *Cratylus*, 402a, 4-11.


47 Wheelwright, *The Presocratics*, p.71 (no. 21).

48 See Aristotle, *Metaphysics* 985b, V.
operation. Numbers, like physical objects, constituted an arrangement or configuration in space, and hence, their cosmological or ordering relevance. Numbers, as the building blocks of universal order, were eternal and unchanging. They were disclosed to humans through the mysteries of diatonic intervals, and these intervals could be aurally demonstrated, explained and predicted.

Without fail, numbers correlated with each other in space according to intevallic divisions in a piece of string. A ratio of 2:1 in length comprised an Octave tone, 3:2 a Fifth interval, 4:3 a Fourth interval. The mystical and formal nature of numbers invoked a cosmological worldview that combined the aural and visual picture of the heavens as the Music of the Spheres. The spherical movement of the heavenly bodies affirmed the circle as the simplest and most perfect form. The close association of empirical evidence and theória in Pythagorean cosmology no doubt gave Plato a certain amount of confidence in postulating his own geometric-arithmetic cosmology, or ‘arithmogeometry’. 49 In the Pythagorean recognition of numbers as ordering forms, hearing and seeing overlapped and established in modern history, the traditional interrelationship of music and science.

Despite the premise that numbers confirmed order in the universe, irregularities necessitated innovations in thinking. 50 The lexicon of numbers had to correlate with mystical suppositions. For instance, the number of celestial bodies, nine in total, needed to add up to the sacred number 10. 51 Pythagoras proposed a counterpoint astral body which was invisible and which moved closer than the earth did to the fire at the centre of the revolving bodies. In terms of a binary framework, the Pythagoreans also proposed a Table of Opposites such as limited and unlimited, odd and even, one and plurality, right and left, male and female, and so on. 52 Unlike the Ionians, ideas like encroachment and reciprocation, or rarefaction and densification, had no place in the

50 In the ancient astrological and astronomical records of the heavens, the opposing features of the ‘wandering’ planets among the fixed stars clearly evidenced opposing movements. This irregularity vexed philosophers like Plato who privileged order in their cosmos. Plato tried to explain how the planets’ sidereal periods came to a halt (stationary) and also moved back along previous paths (retrograde), while in the background, the stars went about in their fixed paths.
51 Ten formed the shape of the mystical pyramid: four dots arranged in a row, above this a row of three dots, then two, and finally one dot. Mathematically, the perfect number ten was also generated by four integers (1+2+3+4= 10). See Wheelwright, The Presocratics, pp. 203-4.
52 Lloyd, Polarity and Analogy, p. 16.
Pythagorean numerology. The idea of the one (‘number’) standing in for the many did share a kinship with Parmenides’ monism.

Parmenides of Elea (c. 504 BCE) reacted to the excesses of sense-based observations of the Ionians and presented the first cogent argument for a metaphysical epistemology. Ionian observation, according to Parmenides, was a ‘custom, born of everyday experience’ which tempts the eyes to be ‘aimless and the ear and tongue to be echoes.’\(^{53}\) According to Parmenides pure reason, unadulterated by the senses, guided the criteria for observation: the ‘formation of pure reason, and logical consistency and relatedness [are the] sole criterion of truth’.\(^{54}\) Parmenides bypassed ‘first principles’ and the multiple forms and changes they underwent as the explanatory and descriptive language for life’s vagaries and irregularities. He espoused monism. Change was simply a surface rendering of what was infinitely unchanging or eternal. The All is essentially One. The argument for monism would influence the dogmatisms of Plato and Aristotle, who both proposed a singular, unchanging, primary mover of the universe as an omnipotent guarantor of order in the cosmos.

Parmenides had thrown down the gauntlet to the Ionians for asserting multiple physical substances, based on sense observation, as the origin of life. Too many things accounted for change.\(^{55}\) Empedocles’ (492-432 BCE) response to Parmenides was to propose, like Heraclitus, the complexity at the core of being. The Ionians may have failed to explain satisfactorily how myriad forms emerged from a single physical entity, but this did not necessitate their rejection. For Empedocles, all the basic elements – air, fire, water and earth – and the intermingling and separating of these elements, were fundamentally nature in the raw. Unlike Heraclitus’ Logos or Parmenides Pure reason, things came into being through the actions of Love and Strife. Love was said to unite elements, and Strife to break down the compounds into their constituent parts. In Empedocles, we might also perceive the semantic stretch of mythopoetic concepts. According to Richard Schlagel, the opposite forces suggested by the philosopher are a refinement of Hesiod’s totemic language of conflict and

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\(^{55}\) Wheelwright, *The Presocratics*, pp. 120-21.
‘retributive justice’. In the philosophy of Empedocles the ‘affective connotations of physics and politics’ are lifted into more formal speculations that involve for instance physically inhaling and exhaling.  

56 Empedocles’ interest in the physical body and nature might account for the primacy of the senses in his philosophy.  

By the fifth-century, the philosophy of Anaxagoras (c. 500-428 BCE) mediated both Parmenides and Empedocles schools of thought as well as Heraclitus’ notion of the all-encompassing Logos. The idea of the One – a primary, constant principle operating in the universe – is represented by the concept of the Mind which, according to Anaxagoras, interrogates Zeus’ position as the force governing the separation and coming together of all things.  

58 The Mind was responsible for setting in order ‘all that was to be, all that ever was but no longer is, and all that is now or ever will be’.  

59 Instead of numbers, air, fire, earth or water, Anaxagoras described the elements in terms of quanta of matter, as ‘parts’ or ‘seeds’. Anaxagoras deduced that ‘in everything there is a little bit of everything else’.  

60 Therefore all of life, all of matter, is limitlessly divisible: ‘Of the small, there is no least, but always a lesser’.  

61 Aristotle would later use the model of the ‘seed’ to conceptualise the discreet and particular nature of purposefulness.

The generic principle of ‘seeds’ was further developed by the Atomists. In their day, the Atomists were appreciated and revered, yet unfortunately very little remains of their writing. Their materialistic notions of subatomic processes were revisited by the new physics of the early twentieth-century.  

62 Leucippus (c. 435 BCE), writing before Democritus (c. 420 BCE), is remembered by only one surviving fragment: ‘nothing occurs at random, but everything for a reason and by necessity’.  

63 The Atomists, like Anaxagoras and Empedocles, reacted to Parmenides’ and the Eleatic School’s assertion that nothing that is comes into being out of what is not, or passes away into

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57 Empedocles was said to have had a richly diversified personality. He was a ‘medical doctor’, and a ‘prophet and poet’. His knowledge also extended into what we would identify today as the science of biology, physiology, botany. Schlagel, From Myth to Modern Mind, vol. 1, pp. 169-71.
58 Wheelwright, The Presocratics, p. 159.
59 Wheelwright, The Presocratics, p. 163 (fr. 12, no. 19).
60 Wheelwright, The Presocratics, p. 158 (fr. 7).
61 Wheelwright, The Presocratics, (fr.10).
what is not. Their exponential leap into the cognitive dark was to imagine the atoma, or ‘atoms’, a concept signifying what is uncuttable or indivisible. This was a remarkable model, for in the development of natural philosophy it would seem to have travelled furthest in the linguistic stretch. In ancient thinking as well, bodies cannot exist without some spatial reference. The idea of the atoms was complemented, in space, by a concept of the Void in which the material world came into being and formed into shapes by the collision of atoms in a Vortex. Little is known about how much Democritus added to Leucippus’ atomist doctrine. He is reputed to have brought the doctrine more within the civic domain and philosophical discourse.

The inherent danger of the Atomistic worldview was to render the gods useless for explaining how, in nature and the heavens, things came to be and pass away. It is important however to remember that the Atomists were not atheists. They believed the gods were indeed part of religious phenomena. But in the physiological realm, there was no need of divine agency, Mind or Logos as guarantors of order. The universe was infinitely coming-to-be through the actions of the Vortex and the accidental coalition of atoms in the Vortex. Perhaps the most threatening notion to come from the Atomists was the materialistic view of the soul which was said to be made up of atoms as well. A material world which resulted from the coalescence and separation of atoms created a dangerously impersonal view of the human condition and of the role of the gods. Even the binary framework seemed of little use; the atoms and the Void only related in the opposite sense of fullness and emptiness. In Aristophanes’ Clouds (423 BCE), the ancient playwright held up for ridicule the notions of sophistry and atomism.

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70 The god of Atomism is invoked when Strepsiades, representing old values, asks ‘what compels them [the clouds] to move?’ Socrates responds that it is the ‘celestial Vortex’. As the old truth vacates Strepsiades’ head, he vacuously ponders: ‘Zeus is no more, Vortex is king’ (380-3). Lines from Aristophanes, Clouds, tr. A. H. Sommerstein (Warminster, Wiltshire: Aris & Phillips, 1982).
As the physical world was submitted to descriptions and explanations, as wholes or parts, as the One or the Many, as atoms and Void, another form of speculation turned to deconstructing traditional wisdom. Parmenides’ disciple, Zeno of Elea, arrived in Athens around 448 BCE. He attacked the basic arguments of the pluralistic school of Empedocles through the use of ‘dialectical syllogism’ – a method that turned an opponent’s line of reasoning into an absurd conclusion (reductio ad absurdum). Central to Zeno’s criticism of pluralism (of the ‘many-ness of things’) is the idea that a thing either ‘is’ or ‘is not’; it cannot have ‘endless possibilities’. Zeno also highlighted how logic could be inherently paradoxical. He argued if a thing ‘is’ divisible, then it must also be infinitely divisible. The school of ‘wisdom experts’ Zeno belonged to also attracted agnostics like Protagoras (480-411 B.C.) who showed students how to ‘seize opportune moments’ and plead both sides of the question.\(^71\) In Athens, the growing number of sophists (or more pejoratively, the peddlers of wisdom) contributed to the growing paranoia among people of rank and prestige. They understood how the sophists’ skills of persuasion and fine rhetoric were important political weapons.\(^72\) The binary model that sustained Presocratic thinking ironically helped in the dissolution of the foundations of truth and modes of speculation. In the fifth-century, order and disorder appeared to be coexistent in nearly all levels of experience.

Furley informs us that by the time of Aristotle, the rival claims of Parmenides and Empedocles crystallized into two fundamentally and comprehensively different ways of interpreting the cosmos’.\(^73\) Natural philosophy also became untenably stretched across two distinguishable worldviews. One side viewed the world as largely purposive, and argued that phenomena occur not just for a reason but for some end as well, and in so doing required divine planning. The other, represented by the sophists and atomists, viewed nature as a set of mechanical operations, part of necessity or ‘the way things are’ rather than of any universal benevolence.\(^74\)

\(^{71}\) Wheelwright, The Presocratics, p. 245.
\(^{72}\) Goldhill, Throughout the fifth century, the new intellectuals of speech-making were often, if misleadingly, known collectively as ‘the Sophists’. Simon Goldhill, The language of tragedy; rhetoric and communication; in CCGT, p. 133. Goldhill is keen to point out the misinterpretation of ‘Sophists’ as ‘misleading’ teachers.
\(^{73}\) Furley, Cosmic Problems, p. 225.
\(^{74}\) Wright, Cosmology in Antiquity, p.175.
We cannot know to what degree the views of philosophers and sophists altered or challenged the worldviews held by the Athenian hoi polloi, or whether these new ideas entered in any way the experience of the jurors in the theatre of Dionysus. We might however perceive in the coeval natures of Apollo and Dionysus, like in our own postmodern era, how binary opposites, to recall Corynne McSherry’s point, were ‘imbued with enough shared meaning to facilitate their translation’ across worlds of knowledge.\(^{75}\) In Apollo, ancients might have perceived generally permanence, balance, and order echoing in some sense Parmenides’ monistic worldview. In Dionysus, a state of eternal flux and coming-to-be paralleled the synthetic, sense-based world of Heraclitus and Empedocles. In the following section on Chorality, modern critical analysis pictures the Apollo-Dionysian dialectic in the context of tragedy, its origins in ritual, and the way that the interaction between form and innovativeness created tensions.

**CHORALITY.**

The Apollo-Dionysus: the order-disorder continuum in modern perspective.

The Apollo and Dionysus framework in modern critical theories of tragedy can be traced back to Nietzsche’s far-reaching influence. The dualistic framework invoking the philosophical meanings of Apollo and Dionysus is spelled out in the *Birth of Tragedy out of the Spirit of Music* (1872).\(^{76}\) Both forces frame his metaphysical, epistemological and aesthetical viewings even though, in his anti-Hegelian stance, Dionysus predominates.\(^{77}\) Dionysus is the experience of ‘primordial unity’, ‘intoxicated states’, and the ‘sublime’; Apollo stands for ‘mere appearance’, ‘surface knowledge’ and intelligible beauty.\(^{78}\) Post-structuralism, enriched by the Nietzschean view, perceives both Dionysus and Apollo as complexly textured gods, a perspective that coincides with the polytheistic Greek culture where, as Marcel Detienne states, ‘each god is first of all in the plural’, and

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\(^{75}\) See my discussion of a modern view of binary frameworks, in the Introduction chapter, under ‘Method: post-structural view of order-disorder continuum’.

\(^{76}\) I discuss Nietzsche’s *Birth of Tragedy* at various points throughout the thesis. I have introduced the intellectual dichotomy of Apollo and Dionysus in the Introduction chapter, and explore it further in chapter three, ‘Experimental Chorus’, as well as in chapter four, ‘Quantum Chorus’.

\(^{77}\) The sublimation of the Apollonian force into the Dionysian signals the emergence of new order.

therefore not endowed with static modes of meaning.\textsuperscript{79} I highlight the modern Dionysian framework in Rainer Friedrich’s and Richard Seaford’s viewpoints. I also interpose the idea that the god of innovation and ambiguity mirrors aspects of fifth-century natural philosophy.

In his chapter, ‘Everything to Do with Dionysus’, Rainer Friedrich surveys the Dionysian discussion which I recount here.\textsuperscript{80} Friedrich takes an evolutionary view of tragedy’s origins, advocating that the ritual performance of cultic-myth became, over time, ‘secularized and metamorphosed’ as Attic drama. This transformation correlated with the democratizing polis. Nonetheless, tragedy’s religious framework remained.\textsuperscript{81} Tragedy’s secularization and metamorphosis correlates with the increasing ‘objectification’ of mythopoetic language in natural philosophy. J. -P. Vernant, in Friedrich’s words, sees tragedy as effecting ‘innovations’, and that these innovations are due to its ‘break with the religious and ritual past’.\textsuperscript{82} It is worth noting that this ‘break’ corresponds, in time, to the increasing objectification and secularization in cosmology.

In surveying the field, Friedrich recalls Simon Goldhill’s position that tragedy is fundamentally agonistic, a subversion of civic ideology; its ‘norms and transgressions’ are safely witnessed and interrogated in the public festival of Dionysus.\textsuperscript{83} Tragic theatre is a place to interrogate publicly socio-political issues which are hidden in the city-state. The interrogation also includes the conflict between traditional religion and philosophical enquiry about the place of gods and prayer. Friedrich assesses what Pat Easterling (and others who may interpret ritual action and language as the essence of tragedy) interprets as the ‘morphological complexity’ of tragedy. In Easterling’s analysis, this complexity reflects the changeable and ever-changing Dionysian god.\textsuperscript{84} These dramatic structures that are


\textsuperscript{80} Rainer Friedrich, ‘Everything to Do with Dionysos: Ritualism, the Dionysiac, and the Tragic’, in Tragedy and the Tragic, ed. Silk, pp. 257-83.

\textsuperscript{81} Friedrich, ‘Everything to Do with Dionysus’, p. 272.

\textsuperscript{82} Friedrich, ‘Everything to Do’, pp. 261-2. Italics are the author’s.

\textsuperscript{83} Friedrich, ‘Everything to Do’, pp. 263-5. See also my discussion of modern classicists’ views on tragedy, in my Introduction chapter.

\textsuperscript{84} Friedrich, ‘Everything to Do’, p. 269.
formed from, and collapse back into, Dionysian ritual are comparable to the telescoping effect of the explanatory and descriptive language of early Greek philosophy which semantically stretches (Lloyd) between archaic myth and fifth-century reason-based thinking.

Richard Seaford, in responding to Friedrich, emphasizes the composite nature of Dionysus. 85 The savage Dionysus (in his mythic guise) and the eirinie, cohesion-inducing Dionysus (in ritual) demands ‘worship’ from everyone, ‘mixed up together’. 86 Unyielding, autonomous family structures (such as that witnessed in Euripides’ Bacchae) are impediments to a peaceful transition toward a self-governing community that accepts the ambiguities of Dionysus. 87 One might compare the unsettling effect of emerging philosophy on entrenched beliefs and the resulting new ideas that emerge. Likewise, Dionysus, the god of inversions, may mirror sophistry and the ability to subvert the stronger argument for the weaker. As Oudemans and Lardinois make the point in their own view of the ‘Dionysiac’, for Dionysiac logic ‘there is no harmony and no solving of contradictions in any phase of development. It reveals the coexistence of order and disorder’. 88

The experience and worship of both gods in a polytheistic society also reveal coextensive domains. In various sanctuaries throughout Greece, Apollo and Dionysus are, as Detienne states, ‘coupled, playing in concert, or practicing singular exchanges’. 89 They both also exhibited medical and transformative powers; the drinking cup (Dionysus) and the lyre (Apollo) both induced mania allowing the worshipper to be released from familiar environments. Plato’s Laws, in the context of the educative aims of song and dance (choreia), combine Apollo and Dionysus in a triadic relationship with the Muses. While Apollo is favoured most in the triumvirate, the allopathic domain of Dionysus is inscribed within Apollo’s supervision. 90 In Athens, the potencies of Pythian Apollo and Eleutherean Dionysus

89 Detienne, ‘Forgetting Delphi between Apollo and Dionysus’, p. 148.
are too complex to be perceived in any rigidly defined binary framework. In the ancient Theatre of Ikarion, the irregular playing space was an overlap of an Apollonian sanctuary and the ‘dramatic’ actions of Thespis in honour of Dionysus.

Reprocessed Ritual and Ordered Innovation: towards tragic chorus.

Choral dance was a vital part of religious worship in the ancient Greek community. Modern scholars generally regard the choral tradition as a point of stimulus in the cultural development of tragedy. As part of ritual, the dancing archaic chorus mediated between the gods and the community. Over time, the interaction of song and dance with changing socio-political conditions resulted in changes to traditional dances forms and to the structure of worship. Walter Burkert claims that village-custom consciously allowed changes and additions through *autoschediazesthai* (improvisation) in ritual sacrifice. Within the structure of performance, a degree of divergence is allowed. Barbara Kowalzig’s in-depth analysis of the ancient *khoroi* discloses how, in Plato’s *Laws*, choral singing and dancing for the Gods is a matter of performing ‘clear-cut emotional and ethical *tropoi*’. Kowalzig also highlights the importance of innovation in choral performance: ‘Variation and diversity in song are essential tools by which to avoid loss of interest in the musical performance and to ensure constant eagerness for pleasure’. It is important that ‘variety emerges as a crucial tool to create homogeneity of attitude within society’. Innovations in clearly structured performance are connected to the way myth absorbs conflict in the community. The resolution of conflict in the *khoroi* established the dancing and singing group ‘at the heart of people’s participation in public religion’.

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The subtle shifts from rigidly defined rules to improvisation may occur when the chorus extends beyond, as Claude Calame suggests, its ‘performative self’. Like Kowalzig, Calame pictures the chorus as a unique medium for exploring the malleability of myth stories and ritual performance. Asking questions and conceptualising notions of order and disorder in song and dance contrasted with Greek religion, where no institutional framework provided an organising canon or an interrogating college of priests. According to Christiane Sourvinou-Inwood, the tragic chorus represented a unique performance phenomenon in Attic culture that embodied the central religious experience of the ‘ unknowable’. According to Sourvinou-Inwood, in the sixth century BCE, the ritual advent of Dionysus (xenismos) was celebrated in the Great Dionysia festival. Within the ritual advent a certain schema in the hymn singing performances (dithyrambs) prevailed. This involved a chorus moving at, or alongside, a sacrificial altar and singing a processional song to the accompaniment of an aulos. At the altar, there were more songs, one accompanied by a circular dance and the other standing still. This, according to Sourvinou-Inwood, closely resembled the proto-tragic structure of parados and stasima. The content of these hymns concentrated primarily on the myths of Dionysus, and the Athenians projected themselves as both present-day celebrators and participants in the mythology of the past. In time, the performance aspect of the xenismos acquired a dynamic of its own coinciding with the proto-tragic form appropriating its unique dramatic and performance conventions.

The exploratory aspect (i.e., question asking, interjection of the polemical) in performance forged a relationship with the protagonist. In the process, the chorus’ mimetic role was enriched. As a mode of religious exploration, the hypokrites

98 Simon Price, *Religions of the Ancient Greeks*, pp. 126-7. According to Parker, ‘the absence of an explicitly formulated and dynamic theology is due partly to the conservative influence of Homer and Hesiod, and partly to the absence of a professionally trained, vocational priesthood, which could have developed, internal to the religious system, an explicit “ creed.”’
100 Wiles, too, makes the point that the combination of ‘the processional mode with the narrative mode’ in the dithyramb was the transition point ‘when the procession gave way to tragedy and participants became spectators’. See Wiles, *TI*, p. 27.
speaking *in propria persona* helped to create, as Sourvinou-Inwood describes, 'more complex forms to handle it [the exploration]'. In so doing, the *hypokrites*\(^{101}\) embodied multiple functions: expounder, interpreter and answerer. The chorus, as partner in this exploration, formulated feedback (interrogatory or reflective) on behalf of the community. Their dual capacity, as 'community in the past' and 'community in the present', was facilitated by mimetic gestures and movements. Masks and costuming also helped communicate bivalent identities. When the *hypokrites* transmuted into the fifth-century protagonists, the quantity of spoken text increasingly outweighed choral lyrics. The privileging of the word over choral performance signalled the increasing importance of the dialectical mode of reasoning and question-asking which in the *polis* was the common currency of debate and rhetoric.\(^{102}\)

The exploratory and interrogatory strategies that are associated with developments in the tragic chorus mirror similar rules of philosophical engagement and jurisprudence toward the mid-fifth century. Increasing innovation in the arts resulted in an increasing tolerance (as well as intolerance) for complexity. And as tragedy develops, traditional strophic responsion begins to encompass the use of freer verse, while the cultic intonations of the dithyrambs acquire more radical, secular effects in contrast to the paean. The contiguity of Apollo and Dionysus mirrored the continuum of order and disorder in speculation while establishing an adaptable religious framework in a city-state undergoing rapid change and. If the Athenian elite agonised over 'this but not that', 'both but neither', 'many gods, no gods or one god', the equivalent unsettling complexity perhaps resounded in the chorus who cried 'we don’t know', 'this hurts not to know' but 'we are going to have a good time singing about it'. There are cultural markers which are symptomatic of this level of creative tension. I look at the new music, and changes to the dithyramb, as cultural indicators. Classicists also observe a continuum of order and disorder (i.e., the Apollo-Dionysus framework) in the relationship of language and choral prayer as well as dualism in the performative nature of the chorus.


\(^{102}\) The significance of the choral element, however, did not necessarily diminish toward the end of the fifth-century. Pat Easterling suggests as much in 'Form and Performance', in *CCGT*, pp. 151-177 (pp. 155-6).
New Music of Tragedy: fusion of Apollo and Dionysus.

Gregory Sifakis informs us that ancient choral song was a bilingual phenomenon which combined poetry and music in a ‘uniform musicopoetical language’. 103 This musical language was made up of several elements such as rhythm, modal scales, tone colours and poetic styles. In Attic culture, these elements had not coalesced, as in modern European history, into separate, autonomous disciplines. 104 The Apollonian traits inerred in the structuring devices such as melodic composition, proper length of metres, traditional modulation of modes or tuning systems. The Dionysian elements, on the other hand, incorporated the more spontaneous, virtuosic or experimental impulses – the breaking point of rules. In the kithara (lyre) featured the Apollonian performance of epic poetry, and perhaps derived its ordered traits from the precise articulation of individual notes (or series of notes) and subservience to the structure in poetic metre. 105 In Dionysian performance, the chorus (tragic or dithyramb) was accompanied by the wind-fed aulos. It was an extremely expressive instrument which Aristotle and Plato criticized for its orgiastic nature. Plato particularly found it incompatible with the law-abiding Apollo. 106

According to Eric Csapo, when the ancients referred to new music, it was the experimental enterprise of ‘theatre’ music and its renewal of music traditionally tied to dance metre. 107 New music affected language on the phonic, syntactic and semantic level. The repetition of words, their complex syllabification and freer versification cultivated, in Csapo’s view, ‘abrupt shifts in narrative place, time and mood’. Taken all together

the voluble rhythm and melody, the strange vocabulary, the chaotic syntax, the vague but emotionally nuanced and coloured language, the sudden ruptures in the music, song, and narratives, and the displacement of the linear

105 Wiles, GTP, p. 145.
106 Plato, Republic III, 398d-e, 399e.
argument with often rapid and baffling concatenation of images – all
conspired to create a dizzying effect of giddiness, if not outright hysteria.\textsuperscript{108}

In fifth-century choral song, the \textit{aulos} also acquired new levels of expression. It
twisted and complicated melodies. This disturbed the ‘amateurs’ who could only
perform the old familiar repertoire and the traditional music that accompanied it.
Musical virtuosity also jarred with elitists who wanted to control the effect music had
on the general public.\textsuperscript{109} What was it about the \textit{new} music that made it seem as if the
Dionysian encroached dangerously on the Apollonian?

Plato tells us something of the effect of this music, albeit from a post-Hellenic
perspective, of music’s important role in educating the soul. Musicians, when they
composed, bore a heavy responsibility.\textsuperscript{110} In the \textit{Republic}, Plato singles out Damon,
one of the leading musical figures in the time of Pericles

We will take counsel with Damon, too, as to which are the feet appropriate to
illiberality, and insolence or madness or evils, and what rhythms we must leave
for their opposites. And I believe I have heard him obscurely speaking of a foot
that he calls the \textit{enoptos}, a composite foot, and a dactyl and a heroic foot, which
he arranged, I know not how, to be equal up and down in the interchange of long
and short.\textsuperscript{111}

The disordering effects of musical innovation had no place in Plato’s ordered
universe, just as the Dionysian \textit{aulos} was deemed to be too misleading for the public
good. The frequency and duration of such added effects detracted from the significant
aims of poetry. As Plato adds

\textsuperscript{108} Csapo, ‘The Politics of the New Music’, p. 228.
\textsuperscript{109} Evidence for new developments in music in general resulted, according to West, in ‘exceptional
technical ability’ which both delighted and displeased, and generated snobbish feelings among the elite
about the way music ought to develop. See West, \textit{Ancient Greek Music}, p. 35.
\textsuperscript{110} See Plato’s \textit{Republic}, 400b-c; also \textit{Laws} 668-73.
\textsuperscript{111} Damon, in the time of Pericles, made a systematic study of the political implications of music.
\textit{Harmoniai}, rhythms and metre correlated with personal behaviour and civic comportment. It is claimed
that Damon took no sides on the matter of innovative music and traditional styles. See Robert W.
Quote in above text from Plato’s \textit{Republic}, III, 400b.
But we must not praise that sort of thing nor conceive it to be the poet’s meaning. For a change to a new type of music is something to beware of as a hazard of all our fortunes. For the modes of music are never disturbed without unsettling of the most fundamental political and social conventions, as Damon affirms and as I am convinced.\textsuperscript{112}

Aristotle too is critical of the effect that the new music had on language, finding ‘the agglutinative style ugly and formless’.\textsuperscript{113} The tragic chorus to him was a mimetic performing group. The improper combinations of rhythm, melody and speech in choral performance directly affected the natural reception of emotions. Melody, particularly, was very important. In \textit{Problems}, Aristotle speculates over the proper correlation of melody and \textit{harmoniai} (scale-structures): ‘Why do choruses in tragedy sing neither in \textit{Hypodorian} nor in \textit{Hypophrygian}? Is it because these \textit{harmoniai} have melody to the smallest extent, and melody is most necessary to a chorus?\textsuperscript{114} The suggestion that the traditional scale structures were in some sense limited to the expressive requirements of choral song might explain the urge to experiment in new music. Andrew Barker mentions that in the fifth-century there were many composers, particularly of dithyrambs, who were willing to exploit the expressive needs (and perceived shortcomings of \textit{harmoniai}) with ‘intricate meandering’ and ‘decorative figures’ of melodies. The overall effect was to heighten the realism of the drama.\textsuperscript{115}

Yet, musical \textit{technē} that interfered with a clear and precise expression of emotion, or

\textsuperscript{112} Plato’s \textit{Republic}, IV. 424.c; ‘seemliness and unseemliness are attendant upon the good rhythm and the bad’, see also III, 400b.

\textsuperscript{113} Csapo, ‘The Politics of the New Music’, pp. 226-7. Csapo citing Aristotle’s \textit{Rhetoric}, 1409 a-b. Aristotle does not give music as broad and intense a discussion as Plato. He also leaves music out of his discussion of the formative elements of tragedy in the \textit{Poetics}. For music as ‘modes of imitation’, see \textit{Poetics} 1447a; for imitation of ethical qualities, 1449b. G. M. Sifakis’ \textit{Aristotle on the Function of Tragic Poetry} (Herkleion: Crete University Press, 2001) is helpful in pointing out the importance of music in tragedy.


through deliberate obfuscation inverted meaning, was inappropriate to the sort of
tragedy Aristotle thought suited a civilized society.

The fifth-century period of new music was characterized, according to ancient
musicologist Andrew Barker, by ‘a rapidly developing growth of complexity and
variety in all aspects of musical composition [...] in poetic direction, coupled with
abandonment both of repetitive formal structures and of rigid decisions between
musical styles.’116 It was music to Dionysus’ ears even if Apollo was a necessary
partner through the structuring devices operating under mousikē.

Apollo and Dionysus: the word-tone relationship and choral prayer.
In Nietzsche’s view, language (and its alliance with logos-driven thinking) is
inadequate, unlike music, which brings the individual to the threshold of both ecstasy
and pain

Language can never adequately render the cosmic symbolism of music, because
music stands in symbolic relation to the primordial contradiction and primordial
pain in the heart of the primal unity [...]’

For Nicole Loraux, this utmost strain in language is the ‘cry of cries, materialised into
a generic vocal emission, and condensing the entire register of expressions of
sorrow.’118 This revisionist approach to tragedy is a reaction to modern social and
political interpretations. Tragedy is not just polemical. The genre constitutes (in Pietro
Pucci’s interpretation of Loraux) a ‘ceaseless song of lamentation’, or, more
specifically, a mourning (threnōs).119 The merging of the Apollonian and Dionysian
principle dissolves into oxymoron120 and the oxymoronic pairing of the logos and

116 Barker, Greek Musical Writings, p. 98.
118 Nicole Loraux, The Mourning Voice: an essay on Greek Tragedy, tr. Elizabeth Trapnell Rawlings
119 Pietro Pucci, ‘Preface’ to Loraux’s The Mourning Voice, ix-xii. Loraux states that: ‘politics is not
theatre [but] tragedy is not only politics’, p. 16.
120 The oxymoronic character is manifested in the convergence of joy and pain such as in Dionysus’
pleasure at hearing the threnōs for Darius (Aristophanes, Frogs, 1028-1029) and the choral response
‘Iaui!’ ‘Laughing’ that contains tears, scorn or vindictiveness, for instance, is when Ajax laughs in his
madness (Sophocles, Ajax, 303), or the chorus commenting on Cassandra laughing contemptuously at
her own marriage (Euripides’ Trojan Women, 406). See Oliver Taplin, ‘Comedy and the Tragic’, in
Tragedy and the Tragic, ed. Silk, pp. 188-202.
phone which configures Apollo and Dionysus in the lamentation. In the theatre, according to Loraux, ‘Dionysus presides over all these discordant consonances’. One might interpret the oxymora of tragic language as similar to the ‘semantic stretch’ and unique ‘verbalization’ of natural philosophy, both emerging out of tensions in the logos. Tragedy, like cosmology, is a dynamic search for an explanatory and descriptive register affecting all areas of the polis.

Oxymoron is instantiated, according to Loraux, ‘over and over again in the tragic genre in the register of the voice that sings and cries [...]’. The tragic cry is like ‘the bacchic cry and its derivations [...] the passages in which, under the sign of evohe, euoi, Apollo is in the immediate proximity of Dionysus’. The lamentation sounds out, or ‘speaks for’, the unspeakable, the eruption of buried conflicts. When lamentations intone or underscore unresolved socio-political, religious or philosophical issues, they become at once compelling and disturbing, ordered and disordered. In Sophocles’ Oedipus, the aural coincidentia oppositorum is the intermingling of the discomposed moan and the composed paean in the disordering plague-ridden air. The paean or paion exchanged in the chorus of the Trachiniae, according to Loraux, ‘exemplifies the endless game of indeterminable attribution’. Likewise, the choruses in Antigone charged with logos-driven human confidence in much of the play, gives the final word to ‘cultish and chthonic Dionysus’.

According to Eva Stehle, ‘disorder breaks through language’ causing an aural disparity with the ordering qualities of euphemic prayer. Stehle differentiates the well-behaved euphemic chorus, which Plato idealizes, from the choruses that performed with sometimes unpredictable movements and disorientating emotions in Attic tragedy. Tragedy, through the voice of the tragic chorus, ‘exposes hidden

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122 Loraux, The Mourning Song, p. 64.
124 In chapter two, ‘Harmonic Chorus’ (Theatricality), one might detect conceptual similarities with discordia concors in the Italian Renaissance’s Quattrocento.
125 Loraux, The Mourning Song, p. 74.
126 Loraux, The Mourning Song, p. 92. A similar ‘breaking point’ in Hebraic prayer, as both suffering and redemption, is exemplified in the songs sung to Zion on alien soil, in Psalm 137:1-4 and the undifferentiated timbre of joy and weeping in Ezra 3:12-13.
128 Eva Stehle, ‘Choral Prayer in Greek Tragedy: Euphemia or Aischrologia?’, in Music and the Muses, eds. Murray, and Wilson, pp. 121-55 (pp. 132-3).
disorder at the level of community and cosmos’; thus, ‘failed or perverted ritual [is] symptomatic of human disorder’ and bestows upon the genre a ‘license to speak the normally unspeakable’ within a ritualistic context.\footnote{Stehle, ‘Choral Prayer in Greek Tragedy’, p.155.} The parodos of Sophocles’ Oedipus represents a subverted prayer and articulates an underlying medley of afflictions in the community. It begins as a prayer for healing, a paean to Apollo which, according to Stehle, is reminiscent of Pindar’s Paean 9. The well-ordered prayer is disrupted by the O popoi. The moment vocalizes, inappropriately, a scenario of illness and death. The chorus prayer is thrown into further confusion by its misplaced petition: after Ares is identified as the bringer of torment (at the end of the parados), it is finally Dionysus, the golden-headband wearing god of ambiguity, who is invoked.

The paradoxical coupling of order and disorder in choral language is complemented by choral modulation from performative to epiphanic mode. Albert Henrichs’ study of the self-referring third choral ode offers an in-depth analysis of dramatic illusion and ritual reality.\footnote{Albert Henrichs, ‘“Why Should I Dance?”: Choral Self-Referentiality in Greek Tragedy’, Arion 3 (1995), pp. 56-111.} The khoreutai, in this text and in other plays by Sophocles, project themselves as singers of Dionysus. They also refer to Apollo to complete the harmony of opposites.\footnote{Henrichs, ‘“Why Should I Dance?”’, p. 74, and his footnote no.78. In Ajax, Apollo is called upon to add his transformative powers to Pan.} In Oedipus Tyrannus, Antigone, Ajax and Trachiniae, there is recourse to Dionysus particularly when choral prayer is at its most fevered (as suggested by Stehle earlier). According to Henrichs, contrasting Apollo with the disillusionment and catastrophe that is around the corner serves to ‘intensify the dramatic tension’.\footnote{Henrichs, ‘“Why Should I Dance?”’, pp. 73-85.} The singing chorus may entrust their faith to the unambiguous, ordered view of Oedipus, but their prayer intones the creed of ambiguity. In what remains of the written evidence (i.e., the choral odes) there is much to be said about ordered disorder.

Order and Disorder: the choral odes.

Ancient tragedians did not ‘write’ full music scores like modern operatic scores. What few fragments remain of ancient tragic music represents short-hand notation roughly similar to Baroque figured-bass or modern-day Jazz. Scholars are woefully short of
evidence to tell how the music was integrated with the tragic poetry. The *melos* is completely missing, as are formal indicators we might describe in modern terms as dynamics or tempi. The only structural foot-prints that give us impressions of a performed text are found in rhythmic metres. There is broad consensus, based on metrical analysis, as to how certain rhythms may have conveyed effects or moods associated with militaristic, funereal, processional, or generally joyful or agitated moments.

Easterling states that the ancient ‘Greeks associated heightened delivery and rhythmic movement with the power to arouse emotion’ because of their strong ‘cultic, celebratory, military’ origins. The dactyl, resonant with epic (Homeric) poetry, underscored the steady, thrumming beats of choral entrances. The urgent and emotional episodes in the drama predominantly used dochmaic rhythms. Rhythms might have affected an overall mood or expression: iambic or trochaic = active; dactylic = noble; trochaic = tripping/dancing. Poetic feet were also potent in this regard: ‘longs’ = solemn or stately; more ‘longs’ = calm and serious. According to West, the ‘rhythmic system was additive and was built from units of fixed size’.

From the fifth-into the fourth-century, dramatic writing made unconventional combinations of these rhythms.

Classicists are generally agreed that the highly organized and patterned metric structure that underscores the whole of Sophocles’ *Oedipus Tyrannus* might even be enough to propose that there is a classical ‘musical design’. In this regard, I will refer mostly to William Scott’s *Musical Design in Sophoclean Theatre*. Scott uses the term ‘musical’ to indicate an overall structural coherence between Sophocles’ text and

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133 Luigi Battezzato reconstructs some of the ‘unwritten rules’ of the genre of the choral lyric, collating some of the most recent analysis on speech, song, structure, dialogue, monody and voice (identity). See his chapter ‘Lyric’, in *A Companion to Greek Tragedy*, ed. Gregory, pp. 149-66.
135 Easterling, ‘Form and Performance’ in *CCGT*, p. 158.
138 I refer to Scott’s analysis in *Musical Design in the Sophoclean Theatre*, from pp. 122-49.
metrical. Musical is a metaphor for ordered patterns occasionally visited by irregularities. I prefer to view the odes as ordered ambiguity, a continuous polyphony of Apollo and Dionysus. Scott’s Apollonian colours are overtly flagged up in the statement, the ‘music of Oedipus Tyrannus’ is designed ‘to be a hymn to Apollo’. The musical design is ‘orderly structure and symmetry’. Oedipus is claimed to be Apollo’s man on the ground, but what of the chorus who, according to Scott, simply ‘enrich the decisions and actions’ of Oedipus? He infers that the chorus is a foil, the submissive chord in the strongly dominant pulse of Oedipus. Faltering faith contrasts with Oedipus’ ‘strength and resilience’. The ‘ordering forces’ embedded in the choral text, according to Scott, are made ‘visible’ only at the end of the play. The fifth ode is said to mirror to the spectator the vital structuring principles of the four previous ones. Throughout the play, symmetry and organization are instantiated in metric modulation, in the way metres ‘refer to each other’, or are variegated to ‘reinforce changes in the subject’.

Weaknesses inevitably appear in Scott’s essentially structural analysis. There are three main reasons for this. First, the structural model submits the reception of the play to an Apollonian worldview; the Dionysiac is underrepresented in the choral equation. Second, overarching ‘symmetry’ of the choral texts is justified (belatedly it would seem) only in the final choral ode. The revelation of Apollo’s plans at the end of the play is too neat a chord to strike while conveniently overlooking the irregularities that do not quite line up in the same way. My third criticism is that each chorus and kommos is assumed to satisfy some precondition of order. By insisting on an essentially musical structure, Scott’s analysis is conducted in harmony with a ‘classical’ interpretation appropriate, I suggest, for the works of Haydn, Mozart or even Beethoven. Limited space permits me to focus only on three of the odes: the parados, the 3rd and the 5th.

139 A. M. Dale reaches a similar conclusion about Greek poetry which originated as sung rhythm. The ‘whole’ of the metrical forms ‘builds up to a coherent system’. ‘Words, Music and Dance’, in Collected Papers, p. 7.
140 Scott, Musical Design, p. 149.
142 Charles Rosen’s seminal book, The Classical Style (New York: W. W. Norton, 1971), engages with the concept of ‘classical’ as a distillation of balance, order, symmetry. The ‘classical’ universe of Haydn, Mozart and Beethoven is underpinned by the eighteenth-century perceptions of order and

The Theban Elders enter proclaiming the *parodos*. The ode is structured according to a *cletic* hymn.144 in the first pair of strophe and antistrophe the chorus calls on the power of Zeus, then in sequence, Athena, Artemis and Apollo. In a kind of circular prayer these gods are fervently beseeched to intervene and manifest themselves in the here-and-now. In the second pair (*epica laus*), the chorus graphically states the symptoms of the distress, the horrors catalysing the elders into action. In the third pair (*preces*) the god Ares is identified as the fire-bringing god responsible for the devastation and chaos in their midst. Scott describes how dactylic rhythms predominate in the first pair of stanzas. Dactylic and iambic lines are roughly equal in the second pair. In the third pair, iambics predominate.145 The chorus finally settles with lyric iambic, the common metre for the chorus in the rest of the play. Scott points out that this patterned structure reflects the force of this prayer.

The ‘force’, I argue, comes from a counterpoint of rhythm and poetic meaning. The movement from dactyl to iambic indicates increased excitement as the chorus shows insight or sensitivity. It diagnoses the precise symptoms of chaos: fire and rapidly consuming heat infect every pair of stanzas. Prognosis follows diagnosis: the ‘far-shooting’ gods must vanquish ‘destruction’s flame’. The *preces* is a clear example that the cure is well-defined: fire must be vanquished before order can be restored. Ares is the bringer of fire and it is Ares that they wish Zeus to overpower with his fire-bearing thunderbolt. The chorus, growing fervent throughout the *parodos*, intones the trance-like, Dionysian state that gives them special powers of perception. The

143 All citations from Sophocles' *Oedipus Tyrannus*, come from David Grene's translation, *The Theban Plays* (Chicago: University of Chicago Press, 1994), as mentioned in the introductory notes to the thesis.
145 R. W. B. Burton's analysis of the *Oedipus Tyrannus* chorus, in *The Chorus in Sophocles' Tragedies* (Oxford: Oxford University Press, 1980), pp. 138-85, cites the *parodos* of Aeschylus' *Agamemnon* and Euripides' *Hippolytus* as examples that use this patterning to sustain 'long and deeply felt' lines of the text.
diagnosis also resonates something of the principles of Heraclitus, who believed that life emerges out of fire. The increasing use of iambics, from the first pair of stanzas to the third pair, merely shows some sort of change over time from one form of pattern to another; whether this ultimately evokes order as a principle is too general an assumption especially in a cultic prayer that expresses ordering and disordering concepts.

The oscillation between the two primary gods – Apollo in the beginning and Dionysus in the end – represents the interplay of order and disorder. In the first strophe, doubt and trembling, which are generated by the fear-inducing words spoken in the shrine of Pytho (words which are themselves portentous and mysterious) contrast with the assured demands, in the antistrophe, for the gods to appear. Apollo is viewed as ambivalent – will his prophecy bring health or pain? Yet the chorus modulates from uncertainty to structured succour expressed in its unswerving belief in the polis gods, including Apollo himself. The beginning that invokes Apollo’s ambiguous guidance is inverted in the ending of the parodos that looks to Dionysus. In the final pair, despite the strophic symmetry of disordering Ares and Dionysus, it is the god Dionysus who is ultimately addressed. The oracular Apollo is enigmatic; the chorus is forced, on the metric level, to leave the safe dactylic shores and go to the region of iambics ruled over by the distinct features of the ‘wind-flushed’ god.

Stasimon Two – The Third Choral Ode. 463-512 [1st strophe 463-472; 1st antistrophe 473-482; 2nd strophe 483-497; 2nd antistrophe 498-512]

This ode follows a scene where Jocasta has challenged the validity of prophecy. The chorus ponders on what would happen if Zeus’ laws, in fact the world governed by Olympian values, are abandoned. As Scott rightly claims that this ode ‘leaves no doubt as to the singers’ earnestness, the breadth of their ethical views’. 146 Scott argues that this ‘highly organized’ ode is tightly structured because of the ‘balanced expression’ of faith toward Zeus and his laws. Repetition and interlocking metres signify in some sense the faithful chorus. Scott further suggests that the ‘combinations

of iambic, choriambic, and telesillean’, which is the metrical template of the third ode, reflect the ‘consistent belief the chorus is struggling to maintain’.

It is difficult to picture why a combinatorial pattern that changes in a uniform manner confirms a sense of unswerving faith. I prefer to view combinations that change over time as a facsimile (in microcosm) of the larger binary framework (in macrocosm) that holds the tension between traditional and cosmological concepts. In the first strophe, the gods preside over ‘laws that live on high: laws begotten in the clear air of Heaven’ or apeiron. While these laws appear austere and remote, they are juxtaposed to ‘father Olympus’ who presides over them. The boundless, unfathomable heavens contrast with the steadfast guarantor of those laws. On earth, in the second strophe, the human condition verges on spatial extremes. Men of hybris are depicted on ‘roof-top’ heights and susceptible to ‘ruinous’ plunges, yet the gods remain steadfast. Reason-based speculation may oscillate from one truth to another, but the gods remain. In the second antistrophe the point of equilibrium in order and disorder occurs at a self-referential point. The chorus interrogates the cultic and fictive domains and utters, ‘why should I honour the Gods in the dance’. Following this potent moment, the collapse of religious faith is envisioned by the chorus while the pairing up of metres continues more or less unperturbed. Metres are varied but paired, while a counterpoint between cosmological and traditional views is expressed on the surface. Controlled ambiguity rather than measured order seems to be the rule rather than the exception.

Stasimon Four (the fifth choral ode) 1186-1222 [1st strophe 1186-1195; 1st antistrophe 1196-1203; 2nd strophe 1204-1212; 2nd antistrophe 1213-1222]

In this penultimate ode, the chorus expresses its anguish over Oedipus’ horrific crimes. The chorus, according to Scott, does not ‘sing a tightly structured musical form stretching over all four stanzas’. Various metres are patterned differently in each stanza. In one pattern there are ‘uninterrupted sequences of three- or four-line statements’; in another, ‘metre and content become disjointed’. I agree with Scott who interprets the weakness in the musical structure as a sign of choral stress. I would further add that the variety and disjointed organization of the metres demonstrates that
the chorus is emotionally shunting back and forth (between strophe and antistrophe). Its clear ethical or cosmological references are in a state of confusion.

Oedipus represents the transitory nature of human greatness, a life of ‘seeming happiness’ and ‘turning away’. The chorus is in the phonetic territory of Loraux, the ‘breaking point’ of the logos, as the chorus ‘weep’ a ‘dirge of lamentation’. It occupies the cognitive void, what Sourvinou-Inwood describes in ancient religious experience as the ‘unknowable’ condition. While this is not the sonic world of female lament that one might have heard in the Trachiniae or Aeschylean female choruses, we might imagine the portrayal of the Theban Elders at vocal and metric breaking point. The Apollo-Dionysus continuum has collapsed and is echoed in the ruptured balance between traditional belief and logos-based philosophy. It is difficult however to be convinced that this fragmented variety of metres is structurally related to the parodos. I suspect that a classical-style recapitulation, similar to a sonata or symphony, is being inferred. If anything, each choral ode seems to me to represent variations on a theme of order and disorder.

With the order-disorder continuum in chaos, Sophocles’ innovative response is embodied in the actions of Oedipus. If we infer Apollo-like order in Oedipus as the author of his life, we might visualise its continuum in the self-blinding that is Dionysian in its ritualistic, innovative and unpredictable gesture. In the development of natural philosophy, the ancient Greeks’ embarkation on the logos-driven road journeys to the Theatre of Dionysus and fifth-century space where the deception of structure and certainty was safely revealed. The second kommos reciprocates with a return to metric balance. There is no classical coda to Oedipus Tyrannus that ties everything (including Scott’s ‘musical design’) into a coherent whole. Sophocles’ seems to have been as provocatively open-ended about the fate of Oedipus as he is in his metres.
THEATRICALITY.

In ancient Athens, space was not an abstract, self-sufficient concept but was believed to be endowed with meaning based on the behaviour of physical bodies in space.\textsuperscript{147} In this section on Theatricality, I first discuss ways the ancient body was perceived as a site for cosmological principles. Next, the body of the chorus ensemble is analysed in terms of cosmologically-relative shape, movement and numbers. Finally, I discuss the chorus in the theatre space of Dionysus, an environment that provided the spectator with multi-nested perspectives. In this ancient space, many levels of ‘seeing’ corresponded to the order-disorder continuum.

Geometric, Political, Architectural, Biological body: sites of order-disorder.

We have the fullest development in antiquity of cosmological geometry in Plato’s \textit{Timaeus}. His Pythagorean spokesman tells us about the demiurge, or Divine Craftsman, whose actions in the \textit{khôra} (space where things come to be), are discerned through geometric shapes. Matter may be in a state of flux, but everything is accountably rooted in geometric forms.\textsuperscript{148} Geometric cosmology correlates with the human body in several ways. The body’s shape is spherical, with the head, as Plato explains, serving as the ‘most divine part of us’.\textsuperscript{149} The body is configured from the elements which are themselves bodies. Thus, ‘every sort of body possesses volume, and every volume must necessarily be bounded by surfaces, and every rectilinear surface is composed of triangles […] proceeding by a combination of probability with demonstration, we assume to be the original elements of fire and the other bodies’.\textsuperscript{150} Plato also connects the Pythagorean universe to the body’s organs. The liver, for instance, is influenced by music, the mathematical language of the heavens.\textsuperscript{151} Sight allows humans to discover ‘the revolutions of mind in the heavens […] to apply them to the cycles of our own intelligence, which are akin to them [so that we might]

\textsuperscript{147} The interaction of bodies and space provides meaning and function – the main plank of Wiles’ discussion of theatre space in \textit{TIA}. In this book, Wiles draws from Anne Ubersfeld’s \textit{L’Ecole du spectateur} (Paris: Editions Sociales, 1981).
\textsuperscript{148} These geometric forms (or Platonic bodies) are the tetrahedron, cube, octahedron, icosahedron and dodecahedron. On the merits of Plato’s \textit{Timaeus} and the fluency of matter (i.e., how change is accounted for), see Mary Louise Gill, ‘“Matter and Flux” in Plato’s \textit{Timaeus’}, \textit{Phronesis} vol. 32, no. 1 (1987), pp. 34-53.
\textsuperscript{149} Plato, \textit{Timaeus}, 44d.
\textsuperscript{150} \textit{Timaeus}, 53c-d.
\textsuperscript{151} \textit{Timaeus}, 71a-b.
imitate the absolutely unwavering cycles of the god, and stabilize our own wandering ones".  

The city, as a political arrangement of bodies in space, was a macrocosmic facsimile of the body's physiology. In Critias, Plato spells out how the anatomy and physiology of the 'body' and 'head' correspond to the important segments of a mythical city. Likewise, political spaces within the city incorporated cosmological principles where the circle was a politically potent shape. Vernant applies Anaximander's cosmological circle to the formation of the political space. In the fifth-century, the Homeric hierarchical world was reshaped into the spherical political landscape of the fifth-century. The space where citizens met was imbued with a sense of the Boundless (apeiron). Bodies were seen to be held in place because of a necessary equilibrium of forces imposed by the Boundless. Vernant bases his argument on the views of historian Gregory Vlastos who similarly asserts that 'cosmic equality was conceived as the guarantee of cosmic justice: the order of nature is maintained because it is an order of equals'.

The agora, unique to the Greeks, befitted the notion of bodies in an encircled and open space. In the agora, civic issues were debated. In watching and participating in debate, society watched itself both in the act of spectatorship and self-governance. The body as demos, acting politically, was also acting collectively, governed by the cosmological principles of equilibrium, symmetry, and reciprocity. In Greek tragedy, Vernant encourages the view that there is a connection in the way tragic stories depict the perturbation of idealised states and the restoration of equilibrium. There is a constant opposition of 'one kind of dikē to another' so that 'justice shifts and can be

153 Wiles, TIA, p. 1.
157 G. Vlastos, 'Equality and Justice in Early Greek Cosmologies', p. 57. Italicis are the author's.
transferred to opposites. Gad Freudenthal, in contrast to Vernant’s cosmological interpretation, suggests a less idealised picture of equilibrium at work, one which fits more with my concept of the order-disorder continuum. The process of political self-regulation is modelled on ancient justice, where encroachments and reparations are ‘cyclically advancing and retreating’. Rebalance does not resolve opposing tensions; states of acceptable imbalance (more hot than cold, more earth than fire) occur until such time as another force dominates. Freudenthal views Anaximander’s circle as ‘cosmologically’ dynamic, irregular and changeable. Such a concept of the circle is perhaps more appropriate to the fifth-century political ethos where a lasting balance between the people and its leaders had proved thus far elusive.

Architectural theorist and art historian John Onians establishes seductive overarching principles for the way the ancients perceived the body in terms of architecture and physical artefacts. In the ancient Greek world artisans worked with the ‘bones of mother earth’. Marble was shaped into beautiful ordered human statues, affirming the ‘assonance’ between people and stone. The analogy of stone and body, according to Onians, transferred to the columns of temple buildings. The ordered pillars and stone work were reminiscent of the symmetrical arrangement of the military phalanx. Onians cites ancient sources to support his claim. In the Iliad, Achilles leads the Myrmidons. Here the warrior phalanx is compared to the way ‘a man knits together the wall of his lofty house with close-fitting stones’. The Parthenon for instance was an architectural mnemonic for battles fought and order restored. As Onians puts it, ‘the converging columns, the strengthening of the corners and the curving of the stylobate according to a perfect mathematical series are all witness to a discipline and control that challenged their [the Athenian’s] enemies’. In tragedy, columns evoke the spectre of humans. In Euripides’ Iphigenia in Tauris (50-57), where in Iphigenia’s nightmare she witnesses the collapse of her ancestral house: ‘One column alone left

160 Onians, Classical Art and the Cultures of Greece and Rome, p. 2. Onians’ discussion of the affinity between the human body, the physical world and art, pp. 1-8.
162 Onians, Classical Art, pp. 42-3.
 [...] From its capital streamed golden hair and it took on human voice [...] the columns of a house are sons'.

The ordered body is also kinetic, suggesting a binary condition of order and disorder. For instance, the military phalanx was not a monolithic and inflexible unit of bodies. Herodotus describes how in the battle of Marathon a tightly knitted group could break apart in a run and reform absorbing the enemy. In art, representations of order are also paired up with disorder. Artefacts such as ancient wine vessels show scenes of war or athletics on one side, and debauchery on the other. A young discus athlete and older javelin thrower display prowess, but in the reverse side are joined in an ‘erotic encounter’. The greater the geometric features of a statue, the greater the tolerance for asymmetry, as the Doryphorus statue by Polykleitos shows. Onians points out the ‘elaborate system of summatriai’, the arrangement of rectangular geometric units to construct the flexible, flesh-like bend in the torso of the spear carrier. Kinetic, supple energy is represented in the twist of tetragonoi statues.

In ancient medicine, the body represented a dynamic equilibrium between opposing forces. This is evident in the views of Hippocrates (470-410 BCE). Up to the time of Hippocrates, the body had been host to astrological and anthropomorphic references dating back to Mesopotamian and Egyptian cultures. The historian James Longrigg tells us that by the fifth-century Greek culture was exemplary in having invented a ‘rational medicine’ which was relatively ‘free from magical and religious elements? and based upon belief in natural causation’. Before, disease was primarily a manifestation by gods or daimons. The diagnosis and treatment were matters of propitiation. Eventually, natural philosophy described the forces at work without resorting to anthropomorphic expressions in their diagnosis. In Sacred Diseases, the Hippocratic School of physicians were concerned to distance observation from shamanism

Onians, Classical Art, p. 30.

Onians citing Herodotus’ Histories (vi, 112-114), in Classical Art, p. 43.

Onians, Classical Art, p. 18.

Onians, Classical Art, pp. 38-41.


Longrigg, Greek Medicine from the Heroic to the Hellenistic Age, p. 5, 9.
In my [Hippocrates] opinion it [epilepsy] is no more divine or sacred than any other kind of illness. It has natural characteristics and a natural explanation; those who regard it as divine visitation evidently do so out of ignorance and because they are struck with wonder by its strange manifestations.\textsuperscript{169}

Recognition of dynamic equilibrium in disease is explained and described as the alignment of the body’s constituent humours with the four main elements in the physical world. ‘Health’ according to Alcmaeon of Croton ‘is the equality of the powers’ made up in four parts. In On the Nature of Man (sayings attributed to Hippocrates)

The body has itself blood, phlegm, yellow bile and black bile; these make up the nature of his body, and through these he feels pain or enjoys health. Now he enjoys the most perfect health when these elements are duly proportioned [...] Pain is felt when one of these elements is in defect or excess [...].\textsuperscript{170}

Plato, in Timaeus, similarly links the heavens and the body’s organs. Elements that are inappropriately absorbed are the disease-causing irregularities

The origin of disease is, I suppose, plain to all. There are four forms from which the body is composed, earth, fire, water, air, and disorders and diseases arise from the unnatural excesses or deficiency of these, or from their displacement from their proper place to an alien one; [...] the reception by the body of an inappropriate variety of one of them and all similar irregularities produces disorders and diseases'.\textsuperscript{171}

If the human body was made of the same elements as nature (fire, air, water, earth), the body also represented a microcosm, a place where forms of encroachment and

\textsuperscript{169} Sacred Diseases, cited by Longrigg, Greek Medicine, p. 21. See also Wheelwright, The Presocratics, p. 265.

\textsuperscript{170} Hippocrates, On the Nature of Man, 4 (Loeb IV, 11-13), cited by Jacques Jouanne in Hippocrates, p. 326.

\textsuperscript{171} Plato, Timaeus 81e-82a.
reciprocity mirrored the macrocosm. When the ancients observed the body (or bodies) configured and active in civic, domestic, commercial, military, funereal or sacred areas, the spaces these events occupied were also inscribed with cosmological meaning; that is, they were spaces where opposing forces operated at various levels. The tragic chorus, as an ensemble of moving bodies, activated the cosmological concepts in theatre space and connected them to the city-state, to the surrounding geography, and to mythical space.

Tragic Chorus: behaviour, shape and number in performance.

The fifth-century tragic chorus was a complex phenomenon to watch and hear. Plato’s account of the chorus, in the beginning of the fourth century, belonged not to the Dionysian festival spirit but the idealised Apollonian universe of the Divine Craftsman where the stars were perceived to dance in celestial harmony, and irregularities such as wandering planets were explained away. There were of course overriding ethical concerns. As Ernan McMullin writes, ‘the order that exists in the visible cosmos, for Plato in particular, is a sort of image of the order that exists in the life of a good and reasonable man’. The ordered Apollonian chorus, symmetrical and ever-balanced, suited Plato. The Dionysian-style promoted excess and competitive drive, encouraging a ‘perpetual craving for new music’. Plato criticised emotionally distraught and degenerate choruses, who collapsed about the altar with ‘blasphemies’, ‘drawing tears’ and posing for the main prize. This behaviour was more likely to occur regularly in the fourth-century theatre, where performers focused on winning applause. The true aim of choral dancing was ethical and

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172 Richard Sorabji states how the body in antiquity is an ‘extension endowed with properties’, in Matter, Space and Motion: theories in antiquity and their sequel (London: Duckworth, 1988), p. 3. The Venerable Bede, influenced by the Hippocratic school, states: ‘Man himself whom the wise call microcosmos (that is, a little world) has a body wholly tempered by qualities that surely imitate the individual humours of which it is composed, as if it were following the season by which it is dominated’. Bede, De Temporum Ratione (ccxxv, 1688, vol.1, pp.114 f.), cited by Joseph Rykwert, The Dancing Column (Cambridge, Mass.: MIT Press, 1996), p. 69.

173 Plato, Timaeus, 40a-b: ‘the other five motions [irregular planets] they were unaffected, in order that each of them might attain the highest perfection’. On his negative views, Plato in his twenties may have had strong memories of a (possibly) cult-like chorus in Euripides’ Bacchae (c. 405 BCE).


175 Plato, Laws 665b, 657b.

176 Plato, Laws 800.

educational. Plato had in mind the law-abiding archaic khoroi as his ideal chorus rather than the innovative tragic khoroi. The movement of the chorus was supposed to celebrate coherence and meaning, mirroring the cosmos as they worship the gods on behalf of the community. The cosmological model of the Platonic chorus was the uniformly circling stars.

While Plato’s epistemology and ethics are grounded in a geometrical cosmology, Aristotle formulates a philosophy of logic and metaphysics based on the search for categories and causes. He is concerned with how the parts (the elements of mousike) fit with the whole (tragedy). In his Poetics, the tragic chorus has distinct causal agency and purpose in the action of tragic drama. While Plato’s chorus mirrors celestial order, Aristotle’s chorus primarily imitates what is implicitly natural. In the section on Chorality, I mentioned that Aristotle enjoins the poets to match rhythm and words so that the proper emotions are conveyed without causing confusion. The reception of correctly ‘imitated’ emotions leads to the pure experience of tragedy. One of the elements which constitute mimesis is melopoia – or the composition of songs. Another is opsis which is visual appearance. In tragic theatre, seeing and hearing are therefore interdependent; mimetic actions in tragedy link modes of perception to contemplation.

We might ask as well in what sense choral numbers and shape might have signified cosmological meaning? Wiles has surveyed modern viewpoints regarding choral shape and numbers. I encapsulate his summary here. We know that numbers refer in ancient thinking to spatially-related geometric shapes which carried cosmological significance. One might assume that the dramatists found visually potent meanings in

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178 For chorus in relation to education and ethics, see Plato’s Laws II 350, 654b, 665a, 672e. I briefly mentioned B. Kowalzig’s discussion of Plato (‘Chorality’ section). Wallace mentions Plato as a ‘hostile witness’ to the history of theatre, but his ‘elitist barriers’ did not have much effect in his day. See Wallace’s, ‘Poet, Public and Theatrocraacy’, p. 111.
179 Plato, Timaeus 40c.
180 Lloyd, Polarity and Analogy, p. 268.
181 Aristotle Poetics 1456a, 25. For Aristotle’s causal perspective on action in tragedy, as well as categorizations, see Poetics 1450b, 20 – 1451a, 10.
183 For analysis of modern reception of chorus based on shapes and numbers, see Wiles, TIA, pp. 89-97. The ancient cosmological notion of turning and counter-turning in the chorus during the strophe and the antistrophe comes from ancient scholiasts who mediated the 2nd century Ptolemaic models of celestial movement and ancient readings, including Microbios.
the spatial arrangement of choral bodies. Pythagoras' perfect ten is a spatial triangular arrangement \((1 + 2 + 3 + 4)\); the shape also had significance for the political state referring as it did to the number of the jurors in the Theatre Eleuthereus and their respective demes. Twelve correlated with zodiacal animals and the calendar, as well as the Olympian gods. Fifteen was the number given for the tragic chorus in Suda. Fifteen may be interpretable as the bulwark of the triangular format \((1+2+3+4+5)\); fifteen also represented the rectangle, five wide and three deep. The latter shape is ascribed to the chorus in the ancient writings of Pollux and Photius and these in turn inform, in varying degrees, the theories of modern classicists who project the militaristic (well-ordered) conception onto the chorus.\(^{184}\)

The notion of a circular-shaped tragic chorus is based on the close links between Dionysian worship, the circularly-danced dithyramb and the development of tragedy.\(^{185}\) The dithyramb chorus was choreographed about a central point which may have been demarcated by an altar. The poetic structure of the choral lyric with its triadic formation of strophe, antistrophe and epode corresponded, textually, to the rotary movements around a central point. The choral dance, according to Wiles, represented in cosmological fashion the circular rotation of the outer heavens (strophe), the retrograde rotation of the regressive planets and sun (antistrophe), and the point of equilibrium, a focal demarcation where chorus faced the god.\(^{186}\) For Wiles, the fifth-century tragic chorus was rooted in circular formations and (contentiously) in a singular performance space for both actor and chorus.

In what context might we then try to decipher a dynamic binary model underscoring choral movement? If the chorus was partly or wholly rectangular, circular, triangular or hemispheric, how did the chorus enact dualism? Wiles is provocative in deciphering, from the interrelation of text and theatre space, possible binary principles.

\(^{184}\) Wiles, TIA, p. 89. Adherents of the rectangular formation are, according to Wiles, Lilian Lawler, and John Gould and D. M. Lewis (co-revisers of Pickard-Cambridge, Dramatic Festivals of Athens) and John J. Winkler.

\(^{185}\) Aristotle, Poetics IV, 1449a, 10ff. Aristotle mentions the tragic chorus forming out of the antiphonal actions of the leader in the choral dithyramb. Wiles points out Calame and Pickard-Cambridge among the supporters of the concentric, altar-centred choral dance.

\(^{186}\) The etymology of 'strophe' and 'antistrophe' in relation to 'turning', see Wiles, TIA, p. 93, and also his footnote no. 37.
in choreography.\textsuperscript{187} Pythagorean opposites (i.e., ‘left and right, east and west’) are symbolically intoned in the text and tied to spatial coordinates.\textsuperscript{188} For instance, a vertical axis might be realised in the performance space, when, as Wiles writes, ‘the chorus sing in a strophe that certain laws exist in the heavenly ether, begotten by Olympus (865ff.’), and in the antistrophe, about ‘a tyrant’s {hybris}’ that climbs to great heights and plunges. Choral movement may have transformed the performance space into a conceptual map of high and low coordinates.\textsuperscript{189} Likewise, in the fourth choral ode, ‘ecstatic leaping’ might have connected Olympus, the atmosphere of a full lunar summit, and the reference to Pan.

As they effected ‘spatiotemporal transformations’, ordered tableaux emerged from transitory shapes.\textsuperscript{190} Like the forces of Love and Strife, or the dynamics of cosmological justice, one space encroached on the significance of another. The sophists who argued the weaker case as the stronger might compare in the play of theatre space where a weak area is suddenly made stronger. We cannot know precisely where in Sophocles’ \textit{Oedipus Tyrannus} this would have been demonstrated. Various moments in the play suggest, however, how the performance space, over the time of the play, might have been rebalanced. We might imagine that the heralded leader of Thebes stood in a certain relation to the chorus in the beginning of the play and differently in his tragic \textit{peripeteia}. Opposite areas may have been demarcated when the chorus, in the beginning, performed the galvanising \textit{parodos}, and when the surviving chorus, in the second \textit{kommos}, danced and sang as their proud leader staggered from the palace.\textsuperscript{191} One may imagine the simulacrum of ‘deadened space’ in the third self-referential ode where the chorus reflected on the end of their role in the tragic dance. A ‘dead space’ will have been contrasted to an enlivened space as the chorus continued to dance. To have remained in one location throughout the play would have established virtual equilibrium, an anathema to a culture that understood

\textsuperscript{187} Wiles references, as I do, Lloyd on binary thinking in ancient cosmology. In terms of modern structuralism, Charles Segal (following Levi-Strauss) and Nicole Loraux offer compatible arguments. Wiles, \textit{TIA}, p. 143.

\textsuperscript{188} See particularly the chapter, ‘Left and right, east and west’, in \textit{TIA}, pp. 133-60.

\textsuperscript{189} Wiles, \textit{TIA}, p. 170.

\textsuperscript{190} Wiles, \textit{TIA}, p. 114.

\textsuperscript{191} The suggestion of a separate raised platform for the protagonists and the dancing space of the chorus in \textit{orchestra} is controversial. Wiles is on the side of a level playing space in the theatre of Dionysus. For a counter-argument, see Stephen Scully, ‘Orchestra and Stage in the Theater of Dionysus’, in \textit{Crossing the Stages: The Production, Performance and Reception of Ancient Theater}, eds. John Porter, Eric Csapo, C. W. Marshall, Robert C. Ketterer (Syllecta Classica, 1999), vol. 10, pp. 65-86.
how high and low, weak and strong, earth and air related to space and not to fixed, abstract concepts.

From ancient sources, we learn that the tragic chorus expressed a diverse range of dance, song and speech.\(^{192}\) The physical configuration of numbers would have enriched the choreographic schemata.\(^{193}\) If Sophocles’ tragic chorus moved fluidly and abruptly, somewhere between traditional and stylised dance, fixed tableaux and nuanced gestures, swirling stars and unmoved movers, a binary structure provided the necessary spatial coordinates to order the complex movements and sounds.

The Order-Disorder Continuum in the Theatre of Dionysus.

Modern analysis of fifth-century theatre space has formed a bulwark of correctives to the late nineteenth-century German romantic viewing superimposed the Apollonian worldview of order onto the archaeological evidence. The superimposition of geometrical perfection reinforced the received Platonic pedigree of European culture.\(^{194}\) The interpretation of the chorus’ dancing space (orchèstra) as a perfect circle followed from architectonic presuppositions that tenaciously held as the rule in modern interpretations of tragic theatre space. The psychological experience of the ancient spectator was also contextualised in the compartmentalised European experience of boxed-in, u-shaped theatre. The ancient Greek spectator, like his European counterpart, was imagined as a civilised and autonomous receptor of the drama. The tragic action on stage was separate and enclosed like a live specimen in a glass case, to be watched, argued over, or experienced privately.\(^{195}\)

More recently, the analysis of the theatre of Dionysus, influenced by the Marxist and postmodern intellectualism of Michel Foucault, Anne Ubersfeld and Henri Levebvre, have viewed the Hellenic space as a series of confluent structures with simultaneous

\(^{192}\) C. Calame, *Choruses of Young Women*, p. 74. For sources, Calame refers to Aristotle *Poetics* 1447a 22f. and Plato *Republic* 398d.

\(^{193}\) *Schêmata* ('positions or arrangements'), *phora* ('transfer or moves'), *deixis* ('pointing to something'). See Wiles, *TIA*, pp. 116-18. Wiles references here Plutarch *Table Talk*, ix, 15-747. His sources are also Lawler *Dance* 83 and Leo Aylen, *The Greek Theater*.

\(^{194}\) Wiles, *TIA*, p. 45.

\(^{195}\) The physical compartmentalization of European theatre space and its psychic resonance with Plato’s cave is examined by Wiles in *A Short History*, pp.163-206.
spatial references. Lefebvre, for instance, asserts that space occurs in multiple frames of meaning, and that the body enlivens the meaning of a particular space: ‘each living body is space and has its space: it produces itself in space and it also produces that space’. The new thinking has also shifted from the humanist ‘text-centred’ understanding of tragedy to one which takes into account the significations of space. In this shift the body of the chorus in the orchêstra is crucial to understanding how performances might have been ‘seen’ and received. Both David Wiles and Rush Rehm, as classicists and historians of performance practice and reception, have surveyed the significance of archaeological space.

For Wiles, the binary matrix operates in various socio-political and religious settings. These settings, and their associative meanings, are in a sense heightened, or turned on their head, in the Dionysian space, marking out the uniqueness of ‘the deme theatres of Attica [as] the embodiment of Dionysiac disorder’. ‘Dionysiac disorder’ represents the cosmological grey areas of understanding, the mix of the knowable and unknowable. ‘Somewhere between these polarities’, Wiles summarises, ‘we might expect to locate the theatre of Aeschylus, Sophocles and Euripides’. Closed or ideal spatial principles are inappropriate models for the experience of performance in ancient Greek theatre. Wiles subscribes to Foucault’s idea of heterotopian space. Heterotopian principles and fifth-century cosmology, tolerate the conceptual paradox of fixed and unfixed meanings – in short, the order-disorder continuum.

Vernant has postulated that tragedy was born when myth ‘started to be considered from the point of view of the citizen’; the orchêstra was a significant space, ‘where the world of the city [was] called into question and its fundamental values challenged’. In the heterotopian view, the orchêstra is a composite space. It is not a geometric (Hellenistic) circle with evenly spaced forces radiating from an exactly

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197 Rehm citing Levebre, The Production of Space, in Rehm’s Play of Space, p. 170.
199 Wiles, TIA, pp. 43-4.
200 Wiles, TIA, ibid.
201 Vernant, Myth and Thought among the Greeks, p. 33. The philologist Walter Nestle suggests the notion for Vernant about the dissolution of myth.
demarcated centre. I discussed earlier how the fifth-century political circle appropriated, according to Vernant, Anaximander’s cosmological circle. The space represented a state of constantly ‘becoming’ in an Empedoclean sense; the Boundless forces transformed actions in the viewing space. Mirroring this change is the theatron itself, where the citizenry sat and watched. The concerted focus on a transformative event in turn shaped the aggregate viewing area. The aggregate was expressed as the roughly widened semi-circular viewing area, hewn out of the side of the shallow, sloping hill.\textsuperscript{202} Not quite hemicyclic, not quite horse-shoe, the aggregate viewing space reflected the democratic ideal ‘coming-to-be’. The viewing area was not precisely hierarchical or egalitarian, privileged or democratic. By the fourth-century, geometrical and hierarchical principles were implanted in a fixed circularised stone stage and demarcated seating in the hemi-cyclical theatre of Epidauros.\textsuperscript{203}

The general use and location of the orchêstra suggested no long-term civic planning and idealised coordinates on the scale of Plato’s idealised Atlantis. The orchêstra space, and the choral activity in that space, marked out a general spatial boundary that allowed for an amalgamation of styles drawn from archaic and contemporary ideas. Arguments that the chorus was primarily dithyrambic or militaristic (the circular or rectangular formation) are contentious; yet, the possibility of either position encourages the view that the dancing space was an area potentially and conceptually large enough to project an enormous range of configurations.\textsuperscript{204} As a kind of khora (the space were things come to be), the ‘cosmologically circular’ orchêstra is a playing field activated by complex, not monolithic, choric shapes. The Dionysian world is not the sum total of idealistic shapes. It is about the constant deconstruction of space through interrogation and innovation.

A space premised upon a cosmological circle, as opposed to a geometric circle, would not have had a centre point necessarily equidistant from its periphery.\textsuperscript{205} The omphalos (or ‘navel of the earth’) that is said to be uniformly found in Apollo’s

\textsuperscript{202} Wiles, TIA, p. 31.
\textsuperscript{203} In Wiles’ chapter, ‘The Theatre of Dionysus’, TIA, Wiles makes the point about the changing shape of the theatron clear.
\textsuperscript{204} As I discussed earlier when I looked at Wiles’ comments on circular and rectangular formations of the chorus.
sanctuaries is denied an ‘exact’ centre point in the precinct of Dionysus. The *thumelē* may be implied as the expression of centrality in the *orchēstra*, but no geometric idealisms or Euclidean laws affixed an absolute centre. The ritual centre was conditional. Its centrality was the ‘measure of Athenian man’, who, in the ritual space of Dionysus, constituted transition and renewal reflected in the dances and songs that were created for the unknowable gods. According to Wiles, cardinal points are constantly addressed in Sophocles’ tragedies. But fixed points did not exist as abstract concepts. Seeing in the theatre involved the spectator and the chorus, as Ruth Padel remarks, in the ‘personal dialectics of Dionysus’; that is, of ‘unseen and apparent space’.

Wiles suggests, in comparing Roman and Greek theatre space, that the Greeks’ centre of the earth (i.e., the central field of view) is ‘inherently stable’, perhaps reflecting Vernant’s model of democratic space and Anaximander’s cosmological model of equilibrium. I argue, following Gad Freudenthal’s critique of Vernant, that the theatre space, by the mid-fifth century, was not so much the stability of equilibrium but the constant interplay of balance and imbalance with no resolution. In Sophocles’ day, the dancing space of the tragic chorus constituted a never ending process of stability and transition, mirroring the stories told in tragic drama, the temporality of order, the inevitability of chaos, the uncertainty of new order, and the infinity of mystery. The dancing space may have mimicked the process of *theoria*, the shifting conceptual ground of Being and Becoming, which in Dionysus’ sanctuary is associated with ritual dismemberment and reconstruction.

Rush Rehm, like Wiles, subscribes to Foucault’s heterotopian vision. Rehm also uses James J. Gibson’s concept of the ‘ecological’ arrangement of space to grasp the idea of the Dionysian theatre’s multi-nested meanings. Ecological space consists of places, located by their inclusion in larger places. The perception of smaller units

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209 See discussion earlier, in *Theatricality*, on the ‘body’ and cosmology.
210 Rehm, *The Play of Space*, p. 15, 37. Here, Rehm is making use of Gibson’s ‘ecological’ conceptualisation of the theatre of Dionysus.
embedded in larger ones, is defined by Gibson as ‘nesting’. Levels of perception are concertinaed in the theatre space so that small scale and large scale events telescope into each other and form a continuum throughout the theatrical experience. Rehm imagines that the theatre spectator travelled from domestic space (home), through socio-political (city-state) space, past religious sanctuaries (like Dionysus Eleuthereus), through the theatre’s parodoi, and joined the civic body of viewers (theatron). The perceived phenomenon (besides the protagonists) is the chorus in their performing space, embedded in the precinct of Dionysus, on the south slope of the Acropolis, within a walled city of Athens, in the mosaic of city-states that made up the peninsula of ancient Greece. The chorus, in a nested model, could be considered the lynchpin in the multilayered spatial framework. Their gestures, words and song, opened up, according to Rehm, the ‘realms of supplication, sacrifice, prayer, initiation, childbirth, exile, military training, funerals, weddings’.

Lacking a choreographic record of the Theban Elders, we are in a poor position to reconstruct how the mimetic chorus gestured or formed tableaux, in the open surround, referred to natural forces or sacred locations. In the text there are specific spatial tropes, where the fictive reference would have correlated with known locations. The parodos names several gods linearly, and Rehm pictures the chorus motioning towards these ‘real’ sacred precincts in the distant agora, on the opposite side of the Acropolis. The chorus witnesses Jocasta worshipping at Lycaean Apollo’s shrine and the omphalos may have served both as a sacred symbol and visual focal point for the chorus. The chorus would have also gestured towards far-off places, and perhaps addressed the hillside of spectators as Cithaeron, a place worshipped as countryman, mother and nurse (in the third choral ode), or a wild place where gods couple and breed ill-fated offspring (in the fourth choral ode). The natural correlatives like the sky, the Acropolis, the river Illisos, the city walls and the distant hills, would have been charged with meta-theatrical meanings through the actions of the chorus. When the chorus refer to the ‘laws begotten in the clear air of heaven, whose only father is Olympus’ (third choral ode), the cosmological concept of the

212 Rehm, Play of Space, p. 171.
213 Rehm, Play of Space, p. 225. Rehm calls this space referred to in the ode as the most ‘elaborately distanced space’.
boundless ether was probably affixed to Olympus as well as to the heavens forming the vast domed roof over the theatron.\textsuperscript{214}

I end where I began in this chapter, on cosmological \textit{krisis} and its relevance to the performance of the tragic chorus in theatre space. The third choral ode particularly agonises over bifurcation: the hubristic challenge to a faith-based worldview. What ‘mess, medley or welter’, as Marcus Aurelius expressed it in reference to the Atomists, would follow?\textsuperscript{215} What made the chorus intoning such depths of anxiety in this space uniquely compelling? If in the public space of the Pnyx and Agora, the problems concerning philosophy and religion circulated,\textsuperscript{216} what was it about the nested meanings of the theatre of Dionysus that gave extra poignancy to the choral voice?

In the third choral ode, the chorus hypothesises a world without gods and their traditional institutions. The chorus proclaims, in both the strophe and antistrophe, the vertical and horizontal extremes and conditions where laws live and insolent tyrants rise and plunge. The contrasts are startling, and one imagines the chorus at their fullest stretch of colouristic and impressionist \textit{mimēsis}. In the final antistrophe, Olympus, the navel of the earth, the place where the oracles concerning Laius are derived, all fade from the Elders’ view. Altars and sanctuaries are no longer accountable sanctuaries of knowledge. What is at issue is the fundamental interconnection between space, seeing and knowledge. Reduced to the \textit{Logos} or Mind, the human condition becomes divorced from lived space. The choral ode would seem prescient of the Cartesian division between Body and Mind. If ‘such deeds’ – such ideas – are honoured, the chorus, as the ‘performers of ritual dance in the dramatic realm of the play’, ceases to be. It also no longer exists, as Calame points out, in the ‘political and cultic realm of the here and now’.\textsuperscript{217} The Dionysian space is voided, and in a voided space, dancing and singing no longer made sense. By the fourth-century


\textsuperscript{216} Peter Wilson suggests spatial similarities between the function of the Pnyx and theatre for instance, in \textit{The Athenian Institution of the Khoregia}, p. 137.

\textsuperscript{217} Calame, ‘Performance aspects of the choral voice in Greek tragedy’, p. 136.
BCE, the meaning of that space already shifted as the rise of the actor questioned the role of the chorus in the performance space.

CODA.
In the Hellenistic worldview, the bifurcated cosmology took up entrenched positions. The Empedoclean-Atomistic school marginalized the actions of the gods to the outer boundless universe. The life of pleasure was proclaimed by Epicurus to be free of the worrisome gods and feeble order. In contrast, the outgrowth of Parmenides’ school of thought led to the philosophies of Plato and Aristotle where the universe was viewed as immanently lawful and governed by a perfect Being. Generally, large-scale cosmological debates until the second century CE coalesced under the Aristotelian categorical and causative philosophy. The primary concern for western philosophy became whether things move or come into being by mechanical or purposeful design. In terms of the binary framework set in place by the Presocratics, one particular question took up a privileged position – whether things should be perceived as wholes or parts.\(^{218}\)

The Atomists reduced all of life to indivisible ‘parts’ in a perpetual state of renewal. They were content with the impersonal natural motions of a Vortex and the undifferentiated quanta of particles that these motions formed into life. Their philosophy left the ancient world reeling with uncountable numbers of possible worlds. Aristotelianism simplified complexity in a different way, reflecting the need to establish categories and causes into a systematic philosophy in order to guide Hellenistic thinking in the busy cross-current of Aegean philosophies. This mode of simplification presented western European humanism with a ‘unique, privileged and unchallenged’ belief that every complex event necessarily contains a simple explanation.\(^{219}\)

New versions of the Oedipus myth would emerge out of the actions of dramatists caught up in the whirl and spin of opposing philosophical views, chief among those by the Latin philosopher and politician, Seneca (c. 4 BCE – 65 CE). His Oedipus, followed the dictates of Horace and Aristotle on the tragic style; dramatic sections are

\(^{218}\) Furley, *Cosmic Problems*, p. 233.
\(^{219}\) Furley, *Cosmic Problems*, p. 229.
parts that build inexorably to the tragic whole. In Stoic philosophy, the human condition was not entangled in the discourse of an unknowable cosmos. Oedipus clearly represented the moral psychological world; his actions, or \textit{voluntas} (‘will’) ran counter to the cosmological world which was closed, unchangeable, and the perfect distillation of all possible worlds. The highly vivid account of the fixed cosmological processes by Seneca’s chorus strengthens the perception of a sectionalised chorus intoning how, in every splendorous and gory detail, cosmic events are pre-ordained. Everything, including the chorus, was in its rightful place, the way it should be.

The chorus in Seneca’s structured plays are not Dionysian.\textsuperscript{220} The transformative events are embodied instead by the hero and incorporated in the dramatic account of ritual dismemberment of animal organs. In Stoic cosmology, ‘chance’ spluttered in a contained theatre space. In Seneca’s theatre, human chaos contrasted with the fully-regulated cosmos. Thomas Rosenmeyer’s study of the relation of Stoic cosmology and Senecan drama argues this contrast. He states that Seneca’s \textit{Naturales quaestiones} ‘shows everywhere how the natural cosmos is made to serve as a trope for movements within the psychological spectrum, and vice versa, and that the two form a sustained band of action and reaction’.\textsuperscript{221} Instead of Apollo and Dionysus, organic matter and the law-abiding cosmos were the coextensive principles.

In terms of theatre space, when the Romans built their theatres, there is a sense in which cosmology was affixed and contained to the space, and visually discontinuous with the macrocosm. The mathematics of architecture and acoustics formulated the magical operations of the cosmos. There was no need to refer directly to the celestial play above one’s head or to surrounding Nature. Roman Imperial space assimilated the geometric number systems of Vitruvius (brought over from Corinth) and integrated these with Platonic-Pythagorean principles.\textsuperscript{222} In the Theatre of Marcellus, strong diametrical lines clearly demarcated the seeing and playing space;\textsuperscript{223} a canvas roof sealed the spectator from having to contemplate the heavens. The universe was perfectly abstracted in the human-made, interiorised viewing field. The harmonic


\textsuperscript{221} Thomas Rosenmeyer, \textit{Senecan Drama and Stoic Cosmology} (Berkeley: University of California Press, 1989), p. 66.

\textsuperscript{222} Wiles, \textit{A Short History}, p. 182.

\textsuperscript{223} Wiles, \textit{A Short History}, p. 37.

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correlation of macrocosm and microcosm formalised, for instance, in the geometrical abutment of two hemi-spherical spaces, one part where the audience sat and the other where the play was performed. Cosmological bifurcation meant adjoining well-defined sectors, not the dichotomous tangle of truths and ideas signified by the theatre of Dionysus and fifth-century speculation. In tragedy, the alienating actions of humans created false partitions, the crisis points, in the otherwise singular gaze of an all-knowing universe.

In the modern era, the rebirth of the ancient tragic khoroi, as a singing tragic chorus in significant western European productions of Sophocles’ plays, would remain as ever a performance phenomenon intrinsically gifted to intone notions of order and disorder in science, music and theatre space.
Vicenza’s Accademia Olimpica was established in 1555 with the aim of developing humanistic studies, music and mathematics. It was distinguished among guilds of learning because it included professionals of the arts.¹ The Accademia’s inventory of papers shows that there was lively interest in and study of scientific matters, including cosmology, astrology and physics.² But members, however erudite, needed to establish liberal credentials especially among the more conservative academies founded in the same year. Confidence in humanist values after eighteen years of the censorious Council of Trent would also make a positive public statement.³ In the Carnival season of 1561, Alessandro Piccolomini, himself a prominent Neoptolemaic astrologer and translator of Latin and Greek science treatises, had had his comedy L’amor costante produced on a temporary wooden stage, in the main hall of the Basilica. In the following year, a successful production of Gian Giorgio Trissino’s Sofonisba implanted the idea of a permanent roofed structure to house future productions of classical drama. Andrea Palladio, the renowned renaissance architect at the helm of the academy, spearheaded plans for the Teatro Olimpico. These carried the stamp of late-renaissance aesthetics and displayed an eagerness to commit to public view, within a theatrical space, a harmonic realization of cosmology and art. In February, 1580, work began on an original and enterprising building which connected humanist idealism with municipal glory. The performance in 1585 would surpass the grandiloquent expectations of the renaissance academicians.

Primary accounts of the inaugural production of Sophocles’ Oedipus Tyrannus in the Teatro Olimpico, on March 3, 1585, provide a vivid picture of the occasion, along with the aesthetics of the day. In the audience was Fillipo Pigafetta (1533-1604), a widely travelled explorer and writer. He infused his report with descriptions of the ‘exquisite beauty of proportions’, the ‘loveliness’ of the stage images ‘to the eye’, the ‘lavishly’ costumed actors and the ‘appropriate entourage’.⁴ Among the grandees,

² Avagnina, The Teatro Olimpico, ibid.
³ Other academies established that year, the Secreti and Costanti, were more orthodox and conservative. The Council of Trent (1545-1563) sought internal reformation of the Catholic Church which it felt was infiltrated by the heresies of Protestant Reformation thinking.
⁴ Fillipo Pigafetta’s account is translated in, A Source Book of Theatrical History, ed. A. M. Nagler (New York: Dover, 1959), pp. 81-6. Pigafetta was no stranger to eventfulness. In 1591, he published
patricians, rich foreigners and dignitaries seated in the Palladian grandeur for eleven hours—four hours for the production alone—was another observer, Antonio Riccoboni (1540-1599). However, his account of the Vicenza performance, written as a letter to the absent podestà (mayor), reveals a more privileged intellectual gaze, although like Pigafetta, anticipated the splendid marriage of architecture, theatre and music. Riccoboni was a humanist influenced by Plato, in matters concerning music and cosmology, and by Aristotle and Horace in those of poetry, natural science and tragedy. Nevertheless, for both humanist and would-be humanist, the principle that one's eyes and ears should be elevated in concert was an abiding mark of success.

When Pigafetta describes the singing tragic chorus, music is for him undoubtedly a lesser art form than poetry. He waxes lyrically about the joy and exhilaration of the audience when hearing, in the prologue, the 'sound of the harmonized voices' and 'divers instruments'. His tone is plainer when describing the chorus of '15 persons', or mentioning Andrea Gabrieli, the most influential renaissance composer, perfunctorily as simply the 'organist of St. Marks'. Pigafetta also makes a nodding reference to his own humanism when regarding the articulation of words in performance. The chorus 'nearly fulfil' the essential 'task of tragedy', in that the text should be 'clearly understood'.

Riccoboni is critical throughout of the aural and visual aspects. The updated Renaissance text by the poet, Orsatto Giustiniani, is deemed, 'upon hearing it' (for accounts of his travels to the court of the King of the Congo entitled 'On the Court of the King of the Congo and on the clothing of those People Before they Became Christians; then on the Royal Table and the Manners of the Court'. An excerpt, 'Relation on the Kingdom of the Congo and the Surrounding Regions', reveals the author to have had a discerning ear for ethnic sounds. See Gary Tomlinson's translation of this excerpt in, Strunk's Source Readings in Music History: The Renaissance, vol. 3, rev. ed. Leo Treitler (New York: W. W. Norton, 1998), pp. 224-26.

5 The audience waited for nearly nine hours. The production started at 7:30 and lasted to 11 pm.


7 The Paduan professor had just published a Latin commentary on Aristotle.

8 Incidental instrumental music by Marcanzioni Pordenon was performed in the prologue of the 1585 production. The music has not survived. See CD jacket notes by Giulio Cattin in, Andrea Gabrieli: Chori per Edipo Tiranno (Veluti Luna, Accademia Olimpica, 1999). 'Trumpets and drums', which were said by Pigafetta to sound out before a curtain fell, could have served as a fanfare. See, A Source Book of Theatrical History, ed. Nagler, p. 85.
Riccoboni had not read the text), 'reasonably well-treated', but the configuration of
the chorus receives pointed disapproval. He first singles out the chorus’ interlocutor,9
who was, in his estimation, positioned unsuitably close to the king. His comments on
the arrangement of the chorus indicate his Platonic leanings. He criticizes the ‘ugly’
configuration of the interlocutor stepping out of the chorus which had formed a more
or less permanent moon shape. Concerning the marriage of words and music, the
music was ‘constantly uniform’ but crucially did not ‘let the words be understood’.10
The aural impression of uniformity may refer particularly to Andrea Gabrieli’s
homophonic and syllabic style which struck Riccoboni as the rather turgid intonation
of text-heavy liturgies.11

The aesthetics of the day, revealed in both Pigafetta and Riccoboni’s reports, suggest
that the production of Vicenza’s Edipo Tiranno sought ‘harmonization’ across the
aural and visual fields. Harmonization proposed that even when tensions between
competing aesthetic rules were operating (such as the priority of text over music)
every component adhered to its proper and correct place. In this manner the eye, first,
and the ear, second, as portals to the soul, were naturally delighted. Harmony in music
and architecture drew rhetorical powers from renaissance cosmology, itself a
harmonization of ancient principles and modern reworking of classical models.

The scientific analogue under investigation in this chapter is Harmony. I ask how in
Science (mainly in the field of cosmology), adjustments and resolutions in the
Medieval and Renaissance view of the heavens correlated with choral music and its
accommodations of emerging polyphony and expressivity. In the section on Chorality,
I investigate in what ways harmony was achieved both within, and between, poetry
and music. Finally, in the section on Theatricality, both the architecture of the Teatro
Olimpico and the staging of the singing chorus merged personal vision and the
reception of classical principles. I examine what ordering principles the architect,
designer and director drew from antiquity, how these were tested by modern
practicalities, and how the harmonization of order and disorder were realised.
According to the Renaissance historian D. J. Gordon, the ‘inaugural production of the

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9 ‘Interlocutor’ is Dawe’s translation, Sophocles: the Classical Heritage, ed. Dawe, p. 10. The member
speaking for the group could very well have functioned as the ‘corypheus’ or spokesperson in the text.
Oedipus Rex, caught and blended in one dazzling manifold image so many ideas and prepossessions and inventions and achievements.\textsuperscript{12} Harmonization may help us understand how and why this occurred.

SCIENCE.

Harmony is a general term; Pythagoras and, after him, Plato said that the world was composed of it. Harmony, then, is a proportion of low, high, and intermediate [pitches] and of words and rhythm [...].\textsuperscript{13}

In this excerpt on the relationship of poetry to song, Count Giovanni de'Bardi draws on ancient cosmology to prove his humanist credentials to fellow academician and musician Giulio Caccini. Members of the Florentine Camerata would have been active theorists, critics and propagandists of taste and decorum. Steeped in classical tradition, their view of art prescribed that all things should have their unimpeachable and proper place, in perfect proportion to each other, and in a gradient hierarchical scale (highest to lowest, heaviest to lightest, nearest to farthest, etc.). This view was rooted in a synthesis of Aristotelian teleology and medieval Neoplatonist theology that dominated the explanation of nature from the Middle Age to the seventeenth century.

Before the Renaissance, the medieval worldview was a static, top-down hierarchical framework, were everything belonged to their rightful place. The Neoplatonist mind perceived the human condition as a lifelong contemplation of ideal forms. Attempts to explain the causal essence of these forms were grounded in Aristotelian teleology. Everything in life had a purpose and an ending. In a hierarchy of beings, humans were located at the centre of Nature, and God at the supreme end. A microcosm of operations proceeded from the lowest to the highest forms, and true knowledge of divine laws came from deductive reasoning as well as faith.\textsuperscript{14} Cosmological models from antiquity were incorporated in the total medieval plan. In De Caelo (1.2.)


\textsuperscript{13} Discourse addressed to Giulio Caccini, Called the Roman, on Ancient Music and good Singing', in Claude Palisca's \textit{The Florentine Camerata: documentary studies and translations} (New Haven: Yale University Press, 1989), pp. 78-131 (p. 93).

Aristotle states that ‘the circle is a perfect thing’, that the cosmos contained the ‘circulation motion of the spheres, whose perfect geometrical configuration ensured their unchanging continuity, ‘transmitted successively to each succeeding sphere guaranteeing the eternal motion of the celestial world.’ In Judeo-Christian thinking, the crystalline circles were kept in motion by angels, the tenth sphere was the *Primum mobile*, and beyond was Heaven where the throne of God presided over the elect.

According to the historian, Ian G. Barbour, ‘science, cosmology, history and theology all expressed the same pattern of meaning’ in the medieval worldview. These meanings were not radically altered by the Reformation. It was science that would have the greatest impact on the static models of medieval cosmology. Bolstered by accurate translations of ancient manuscripts, the influence of Arabic scholarship, the impact of global navigation on instruments used for travel and astronomical measurements, and the reformation of the Julian calendar, scientists like the renaissance philosophers, began to see themselves as worthy inheritors of the greatness of antiquity, or even their equals. The history of renaissance cosmology is the history of how ancient concepts of order were enriched, edited, or eventually abandoned as new observations and measurements were made in the scientific realm.

Cosmology: harmonizing the parts.

The science historian, Thomas Kuhn, reminds us that ‘a revolution-making work is at once the culmination of the past tradition and a source of a novel future tradition.’ Ptolemy acted as the main intermediary between the early modern science history and Platonic and Aristotelian cosmology. In his second-century A.D. treatise, the *Almagest*, Ptolemy, following Aristotle, fashioned the cosmos as a series of perfect circular spheres in a concentric arrangement. The earth, in the centre, represented the privileged human perspective of the ordered whole. However, Ptolemy was unhappy with two aspects of the ancient model. The observably irrational behaviour of some

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18 Smith, *Science and Society*, ibid.
planets did not correlate with their prefigured alignments and equinoxes. In response, he proposed epicycles to explain the disordered planets - wheels within wheels, wherein a planet revolved in a perfect circle around a point attached to a sphere which itself revolved in a perfect circle around the earth. The earth itself was moved slightly off centre. Ptolemy's adjustments led to increased precision in the position of the paths of planets and stars but not in the prediction of their movement.

The world-centred Ptolemaic model, with its undue complexity and incoherence, was challenged by the Polish astronomer and mathematician, Copernicus (1473-1543), who in *De revolutionibus orbium caelestium* (published in 1543) argued for a heliocentric universe. As a paradigmatic shift the adjustment was not entirely revolutionary. Light in the centre of the world sending out its life-giving vitality and power was linked to the Pythagorean belief and also to Aristarchus of Samos. The model Copernicus proposed mapped out the earth's orbit around the sun, and corrected the offset axis proposed by Ptolemy, where the sun and moon were positioned with their own epicycles. The adjustments also put the planets in their correct sequence. Richard Schlagel writes that 'the superiority of the heliocentric system for Copernicus consisted in harmonious interconnectedness.'

The perceived 'harmonious interconnectivity' of the Copernican model did not hold for long. Danish-born Tycho Brahe (1546-1601) built the great observatory in Uraniborg with its enormous quadrants and sextants. Tycho Brahe preserved the Platonic idea of geometrically nested spheres but reinstated the earth to the centre of the orbiting astral bodies. The untidy wanderings of the planets, their refusal to accord with an overarching model, resulted in the Sun being placed in its own centre of the five main planets. Tycho Brahe also discarded the concept of a crystal sphere, suggesting that the planets hang 'unsupported' in empty space. Both new models sought a harmonization of discordant observations with accurate measurement. In the

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23 Schlagel, *From Mythe to Modern Mind*, vol.2, p. 64.

late sixteenth century, Johannes Kepler (1571-1630) enriched the Copernican model by addressing once more the movement of the planets. The planets furthest from the sun, he suggested, moved progressively with less 'vigour'. An additional law suggested an elliptical rather than traditional circular movement. Both laws were formally proposed, after some refinement, around 1609 in the Astronomia Nova ('the new astronomy').

Kepler’s views are significant because, like Tycho Brahe, not only do they veer away from Plato’s realm of forms, but there is an attempt to accommodate and re-shape classical models based on new measurements and data. In 1619, his Harmoniche mundi systematised geometric proportions and planetary movements to musical harmonies, scales and intervals. The planets, for instance, provided musical tones around the sun. Galileo Galilei (1564-1642) established the foundation of what is now known as modern scientific investigation. This was premised on the belief that the laws governing the universe can be understood by the human mind aided, as cumulative wisdom had shown, by mathematical demonstrations. The perception of the universe was given a bottom-up, inductive viewing rather than a top-down, deductive one. Thus, observations aided by seeing and hearing, rather than generalizations deduced from antiquity, confirmed that the laws of Nature were mathematical.

Harmony: cosmology and music.
In the Renaissance, harmony was an analogue of both cosmology and music. From the Middle Ages to the Renaissance, cosmology was clearly informed by Pythagorean mysticism, Plato’s geometric universe and Aristotel’s teleological model. According to Aristotle, the Pythagoreans believed that the ‘speeds of the stars, judged by their distances, are in the ratios of musical harmony, and so they assert that the sound of the stars is concordant’. In the Myth of Er, Plato’s seven planets emit siren-like notes each of the musical scale, the pitch being higher in proportion to its distance from the earth. Aristotle imagines what ‘great sound’ all the planets, the sun and the moon

whirring in space at great speed might produce. The medieval-renaissance idea of the *musica mundana*, the Music of the Spheres, wedded space, objects, sound and even the occult in one cognitive field.

The importance of music as a 'science' of sound was confirmed by its inclusion in the educational *quadrivium* which included geometry, astronomy and arithmetic. Standards of proportionality that connect objects in space also applied to tonal relations. Intermediaries of the classical world like Cicero and Boethius made these vital connections with antiquity. Music theorists were also practicing physicists and astronomers and thus shared the same linguistic domain. The analysis of consonance and dissonance of numbers and ratios were symbols which equated the musical satisfaction of the ear to the principles observed by the eye in the cosmos. By the late-sixteenth and early seventeenth century, the physical nature of music was systematically established through experiments. Kepler, in *Harmonice mundi*, showed he was more persuaded by empirical evidence (i.e. the ear) than the philosophy of numbers espoused in Pythagorean and Neoplatonist schools. In his *Discorso* (1638), Galileo confirmed his father Vincenzo Galilei's musicological theories, adding that the simple 'perfect' musical intervals that formed the epistemological basis of cosmological harmony, unveiled in reality complex frequencies of resonance, consonance and dissonance.

There were correlations between the base concepts of cosmology and its targeted field of early music theory. According to Edward Lowinsky, the Copernican idea of mean distances between planets may have had relevance in the changing intervillic

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27 Henry, *Orpheus with His Lute*, ibid.
29 Other theorists include Hermannus Contractus, Johannes de Muris, Prodocimo de' Beldomandi, a learned line that extends to Kepler, Mersenne, Descartes and Athanasius Kircher. See Edward Lowinsky's essay, 'Concept of Physical and Musical Space in the Renaissance (A Preliminary Sketch)', in *Music in the Culture of the Renaissance and Other Essays*, vol. 1, ed. Bonnie Blackburn (Chicago: University of Chicago Press, 1989), pp. 6-18 (p. 10).
31 Full title of Galileo's 1638 *Discorso – Discorsi e dimostrazioni matematiche intorno a due nuove scienze attenenti all' meccanica et i movimenti locali*.
32 Vincenzo Galilei was the pre-eminent musicologist and lutanist of the sixteenth-century northern Italian school. Galileo, a skilled lutanist himself, was undoubtedly influenced by his father's theory books which he inherited. I discuss Vincenzo Galilei in 'Chorality'.
arrangement and movements of musical notes. Bartolomé Ramos de Pareia, the Spanish theorist, in *Musica practica* (1482), expanded the tonal range to three octaves. Franchino Gafuri in his *De harmonia musicorum instrumentorum* (1518) increased the range to four octaves. But even with expansion, hierarchical rules of harmony applied. Gioseffo Zarlino, in his *Institutione harmonica* (1558) compared the tonal arrangement of musical voices in a one-to-one correspondence with the material cosmos: ‘lowest part bass’ = earth, ‘tenor’ = the middle place, or water, ‘contratenor’ = to higher than water, or air, and the ‘soprano’, the highest place = fire. Intriguingly, the gradual emancipation of the composer from the *cantus firmus* (a long-standing compositional technique that fixed the main tune in the tenor range and governed the way other voices move) around 1516, correlated with Kepler’s dissolution of the crystalline spheres which held the planets (like notes) in their static places.

Cosmological objects can be viewed as a facsimile of musical notation. Tones were distanced from each other in prescribed ratios as were the planets in their prescribed positions. Musical and cosmological configurations, like the octave or the circle, implied perfection or completion. The circle, according to Copernicus, ‘brings back again what has already taken place’.

Bartolomeo Ramos defined the octave in *Musica practica* as the ‘whole body of music’ which consists of ‘eight notes’. Marcilio Ficino, in *De rationibus musicae*, interpreted the ‘round-figured’ octave as the completion of his chorus of Muses. He writes

They want this chorus to be round, but not so much spherical as oval. […] And as the eye sees the oval roundness, so to speak, as one single figure though here more and there less wide, thus the ear conceives the octave as one single figure which rises from a low and broad basis to narrow height, gradually and softly like a pyramid.

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33 Edward Lowinsky, ‘Concept of Physical and Musical Space’, pp. 9-10. Tonal space also grew as a direct result of growth in instrumental building (p. 9).
34 Lowinsky, ‘Concept of Physical and Musical Space’, ibid.
35 Lowinsky, ‘Concept of Physical and Musical Space’, p. 15.
36 Lowinsky, ‘Concept of Physical and Musical Space’, p. 16.
Instruments in an oval shape were also presumed to produce a more beautiful sound.

Musical tuning was another development that signified the harmonization of Pythagorean thinking with a new system. In the Medieval era, tuning followed the Pythagorean system based on the starting interval of a perfect fifth. The cumulative effect of this kind of tuning meant that eventually 'incongruence' would accrue in the system. Like the cosmologists, who responded to the irreconcilable glitches in Ptolemaic models with innovations, in 1533, Giovanni Maria Lanfranco gave the renaissance the first written instructions for setting a 'closed' circle of 'equal temperament'. What this meant was that a composer could travel in a circle of fifths without falling through the intervallic cracks. More important still was that the composer could also modulate.\textsuperscript{38} Within the new-found freedoms of modulation, practical theories of counterpoint and polyphonic writing developed, and with this would come significant innovations of renaissance choral and instrumental writing.

In summary, the renaissance humanists understood in their dialogue with the past the ancient notion that visual perception was interlinked with aural perception; science and art were interconnected.\textsuperscript{39} Seeing and hearing were simultaneous cognitive activities so that developments in cosmology coincided with changes in music. Yet, while early modern cosmologists and music theorists may have looked to antiquity for concepts of harmony, their perception was modern. As Alistair Crombie puts it, from the mid-sixteenth to the mid-seventeenth century, 'complex factual responses and demands of the ear came to doubt whether there was any precise boundary between consonance and dissonance'.\textsuperscript{40} When poets and musicians, like cosmologists, found the ideal balance between legacy and modernity, the balance was not merely a way to prove that order existed, but that it existed as a complex marriage of concordance and discordance – or of order and disorder.

\textsuperscript{38} Lowinsky, 'Concept of Physical and Musical Space', pp. 16-17.
\textsuperscript{39} For further reading on the 'ordered' worldview of cosmology and music in the Renaissance, see Jamie James, \textit{Music of the spheres: music, science and the natural order of the universe} (London: Little, Brown, 1994).
CHORALITY.

The discussion under Chorality will focus on Orsatto Giustiniani, the poet who wrote the text for *Edipo Tiranno*, and Andrea Gabrieli, the composer of the choral music.

Harmonizing poetry.

Giustiniani had already completed a translation of Sophocles’ *Oedipus* when the Accademia Olimpica was deciding between a pastoral play and a tragedy for the inauguration of the Teatro Olimpico. Because of a protracted fracas regarding statues in the theatre, and the extortionate pricing scheme levied on members of the academy, the Accademia left the decision over the choice of the play until quite late. Giustiniani was voted into the academy in 1584 signifying the official approval of his *Oedipus* which had informally been accepted a year earlier. Like many influential figures who occasionally wrote, Giuustiniani had to prove he was conversant with the literary rules and the style of the day. In a dedicatory epistle to Luigi Vernier (a member of the powerful Venetian clan), Giustiniani hoped to create a language for *Edipo Tiranno* without distancing itself from the ease and purity of speech, [where] the verse is both solemn and ornate, in such a way as both of these, which by nature are in contrast to one another, appear naturally united and in harmony in a single subject, to the delight and wonder of the listener.  

The ability of poetry to delight and to bring to the listener the understanding of virtue was an injunction deeply rooted in antiquity. The humanist sources were Plato’s comments on the interrelationship of words, Horace’s precept of *docere delectando*, and Aristotle’s utilitarian views on poetry. In addition, the Petrarchian mode trained the renaissance ear toward new sounds and depths of expression. The modernised Greek tragic text therefore would have to combine the dynamism and verisimilitude of the vernacular Northern Italian and the solemn qualities of Latin.

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41 For accounts of the planning stages, see D. J. Gordon’s, *The Renaissance Imagination*, p. 261.
42 Bandini, CD notes, *Gabrieli.*
Horace’s *Ars poetica* was referred to as a set of rules and guidelines for the craft of poetry. According to the historian Bernard Weinberg, Roman poets and historians, as well as orators, were criticised according to rhetorical standards. Horace’s *Ars poetica* ‘regards poems in the context of the society for which they are written’. The treatise argued that poetry was considered ‘above all the dramatic forms, in relation both to nature and to their capacity to please and to instruct an audience of a given kind that would see them in a given age under given circumstances [...]’. As Aristotle’s *Poetics* is increasingly translated, and becomes available in humanist academies, there were comparisons made with Horace’s *Ars poetica*. In *Librum Aristotelis de arte explication* (1548), Francesco Robortello stated that the poetic faculty ‘delight[s] through the representation, description, and imitation of every human action, every emotion, everything animate as well as inanimate’. To instruct and to please through verisimilitude and propriety became the guidelines for the application of poetry to Greek tragedy.

In the harmonization of utility and pleasure in poetry, concepts of elegance and barbarism also came into play. Cicero, in *Rhetorica ad Herennium*, states that *elegantia* ‘makes any one passage appear to be said purely and plainly. Its attributes are Latinity and clarity’.

Barbarism was in effect the opposite to the appropriate use of language: misuse of language could be called barbaric, or foreign-sounding in the poetic or musical context. Thus, complex rhythms, counterpoint and harmonies which increasingly garnished texts in sacred works during the early renaissance elicited from the Catholic Church strong injunctions. Prompted by the Protestant in-house purge, the Catholic Council of Trent similarly campaigned against musical inelegance, or barbarisms, in its ecclesiastical chant. Undoubtedly, when Giustiniani sought a unity of ‘solemn’ and ‘ornate’ verses, his intent was to make the purity and

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43 Representative poets from antiquity include Cicero, Plato, Quintilian and Donatus. See Marvin Carlson, *Theories of the Theatre: from the Greek to the Present* (Ithaca: Cornell University Press, 1993), p. 38.


45 Carlson, *Theories of the Theatre*, p. 38.


47 Harrán, *Elegance as a concept*, pp. 420-1. Harrán contextualises the Greek-ness of ‘barbarism’ as the ‘deficiencies of speech as practiced by foreigners’. Further on, he categorizes three levels of handling language: the lowest level being the faulty use of speech, or barbarism; the middle level is propriety, or the correct use; and the highest level which is elegance, or the stylish use of language (p. 431).
plainness of natural dialogue (in non-choral sections) sound poetic, while reserving more florid elaborations for the formally structured choral verse. For paradigms, Giustiniani had hardly any to turn to, yet Giustiniani’s translation may not have been the first Oedipus to be written in the common language, or for that matter, the first performed Greek tragedy. Richard Fabrizio argues the case of Giovanni Andrea dell’Anguillara (c. 1517-1571), whose Edippo tragedia was printed twice in 1565, and received few but nonetheless magnificent performances, including, Fabrizio explains, on the temporary wooden stage that later became the site of the celebrated Teatro Olimpico. Other than Anguillara’s text, the 1562 staging of Sofonisba, the first Italian tragedy by Gian Giorgio Trissino (1478-1550) may have appealed to Giustiniani because of its deference to classical form. Trissino shunned full-blooded lyrical poetry by such writers as Ludovico Ariosto, preferring to restrict the vernacular in a more Aristotelian style. In Trissino’s stilted heroic epic L’Italia liberata dai Goti (1547), he claimed that Aristotle was the guiding ‘maestro’ and Horace represented ‘per duce, e per idea’. Giustiniani referred to the Aldine and Justine editions of Sophocles’ Oedipus Tyrannus which did not indicate the metres of the choral passages. Modern commentators today believe that Giustiniani’s translation is ‘high language, singular and estranged’, and at the same time ‘capable of interacting with the audience and arousing their emotions’. At the time of the performance, Giustiniani’s Theban

48 Giustiniani’s verse show colourful elaborations of Sophocles’ text, conveying the high emotions of the dramatic action. See for instance the text set to music, in bars 90 to 143 of the choral music (printed in Schrade, La Représentation d’Edipo Tiranno), compared with Sophocles’ concise lines in antistrophe (165-167).
50 Sofonisba was not an ancient Greek tragedy. The story for Sofonisba was taken from Livy’s Book XXX, Ab urbe condita. Trissino was a founding member of the Accademia Olimpica, and the production launched plans for the Teatro Olimpico. Vidal-Naquet’s chapter, ‘Oedipus in Vicenza and Paris’, in Myth and Tragedy in Ancient Greece, offers useful background information (pp. 361-80)
53 Bandini comments on Giustiniani’s text, CD notes, Gabrielli.
prose was criticised by Riccoboni because it mistook verisimilitude for pedestrianism for both the actor-actor and actor-chorus interchange. Giustiniani, according to Riccoboni, went against the nature of poetry which uses verse as its proper instrument for the natural representation of speaking.  

Not much is known of Giustiniani’s formal education. The lecture circuits of the humanist academies no doubt gave shape to the reception of antiquity and newer styles of poetry and Giustiniani may have circulated amongst the learned humanists. A lecture by Benedetto Varchi, given to the Accademia Fiorentina, for instance reflected the clear injunction of poetry: ‘Poetics is a faculty which teaches in what ways any action, passion, or character should be imitated; by means of rhythm, discourse, and harmony, all together or separately, in order to remove men from vice and incite them to the virtues, in order that they may achieve their perfection and beatitude’. As the audience took in the apparato (theatrical apparatuses) as well as the acting, Giustiniani knew that the poetry would have held centre stage in the rhetorical demonstration of harmony.

Andrea Gabrieli composed the choral music for the Theban Elders when vocal polyphony was shaped by two opposing views. Vocal polyphony is made up of two or more voices and is characteristically homophonic in sound; that is, the vertical alignment of notes (as opposed to the horizontal) predominates. Gabrieli showed in the first ever music for tragic chorus how the contrasting notions of polyphony were masterfully resolved. The musical setting of the Giustiniani choruses of Edipo Tirrano fell between the syllabic declamatory style of the Latin liturgy and the opulent yet intimate style of the madrigal. The words were clearly and beautifully set to the music, and the dominance of the word, as dictated by the humanist principles regarding poetry, was not necessarily detrimental to the power of music. By confining the music within the conditions of drama, music actually gained in richness and

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54 Riccoboni’s letter in Sophocles, ed. Dawe, pp. 6-7.
55 Weinberg, A History of Literary Criticism, ibid.
57 Leo Schrade remarks that ‘if the Italian tragedy was driven to vie with its ancient model, it had to comply with some of the conditions which were thought to have determined the model’. Hence,
expressiveness. Ahead, I address issues of polyphony and conclude with an analysis of the choral score of *Edipo Tiranno*.

Harmony: word over tone.

The dictates of antiquity and Judeo-Christian principles shaped the close relationship between music and words. Plato influenced leading musicologist of the day, Gioseffo Zarlin (1517-1590), who writes

Poetry is so closely joined with music that whoever would separate the two would be left, as it were, with a body separated from its soul. This is confirmed by Plato, who says in the *Gorgias* that anyone who removed harmony, number, and meter from poetry would be left common place and impoverished in speech.58

In Plato’s *Republic*, music was bound up in the instruction of the soul

[music] is a more potent instrument than any other because rhythm and harmony find their way into the inward places of the soul, on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated graceful, or of him who is ill-educated ungraceful.59

Harmony and disharmony had ethical considerations: ‘gracelessness and evil rhythm and disharmony are akin to evil speaking and evil temper.’60 Aristotle offered similar guidance. In *Politics*, he writes that ‘rhythms and melody supply imitations of anger and gentleness, and also of courage and temperance, and of all the qualities contrary to these’.61

During the medieval period, the Judeo-Christian Bible was the authoritative text in the soul’s moral education. Church leaders, like their classical forebears, required music, in relation to the sacred word, to be an ennobling influence as well as to remind human beings the fact that the universe was intrinsically ordered. In the third century CE Clement of Alexandria, in ‘Exhortation to the Greeks’, proclaimed how words are immanent with the ‘harmonious order [of] this great world’. A century later, the church writer Basil described how ‘the Holy Spirit saw the race of men restive toward goodness, and us heedless of the right life by reason of a proneness to pleasure […]’. The Spirit therefore ‘mingled with precepts the agreeableness of harmony, in order that through the smoothness and softness of the sound we might draw from the words that which is useful’.

If music and words together served the spiritual and moral objectives of the individual, choral singing reflected the collective ends. Basil, in the Homily on Psalm 1, emphasised the importance of the singing of psalms. The ‘choir’ was humanity ‘bonding’ together in song-full worship. Church authorities had reason to be concerned, if not censorious, about the alignment of music and sacred text. Basil, like Plato, was aware of the ‘lapse in the pollutions of the flesh’ that might result from inventive musical contrivances in choral singing. Augustine of Hippo combined Neoplatonic and Aristotelian principles in his musical proclamations and prohibitions. Following the example of Aristotle, Augustine (in the five books of De Musica) codified music according to the principles of number, feet, rhythm, meter and verse. One acquired moral discernment through the practice of music. In writing and performing music, one contemplated numbers, and apprehended the cosmological design of God. Augustine, in De Musica, writes, ‘Music, it seems, is but a prompt to have us transport ourselves to eternal numbers, where God is more fully found than in

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62 Harrán, Word-tone relations, p. 28. The choir of the early churches sang in unison or monophony, which was considered the ideal in early Christian communities.
64 Basil, Homily on Psalm 1: ‘The singing of psalms which devises harmony as a kind of bond for forming consonances and which assembles in the multitude in the symphony of an only choir’; cited in Harrán, Word-tone relations, p. 28.
65 Harrán, Word-tone relations, p. 29.
the empirical qualities of the temporal world’. To stray was to be disharmonious with cosmology and church authority.

From the Medieval era to the Renaissance, issues of rhythm, harmony and text-setting turned into formal discourses as musical instruments and styles of vocal writing developed. One of the primary debates on vocal composition centred particularly on polyphony (many voices singing in non-unison). Among scholiasts it was generally understood that instrumental playing and singing re-enacted the recitation of poetry; there was a strong relationship between musical phrasing and syntax, and the rules that guided grammar. Tonality may have competed with poetry, but music was perceived to be in a subservient role. As church scholars and music theorists carried on a dialogue with antiquity, vocal music tried to ‘reconcile two essentially irreconcilable demands: for straightforward and comprehensible presentation of the words, and for purely musical interest and attractiveness’.

Motet and Madrigal: the background to Gabrieli’s choral style.

One of the choral forms that showed a tension in the hierarchy between words and music was the motet. The vocal lines in the motet were organized such that around the cantus firmus (the firmly fixed vocal line in the tenor range) other voices travelled at a much faster tempo. As bold poetic texts inspired new sounds, new harmonies and forms of harmonic chromaticism, the cantus firmus, as the music’s gravitational point, eventually dissolved. The expressive freedom inherent in the motet in turn influenced the madrigal.

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66 Harran, Word-tone relations, ibid.
67 Augustine, in his early years, was aware of the affective powers of performed drama. He witnessed the manipulation of the spectators through ‘feigned madness’ and other illusionary devices. The censorious tone of the church fathers towards music and song can be judged in relation to the uses (and abuses) of music within theatre. See Carlson, Theories of the Theatre, p. 29.
Madrigal composers were inspired by how music could amplify, illuminate or mimic the accompanying poetry. Composers used musical word painting – the extension of the meaning or emotional attributes of the word by musical means. Dissonant harmonies accompanied expressions of 'pain' or 'sorrow', fast notes were ascribed to 'chasing' or 'hunting', a descending vocal line followed 'sighing' or 'weeping' as a rising vocal line would 'sunrise'. Like its counterpart in the French chanson, the madrigal represented a pan-European musical form identifiable by its innate cultural qualities and poetry. Its inherent irregularity and freedom made it a sympathetic vehicle for the asymmetrical verses or unfixed rhyming schemes in poetry. The choral music of Edipo is a grand and extended madrigal, whose proportions reflect the expansive lyrical poetry of the chorus and the performance space for which it was intended.

The strong influence in the countries of Northern Europe showed in the marriage of expressivity and polyphony of Italian renaissance music. Leading composers, primarily from Germany and the Netherlands, travelled to Italy. Conrad Celtis, the German humanist, visited Italy in 1468. Petrus Tritonius, who had a decisive influence on the Protestant chorale, studied in Padua. In the sixteenth century, the rise of wealth in cultural centres such as Venice, Florence and Ferrara created patronage for northern composers. Italian trained pupils, such Andrea Gabrieli, were encouraged to absorb some northern traditions. Likewise, Italian nobility were keen to display in their salons their talented acquisitions. The Basilica of San Marco increased its number of musicians in order to sustain the propaganda that promoted Venice's

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72 It is worth mentioning that the way notes were fashioned to words to produce certain effects reflected their vital link in the occult within medieval and renaissance thinking. The interrelationship of magic, cosmology and music in the renaissance word-tone relationship involves concepts of natural attractiveness and affectations. See Gary Tomlinson, Music in Renaissance Magic: toward a historiography of others (Chicago: University of Chicago Press, 1993). This is a provocative study of the 'affinities and intersections' of magic and music and offers a critique to modern historiography which differentiates between rationalists and occultists. The relationship of magic and the occult in music, and music's strong alliance to ethics and cosmology, cannot be explored in this thesis, simply due to lack of space.
73 Brown, and Klein, Music in the Renaissance, p. 197.
74 On 'performance space', see Theatricality.
cultural superiority, particularly in their attempting to rival the papal choir in Rome. Among the watershed moves was the employment of Adrian Willaert (1527-1563), the influential Flemish composer of his day, as the first organist and eventual maestro de capella. His musical disciples (Gabrieli among them) created what would be known as the Venetian school, which would have a decisive impact on the reception of madrigals well into the seventeenth century.

Willaert represented the northern school’s influence on Italian choral writing with its refinement of rhythm, counterpoint, and tonal harmony. Music historians also note the influence of Orlando de Lassus, who was widely known throughout the musical capitals of Europe for his harmonic clarity, and the correlation of short note values to text syllables. He was also interested in musica reservata (literally, ‘reserved music’), a term gaining common currency by the middle of the sixteenth century and which described a new style of music that used the full resources of music to evoke the emotion in the words. Around 1565, Samuel Quickelberg, a Dutch physician and scholar residing at the court of Munich where Lassus was active, describes the composer’s music: ‘Suiting the music to the meaning of the words, expressing the power of each different emotion, making the things of the text so vivid that they seem to stand actually before our eyes […]’. The striking reference to music as a visual phenomenon is apt for the renaissance ideal of pleasing both the eyes and ears.

In 1567, Lassus visited Venice when Gabrieli had just taken up his position as organist at San Marco. Before that, Gabrieli himself had visited the Munich court chapel. The grand ceremonial music of the court is similar, in its sensitivity toward sonority and the preservation of textural clarity, to Gabrieli’s Venetian compositions. The increasing use of instruments (the first salaried players appeared in the payroll of San Marco around 1568), and the prevailing taste for large-scale motets for occasions

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76 The Venetian school – a period of music history, roughly 1550-1610, and included Orlando di Lasso, Willaert, Cipriano de Rore, Gioseffo Zarlino, Claudio Merulo, Andrea Gabrieli, and finally his nephew, Giovani Gabrieli. The Basilico of San Marco played a dominant role in shaping the idea of poly-choral music which was as much a product of the basilica’s large spacious acoustics as the prevailing musical trends in composition.


78 Grout citing Wolfgang Boetticher (Orlando di Lasso, i, 240), in Grout, A History of Western Music, p. 200. The musical passage being referred to here is the penitential psalms of Orlando di Lassus.
of major religious observance, meant a composer like Gabrieli could confidently cultivate a technique for controlling large sonic forces while maintaining the neatness and precision of the text. The spatial determinants such as outdoor or indoor performances influenced the configuration of the chorus. The chori spezzati style (split-choruses) in the Basilica and the celebratory andata (processional chorus) in the square would have tested the ideal for harmonization of musical quantity and quality,\(^7\) and prepared Gabrieli for the demands of the new theatre in Vicenza.

Polyphony: harmonising two schools of thought.

The kind of music Gabrieli composed for his singing tragic chorus was a harmonization of homophonic polyphony and the rich textual and musical possibilities of the madrigal. By the middle sixteenth century, rules about polyphony instructed composers how multiple voices could move in varying rhythms and pitches using text as a springboard for effects. Homophonic music described a kind of polyphony that was homogenous sounding; that is, the vertical activity in the vocal parts corresponded in strict part-to-part relationships. This produced music that was predominantly chord-like and conducive to making the text sound naturally spoken. When Gabrieli’s choirs performed in al fresco processions of San Marco, or interior spaces like churches, the music must have been rich and striking; nevertheless the text still had to be heard.

Innovations in polyphony were influenced by two different schools, and both reinforced by different notions of ancient performance practice. One side commended monody, the single vocal line, represented early in the renaissance by Marsilio Ficino (1433-99), and subsequently taken up by Girolamo Mei (1519-1594) and his followers, Count Giovanni de'Bardi (1534-1612) and the lutenist-mathematician Vicenzo Galilei (1520-1591), father of Galileo. The other school was represented by the music theorist Giosseffo Zarlino (1517-1590), who sought a more streamlined and sober polyphonic style in contrast to contrapuntal extravagance. Like the medieval cosmologists, the humanist musicologists were eager to distil a set of rules that would

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\(^7\) I return to these two topics, chori spezzati style (split-choruses) and the andata, in the section on ‘Theatricality’. Ellen Rosand notes in Gabrieli’s polyphonal music the ‘uncomplicated texture and slow-moving harmony, emphasizing verbal clarity, [which] would presumably be suitable for music performed outdoors’. Ellen Rosand, ‘Music in the Myth of Venice’, in Renaissance Quarterly, vol. 30, no. 4 (1977), pp. 511-37 (p.530).
provide the simplest arrangement of notes and words capable of producing the maximum pleasure. In a world that relished the competition between rival composers to create the highest levels of poetry and music, harmony was a complex objective, especially with regard to the two differing schools of choral writing.

Girolamo Mei.

Mei (1519–1594) had been part of the movement to revive Aristotle's *Rhetoric, Poetics* and *De Anime*, as well as the works of Cicero on rhetoric and oratory. In addition, he had completed an edition of the tragedies of Aeschylus under the supervision of his Florentine patron and benefactor, Francesco Vettori. Mei was concerned to produce the *affetto dell'anima*, the essence of ancient music that moved its listeners. He asked why 'the music of the ancients did such great things as one reads and why ours does not appear to have for us idiots and non-musicians even a trace of effects'. Measured Gregorian plainchant, based on a single melody, was the perceived ancient paradigm whose simple qualities, Mei felt, modern composers neglected in place of artifice which aimed solely to delight 'the ear with sweet harmony'. For Mei, the purpose of melody was to find the purest route to the human soul. He was naturally critical of the multi-textural qualities of choral works, in which voices melded into each other and compromised the power of melody. This led him to believe that the tragic chorus of antiquity did not sing in harmony but in monody.

Mei, who was writing from Rome, was a non-residential member of de'Bardi's intellectuals. Yet, he was without question cited as the authority on ancient drama and the scholar to whom the Florentine Camerata was attuned. The person with whom Mei carried on a lengthy and vivid correspondence on musical issues of the day was Vicenzo Galilei. The letters 'to Mei' (and for de'Bardi's eyes) began in 1572. Galilei enquired predominantly about the physics and mathematics of music, questioning

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80 Mei, Letter no. 6, in *Letters on Ancient and Modern Music to Vincenzo Galilei and Giovanni de'Bardi*, a study with annotated texts by Claude V. Palisca ([n.p.]:American Institute of Musicology, 1960), p. 35.
81 Palisca, *Letters on Ancient and Modern Music*, p. 71. Gregorian chant was mistakenly viewed as the original style of ancient Greek choral singing.
82 Mei's views would crystallize the relationship between text and music into the art of song (or single melody with instrumental accompaniment). Issues about ensemble harmony and soloist singing would also inform the development of opera.
Mei, for instance, as to what Vitruvius meant when he famously spoke of the bronze vases as resonating media in the theatre space. In *Dialogue on Ancient and Modern Music*, a treatise which noted the prevailing views of the Camerata, Galilei writes

When the ancient musician sang any poem whatever, he first considered very diligently the character of the person speaking [...] and the effect he sought to produce by this means; and these conceptions, previously clothed by the poet in chosen words suited to such a need, the musician then expressed in the tone [my italics] and with the accents and gestures, the quantity and quality of sound, and rhythm appropriate to that action and to such a person.  

Like Mei, Galilei believed music had to abandon the elaborate designs of polyphonic music and madrigal-style setting of texts with their extreme rhythms and dissonances. A return to simple melody, where words and music might be more evenly matched, as in the way that actors or orators could convey authentic emotions, was the way forward for Renaissance modernists.

Mei’s views were generally synchronous with Giovanni de’ Bardi articulating his own classically-trained credentials when he writes

> composers and singers must make the text intelligible, scrupulously following the rhythms and accents of poetry, not spoiling the line by unduly lengthening syllables or prolonging it with florid passages. The text and the character must reign over the musical composition.

De’ Bardi had little patience with polyphonic music which often contained too much *passaggi* (literally, moving voice parts) and ornamentation. In choral singing, however, de’ Bardi did not endorse Mei’s critical view of polyphony. He preferred the kind of vocalisation which consisted in ‘simply uniting one’s voice well with others’;

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86 Palisca, *The Florentine Camerata*, p. 139.
in other words, well-behaved ensemble singing which nonetheless rich and expressive.

Gioseffo Zarlino.
In contrast to Mei, and his supporters Galilei and de'Bardi, Zarlino (1517-1590) was an unrepentant supporter of polyphony. He did not understand how modern music could move its listeners in the manner that the ancients supposedly did. From Zarlino we can trace the emergence of the compositional style of Andrea Gabrieli. Zarlino succeeded Adrian Willaert (after Cipriano de Rore) and wrote many masses and motets for liturgical and devotional purposes as well as for secular festivities. Zarlino wrote perhaps the most important treatise on music theory in the sixteenth century entitled *Istitutione harmoniche*. The prescriptions for the rules regarding polyphonic writing and text indicate the northern influence of Willaert as well as its roots, which lay in antiquity. The Platonic view expressed that harmonies should be adapted strictly to the ‘words placed beneath them’. The Horatian rules claimed that compositions were meant to please and to be helpful in life. Zarlino felt that polyphony served the aim of Horace’s *docere delectando*, providing ‘a way to pass delightfully one’s leisure time’ through the proper deployment of polyphonic rules. In Zarlino’s composition one can detect a clear note-to-note prescription where intervals form between the moving voices. Modulations serve highly systematized harmonic rules, while accidentals or dissonances enhance rather than overwhelm poetry. Proper harmony however did not simply arise from maximizing consonance. The balance of dissonance and consonance was at the heart of music’s affective powers.

In Gabrieli’s choruses, we are reminded, as is the case of all new writing, of the appropriation of the styles and techniques of the day. On the page, one can see how

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88 The treatise was published several times, in 1558, 1562 and 1573.
91 Oliver-Strunk, *Strunks Source Readings: The Renaissance*, p. 40 (see also his footnote 6).
the techniques are in service to the clarity and meaning of text, without overstating how music was easily the equal, if not the greater, of poetry.

The Chorus Music of Edipo Tiranno: harmony in action.

In these aesthetic and musical discourses, we can imagine how and why the vocal music for the singing tragic chorus of 1585 represented a unique ‘harmonization’ of contrasting factors. David Bryant, when writing the preface to the multi-volume publication of Andrea Gabrieli’s music, points to the composer’s tendency for ‘contrapuntal simplicity, chordal textures and homophonic blocks of sound’.92 Similarly, Edward Lowinsky, summing up Gabrieli’s Edipo Tiranno, draws attention to an affinity between Gabrieli and the influence of his teacher Willaert, in the ‘fairly strict syllabic declamation of text in a prevailing homophonic atmosphere’.93 Furthermore, we also find in Gabrieli’s style, as Bryant writes, ‘harmony, dissonance, and variable rhythm dictated not by poetic meter, but by the accent – accent understood as originating in the emotion as well as in the grammatical form of the word, and therefore of great diversity’.94 There are ways in which Gabrieli’s chorus music is an enhancement of the madrigal form. For instance, they lack repeating texts (except for some final lines in the chorus), the harmonies are rich, and there is a deft use of chromaticism and dramatic contrasts in rhythm. Earlier, I noted Riccoboni’s sour remarks about the dirge-like liturgical style. Twice he mentions that the words could not be heard. Whether this is a criticism levelled at the director or the composer, or both, we can but speculate. If he is criticizing the music, his comments were a reaction to the note-to-note technique of the textual setting, which could well have sounded monotonous in a four hour production.

The choruses of Edipo Tiranno are sung a capella, that is, without instrumental accompaniment.95 The vocal writing features different combinations of voices, but

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93 This is not to argue that Willaert was the abiding influence on Gabrieli. This point is made clear perhaps in the fact that the dedicatee of most of Gabrieli’s music is not his teacher.
95 There was a band of instruments used in the theatre production whose music, by Marcantonio Pordenon, did not underscore the chorus music. This music has apparently not survived.
are mainly divided conventionally among bass, tenor, alto, and soprano. Gabrieli’s experience of setting long liturgical texts to music in resonant church spaces is reflected in the very opening passage. The liturgical technique of a vocal introit, in the opening section and midway (bar 48 to 54), is followed by a responsorial layering of voices, invoking the swelling choirs of San Marco. The effect is one of slow diaphanous grandeur, yet the text is evenly spaced to allow the vowels time to reach the listener. It may appear that the form of an introit (as intoned by a priest) and response (as sung by the congregation or chorus) perhaps reminded the erudite listener of the parados of the ancient tragic chorus. Renaissance modernity also seems to mirror antiquity in the way Gabrieli hints at poly-chorality (chori spezzati, or splitting the chorus) and the integration of the First Person Singular or First Person Plural in tragic choral writing. For example, from bar 49 to bar 125, where the chorus invokes the various gods to come to their aid, the choral writing moves from three-part to six-part writing, culminating in the words signifying ‘succour’ and ‘counsel’. These civically- and spiritually-loaded concepts accord with magnificence and bountifulness. Homophony harmonizes with the grandiloquent of counsel even if the dramatic context is one of terror and fear (i.e., disorder).

While trying to balance word and tone, Gabrieli’s composition is not ransomed to harmonic monotony. One can detect madrigal traits in the dramatic pauses, care given to important phrases, and frequent exchange between choral voices. Chromatic progressions in harmony enrich the text, and diverging from the root harmony (or ‘tonic’) occurs without compromising direction or cohesion. Within the music itself, there is a hierarchy between harmony and rhythm. According to Leo Schrade, ‘the harmony occupies also a subsidiary place being put in the service of a clear presentation of rhythm’. Harmony, in this supporting role, ‘strengthens the verbal agreements’.

96 Bar numbers refer to modern monograph of the vocal music for the choruses, printed in Leo Schrade, La Représentation d’Edipo Tiranno au Teatro Olimpico (Paris: CNRS, 1960).
99 Leo Schrade writes: ‘L’harmonie occupe elle aussi une place subsidiaire, étant mise au service d’une presentation Claire du rythme’, and ‘L’harmonie n’a qu’une seule fonction, celle de renforcer le
Finally, the trademark of *musica reservata* (musical word painting) is almost throughout unfailingly used without disrupting the ease and grace of expression, or without relying on chromaticism. For instance, the temple at Delphi (bar 14) is indicated by a sheltered ‘closed’ D major triad, but as the text describes far-flung Thebes (bar 17), the open spacing of the D major chord has the effect of brightening the poetic meaning. Soon after (bar 18 to bar 30), one can clearly detect for the words ‘tremble’, ‘dread’, ‘fear’ and ‘shiver’, by rapid changes in the harmony, but each change corresponds to the emotional shift so the context is clearly delineated.

Very little is known about Gabrieli’s life which connects him, like Zarlino or Mei, to any treatise or academic affiliations. His activities seem to have been more thoroughly chronicled in 1566 soon after he obtained the position as second organist in San Marco. It is unlikely he was unaware of the humanist issues between music and poetry, or of their cosmological resonance. Trifone Gabrieli taught Gabrieli to read poetical texts, above all Dante and Petrarch, and to understand Horace’s three rhetorical styles of high, middle and low registers and their associative affectations. Trifone claimed that ‘there is no master whose work so completely and faithfully reflects the Venetian life of the third quarter in the Cinquecento as does Andrea Gabrieli’. Trifone might have heard Gabrieli’s ceremonial music, perhaps indoors as well as in open spaces. He may have delighted in the rich homophony that fit the ‘opulence and grandeur’ demanded by space and décor.

**THEATRICALITY.**

The Teatro Olimpico, according to Olivia Dawson, was a ‘polysemus symbol taken to represent systematized knowledge and the correspondence between cosmos, edifice

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*rythme par dea accords verbaux*. See the introduction to Schrade’s *La Représentation*, p. 74. Schrade devotes a large section to music analysis. The important role of rhythm in the setting of choral texts is a significant issue in both the classical-romantic period and the modern era, which I highlight in other chapters.


101 Rosand, ‘Music in the Myth of Venice’, p. 535. Early in 2005, I visited the Teatro Olimpico, and it confirmed my feeling that the space was acoustically resonant. When I arrived, the Teatro Olimpico museum was playing a recorded modern performance of Gabrieli’s choral music. In the entirely empty theatre, the music ‘delighted’ this modern critic’s ears.
and book'.\textsuperscript{102} She makes her argument by drawing from both primary sources and from modern theory. Scamozzi, the stage designer, wrote a treatise, \textit{Idea Universale dell'Architettura} (published in Venice in 1615), in which he took the view that the theatre was a rhetorical vehicle, and that there was a 'resemblance' between architect and rhetorician. Dawson also follows Foucault's semiotic account of theatre space and spectatorship. The theatre is a book one 'read', where the spectacles of images, both on and off stage, act as mnemonics for other forms of knowledge.\textsuperscript{103} I concur with Dawson to the extent that 'polysemus' might imply a harmonic realization of concordant and discordant elements on all visual levels. If as according to LICisco Magagnato, the Teatro Olimpico was an 'anachronistic, humanist, experiment in classicism' (a point of departure from Dawson's argument),\textsuperscript{104} we might argue that its uniqueness was in the configuration of ancient cosmology and music in theatre space. In the following section, I look at the design of the Teatro Olimpico by Andrea Palladio, the stage design of Vincenzo Scamozzi, and direction by Angelo Ingegneri.

Palladio and Scamozzi: architectural concord and discord.

The indoctrination of Andrea Palladio (1508-1580) in Vitruvian principles and his unique talents for marrying antiquity with modernity was well known to renaissance nobility and princesses. They saw their commissions for villas and churches turned into hybrids of roman civic space and renaissance grandeur. Palladio, we are told by the historian James S. Ackerman, was 'impatient with Vitruvius and Humanist theories',\textsuperscript{105} and in his buildings (in Venice and Vicenza), he imposed a personal stamp on the evolving humanist agenda. What was his personal view of antiquity and how was cosmological harmonization created in Palladio's vision? Rudolph Wittkower, in \textit{Architectural Principles in the Age of Humanism}, makes clear that 'the Renaissance analogy of audible and visual proportions was no mere theoretical speculation; it testifies to the solemn belief in the harmonic mathematical structure of all creation'.\textsuperscript{106}

\textsuperscript{102} Dawson, 'Speaking theatres', in \textit{The Renaissance Theatre Texts, Performance, Design}, p. 87.
\textsuperscript{103} Dawson points out several treatises linking the fields of architecture, language and rhetoric by Giangiorgio Trissino, Daniele Barbaro, Cosimo Ruscelli, and Giulio Delminio Camillo.
\textsuperscript{104} Dawson, Speaking theatres', p. 86. For Magagnato's studies on Renaissance theatres, Dawson suggests his \textit{Teatri italiani del cinquecento} (Venice: Neri Pozzi Editore, 1954).
\textsuperscript{105} James S. Ackerman, \textit{Palladio} (Harmondsworth, Middlesex: Penguin, 1966), p. 22. Ackerman interprets Palladio's 'impatience' by citing Palladio's himself: 'Since architecture [...] imitates nature, nothing can satisfy that is foreign from what is found in nature' (\textit{Quattro Libri}, I, XX).
\textsuperscript{106} Wittkower, \textit{Architectural Principles in the Age of Humanism}, p. 113, 279.
The relationship between musical principles and architecture were understood as far back as the early part of the Italian Quattrocento, when the harmonising of discordant polyphony in the motet (e.g., *discordia concors*) correlated with outward signs of civil harmony in building design. The music historian Julie E. Cumming cites the invocation of Cicero’s *De republica* (2.69), included by Lauro Quirini’s in his dedicatory epistle to the doge Francesco Foscari. The antidote to discord among the Venetian citizenry was music, so ‘in this way our city will remain completely intact and our state will be very orderly, in truth a republic of the highest perfection’. Cumming argues that the Venetian patriciate was highly responsive to the ‘message and meaning of music in a civic context’, and cites Foscari’s architectural commissions, such as the Porta della Carta of the Palazzo Ducale, as the convergence of order and disorder exemplified in music motets. The motet provided evidence, in choral music, of clear text settings, tonal stability and a high tolerance for complex polyphony. The Pythagorean notion of proportion and orderliness extended to architectural spaces where vocal music would be performed. A famous example of this was Guillaume Dufay’s (c. 1400-1474) motets, composed in 1436 for Brunelleschi’s dome in Florence. Though the music has not survived, commentators suggested the writing of the canonical parts accorded with the cosmological proportions of Solomon’s temple.

Early in his career Palladio had sought to create architectural consonance based on the ratios of musical proportions or ‘certain truths’ of mathematics. He was influenced by Ludovico Fogliano of Modena (*Musica theorica*, 1525) and also Zarlino, whose harmonic division of the octave into successively smaller intervals was used as a model for physical proportions of space. Harmonic ratios were not only used inside each single room, but also in the relation of the rooms to each other, such as at the Villa Maser. Palladio’s simultaneous embrace and criticism of antiquity reflected also in Daniele Barbaro’s annotated works of Vitruvian drawings, from which

110 Wittkower, *Architectural Principles*, p. 68, 125. In the Villa Godi at Loniedo (1540), Palladio uses sequences of ‘diapente’ based on Vitruvian principles adopted from Pythagorean principles. See Wittkower, pp. 120-1.
Palladio drew inspiration. Barbaro comments that Vitruvius had no real theory of proportion. Barbaro himself used a scale of *propotionalità*, a ‘secret art’ of adding, subtracting, multiplying and dividing ratios, perceiving a common denominator amongst the deconstructed ratios.\textsuperscript{111} Wittkower remarks that ‘a comparison of a Palladian plan with a typical Renaissance building such as the Farnesina in Rome reveals immediately his [Palladio’s] complete break with the older tradition.’\textsuperscript{112} At 72, Palladio accepted his last monumental commission. In the Teatro Olimpico, the ‘chosen classical model’ of a Roman theatre and the contingencies of a prison wall (in the old Castelo di San Pietro),\textsuperscript{113} would be turned into the site for Palladian *discordia concors*.

Within the narrow pre-existing walls of the old prison Palladio forced into place the circular aspect of a classical theatre. In antiquity, this constituted, geometrically, the measure of four equilateral triangles in a circumference, based on the Marcello theatre in Rome.\textsuperscript{114} Because of the unusual site, the *cavea* (audience hall) was designed as a semi-elliptical shape. This resulted in a steep viewing space which sloped down to an orchestra behind which rose the dramatic perpendicular and longitudinal sweep of the proscenium and stage. The semi-circular arena ended upward in a loggetta consisting of Roman columns and statues. These statues represented members of the Accademia Olimpica, symbolically representing eternal forms and interspersed with antiquity depicted in the stucco bas-reliefs of Hercules’ twelve labours. From high up, these statues gazed down on bodies in Keplerian elliptical space, while mortals below contemplated the *im presa* in the heavens. How the tragic chorus would be organized into this pre-existing tension of a *teatr um mundi* of egos and high renaissance sensibility, presented a set of complex challenges to the director, Ingegneri. His Herculean task seemed in fact to be reflected in the Accademia’s motto: ‘Hoc Opus Hic Labor Est’.\textsuperscript{115}

\textsuperscript{111} Wittkower, *Architectural Principles*, p. 127.
\textsuperscript{112} Wittkower, *Architectural Principles*, p. 67.
\textsuperscript{113} Avagnina, *The Teatro Olimpico*, p. 13.
\textsuperscript{114} The perfect circle was based on the classical theatre (e.g., the Marcello theatre in Rome). A template of the Plan of Roman Theatre, from Vitruvius, *De Architectura*, v, 6, ed. Daniele Barbaro (1556), printed in Avagnina’s, *The Teatro Olimpico*, p. 16.
\textsuperscript{115} Virgil: ‘Here is Labour. Here is toil’.
Palladio died leaving the sudden abutment of cavea and stage unresolved. His former pupil, Vincenzo Scamozzi (1548-1616), liberated the opsis in the elliptical viewing space. He designed a series of three dimensional street perspectives that radiated outward from the triumphal Roman arch which dominated the centre of the stage. Special lamps, strategically positioned in the scenery, enhanced the illusion of the seven entrances to Thebes. Palladio eased antiquity into the asymmetrical walls of the prison; Scamozzi, following principles of form by Peruzzi and Serlio, transcended the jarring disharmony between the area of the spectator and the spectacle which had been hastily built by his teacher in the short space of six months.\(^{116}\)

Ingegneri: the singing chorus in the theatrium mundi.

In December, 1583, Ferraran Angelo Ingegneri (1550-1613) was asked to ‘do something with the lighting of the theatre’.\(^{117}\) However, underlying this task were extremely complex issues. Concerning the interior space of the Teatro Olimpico, Ingegneri might have seen how the distinct Palladian features boldly attempted to marry classical reception with spectacle. He might also have agreed with Remo Schiavo today who states that the ‘three major organic wholes proscenium, orchestra and cavea, do not fuse into the unitary space as they are meant to’.\(^{118}\) Scamozzi’s wood and stucco set with oil lighting might have resolved some directorial worries. For the spectator, the various architectural features in the viewing space converged at the centre and became redirected outward to the fictional city of Vicenza acting, in the time of the play, as Thebes. It created the illusion of breadth and grandeur for an emphatically foreshortened stage which measured only twelve by sixty feet. Accommodating the entire extras in the entourage of the king, the queen, as well as managing the lesser subjects in the play, while recreating the processional rhythms of a triumphal thoroughfare with the chorus, would be complicated enough. With eighty in the cast, how would the civic-minded, singing Theban Elders harmonise with such a scene when matters of décor and deportment would have been scrutinised by the audience?


Ingegneri was conversant with the prevailing theories and notions about ancient tragedy and the tragic chorus. He also pondered upon the manner and configuration of the tragic chorus in relation to current aesthetics regarding choral music. Leo Schrade’s account of Ingegneri’s Discorso tells us something of the renaissance concern for the tragic chorus’ functional identity: is the chorus fixed or moving, an organic part of the action or an adjunct musical ensemble? Among the various concerns, clarity of text remained central.

Fixed and Moving Chorus: choir paradigms.
In general, the issues of choral audibility and movement were inevitably affected by the acoustical properties within the performance space. Since his tragic chorus would be, in effect, a music choir in a theatre space, Ingegneri may have had two types of musical choirs in mind. One was the church choir, such as the type that sang in the San Marco Basilica; the other was the secular madrigal choir that performed in non-religious occasions. Among these paradigms, one of Ingegneri’s considerations was whether the singing tragic chorus was configured in rows or scalloped. Another directorial consideration was how the chorus ought to move. The chorus might have resembled the processional or andata choir (like the ones used in the grand processionals of the Venetian Doge), or remained relatively fixed to the spot, or both.

Late-renaissance church choirs sang in fixed positions, possibly in ranks, and in strategically partitioned spaces. They could also form into scallop shapes. An early sixteenth-century chapel choir is depicted on a parchment by Marcello Fogolino, a Renaissance chronicler (in Galleria dell’Accademia Carrara, Bergamo), and shows singers facing slightly towards each other in a convivial manner, and also facing toward the altar. Pictorial evidence of renaissance choirs shows similar small groups of singers slightly turning inward in a manner such as the scallop-shaped choir in the church. While some scenes of the 1585 performance are depicted on the walls of the Teatro Olimpico, it is impossible to tell if the chorus generally maintained one shape, or whether they might have dispersed into an entourage on stage.

Pigafetta's recounts that fifteen persons, seven on each side, and the maestro (leader) in the middle, formed the chorus. This suggests an open, u-shaped configuration. Riccoboni's criticism confirms a half moon-shape. Francesco Erle, the musical
director of the Schola S. Rocco, a modern choral ensemble which performed the Gabrieli choruses in the 1993 *Edipo* production in Vicenza, cites Nino Perotti’s critical edition which says that there were twelve in the chorus (‘without the *coryphaeus* and the two children’). For his 1999 recording of the choruses, a picture on the CD shows his ‘authentic’ chorus, holding manuscripts, symmetrically split, scallop-shaped, and singing outward. Without documented evidence, we are left to ponder if, in the main, the chorus might have sung in rows. In my view, this is problematic because the singers would have needed to see each other when singing complex *a capella* music. Standing in rows also assumed a choir leader, in a sense conducting the singers with his back (perhaps inappropriately) to the renaissance audience. The idea of a conductor might also draw to easily from classical-romantic performance principles or the need for a choir director in ecclesiastical worship.

Musical passages in the *Edipo* choruses, particularly where the vocal parts are multiplied for dramatic effect suggest the effect of *chori spezzati* – the practice in church services of using two or more choral groups in different spaces to dramatically amplify aspects of the text. The divided groups in the church however would have had clear visual direction from a leader within the group. An *a capella* singing group, in the resonant space of the Teatro Olimpico, would have required being kept in a close-knit group to ensure that the entries were synchronized and that they remained in tune. Subtle cues from a chorus leader, and amongst the singers themselves, would have militated against breaking up the chorus into smaller groups.

Outdoor choral singing in Venice’s ceremonial space, with its combined Byzantine and Roman architecture, accorded with, and propagandized Venetian *discordia concors*. These processions, as Iain Fenlon describes, represented a ‘heightened

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119 Francesco Erle, notes in CD, *Gabrieli*.
120 Peter Burian’s account of the Vincenza production assumes the chorus was arranged in rows, presumably based on the renaissance-humanist reading of the ‘Life of Sophocles’. See Peter Burian, ‘Tragedy adapted for stages and screens: the Renaissance to the present’, in *CCGT*, pp. 228-83 (p. 230). Standing in rows might have occurred if the chorus had music manuscripts to hand. Yet had this been the case, turning pages would have marred the natural decorum of Elders ‘in the Theban court’, so to speak.
theatricality [...] with all their ritual, ceremonial, liturgical and musical concepts. A procession described by Martin de Canal in his books on ceremony includes the ‘doge, the primicerio of San Marco and the canons of the basilica, as well as a number of patricians splendidly dressed’; he also noted ‘the presence of trionfi, one of these being six silver trumpets [...]’. An andata included, in the sixteenth-century, ‘all the principal office holders, the ambassadors of foreign states, canons of San Marco, the Patriarch, [...] symbolic objects, banners, trumpets, candles, cushions, [...]’. When Pigafetta remarked about the sound of trumpets and drums, heralding the prologue, the king and his ‘guard of twenty-four archers dressed in Turkish fashion, the Queen surrounded by ‘matrons, ladies in waiting and pages’, and a chorus whose every word you could hear, the blending of the visual and aural feast may very well have influenced Ingegneri to blend, in his mind, the andate and fixed chorus in these indoor and outdoor contexts.

Riccobonii’s account, however, describes a tragic chorus that is at times visually disordered. Twice he mentions that their words were inaudible: the chorus ‘only made heard the harmony of the voices alone without the words being understood’. More revealing are the lapses in decorum and the inharmonious composition of bodies. In Riccobonii’s view, they formed a crowd, not a beautiful tableau. The interlocutors from the chorus, spoke lines in the episodes with the protagonists, positioned themselves on the same visual level as the king. The chorus also formed ‘ugly’ shapes. In the first stasimon, they were stationary and ‘positioned themselves in the form of a moon and when the song finished, [gave] space to the interlocutors, spaced themselves out in quite an ugly fashion [...]. In this way it was not truly stationary.’ One can but imagine the narrow and confining stage space with its opulently dressed

123 Fenlon, ‘Magnificence as civic image’, p. 33.
124 Fenlon, ‘Magnificence as civic image’, p. 34.
125 Fenlon discusses how Gabrieli, as with other Venetian musicians, was commissioned for important occasions such as the election of the doge, naval victory, Henry III of France’s visit, and annually, after 1678, on St. Stephen’s day, St. Mark’s day and Ascension Day. Gabrieli’s music for the Victory at Lepanto against the Turks (1571) displayed a sumptuous polyphonal arsenal of singers representing the continents of Asia, Africa, and Europe. The music was posthumously published in 1589 but did not survive. Fenlon bases this account in reading Venetian publisher Giorgio Angeli’s Ordiner, et Declarazione di tutta las macerate, Fatta nella Città di Venetia la Deomnica di Carnivale, M.D. lex i f-] Per la Glorioso Vittoria contra Turchi.
126 Sophocles, ed. Dawe, pp. 9-10.
127 Sophocles, ed. Dawe, p. 10.
entourage, a chorus of possibly twelve, and the actors ceremoniously jockeying for position. Harmony must have been severely strained by the size of the stage.

Humanist academies reflected on ways to stage the tragic chorus. A letter from Giorgio Bartoli to Lorenzo Gicaomini (c. 1575), given in the Alterati of Florence, states that the choruses sang and danced, and that representatives of the chorus gave individual speeches. Notions of the ancient chorus were cross-referenced with contemporary images of the chorus, imitating ‘those who go around the city making feasts and masquerades’.\textsuperscript{128} Formal discussions of the chorus in the Florentine Camerata relied heavily on the Platonist worldview of the harmonious cosmos. For instance, Mei instructs de’Bardi in the following passage:

For greater understanding we shall adduce an example of how they [chorus] represented the prime mover leading the celestial spheres. The latter, having come on stage, commenced going around in a circle, whether joining hands or not, and they moved from left singing and dancing as they made a complete circuit and returned to the original place. Then in another movement they imitated with the same steps and music going in the opposite direction, circling back to the first place. Then they stood still, representing the immobility of the earth.\textsuperscript{129}

Around 1582, de’Bardi himself wrote a treatise, ‘On how Tragedy should be performed’. To what extent, if any, de’Bardi was anticipating stage directions in the Accademia Olimpica in Vicenza, is speculative.\textsuperscript{130} It is possible that the retrospective account of the famous Edipo production, Ingegneri’s \textit{Della poesia rappresentativa} (1598),\textsuperscript{131} had far-reaching influence. In any case, de’Bardi himself was only interested in how the tragic chorus functioned, ignoring other issues such as whether actors sang or not in tragedy (issues that would be raised in the early formation of opera).\textsuperscript{132} His view that choruses should sing and dance was influenced by the

\textsuperscript{128} Palisca, \textit{Studies in the History of Italian Music and Music Theory}, p. 426. Palisca cites a letter by Giorgio Bartoli dated, 9 January 1573/4. The Neoplatonist philosopher, Macrobius (395-423 CE), may have been a source for Mei’s reflections on the chorus.

\textsuperscript{129} Undated letter to Galilei (ca. September 1581), cited by Palisca, \textit{The Florentine Camerata}, p. 168.

\textsuperscript{130} Giustiniani’s Sophocles’ \textit{Oedipus}, for instance, was not selected as the inaugural play until 1583.

\textsuperscript{131} Full title: \textit{Della poesia rappresentativa et del modo di rappresentare le favole sceniche ferrara}.

\textsuperscript{132} Palisca, \textit{The Florentine Camerata}, pp. 136-7.

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pastoral plays of Cavalieri, Peri and Caccini. That de’Bardi himself wrote one-fifth of the intermedi music (for his play L’Amico fidoti) for dancing-singing choruses suggested a conception of the chorus as the interlude entertainment. In matters of poetry de’Bardi, almost by rote, describes what is often found in other treatises of the day: ‘Composers and singers must make the text intelligible, scrupulously following the rhythms and accents of the poetry, not spoiling a line by unduly lengthening syllables or prolonging it with florid passages’.

Ingegneri’s own ideas about the theory and practice of the tragic chorus can be read in Leo Schrade’s translation and commentary in, ‘The function of the chorus and the nature of music according to Ingegneri’. Ingegneri was well-informed about rhythm, text setting, and melody. Primary among these topics of course was the importance of textual clarity. In his treatise, Ingegneri sided with Zarlino in believing that the chorus should not sing monody (like Mei said) but in homophonic polyphony, with note-to-note correspondence of syllables so that the text is made comprehensible. The movement of the chorus is organically conceived as part of the ongoing action; it is not an adjunct, intermedi ensemble, nor a ‘pretty ornament’. In arranging the instrumentalists to the side of the stage, Ingegneri wanted to create the ‘impression of two choruses’ (i.e.; musical groups) viewed ‘equally well from every seat’, thereby pleasing both the eye and the ear. Aristotelian verisimilitude informed the way he wanted the chorus to imitate the naturalistic picture of elders and aristocrats discussing matters on a Vincenza piazza. It was thought that perhaps the chorus should stand when an important person (such as the king) entered, and be re-seated when the king retired. As a rule, the chorus stood when they were not acting.

133 Palisca, The Florentine Camerata, ibid.
134 Palisca, The Florentine Camerata, p. 139.
135 It is a section in Schrade, La Représentation d’Edipo Tiranno au Teatro Olimpico, Another major account of the 1585 production is Alberto Gallo’s La prima rappresentazione al Teatro Olimpico (Milan: Polifilo, 1973).
136 Schrade, La Représentation d’Edipo Tiranno, p. 58.
137 Schrade, La Représentation d’Edipo Tiranno, ibid.
138 Ingegneri discusses possibly using fifteen available seats but this would destroy the visual effect, particularly in the first act. See comments in Schrade, La Représentation d’Edipo Tiranno, pp. 59-60. The number of fifteen in the chorus is different from the number suggested by Francesco Erle; there were twelve singing members in the chorus, plus a Coryphaeus and two children. See Erle, CD notes, Gabrieli.
139 Erle, CD notes, Gabrieli.
Movement on the Teatro Olimpico stage would have been kept to a minimum, at least during singing. The simple fact that singers had to hear and see each other meant that circular dancing, which ancient choruses were believed to have performed, would have been unworkable on a crowded stage. The use of masks, in light of ancient evidence, would have been raised and ultimately rejected for practical reasons. David Wiles informs us that when staging the Guistiniani-Gabrieli Edipo, Ingegneri consulted Pollux’s writings on choreography, the Roman orator Quintillian on acting, and Horace on the structuring of the drama. A masked chorus would have created the unnatural sight of living, ‘speaking statues’. Masks would have also impeded peripheral vision which was necessary for madrigal-style singing. On an already crowded and narrow stage, in the early hours of a Lenten morning, and in full view of the Academy ‘celebrating its own organization and membership visually in classical terms’, harmonizing discordance, with the least interference, was essential. Ultimately every level of harmonisation for Ingegneri heeded the one abiding motif that

the words above all, must be announced so clearly that the public understands them all, without losing a single syllable, in order that, penetrated by the terrible and tragic significance, it [the public] leaves the theatre with spirit impregnated by emotions inherent to tragedy and prepared for the final effect that the poet seeks, that is to say catharsis.

CODA.
The ‘eternal glory’ of Greek tragedy in the Teatro Olimpico did not travel beyond 1585. Sophocles’ Oedipus itself would not be repeated again in the same space until 1847, and subsequently no more than eight times. Greek tragedies and the classics however continued to be part of the theatre’s repertoire. When tragic choruses

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140 David Wiles, GTP, pp. 179-80.
141 Wiles referencing Leo Schrade (La Représentation d’Edipo Tiranno, p. 53) in GTP, p. 180.
143 Leo Schrade, La Représentation d’Edipo Tiranno, pp. 61-2.
144 For afterlife of tragedies in the Teatro Olimpico, see Schiavo, A Guide to the Olympic Theatre, p. 139, 141. For overview of current productions and links, see the website, ‘Settimane Musicali al Teatro Olimpico’, <www.olimpico.vicenza.it> (01 September 2005).
have been presented, visiting directors in various ways seem to reflect current theories and themes that may hark back to cosmological concerns. In one picture of the _Persians_ by Dimitris Rondiris in 1966, the chorus and the protagonist are evenly spaced, like atoms dispersed in an empty, spread across the entire proscenium. A picture of a 1973 production of _Oedipus_ by Virgilio Puecher shows a large sheet extended over the entire stage, illuminated from within by shapeless human figures. Antiquity and classicism seem infused by postmodern vagueness and uncertainty. \(^{145}\)

After the humanist-centred Italian renaissance, in the seventeenth and eighteenth century intellectual and aesthetic developments coincided with the increasingly subjective view of individual human passions. Focus on the trials and downfall of tragic heroes and heroines lessened the need for an objective choral voice that was both mindful and distanced from the action. Alternatively, the chorus evolved into speaking confidants or interlocutors, providing musical divertissement or _intermedii_ in opulent royal court entertainment. The chorus was also sequestered away from the action in opera, integrated with the orchestra’s musical drama through its dancing and singing. \(^{146}\) Architectural and economic factors in French baroque theatre also led to the demise of the tragic chorus. \(^{147}\) Eventually, it was marginalized and made entirely absent for nearly two centuries.

France’s preoccupation, in the theatre, with Aristotelian reversal of fortune, Horatian rhetoric, and Platonic morality, filtered through the new dramaturgical ideologies of _vraisemblance_ (plausibility) and _bienséance_ (propriety), Pierre Corneille’s _Œdipe_ (1659) and Jean Racine’s _Phèdre_ (1677) being primary examples of tragedy’s revamped reception. \(^{148}\) Stripped of Seneca-like supernatural elements, tragedy became a surrogate of inquiry into the dialectics of probability and certainty in the human condition. \(^{149}\) The mechanizing of tragedy’s parts coincided with René Descartes (1596-1650) who formally divided the natural and the perceived world into the philosophical distinctions of Mind and Body. Objectified parts and wholes, in terms of time and motion, likewise engaged Newton in science as it did Voltaire in drama.

\(^{145}\) Schiavo, _A Guide to the Olympic Theatre_, p. 139, 141.
\(^{147}\) Arnott, _An Introduction to the French Theatre_, Ibid.
\(^{149}\) Burian, ‘Tragedy adapted for stages and screens’, p. 240.
Newton, in the First Law of causation, assured us that an object will continue in whatever state it exists until acted upon by another force. For Voltaire, a strong supporter of Newton’s laws, the tragic story and its characters had to unfold within strict rules of cause and effect, in absolute space and time. Under such rational prescriptions, the enigmatic chorus would have clearly been seen as cumbersome and unworkable.

As Greek tragedy submitted to rationalist aesthetics, math remained the lingua franca of a wholly deterministic view of the world. Human reason became analogous with mathematical modelling. Irregular, unaccountable rates of change lost their mysteries in the emerging science of probabilities.  

Seventeenth- and early eighteenth-century musicology, with all its dizzying expressivity, nevertheless articulated the ‘panmathematical spirit’ of the day. As elucidated in the leading French Baroque composer, Jean-Philippe Rameau (1683-1764): ‘Music is a science which ought to have certain rules; these rules ought to be derived from a self-evident principle; and this principle can scarcely be known to us without the help of mathematics’.

Despite the ‘self-evident principles’ of Reason, the ancient themes of chance and fortune remained in the Enlightenment discourses of indeterminism and randomness challenging the talismanic properties of Apollonian order. Voltaire wittily captured the uneasy détente between order and disorder: ‘doubt is not a pleasant condition, but certainty is absurd’. In 1718, Abraham De Moivre (1667-1754) published Doctrine of Chances: the Method of Calculating Probability of Events in Play. In the same year, not by chance, Voltaire grappled with the classical improbabilities of his Edipe. Toward the end of the eighteenth-century, and into the classical-romantic world of Goethe, the gap between humanity and Nature, thought and feeling, free will and communality, required, at least in the staging of Greek tragedy, the mediating presence and power of the singing tragic chorus.

Rarely in the history of European theatre does a newly ascended monarch, in this case the Prussian king, Friedrich Wilhelm IV, assemble the leading cultural practitioners in the royal court theatre and commission the production of the ideal Greek tragedy of the day.\(^1\) The royal court’s choice of *Antigone* was not surprising given that the protagonists in the play reflected contemporary political and philosophical notions of nationhood (in Creon) and the Enlightenment-inspired rights of humanity (in Antigone). The artistic resources available to the royal command conveyed the wealth of philosophical thinking behind Greek tragedy and the tragic chorus, and this was marked by an important gathering of practical experience and scholarship in the input of Felix Mendelssohn (music), Ludwig Tieck (director and theatre historian), August Böckh (classicist) and J. J. C. Donner (translator).\(^2\) The whole cultural enterprise in theory and practice might also have mirrored the development of fundamental concepts in early nineteenth-century science. Theory and practice in the arts were analogous with experimentation, or *Versuch*, as Goethe expounded it. At the same time, the developing philosophical reception of the tragic chorus seemed to

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\(^1\) This commitment to acts of solidarity with the arts traditionally proceeded from tradition, as when King Frederick II (ruled 1740-1786) combined both favour with absolutism towards the artists and musicians of his day. A romantic ideal about art and monarchy may have prompted Wilhelm IV, even though his political ideology, as it would transpire, lay in a medievalist notion of unwavering loyalty to the ruler.

correspond chronologically with the intellectual concern, in the science of physics, for \textit{essence} and \textit{ensemble}, particularly in the formation of the laws of thermodynamics.

I configure this period in nineteenth-century science with the classical-romantic era (roughly 1790 to 1848),\textsuperscript{3} when the philosophical dichotomy with Newtonian objectivity and Romantic subjectivity distilled into, as Christopher Goulding describes, concerns for the ‘nature of matter, ontological realism and the primacy of human consciousness’.\textsuperscript{4} In the classical-romantic period it was felt that reason-based explanations, in literature and science, had somehow failed to resolve the dichotomy. If determinate language was viewed as inherently negative, ‘allegory’ it seemed would speak best for uncertain times.\textsuperscript{5} One who went in search of a new descriptive and explanatory language was the brilliant polymath, Johann Wolfgang von Goethe (1749-1832). Goethe was part of a young group of intellectual breakaways who extolled a newfound confidence in selfhood, free from constraining and stultifying middle-class values, and suffused with the ungoverned creative energy that flowed from the \textit{Sturm und Drang} period.\textsuperscript{6} Goethe’s unique place in history was to mediate these early romantic yearnings and to apply a Kantian-style critique to empirical science.

In the section on Science, I discuss how Goethe’s classical-romantic science defined the limits of \textit{a priori} rational investigation and elucidated the impenetrable essence of Nature. What was required of scientist and artist, according to Goethe, was a combination of objective and subjective modes of cognition. In science, this new ethos was described as \textit{Versuch} (roughly speaking ‘experiment’) and the aim was the

\textsuperscript{3} 1790-1840 are dates given by Steffano Poggi in Romanticism in Science: 1790-1840, ed. Stefano Poggi, and Maurizio Bossi (Dordrecht, Boston: Kluwer Academic, 1993), xi. I refer to the ‘classical-romantic period’ as roughly 1790 to 1848. The formation of German national identity, romanticism, religiosity and changes in political culture, are signalled by many historians around 1790. This may have something to do with Kant’s influential ‘Critique of Judgement’ (1790) which is pivotal in the intellectual history of the rational era. 1848 marks the uprisings in the major German cities that resulted in the defeat of liberal views, the institution of autocratic rule and the surge towards unification of Germany.


\textsuperscript{5} Andrew Bowie, From Romanticism to Critical Theory: the philosophy of German Literary Theory (London: Routledge, 1997), p. 68. ‘Allegory’ was prescribed by arch-romanticist, Friedrich Schlegel.

\textsuperscript{6} Erika Fischer-Lichte, History of European Drama and Theatre, tr. Jo Riley (London: Routledge, 2002), p. 170-1. Fischer-Lichte states how individuality and the discovery of creative freedom coincided with the rediscovery of Shakespeare’s works, and the perceived genius-like ability that was able to create his characters and stories (p. 170).
apprehension of the essence of nature, or the *Urphenomenon*. Experimentation, in both science and theatre, was an act of mediation between classical-mechanical and romantic-intuitive concepts. At the same time, the tragic chorus embodied in certain ways, according to Goethe and Schiller, the 'essence' of mediation. Towards the middle of the nineteenth century, Schlegel and Hegel put forward philosophies conserving the premise of society and nationhood. As German historicism stoked the passions of nationhood and *communitas*, the science of thermodynamics promoted an understanding of the way heat and energy, in organised mechanical systems, were measured and conserved. By the latter part of the nineteenth century, Nietzsche's Apollo-Dionysus model explained the disintegration of the Enlightenment worldview. At the same time, the laws of entropy entered the lexicon of thermodynamics.

In the section on Chorality, Mendelssohn was conscious of a growing historicism in music and its attempts to connect the classical and romantic world of German culture. He was also aware of his own personal assimilation in the bargain that reflected Jewish intellectualism and the Enlightenment. Writing choral music was pivotal in both German historicism and assimilation because, as a performance genre, it represented unity in diversity. The *Antigone* music also valorised, unlike renaissance Vicenza, music over text. In Theatricality, notions of antiquity and modernity, in architecture and theatre practice, were similarly guided by an experimental ethos. In 1841, the combination of German scholarship and classical-romantic music revealed the order-disorder continuum as the *Urphenomenon*.

**SCIENCE.**

J. M. Bernstein, in *Classics and Romantic German Aesthetics*, describes eighteenth-century thinking as the 'dematerialization of nature, the reduction of circumambient nature to a mechanical system whose lineaments are provided by the immaterial forms of mathematical physics'.

Robert Boyle (1627-1691) articulated a clockwork universe, Isaac Newton (1642-1727) and Gottfried Wilhelm Leibnitz (1646-1716) proved, through calculus, the mechanical process describing the workings of Nature; in the following century, Pierre-Simon Laplace (1749-1827) systematized mathematical rules to support Newton's universal laws of gravitation. In Germany,

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Immanuel Kant (1724-1804) believed the mind alone accounted for total sentient knowledge. All in all, during the Enlightenment, the formidable alliance of mathematics and science proclaimed a verifiable and predictable universe. Behind the cosmological theatrum mundi was a celestial apparatus run by a precise numbers game. If so, what stirred the post-Enlightenment ‘romantic’ sensibility? If as Laplace proclaimed ‘nothing could ever be uncertain’ and the ‘future as well as the past would be present to our eyes’, what was there to feel uprooted about? It would seem that an all-encompassing philosophy was missing, or as the 3rd Earl of Shaftesbury put it in 1711, there was lack of a ‘competent knowledge of the Whole’.

The devaluation of irregularities and the suppression of idiosyncrasies by Newton had missed the full measure of the ephemeral or manifold character of Nature – of the ‘charms that fly at the mere touch of cold philosophy’, as Keats addressed in his poem, Lamia. Newton also overlooked what Novalis poeticized as the ‘grotesques and arabesques of nature’. In Germany, Goethe diagnosed the malaise; though Newton discovered the Beständigkeit (‘regularity’) of Natural phenomena, imperatives derived from such regularities appeared superficial in the face of Nature’s ‘extremely diverse and boundless appearances’. In the background, the Franco-philosophical call for the ‘Rights of Man’ prompted Goethe, with inspiration from Schiller, to reclaim the ‘Rights of Nature’ and to establish his own scientific republic. Behind the very well-explained universe was an essence that transcended the empirical gaze and disclosed something unique to the human mind. The convergence of the physical and the mental owed much to Goethe’s reading of Spinoza (1632-77), who was moving away from the binary worldview of Descartes. Like Spinoza, Goethe did not come to bury empirical observation and its mathematical procedures. Any imperfect accounts of Nature which caused

12 Hutchinson, ‘Idiosyncrasy, achromatic lenses and early romanticism’, pp.159-60.
13 Goethe’s stance on the French Enlightenment’s ‘Rights of Man’ is found in Schiller’s 1793 monograph, Über Anmut und Würde (‘On Grace and Dignity’).
contradictions and conflicts could be resolved through the re-conception of total
reality.\textsuperscript{14}

Conceptions of ‘total reality’ were rooted in the subject-object dichotomy of Weimar
classicism and romanticism. After the \textit{Sturm und Drang} years, Goethe’s travel to Italy
and the subsequent publication of the \textit{Italienische Reise} (1786) shows a revised
understanding of the way the objective apprehension of nature and human subjective
experience were related.\textsuperscript{15} Goethe’s close-hand inspection of minerals and rocks led
him to believe that objects existed completely independent of the world of the subject;
the physical world in fact resisted theoretical understanding,\textsuperscript{16} which was the basis of
his critique of Newton and a science centred on sense-perception.\textsuperscript{17} Goethe
formulated a new scientific ethos called the \textit{Versuch}. The new mode of
‘experimentation’ enjoined scientists to ‘strive’ (sterben) to combine sense
observation with an \textit{a priori} understanding that objects in Nature contradict theory.
Scientists were therefore advised to ‘adjust, reformulate or even abandon these
wishes’ that attempted to prove Nature’s laws by empirical evidence alone.\textsuperscript{18} The
naïve condition coupled with rational tools of observation, if repeated over time,
allowed scientists to ascend Dante-like and eventually experience, for a brief moment,
the pure phenomenon, or the \textit{Urphenomenon}.\textsuperscript{19} Goethe described this new concept in
his 1798 essay, \textit{Erfahrung und Wissenschaft} (‘Experience and Science’). The
\textit{Urphenomenon} was the ‘final precipitate of all experiences and experiments’, or ‘the
pregnant point’.\textsuperscript{20} The allegorical allusion to a transformative journey, to

\textsuperscript{14} Mathew Bell, \textit{Goethe’s Naturalistic Anthropology: Man and other Plants} (Oxford: Oxford
\textsuperscript{15} Angus Nicholls, \textit{Goethe’s Concept of the Daemonic: after the ancients} (Rochester, New York:
\textsuperscript{16} Nicholls, \textit{Goethe’s Concept of the Daemonic}, p. 176.
\textsuperscript{17} In his \textit{Farbenlehre}, for instance, Goethe attempted to correct the theoretical flaws of Newton’s
\textsuperscript{18} Nicholls, \textit{Goethe’s Concept of the Daemonic}, pp. 177-8.
\textsuperscript{19} Discussed in \textit{Goethe’s Conception of Knowledge and Science}, by R. H. Stephenson (Edinburgh,
\textsuperscript{20} Stephenson, \textit{Goethe’s Conception of Knowledge and Science}, p. 10, 15. Stephenson citing Goethe in
\textit{Goethes Werk in 14 Bänden}. 124
‘laboratories’ envisioned ‘as temples’, resulting in a kind of Totalwissenschaft, reflected the mood of Novalis’ philosophy of ‘magic idealism’.

How did Versuch work as a scientific procedure? Versuch, literally meaning ‘to essay’ or ‘to attempt’, seeks to amalgamate two types of phenomena: ‘das wissenschaftliche Phänomenon’ and ‘das empirische Phänomenon’. The distillation of both processes disclosed a momentary glimpse of the Urphenomenon. In the Urphenomenon, the limits of cognition are exposed (both subjective and objective cognition), and what is revealed is the very essence of Being. In Nature, magnetism and colour are primary examples of the Urphenomenon; magnetism’s polar affectations or colour’s prisms are their constituent ‘Phänomenon’. The aim of new science was not to explain the invisible causes of magnetism or hues but to establish the fundamental conditions where ‘magnetism’ or ‘colour’ actually occurred.

For Goethe, science and art were viewed as analogous activities. The point and purpose of the aesthetic life must resemble an experiment. To that end, the disclosure to the subject of the transcendent agent fused the empirically-observed ‘Particular’ and the intuitively-grasped ‘Universal’.

Goethe’s Age: Science and Art.

Among the confederation of German states, socio-political dislocation, hot-headedness and insecurity followed in the wake of Napoleon’s defeat, the break up of the Holy Roman Empire, the aridity of the Metternich political machine, and a perceived failure of Kantian rational philosophy. In the prevailing unease, one witnessed the levelling of playing fields between art and science. The perceived

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24 Nicholls, Goethe’s Concept of the Daemonic, p. 188.
camaraderie reflected in Friedrich Schlegel’s convocational cry that ‘All art should become science and all science art. Poetry and philosophy should be made one’. Alexander Humboldt proclaimed ‘Philologists stand with the artist and the philosopher’. The classicist’s aim was ‘the historical construction of works of art and science’. In the heady days of Jena, a philosophical commune that attracted Ludwig Tieck, Johann Fichte, the Schlegel brothers, and Clemens Brentano, the free-form thinking distilled in the Athenaeum Fragments speaks of the interconnections of science and art. Mathematics, the pre-eminent tool of science, was claimed to be the meeting point: ‘mathematics is, as it were, sensual logic. It relates to philosophy as the material arts, music and sculpture, relate to poetry.’

While science and art were readily yoked in the name of classical-romanticism, the philosophical narratives which were concerned with cognitive activities merging sense perception and ideal essence can be traced in the emergence of aesthetics and rational philosophy in German eighteenth-century philosophy, and even further back to Plato’s Republic and Aristotle’s Poetics. Aesthetics, as established by Alexander Baumgarten (1714-1762), became a systematic discourse on the ‘science of how things are cognized by means of the sense’ (Aesthetica, 1735). Baumgarten developed the idea that sensibility, as part of the lesser faculties, nonetheless resulted in a special kind of cognition. On the other hand, for Immanuel Kant the perception of form was led by the autonomous powers of reason; form in art excites pure reason without having to refer to external, a priori concepts. Why art was perceived as a nexus point between reason and pure form was because, from Gotthold Lessing to Hegel, art was viewed as imitation or representation of a reality. It was the go-between of cognition and reality. In the classical-romantic era of Goethe, the new emphasis on intuition and the special status of the physical world suggested that a

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29 Fragment 365, from Schlegel’s Philosophical Fragments, tr. Peter Firchow, p. 75. The Jena group broadly aimed to move beyond the idealism of Goethe and Schiller, and to further embrace subjectivism, mysticism and forms of religious pietism.
transcendent force (beyond the grasp of reason) dwelled behind the imposing grandeur of Nature, and was captured in art.


The common ties between science and literature were made particularly evident by the careers of writers and poets of the day. The arch-Romantic Novalis (1772-1801) held up disunity and irregularity as true hallmarks of early romanticism in Experimentalphilosophie; Hölderlin (1770-1843) fell under the fifth-century cosmological premise of disunities (Love and Strife) in Tod des Empedokles; Johann Christoph Gottsched (1700-66) popularised science by translating scientific texts; Friedrich Schiller’s medical background evidenced a strong interest in psychosomatic medicine; Johann Gottfried Herder (1744-1803) probed the metaphysical and physical in his concept of Kraft, while optical themes turn up in the works of E.T.A. Hoffmann (1776-1822); Heinrich Kleist (1777-1811) was concerned with electrical phenomena; Hegel promoted the ‘encyclopaedia movement’ in German scholarship to organize the knowledge of life sciences.\footnote{David Knight, ‘Romanticism and the Sciences’, in Romanticism and the Sciences, eds. Cunningham, and Jardine, pp. 13-24 (p. 19).}


In the arts as in the sciences, the practice of Goethe-style Versuch led to a philosophical mediation between objective and subjective cognition. In the philosophy of Goethe, Schiller, and Schlegel, the group that embodied the ‘essence’ of this unity in the theatre was the tragic chorus. By the time of Hegel and Nietzsche, notions of ‘ensemble’, reflecting the complex issues of nationhood and community, shifted the reception of the chorus, and correlated it with the emergence of the First
and Second Laws of thermodynamics. I will now expand on the concepts of 'essence' and 'ensemble' in the science of physics.

Science: essence and ensemble.

Scientific attempts to understand the chemistry and physics of the material world – the 'chemical elements' and the 'imponderable fluids for heat, light, electricity, magnetism and gravity' \(^{36}\) – led to theories about their essence and ensemble. Hans Christian Oersted (1777-1851) tried to define the essence of electric currents. Michael Faraday (1791-1867) expanded on the idea that magnetic effects were associated with electrical currents. John Dalton (1766-1844) based laws of physics and chemistry on the unseen ensemble of atomic structures. The essence of light had also been postulated by Newton as a stream of particles, and came under closer scrutiny in the nineteenth century. During the Industrial Age, the concern for efficiency and output, for both machine and human labour, reflected in the theoretical concern for the essence and ensemble of heat and energy, leading to the statistical sciences of the nineteenth century, and the simultaneous emergence of the First and Second Law of thermodynamics. \(^{37}\)

Understanding the essence of heat, and how it flowed in a system, coincided with the industrial age and the design of increasingly complex machines. The scientific study of heat and energy formulated at least two important laws about thermodynamics. In principle, the First Law confirmed that matter and energy is constant throughout. That is, energy produced in a system is equal to the amount of energy that has been added minus the amount of work done. Applied to the world at large, Nature, despite its vagaries and aberrations, appeared optimistic; in a closed system at least, energy and matter could neither be created nor destroyed. Analogically, I will argue how one may interpret this scientific view in light of Hegel's idealized society. Despite the unsettled 'energy' needs of individuals, the collective energy holds true for the entire system (i.e., society). The Second Law of thermodynamics developed from the concept of entropy (\textit{Wärmtoed} = 'heat death'), a term coined by Rudolph Clausius (1822-1888) in


\(^{37}\) The important work of Joseph Fourier (1768-1830) on the theory of heat flow (1822) and Sadi Carnot’s (1796-1832) work on the theory of heat engines (1824), in France, contributed significantly to the establishment of thermodynamic principles. The term \textit{thermodynamics} was coined by Lord Kelvin in \textit{An Account of Carnot's Theory of the Motive Power of Heat} (1849).
Abhandlungen über die mechanische Wärmetheorie (1864). Since heat cannot travel from a cold to a warm body, the Second Law suggests that isolated systems over time will approach maximum entropy resulting in a total break down in the system. The inevitable collapse of the principium individuationis and the entropic tones of death and rebirth resound, I will argue, in Nietzsche’s Birth of Tragedy.

‘Essence’ and Tragic Chorus.
The story of the tragic chorus in German intellectual history primarily starts in the Weimar court theatre. Goethe wanted to raise the middle class experience of theatre above the immediacies of trivial entertainment. Direct interaction with the stage would be accomplished by creating, what Fischer-Lichte describes as, a ‘certain aesthetic distance’ which would ‘enable the spectator to receive the performance as a learning, cultivating experience’. The tragic chorus represented a particular cultivating experience, combining idealism (represented by its shielded, ‘pure’ world) and mediation (the unity between the tragic world and the real world). In the actor, Goethe cultivated non-natural, stylized rules. This perception might have been projected to the collective of actors (i.e., chorus) and helped to conceive of them as belonging to both the material world and the transcendent world. The combination of idealism and mediation can be traced to Kant and J. J. Winckelmann.

The failure of common-sense and self-evident truths, in the early Enlightenment philosophies, to bridge feeling and thought, prompted Kant in combining empiricism and rationalism in the object-subject dichotomy model. He wrote of the strain between ‘moral being’ (Sittlichkeit), representing the classical world, and the threat of ‘sensuous being’ (Sinnlichkeit) in the subjective, romantic era. For Goethe and Schiller, the ideal resolution – in visual terms – was exemplified by the human figure.

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40 For Goethe’s views on actors and acting, from an idealistic perspective, see Simon Williams, German Actors of the Eighteenth and Nineteenth Centuries: idealism, romanticism, and realism (Westport, Connecticut: Greenwood Press, 1985).
The writings of Winckelmann (1717-1768) on art and sculpture helped enlighten this particular brand of idealism.\textsuperscript{42}

In Winckelmann’s day, the idealisation of Greek art for its beauty, symmetry and order had already been established in eighteenth-century neoclassicism. Winckelmann’s idealisation of Greek sculpture (along with his exposure to Titian, Raphael and Correggio) was original for viewing art’s ennobling and transformative role within German society. Winckelmann’s rhetoric combined the ecstatic tone of religiosity and romantic notions of liberty. Combined with his high evaluation of classical simplicity and order, Winckelmann helped create the tone of romanticism and its search for a holistic philosophical language. Winckelmann’s admiration of the *Niobe* and Belvederean *Apollo* stemmed from the visual idealisation of their human beauty; in their perfect forms Winckelmann saw ‘grace and dignity displayed together as attributes of one and the same figure’.\textsuperscript{43} It is possible that the transcendent qualities of the tragic chorus would have struck Goethe and Schiller in a similar manner. The fixed spectral ensemble used an idealised language, and was positioned in the tragic conflict as a mediator between objective and subjective worlds.

Of the six hundred plays the Weimar court produced from 1791-1817,\textsuperscript{44} serious productions of Greek tragedies were few. They included August Schlegel’s version of Euripides’ *Ion*, the much criticised Rochlitz translation of *Antigone* (1809), and Klingemann’s free arrangement of *Oedipus* (1813).\textsuperscript{45} In early German classical theatre, F. J. Lamport informs us that the ‘particular characteristic of drama’ was the conflict of individual humans who wished ‘to assert their autonomy in the face of

\textsuperscript{42} Winckelmann’s ideas were known to Goethe indirectly through his drawing teacher, Adam Friedrich Oeser (1717-1799); the idea of ‘seeing’ the transcendent essence of things in Nature, Goethe absorbed early on from his reading of Spinoza, and was cultivated in his formative travels in Italy. See Jeffrey Morrison, *Winckelmann and the Notion of Aesthetic Education* (Oxford: Oxford University Press, 1996), pp. 206-7.


\textsuperscript{44} The great majority being sentimental comedies, bourgeois drama, fate-tragedies, melodramas, ballets and operettas. See Marvin Carlson, *The German Stage* (Metuchen, New Jersey: The Scarecrow Press, 1972), pp. 22-3.

seemingly all-powerful, hostile, indifferent or uncomprehended alien forces’.\textsuperscript{46} Behind these forces, Lamport asserts, was the transcendent ‘world-spirit’ or immanent Idea.\textsuperscript{47} Goethe’s search for the \textit{Urphenomenon}, as the ‘immanent Idea’ behind the complex drama of Nature, may have influenced the reception of Greek tragedy in the Weimar court. For instance, the staging of his \textit{Iphigenie auf Tauris} (1779), a conceptual antithesis of Racine’s neoclassical \textit{Phèdre}, confirmed at least in their interpretation, the aspiration toward wholeness and transcendence. In Iphigenie’s prayer (line 1712-17), for instance, the soul wanted to be reconciled with the unknowable forces.\textsuperscript{48}

As a director of the Weimar court theatre, Goethe, like the Italian humanists, ‘attempted to follow the Horatian precept of mixing instruction, or improvement, with pleasure. [This gave] the public some (but not too much) of what it wanted while trying to educate its taste to higher things’.\textsuperscript{49} Goethe’s comments to Schiller about the large chorus in his 1803 \textit{Bride of Messina} (based on Sophocles’ \textit{Oedipus}) show a concern for the chorus’ over-alienating effect. He suggested a more manageable and accessible speaking chorus of six named individuals each accompanied by instruments.\textsuperscript{50} Perhaps, in the end, his assessment of the role of the chorus reflected an experienced director’s pragmatic approach to public opinion. However, in Goethe’s words, the inclusion of the chorus dedicated the stage to something ‘higher’. The chorus made the play (i.e., Schiller’s \textit{Bride}) cohere,\textsuperscript{51} and fulfilled an avowed aim of Goethe’s Weimar to position itself away from the naturalism of French neoclassicism.\textsuperscript{52}

Schiller (1759-1805), in his philosophy, the perceived imbalance between humans and Nature would be corrected by two events: comprehending the nature of beauty and

\textsuperscript{47} Lamport, \textit{German Classical Drama}, ibid.
\textsuperscript{48} I follow Peter Burian’s interpretation in his essay, ‘Tragedy adapted for stages and screens: the Renaissance to the present’, in \textit{CCGT}, pp. 228-83 (p. 238-9).
\textsuperscript{50} Boyle, \textit{Goethe: the Poet and the Age}, p. 742. Zelter, the music director of the Berlin Singakademie, and Mendelssohn’s teacher, was meant to supply this music, but he did not go to Weimar.
\textsuperscript{51} Comments about Schiller’s chorus, see Boyle, \textit{Goethe: the Poet and the Age}, p.742.
\textsuperscript{52} Lamport, \textit{German Classical Drama}, p. 120.
bringing about a stable and free society. The progress from basic sense perception to reason must be mediated by art, and the chorus was emblematic of the mediating art. The tragic chorus prevented the contemporary audience from drowning in the emotional convolutions of the tragic world which reflected the complexity of modern society. The self, in the experience of tragedy, was 'emancipated from the bounds of reality' through the utterances of the chorus who created the necessary 'distancing and the establishment of rapport'. The beautiful utopian vision, already encountered in Mary Stuart (1799), we see in the paradigm of the chorus of Bride of Messina.

When taking part in the action, the chorus was divided in two, signifying the polar opposites in the story and in real life. Yet, his chorus was also united through its lyrical, hymn-like commentary. The arrangement of Schiller's double-chorus on stage, processing via steps from either side of the stage, was similar (as we will read later) to the Tieck-Mendelssohn Antigone. In a foreword to the Bride, 'On the use of the chorus in tragedy', Schiller writes, 'It is by holding asunder the different parts, and stepping between the passions with its composing views, that the chorus restores to us our freedom, which would else be lost in the tempest'. Nietzsche disparagingly recalled Schiller's chorus as a 'living wall', implying its cool objectivity did nothing to bring about a real transformation in society. Its 'double-character' behaved in a 'normal human fashion when in a state of calm' and 'passionate' when involved in the drama. While the ideological chorus might have made sense to the restrained and elevated theatre of Schiller and Goethe, the radical youth leaning toward Sinnlichkeit, such as Clemens Brentano and August Schlegel, found the Schiller chorus 'a wretched hotch-potch, tedious, weird, and ridiculous throughout'.

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56 Nietzsche, The Birth of Tragedy, tr. Walter Kaufmann, (New York: Vintage Books, 1967), p. 58. Schiller's chorus is a 'living wall that tragedy constructs around itself in order to close itself off from the world of reality and to preserve its ideal domain and its poetical freedom'.
58 Boyle, Goethe: the Poet and the Age, p. 742. Comparisons to the repetitiousness of the Catholic Church's 'Pater noster' bring to mind Riccoboni's negative remarks regarding the 'dirge-like lamentations' of Gabrielli's singing chorus (see chapter, 'Harmonic Chorus').
August Schlegel (1767-1845), in his Vorlesungen über dramatische Kunst und Literatur (1808-9), famously describes the ‘ideal’ spectatorship of the chorus.\(^{59}\) The chorus transcended reality ‘in general, first [as] the common mind of the nation, and then the general sympathy of all mankind’.\(^{60}\) In this role, they engaged in the general ‘expression of moral sympathy, exhortation, instruction, and warning’, all attributes linking the chorus to the growing consciousness of nationhood. Like in Weimar classicism, there was a sense that the chorus might somehow mediate between the foreignness of Greek tragedy and present-day society. As Schlegel himself put it, ‘Greek Tragedy in its pure and unaltered state, will always for our theatres remain an exotic plant, which we can hardly hope to cultivate with any success, even in the hot-house of learned art and criticism’.\(^{61}\) Schlegel also echoed Schiller’s idealism when he writes that through its lyrical and musical expression, the chorus can elevate the listener ‘to the region of consideration [contemplation]’.\(^{62}\) Rhythm, the vital component of poetry and music, is the basis of communal song and dance, and therefore the ‘essence’ of the communal.\(^{63}\) Schlegel identifies the ‘highly finished regularity’ of the rhythms as being inherently flexible even in their ‘most involved constructions’.\(^{64}\) Correlating choral ensemble with nationhood perhaps anticipated Hegel. Rhythmic musicality as the essence of simplicity and complexity may have presaged Nietzsche’s Dionysian chorus.

‘Ensemble’ and Tragic Chorus.

In the decentralised confederation of German states, a universal Volkgeist incited by Johann Gottfried von Herder (1744-1803) articulated a longing for communality. The ground-swell of a unified society was articulated in Johann Gottlieb Fichte’s (1762-1814) aggressive brand of German nationalism that underscored the notion of sovereign statehood.\(^{65}\) A sense of belonging to a nation as an act of Faith also carried Judeo-Christian religious connotations as well as Protestant reformist feelings.\(^{66}\) At

\(^{59}\) August Schlegel, A Course of Lectures on Dramatic Art and Literature, tr. John Black (London: George Bell & Sons, 1894), p. 78.

\(^{60}\) Schlegel, A Course of Lectures, pp. 71-2.

\(^{61}\) Schlegel, A Course of Lectures, p. 71.

\(^{62}\) Schlegel, A Course of Lectures, p. 78.


\(^{64}\) Schlegel, A Course of Lectures, p. 71.


the same time, the Greek revolt (1821-1832), and the crusade-like concern in Europe for the preservation of Greek ‘Christian’ art from the dark forces of the Ottoman Empire, may have heightened prevailing nationalistic passions in post-Napoleonic Europe. Romantic expressions of *Wissenschaft* and the priority of community and national self-determinism formed the backdrop to Hegel’s conception of Greek tragedy and the chorus as a political lesson about community.

Early in his philosophical career, G. W. F. Hegel (1770-1831) recognized how a system of logic could not serve the complex philosophical issues of the day; harmony of mind and spirit was what the nineteenth-century needed. Like Goethe, he believed that epistemological knowledge (*Erkenntnis*) must combine reason-based thinking and essential truth that could be found in the experience of art. In *Phenomenology of Spirit* (1807), *Philosophy of Right* (1821), and in a series of lectures on art and Greek tragedy, *Vorlesungen über die Aesthetik* (the 1820s), he returns to Sophocles’ *Antigone*, and the play’s central protagonists, Creon and Antigone, as the morally symmetrical forces of his philosophy. In 1827, Mendelssohn was among the leading thinkers and artists of the time to have absorbed Hegel’s general ideas, and by the time of its publication in 1835, Hegel’s lectures were regarded as the summation of the prevailing Germanic philosophic and aesthetic traditions.

The conflict in *Antigone* reflected in society the opposition ‘between ethical life in its social universality and the family as the natural ground of moral relations’. Creon and Antigone are themselves driven by ‘the very bond which is rooted in the compass of their own social existence’. The explosive conflict of the tragedy shattered the

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68 Sperber, ‘Introduction’, in *Germany 1800-1870*, ed. Sperber, p. 18. Sperber also discusses how nationhood as a concept of belonging, as opposed to subjugation, has roots in Jean-Jacques Rousseau (1712-1778) and his ideas of the authenticity of the individual.
70 Hegel: ‘Of all the masterpieces of the classical and the modern world – and I know nearly all of them and you should and can – the *Antigone* seems to be the most magnificent and satisfying work of art of this kind’ (tr. T. M. Knox) cited by Michael Steinberg, in *The Incidental Politics to Mendelssohn’s Antigone*, in *Mendelssohn and His World*, ed. R. Larry Todd (Princeton: Princeton University Press, 1991), pp. 167-88, (p. 138).
73 Carlson citing Hegel’s views in *The Philosophy of Art*, Carlson’s *Theories of the Theatre*, p.195.
reality of the viewer.\(^{74}\) The chorus acted as a safe-haven to the unfolding conflict, ‘the equilibrium of unmoved life which remains assured in its stability against the fearful collisions which the antagonistic energies of the individual action produces’.\(^{75}\) The chorus represented an ‘asylum’ from the action, unaffected by the ‘restrictive force in ethical and social developments’ driving the protagonists.\(^{76}\) Hegel formulated the tragic chorus closer than his predecessors into the discussion of state and individual needs. Viewing the ensemble as a pristine domain wherein conflict could best be adjudged, he felt that the

chorus is peculiarly fitted to a view of life in which the obligations of State Legislation and settled religious dogmas do not, as yet, act as a restrictive force in ethical and social developments, but where morality only exists in its primitive form.\(^{77}\)

Hegel’s stress upon rhythm’s communalising effect in the chorus, like Schlegel, indicates his appreciation for the role of music. It was generally understood that the intelligibility of the text in ancient Athenian theatre relied on musical accompaniment. A system of rhythms aided in the modulations of speech, helping the audiences of Aeschylus and Sophocles to understand them. In the declamation of speech among the ancients, ‘music looked after the aspect of rhythm’.\(^{78}\) Rhythm is clearly viewed as an ordering Apollonian principle that gave the chorus its structure and cohesiveness – the very paradigm of a secure society.

We can view Hegel’s chorus as analogous with equilibrium, and its principles of conservation of matter and energy in the First Law of thermodynamics. While matter, to human senses, is eternally changing and being destroyed, the essential truth of the universe reveals that life’s energies, in the end, are preserved in the body of the system. Hegel’s view of the chorus is a facsimile of the ideal system that conserves energy. Marvin Carlson suggests that Hegel’s chorus brings ‘stasis and resolution’ to

\(^{74}\) Hegel on Tragedy, eds. Anne Paolucci, and Henry Paolucci (Smyrna, Delaware: Griffon House Publications, 2001), xxvi.
\(^{76}\) A. and D. Paolucci, Hegel on Tragedy, p. 65.
\(^{77}\) A. and D. Paolucci, Hegel on Tragedy, p. 66.
\(^{78}\) A. and D. Paolucci, Hegel on Tragedy, p. 39.
polar opposites. Hegel's choral ensemble is a stable island in the uniform variability of life forms. In the uprisings of 1848, the unification of European Nation states, and the re-division and consolidation of boarders, the Hegelian society, through the chorus, marked its essential place and purpose in history as an ethically and socially stable world.

After the Franco-Prussian victory, nationalist delirium alongside growing philistinism spurred the philosophical counter-charge, in the 1870s, led by Friedrich Nietzsche (1844-1900). Nietzsche believed the chorus to be the highest expression of the nature of Dionysus, since it was in the ancient choral worship of Dionysus that tragedy was born. It is easy to imagine how the musical and enigmatic chorus, its hidden urges and oblique powers, and its otherworldliness chimed with a young philosopher who was absorbed in Schopenhauer's pessimistic worldview and Wagner's idea of the Gesamtkunstwerk. In the period known as Nachmaerz (post-1848 revolt), during which the influence of academic philosophy on German life weakened, Nietzsche appropriated the mantle of a pessimistic philosopher and idealized the views of an anti-establishment composer. The anti-Hegelian thrust of his account of Greek tragedy exposed the illusion of Christian-metaphysical optimism, and chastised Socratic (and science-based) society.

In the Birth of Tragedy (1872), Nietzsche looks back critically at the 'waxworks' of Schiller's and Schlegel's pronouncements, their philosophical 'bias' for anything inclined toward the 'ideal'. For Nietzsche, the Apollonian is ascribed to the 'veiling actions' of the actors' speech and actions while the musical chorus represents the domain of Dionysian cultic epiphany. Nietzsche's fervent espousal of music as the portal to the sublime was influenced by Schopenhauer's all-consuming 'universal

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80 Nietzsche, Birth of Tragedy, tr. Kaufmann, p. 56.
83 Geuss, and Speirs, eds., Birth of Tragedy, p. 39. See also, Birth of Tragedy, tr. Kaufmann, p. 57.
84 Geuss, and Speirs, eds., Birth of Tragedy, xi.
Will'. Music is considered to provide a direct access to ultimate reality, and in so doing, discloses the pleasure and displeasure of the universal Will. Nietzsche hails music, especially that of Beethoven and Wagner, as a means by which a society could find its way back to (and rebirth in) civilising wholeness. The tragic chorus is not an objective, ‘idealised’ entity, but a living phenomenon, and it is the musicality of the chorus, like Wagner’s musical-dramas, that ‘absorbs, elevates and extinguishes’ the listener: ‘Music is the true idea of the world, drama only a reflection of that idea, an isolated, shadowy image of it’. Like Goethe’s Urphenomenon, abstract sound and concrete language dissolve in Nietzsche’s chorus. What Goethe described as the ‘final precipitate of all experiences and experiments’ may well parallel Nietzsche’s ‘state of ecstasy’ in which ‘the principium individuationis is disrupted’.

For Nietzsche (and Hegel) rhythm is the communalising essence of the chorus. In Nietzsche’s The Dionysiac World View, rhythm, alongside dynamics and harmony, are music’s expressive tools that, unlike ‘gestural language’, lift the listener to higher spheres. Similarly, Goethe referred to the Urphenomenon as a complex succession of rhythms in ‘an infinite progression’ which showed the ‘inadequacies of language at their clearest and most exasperating’. The restrictions of language, particularly scientific language, were known to Nietzsche: ‘Only when the spirit of science has been carried to its limit, and its claim to universal validity negated by the demonstration of these limits might one hope for a rebirth of tragedy’. The dismemberment of isolated, closed systems and the maximum diffusion of energy were analogous with maximum entropy in the Second Law of thermodynamics. Where indeterminacy and chaos form the underlying principles of order, there one would eventually find the swarming chorus of Max Reinhardt. I expand on the notion of thermodynamics and Reinhardt’s chorus in the Coda of this chapter.

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87 Geuss, and Speirs, eds., Birth of Tragedy, xii.
88 Geuss, and Speirs, eds., Birth of Tragedy, p.103.
89 Geuss, and Speirs, eds., Birth of Tragedy, p. 20.
91 In a letter to Hegel in 1820, Goethe mentions the failure of didactic language to explain the complexity of the Urphenomenon, in Stephenson, Goethe’s Conception of Knowledge, p. 66.
92 Nietzsche, Birth of Tragedy, p. 82.
Hegel's and Nietzsche's views on the chorus can be summed up as follows: the chorus is central to the action in Greek tragedy but is differentiated from the protagonists on the stage; it embodies collective wisdom and represents the voice of authority, speaking as it were for the public consciousness. The chorus, in the classical-romantic era, is conceived as much a part of the here-and-now and as belonging to another world. Between communal stability and cataclysmic rebirth, Mendelssohn facilitated a middle road, one which celebrated in the choral music the Apollonian and Dionysian sides of the artistic equation.

CHORALITY.
Mendelssohn: musical historicism and assimilation.
The search for a new language in science and philosophy was synchronous with composers writing in the cusp of romanticism. Following the revolutionary breakthroughs of Beethoven's music, Mendelssohn proceeded to work in a stylistic lacuna. However, modern revivalists of Mendelssohn claim he was the 'first composer in modernity [...] to wrestle with the dilemma of being dispossessed of a lingua franca.' His conservative style exacerbated the dilemma and left him open to criticism by those who rallied the cause of Zukunftimusik. The eventual Anti-Semitic onslaught of Wagnerianism, and Mendelssohn's early death, soon eclipsed music once considered to be 'sublime', 'dramatic' and 'spiritual'. Instead, the epithets of 'weak', 'effeminate', 'kitsch', and 'Jewish' discredited most of his music (apart from those pieces that quickly joined the classical music repertoire) and condemned them to Victorian parlours and miscellany. My discussion of Mendelssohn's choral music will interpret a kind of Versuch, or an experimental process, that aimed to reveal the aesthetical Urphänomenon. I approach the material from (a) musical historicism, and (b) assimilation.

93 For this summary, see Michael Silk, 'Das Urproblem der Tragödie', in Der Chor im antiken und modernen Drama, eds. Peter Riemer, and Bernhard Zimmermann (Stuttgart: Verlag J. B. Metzler, 1998), pp. 195-226 (pp. 199-200).
In terms of historicism, I recognise Mendelssohn as a self-conscious facilitator or ‘scientific’ mediator. Mendelssohn’s literary-classical education and his receptivity to sacred choral music (mainly from the Baroque period) placed him and his music in a historically pivotal position with several important developments in German culture, including a thriving choral tradition, a vigorous intellectual discourse on Greek tragedy and the supremacy of music over poetry. The expressive powers of language and music, and the perceived separation of the secular and sacred offer us a view of the Apollonian-Dionysian dialectic at work in Mendelssohn’s choral output. Assimilation, on the other hand, concerns Mendelssohn’s working ethos, a set of principles imparted by his grandfather, Moses Mendelssohn. These principles rested on the belief that music was redemptive in relation to the perceived failures of rational language to bring about ideal socio-cultural and religious changes in the Enlightenment. The synergy of Mendelssohn’s choral music and singing chorus evoked in the romantic listener the much hoped-for unity in multiplicity.

Historicism: Mendelssohn in the middle.

Monika Hennemann tells us that in the ‘protected and supportive environment’ of the Mendelssohn home, Felix Mendelssohn tried his hand at ‘various types of tableaux vivant, staged dramas, and musical performances’. His first professional attempts at Schauspielmusik for men’s choruses took place in Düsseldorf (with the resident dramatist, Karl Immermann) and later in Leipzig. For classical literature, Mendelssohn was rigidly schooled by Karl Wilhelm Ludwig Heyse (1797-1855). Under the distinguished Berlin philologist, he completed, at sixteen, a metrical translation of Terence’s Andria. Later, the composer (and his sister) benefited primarily from the tutelage and long-term friendship of Johann Gustav Droysen (1808-1884). Droysen himself was a pupil of August Böckh, the consultant.

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97 Recalling Goethe’s essay, Der Versuch als Vermittler von Objekt und Subjekt (‘The Experiment as Mediator between Object and Subject’), cited in section on ‘Science’. I assume that the composer’s choral music is a testament to a set of personal and artistic principles.
philologist on the 1841 Antigone. Both Droysen and Böckh were deemed to be the ‘contributing founders of modern classical scholarship and modern historical practice’.\(^{101}\) Within the larger frame of personal events, Mendelssohn was part of a growing sense of German historicism. James Garratt suggests there were three symptoms of this historicism: ‘an impulse to retrieve or repossess something believed to have been lost by modern civilization’, ‘the desire to challenge contemporary norms, through reasserting the validity of the art of plurality of peoples and periods’, and ‘the impulse to elevate monuments from the past as models for the present, interacting uneasily with the burgeoning relativism’.\(^{102}\)

Mendelssohn’s professional interest in the past was partly mentored by a correspondence and friendship with Goethe. From 1821-1830, Mendelssohn made five trips to Weimar, and it is possible that some of Goethe’s souring idealism\(^{103}\) reinforced any conservative leanings Mendelssohn might have had. The ageing polymath reacted negatively to the threat of the anarchic, subjectivist romantics and their superficial contemplation of art.\(^{104}\) In a postscript to the Urphenomenon, Goethe believed that music was meant to reveal, in its purest sense, ‘grace’. Botstein argues that the gracefulness in Mendelssohn’s music, felt by his listeners, was brought to fruition through some intrinsically ethical nature of Mendelssohn that could respond to ‘grace’.\(^{105}\) In choral tradition, Bach and Handel excited his moral sensitivity; their stirring choral setting of liturgical words to music prefigured the composer’s sensitivity to the high-sounding poetry of the tragic chorus.

Mendelssohn and Bach.

Mendelssohn’s reverence for all things Bach is well-documented. Bach’s own religious dedication to music was beyond doubt throughout the classical-romantic era. A dedication for a set of keyboard pieces might read: ‘For the preparation of Music Lovers and particularly Connoisseurs of Such Work, towards the Recreation of the

\(^{101}\) Steinberg, ‘The Incidental Politics to Mendelssohn’s Antigone’, in Mendelssohn and His World, ed. Todd, p.137.


\(^{103}\) Boyle, Goethe: the Poet and the Age, p. 781.


Spirit'. It was a kind of pietism that Mendelssohn admired and hoped to emulate. In an obituary dedicated to Mendelssohn, Gustav Kühne wrote of Bach’s chorales and how they spoke to Mendelssohn’s artistic sensibilities. In the chorale was the ‘Old Testament power, chastity, simplicity and the sublime being a personal inheritance of his [Mendelssohn’s] origin and descent’. Mendelssohn’s use of this cornerstone genre of Lutheran worship ‘opened up to us a new sound world which for sublimity finds its like only in Handel and Bach’.\(^{106}\) Mendelssohn himself said, ‘Everything is gathered together’ in Bach.\(^{107}\)

Hero worship and practical experience came together on Mendelssohn’s participation in the revival of Bach’s *St. Matthew Passion*, a monumental choral work which sadly had nearly disappeared from the catalogues. The revival occurred during Mendelssohn’s participation in the Berlin Singakademie, a pre-eminent singing society that encouraged the spread of similar choral societies and festivals when Germany achieved nationhood. Karl Friedrich Zelter (1758-1832), the renowned historian and archivist of Bach’s music,\(^{108}\) served as its director and also as Mendelssohn’s composition teacher. For ten years, from 1819-1829, Mendelssohn participated in the regular Friday musical meetings. As a singer and piano accompanist, he became familiar with the ‘learned style’ (*stile antice*) of Bach and Handel, of the ‘old’ Italian church music *a cappella* style, and the Viennese Classics.\(^{109}\) When Mendelssohn was given the opportunity to conduct the *St. Matthew Passion* on 11 March 1829, his acumen for visual and aural presentation of dramatic choral music was made evident.

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His sister Fanny tells us that her brother conducted from memory, and he placed one chorus behind him with the orchestra, and second chorus in front.\textsuperscript{110} The partitioning of the double-choir was a bold move; this configuration showed the asymmetrical and shifting authority of the choral forces in the score, elucidating, as Bach had wanted, the fictional (Biblical) chorus and the real Lutheran chorus. Among the soloists was the actor-singer Eduard Devrient, who sang the role of the Evangelist and would, twelve years later, play Haimon in the Potsdam \textit{Antigone}.  

Not only did Mendelssohn receive fame from the revival, but the performance of Bach’s work in a concert atmosphere fused secularity and religiosity. In Adolph Bernard Marx’s editorial comments, in the \textit{Allgemeine Musikalische Zeitung}, one can almost hear the mania of Winckelmann’s idealist language conveyed in how Mendelssohn ‘open[ed] the gates of a long-closed temple’; the ‘pilgrimage to the Singakademie’ was not just an arts event, but a ‘religious high feast’.\textsuperscript{111} The chorus, both in the \textit{Passion}, and in the theatrical context of performance, reminded the Judeo-Christian believers of ritual, collective singing and the tonal invocation of a shared (religious) value-system. The presence of the chorale in choral singing united the chorus with the congregation who would have sung the chorale in ecclesiastical context. According to the music historian, R. Larry Todd, Mendelssohn’s impulse to use chorales in concert vocal music ‘injects an element of spirituality into the concert hall, the pseudo-chorales entice the listener with skilfully designed melodies that have a ring of familiarity and seem to connote collective, congregational worship’.\textsuperscript{112} By the 1841 \textit{Antigone}, the Protestant chorale and the ancient choral odes of tragedy would not have been conceived of as distinctly separate worlds.  

Riding the wave of popularity, and convinced of the power of the past to move the present, Mendelssohn’s next major contribution to the choral scheme was the composition of his first oratorio. It alone contains forty odd chorales. \textit{St. Paul} was performed during the Pentecost of 1836 at Düsseldorf’s Eighteenth Lower Rhine Festival and became an immediate, widespread and sensational success. Upon the

oratorio’s publication in 1837, Gottfried Wilhelm Fink writing in the Allgemeine Musik Zeitschrift found it ‘so manifestly Handelian, Bachian, and Mendelssohnian, that it appears as if it really exists to facilitate our contemporaries’ receptivity to the profundities of those recognized tone-heroes’. Fink, moreover, linked the Greek tragic chorus to the use of the chorale, when he remarked that ‘the chorale is evidently suited to the ecclesiastical liturgy, and can only be used occasionally and exceptionally in the genre of the oratorio, when it is not integral to the story itself but functions rather like the chorus in Greek Tragedy’. Karl Klingemann viewed the chorales as ‘resting points’ that, like the Greek chorus, drew the attention ‘from the individual occurrence to the general law’ and diffused ‘calmness through the whole’. Around Mendelssohn, those talking about contemporary choral music are within the same breath of referring to ancient paradigms.

Mendelssohn and Handel.

The structural and functional resemblance of the oratorio-singing chorus and the tragic chorus must also take into account Handel’s towering achievements and influence within the oratorio genre. Handel (1685-1759) focussed on the chorus after thirty-six years of writing operas. Why he did so is puzzling. Choral ensembles in opera were uniformly confined to public rejoicing, the da capo aria being the favourite vehicle for star castrati soloists and serviced London’s demands for vocal fireworks. Handel predominantly turned to writing oratorios from 1743 to 1751. It is a conjectural matter as to why he did so. The English opera world was not without its intrigues and economic strain, but Handel thrived financially and artistically. The genre of the oratorio certainly gave him a degree of flexibility in combining solo aria and choral ensemble. This at times allowed a greater dramatic ‘soloistic’ character to the chorus. In large-scale choral works, Handel was conditioned by German passion

116 It is uncertain which oratorios of Handel served in anyway as paradigms, but the repeated performances of Handel’s mature oratorios (1742-1757) would suggest their popularity and chronological importance to the classical-romantic reception of choral music in Europe.
117 Handel’s artistic autonomy, under a perceived corrupt Whig government, generated competition from a faction set-up by the royal cadre (Nobility Opera), but Handel still remained consistently productive. For historical background of opera work prior to the oratorio output, see David Ross Hurley, Handel’s Muse: Patterns of Creation in his Oratorios and Musical Dramas (Oxford: Oxford University Press, 2001), p. 5.
oratorios and the English Anthem, two legacies which connected the high Baroque chorus to the idealised classical-romantic of Mendelssohn. The ethical and theatrical dimension certainly formed an indelible link. In the preface to his *Samson* (1742), Newberg Hamilton described the oratorio as ‘a musical Drama, whose Subject must be Scriptural, and in which the solemnity of Church-Musick is agreeably united with the most pleasing Airs of the Stage’.

In the time of Handel, the role of the tragic chorus was debated because of the purportedly ‘moral and religious worth in Athenian tragedy’. While its physical presence was irrelevant to audiences of eighteenth-century French drama and opera, the chorus was a topic that nonetheless featured in scholarly debate. In André Dacier’s reading of Aristotle’s *Poetics*, according to an English translation of Dacier’s notes, the chorus was an ‘Opportunity to set forth to the People [...] what is Vicious or Laudable, in the Characters which are introduced’. In England, an anonymous author comments on the use of the chorus. In a newly published version of Sophocles’ *Electra* (published by Isaac Watts, 1714), the seventeenth-century view of the chorus evidenced the typical influence of Aristotle and Horace; pleasurable divertissement combines with eighteenth-century morality in the commentator’s suggestion that ‘the intermediate Chorus would serve both as an Ease and Diversion, and as a Moral to the Fable of the forgoing Act [wherein] Musick not abuse or crowd the ears in Theatre [but] please the Understanding and Judgement, as well as the Fancy’. In 1738, the *Touchstone* (a commentary on stagecraft and general entertainment attributed to James Ralph), the author perceives a dual role for the chorus as both the upper end of reverential church interlocutor, and at the low end lending an ‘Air of Magnificence and Surprize to the Stage and Audience’.

The figuratively dramatic potential of the singing chorus in the oratorio appealed to a composer who knew how drama worked with an opera-going audience, and combined
the experience of the sacred and the secular in musico-dramatic statements. The versatility of the chorus also released the composer from the tedious confection of opera’s treadmill da capo arias and recitatives, and opened up new possibilities for musical textures. Moreover, according to Handel historian, David Ross Hurley, the dramatic integrity of the oratorio required the subordination ‘of the solo singers’ and ‘the choir’ in ‘an all-embracing idea’ of the oratorio, a kind of unity of multiple parts. When Handel’s Messiah chorus in a secular concert space proclaimed in the thunderous hammer-stroke chords the words, ‘Wonderful’, ‘Counselor’ ‘The Mighty God’, imagery and tonality became one for the listener. So too do did secularity and sacredness. Similarly, imagery and tonality are evoked in Mendelssohn’s Elijah, where the chorus of malevolent people of Baal call upon their righteous God. A contemporary account by Otto Jahn of Mendelssohn’s Antigone compares the oratorio chorus of Elijah’s heathens to the singing tragic chorus. An example of when Mendelssohn’s chorus mediates between (sacred) church and (secular) concert music is in the symphonic work, Lobgesang (The ‘Hymn of Praise’ symphony) written within a year of the Antigone choruses.

In summing up the importance of the Handelian ‘groundplot’ of oratorio, historian Ruth Smith claims that the oratorio chartered [the] morally ennobling, spiritually uplifting religious art, for scriptural drama, formative, national, Protestant words-and-music, and for the revival of an instructive, singing chorus in dramatic works – all of which must be emotionally affecting and which should be allegorical.

The singing chorus was classical and romantic in the unity of tone and imagery as well as in the integration of sacred and secular space.

123 David Ross Hurley, Handel’s Muse, p. 178, 188.
126 Smith, Handel’s Oratorios, p. 170.
Singing Chorus in a Socio-political Context.

The socio-political phenomenon of the secular choral music relates to notions of individuality and community in the tragic chorus of the Potsdam Antigone. From its development in the late sixteenth-century madrigal to the oratorios and cantatas of the nineteenth century, secular vocal music was 'preconditioned by notions of education, culture and good breeding'. In nineteenth-century England and Germany, such groups as the Birmingham Festival chorus, the Berlin Singakademien, Schumann's Verien für Chorgesang, and the Lower Rhine Festival (founded in 1817) represented the growing demand for the secular chorus and the spread of amateur choral societies. Members of such societies were drawn from a cross-section of academics, well-to-do merchants and office traders; in other words, member of the bourgeoisie rather than of the nobility. These lay-choirs expressed the democratic statutes and egalitarian assumptions of secular choral institutions. The semi-educated and educated, scholar and amateur united in expressing the highest art. The regular and regulated activity of singing reinforced a Biblical and secular sense of community, as increasing numbers actively participated in the choral realization of epic or Bible stories. The chorus represented the singing Bürgerwelt (the 'world of the middle class'). In the Hegelian worldview, choral societies constituted the middle society providing its deepening, positive sense of citizenship and community. In context of a theatre production, the chorus acted as mediator between Friedrich Wilhelm IV's starker Staat ('strong state') and family roots.

The choral society, as an active voice for the Bürgerwelt, flourished in choral festivals which strongly featured (though not exclusively) the oratorio. In a country such as England, which had few good oratorios in the repertoire, the love of Handel's and Mendelssohn's works was especially strong. At Birmingham's inaugural performance of Elijah, the chorus boasted more than four hundred fifty singers. In Germany,
Mendelssohn's St. Matthew rehearsals began with twelve singers and grew, after word spread, to one hundred fifty-eight voices. In secular musical temples of the Berlin Singakademie, or in the Lower Rhine Festival’s ‘Rittersaal’ in Düsseldorf, the choral phenomenon approached the Dionysian. Accounts of the chorus at the first performance of the St. Paul oratorio were ‘indescribable’. Similarly, the proclaiming of the Protestant faith in Mendelssohn’s Lobgesang caused the people, Messiah-like, to stand up when the chorale Nun danket alle Gott in the symphony was sung. In the 1846 performance, four choruses and four arias from Elijah had to be repeated for the audience of two thousand. In performance, the classical-romantic chorus transformed into the ideal amalgamation of Apollonian and Dionysian chorus: the chorus was central to the action, differentiated from the individual soloists, the embodiment of collective wisdom, and spoke with a certain authority for the public consciousness.

Assimilation: Versuch as aesthetic.

Schumann, as did his contemporaries, heralded Mendelssohn as ‘one who most clearly sees through the contradictions of the age and for the first time reconciles them’. The contradiction was defined by the disunity between classical rules and romantic urges: music was ineffably passionate and disordering as well as fundamentally ordered. Mendelssohn’s response (as Schumann believed Mozart had done) was not to fall back on a slavish imitation of the past but to refine its ordering principles so that it could speak with an immediacy and honesty to his contemporary listeners. In the post-Enlightenment era, it was also an aesthetic that drew from the legacy of the composer’s grandfather, Moses Mendelssohn (1729-1786).

133 Feder, ‘On Felix Mendelssohn-Bartholdy’s Sacred Music’, p. 269-70. Feder cites several contemporary sources.
134 Robert Schumann, a renowned composer himself, was the editor of the Neue Zeitschrift fur Musik, a journal promoting the ‘new’ German romantic style. About Mendelssohn, he wrote: ‘He [Mendelssohn] is the Mozart of the nineteenth century, the most brilliant musician, the one who most clearly sees through the contradictions of the age and for the first time reconciles them’ (NZfM 13, 1840), cited by Greg Vitercik, in ‘Mendelssohn as progressive’, in The Cambridge Companion to Mendelssohn, pp. 71-88, (pp.197-8).
Moses Mendelssohn’s philosophical writings sought to bridge the eighteenth-century philosophical traditions of Lord Shaftesbury (1617-1713), Jean Baptiste Dubos (1670-1742) and Christian Wolff (1679-1754), and the mathematically-ingrained logic of Gottfried Leibnitz (1646-1716) and Nicholas Boileau-Despréaux (1636-1711). He was keen to analyse the conflict between human pleasure and rationality, particularly in the role music and art played as mediating forces. According to Botstein, Moses Mendelssohn was confident of music’s ‘potential to generate a sense of totality in its hearers through [its inherent] complexity’. Music was the ‘rational examination of variability’. The complexity felt universally in Nature, in society, as well as the myriad meanings of words and poetic language, could all be drawn together in the ordering principles of music. His grandson seemed to have allotted to music its rightful place in the theatre, where the power of language could be assimilated into music. In a letter written to Marc Andre Souchay (1842), after several successful performances of his Antigone, Mendelssohn wrote:

So much is spoken about music and so little is said. For my part I do not believe that words suffice for such a task, and if they did I would no longer make any music. People usually complain that music is too many-sided in meanings; it is so ambiguous about what they should think when they hear it, whereas everyone understands words. For me it is exactly the reverse. And not only with whole speeches, but also with single words. They seem so ambiguous, so vague, so subject to misunderstanding when compared with true music, which fills the soul with a thousand better things than words.

The failure of the Enlightenment to bring about the total assimilation of Jews is associated with socio-political repercussions in Mendelssohn’s life and the posthumous censorship of his music. In his life time, the fact that Mendelssohn was not made director of the Singakademie may have been one of several jolting reminders, despite his avowed Protestantism, of his vulnerability. By 1841, with his star quite high in the musical firmament, the new monarch enticed Mendelssohn to

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move to Berlin and take up the directorship of the Academy of Arts at the Prussian Academy. Despite Mendelssohn’s personal reluctance to relocate from his beloved Leipzig Gewandhaus, his election to the court position over Giacomo Meyerbeer (1791-1864) and Wilhelm Taubert (1811-1891),\(^\text{139}\) whose popularity he felt was earned at the expense of musical integrity, must have reinforced his personal belief that he, above all composers, could see the contradictions of the age and reconcile the past with the present through music. When Mendelssohn accepted the position, duty, with its pietistic attraction and ordering force, buried at least for the time being the issue of Jewish assimilation.\(^\text{140}\)

Music and Poetry.

By the middle of the nineteenth century, the role of *Schauspielmusik* in German theatre had been formally established.\(^\text{141}\) Beethoven, among others, had profoundly elevated the genre in examples like the Egmont overture (1809). In 1841, the director and court poet, Ludwig Tieck, handed over any influence over the ‘Greek’ *Schauspielmusik* to the composer in charge. Tieck merely advised Mendelssohn against recreating an antique style, and the composer wisely concurred.\(^\text{142}\) Tieck wanted to use the translation of his friend Franz Fritze,\(^\text{143}\) but once it was established that Mendelssohn preferred J. J. C. Donner’s 1839 text, the ageing *Vorleser* focussed on issues of production leaving Mendelssohn to set the text to music. The music for Donner’s text was completed in a matter of weeks. The pace and ease of setting poetry to music points to the expressive devices of classical-romantic music which were forged in the previous century’s *Sturm und Drang* period.

Music’s secure and esteemed position in the arts influenced the reception of poetry, to a degree such that the romantic poet’s ear was said to be more receptive to the *Ton und Klang* of words rather than to the mechanics of rhetoric. As Wilhelm Wackenroder put it, in music one sensed the ineffable ‘unearthliness’ of language the

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\(^{139}\) Wilhelm Taubert would later write the music for the Potsdam royal court production of *Medea.*


romantics sought to articulate.¹⁴⁴ Even from Jena days,¹⁴⁵ Tieck was under the impression, as were Novalis and Brentano, that music simultaneously aroused the eye and ear.¹⁴⁶ The fact that poetic images and musical sound were interrelated reflected in Schlegel's aphorism, ‘many musical compositions are merely translations of poems into the language of music’.¹⁴⁷ Goethe also proclaimed that music was the ‘true element from which all poetry springs’.¹⁴⁸ At the time that Mendelssohn composed the tragic chorus music, there was also an impulse among the pre-eminent philologists to talk and write about ancient Greek music. In the same production year, an article by G. W. Fink appeared in the Allgemeine Musikalische Zeitung, critiquing musicologist Friedrich v. Drieberg’s monograph ‘Die griechische Musik auf ihre Grundgesetze zurückgeführt. Eine Antikritik in drei Büchern.’¹⁴⁹ The classically-trained composer, already experienced with extended and unwieldy oratorio texts, was prepared for a modern translation of Sophocles. The rhythm of Greek poetry supplied music with the ability to be more eloquent and more meaningful than words, even if those words were already translated with great care.

Johann Jakob Christian Donner’s translation followed the ‘authentic-historical’ method, adopted by academics in the nineteenth century in response to the ‘styles and manner of class’ in the renaissance and baroque courts. Michael Nasta points out the problems experienced by translators like Donner when they attempted to fit the innate flexibility of the Greek verse within the rigid syntax of modern language. Whilst translations in the sixteenth century often doubled the original number of lines, and the seventeenth and eighteenth century maintained a ‘dignified style’ premised on Senecan tragedy, nineteenth-century philology, despite attempts to inject pathos and emotional impetus, dryly imitated ancient tri-meters, resulting, as in Donner’s

¹⁴⁵ A gathering of philosopher-poets from 1799-1801. I mention the Jena group early in the chapter.
¹⁴⁷ Fragment 392, from Friedrich Schlegel, Philosophical Fragments, p. 80.
¹⁴⁸ Atkinson citing Goethe (Sämtliche Werke), in Atkinson, The Relation of Music and Poetry, p. 32.
¹⁴⁹ G. W. Fink, Allgemeine Musikalische Zeitung, no. 49 (December, 1841), pp. 1025-1035.
translation, in ‘a mainly cold and naïve metrical mimetism’. Nonetheless, a lyrical language emerged from the earnest rhythmical transposition and seemed to excite Mendelssohn’s imagination. Mendelssohn consulted the views of philologists such as Wilhelm von Humboldt (1767-1835), for whom the prosody of text was the unerring path to the spirit of the ancients, and August Böckh (1785-1867), for whom the way to ancient melos was through the rhythm of the poetry.

Mendelssohn’s sensitive ear for rhythm did not mean, however, his wholesale approval of Donner’s translation. There were awkward passages which he and Böckh amended in order to suit the singing style. Tieck had wanted to use the translation by Franz Fritze. Because it was not ready in time, a compromise was reached in that Donner’s translation served primarily for the chorus parts and Fritze’s for the main dialogue. There was enough in the ‘multifaceted choral moods’ for Mendelssohn to consider the project musically worthwhile.

The wonderful, natural poem made a deeper, more powerful impression than anyone could have dreamt. It gave me an overwhelming enjoyment I will never forget. Although the rather clumsy words cause no end of trouble, the moods and verse rhythms are everywhere so genuinely musical that you don’t have to think

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152 Maria Nottelmann-Feil, Ludwig Tiecks Rezeption, p. 229. I discussed a similar compromise when Orsatto Giustiniani used the vernacular in the actors’ speech while reserving higher poetry for the chorus (see, Chorality in chapter two). August Böckh was also working on his own translation but did not complete it in time for the production rehearsals. It was made available with Mendelssohn’s piano score version in 1843. In that version, Mendelssohn complained about Böckh’s replacement of sections of Donner’s text with his own. In due course, Mendelssohn had Donner’s text put back in. See Nottelmann-Feil, Ludwig Tiecks Rezeption, p.210. For detailed comparison of Donner’s libretto with other versions, see Boetius, Die Wiedergeburt der griechischen Tragödie auf der Bühne des 19. Jahrhunderts, pp. 74-92.
of the individual words and only have to compose those moods and rhythms: then
the chorus is done.\textsuperscript{153}

In choral music, Mendelssohn’s gifts for vivid orchestration, melodic beauty and
dramatic pace suited the mood and meaning of the choral odes. A chorus, doubled at
times, dramatised the opposite emotional worlds of the strophe and antistrophe, while
the connection between singing chorus and speaking protagonists reflected the
integration of choral and recitative parts in the oratorio, thus helping to realise the
ideal of unity in multiplicity.

Choral Music.
Dramatic contrasts in choral text called for music to assimilate and transcend the
poetic world of the language. In the overture, which is one hundred-one bars in total,
the timpani create thunder rolls while majestic dotted rhythms represent the march of
fate. A contrasting section follows breathlessly anticipating the agitated entrance of
Antigone and Ismene.

The first chorus illustrates poetic and musical unity. The ode to ‘Helios!’ is intoned in
the bright, victorious key of C major, and is built on strongly dotted rhythms. In the
antistrophe, the transition is made with smoother musical textures using arpeggios in
the harp. This celebrates the wafting upwards of heroic deeds despite the downfallen
Polynices. In the second chorus, the ingenuity of Man is rooted in bright A Major.
The dotted rhythm, in 6/8, is a dance-like lilt at the heart of humanity’s inexorable
self-belief (p.19).\textsuperscript{154} The antistrophe is more serious in tone; the oscillating agitation
of major and minor and rapid chords underscore a split chorus. The Theban Elders
unite in communal recitative speech (p. 28) in contrast to Antigone who is revealed as
the law-breaker. The subsequent chorus to Eros is contrasted with pathos or mourning
(Totenklage),\textsuperscript{155} beginning in a chorale-like hymn in the tonality of noble G major,
which is in contrast to the dotted rhythms in G minor. These contrasting verses lead

\textsuperscript{153} From Mendelssohn’s letter to Droysen reflecting on the easy transposition of the chorus verses into
music (in Johann Gustav Droysen, Briefwechsel), cited by M. Hennemann, ‘Felix Mendelssohn’s

\textsuperscript{154} Page numbers in ( ), are from the score of Mendelssohn’s Antigone, op. 55, text tr. William
Bartholomew (London: Novello & Co., n.d.). No bar numbers or rehearsal figures are given in the
score.

\textsuperscript{155} See also Steinberg’s analysis of the choruses in Steinberg, ‘The Incidental Politics’, in Mendelssohn
and His World, ed. Todd, pp.152-3.
immediately to Antigone’s spoken recitative, signifying Mendelssohn’s wish for musical continuity between the chorus and the actors.

Madrigal-style tone painting and oratorio idioms dramatise the text. For instance, the chorus leader, describing the ‘tears she [Ismene] shed’ is expressed in the insistent grace note figures (p. 29). The capitulation of the drama is disquieting in Creon’s dialogue with the chorus following Haimon’s death (p. 83) where Mendelssohn uses chromatic harmonies. Extended dramatic pauses punctuate the king’s melancholy. Creon’s cry of ‘woe’ collapses into dissonant chords and the chorus answer imitatively, their sympathies reflected in sustained minim (p. 88). The choral exit of Antigone (pp. 91-3) – ‘all the strokes of injustice, most justly rebound’ – recalls the sombre mood of the coda in the St. Matthew Passion. Both endings are written in C minor, the ‘fate’ key. The dance-like meter, of both 6/8 and 3/4 respectively, is the cohesive pulse in the communal benediction. For Mendelssohn, both the play and the liturgical mass have ended. The Hegelian-Apollonian invitation to go in peace united with the Nietzschean-Dionysian invitation to dance.

In matters of prosody, Douglass Seaton tells us that the durational rhythm of Greek poetry was closely matched by Mendelssohn to the ‘stress-based diction of the German language’. The essentially choriambic pattern (long short-short long) was equated with music to the dotted quaver and semiquaver. Thus, the choral music’s ‘rhythm has a distinctive repetitiveness, but the phrase lengths become somewhat irregular’. Basic ‘classical’ principles of music gave predictability and orderliness to the music. The asymmetrical language in the German-hyphenated rhythms of the Greek verse prompted melodic experiments and created music that, according to Seaton, was quite ‘unlike the rest of Mendelssohn’s oeuvre or the music of his contemporaries’.

The aural perception of the choral music would have had an impact on visual reception; hence, Mendelssohn divided the chorus in certain parts of the drama. It is a device Mendelssohn also used in the split chorus of the St. Matthew Passion.

performance. Botstein reminds us that for the composer, ‘the audible requirements influenced the aesthetic channel [and] at the moment of aural impact, memory and associations had to be clear and integrated’. Mendelssohn would have been keen to be as musically unequivocal and direct as possible due to the density of the text and the ancientness of the story. His letter to the director of the Covent Garden production George A. Macfarren, in 1844, is revealing in this regard, and reinforces the notion in visual and aural terms that the tragic chorus is a classical-romantic vehicle.

According to Mendelssohn, the chorus should be ‘a subordinated part to the whole […] and yet perfectly clear and independent in itself’. Mendelssohn perceives his chorus not as a background prop, but a live dynamic entity in the manner in which, as he reminds Macfarren, ‘they were staged in Berlin, Dresden and Paris’. The effect of the voices, the words and the scenery served this arrangement ‘wonderfully’. In the letter, Mendelssohn is also concerned with the ‘distinctness of the words’ so that the notes would be ‘less prominent’ than the text. That Mendelssohn should emphasise the clarity of words rather than notes might suggest a return to renaissance-humanist principles. But by the nineteenth century this principle of balance might have suggested itself as mere common sense. The composer was aware of the overwhelming orchestral forces that could easily turn a drama into a concerto for solo choral music.

In the letter, Mendelssohn also seems to be primarily concerned with the seamless and lucid interchange of music and drama. He points out that there is notation in place to handle these matters. He asks the director, Macfarren, to keep the ensemble singing not so much in metronomic time but in a manner which imitates speech, ‘now faster now slower’ and never dragging. In the ‘melodramatic’ sections, there should be the ‘least interruption or pause’. The soprano actress ought not to set the tempo of the accompanying flutes, but that both should somehow resolve their differences in the natural tempo of speech. The ‘acting’ of the chorus is commented upon in the letter though this is not referred to in reference to the Potsdam production. When

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160 The use of notation and tempi to assist fluidity in a sectional drama is also evident in Stravinsky’s Oedipus Rex. See chapter four, Chorality.
Mendelssohn states a preference for the chorus not to be standing in ‘rows’ but in ‘groups’, sometimes ‘quite without motion’, and ‘gesturing with sticks’ (in the Bacchus chorus), this anticipates perhaps the realism of later nineteenth-century theatre.

The matter of making the ideal chorus appear real turns our attention to its visual impact in the performance space. In the classical-romantic era, where and how the singing chorus performed related to its reception. The experimental ethos of the choral music, and its ‘sublime’ qualities, were mirrored in the shaping of theatre space wherein the Urphenomenon might be apprehended as the unity of antiquity and modernity.

THEATRICALITY.

Architecturally, the Hoftheater of the Neues Palais belongs to an age when rococo architecture and interior decoration merged with neoclassicism.\(^{161}\) The building’s neoclassical design was created by Georg Wenzeslaus von Knobelsdorff (1699-1753),\(^{162}\) while the interior decoration (from 1763-9) was completed by the renowned European Rococo designer, Johann Christian Hoppenhaupt (1719-1785). The staging of Antigone reflected a similar artistic symbiosis, in that it sought to unify, within the theatre space, notions of ancient theatre and modern aesthetics. I begin with a discussion of classical-romantic architecture as visual evidence of the ‘experimental’ ethos.

Architectural Versuch.

During the reign of King Frederick II ‘The Great’, there was a conscientious and systematic attempt to forge an architectural relationship with the past and the present.\(^{163}\) Knobelsdorff was the architect who imposed an Apollonian order to the ‘confusing range of styles from Neo-Palladianism via Rococo to the Franco-Italian classicism’.\(^{164}\) His Berlin Opera House (1741-43) was a paradigmatic effort to unify

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\(^{162}\) Perhaps influenced by Knobelsdorff’s Stadttschloss Theater. See, Nettelmann-Feil, *Ludwig Tiecks Rezeption*, p. 211.


\(^{164}\) Watkin, and Mellinghoff, *German Architecture*, p. 17.
the variety of such styles. The Corinthian portico is reached by side steps to the left and to the right of the main façade (much like the two-sided rank of steps featured in Schiller’s _Bride_, and as we will learn, in the 1841 _Antigone_ production). Below the tympanum, a frieze emblazoned with ‘Fredericus Rex Apollini Et Music’ connected the king with Athenian glory, mythical deification, and even artistic despotism in the opera house.\(^{165}\) Not far from Berlin, in the Versailles-rivalling retreat of Sanssouci, European symbiosis was captured in the opulent royal buildings and their sumptuous interiors. In 1742 Knobelsdorff even held the office of Intendant of Theatre and Music. The Palladian influence was recombined with the latest Prussian rococo style when he rebuilt the interior of the Potsdam Stadtschloss which was destroyed in the French invasion.

Karl Friedrich Schinkel (1781-1841), Knobelsdorff’s successor, was influenced by Fichte’s and Hegel’s modern view of history; the experimental ethos represented a marriage of past glory and the present formation of German culture. Schinkel’s era witnessed the convergence of ‘Greek and Gothic, classical yet modern, rationalistic yet poetic’.\(^ {166}\) Schinkel’s Berlin Schauspielhaus (1818, 1819-1821) was an example of these philosophic and architectural mergers. Schinkel admired the Gothic style, and only after the post-Napoleonic years, when both the bourgeoisie and royalty valued Greek art and culture, he decided to include classical antiquity in his design, most notably, in the Schauspielhaus’ concert hall with its amphitheatre effect. With the stage projecting out into the viewing space, the spectators were all able to see the action, and to be part of their spectacle, theatre being a social and cultural occasion for the paying middle classes and nobility. From the outside, theatre and churches were set in the civic square and this suggested a consolidation of ritual and public spaces and the close relationship of religious and secular celebration. Mendelssohn’s _Antigone_ was performed in the Berlin Schauspielhaus soon after Potsdam, in 1842.\(^ {167}\)

The intellectual contemplation of music and literature that led to the apprehension of universal laws, was similarly echoed in the architectural projects of Schinkel’s day.

\(^{165}\) Nicolas Powell, _From Baroque to Rococo_ (London: Faber, 1959), p.100. The king was said to have stood behind the Kapellmeister, score in hand and threatening corporal punishment for errors in performance and score reading.

\(^{166}\) Powell, _From Baroque to Rococo_, p. 85.

\(^{167}\) For post-Potsdam reception, see ‘Coda’, this chapter.
Alois Hirt, writing in *Die Baukunst nach den Grundsätzen der Alten* (1809), describes how ‘one collects these [architectural] experiences and discoveries and infers from them teachings, laws and rule’.

Observation and exposure to classical sources, and testing the acquired knowledge in the present revealed to the designer the universal essence in architecture. Hirt, anticipating architectural fusion in the classical-romantic world of Goethe and Schinkel, saw in the new buildings of his day, an ‘induction of principles from a profusion of forms which [is] more important than the forms themselves’. The sense-perception of the object was not enough; In terms of *Versuch*, the repeated subjective experience of them, through theory and practice, revealed eternal principles.

As well as being landmarks of architectural symbiosis, in her chapter discussing Prussian culture and monarchy Celia Applegate argues that opera houses, concert halls, theatres, and libraries institutionalised the arts and their ‘role in educating and uplifting people’. By ‘education’ is meant the enhancement of aesthetical experience, and not equipping the public with technical skills. A building such as Schinkel’s Altes Museum (1823-33), with its displays of historical artefacts and encyclopaedic information, could be interpreted as a royally-sanctioned means of transforming the German public, combining pleasure with a civilizing experience, and striking, it would seem, the Aristotelian and Horatian chords of the Renaissance.

The transformative role of choral singing, within such uplifting buildings, was equally valued for its civic contribution to pleasure and to education. In 1812, Schinkel presented a design for the concert hall of the Berlin Singakademie which focussed on the choral element. The public gaze would be inescapably drawn to a lit fresco of St. Cecelia at the end of a vaulted space. Below the pictorial veneration of music is a

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169 Schwarzer refers to Alois Hirt’s *Die Baukunst nach den Grundsätzen der Alten* (Berlin, 1809).


171 Schinkel had listened to the lectures of Fichte and conversed with Schelling in the Salons, leading him to believe, according to historian Theodore Ziołkowski, that the ‘museum must accommodate works of art in such a manner as to bring forth their multiple interconnections but also that the building should exemplify as extensively as possible the cultural forces that contributed to its creation’. See Theodore Ziołkowski, *German Romanticism and its Institutions* (Princeton: Princeton University Press, 1990), p. 372.
sketch of an imaginary chorus. However, when this plan was rejected, he redesigned another building to include friezes representing Europe’s Olympian musical geniuses. There would also be a double-height colonnaded hall with an amphitheatre stage for orchestra and choir. The chorus in the nineteenth-century concert hall represented the ‘sacralization of the profane space’, just as Mendelssohn’s oratorio music consolidated the scared and secular. The small royal theatre in Potsdam would have felt consecrated by the presence of a singing tragic chorus.

According to Michael Forsyth, a baroque space like the Hoftheater would have had ‘clear, intimate acoustics, [and] a low cubic volume relative to the audience size’. Choral music’s need in nineteenth-century concert spaces for ‘high level training and attention’ would have been rendered more acute in such chamber-sized room. Tieck, no great worshipper of music beyond the easy-listening of Louis Spohr (1784-1859) and early Mozart (1756-91), might have been aware before hand of the overpowering effect of sixteen male singers and a full romantic orchestra in the confines of such a small space. He was assured however that the music for the chorus was in the hands of a composer who understood classical restraint and whose name guaranteed respect. It was up to him and Böckh to unite antiquity and modernity.

*Charakter des Experimentellen.*

Ludwig Tieck.

The ageing poet laureate, Ludwig Tieck (1773-1853) had helped spearhead the early romantic movement of poetry, and by 1841, despite his waning popularity, his literary achievements and directorial skill in partnership with August Böckh’s (1785-1867) widely-acclaimed classical scholarship meant that it boded well for the royal commission. Böckh had published his own edition of the Sophocles play as well as

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176 Mendelssohn mentions this number for the chorus in a letter to Ferdinand David (21 October 1841). See Hellmut Flashar, *Felix Mendelssohn-Bartholdy und die griechische Tragödie*, p. 23. August Böckh, perhaps not counting the chorus leader, claims there were fifteen men in the chorus. See Böckh, ‘Über die Darstellung der Antigone’, p. 968.
distinguished translations of Pindar, and had spent a long career devoted to the issue of relationships between Greek music and poetry. Tieck on the other hand had initiated the German Shakespearean revival through his (and Schlegel’s) translations, and had started the project for the reconstruction of German theatres.\textsuperscript{177} Tieck’s understanding of the Shakespearean stage (which started with his visit to England in 1817), along with his reading of classical archaeology and his knowledge of music suggested that whole project had, as Nettelmann-Feil asserts, the ‘Charakter des Experimentellen’\textsuperscript{178}

Tieck’s intention was to balance the musically dramatic force of the chorus within a unified performance space. From an aural position, the situation proved not to be ideal. Recalling the performance, he was not pleased with the ‘autonomy’ of the music, the clamour of the woodwinds and the general inaudibility of the words.\textsuperscript{179} Whether this was the result of large concert hall-style music being performed in the intimate setting of the Hoftheater, or Tieck’s admittedly old fashioned musical tastes, theatrical aesthetics dictated that the space had to enfold the audience and be just as inclusive as the music. Tieck realised that the nineteenth-century audience could not easily understand the ancient world of myths and gods. Yet, there was a way to configure the action on stage and also the viewing space so that the play’s political themes could be brought into the fold of a ‘family meeting’.\textsuperscript{180} Without a cordon of theatre boxes to impede the transformation from rococo back to imagined Attic theatre, the first eight rows were arranged in a semi-circle and the remaining rows gradually flattened out to the back of the auditorium. The primary aim was to create unity which would bring the audience within, as Tieck put it, ‘the cultic frame’.\textsuperscript{181}

Tieck began a tour of inspection of the German theatres in 1825.
\textsuperscript{178} Nettelmann-Feil, \textit{Ludwig Tieck’s Rezension}, p. 216.
\textsuperscript{180} Paulin, \textit{Ludwig Tieck}, p. 208.
\textsuperscript{181} Paulin, \textit{Ludwig Tieck}, p. 223. See also D. Wiles, \textit{GTP}, p.125.
An interior similar to Weimar’s stage – an Italian baroque-style theatre\textsuperscript{182} – was made to resemble the Greco-Roman amphitheatre depicted in the treatises of Christian Genelli (1792-1823).\textsuperscript{183} The seating arrangements were constrained by the requirements of social ranking. The transformation into an ancient viewing space did not ignore the hierarchy of viewing where the king, and those nearest to him in power, sat nearest the front. On stage, other than the \textit{thumelē} acting as prompt box, there were no props, curtains or scenery, devices which would have been seen to disrupt the connection with antiquity. The problem of the baroque theatre concerned the tension between the ‘circle and vista’\textsuperscript{184} as well as the proscenium. By emphasising circularity, Friedrich Wilhelm IV’s ‘family’, in the audience, created a facsimile of the space of Antigone’s ‘family’ on stage. The stage consisted of a series of concentric layers, with the musicians placed at the lowest level. Above them, in the orchestra-shaped space, was the chorus, and five feet above the chorus, in their own round space, were the actors. The entrance and exit for the actors was negotiated via a free double-pair of steps (\textit{Doppeltreppe}) consisting of seven sharply graded steps.

Tieck’s perceptions of unity may have been influenced by readings of eighteenth-century accounts of the Shakespearean stage as discussed in his \textit{Buch über Shakespeare}.\textsuperscript{185} The layered stage and step formation were conceived in his own \textit{Tischlermeister} and also perhaps from reading Karl Otfried Müller (1797-1840).\textsuperscript{186} Müller, a student of Böckh, contributed to the early development in Germany of Hellenic scholarship. Representations of antiquity were derived from the ruins of

\begin{footnotesize}
\begin{enumerate}
\item There is a degree of similarity to Weimar, though the Hoftheater is an example of the baroque style, or premised on the \textit{théâtre à l'italienne} – see D. Wiles, \textit{A Short History of Theatre Space}, pp. 214-18. See also the converted elongated u-shape and space of Weimar (1798), printed in Marvin Carlson, \textit{Goethe and the Weimar Theatre}, pp. 109-12. For development of the baroque stage, especially in accommodating the ideal of equal viewing and hearing, see Edward Craig, \textit{Baroque Theatre Construction: a study of the earliest treatise on the Structure of Theatres} by Fabio Carini Motta Architect and Scene Designer at the Court of Mantua, 1676 (Aylesbury: Bledlow Press, 1982).
\item Flashar states that Hans Christian Genelli’s views of ancient theatre, \textit{Das Theater zu Athen, hinsichtlich auf Architektur, Scenerie und Darstellungskunst überhaupt erläutert} (1818) may have contributed to this design decision. See Flashar, \textit{Felix Mendelssohn-Bartholdy und die griechische Tragödie}, p. 15. Genelli’s ideas would have been known since 1808 through Schlegel’s Lectures on Art, which refers to Genelli and Vitruvius. But the 1839 excavations of the theatre of Dionysus still left earlier received views unchallenged. See also, Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, p. 208 (footnote 15). See also Fischer-Lichte, “Invocation of the Dead”, in \textit{(D) placing Classical Greek Theatre}, eds. Patulsidis, and Sakellariou, p. 253.
\item Wiles, \textit{A Short History of Western Performance Space}, p.196.
\item Paulin, \textit{Ludwig Tieck}, p. 282. Tieck’s own views challenged the illusionist stage, in semi-historical novel form, in his own \textit{Der junge Tischlermeister} (1836).
\item Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, p. 207.
\end{enumerate}
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theatres in Epidaurus, Argos, Megalopolis and Sparta, and these sites were interpreted using Vitruvian architectonics. Superimposed onto such representations of antiquity were the issues of Müller’s classical notions regarding symmetry and egalitarian viewing; the chorus and the actors were believed to need distinct acting spaces, which Müller thought of as ‘terraced platforms’.\textsuperscript{187}

For the composition of individuals and ensembles, Tieck was influenced by the paintings of Raphael and Maler.\textsuperscript{188} Both artists were portrait specialists, and Maler’s Hapsburg courtiers’ bust-length and three-quarter profiled suggested to Tieck that the movement of actors and chorus should be limited to the essential gestures and stylised poses. No masks were used to hide the expressions of the performers. The chorus was dressed in costumes that gave the impression of Roman mosaics and sculptures.\textsuperscript{189} The dignified singing chorus perhaps hinted at Weimar’s philosophical legacy of idealism. The arrangement of forms on stage, like a beautiful painting, emphasised the aesthetical rather than the eighteenth-century rational, theatrical space.\textsuperscript{190} Tieck did not regard his audience as merely observers of a museum piece; they were included, as far as was possible, in the performance in an effort to fuse subjective experience and objective gaze.

All in all, the small space of the Hoftheater suited the idea of ‘unity, indivisibility and inviolability’, key principles Tieck himself urged producers to adopt in configuring the complex actions evident in the plays of Shakespeare.\textsuperscript{191} Tieck had no interest in recreating the vast dimensions of the Greek theatre. The Byzantine theatre, as well as Roman models, could also be used as long as the simplest means were used to convey the essence of antiquity. The Hoftheater, it would seem, was an ideal setting to accommodate the fusion of currently known and imagined antic forms.\textsuperscript{192}

\textsuperscript{188} Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, p. 207.
\textsuperscript{189} Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, pp. 224-5.
\textsuperscript{190} Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, p. 207.
\textsuperscript{191} Carlson, \textit{Theories of the Theatre}, p.182.
\textsuperscript{192} Nottelmann-Feil, \textit{Ludwig Tiecks Rezeption}, pp. 210-11.
August Böckh.

Böckh completed his essays, ‘On the Antigone of Sophocles’ (from 1824 to 1828), at the same time that Hegel produced his ‘Lecture on Aesthetics’. Böckh tells us, as though recalling Schiller’s views, that the chorus is a place of steadiness; that it filters the impact so that the tragedy does not become unbearable. The classicist’s main concern was how to re-animate antiquity in such a manner that one is able to capture the ideal beauty of the art form while making it relevant and viable to a modern audience. Unifying the space was an important aspect of staging Greek tragedy. He too concurred with Tieck that the smallness of the stage, unlike the original size of the Attic theatre space, was its strength. The five foot separation of the circular spaces allowed an intimate ‘sensual connection’ yet a clear demarcation of actor and chorus, something which a wide open ancient space, could not sustain. Likewise, the general open view of the stage mirrored back the open plan-seatting of a make-believe amphitheatre.

In Über die Darstellung der Antigone, Böckh describes the procession of the chorus, which was played by members of the Berlin Court opera moving in tight formation ‘man behind man’, up the steps, eventually to form a generally rectangular configuration of ‘fifteen’. This formation was ascribed to the Aeschylean chorus by his student, Karl Müller. In Müller’s Dissertations on the Eumenides of Aeschylus, he mentions a rectangular, regimented chorus of fifteen that performed in front of a raised stage on which the actors performed. If the chorus came across as stiff and pedantic, as Böckh thought they did, we might imagine that this was mostly because of the lack of stage space. The crisscross of entrances and exits meant the actors had to pass the chorus to get to their designated circle. Entries in the diaries of poet-historian Karl August Varnhagen von Ense (1785-1858) infer the short comings of the limited space because his attentions were drawn to the pinched actions taking place under the proscenium. The vital unity of individual (actors) and ensemble (chorus) was hindered, and even Böckh had to admit that the impact of the singing chorus, in

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195 The excavations at the Dionysus theatre would not be available to scholars until 1843.
front of the actors, was overwhelming in contrast to when it came time for the actors to speak.198

Retrospective accounts of the play by both Tieck and Böckh generally reflected the eventfulness of the occasion and the sheer sound that an instrumental orchestra and choir made in an intimate space. The volume of sound was Tieck’s general criticism, while Böckh felt that Mendelssohn’s handling of the music and text reinforced his theories about the alliance of poetry and music through rhythm. Generally, Tieck assessed that the Potsdam Antigone was a ‘new invention’ and hoped that these ‘efforts’ would have a salutary effect on German theatres.199 Böckh acknowledged the extent to which music dominated the proceedings but accepted the whole of the production revealed Wesentliche des Antiken (‘the essence of antiquity’).200 A balance of the theatrical elements was achieved as far as it could be, and to that end Böckh reflected the pragmatism of Ingegneri, if not the renaissance spirit, by admitting that ‘the first rule of Hellenic art is Harmony’.201 In the classical-romantic period, the Versuch was paradigmatic of the pragmatic approach, combining perception of antiquity and modernity to get as close as possible to the essence of a great tragedy.

CODA.

The Potsdam’s Antigone travelled successfully to Berlin for six performances, and then to Leipzig, and eventually to Paris.202 Four years later, at London’s Covent Garden, it received forty-five sold out performances in an enlarged version (with more of the choral singers and extra dancing girls for the Dionysus chorus). The German theatre historian, Hellmut Flashar, remarks that the 1841 Antigone became the successful model – the klassizistisch model – for all of Europe.203 In an official letter to Mendelssohn, the Philological Congress even claimed the production to be

200 Steinberg, ‘The Incidental Politics’, p. 146. See August Böckh, ‘Über die Darstellung der Antigone’, p. 970, for Böckh’s ‘overall’ impression.
202 Frank Jones, ‘Scenes from the Life of Antigone’, Yale French Studies, no. 6 (1950), pp. 91-100 (p. 95).
203 Flashar’s wording is ‘Erfolgsmodell’. See discussion of the Antigone phenomenon in European, Felix Mendelssohn-Bartholdy und die griechische Tragödie, p. 41.
the main contributor in the revivalist movement of Greek tragedy. A commemorative medallion, with Mendelssohn's and Tieck's images, was produced after which the king set both director-poet and composer to other projects. Two years later, this resulted in another successful collaboration in a staging of Shakespeare's *Midsummer Night's Dream*, and then to a production of Sophocles' *Oedipus at Colonus*. In the 1845 staging of this play, the overture was only thirteen bars compared to Antigone's one hundred and one, but the tragic chorus and actors were given extended musical numbers. The production was less favourably received than Antigone, as the author of an entry on Mendelssohn, in Heinrich Brockhaus' *Conversations-Lexiko*, mentions: 'An undertaking which, however excellent the achievements are from the musical point of view and however much we honour the benefit of generating in the public a taste for simplicity in this manner, must be described as of little advantage from the standpoint of the development of national art'. While Mendelssohn's music may not have been as inspired, the lukewarm reception pertains more likely to the esteemed place of Sophocles' *Antigone*, a play which would to a great extent overshadow the reception of other Greek tragedies in Europe up to 1905.

Discussions of modern productions of antique music continued unabated, as an article in the *Allgemeine Musikalische Zeitung* (8 December, 1841), by Friedrich von Drieberg, shows. Following the Berlin Schauspielhaus production of 25 April 1842, despite his personal resentments, the critic Johann Gustav Droysen praised the Antigone 'experiment', of the unerwartet ('unexpected') and fremdartig ('strangeness') aspects of the production which moved out of the conventional staging of the repertoire and incorporated new methods and instruments. But reception was also unsympathetic and irreverent about the results of the classical-romantic

207 When Droysen learned that Mendelssohn was to set the German-translation of Sophocles’ choruses to music, he expressed surprise for his friend’s ambitions. That Droysen had not been part of the artistic retinue at the Potsdam production might also explain some of his own barbed comments concerning this production, not to mention (in his view) the privileged audience. Johann Gustav Droysen, *Briefwechsel* (1929), cited by Steinberg, 'The Incidental Politics', in *Mendelssohn and His World*, p.148.
experiment. Neubert-Drobisch, following the 1842 performance in the Leipzig Stadtheater, commented that the production was ‘imperfect’ in many ways, singling out the music as being too *opernartig* (‘opera-like’), even *störend* (‘annoying’). Criticism was stronger in Christian Friedrich Hebbel’s response. The poet and autodidact carped that the music was ‘as suitable to Sophocles as a waltz to a sermon’. The Munich weekly review, *Fliegenden Blätter*, poked fun, mentioning the *Ariadne auf Naxos* ‘chorus of guinea-pigs in the Mixolydian mode’ reincarnated in this ‘newly’ discovered drama by Sophocles. Two years later there was the production of Adolf Brennglas’s (alias, Glasbrenner) parody, *Antigone in Berlin*. England’s *Punch* joined the act and caricatured the chorus in the Covent Garden production. The chorus leader is depicted as inauthentic, by revealing English check trousers underneath his costume. It was an image that thoroughly amused Mendelssohn.

For some, the experience of the *Urphenomenon* was a ‘pregnant moment’ (Goethe) in a private performance. A month after the inaugural performance, Mendelssohn himself performed the music *ohne* orchestra on the piano, accompanied by a chorus consisting of *tüchtigen Dilettanten*. Attending the event at the house of the music patron, J. P. von Falkenstein, was the distinguished Leipzig professor, Gottfried Hermann (1772-1848), who made the journey doubting the modernist attempt to recreate Greek tragic music: ‘wie kann man griechische Musik machen wollen? Es ist schade um die Musik und um die Chore!’ At the end of the performance, he was moved to tears. Whether or not the *Urphenomenon* had been revealed to Herr Hermann in the middle of Mendelssohn’s singing tragic chorus, we know, based on the far-reaching effect of the singing tragic chorus, that the choral music struck a

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211 Worbs, CD notes in, *Antigone Schauspielmusik*, p. 11.
chord in the middle of the nineteenth-century that resonated with grace, spirituality and a sense of the sublime – the joining of essence and the ensemble perceived to be missing in the Enlightenment.

Entropy and Reinhardt’s Chorus.
The Potsdam experiment, a collaboration of such pre-eminent practitioners producing a Greek tragedy, with a view to elevating the ‘educated’ masses, could potentially have been recreated in the Meiningen Court Theater (1866-1890). Under the leadership of Duke Georg II of Saxe-Meiningen, the theatre became the place to recreate visually splendid and meticulous drama. The long-established (Enlightenment) interest in tableaux vivant was refuelled at the time by the public appetite for detailed reportage of significant moments in the Franco-Prussian war. The public liking for pictorial representation in the court theatre coincided with the artistic residencies of the prominent conductor Hans von Bülow, as Hofkapellmeister from 1880 to 1885, and subsequently, the twenty-one year old Richard Strauss.

But far-off antiquity was alien to Meiningen’s historical spectacles which featured for instance Shakespeare’s Julius Caesar and Kleist’s Prinz Friedrich von Homburg. Meiningen’s successful tours (1874-1890) competed, and eventually succumbed to, the German public’s taste for empty commercial fare. Whereas the theatre’s exalted purpose supported hopes in the late nineteenth-century that the theatre be used as a forum for political, economic or scientific issues, the chorus was viewed as a leftover of idealism, and its otherworldly authority an anathema to the realism of the day. Near the close of the nineteenth century the director of the Vienna Burgtheater, Adolf Wilbrandt, declared the chorus an impenetrable ‘enchanted castle’; whilst in France, the chorus would merge into the exquisite picture-perfect scenery construction of antiquity. The celebration of subjectivism, individualism and personality, rather than of distant and objective idealism, focussed the public’s attention on the mysterious inner lives of Greek tragedy’s central protagonists. Elektra

216 Osborne, The Meiningen Court Theater, pp. 15-17.
217 Fischer-Lichte, History of European Drama, p. 244.
218 Fischer-Lichte, History of European Drama, pp. 244-5.
and Oedipus, not the Theban Elders, appeared on Freud’s psychoanalytical couch and in Hofmannsthal’s theatre of personality disorders.\textsuperscript{220}

The \textit{rebirth} of the tragic chorus was however a thermodynamic event (the Second Law rather than the First) when, in 1910, the Nietzschean \textit{ur}-chorus of Reinhardt’s \textit{Oedipus} swarmed out of the self-centred and institutionalising temples of drama, and into the primordial circles of Munich’s indoor circus arena and Berlin’s Circus Schumann. Reinhardt’s successful staging travelled for the next two years throughout Europe and was revived from 1916 to 1917. Reinhardt’s was the complete antithesis of Wilbrandt’s productions, the ultimate unification of theatre space, community and chorus and an outgrowth of the operatic fusion of music, myth, time and space of Wagner’s Bayreuth Festspielhaus. The requirement of massive choruses was influenced by Georg Fuchs, whose Nietzschean leanings in the \textit{Volksfestspiele} (1909) provided Reinhardt with a facsimile of the sense-based rather than logo-centric chorus.\textsuperscript{221} With an eye for controlled spectacle, Reinhardt combined two choruses, the Theban Elders and the main crowd of Thebans, and their choreographed vocal effects, screams, sighs and moans became waves of energy emanating from the plagued citizens of Thebes outward to the audience. This Dionysian effect required however the structuring devices of Apollo in the strategic use of lights and organized sounds.

In terms of space, the Dionysian heat of Reinhardt’s chorus expanded from the centre of a ‘cosmic circle’\textsuperscript{222} outward, through volumes of dark space – a ‘black cavern of mystery’, as J. T. Sheppard called it in the London production\textsuperscript{223} – to the audience, just as heat transfers in a one-way direction from warmer to colder bodies. His tragic theatre was entropic theatre. The conflicting energies of the hero and chorus

\textsuperscript{223} See Wiles, \textit{A Short History}, p. 202.
eventually dispersed evenly resulting in the disintegration of individual and ensemble structures. The hero, chorus and spectators were absorbed in the collective dissipation of heat. Without spatial restrictions, or intrusions of a proscenium in the circular space, the false partitions of classical theatre dissolved. It is easy under these circumstances to imagine modern citizens and ancient community as one undifferentiated choral mass. As one witness said, ‘The individual does not have any effect here’, for Reinhardt ‘presents the masses to the masses’.224 It is the very description of maximum entropy and total diffusion of energy. Mass communality was also the very condition out of which another kind of chorus arose.

In the secular temples of music, the attendance of, and participation in, choral music by the Bürgerwelt absorbed the essence and ensemble of ‘nationalistic or party activity’.225 The establishment of choral singing in the regional festivals, by 1871, also coincided with the formation of the German Reich.226 Text and music became imbued with the völkische (a kind of ‘people’s liturgy’) and was hallowed within the German cultural and cultic framework of the Thingspiel.227 The idea of masses merged with Volk Community, and was ritualised in the performance devices of the Thingspiel. But the concept of a class-free society, and the chorus as its embodiment, was banished in the Nazi rallies devised by Joseph choreography of the masses and the Reinhardt-style manipulation of lights and spectacle created the epiphany of the Volksgemeinschaft.228 Dionysian communitas was infiltrated by the ranks marching from the Feldherrnhalle to the Königsplatz. The collective shouts in the open air conjured up nothing of the ‘noble simplicity’ or ‘calm grandeur’229 envisioned in Winckelmann and Goethe’s transcendent world, or even in the ‘graceful’ music of

226 Applegate, 'Culture and the Arts', in Germany 1800-1870, p. 125.
227 Fischer-Lichte, 'Producing the Volk Community – the Thingspiel movement, 1933-6', in Theatre, Sacrifice, Ritual, pp. 122-58 (pp.127-8).
228 Fischer-Lichte, 'Invocation of the Dead', in (Dis) placing Classical Greek Theatre, p. 258.
Mendelssohn. The booted chorus belonged to the closed world of Plato’s cave where the *Führer* cast the shadow of the German Demiurge.\(^{230}\)

THE QUANTUM CHORUS – 1927

By the end of the ‘banquet years’ of Paris (1885-WW1), an extraordinary melange of art, theatre and dance had exploded onto the scene following the seismic changes in conceptions of theatre space, the body, poetic language, and time and space. In ballet and music, Igor Stravinsky’s *Le Sacre du Printemps* (1913), along with Nijinsky’s de-humanised dancers, shocked audiences with its savage polyphonic dissonance and ritual-evoking spectacle. During and immediately after World War I, Apollonian and Dionysian elements remained evident in Stravinsky’s own rite of passage into theatre. In the commedia-style *Renard* (1915-22), the musical bricolage of *L’Histoire du Soldat* (1918), the modern opera buffa of *Mavra* (1922), and the stylised Russian folk atmosphere of *Les Noces* (1923), the Dionysian effect was barely contained within the eclectic, combustible ensemble of ideas while the Apollonian side kept tight control within rigidly controlled rhythms, the under-ripened melodies and the metronomic counterpoint.

Into the 1920s, interwar neoclassicism heralded a new brand of music, one which reformulated conservative nationalism, anti-Teutonic sentiments, and an idealisation of French eighteenth-century principles such as clarity, balance and refinement. During this period, Stravinsky focussed on instrumental music and developed simpler textures, economic counterpoint, and clear vertical structures. In theatre, he was influenced by Cocteau’s streamlined versions of ancient Greek myth and tragedy. The combination of musical neoclassicism and antiquity treated as artefact provided a raison d’être for Stravinsky’s next major drama-musical project, an up-dating of Sophocles’ *Oedipus*. In many ways, the opera-oratorio was also an up-dating of the Apollo-Dionysus complex of his 1913 *Le Sacre*.

Short of funds and rehearsal time, Stravinsky’s *Oedipus Rex* premiered in concert performance version at the Théâtre Sarah Bernhardt, on May 30, 1927. The pared down stage, a conférencier in dinner jacket narrating the events ‘in a passive voice’.

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1 ‘Banquet years’ – Roger Shattuck’s metaphor for the flourish in the arts, music and literature in the period straddling the turn of the century. See his, *The Banquet Years: the origins of the avant-garde in France 1885 to World War I* (London: Cape, 1969).

2 Stravinsky comments that the narrator should ‘presentant l’action d’une voix passive’. In décor, printed in the preface of Igor Stravinsky’s *Oedipus Rex* (London: Boosey & Hawkes, 1948).
the statue-like chorus (whom Stravinsky imagined in his décor as ‘faceless’ in their ‘cowled habits’), the actors tucked into the orchestra, all represented a particular theatricality that not only absorbed some of the theatre world of Cocteau, but shared in the avant-garde Frenchman’s gamesmanship of interior and exterior spectacle. Likewise, the composer’s avowed musical neoclassicism contained in its rhythms and overt lyricism some of the dark, sinister qualities of his earlier works. Paradoxically (if not perversely), the self-abnegation implicit in inert bodies, the use of a dead language (Latin), and generally dry sonorities in Oedipus Rex magnified their opposite meanings. Behind the neoclassical façade was the blur of illusion and reality, the interplay of subjective and objective, and the vying passions of Dionysus and controlling acts of Apollo. At the same time, in the history of science, behind the mask of classical-mechanical principles the theories of relativity and uncertainty were confirmed as the epistemological basis of theoretical thinking. In 1927, science and neoclassical opera-oratorio shared close intellectual quarters in the quantum era.

In the section on Science, quantum science offers an analogical view of the formation of an opera-oratorio production in French interwar neoclassicism. Goethe’s criticism of Newton initiated an oscillation between reason-based analysis and intuitive, anti-scientific views. The oscillation mirrored a conflict between classical-mechanical principles and statistical-quantum principles that eventuated, during the early 1900s, in a new way of explaining and describing, in science, the interplay of order and disorder. For the evaluation of historical oscillation, I mainly follow science historian, Stephen G. Brush. I am drawn to his account because the ideological tensions between classical and quantum sciences are perceived as a continuation of unresolved nineteenth-century tensions. I suggest that there is a synchronicity between German quantum philosophy and the radical manifestos of the avant-garde that challenged nineteenth-century notions of time, space, language and the body. Given the lack of

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space, I can only give minimal cover to the way French science in mirroring Germany, also showed oscillations between the Enlightenment era of Laplace, the intuition-based philosophy of Bergson and the post-classical thinking of Henri Poincaré.

In the section on Chorality, I look at Stravinsky’s Poetics, a series of essays on music that established his neoclassical credentials in the late 1930s. In the essays, the composer makes clear the interdependence of the archetypal forces of Apollo and the intuitive nature of inspiration, in which we might infer the Dionysian. I consider the coeval opposites as the continuum of order and disorder in quantum thinking. The indeterminate aspects of Stravinsky’s opera-oratorio music, either below, or on the surface, are held together by a complex mathematically-driven rhythm and temporal design which are analogous to the intricate mathematical design of Heisenberg’s Matrix Mechanics. Likewise, the use of a Latin text may be analysed as an atomising process that splits the phonetic from the semantic, and compartmentalises the words in neat packets – or quanta – of sounds.

The previous chapters discussed architecture as being part of the staging process. Stravinsky did not consciously seek out a ‘neoclassical’ performance space for Oedipus Rex. The section on Theatricality will therefore focus on the stated ideas in the décor for the opera-oratorio. The envisioned statue-like chorus, proposed in the décor is compared to Cocteau’s idiosyncratic neoclassical theatre. Other theatrical aspects of Stravinsky’s plans can be seen to absorb the general re-conceptualisation of space and the body in French interwar theatre.

SCIENCE.
Prelude to a paradoxical science.
Goethe was critical of Newton for explaining the mechanics of Nature but not its true essence. Nietzsche sought the dissolution of science and its ‘abstract signs and numbers, veritable enigmas which represent the passions of men and their conflicts more than they do the essence of things’.

6 In science itself, the First and Second Laws of thermodynamics each explained and described the way matter and energy behaved

in closed physical systems. Toward the latter part of the nineteenth century, the study of physical anomalies in the molecular world (to do with the ensemble of atoms) appeared to strain the use of classical statistical mechanics.

In the second half of the nineteenth century, Ludwig Boltzmann (1844-1906) had forged a way for scientists to measure multiple degrees of variable outcomes using classical statistical mechanics. But by 1896, he had to admit that the phenomena described by the Second Laws of Thermodynamics could not be proved by classical statistical mechanics alone. Having fundamentally established the causal trajectory of individual atoms, why was it that an ensemble of atoms did not necessarily represent the aggregate sum of single trajectories? Scientists struggled with the inability of classical principles, namely mechanical statistics, to bridge microscopic and macroscopic properties of gas molecules. This raised philosophical problems: the individual particles and the ensemble to which they belonged were discontinuous in the classical space-time continuum.

A new scientific language, perhaps more Nietzsche than Goethe in spirit, was required to account for the observed co-dependency of classical and random phenomena. It took a leap of intuitive imagination and classical thinking to bring the paradoxical mechanics of quantum physics into the modern age. At the centre of this enterprise was the way mathematics was used to explain and describe paradox, to connect random parts to predictable wholes. This would take the form of elaborate quantitative frameworks. Math would help accomplish for science what rhythm was to music in modern times: to order disordering forces without diminishing their rhetorical or sonic force. In the twentieth century, the oscillatory positions of classically- and intuitively-based thinking carried over from the previous century.

The Emergence of Quantum Physics.
During the Enlightenment era, Newton established that the essence of light was made of particles. Near the turn of the century, the discovery of subatomic radioactivity spurred vigorous investigations as to whether light was indeed made of particles or of waves. In 1900, Max Planck (1854-1947) peered into the blurred substratum and

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named a ‘discreet’ value of light energy the *quantum*. Assuming value for an abstract phenomenon signalled a new kind of language for physics. Planck postulated a classical yet indeterminable mode of existence in the physical universe. Albert Einstein (1879-1955), working on quantum mechanics, responded cautiously to a growing *a priori* view of indeterminacy. His ‘specific’ relativity in 1905, and ‘general’ relativity in 1916, might have disproved the absoluteness of time and space, but the universe, for him, remained fundamentally causal. This meant that events that take place in each frame of observation are ‘relative’ to other frameworks, yet classical laws applied in all cases.

Einstein’s pre-war breakthrough constituted a kind of neo-realism, a worldview grounded in determinism and the theoretical possibility of time and space being discontinuous. A well-known life ambition to disprove that God played with dice (articulated in a famous letter to Max Born, 4 December, 1926) exemplified Einstein’s philosophical position. In the interwar years, the development of quantum theory would be led by Heisenberg who favoured indeterminism in a period already suspicious of pre-war realism.

After World War I, philosophical indeterminacy aligned with anti-intellectualism in German universities, and with cultural pessimism in society as a whole. The failure of causality was linked to the breakdown in the superiority of the German war machine and totalitarian authority. Renewed calls for wholeness in political circles culminated in different totalitarian ideologies within the National Socialists and the Communists. The nineteenth-century romantic notions of idealism, reassertions of selfhood, and wholeness returned during the interwar years and expressed themselves in the yearning for a *Lebensphilosophie*. According to science historian John Hendry, the

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philosophical urges had already imbued pre-war literature, art and music, and became a ‘dominant cultural force after the war’.\textsuperscript{11}

Amongst the scientific milieu, renewed calls for intuition recalled the spirit of Goethe and the romantic stance toward Newtonian empiricism. Paul Forman, in his seminal paper, ‘Weimar Culture, Causality and Quantum Theory, 1918-1927’, describes how science adapted to the anti-causal intellectual and political climate.\textsuperscript{12} Richard von Mises’ 1920 inaugural lecture to the Technische Hochschule in Dresden called for an inward journey during this ‘age of technology’: ‘It is not a question of new facts of any sort, nor of new theoretical propositions, nor even of new methods of research’. Science ought to take on board ‘its philosophical sense of new intuitions [Anschauungen] of the world’.\textsuperscript{13} Hugo von Seeliger, Germany’s pre-eminent scientist in statistical cosmology (from 1890-1925) went further and rebutted everything from electron theory to Einstein’s causal relativity. As alternatives to Newton’s law of gravitation, he suggested outdated and nebulous theories of dust rings in the solar system.\textsuperscript{14}

The emphasis on indeterminism did not discard but incorporated theories in classical physics. Niels Bohr (1885-1962) had postulated before the war (in 1913) the theory of a mechanistic atomic model, with a nucleus and fixed orbits of electrons. After the war, Bohr accommodated the new findings on radiation and eventually proposed that the electron (the smallest subatomic entity) could be both a wave and particle. The philosophical background to the changes Bohr made in the classical atomic model gives us clues to intellectual precedence. According to Max Jammer’s account of the development of quantum mechanics, the Danish scientist’s ideas were influenced by the ‘modern existentialism and neo-orthodox theology’ of Søren Kierkegaard (1813-


Werner Heisenberg (1901-1976) fitted in well with the metaphysical post-war mood and the shift toward models of indeterminism. He agreed with Bohr's new model: one could either predict the position of a particle or the momentum of a particle (its wave), but never both at the same time. The more precise the observer was in finding the position of a particle, the more imprecise became the measure of its movement, and vice versa. The 'either/or' paradox is at the centre of Heisenberg's Uncertainty principle and implies a disconcerting postulate: the observer, in the act of observing, becomes involved with the observed event. As David Cassidy, one of Heisenberg's leading biographers explains: 'Quantum mechanics contains a fundamental statistical element, but that element is not a property of Nature itself – rather, it enters with the physicist's examination of nature'.\footnote{17 David Cassidy, *Uncertainty: The life and science of Werner Heisenberg* (New York: Freeman, 1992), p. 234.} Or as Heisenberg himself admitted, there is 'no objective real world whose smallest parts exist objectively in the same as stones or trees exist, independently of whether or not we observe them'.\footnote{18 Brush, 'The Chimerical Cat', in *Social Studies of Science*, p. 412.}

Via complex mathematical equations scientists could theoretically account for a continuum between the world of uncertainty and certainty. The first formalisation of quantum math, or quantum mechanics, was Heisenberg's Matrix Mechanics. It consisted of 'sets of time-dependent complex numbers' which did not represent exact physical quantities but approximated the discontinuities and quantum jumps that occurred in the invisible world'.\footnote{19 Jim Baggott, *The Meaning of Quantum Theory* (Oxford: Oxford University Press, 1992), p. 29.} It was as near an approximation of a mechanized view of the indeterminate spectral world as the human mind was likely to get.
The Heisenberg-Bohr Matrix Mechanics competed with Louis de Broglie (1892-1987) and then Erwin Schrödinger (1887-1961), who created their own Wave Mechanics, a version of quantum physics that suited Einstein’s views because it did not necessarily claim a fundamentally indeterminate universe. By 1926, both camps achieved a synthesis when it was proven that Matrix and Wave mechanics were mathematically capable of describing the same quantum event. By the time scientists gathered at the Solvay Congress in Copenhagen in October 1927, there was general consensus (albeit with some strong armed tactics from the Heisenberg-Bohr team) that in the twentieth century, theoretical physics accepted the uncomfortable coexistence — or complementary pairing — of illusion and reality.

Quantum theory: continuities in art, theatre and music.

Before the war, the impact of Einstein’s relativity theories on non-scientific fields was swift and far-reaching. The appropriations of the relativist view on time and space were swept up in the discourse of philosophical and cultural metaphysics, and foremost, in avant-garde art where the wholesale interrogation of form, time, colour and space had gathered apace early among the Symbolists and late Impressionists. Yet Einstein rejected the comparisons that were being made between science and art. Paul M. Laporte’s article ‘Cubism and Relativity’ prints a famous letter by Einstein in which he refutes Cubism’s claims about relativity. In its neo-Kantian tone, Einstein argues that science and art are two separate fields. Einstein’s relativity also impacted on other intellectual domains sending for instance Archbishop of Canterbury Randall Davidson into a state of ‘intellectual desperation’ over what relativity implied for the perfect Divine order. Important writers like Archibald MacLeish, E. E. Cummings, Ezra Pound, and the psychologist Jean Piaget, in light of relativism, experimented with narrative, form, scientific metaphor and behavioural theory.

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20 On Louis de Broglie, see Mary Jo Nye, ‘Aristocratic culture and the pursuit of Science: the De Broglies in Modern France’, in Isis, 88, no. 3 (1997), pp. 397-421 (p. 419).
23 Archbishop Davidson’s intellectual quandary reported by the physicist J. J. Thomson in his Reflections and Recollections (London: Bell, 1936), xiii. For effects of Einstein’s theories on arts, religion and science, from cultural and socio-political perspectives, see Albert Einstein: historical and cultural perspectives, eds. Gerald Holton, and Yehuda Elkan (New Jersey: Princeton University Press, 1982).
Heisenberg’s Matrix Mechanics might be seen to be analogous with a form of collage art in that it consciously exemplifies a fusion of objects (form) and subjective meanings (content) one can interpret in the Merzbild work of the German painter, Kurt Schwitters (1887-1948). Stravinsky himself was oblique in his description of the way ‘he put together whatever [musical material] came to hand’ in his opera-oratorium as a Merzbild. In Schwitters’ art, according to art historian, John Elderfield, the aesthetic and emotive aspects of everyday unrelated material – like wire, cotton wool, string, perambulator wheels – achieve dynamic metamorphosis (‘Entformung’) through a combination of mathematical and intuitive methods. Schwitters’ early paintings and drawings used a numbers system. The relationship of disparate parts to some ordered whole is caused by a special metamorphosis, of the materials ‘dividing, deforming, overlapping, or painting over.’ The purposeful choice of materials in order to compose a Merzbild can be analogous with Heisenberg’s methods of combining sets of numbers in order to recreate the indeterminate subatomic picture which is forever metamorphosing in the observer’s gaze. The actions of the artist, like the scientist, are directly involved not only in assembling but also transforming the material.

The holistic view of quantum theory, one which erases or ‘democratizes’ the boundaries of form and content, can be found in the Bauhaus movement orchestrated by Walter Gropius (1883-1969) and Lothar Schreyer (1886-1966). Bauhaus (like F. T. Marinetti’s Futurist Theatre agenda) aspired to transcendent unity based on the synthesis of seemingly separate elements such as light, movement, colour and sound. The synthetic aim is for total theatre with no perceived boundaries between art, music, dance, theatre and poetry. The Bauhaus stage workshop designer, Oskar Schlemmer, created synthesis through ‘mathematical patterning of movement, in

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24 Stravinsky, and Craft, Dialogues, p. 27. While references to Schwitters’ form of art does not appear elsewhere in Stravinsky’s recollections of the interwar neoclassical years, we can assume that the composer’s conversations with this period and style of art corresponds either with his exposure to the radical Dadaist movement, during his post-1918 sojourn in Switzerland, or with the loosely grouped avant-garde movements in Paris.


26 Elderfield, Schwitters, p. 50.

which the human body was reduced to abstract designs through geometrical
costumes. The abstraction of geometric shapes, as we will see in Theatricality, is
pertinent to the reconfigured human body in the theatre world of Cocteau and
Stravinsky.

German music before the interwar years was already spurred by a regenerative mood,
and a post-romantic Lebensphilosophie, and a need to re-invent a new notational language
out of the Austro-Germanic classical school. Federico Busoni (1866-1924), in his
manifesto, Sketch of a New Aesthetic of Music (1906), claimed to be an artist working
under the spell of Junge Klassizität (Young Classicism). As Busoni put it, the new
classicism was the ‘definite creation to come’, incorporating the language of all
music, particularly Bach’s. Like the autobiographical science-hero of his opera
Doktor Faust (produced posthumously in 1925), Busoni alchemically reconstructed
traditional harmony and melody producing a strange hybrid of tones and romantic
lyricism. But for Faust, as for Busoni, no panaceas, or ‘all-inclusive formulas’, could
explain the paradoxes of existence. At the end of his creative trials, he was resigned,
like Einstein and Heisenberg, to the enigma of an ordered and yet uncertain universe.

Paul Hindemith (1895-1963) and Arnold Schoenberg (1874-1951) both represented
the epilogue and also the furtherance of the Austro-Germanic tradition. They were in
a similar position to the quantum scientists, heeding traditional styles and rules and
sharing with them a desire for contemporary means of expression. Hindemith
particularly was interested in finding a common ground among the divergent music
styles of the time. When music moved from expressionism to the post-War Neue
Sachlichkeit (or New Objectivity), his musical theory rejected sentimentality and

28 The Oxford Illustrated History of Theatre, ed. John Russell Brown (New York: Oxford University
Press, 1997), p. 390. See also Oskar Schlemmer, ‘Man and Art Figure’, in The Twentieth-Century
29 The same aims were mirrored in French theatre. In the prologue to Guillaume Apollinaire’s 1917 Les
Mamelles de Tirésias (The Breasts of Tiresias), a major surrealist play, the ‘Director of the Theatre
Company’ unapologetically proclaims a return of theatre to its natural form – a show complete with
‘sounds, gestures, colours, cries, noises, music, dance, acrobatics, poetry, painting, choruses, actions
and multiple settings’. See Guillaume Apollinaire, ‘Prologue to the Breasts of Tiresias’ (1917), in
Messing also discusses Busoni and the neue Klassizität in, Neoclassicism in Music: From the Genesis
of the Concept through the Schoenberg/Stravinsky Polemic (Rochester, New York: University of
31 Alfred Hoetzel, ‘The Conclusion of Goethe’s Faust: Ambivalence and Ambiguity’, in The German
metaphysics. Pure tonality expressed the natural combinations of intervals, while classical forms (like the sonata, concerto or dance) supplied the necessary foundation. Music ought to be communicative and useful even as it tried to break free of older styles of expression. Like Einstein, a profound awareness of, and requirements for, classical form and rules underlay any changes in theory and practice. The fusion of classicism and modernism in Hindemith’s music resulted however in highly sophisticated counterpoint with convolutions that his audiences at times found impenetrable.

The leader of the Second Viennese School of music, Arnold Schoenberg, had by 1928 abjured his role as the ‘maximizer of romanticism’, leaving behind the expressionist psychopathology of his soprano monodrama, Erwartung (1909), and ‘morbid subjectivity’ of Pierrot lunaire (1912) the revolutionary chamber work featuring Sprechstimme singing. Between romanticism and tonal abstraction, Schoenberg disassembled narrative structures, melodies and rhythmic motifs. In their place, a highly expressive post-tonal, quantitative language reconstructed (like Heisenberg’s matrix-style maths) the ‘discontinuities and quantum jumps’, where once classical space and time stood. The codification of a serial language based on math simultaneously objectified the working method and intensified the subjective language.

French Science: oscillating toward the quantum era.
In France, similar oscillations between classical-mechanical and intuitive-romantic thinking occurred. The significant breakthroughs made in the eighteenth-century France by Laplace and Voltaire came under heavy criticism by those holding antirationalistic, holistic impulses in the nineteenth-century. One philosophical reaction was the positivistic philosophy of Henri-Louis Bergson (1859-1941). Bergson, like Goethe, did not separate art and science into two distinct camps. Intuition allowed the scientist and artist to differentiate between the world of superficial ‘quantitative, nonrhythmic and mechanical signs’ and deep ‘qualitative, rhythmic and organic’

\[32\] Hence Hindemith writing music for the utilitarian mould of Gebrauchsmusik (‘music for use’, or social and educational purpose). His philosophical interest in a kind of harmonia mundi was conveyed in an opera on Kepler, Die Harmonie der Welt, which he began in the 1930s.

signs. Rhythm constituted the vital element – or élan vital – of life, and various rhythmic speeds produced life’s myriad forms. Stravinsky describes, in his Poetics, a neoclassical style that resembles a ‘chronological art’. 

By 1870, the French defeat in the Prussian war for various reasons irreparably soured relationships between science and the public. Henri Poincaré (1854-1912), a staunch defender of science, faced a public and a popular press whose at times fashionable hostility expressed a disdain for impersonal science because it lacked the certainties of a life philosophy. Echoing Voltaire nearly two centuries later, Poincaré cast doubt on certainty as a sound metaphysical principle

we are continually perceiving details ever more varied in the phenomena we know, where our crude senses used to be unable to detect any lack of unity. What we thought to be simple becomes complex, and the march of science seems towards diversity and complication.

When interwar neoclassicism clamped down on the complexity of the newly risen arts, the endorsements of order, simplicity, and transparency simply masked the diverse and complicated voices of Apollo and Dionysus that were articulated in science, philosophy and the arts.

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CHORALITY.

In this section, I discuss Stravinsky’s neoclassical style in view of shifts in scientific thinking I have just described. Stravinsky was an ardent sponsor of causally-driven, Apollonian techniques. At the same time, behind the classical disciplinarian is the high priest of stylistic sparagmos, one who is putting together, almost like a quantum scientist, musical patterns among myriad unformed or deconstructed ideas. His musical treatise, The Poetics of Music in the Form of Six Lessons, discloses two sides of the Apollonian equation in neoclassicism and the anarchic freedom of creativity we might infer as the Dionysian. Rhythm is likewise conceived as both an ordering and highly intoxicating device. This perception of rhythm was used to dramatic effect by his contemporaries in their own musical setting of Greek tragic chorus. My quantum interpretation of the chorus in Stravinsky’s opera-oratorio will focus on the use of Latin, and also identifies where ‘uncertainty’ and ‘relativity’ are analogues in the choral music.

Affixing the Neoclassical Label.

Twentieth-century neoclassicism is a labyrinthine subject which owes much of the confusion to the way the label was affixed at the time as much as how modern discourse perceives it today. According to music historian Scott Messing, neoclassicism ‘leapfrogged from a derogatory term before WWI’ connoting an empty imitation of eighteenth-century principles, to ‘one of approbation in the 1920s’ as a legitimising discourse of the new music.38 Jane Fulcher argues that the ‘matrix of political dissension’ in French interwar inscriptions created the ideological ambivalence of the Left in the post-war. This meant that composers could choose to ally themselves to, or else be forced to take account of, the ‘contestatory interpretations of the classical renaissance’.39 The shifting and fickle landscape of beliefs and attitudes which gave a voguish quality to French neoclassicism means that in discussing the interplay of definitions and intentions, we acknowledge the spectral

38 Scott Messing, Neoclassicism in Music, p. 151, 74.
definition of neoclassicism and ‘ask not what was intended’, but ‘which’ and also ‘how was it read’.\(^{40}\)

Historians can at least trace the hegemonic impulse of French neoclassicism in music in the formation of the National Society of French Music (established in 1871). Following the Franco-Prussian war, anti-Wagnerianism, a revival of eighteenth-century classicism, and European cosmopolitanism formed a new opposition to the dominance of Austro-Germanic music. The modern French tradition began by César Franck was developed first through his students, Faure and Saint-Saëns, and eventually developed as part of the Impressionist school led by Debussy and Ravel. In light of the strong lineage of French modern music, it is difficult to typecast neoclassicism after World War I except as a politicised reincarnation of its hybrid former applications.\(^{41}\) However, it was clear that emotional and personal style in the modern era, on the one hand, were in conflict with austere classical counterpoint on the other, mirroring the long-standing tension between innovation and tradition in the history of European music. The rivalry between Stravinsky in neoclassical France and Schoenberg in the Austro-Germanic culture established even clearer boundaries in interwar neoclassicism.

How Stravinsky fit in with the neoclassical agenda depends to some extent, as Fulcher points out, which was intended and how it was ‘read’. For instance, personal events and decisions in Stravinsky’s life may have impacted on his emerging style. Milan Kundera assesses, in Testaments Betrayed, how neoclassicism provided an attractive set of ordering principles for a composer such as Stravinsky who was physically cut off from his cultural homeland.\(^{42}\) In Poetics, Stravinsky tells his readers that his ‘Petrushka, the Rite of Spring, and the Nightingale, appeared at a time characterized by profound changes that dislocated many things and troubled many minds’.\(^{43}\) In his Themes and Episodes, he elaborates further on how the eclecticism and consolidation of styles under neoclassicism coincided with his personal journey


\(^{41}\) For neoclassicism’s lack of regimentation, see Richard Taruskin, ‘Back to Whom?’, in 19th-Century Music, p. 289.


I had to survive two crises as a composer [...] . The first – the loss of Russia and its language of words as well as music – affected the circumstances of my personal no less than my artistic life, which made recovery more difficult. Only after a decade of samplings, experiments, and amalgamations did I find the path to *Oedipus Rex*.

The lack of political autocracy and the waning of religious orthodoxy, following the tumultuous changes in Russia, impacted on Russian émigrés throughout Europe. In France, renewed commitments to the Orthodox Church, active theosophical mysticism, and preservation of the Russian icon were the Russian émigrés’ responses to historical and cultural destructions in the homeland. Pan-European Russianism was also a way of shoring up cultural identity in the hardening gaze of French Catholic conservatism. There are personal details in Stravinsky’s life which fall into this general pattern and may also account for why he was drawn, at the time of his conversions to neoclassicism, to the conservative ideology of the French Catholic philosopher, Jacques Maritain. Maritain was instrumental in reasserting the ascetic beliefs of St. Thomas Aquinas in the conservative-leaning Catholic Church. An ideological home that stressed the eternal truths of balance, order and clarity, whether religious or musical, must have had its attractions for a composer swimming in a morass of styles and fashions. In “Some ideas about my Octuor”, comments following the composer’s completion of the Woodwind Octet in 1923, it is clear that Stravinsky had adopted the objective mantras of neoclassicism: ‘My Octuor is not an “emotive” work but a musical composition based on objective elements which are sufficient [i.e., emotionally expressive] in themselves’.

A closer look at his pre-Octuor days suggests that economy, control, sparseness and clarity in harmonic and instrumental textures were in fact seeded early in his ballet

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music.\textsuperscript{48} In 1913, Jacques Rivière, in \textit{La nouvelle revue française}, wrote of the ‘crisp, intact, clear and crude’ music of \textit{Le Sacre}, and was already heralding Stravinsky (in terms of neoclassicism) as the ‘exemplary artist of France’.\textsuperscript{49} Nadia Boulanger, an exponent of French music’s roots in the \textit{Ancien Régime}, also persuaded the musical elite to view Stravinsky’s compositions as those that upheld clarté and discipline.\textsuperscript{50} The neoclassical label was first affixed to Stravinsky’s music by a fellow Russian émigré, Boris de Schloezer, who, upon hearing Stravinsky’s \textit{Symphony of Wind Instruments} (1920) was determined to off-set Stravinsky against Schoenberg and the world of ‘Tristranesque’ music.\textsuperscript{51}

While neoclassicism stamped an Apollonian mantra on Stravinsky’s interwar music, he was nonetheless attracted to the ‘samplings, experimentations and amalgamations’ of the artistic schizophrenia that surrounded him. The composer called his type of neoclassicism a ‘rare form of kleptomania’.\textsuperscript{52} The essential qualities of Stravinsky’s neoclassicism, according to Stephen Walsh, can be honed down to a personal way of deciding how ‘style and language are as much as part of the argument as decisions about material and form’.\textsuperscript{53} We might decipher what this personal style meant in Stravinsky’s \textit{Poetics}.

\textit{Poetics} – the dialectics of Apollo and Dionysus.

As in Aristotle’s survey of tragedy in the Hellenic world, Stravinsky’s main aim in his 1939 Harvard lectures was to give a systematic account, so to speak, of his musical techné. The bellicose Apollonian confidence is articulated in the rhetoric of submission and subordination of creative individuality, its steely anti-romanticism, and the decidedly totalitarian politics.\textsuperscript{54} The Dionysian element does, however, also


\textsuperscript{51}Taruskin, ‘Back to Whom’, p. 290. Schloezer’s comments on Stravinsky are articulated in his article, ‘La Musique’, in \textit{La Revue contemporain} (1 February, 1923).


\textsuperscript{54}Taruskin, ‘Back to whom?’, p. 297. For an account of Stravinsky’s ‘worshipful attitude’ toward the politics of fascist Italy, Taruskin suggests Robert Craft, ‘Stravinsky’s Politics: Left, Right, Left’, in R.
shadow the Apollonian mastery, and is occasionally exposed as something fearful. Stravinsky was as much Apollo as Nietzsche’s man on the ground.

In Poetics, music ‘emanates from a complete and well-balanced human being endowed with the resources of his senses and armed with his intellect’. The artist is assured a certain measure of ‘balance and calculation’ if he leaves his individuality behind and submits to transcendent laws, laws animated by the ‘breath of the speculative spirit’ because ‘Apollo demands it’. Kantian metaphysics are overtones in such descriptions as the ‘speculative spirit’ and ‘transcendent laws’; the deprivation of subjective individualism is a critique of romantic excess. Yet the neoclassical composer confesses to being frightened when the ‘voice’ of creativity ‘commands’ that he create: ‘Those things participating in creation but as yet outside of it’ act as his [the composer’s] weapons, lest he lose himself in the ‘abyss of freedom’. This is because the act of composing confronts, as Stravinsky himself said, the ‘fortunate continuities’ and ‘legitimate accidents’ of the creative event. Intuition, not reason, according to Stravinsky, must guide the artist to his material for reason alone would ‘lead [him] to falsehoods’.

The anarchic dream-like qualities of creativity conjure up for the composer a kind of ‘abyss of freedom’, similar to a glimpse of the Dionysian in the intoxicated collapse of the Apollonian principium individuationis, as Nietzsche described it. The tremendous terror that Stravinsky feels in the act of creating also brings to mind what Nietzsche says of Schopenhauer, the ‘tremendous terror which seizes man when he is suddenly dumbfounded by the cognitive form of phenomena’. The confounding event, in Stravinsky’s case, is the unbearable tension in creativity between control and accident.

Craft and Vera Stravinsky, Stravinsky in Pictures and Documents (London: Hutchinson, 1979), pp. 547-58. For a sample of Stravinsky’s anti-Romantic rant, see his Poetics, pp. 61-3, 125.
55 Stravinsky, Poetics, p.16.
56 Stravinsky, Poetics, ibid.
57 Stravinsky, Poetics, pp. 64-5.
59 Stravinsky, Poetics, pp.24-5.
60 Nietzsche, The Birth of Tragedy, tr. Kaufmann, p. 36.
The unseen world of the imagination offers infinite permutations, the *sparagmos* and reconstruction of musical chords, modes, harmonies, modulations, registers and timbres. These are subjugated to the Apollonian will. When Stravinsky composed at the piano, which was his lifelong habit, the instrument (the evolved form of the Apollonian stringed Kithara) became the medium by which myriad combinations of notes were structured into streamlined chords. Rhythmic cells were in effect quantised, and fragments of styles refitted into a syntactical tonal picture. The assemblage of disparate parts into a whole, *Merzbild* style, constituted a creative world where, as Stravinsky himself admits, 'dissonances' are transformed into 'allusions'.\(^61\) Like Heisenberg, in his Matrix Mechanics, Stravinsky combined musical elements simultaneously evoking historical allusions (their location or 'position' in history) and their dynamic function within the piece (their 'momentum' in the piece).

The playful paradox of form and content, structure and function is analogous with the ever-shifting perspectives of position and momentum in quantum thinking.

The negation of realism also heightened the ritualistic, the primal condition behind the rational world. For Nietzsche rhythm constituted, in the Dionysian frame, the primary union of pre-rational Nature and rational humans, the music and the artist.\(^62\)

Rhythm and Text.

Stravinsky used primitivist-mechanical rhythms as a primary ordering device (the Apollonian) and also as a powerful emotive force (the Dionysian). His *Le Sacre* already prefigured the rhythmic obsessions, if not Bergsonian philosophy, of the day. As Stravinsky remarked, 'Music exists if there is rhythm, as life exists if there is a pulse'.\(^63\) One who experienced *Le Sacre*, the operetta composer Emile Vuillermoz, spoke of the 'secret power' that you submit to with 'horror or pleasure'.\(^64\) Stravinsky's *Les Noces*, written directly before his austere 1920s phase of instrumental compositions, gives us an example of complex rhythms aided by the phonetic aspects of text. The Russian-folk tale exhibits the mathematical weaving of

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\(^{61}\) Stravinsky, *Poetics*, p. 34.
rhythms that would eventually form, as Stravinsky mentions, the ‘source of dramatic tension and the major element of dramatic method’ of *Oedipus*.\(^{65}\) Charles Ferdinand Ramuz, the librettist who worked closely with Stravinsky on *Les Noces*, describes the infusion of workshop noises (absorbed from the physical space where Stravinsky composed the work) into the internal workings of the music and chorus

each part of each machine [had] its own special noise and pace while from the superimposed sounds and the superimposition itself came a rhythm, the simple, persistent consequence of all these many opposed forces. This was precisely the progress of the music. Choruses on top of choruses, solos on solos, choruses on solos, solos on choruses.\(^{66}\)

Further on, Ramuz notes that

At any given moment there were at least four texts (literary and musical) ...But the climax of the disorder always fitted into a most rigorous plan and into a mathematical system all the more stringent because the tonal matter appeared to be free from it. I know it well. I tried to work it out myself (and it was difficult, even though all I had to do was arrange the syllables, to solve the complications of the measures which required veritable arithmetic computations to arrive at a common denominator.\(^{67}\)

In *Les Noces*, the impact of ‘word sounds’ as opposed to ‘word meanings’ combines with the percussive qualities of four pianos which were isochronous with the action on the stage. When Stravinsky wrote for voices and instruments in theatre, he sought a ‘living verbal model’ that, as Walsh puts it, would map ‘perfectly on to his musical and poetic obsessions of the time’.\(^{68}\)

Contemporary composers at the time of these ‘poetic obsessions’ were attracted to the rhythm in Greek tragedy. Darius Milhaud’s (1892-1974) form of rhythmic

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\(^{67}\) Ramuz, ‘Souvenir of Switzerland’, p. 37.

primitivism was stimulated by the poetic force of Aeschylus' *Orestiean* trilogy. This suited Milhaud's dry, percussive orchestration and predominantly rhythmic declamation of text. Milhaud collaborated on the text with Paul Claudel (1868-1955) who ensured that the primitive intensity of the text matched Milhaud's imagination. Milhaud's *Les Choéphores* (1919) also overwhelms the senses with short blocks of rhythmic patterns onto which are riveted 'organised sibilants, fricatives and vowel sounds.' In Milhaud's opera *Agamemnon* (1927), the use of repeated pitches, syllables and rapid-fire notes articulates the horror and rebuke of the chorus as it comes to terms with Clytemnestra at the end of the play.⁷⁰

Arthur Honegger (1892-1955) supplied musical divertissements – five short instrumental pieces using oboe and harp – for Cocteau’s *Antigone*. His own operatic *Antigone*, in 1927, was an entirely different matter. The work benefits from the fundamental formal and structural role of rhythm evidenced in earlier works such as his *Horace Victorieux* (1921) and *Pacific 231* (1923). In *Antigone*, the choruses are immensely colourful and fully integrated into the drama. Honegger wanted to break down the false wall between arias and recitatives, much like Mendelssohn did in his *Antigone*.⁷¹ For the declamation of the text, he avoided what he perceived to be the drone-like settings of Debussy's *Pelléas et Mélisande*: 'Therefore I sought for the right stress, especially on the attacking consonants, finding myself in this respect in clear-cut opposition to traditional principles.'⁷² The *spoken* language, as a basis of musical prosody, did not suit Honegger, who sculpted the text rhythmically rather than let it speak on its own.⁷³ The concern for text in Milhaud and Honegger's operas stems from the history of French opera in which the clear and unmannered declamation of speech held rank over the music. In the early twentieth century,

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⁷² For Honegger's autobiography see his *I am a Composer*, tr. Wilson O. Clough (London: Faber, 1966), pp. 95-6. Honegger: 'If I continue words and music for this text in the customary fashion, it will lose its character, its power' (p. 96).
fixation on rhythm turned the dramatic action expressed in the text into a springboard for musical phonetics.  

Stravinsky’s own penchant for accents and metres, while at the same time reflecting contemporary preoccupation with rhythm and text, was derived from working with Russian folk songs. For instance, in *Les Noces* he plays off the natural emphasis of Russian speech and creates complex synchronised rhythmic tiers. For his *Oedipus*, he sought something akin to the pliability of Russian language but more distant and ‘imperfectly remembered’. Stravinsky chose Ciceronian Latin, a language distanced from colloquial or romantic poetry, the mother tongue of the church, and the textual intonation of ritual. Whether under the spell of Maritain’s catholic orthodoxy or neoclassicism, Stravinsky wanted a disciplined, obedient and self-abnegating language — in other words, a sonic device that would serve the controlling Apollonian agenda and also evoke pre-modern (pre-literate) ritualism.

Quantum Text.

Stravinsky’s mathematical inclinations were drawn to the ‘geometry’ of Sophocles’ tragedy, the ‘inevitable intersection of lines’ and the highly structured planning of the choral metres. The sounds and rhythms of syllables set Stravinsky’s ‘musical saliva in motion’. With Latin, Stravinsky proclaims what a joy it was to compose to a language of convention, almost ritual, the vary nature which imposes a lofty dignity! One no longer feels dominated by the phrase, the literal meaning of the words. Cast in an immutable mould which adequately expresses their value, they do not require any further commentary. The text thus becomes purely phonetic material for the composer. He can dissect it at will and concentrate all his attention on the primary constituent element — that is to say, on the syllable.

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76 Stravinsky comments on the circumstances that led to the composition of *Oedipus Rex*, in his *Dialogues*, pp. 21-9.
77 Stravinsky, *Dialogues*, p. 22.
Latin he felt would endow his music with the ‘monumentality’ he believed his modern adaptation of Sophocles needed. Stravinsky admired Cocteau’s 1922 streamlined version of Antigone, and in 1925, he wrote to him. But Cocteau’s first draft for Oedipus did not bode well for their collaboration. Stravinsky called Cocteau’s text ‘meretricious’, and the subsequent redrafts (three in all) were insufficiently lean. It was left to Jean Daniélou, a twenty-year old student at the Sorbonne (recommended to Cocteau by Jacques Maritain) to translate Cocteau’s draft into Latin. Cocteau’s drafts did produce two further offspring versions of Oedipus: a play, Oedipe-roi (from a first version of the 1925 libretto), and material for La machine infernale (1932-33). By not being ‘lean’ enough, we might perhaps discern the sort of text that excited Stravinsky’s saliva: sentences pared down to their barest syntax, words susceptible to the composer’s repetition devices, a text which, like the characters on stage, could be boxed-in and deprived of semantic ‘gesticulation in the phrasing’.

Cocteau’s French drafts for Daniélou may not have survived, yet Daniélou’s text, Walsh tells us, is a ‘skilful classical conceit’ in which there is a great deal of ‘assonance, interior rhyme, pleonasm, chiasmus’. Free of having to connote musically the meaning of the text, Latin allowed Stravinsky a certain freedom: ‘I accentuate freely according to my musical dictates’. These dictates were partly derived, as I mentioned earlier, from displacing the natural emphases in Russian text and enhancing rhythmic complexity. Similarly, in the Latin text he accentuates the phonemic (sound) as opposed to semantic (meaning). The Theban chorus sing, for example, in their opening sequence the word Oedipus as either EEdipus or OeDEEpus. The offset syllables play against the fateful triplet quavers that serve as a sinister rhythmic force throughout the work. Words such as libera, solve, mortua and peste are similarly treated to phonetic repetition and the detonation of certain consonants. Such devices as ostinati (repetition of music pattern), static pedal points,

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80 Stravinsky, and Craft, Dialogues, p. 23.
81 Walsh, Stravinsky: Oedipus Rex, p. 92.
82 Walsh, Stravinsky: Oedipus Rex, ibid.
83 Stravinsky, and Craft, Dialogues, p. 31.
84 Walsh, Stravinsky: Oedipus Rex, p. 94.
and regular pulses, according to Jonathan Cross, also provide the ‘structural punctuation and frame’ of ritual.\(^\text{85}\)

In *Dialogues*, Stravinsky mentions, when he began work on the opera-oratorio, being drawn to Sophocles’ simple choriambics, the anapaests and dactyls of the choral odes. He responds to the dactylic rhythms (long short-short) by assigning a triplet figure in a regular 6/8 pulse. Rhythmic order complements high pathos when the chorus sing ‘Mulier in vestibulo’, a blood-curdling account of the queen’s death and Oedipus’ self-mutilation [Fig. 173]. The choral parts are homophonic (in thirds and in unison) yet underscored with a rollicking tarantella rhythm. Stravinsky felt that highly-regulated rhythm provided far greater tension than ‘irregular, upset’ rhythms; simple, monotonous rhythms focus the listener on the emotive context whereas disfigured rhythms distract. The paradox of morbidity and gaiety (like lament and celebration in his ballet *Apollon*, written a few years after *Oedipus*) work through the quantitative and qualitative aspects of rhythm.

The splitting of sound from meaning suggests as well an atomising principle at work. I view the ‘quantum’ measure of sound as defined by the joining of opposites – the vowel and the consonant. When Stravinsky detonates the Latin syllables, one hears both their percussive and tonal qualities. When the glottal human voice combines with the timbre of orchestral instruments, the sound is both flinty and soft suggesting perhaps part of the ‘monumentality’ Stravinsky was after. Through the repetition of certain syllables, or the emphasis on the open sound of vowels (such as in Jocasta’s ‘oracu-la’), the neatly parcelled sounds of the Latin language can also be distancing as well as intoxicating to the ear. A semantically eviscerated text draws the ear toward the primordial sound world of tone and accent, while simultaneously serving as an ordering device for music.

We can further observe that subservience of text to rhythm, for instance, in the Stravinsky-Gide collaborative _Persephone_ (1933). André Gide’s (1869-1951) Protestant reworking of the Persephone myth excited Stravinsky from the start. Whether or not Stravinsky warmed to the colloquial text and bourgeois chorus in Gide’s 1931 _Œdipe_86, it did not augur well that Gide felt his text equal, if not superior, to the music.87 _Persephone_ was called by Stravinsky a ‘dance-pantomime coordinated with a sung and spoken text’,88 and he treated the text in his usually idiosyncratic way, with little regard for semantics. Gide’s ‘anecdotal and sentimental’ poetry, according to Walsh, contrasted sharply with the ‘ceremonial form of Stravinsky’s treatment’ which recalled the textual monumentalising in _Oedipus_.89 The part of Persephone (written specifically for the self-made dancer, Ida Rubinstein) was spoken and mimed as a ‘coating of French rhetoric’90 over the music. The chorus stood apart and remained peripheral to the action. Gide, an aspiring musician himself, unwisely suggested musical ideas to Stravinsky. Stravinsky’s disdain for the sanctity of text and Gide’s pretensions can be interpreted in the composer’s remark about the poet’s ‘leaden-eared’ language.91

The Quantum Chorus Music.

Stravinsky’s detractors and admirers have claimed him as a major influence on the present-day discourse of twentieth-century music theory. In neoclassicism, modern musicologists acknowledge the interplay of order and disorder as being non-narrative, fragmented, discontinuous, primitive, eclectic, pluralistic, simultaneous, and as forms of masking.92 Arnold Whittall’s long-established career in the analysis of twentieth-

86 Peter Burian, ‘Tragedy adapted for stages and screens: the Renaissance to the Present’, in _CCGT_, pp. 228-83 (pp. 248-51).
87 Stravinsky was enthusiastic about collaborating with Gide who ascribed to a kind of abstruse aesthetic and the need to ‘subjugate romanticism’ to enhance classic beauty. See Stravinsky, _Poetics_, p. 79.
88 Stravinsky, and Craft, _Dialogues_, pp. 36-7.
92 Theodor Adorno interprets in Stravinsky’s regressive, non-developmental and inauthentic’ music, like _Le Sacre_, the fascist-like suppression of the individual, see Jonathan Cross, _The Stravinsky Legacy_, p.4. Inscriptions and accommodations are themes taken up by neoclassical revisionists, Martha M. Hyde, in ‘Neoclassic and Anachronistic Impulses in Twentieth-Century Music’, _Music Theory Spectrum_, vol. 18, no.2 (1996), pp. 200-35. According to Hyde, across the stylistic topography, the antiquarianism of the classicising tendency is accompanied by acts of accommodation: allegory and metamorphic anachronism attend the ‘semantic changes, nationalistic prejudices, and polemic torsion’ of early modern music (p. 212). Richard Taruskin, drawing his monumental two-volume work on Stravinsky’s Russian background to a close, remarks that in Stravinsky’s compositions the ‘stasis,
century music currently reworks in musical analysis the dialectics of Apollo and Dionysus.93

Whittall suggests that the ‘sustainable equilibrium’ between Apollonian order and Dionysian disorder is another way to see one’s way through the complex modern analysis and jargon of Stravinsky’s neoclassicism.94 The blatantly Dionysian Le Sacre of Stravinsky continued to be represented in neoclassical music in, as Whittall puts it, the collocation of ‘celebration’ and ‘lament’. For instance, the episode depicting the birth of Apollo, in the ballet Apollon Musagète (1932-33), creates an ironically ‘tragic note’ alongside moments evoking an epiphany. Tonal centres (D major and B minor), textural stratification, and rhythmic motifs unite in the ballet elements of pathos and order. In the Requiem Canticles (1965-66), several decades later, Whittall remarks how the postlude represents both a sense of disordering ‘regret’ and ordering ‘quiet celebration of eternal Christian truths’.95 In Oedipus, Whittall describes as dithyrambic the hymn-like qualities running throughout the work. The ‘imploration’ in the opening chorus, and Oedipus’ opening aria with its ‘emotion-laden’ melismas, create high emotions that are counterbalanced by clear rhythms, secco accompaniment and diatonic harmonies. Whittall’s notion of ‘sustainable equilibrium’ chimes with my quantum analysis of the choral music that now follows.

Choral passages of Oedipus Rex provide further examples of passionate ‘chant-like supplication’ and rigidly structured rhythmic patterns.96 In the opera-oratorio, choral passages, while wrought in streamlined musical textures, nonetheless punctuate the air with the sheer force of a Verdi-like chorus. In the opening bars, the monumental sound of the chorus chills the audience with the announcement of plague: ‘Kaeedit nos pestis’. Similar operatic effects occur with the arrival of Creon, ‘Vale Creon’ [Fig. 25], the triumphal, Carmina Burana-like announcement of Jocasta’s immanent arrival in ‘Gloria’ [Fig. 90], and the short bursts of ‘Solve’ [Fig. 60] urging Oedipus onward


96 Whittall, ‘Stravinsky in Context’, p. 64.
to keep his promise to solve the plague. In these sections, the strict percussive writing of the orchestra (timpani, pianos and brass) and desiccated orchestration are also often in the Bacchantic supporting role. The dramatic energy issues from a balance of extreme dynamics, choral declamation, and clearly established rhythmic configurations and pinpoint sonorities.

Perhaps the most compelling example of a choral section that sustains the dithyramb-laced rhythms and dramatic hymn-like utterance is when the male chorus intones the doom-laden story in the distorted accents of the word ‘Oedipus’. The incantatory syllables are attached to single quavers in the sinister pulse of alternating G’s and B-flat’s (generated by the piano and timpani). When in the finale the music returns, the adumbrated version of the opening material reflects an entropic, cooled-down choral spirit. Jonathan Cross finds correlations between these theatrical moments of the opera-oratorio and Peter Brook’s notion of ‘empty space’. He interprets the ending as the non-linear impulse of ritual theatre at work. 97 One might also feel this ending as the inexorable pulse in the imperturbable Apollonian clockwork that has underscored ‘formalised barbarity’ throughout. 98

Relative concepts of time and space in music have not been analyzed in this thesis. We can be afforded nonetheless a glimpse of an analogical correlation with Einstein’s relativity. A passage in Stravinsky’s Octuor suggests a strong correlation between the scientific principles of relativity and the musical perception of objectified forms in space: ‘My Octuor […] is an object that has its own form. Like all other objects it has weight and occupies a place in space, and like all other objects it will necessarily lose part of its weight and space in time and through time. The loss will be in quantity, but not in quality…’. 99

Einstein’s general theory of relativity holds that light is affected by gravity. The denser the object moving through space, the more light bends thereby impacting on the flow of time. Time is therefore event-related. The music of Oedipus Rex suggests

98 Whittall, Exploring Twentieth-Century Music, p. 64. Whittall citing Walsh, Stravinsky: Oedipus Rex, p. 65. Walsh is here comparing the romantic ‘barbarities’ of Puccini’s Turandot to Stravinsky’s Oedipus Rex.
99 White, Stravinsky: the Composer and his Works, p. 529
places where the dramatic momentum ‘bends’ without disrupting the inexorable flow of the piece. These occasional ‘bends’ occur in the Protagonists’ independent arias, the interjections of the Narrator, or even the brass fanfares. Throughout, rhythms and sub-divisions of tempi are used as structural agents to unite these apparently discontinuous sections. Nowhere is relativity perhaps more forceful than in the pitiless simplicity of Oedipus’ ‘Lux facta est’. The massive build up of dramatic weight in the opera-oratorio is condensed into the frame of a few minims. What immediately follows is a controlled recapitulation of the introductory material as a counterbalance, perhaps reassuring us that the Apollonian universe of music is a symmetrical place. Stravinsky understood that precise dramatic impact called for exact ‘versification’—angular or numerical constructions. The arrangement of musical material within space and time, would anticipate his use of serial technique.\(^{100}\)

In summary, Stravinsky’s notable genius in the neoclassical era lay in being able to assemble a huge array of musical styles, and to make dissonance, randomness and fragmentation sound natural (in that one section is made to lead seamlessly and causally to another). Oedipus Rex’s musical guise is sublimely Apollonian and yet the pathos is Dionysian. The style is elusively simple, mechanical and cool yet mathematically calculated and complex. The fusion of form and content makes it impossible, in the quantum sense, to fix precisely a historical style in any passage, even though one may detect the outlines of Verdi or Gluck in the musical picture. Similarly, one might describe the function of a particular harmony or rhythm in modern terms, but also detect it as a language of the past. The music of the opera-oratorio requires few visual aids to make it work. In one sense, self-contained music is the reason for the use of static figures and the anti-naturalistic décor. Stravinsky’s theatricality, however, holds several clues to his own artistic citizenship in Paris’ thriving avant-garde theatre and also the double-faceted nature of neoclassicism.

The world of music and theatre had never been more intertwined than in the years prior and subsequent to the First World War. A new generation of theatre practitioners

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\(^{100}\) Stravinsky: ‘What do I mean by versification? I can answer only by saying that at present I make my “versification” with series as an artist of another kind may versify with angles and numbers’. In Stravinsky, and Craft, Dialogues, p. 28.
discarded bourgeois conventions that separated the theatre and music. Fischer-Lichte sums up the overlap between musicality and theatricality of the period.

Music acquired a relatively dominant status in the theatrical code of the avant-garde. To a generation which wanted to create a new kind of theatre that was totally anti-illusionist, it seemed that it was only possible to fashion such an innovation "from the spirit of music"; not only Appia and Craig, but also Meyerhold and Tairov were convinced that in music they had rediscovered the basis of all that is theatrical and had founded the factor determining the possibility of a truly "theatrical" theatre.101

THEATRICALITY.
In this section on Theatricality, I investigate the ideas expressed in the décor of the opera-oratorio in the forefront of early twentieth-century theories about the configuration of theatre space and the treatment of bodies in that space. Cocteau's neoclassical theatre drew from avant-garde concepts about de-naturalised bodies, dramatic language stripped of conventional and naturalistic meaning, and theatre space emptied of romantic notions. The interplay of ancient history and artifice suggests an aesthetic of 'texte-prétexte' in theatricality.102 The kinship between Cocteau and Stravinsky is shown in the highly suggestive crossover of Cocteau's use of disembodied voices and statue-like choruses.

The Théâtre Sarah Bernhardt, with its large nineteenth-century proscenium space, was the launching site for many of Diaghilev's productions in which the latest choreography and music were featured in grand style. The use of the Bernhardt theatre for the premiere of Oedipus Rex could be seen as a mere formality given the composer's long association with Diaghilev, and the fact that the piece was a surprise anniversary gift for Diaghilev's Ballet Russes. The theatre also had a large orchestra pit and stage to accommodate the sizeable orchestra and chorus. In the 1927 production, pragmatism rather than aesthetics determined the choice of space. Yet current ideas in avant-garde theatre influenced Stravinsky in the way he envisioned

the chorus and the work as a whole. In Stravinsky’s Paris, avant-garde theatre was antagonistic toward classical-romantic notions of the body, text and organization of theatre space similarly to the way quantum science interrogated the absolute values of time and space. In the cutting-edge action of the early twentieth-century French stage, Cocteau’s and Stravinsky’s statue-like choruses initiated questions about the uncertain relationship between historical artefact and modern artifice, of stillness and movement, and of observing and being observed.

From the outset, Stravinsky was clear what he intended his chorus to look like. In the staging décor

I had begun to visualize the staging as soon as I started to compose the music. I saw the chorus first, seating in a single row across the stage and reaching from end to end of the proscenium rainbow. I thought that the singers should seem to read from scrolls, and that these scrolls and the outlines of their bearers’ cowled heads should be seen. My strongest conviction was that the chorus should not have a face.103

In a design sketched by the composer’s eighteen-year old son, the chorus is pictured amassed at the front of the stage, from left to centre.104 In the décor text, Jocasta, Laius and Oedipus are described as fixed in their ‘built-up costumes’ and masked to give the impression of ‘living statues’. Tiresias, the Shepherd and the Messenger are shelled-up in two-dimensional costumes and are placed, like immovable beings on plinths, in designated areas. The scenery is described as spare. Stravinsky suggests in the first half white drapery background, and in the second half, a black background and an absence of drapery. The face-less tragic chorus in their ‘sculpted drapery’, the bland speech of the narrator, the lightly, chalk-drawn acropolis, all reflected the unfussiness of forms in the flattened space of neoclassicism. Two-dimensional geometry subverted any return to romantic three-dimensional corporeality. The ‘one level’ theatricality focussed the attention on the music. Is there, however, another

103 Stravinsky, and Craft, Dialogues, p. 23.
104 The teenaged Theodore’s sketch appears to be influenced by Cocteau, who was travelling with the Stravinsky’s in the south of France when plans for the staging where discussed. See Walsh, Igor Stravinsky: A Creative Spring, p. 427. The décor remarks printed in the preface to the music score, Oedipus Rex (London: Boosey & Hawkes, 1948).
‘level’ of dialogue in progress between external inertness and inner dynamism, and therefore much more going on in Stravinsky’s neoclassical theatre than appears to meet the eye and ear?

Quantum Theatre: space and the body
The theatre space at the turn of the century was emptied, as Wiles suggests, ‘of any attributes that associated it with a particular place and time’.¹⁰⁵ Socio-political reactions and cultural opposition to the past vitalized and legitimized the new thinking and divorced theatre from impotent forms of bourgeois romanticism and rationalism. Following the dehumanising senselessness of World War I, art and theatre were viewed as politically- and culturally- transforming. In general, historical changes in the theatre took the form of ‘de-literalised’ theatre. As Fischer-Lichte argues, the ‘de-semantisation’ of language, the body, and the world of objects – the very negation of the individual – characterized the avant-garde’s search for the Arts (and society) ‘sui generis’.¹⁰⁶ Changes also meant going back to true origins, idealising precivilised humans and ‘mystical and formless’ habitations and meanings.¹⁰⁷

The collapse of rationality and its language, signalled early on by Nietzsche in the The Birth of Tragedy, was articulated by Hugo von Hofmannsthal (1874-1929) in the fictitious Lord Chandos Letter (1902); a comment on Francis Bacon’s abjuring of the poetic life was translated into the poet Hofmannsthal losing faith in political and cultural constructs. The world was viewed as indeterminate as words slipped and slid away (das Gleitende) from moorings that might connect them to reality. Edward Gordon Craig (1872-1966), in ‘First Dialogue on the Art of the Theatre’ (1905), called for a de-poeticised theatre.¹⁰⁸ Language devoid of its body of meaning reflected in the actor’s body that shed its illusory devices. In the symbolist theatre of Alfred Jarry (1873-1907), the features of the marionette, instead of the natural body, and the mask, instead of the face, presented new acting methods.¹⁰⁹ In Jarry’s Ubu roi (1896),

¹⁰⁵ David Wiles, A Short History of Western Performance Space (Cambridge: Cambridge University Press, 2003), p. 241. Wiles discusses this view in context of Peter Brook’s The Empty Space.
¹⁰⁹ Jarry’s depersonalised theatre is proposed in his 1896 ‘De l’inutilité du théâtre’.
the ethos of the puppet is realised. While Jarry dehumanised the stage, the Swiss architect and theorist, Adolphe Appia (1862-1928) filled the stage with evocative rather than specific representations of real, concrete forms.\footnote{Carlson, *Theories of Theatre*, pp.292-5.} Marvin Carlson mentions that Appia’s Wagner-inspired treatise on staging, *Die Musik und die Inszenierung* (1899), encouraged directors to evoke rather than present the living human body.\footnote{Carlson, *Theories of Theatre*, ibid.} The dehumanised form fitted in with the overall strategy of Appia’s total theatre which combined rhythmic body movement, lighting and music.

The concept of the marionette was developed in Gordon Craig’s, ‘The Actor and the Über-Marionette’ (1907). Craig writes that the Über-Marionette will be the actor’s body ‘in trance – it will aim to clothe itself with a death-like beauty while exhaling a living spirit’.\footnote{Carlson, *Theories of Theatre*, ibid.} Craig’s philosophy belonged to the world of Einstein. A universe entirely causal but relative in terms of time and space was also the world of the Über-Marionette whose animation was ordered but formally makes no references to a fixed classical temporal-spatial framework. In *Dialogues*, Stravinsky mentions being impressed by Craig’s puppets when he saw them in Rome in 1917.\footnote{Fischer-Lichte, *History of European Drama and Theatre*, p. 287. Fischer-Lichte citing Craig’s ‘The Actor and the Über-Marionette’.} While Stravinsky’s chorus or protagonists did not directly evolve from the symbolism or gestures of puppetry, Craig’s ideal of the actor-minus-ego anticipated Stravinsky’s chorus *sans* face, as well as Cocteau’s body *sans* voice.

The pre-war mood of theatre, while reactionary and surreal in some sense, also expressed the neatness, clarity and lightness of neoclassicism. Jacques Copeau (1879-1949) was critical of the fashionable schools of thinking, avant-garde exhibitionism and commercial enterprises. Catering to no school, his theatre *tréteau nu* (clear of boards) was removed of conventional rules about the use of space.\footnote{Stravinsky, and Craft, *Dialogues*, p. 24} Copeau was followed by Charles Dullin (1885-1949), whose productions incorporated new research on space and scenery into theatre production.\footnote{Carlson, *Theories of the Theatre*, pp. 338-9.} The streamlined use of colour to illustrate mood would be mirrored in Stravinsky’s *Oedipus Rex* and in

\footnote{David Whitton, *Stage Directions in Modern France* (Manchester: Manchester University Press, 1987), p. 70, 74, 76.}
Cocteau’s productions of Greek myth and dramas. Dullin’s vision of a total spectacle (circus, commedia dell’arte, and Noh) signalled to other practitioners in the theatre, and to the arts in general, that the syntactical arrangement of disparate elements gave modern theatre its life. The transformative event in theatre was based on a holistic fusion of parts, rather than a rational hierarchy of forms.\(^{116}\) The concept of total theatre, which I briefly mentioned in Germany’s Bauhaus movement (see section, Science), also allowed for unrelated elements to be drawn together, dismissing the conventional theatricality of nineteenth-century time and space. As quantum science asserted that the subject and object were interrelated, in the same year as the Solvay convention Antonin Artaud, in *Fragments d’un journal d’enfer* (1927), celebrated the destruction of the traditional theatrical boundaries, anticipating the phenomenological perception of ruptured meanings and his ‘cruel’ theatre.\(^{117}\)

Further a-field, the emerging modern Russian art and theatre may also have contributed to Stravinsky’s theatrical ideas. Stravinsky reached Paris when the World of Art movement of Alexander Benois (1870-1960) became identified with the exotic appeal of all things Russian in Paris art and culture.\(^{118}\) Meyerhold’s *Fairground Booth* was staged in 1923 in Paris by the actor-director Georges Pitoëff, a protégé of Copeau. Although there is no evidence that Stravinsky saw it, the work’s commedia dell’arte style and tightly-contained box-like scenery, its ritualised plot, and use of an Author-Narrator all show a significant kinship if not with *Oedipus Rex*, then with the pre-*Oedipus* works such as *Renard, L’Histoire* and *Les Noces*.\(^{119}\) Back in 1907, Meyerhold wrote, ‘the stylized theatre employs statuesque plasticity to strengthen the impression made by certain groupings on the spectator’s memory, so that the fatal notes of tragedy sound through the spoken dialogue’.\(^{120}\) Stravinsky, in *Dialogues*, suggests a tantalizingly similar view when he conceived of the opera-oratorio staging:

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\(^{120}\) Edward Braun, ed. and tr. *Meyerhold on Tragedy* (London: Methuen, 1969), p. 63. Meyerhold’s statement about plasticity was influenced by the German director Georg Fuch’s *The Stage of the Future* (1904-5), himself influenced by views about ancient Greek and Japanese traditions that emphasised body rhythms.
'But so far as visualization may give support, the stage figures are more dramatically isolated and helpless precisely because they are plastically mute, and the portrait of the individual as the victim of circumstances is made far more starkly effective by this static presentation.'\textsuperscript{121} By 1922, Meyerhold, in 'The Actor of the Future and Biomechanics', explained the importance of position, gravity, rhythm and stability as essential principles in the training of the actor's body.\textsuperscript{122}

1922 is also an important year for the reception of Greek tragedy and the formation of the chorus in Cocteau's neoclassical theatre. I will discuss Cocteau's neoclassicism from two angles. One will follow the development of a personal aesthetic and its application to ancient plays and myth. The other will take a brief retrospective view of the statue-like chorus in late-nineteenth century French theatre.

Cocteau: towards an aesthetic.

In his collection of aphorisms and maxims, Le Coq et l'Arlequin, Cocteau makes clear that wit, irreverence, anti-dogmatism are modes of seriousness and the road to poetic truth. In the theatre production Parade (1917), Cocteau presented a set of bizarre scenarios depicting a circus parade in a hi-jinx style somewhat shocking to members of the audience. It was premiered by the Ballets Russes under Diaghilev's direction choreographed by Léonide Massine, the cubist décor was by Picasso and style-ridiculing music by Eric Satie. This was followed by Les Mariés de la Tour Eiffel (1921), a riotous pastiche combining his text, and the music by five of the Les Six composers.\textsuperscript{123} Cocteau, tongue in cheek, valued it as 'a secret marriage between ancient tragedy and the revue from the end of the year, the chorus, the music-hall number' and a send up of low-brow genres. Les Mariés represented a kind of poetic spectacle in which Cocteau felt he owed 'nothing to no one', and where a sphinx-like knowledge of current taste 'found [its] code'.\textsuperscript{124}

\textsuperscript{121} Stravinsky, and Craft, Dialogues, p. 24.
\textsuperscript{122} Fischer-Lichte, History of European Drama, p. 292.
\textsuperscript{123} Les Six – an ad hoc group of musicians which consisted of Georges Auric, Louis Durey, Arthur Honegger, Darius Milhaud, Francis Poulenc and Germain Tailleferre, and to whom Cocteau played ideological team captain as his L'Arlequin suggests.
While the years of *Le Coq* showed him to be a ring master of avant-garde sensibilities, in the 1920s a sense of sobriety correlated with a stock-tack period in his life, part of which involved an attempt to break his addiction to opium at the same time as carrying on a short-lived spiritual affair, like Stravinsky, with Maritain’s brand of ascetic Catholicism. By 1926, his first major work of criticism, *Le Rappel à l’ordre*, (‘The Call to Order’), re-emphasised the neoclassical principles of truthfulness, refinement and anti-romanticism, and also espoused the art of wilful uncertainty. Cocteau’s school of art was the art of being as much as becoming. Lydia Crowson’s assessment of Cocteau’s ethos could also represent Stravinsky’s:

The division and contradictions apparent in [his] life manifest themselves as persistent facets of his work: at first glance, on the level of content, the opus taken as a whole appears to lack unity; and relationships among individual elements seem tenuous. Yet on the levels of structure, form and archetypes, a definite coherence emerges that reflects a consistent stance in regard to the world [...]. [It] is a world of codes, hieroglyphs and games that need to be unlocked or decoded.\(^{125}\)

In Cocteau’s *The Do-Nothing Bar*\(^{126}\) (1920) and *Les Mariés de la Tour Eiffel* (1922), the interplay of illusion and reality employed the effects and tricks of absurd and surreal theatre. In the speakeasy world of *Do-Nothing*, the characters wore large grotesque papier-mâché heads and moved in slow-motion, betokening the dehumanising style of early modernist theatre. In *Les Mariés* it was the outward forms, the accoutrements of the wedding ceremony (not the meanings of marriage), that framed everyday characters and objects – a general, a child, a lion – in strange unreal acts. According to Walsh, in his treatment of the Orpheus myth, *Orphée* (1925), Cocteau’s ‘bizarerities and myth [are] turned into a drawing-room conversation piece’\(^{127}\). It was, in effect, his search for theatre *sui generis*.

In Cocteau’s world, according to Bettina Knapp, ‘phenomena are by definition double-edged’, and the use of ancient myth particularly offered the poet ‘a means of

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\(^{126}\) Known by this English title.

\(^{127}\) Walsh, *Stravinsky: Oedipus Rex*, p. 17.
overcoming fragmentation, since, in addition to fulfilling a human need for diversion and to reflecting deep mental configurations, it epitomizes the dialectical relationship that characterizes reality; it brings together history (fact) and imagination or desire'.

Mythic stories and characters lend themselves to theatrical ‘archetypes’ and ‘hieroglyphs’, elements which can invert time and space as well as structure and function. Other French writers were drawn to myth as well. The theatre historian Christopher Innes remarks that for Sartre, Giraudoux and Gide, myth combined the ‘essentially abstract’ and politically-charged ‘anti-religious intellectual statements’. It is not their tragic nature, nor the interior world, that allowed myth to serve as literary and theatrical forms for modern practitioners. At the same time, modernism was a license to excavate, depersonalize the forms, and refill them with ideology and idiosyncrasy.

Part of Cocteau’s neoclassical offensive – the tragic chorus as living statues – may also have been anticipated by the nineteenth-century French staging of Greek tragedy. In Mount-Sully’s Oedipus productions with the Comédie-Française theatre, one would have found the ‘motionless’ chorus was made to look like ‘carved marble’ on stage. Reception historian, Fiona Macintosh, links the impact of modern archaeology to the idealised recreation of scenery, costuming, and the chorus in productions of Greek tragic. The stage was fashioned for a ‘viewing culture’ and the scenery’s historical accuracy mirrored the detailed work of archaeology after the mid-1800s when ancient sites of the Hellenic and Hellenistic world where subjected to serious archaeological excavation and systematic categorisation. The correlation of ancient findings and theatrical presentation were led by J. R. Planché, and his follower E. W. Godwin. Knowledge of ancient sculpture and buildings were depicted in the frame of the proscenium as tableaux vivant. The classical poses and friezes of the choral body in Comédie-Française productions, particularly compelling in the restored

129 Crowson, The Esthetic of Jean Cocteau, p. 28.

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Roman theatre of Orange (1869),\textsuperscript{132} may have anticipated the coolness, exactness and stillness of the statue in the interwar neoclassical setting of Cocteau’s theatre. Just as antiquity was forced into the frame of nineteenth-century realism, in the early twentieth-century, the tragic chorus was a historical artefact that was made to speak Cocteau's language. Likewise, the cool, serene neoclassical chorus in the French theatre was an anti-German statement in much the same way its music shunned the unwieldy and dense fabric of Wagnerian counterpoint.

Antiquity and Modernity: the chorus as statue in Cocteau’s theatre.

In 1922, Cocteau turned towards pre-Christian antiquity and reworked Sophocles’ Antigone, and a few years later, Oedipus as well as the myth of Orpheus. In Antigone, costumes by Chanel, décor by Picasso, and incidental music by Honegger authenticated the modern interpretation while the dense language and unmanageable plots of Sophocles were reduced to simple story lines. According to Walsh, the Antigone text is a pared down ‘speech-for-speech prose translation of Sophocles’.\textsuperscript{133} Reduced speech could also be found in the anti-sentimental neoclassical music, in aspects of its nouveau simplicité and style dépouillé.\textsuperscript{134} Dehumanising or neutralising characters in order to imbue them with a certain individual truth is defined by Toni W. Andrus as Cocteau’s aesthetics of ‘texte-prétexpte’.\textsuperscript{135} True art begins, according to Cocteau, when character or script is ‘scrubbed’, ‘cleaned’ and ‘lightened’. In this new condition, ‘the form springs to life with new poetry’.\textsuperscript{136} Notions of ancientness, history, dogma, or classical language, once removed, allowed Cocteau to recode them with extreme individuality and idiosyncrasy; content could be made of worldly or withering observations, while badinage, gibberish and absurdity could stand in for heightened style.

In Antigone, a modernised, cleaned-up text replaces Sophocles’ poetic account of the complex ancient relationship between morality and the gods simply as: ‘Jupiter [Zeus] 

\textsuperscript{132} Hall, and Macintosh, ‘London’s Greek Plays in the 1880s’, in Greek Tragedy and the British Theatre, pp. 462-87 (pp. 477-79).
\textsuperscript{133} Walsh, Stravinsky: Oedipus Rex , p. 16.
\textsuperscript{134} Messing, Neoclassicism in Music, p. 153.
détête la vantardise’ and ‘Maintenant la victoire est assise dans Thèbes’.\footnote{Cocteau, Antigone (1922), in Oeuvres complètes de Jean Cocteau, vol. 5 (Geneva: Marguerat, 1948), 11 vols., pp. 136-79 (p. 149).} The choral voice in his \textit{Edipe-roi} (from 1925) is also quite matter-of-fact and anaphoric. The plague-ridden mood might have sounded like straightforward ‘newsreel’ effect: ‘La peste nous tue. La peste est à, Thèbes. Thèbes chavire. Thèbes enfonce.’\footnote{Cocteau, \textit{Edipe-roi} (1925), \textit{Oeuvres complètes de Jean Cocteau}, vol. 5, pp. 101-35 (p. 107).} The polytheistic succour of Sophocles intense \textit{parodos} is ironed down to a few lines that could be the cries of a \textit{maître d’hôtel}: ‘Dieu délïen, nous attendons. Minerve, fille de la foudre, Diane assise sur un trône qui tourney, et toi Phébus, tireur prodigieux, venez à mon secours [...]’\footnote{Cocteau, \textit{Edipe-roi}, in \textit{Oeuvres complètes de Jean Cocteau}, p. 109.} In the final moment, when Oedipus understands the full implications of his actions, we get directness and control rather than warmth and humanity: ‘Je ne peux que te plaindre; car grace à toi j’ai repris haleine. Je respirais par toi. Je dormais par toi. Je t’aimais’.\footnote{Cocteau, \textit{Edipe-roi}, in \textit{Oeuvres complètes de Jean Cocteau}, p. 130.} In the treatment of the chorus in Cocteau’s neoclassical theatre, three devices stood out as part of the ‘de-semantiscisation’ of language and the body, and also its anti-romanticism: the statue-like representation of the chorus, the disemboding voice and the use of masks. The statue and the disembodied voice were clearly meant to depersonalise romantic feelings and human melodrama, the intentions of Cocteau’s ‘texte-prêtexxe’. The voice was dispossessed of its associations with an organic life that would give it emotion. The removal of the body as a locus for the voice erased spatiotemporal concreteness. The dislocation of cause and effect, sound and origin, structure and function, time and space played into the quantum experience where, it was postulated, nothing is located or moving quite where logic or convention demands it should be. The use of the mask did not form part of my analysis of Cocteau’s theatre due to lack of space. Although Stravinsky prescribed them for the protagonists, they were not considered for the chorus.\footnote{The ‘bas-relief’ chorus is like a giant mask singularizing the collective. With the protagonists, the masks consisted of ‘eyes fastened to bits of wood, hair made of raffia, with ears, noses, and mouths constructed with pieces of wire and cork’. Masks were fundamental to Cocteau’s engagement with antiquity when Picasso designed head pieces in relief for his \textit{Antigone}. See Knapp, \textit{Cocteau}, pp. 66-7.} It is important to note
however that masks signified the de-personalization of the actor and the return to ritualism in the modern theatre.\footnote{142}

In 1925, Stravinsky singled out Cocteau’s \textit{Antigone} as having a natural ‘feeling for detail’. This included the ‘movements of the actors, the setting, the costumes, and, indeed all the accessories’.\footnote{143} In the 1922 production, the chorus and leader were reduced to a single voice and it was Cocteau’s shrill voice, delivered like newsreel through a small hole in the scenery that the audience heard. In the 1927 revival, five young men wore monumental plaster-cast heads, with fencing helmet fronts. In black swimwear, the group resembled a chorus of insects.\footnote{144} In the prefatory remarks of the 1925 version of \textit{Edipe-Roi}, Cocteau describes a similar kind of semi-human effect: the chorus is represented as a statue in a bricked up niche, head straight, mouth open and lying on its side, one arm akimbo. Behind it, the actor – the human voice – filters through the open mouth of the non-human representation of the chorus.\footnote{145} The idea of the voice behind the body would not, however, be realised in a production. Notes Cocteau made in the \textit{Edipe-Roi décor} indicate that the visual weight of a singular, inanimate statue in a vast space was disproportionate to the attention that it necessarily deserved. By 1937, Cocteau replaced the single statue with three human figures whose actions were reduced to mouthing, uninflected, the words. The insouciant chorus of three males illustrated what Cocteau meant by the ‘collaboration between seriousness of themes’ (the historical use of a chorus) and a ‘lightness of form’ (the evacuation of historical context).\footnote{146}

\footnote{142} Craig was interested in the revival of masks, and for Copeau, the emptying of the stage equated with the use of masks and the emptying of the actor’s psyche. Wiles discusses Greek tragic masks in ‘Masks in Modern Performances of Greek Drama’, in Edith Hall, Fiona Macintosh, and Amanda Wrigley, eds., \textit{Dionysus Since 69: Greek tragedy at the dawn of the third millennium} (Oxford: Oxford University Press, 2004), pp. 245-63. See also David Wiles’ forthcoming \textit{Mask and Performance in Greek Tragedy: from ancient festival to modern experimentation} (Cambridge: Cambridge University Press, 2007).

\footnote{143} Stravinsky: ‘I had just seen his [Cocteau’s] \textit{Antigone}, and had been much struck by the manner in which he had handled the ancient myth and presented it in modern guise’. See Stravinsky, ‘Stravinsky’s Own Story’, \textit{Stravinsky on the Theatre}, ed. Lederman, pp. 160-1.


The statue-like chorus simultaneously entertained dual modes of perception, suggesting the quantum interplay of reality and illusion. The spectacle of dehumanised forms alienated and also fascinated. The voice itself became prominent because gesture and personality were diminished. By reducing the exterior spectacle and drawing the viewer into the inner world of ideas (i.e., text or sound) Cocteau inverted reception of external spectacle to *le spectacle intérieur*. The earlier device of making speech sound as though coming from behind or 'beyond',\(^{147}\) was reconfigured in the self-abnegating gaze of semi-human beings, using a language that 'pointed to no school', and in a space that confirmed no absolute space except perhaps the living room of Cocteau's mind. In terms of space, what Cocteau envisioned in the 1925 *Œdipe-Roi* for the vast and unusual size of the stage, in 1937, further extended out to into the auditorium, thus magnifying the effect of sparseness and sharpening the gaze toward the semi-humans figures that inhabited it. For Cocteau's audience, 'un lieu fatal' was the ambiguous monomania of the statuesque choral figures.\(^ {148}\)

When Bohr and Heisenberg peered into the microscopic field of vision, we might imagine Cocteau's spectators looking into a quantum theatre where the choruses seemed to be both larger than life and also individual. In a scaled-down world of semi-humans, every sound and word counted. Cocteau's theatre offered no classical logo-centric hero or thermodynamic swarming chorus to transfer energy. In his quantum theatre, energy was directed in both a particular and a random manner. By particular, I mean that the audience focussed on either one, or very specific individuals, placed in fixed areas; by random, the chorus, particularly in critical moments in the drama, was intentionally made to look and sound like authorities with no authoritative answer on the human condition.

Stravinsky's Theatre: seeing little but feeling quantum.

Minna Lederman, a chronicler of the composer's theatrical works, makes the observation that, 'Stravinsky's clear destiny in the theatre has been to *musicalize*


it. I discussed in the section on Chorality how the Latin text offered Stravinsky the great advantage, as he put it, of ‘giving [him] a medium not dead, but turned to stone and so monumentalized’. The figure of the chorus in bas-relief also expunged the romantic, individualistic character of the chorus; as living stone, the dramatic world of the music became more prominent. In the instrumental phase of the neoclassical style, I discussed how a desiccated sound represented an anti-romantic treatment of the romantic piano, woodwinds and percussion instruments. Their secco timbre was emphasised over full-bodied tone. The melodramatic aspects of the voice were also diminished and dislocated Cocteau-style, from the source of origin as in Stravinsky’s 1922 Renard where commedia-style clowns, dancers and acrobats were played as mute actors in front of the curtain while the singers sang the lines from the orchestra below. The objectification, in the implied aims of Cocteau’s texte-prétexte, also occurred in Stravinsky’s Les Noces. The production’s depiction of a centuries-old Russian folk wedding, like Cocteau’s working with ancient forms, purposefully shunned romantic or ‘ethnographical considerations’. Objectifying ritual and the non-natural depiction of the characters were reinforced by the dramatic action being configured alongside the musical instruments on-stage. As Stravinsky obliquely put it, ‘I wanted all my instrumental apparatus to be visible’. 

The ‘detached’ chorus of Oedipus might also have mirrored examples outside Cocteau’s theatre, such as in Poulenc’s ballet, Les Biches. André Schaeffner, writing about the separation of the voice and body (in this production) by the ‘Singers in the Pit’, addresses notions of the choral tradition of the French opera-ballet in this sidelined chorus. Poulenc, as he puts it, gives us ‘invisible choruses singing 18th-century texts’. The musicologist, Leon Botstein also points to the ballet’s quantum-like effect when he writes ‘the blurring of the distinctions between reality and imagination and between logic and fantasy was an explicit intention of Les Biches. Even its title mirrored the inextricable unity inherent in language use’. In Milhaud’s

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151 Glenn Watkins, Pyramid at the Louvre, p. 286. The combination of text and music in Renard, like in Oedipus, is also ‘phoneme music’. 
152 Stravinsky, ‘Stravinsky’s own story’, p. 156. 
153 Watkins, Pyramid at the Louvre, p. 304. 
154 Leon Botstein, programme notes for the American Symphony Orchestra performance of the ballet suite from Poulenc’s Les Biches, in ‘Dialogues & Extensions’
L'Homme et son désir (1918), Claudel designed cardboard costumes for performers who were arranged in four-tiers. The flattening out of the ensemble in a geometrical scheme also echoed the actors and chorus in Stravinsky's Oedipus who were envisioned as two-dimensional in their rigidly constructed and immovable outfits. The geometrical body in theatre space reflected as well in anti-psychological, Italian Futurism. In synchrony with the machine age, the 1927 futurist production of Enrico Prampolini's 'Alogical' inserted the actors into a poly-dimensional space of abstract forms.\(^{155}\)

While Stravinsky clearly showed a vital interest in the configuration of bodies in avant-garde theatre, his instincts were primarily musical. The interrelationship of aural and visual experience is spelled out in Poetics

Sound, exactly like light, acts differently according to the distance that separates the point of emission from the point of reception. A mass of performers situated on a platform occupies a surface that becomes proportionately larger as the mass becomes more sizeable. By increasing the number of points of emission one increases the distances that separate these points from one another and from the hearer. So that the more one multiplies the points of emission, the more blurred will be the reception.\(^{156}\)

Further on, he draws a correlation between sound and vision

It is a positive fact that beyond a certain degree of extension [i.e., the multiplying of tonal mass] the impression of intensity diminishes instead of increases and succeeds only in dulling the sensation. Musicians should come to realize that for their art the same holds true as for the art of the billboard: that the blowing up of sound does not hold the ear’s attention – just as the advertising expert knows that letters which are too large do not attract the eye.\(^{157}\)

\(^{156}\) Stravinsky, Poetics, p. 130.
\(^{157}\) Stravinsky, Poetics, p. 131.
The attenuated presence of the chorus and protagonists, in their narrowly-defined space and encased costumes, were inversely proportionate to the spectacle embedded in Stravinsky’s music. Inert figures singing passionate opera-like music were also a paradoxical sight. The chorus sang a dead language, but the text was clear and somehow emotive. The conventional one-way traffic of subjective and objective experience was also interrogated in the frontal stare of the statuesque chorus. It is likely that the protagonists and the chorus did not have music scores in hand. If so, the act of watching and being watched will have amplified the theatricality of the chorus. In 1937, when the real-life figure of Jean Marais replaced the idea of the mannequin chorus in Cocteau’s Oedipe-Roi, the attractive Marais was like a reclining god, flanked by two additional figures (‘installant dans les guérites’) in the living room space. Marais’ account of the fierce expression he gave his ‘uncultured’ public in order to control their reaction is of a ‘fierce living statue turning them into statues in their turn’.

In the last instance, during the 1927 Oedipus Rex production, the controlling statue was a mysterious act to the Parisian ballet audience. It was ritualistic but not like Le Sacre in that the rhythm originated from physically inert and mesmerizing forms. In the theatres of Cocteau and Stravinsky, the reduction of the chorus to immovable forms, or to just one body, was also the amplification of the choral element. Objectivity in the raw, and without the fourth wall, was the new subjectivity.

CODA.

The concert premiere of Oedipus Rex did not win the kind of popular plaudits needed to attract subsequent performances in Paris. For an audience used to the visual and sensual productions of Diaghilev, Oedipus in a double-bill with a new L’Oiseau de feu (with the Russian Futurist design of Natalia Goncharova) could only have been met with irritation and hostility. The fact that Oedipus was given as a concert version also

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158 Photo archives of scene sketches of various productions of Oedipus Rex do not show the chorus holding music scores.
excluded the theatrical devices which might have demonstrated at least its avant-garde credentials.\textsuperscript{161} As an anniversary present, Diaghilev found it, unsurprisingly, ‘un cadeau très macabre’.\textsuperscript{162} The opera-oratorio did appeal to those in the inner sanctum of neoclassicism, people such as Boris Schloezet, who had already heralded Stravinsky, since the 1923 <i>Octuor</i>, as the neoclassicist par excellence. The stage premiere of <i>Oedipus Rex</i> in Paris would not occur until 1952 when it was produced with Cocteau as narrator and also with highly decorative masks. In the interwar years, from 1936-7, Parisians would attend eleven performances of the Romanian, George Enescu’s grand, neo-romantic <i>Oedipe</i>. Edmond Fleg’s libretto, quite unlike Cocteau’s treatment, fused the family stories of both <i>Oedipus</i> plays and delved into the inner lives of the protagonists. The opera’s sonorous orchestration and psychological drama is reminiscent of the Hofmannstahl-Strauss account of Greek-themed productions.\textsuperscript{163}

Subsequent to the 1927 concert version, stagings of <i>Oedipus Rex</i> strayed somewhat from the central neoclassical conceit of the pared-down <i>décor</i>.\textsuperscript{164} Some directors experimented further with disembodied impressions. In the Vienna Staatsoper production, on 23 February 1928, the choir stood in the pit while actors playing the chorus mimed the music. In New York, the 1931 Robert Edmond Jones Met production, as part of the League of Composers society concerts, gave <i>Oedipus Rex</i> artistic license and financial support. Remo Buffano’s nine-foot puppets, serving as images for the protagonists, shared the stage with a blue-robed chorus arranged in serried ranks. The <i>New York Times</i> review by Olin Downes did not warm to the theatrical distractions since the music could ‘speak for itself’.\textsuperscript{165} Downes seemed to

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\textsuperscript{161} See detailed accounts of pre- and post-production events in Walsh, <i>Igor Stravinsky: A Creative Spring</i>, p. 446-48.

\textsuperscript{162} Diaghilev: ‘A very macabre present’, cited in Igor Stravinsky, and Robert Craft, <i>Dialogues</i>, pp. 24-5.

\textsuperscript{163} Noel Malcolm, <i>George Enescu: His Life and Music</i> (Exeter: Tocatta Press, 1990), pp. 139-40, 146, 147, 158.

\textsuperscript{164} Walsh’s account of the work’s performance afterlife gives details to which I can add very little. See his chapter, ‘How it all came to be known’, <i>Stravinsky: Oedipus Rex</i>, pp. 67-78. Various reviews can be read about the productions. In the 1927 Paris concert version, the <i>Nouvelle Revue française</i> prints Boris Schloezet’s review, (29) pp. 244-8, and Arthur Lourié, (8) pp. 240-53. In 1928, for the Staatsoper Vienna production, see Emil Petschnig (95) April, pp. 218-19, and for the Berlin production, see Adolf Diesterweg (95) pp. 216-17, both in the <i>Neue Zeitschrift für Musik</i>.

\textsuperscript{165} Stravinsky, in <i>Some Ideas about My Octuor</i>: ‘This sort of music has no other aim than to be sufficient in itself’. See E. Walter White’s <i>Stravinsky: the Composer and his Works</i>, p. 531. Olin Downes’ review of the New York performance, see ‘Oedipus, a stage spectacle’, <i>New York Times</i>, 22 April 1931 (28:5).
agree with the observation made by Minna Lederman that music was the drama in Stravinsky’s theatre.

The 1928 Berlin production revived the rivalry between Stravinsky and Schoenberg. Schoenberg referred to Stravinsky’s empty repetitious rhythms as a series of ‘unusual’ devices without ‘being anything in particular’.

Stravinsky’s machine-like eloquence left Schoenberg unmoved (‘abgekühlt’ as Stravinsky later recalled). Stravinsky had been known to criticise Schoenberg’s mathematical atonality even if the Russian composer’s own stylistic eclecticism owed its coherence to a quantised scheme of rhythms and tempi. Alan Lessem points out that it was the ‘chattering eclecticism’ and reconstructed ‘potpourri’ in French neoclassicism that made Schoenberg keen to distance himself from, and criticise music representing, its trite novelties.

Twentieth-century music, in retrospect, now sees Schoenberg and Stravinsky as part of a larger dialectical process, one which, like modern science and art, conceives of the first half of the twentieth-century as a complex balance of radically new forms of expressivity and traditional rules. Attempts to describe or explain what that complexity meant surfaced in the tangled weave of neoclassical discourse.

The chorus of Stravinsky’s Oedipus Rex may have at least had a Doppelganger in the comic-expressionist opera by Kurt Weill (1900-1950). In 1928, Der Zar lässt sich photographieren featured a chorus of elderly gentlemen. They are statue-like, ashen-faced capitalists with top hats, over-stretched moustaches and matching black briefcases. Staring out from their two-rowed tableaux, the homogenized bourgeois industrialist-banker-businessman, stripped of personalised traits, represented the typified expressionist manner.

Yet even as the image is frozen in daguerreotype, we

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168 Kurt Weill had seen the Krolloper-Klemperer Berlin production of Stravinsky’s Oedipus and reviewed the work in Der deutsche Rundfunk (November, 1928).

know that Weill’s theatre gestured wildly toward satire and burlesque. Susan Cook comments that Weill’s theatre was part of the ‘synthesis of elements drawn from contemporary drama and from the neo-classic equivalent of a traditional comic opera’. The theatricality of Weill’s and Stravinsky’s chorus was not lost on the critics and theatre producers who commented on it, as did Weill who approved of the double-billing of _Oedipus_ with _Der Zar._

In 1928, Cocteau revisited his opium habits, re-associated himself with scandal (much to the chagrin of his spiritual counsellor Jacques Maritain) and continued to collaborate with musicians, notably Poulenc in _La Voix humaine_ (1929) and Auric in the silent film, _Le sang d’un poète_ (1930). In his _La machine infernale_ (1934), Cocteau’s last re-imagining of the _Oedipus_ story, the spectacle of myth and reality appeared opposite each other in the god-like archetype of Anubis and the banal-sounding humans. Stravinsky pursued his own brand of Apollonian neoclassicism through to the 1950s, and was eventually drawn into the worship of Pythagoras, in the numbers game of tonal serial music. The reappearance of the operatic chorus in _Rake’s Progress_ (1947-51), and the collaboration with W. H. Auden and Chester Kallman, in its Mozartian music and its formal scenic divides, was a return to neoclassical opera. The chorus represented eighteenth-century commentators and spectators who view objectively the fall of Tom Rakewell as if standing before the morally instructive paintings of Hogarth. Even so, the Apollonian touch was counterbalanced with the heavy hand of Dionysus in the pathetic and bathetic closing scenes in _Bedlam._

The de-humanised chorus would continue, for instance, in Samuel Beckett’s theatre of nihilism. The ghoulish heads in urns, in _Play_ (1963), restrained the acting figures to face forward and speak with no inflection, while the mask-like effects of his _Not I_ (1973) erased the face and left the mouth as the sole embodiment of sound and movement. Beckett’s denial of the physical emancipates the metaphysical. The negation of humanity opened the door to the rebirth of modern identity and reality. In

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170 Cook, ‘Der Zar’, in _A New Orpheus_, ed. Kowalke, p. 94. This page shows a publicity photo of Weill’s _Der Zar_ chorus from the Berlin Städtische Oper’s 1928 production.
171 Cook, _Der Zar_, A New Orpheus, p. 94.
172 Beckett’s _Happy Days_ implants the central character in earth, and _Endgame_ uses dustbins to contain the body. See Katherine Worth’s, ‘Greek Notes in Samuel Beckett’s Theatre Art’, in _Dionysus Since 69_, eds. Hall, Macintosh, and Wrigley, pp. 265-83.
the late 1960s, science renegotiated the relationship of order and disorder in Chaos Theory. Scientific convolutions correlated with theatre in 1969, when radical shifts in world culture and politics coincided with the Bacchic rebirth of Euripides' chorus in Richard Schechner's *Dionysus in 69.*

Back in the quantum era, if the neoclassical Parisians felt any tremors at all during the performance of Stravinsky's *Oedipus Rex,* it was unlikely to be couched in Nietzsche's romantic sentiments of the ancient Greeks. Yet given the continuum of order and disorder expressed in the arts and science of interwar neoclassicism, some of the astonishment in the Théâtre Sarah Bernhardt may not have been worlds away from the astonishment in the Theatre of Dionysus, whom, according to Nietzsche

> was all the greater the more it was mingled with the shuddering suspicion that all this [self-abnegation] was actually not so alien to him after all, in fact, that it was only his Apollonian consciousness which, like a veil, hid his Dionysian world from his vision.\(^\text{173}\)

In 1927, Apollo and Dionysus were alive and well and living in Paris.

SUMMARY AND CONCLUSION

In each chapter, I asked how the order-disorder continuum created by the singing tragic chorus was manifested in four historical productions. The binary framework suggested by this continuum is a post-structural reworking of Nietzsche’s Apollo-Dionysus dichotomy. From fifth-century Athens to the early twentieth century, the thesis argued, in each case study, for the synchronous development of ideas in science, music and theatre space. The interdisciplinary research revealed the complexity of the Greek tragic chorus and the multiple disciplines that are involved and interrelated in its conception and performance. Interdisciplinarity provided a formal structure to show how shifts and changes in scientific thinking correlated with conceptual changes in the arts. I singled out a primary analogue from the base knowledge of science (or natural philosophy) and mapped out relationships and possible appropriations in the intellectual histories of choral music and theatre space.

I discussed the interface of science with music and theatre from two standpoints which I defined as Chorality and Theatricality. In Chorality, I highlighted the relationship of text and music, and established some of the prevailing aesthetic and cultural principles that created tensions between poetry and music. In Theatricality, theories that related to the organization of theatre space were understood in light of how the singing tragic chorus was staged. In both sections I showed how principles and theories oscillated between traditional practice (in ‘classical’ notions, for instance) and non-traditional practice (newly developing styles and expressions). These fluctuations mirrored the continuum between order and disorder in scientific thinking and the resulting emergence of a descriptive and explanatory language.

It was not my intention to explain the history of science in order to prove that artists conceived the world in a ‘scientific’ manner. The chronological arrangement of the case studies also inferred no continuous historical narrative or comprehensive survey that might suggest a common Zeitgeist unifying the world of the scientist and artist. On a general basis, the overlap of disciplines demonstrated throughout history a common symptom among scientists, musicians and theatre practitioners, the urge — when confronted with the complexity of order and disorder — to simplify. I also argued that there is enough of a historical overlap in the cognitive domains of science, music and
theatre to question the on-going exclusion of science in Performance Reception studies dealing with the Greek tragic chorus.

I will organise this concluding chapter in three sections. First, I will summarise the main points of each chapter. Next, I will review interdisciplinarity and highlight some of its problems and strengths. Finally, I will single out some major conclusions that have been generated by this interdisciplinary study.

Chapter Summaries.
In the Cosmological Chorus chapter, I proposed that the tragic chorus by 429 BCE constituted a performance phenomenon unique in its ability to explore, tolerate and in some sense reflect, but in no way give an answer or decision to, the cosmological crisis in fifth-century Athens. Prior to the emergence of the chorus, around the sixth-century BCE natural philosophy developed a unique explanatory and descriptive language driven by the impulse toward objectification. It was assumed by the Presocratics that a principle of order, or kosmos, in Nature and the heavens was fundamentally behind the origin of life and its myriad changes. Ancient historians generally agree that polarity and analogy provided the dialectical framework for deciphering and explaining order in complex phenomena. The process of deciphering and explaining the origin of things and how they physically changed created a speculative language that ‘semantically stretched’ between mythopoetic and reason-based thinking. New philosophical ideas enriched as well as increasingly complicated archaic forms of thinking. By the fifth century, a distinct bifurcation occurred in natural philosophy signified by a crisis point in cosmological thinking. This development correlated with new ideas in the arts alongside the formulation of the theatre of Dionysus. Athens also experienced upheavals resulting from a plague and unsettled events brought about by the outbreak of the Peloponnesian war. The binary worldview may have fractured into multiple reference points so that principles of order and disorder seemed to join as a continuum rather than as separate, autonomous worlds. This perception may have been particularly evident in the case of the tragic chorus performances in the theatre space of Dionysus.

In Chorality, I discussed how modern interpretations of the Apollo-Dionysus discourse reflect the complementary dynamics of both deities in the ancient world. In
developments in mousikê, it is also possible to interpret countervailing forces between structure and function: the Apollonian representing in some sense the structuring laws of mousikê, and the Dionysian the artistic innovations fuelled by the competitive spirit of civic festivals. Toward the middle of the fifth century, rapid changes in traditional choral performance and pipe playing suggested an increasing tolerance for complex forms of performance. I concluded that fifth-century tragedy was inherently a kind of new music, taking some of the ordered ritual forms of the past, and reprocessing them in an apparently disordered but nonetheless striking way.

The tragic language of the choral odes, the coeval nature of Apollo and Dionysus in the choral odes of Sophocles’ Oedipus was exemplified when the logos-driven word broke into phonetic vocalisation. Ordered and disordered moments were also invoked in euphemic and blasphemic passages. While this is substantially true for other fifth-century tragedies, the manifestation of order and disorder is particularly significant for Sophocles’ Oedipus because modern reception, starting with Aristotle, singled out this play as the paradigm of classical order, conveniently overlooking the irregular attributes that did not correspond to an idealised view. Modern perspectives appropriating the Aristotelian structural (cause and effect; whole as the sum of parts) position have interpreted the ideal for instance as some form of musical structure (e.g., William Scott and the ‘musicality’ of the choral odes). I analysed sections of the choral text where patterns of metric structures are themselves not indicative of an organizing principle working throughout the odes. Instead, the constant presence of order and disorder formulates the counterpoint between metric patterning and the meanings conveyed in the text. What is ‘musical’ about Sophocles’ choruses is the tension conveyed in this counterpoint. It may be that the relationship of poetry and music, in microcosm, is a facsimile of the encroaching and reciprocating forces of the music of the cosmos.

The commensurate experience of ‘seeing’ and ‘knowing’ in ancient Athens makes us re-imagine the chorus, and the space in which it was performed, as being a dynamic picture of the cosmos and its complex profile. Ancient theatre space represented a nested experience of bodies (chorus) performing in a space (orchêstra) within the larger viewing space (theatron), and all containing multiple meanings. Space was imbued with meaning based on the actions of the body (or bodies) within the field of
vision. In the fifth century, the architectural, political and physiological body contained cosmological meanings. This is important to understand because it helps us to interrogate the worldviews of Plato and Aristotle from which modern historical reception has derived classical perceptions of the theatre space and the tragic chorus.

As part of a geometrical conception of the universe, Plato envisioned the chorus dancing like the well-ordered stars. He tied this view to the fact that the archaic khoroi danced clear-cut tropoi in religious settings aimed to please the gods. Nearly a century later, Aristotle viewed the tragic chorus as part of a philosophy concerned with causality and categories. While present-day scholars have continued to envision the configuration of the tragic chorus as a well-knit phalanx or as essentially circular, modern theories have generally reflected a shift from fifth-century Athens as a paradigm of ‘classical’ virtues to one where the body and space grew increasingly and perhaps confidently tolerant of complex shapes and forms. In the theatre sanctuary of Dionysus, in the spirit of competition both choral precision and innovation were vital to win the jury’s and spectator’s approbation. In theatre’s outdoor space, powerful configurations and dynamic transformations in the drama connected the microcosm of the human condition to the sanctuaries which gave them succour, onward to the natural topography where myth was born, and finally to the macrocosm of the unknowable gods. It was important that space, and the bodies in space, reflected revolution in more ways than clockwise and counter-clockwise movements since, by 429 BCE, the tragic chorus was very much a part of a cultural and intellectual revolution (either sudden or gradual) that paved the way for new forms of innovation into the fourth century.

In the Harmonic Chorus chapter, I addressed the aesthetics of harmony in the late sixteenth-century Italian Renaissance and how this shaped the production of Sophocles’ Edipo Tiranno and the building of the Teatro Olimpico. Harmony drew its meanings from renaissance cosmology. The emergence of early modern cosmology constituted a series of adjustments to ancient notions of the positions and movements of celestial bodies brought about by increasingly rigorous observations, developing mathematics that turned data into knowledge, and finer gradients in instruments that measured space and time. Important cosmologists reaffirmed the cosmological models from antiquity but continued nonetheless to re-evaluate them when they encountered
discordant phenomena. For instance, the centre of the universe was altered repeatedly to accommodate the irrational behaviour of orbiting bodies and measurements.

Adjustments such as these shadowed changes in musical composition. An example of this occurred in the mid-sixteenth century, when Tycho Brahe dissolved the cosmological spheres and speculated that individual planets were "unsupported", autonomous bodies in space. Around the same time, the dissolution in choral music of the cantus firmus emancipated notes, allowing individual voice parts (bass, tenor, alto and soprano) to form into a distinct tonal range. New cosmological findings influenced, and at times challenged, ethical and spiritual concerns in Judeo-Christian religion. In matters were the convergence of text and music were concerned, the church felt that it was important for composers and poets alike to consider first hand the paradigm of harmoniousness between humankind and the divinely crafted universe. The direct and simple delivery of the word amidst the chaos of polyphony showed proper reverence for, and harmony with, the sacred word.

Renaissance musicians needed freedom however from the static Neoplatonist views of harmony. The expressive music of the motet and madrigal, along with the development of musical instruments, correlated with two schools of polyphony represented the increasing complexity of choral music. For one school, harmony constituted monody, where a single melody prevailed over all other musical factors. In the other, polyphonic vocal writing ran the gamut of strict homophonic settings to highly ornamented textures. In architecture, Vitruvian principles of the perfect circle did not exactly harmonise with the pre-existing space of the Teatro Olimpico. Palladio, already experienced in bending convention to his personal vision of harmony, flattened the ideal circle into an elliptical viewing space. The discordant foreshortened viewing space was resolved in Scamozzi’s optically-liberating stage design. The harmonized viewing space of the Teatro Olimpico encompassed several forms of hierarchy. In the spectators’ space was the idealised amphitheatre for the privileged renaissance view. Above, and around them, a hierarchy of egos, in the form of statues representing members of the Accademia, shared a celestial space with enduring classical mythological figures, while below, on stage, the harmonic relationships of bodies in space had to be formulated for a once in a lifetime theatre performance.
I addressed the central issues concerning chorality and theatricality relative to the overriding humanist dictum demanding that the practitioners privilege the word over music. Plato, Aristotle, Horace and Cicero exerted a particular gravitational pull on musical composition and poetry, drawing ethical and aesthetical considerations tightly together in public performances. Giustiniani, Gabrieli and Ingegneri found ways, however, to blend personal vision and the shifting reception of antiquity. Giustiniani’s solemn yet ornate libretto harmonised austere Latinity and Petrarchian earthiness. His verses reinforce verisimilitude (speech matching character) and the essence of delight (high poetry). Gabrieli’s music represented a harmonisation of a clear setting of the text and an enrichment of homophonic choral writing. His sensitivity to text was matched by his experience of different performance spaces and of the behaviour of polyphonic music, particularly the madrigal in both acoustically resonant indoor settings such as churches, and the unfocused outdoor atmosphere of grand festivals. In the *teatrum mundi*, Ingegneri harmonized several directorial concerns. One such concern was the requirement to have a singing chorus that performed in the manner of a church or secular choir, and yet to have them deport themselves like Patricians gathering with great decorum in the Theban piazza. Another problem was that of acoustics; however beautifully the chorus was configured, the highest priority was not to lose a single syllable.

After the performance, whether Pigafetta and Riccoboni were enjoined by the staging of a magnificent tragedy to virtuous deeds, or prompted unearthly delight, may be interpreted in sycophantic contents in letters or secret reports. The tragic chorus could at least claim to be a significant part of the harmonious blend of beauty and spectacle, text and homophony, Vitruvian principles and modern space, verisimilitude and pleasure, something that would not happen in theatre history with such passionate attention and philosophical discourse until the classical-romantic era in Germany. However one might reconstruct the renaissance idea of simultaneously pleasing the eyes and ears, the relationship implicit in that experience required a discussion that could telescope from the primary sources to the wider historical purview. The interdisciplinary gaze in this chapter helped us to read between the lines of reportage, the notes on the page and the chorus on the stage.
At Potsdam, in 1841, the royal court produced a contemporary notion of the ideal Greek tragedy of the day, Sophocles’ *Antigone*. I argued in the Experimental Chorus chapter that the overall aesthetics of the production, and those involved in its staging, were involved in a creative process analogous to the principles embodied in Goethe’s scientific concept of *Versuch*. Goethe redressed the application of classical scientific principles because he perceived Nature to contain forces that did not resolve so easily in the empirical gaze. The Enlightenment’s emphasis on mechanical and mathematical thinking was a mode of individual and cultural self-understanding which contrasted with the new era of subjectivist-romantic urges. Goethe appeared in history as mediator. The ideal universe was a stage where the balance of rational thought and intuition brought about a form of unity, or conciliation, in the face of complexity. If Goethe’ reconfigured science could be mirrored in theatre, we might perceived the staging of Sophocles’ *Antigone* as an eventful punctuation – the ‘pregnant point’ (Goethe) – in a dense discourse on scholarship and practical knowledge. In the cultural *Versuch*, the ‘repeated and cumulative arrangement of [creative] experiments’, analogous with the adjustments and recombined methods of science, aim to reveal the *Urphenomenon* – the sense of sublime grace felt by those that watched and heard Mendelssohn’s choral music.

In the Weimar court theatre, both Goethe and Schiller represented a kind of mediation between eighteenth-century concepts on reason and the beauty in art versus the yearning toward idealism fuelled by the young romantic spirit. Their reception of the chorus could also be said to represent a mediating entity. Schiller’s chorus particularly embodied a kind of metaphysical middle ground, one that exemplified belonging to the here and now as well as to otherworldly values. The chorus could be earthy and communal and at the same time express views that rose above the fray. Schiller and Schlegel asserted ideas about the chorus, as did Hegel and Nietzsche. These philosophical speculations ran parallel with the concern, in the physical sciences, for the molecular ‘essence’ and ‘ensemble’ of heat and energy.

The First Law of thermodynamics postulates that in a closed world of events, despite conflict and ruin, the unity and symmetry of opposing forces is conserved and resolved. This, I proposed, correlated with Hegel’s view of society and his conception of the tragic chorus. The chorus was a paradigm of pure and unsullied social order.
wherein individual ethical conflicts were resolved. However, after the German revolt was quashed, and in light of increasing pessimism towards the optimistic Judeo-Christian and Socratic society, the philosophy of Nietzsche, inspired by Schopenhauer and Wagner, offered a counterpoint to the Hegelian paradigm. His philosophical perspective also expressed concepts analogous, I believe, with the processes of entropy inherent in the Second Law of thermodynamics. A Nietzschean-thermodynamic worldview envisioned how the logo-centric world of the past was fated to collapse (or reach maximum entropy). Nietzsche reconfigured the classical-romantic impulse as the Apollo-Dionysus dialectic and projected the tragic chorus as the Dionysian ur-collective in which the unbearable tensions set up by these correlating opposites somehow purged and resolved into a new state of being. Nietzsche’s chorus did not so much embody the classical Urphenomenon, but a construct for the post-empirical, human condition.

The tone of reception of the tragic chorus in nineteenth-century Germany had analogous links to architecture in the buildings of Knobelsdorff and Schinkel. Their architectural designs experimented in combining neoclassical order and rococo extravagance. Socio-politically, the emergence of choral societies, and the public affection for choral concerts, reflected the nineteenth-century Volksgeist that was striving for transcendence and nationhood. Opera houses, museums, concert halls, palaces and theatres created institutions where the public could be aesthetically uplifted. Likewise in choral societies, non-uniformity of genre or social class created, what Celia Applegate terms, a ‘commonality of ethos’.

In the 1841 Potsdam production, an eminent team of practitioners and a sophisticated audience catalysed enlightened expectations in an experimental atmosphere. In Mendelssohn’s first major attempt to write incidental music for theatre, the ‘classical’ rhythmic devices of the text and the use of traditional baroque-classical forms united with the romantic, colourful orchestration and dramatic, oratorio-style music. The choral music, overwhelming as it was, dissolved the tension between logos-driven speech and passion-driven music through the fluid exchange of recitative and choral passages, and the generally constrained style of Mendelssohn’s writing. Poetic rhythm

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also contained music in its highly esteemed position, while at the same time reminding the composer that the way to the missing *melos* of tragic choral song was through rhythm. The effect of this music, like the effect of most of his choral output, was by consensus considered to be transcendent, sublime and inimitable.

For Tieck and Böckh, in theatrical terms the mediation of order and disorder was an expression of unity between ancient archaeology and a baroque-classical interior. They were also concerned with the dual ability of music to overpower the drama and the space, and at the same time, transport the audience. On stage, notions of ancient space, the concept of a German community, and the importance of royalty and privileged viewing, were resolved through the concentric layers of the stage and the formation of an amphitheatre-style viewing space. As in the Teatro Olimpico stage, the ideal coordination of the chorus and actors ran into awkward moments because of the narrow access to designated areas. The difference between chorus and protagonist was also amplified by certain sections in the production where the chorus would burst into song after actors had spoken.

Conservatism and progressiveness may well have fuelled motivations behind royal patronage when Friedrich Wilhelm IV commissioned the production of *Antigone*. The king tested the theatrical waters by employing proven practitioners. Mendelssohn, Tieck and Böckh saw themselves as historical facilitators alongside the growing German historicism that was being traced in German culture from the greatness of the past to the pragmatism of the present and on toward nationhood. Each practitioner was persuaded by a conviction, rooted perhaps in Goethe’s classical-romantic world, that the sense-based observation of art in antiquity, in and of itself, evidenced little of their universal truths. Artists, and this included musicians, classicists and poet-directors, were enjoined to test the principles of the past in the reality of the present. The theatrical considerations at the royal court were ultimately preconditioned by classical-romantic notions of music, performance space, and the license to experiment.

Finally, in chapter on the Quantum Chorus, I argued that quantum physics constituted a synthesis of the causal principles established in the Newtonian-Laplace era, and the new theories of Einstein and Heisenberg. Einstein’s Relativity theories maintained
that the universe was causal throughout but that time and space were relative. For Heisenberg the ground of being was indeterminate at the micro level. Subsequently, in his Uncertainty Principle, he interrogated the experimental act as both an objective and invasive event. This paradoxical situation made him question the classical separation of the subject and the object. The fact that one could not simultaneously measure the location and momentum of a subatomic particle reinforced the inseparableness of the subject-object experience. In order to render the subatomic world coherent and predictable, Heisenberg developed Matrix Mathematics. Heisenberg’s concepts, I argued, can serve as analogues for the neoclassical era and for Stravinsky’s musical creativity. Moreover, the interplay of subtext and context, artefact and history, passion and austerity in the neoclassical theatre of Cocteau and Stravinsky reflected the dualism inherent in Heisenberg’s (and to some extent Einstein’s) quantum principles.

When Stravinsky’s *Oedipus* was premiered, several traits were immediately identifiable as belonging to the Apollonian neoclassical ethos: the cross-hatching of music styles, coherence to strict mathematical use of tempi and note values, streamlined structures appropriating baroque-classical idioms, dry orchestration, and a generally symmetrical organization of the material. The personal circumstances of a Russian émigré forced to establish an identity in the artistic morass of Paris may have encouraged the new objectivity in Stravinsky’s music. Increasing conservatism in Catholic France and the rise of Bolshevism in Russia also accompanied the strong urge to forge a path in neoclassicism. Neoclassicism, before the turn of the century, had roots in the formation of French nationalism in music. As the paradigm of contemporary music, musicologists and composers of the day held up the ordered, simple and restrained style of French eighteenth-century music. The stylistic label was also another way of simplistically disavowing the Austro-Germanic influence.

In his neoclassical manifesto, *Poetics*, Stravinsky advised creative artists to submit to the Apollonian logos. At the same time the composer also believed that (Dionysian) intuition was indispensible to creativity. I posited that the interplay of controlling and spontaneous forces, despite its overt Apollonian stance, recalled Nietzsche’s philosophy. The Apollonian force, as the *princpium individuationis*, feared the abyss that was experienced in creativity. In *Oedipus Rex*, a quantised scheme of metres and
note values, like a mathematical matrix, ordered the discontinuous-sounding parts into a whole, thus keeping the continuum between Apollo and Dionysus coherent and active.

Several devices showed the dualistic formation of Apollo and Dionysus in the operatorium. Rhythm, through textual and notational repetition, served as both a structuring device and a ritualistic force. Stravinsky’s works, like most of his contemporaries, were suffused with the ordering and emotionally disturbing qualities of rhythm; the patterns in the metres of Greek tragedy, for instance, attracted early twentieth-century composers like Honegger and Milhaud to craft the text around percussive sounding orchestration. A dynamic balance between order and disorder in the opera-oratorium was produced by dry, symmetrical and austere music, on the one hand, and Dionysian hymn-like passages and dramatic laments on the other. In terms of text, Latin evoked not only liturgy and antiquity but the kind of aural ‘monumentality’ that Stravinsky required. The scientific analogy that may be drawn here is that by emphasising the phoneme over semantics, the text was in a sense atomised, producing a quantum-effect where the romantic voice and the twentieth-century orchestra synthesised and became, in the timbre at least, undifferentiated.

Stravinsky’s neoclassical theatricality, like his music, was a magpie affair, an accumulation of ideas which came from various sources. Stravinsky envisioned a statue-like row of chorus – in bas-relief – reflecting the modernist movement which eschewed any forms of naturalism or realism, particularly forms associated with German romanticism. As avant-garde methods cut their connections with the past, in the voided theatre space and actor’s body new ideas and directions were developed by Jarry, Craig, Copeau, and Meyerhold. During the interwar years, synthetic and totalising theatre and art expressed a desire for utopian societies free of bourgeois styles.

In neoclassical theatre, eighteenth-century classicism and anti-romanticism galvanised with stylistic eclecticism. For Cocteau, the modernist movement meant stripping off the skin of historical artefact and replacing it with modern idioms. The Greek tragic chorus was re-contextualised to become statue-like creatures speaking a pared down and colloquial language. His early experiment with the disembodied voice and
depersonalised human forms may have anticipated this conception of the chorus. Likewise, the late-nineteenth century staging of tragedy featured in Mounet-Sully’s famous productions a tableau-style in the way choruses blended with meticulous architectural representations of antiquity.

Stravinsky was part of the theatrical world of Cocteau and it is possible that the ideas suggested in the décor for his opera-oratorio appropriated some of Cocteau’s theatrical treatment of Greek myth. Stravinsky’s sense of theatricality may also have been drawn from Meyerhold’s theatre which made actors move in a stylised fashion and produced plays in restricted boxed-in, chamber-like sets. The influence of Cocteau is perhaps most evident in the manner in which both the protagonists and the chorus are presented as mere shells of their human selves. In this way, reception was retrained on the central dramatic conceit: the interplay of illusion (what one is led to see and hear) and reality (what might actually be there). This gamesmanship with interior and exterior meanings, subjective and objective experience, of watching and being watched, exposed the Cartesian illusion of its absolutely partitioned spaces, narrative time, and formal distinctions of character. As much as the ordering features of Apollo ruled the neoclassical world of theatre, the denied force of Dionysus, in music and theatre, was augmented in the ongoing dismemberment and reconstruction of seeing and hearing. Neoclassicism in 1927 was a mask that showed the face of classicism, but also activated relativity and uncertainty.

Interdisciplinary Research Reviewed.
(Comprehensiveness and the similarities between interdisciplinary and disciplinary research)

When undertaking interdisciplinary research, a survey of current theories sometimes uncovered a complex set of discourses around a particular concept. A case in point is how the historiography of renaissance music and the history of magic and alchemy are related. In terms of harmonisation, certain combinations of tones and words were said to affect emotions in specific ways.\(^2\) The language of the occult, like the humanist world of ideas, drew heavily from antiquity and cosmology and continued to influence those such as Newton, who dabbled in alchemy as much as in rational

\(^2\) I mention this issue in a footnote early on in the chapter, 'Harmonic Chorus'.
science. One could have made the case for an order-disorder continuum in the semantic stretch of astrology, magic and the occult. The point I wish to make is that while interdisciplinarity is intrinsically wide-angled, it does not ensure that other parallel diachronic concepts can be comprehensively discussed. Like disciplinary research, interdisciplinary research is drawn to material that fits best into one’s theoretical premise.

There are practical limitations even to interdisciplinary research. In the classical-romantic chapter, the discussion of Enlightenment science and philosophy in England and France might have shed light on the ‘experiment’ as a Pan-European concept rather than a particularly German phenomenon, but this would have taken the research into a minimal and unsatisfactory comparative survey. Similarly, twentieth-century French and German neoclassicism presented a tale of two cultures which proved difficult to compare and analyse proportionately. By mapping the material as closely as possible to the topic, compromises are inevitably made about historical material that appears germane but must of necessity inevitably remain only on the periphery. In this regard, one might establish a similarity between interdisciplinarity and disciplinarity.

In the introduction, I also acknowledged a symbiotic relationship between interdiscipline and discipline. Interdisciplinary projects may have to travel far into unfamiliar topics and concepts, ascertain current internal debates, ensure the material is safe to use, and only then begin to find cross-disciplinary links. Disciplines have to remain internally rigorous and productive for interdisciplinary research to be viable and useful on this level. I found at times that metaphors and analogies disclosed how meanings accrued over time contain semantic leakage. A case in point was the use of the terms ‘chaos’, ‘randomness’ and ‘statistical’ particularly in twentieth-century science such as quantum theory (issues which are germane again in the Epilogue chapter). The difficulty of explaining complex processes in science was made more difficult by their culturally-resonant meanings, an inescapable problem for disciplinary and interdisciplinary research.

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3 On this point, I cited Strathern’s comments in the Introduction chapter.
There is however a sense that interdisciplinary work can offer a vantage point that disciplinary work cannot. In the postmodern era, relative views of time and space, language, and perspective make it problematic for any discipline to define initial historical conditions such as for the advent of neoclassicism, romanticism, or ancient cosmology. Interdisciplinary research with its opportunity to travel between disciplines can at least compare and analyse these complex historical discourses and their synchronic connections without acceding to any one disciplinary narrative.

(Interdisciplinarity and multidisciplinarity in performance reception)

In the Introductory chapter I described the paradox of multidisciplinary and interdisciplinary positions in Performance Reception. In moving towards theory, both approaches may lose the latitude and flexibility that they generally enjoy in terms of comparative surveys of historical materials. The paradox, I argued, remains unresolved, and this thesis did not add anything to shift the argument. I did however point out a number of reasons why it is that comparative studies in multidisciplinary research have so far failed to spot, or at least elucidate in any detail, the interrelationship of science and the arts in Performance Reception. I observed that interdisciplinary research was well-matched to the demands of an interdisciplinary phenomenon like the singing tragic chorus, and it was the aim of the thesis to test the potentiality of interdisciplinary research and to reveal the interrelationship of disciplines under investigation.

In using and citing multidisciplinary sources throughout this thesis, I can conclude that both are naturally comparative in their approach to history. Each zooms and telescopes, magnifies and distils, and eventually assesses and shapes the historical material based on a working model or framework. To some extent, the diachronic developments of concepts in music, science and theatre space which would be overlooked in a strongly disciplinary narrative could also be covered in multidisciplinary research. The key difference, I believe, is in how it is that interdisciplinarity operates in a versatile way. It can formally define an analogue and use this to tie far-reaching material together while at the same time affording places where analyses and interpretation of the primary material links larger intellectual fields to specific creative moments (e.g., Uncertainty Principle and analysis of the final music bars of Stravinsky's Oedipus Rex). In such instances, interdisciplinary
helped me to ‘zoom’ into and analyse specific aspects of a composer’s creative material, and then to telescope back to larger aesthetical frames. As a research tool, problems of moving from the microcosm to macrocosm, in the history of ideas, is what interdisciplinarity helps to resolve.

(Terminology)

For terminology, I argued for the use of analogues in the Introduction. Analogues negotiated the organization and analysis of complex histories without obliging me to resort to overarching historical narratives or to re-defining key concepts within disciplines. Analogues prevented me having to define what the artists or scientists saw or experienced. They did not, for instance, represent Stravinsky’s experience of a quantum world as when he alluded to a chronological art in his Oedipus Rex. Cosmology did not define one unifying model for the Presocratic way of thinking. Reinhardt did not envision a thermodynamic machine when the choral energy dissipated out into the audience. Analogues can be seen as a meta-narrative signposting where synchronous shifts, in their epistemological bases, occur between science and art.

Overall, analogues provided a new conceptualization of historical material in disciplines whose base theories are often viewed to have developed independently of each other. In Chorality, for instance, science analogues afforded a unique perspective on the relationship between the music and the text, particularly in neoclassicism which to my knowledge has not been analysed from a quantum scientific perspective. In Theatricality, we could reconstruct how aesthetic views led from theory to practice, and this was uniquely shown by cross-referencing the scientific world of Goethe and thermodynamics and the significant reception given to the tragic chorus in the classical-romantic era in Germany.

Conclusions.

From the broad canvas of this interdisciplinary research, four conclusions can be singled out. First, I have shown how the philosophy of science continually engaged with issues that affected perception, language and movement in music and theatre. In Presocratic and fifth-century philosophy, the dynamic relationship of concepts of being and becoming reflected the coeval nature of Apollo and Dionysus in the new
music and in the theatre of Dionysus. In the renaissance, the cosmological reasoning about proportion and irregularity were formulated in complex musical polyphony, architectural counterpoint and the pragmatics of harmony in a theatre production. From Goethe to Nietzsche, the experimental ethos, along with the scientific concern for essence and ensemble, divulged an idealist yearning to break free of empirical laws, to connect with a unifying force, and to resolve all aesthetic parts into a musical Gesamtkunstwerk. In the avant-garde, classical and romantic rules were eclectically reassembled in an uncertain universe of thinking, seeing and hearing.

Second, I have argued how the on-going interrelationship of poetry and music directly influenced, in theatre space, the historical reception of the singing tragic chorus. In fifth-century Athens, poetry, music and dance flourished simultaneously with no formal separation. Their revolutionary effects were felt and experience in the theatre of Dionysus through the performance of the tragic chorus. In the late-Italian Renaissance, Greek and Roman antiquity created categories of structure and function, giving the word priority over music. In the Teatro Olimpico, all ears were on the spoken and sung text rather than on the intrinsic beauty of the choral music. In the German classical-romantic era, music was seen to elevate the senses beyond poetry, just as intuition was raised above the logos, so much so that in the royal court of Potsdam, scholarly poetry was fully absorbed into the musical drama of the chorus. In the early twentieth-century, the words may have served the aims of neoclassical music, but music and text were caught up in the new aesthetics of time and space. Neither text nor music had an absolute monopoly where vision and sound were experienced, through the chorus, as a collage of ordering and disordering devices.

Third, I have indirectly demonstrated how increasing complexity is a trans-historic phenomenon that attends the confrontation of the order-disorder continuum represented by reception of the past and present. In each case study, it was clear how cultural nexus points like the fifth-century Attic festival, Northern Italian Renaissance humanist academies, Weimar classical-romanticism, and Parisian neoclassicism, absorbed, re-processed and re-imagined the archaic or ‘classical’ past. I described in each case study the oscillating, or ‘classicism’ tendencies, between innovation and tradition, idealism and pragmatism, intuition and reason-based analysis, and expressivity and objectivity. In each of the historical periods I delineated systematic
attempts by intellects of the day to establish a fixed, theoretical position in the complex traffic of information. The attempts were similar to those of a cosmologist or scientist who sought to establish set rules and regulations for an evolving physical world.

Finally, in retrospect interdisciplinary analysis has revealed that the concept of rhythm and its relationship to math was the lynchpin of historical synchronicity within the disciplines discussed in this thesis. In ancient natural philosophy, the basis of rhythm inhered in the spatial and proportional relationship of numbers in Pythagorean mysticism. Modern scholars also inferred a certain rhythm in the structured or ordered arrangements of architectural columns, statues, the physiological body, and the configuration of ancient space. Rhythm was an important phenomenon in the choral cosmology of Plato and Aristotle. Plato established the ethical rules of rhythm and Aristotle remarked on the proper application of rhythm, *melos* and speech in tragedy. Modern scholars have interpreted the rhythmic patterns in Sophocles’ choral text, preferring to view the irregularities and anomalies as part of the sum of structural order rather than as expressive counterpoints between order and disorder.

Ancient mathematics, through Arabic science, algebra and Euclidian geometry, was transformed into a mathematical discipline which then applied to the scientific work of Kepler and Galileo. In the late-Italian renaissance, the rhythm of poetry empowered its musicality. Gabrieli’s main concern in composing choral music was how to downplay rhythmic complexity in vocal polyphony. Verticality in the theatre space was argued in the periodic repetition of Vitruvian principles and the playful abnormality of Palladian exuberance. Horizontality and illusory depth were counterpoints in Scamozzi’s repeating street perspectives. De’Bardi and Ingegneri understood rhythm as the ordering of harmony, physical dance movement and poetry.

During the era of the Enlightenment, mathematics became indispensable to science’s theoretical leaps from directly observed events to the (as yet) unobserved. The descriptive and explanatory models of mathematics funded the mechanistic clockwork language of the world as well as chance-based, statistical models. The quantitative and qualitative, the structural and functional, the ordered and the expressive, the metronomic and the *rubato* (implied freedom between beats) were
embedded in the rhythmical structures of Baroque and Classical music. In the classical-romantic period, Mendelssohn agreed with Böckh that the way for modern music to reveal the pure essence of antiquity was for it to engage with the rhythmic construction of the poetry. I have also shown where Hegel and Nietzsche mention the significance of rhythm. Rhythm was significant because it invoked the communalising or ecstatic experiences of the chorus. In late nineteenth-century science, the micro to macro behaviour in gas molecules suggested a rhythm of movement that was classically rigid and determined and later stochastically blurry and random.

In the anti-romantic mood of the early twentieth-century, cultural expressions of primitivism, ritualism, film montage, or Merzbild were all a return, with various intentions, to the primordial notion of rhythm; before melody created narrative, and harmony a tonal structure, rhythm combined the essence of order and disorder. Stravinsky’s Oedipus Rex manifestly courted the ritualistic sensations inferred in Bergsonian vital élan, in what he claimed to be in Oedipus Rex’s chronological art. In the quantum era, we might also remember that rhythm also had an indisputably jazzy feel to it. The emergence of jazz out of the dithyrambic energy of West African song cultures and its fusion with the structuring devices of Anglican-Protestant worship suggests to us a historic circularity in the Apollo-Dionysian continuing on in the New World.

I have discovered in my triptych of disciplines, how historical matters concerning the singing tragic chorus travel beyond the sometimes programmatic accounts or secondary mention given them in current modern scholarship in theatre’s reception studies. Interdisciplinarity touched on how a group of human beings, who throughout history formally sang a tragic text in a performance space (or with a specific performance décor in mind), represented a touchstone for significant philosophical concepts and their intellectual provenance. I suspect that somewhere behind this historical overview looms in a progress report on the human condition – whether ideas have in fact altered human behaviour for better or for worse. In theatre studies, the progress of an idea is observed in the way theory converts into practice. For this reason, I offer an extended Coda to put my practice into the frame.
THE CHAOS-COMPLEX Chorus – 2005

To my knowledge, after 1927 there are no singing tragic choruses in theatre productions of Greek tragedy that are as exceptional in correlating science, music and theatre space as those investigated in this thesis. We might speculate that contemporary musical theatre provided a theatrical home for the all-singing/dancing/speaking chorus. Opera and concert works by tradition continued to present the singing choir in the twentieth century. It may be historical coincidence, or perhaps synchronicity, that the singing tragic chorus disappeared when science, music and concepts of theatre space fractured into a variety of sub-disciplines and methodologies, particularly after World War II. Nevertheless, music and theatre continued to debate the relevance of science theories, and modern scientific analogues can still be linked to modern conceptions of the tragic chorus. In this final coda, I briefly sketch out how current sciences theories – chaos and complexity – relate to modern practitioners for whom the chorus is central to re-imagining Greek tragedy in contemporary theatre. I will discuss my recent adaptation, Delphi, Texas, in light of these scientific connections, and suggest how notions of chorality and theatricality provide a glimpse of the singing tragic chorus emerging in 2005.

Modern Chorus and Science.

After World War II, the dethronement of Sophocles’ Oedipus as the exemplary Greek tragedy coincided with the demise of hero-centred productions. The victors of war unmasked the destructive forces of the atomic domain – Apollo, the god of light, was also the god of total annihilation. The fractured nuclei of the invisible world, reflected in the nuclear family, witnessed in the imploding solitary heroes as the centre of Arthur Miller’s modern tragedies. The evacuated space was filled with the polemical, angry plays of the 1950s. In the socio-political throes of the 1960s, the Dionysian

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Footnote:

chorus was reborn in the Hippy-ist ritualism of Richard Schechner’s *Dionysus in 69.*

In the meantime, the theatres of Jerzy Grotowski, Antonin Artaud and Peter Brook, like those of Copeau, Jarry, Craig and Cocteau before them, re-opened the body, space, and text as new methodological sites.

In science, chaos theory followed catastrophe theory in the 1970s and inverted the fundamental principle of neoclassicism, perceiving chaos as the norm and not as an aberration of order. In chaos theory, physical systems like the weather were observed to grow more complicated over time, soon becoming so highly sensitive to initial conditions that a butterfly quivering its wings could cause a hurricane in another part of the world. Today we may witness a socio-political manifestation of this complex sensitivity in the way the superstructures of global economies are easily thrown into chaos by an alleged local terrorist threat. The advent of computer technology and the mathematical science of fractals merged order and disorder into a unifying view of reality.

In the twenty-first century, the scientific engagement with increasingly complex phenomena has called for equally complex statistical theories and computer simulations to turn data into knowledge. Chaos theory has been absorbed into the discourse of complexity theory. True to its post-modern roots, chaos-complexity theory has no central theory or methodology. Complexity is primarily a cognitive methodology: how one thinks about or shapes complex problems rather than directly solves them. Subsumed in complexity are two views of chaos theory. One position sees order as embedded in chaotic events; that over time, and given certain initial

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conditions, a chaotic state will eventually evolve into an ‘strange attractor’ state, a condition somehow encoded in its processes. This thinking was expounded by James Gleick’s seminal book on chaos theory (Chaos: Making a New Science) back in 1987. The other position, argued by the Nobel-laureate physicist, Ilya Prigogine, is the scientific view I use in the discussion ahead on Chaos-Complexity theory. Chaos-Complexity does have a number of key concepts that are context-dependent. These relate primarily to organisational features of living systems in Nature and in the physical universe, and include ‘dissipative structures’, ‘energy’, ‘emergence’ and ‘self-organization’.

Chaos-Complexity Theory.
All organized systems, from complex cells to galaxies, use up ‘energy’ and will tend toward equilibrium as specified by the Second Law of thermodynamics (see chapter three, ‘Experimental Chorus’, for further explanation). Equilibrium represents a condition where workable energy is evenly dissipated rendering a system unworkable. When organizations grow they may increase in complexity. This process can indicate that life is moving far-away from equilibrium. At some indeterminate point a critical stage of energy dissipation occurs. A new structure (‘dissipative structure’) may spontaneously self-organize from a previous structure. An increased flow of energy is required to maintain the new complex structure. These newly evolved structures may not prove successful in the end and eventually disintegrate, or they may continue toward new forms of organization, reaching other critical points at indeterminate moments in time. ‘Energy’, ‘emergence’, and ‘self-organization’ are the common terms in complexity for understanding the way ordered systems move far-away from equilibrium. In the discussion ahead, I briefly sketch some of the theatre practitioners who have in some sense addressed, or indirectly claimed, ideas in their conception of the chorus that are analogous with chaos and complexity.

Chaos-Complex Chorus.
Jacques Lecoq is associated most in European contemporary theatre with a systematic approach to the interplay of chaos and order in the chorus. For Lecoq, an ensemble is
more than the geometric sum of parts. Games and improvisation create a rehearsal environment that is sensitive to randomness and chance events. In such a space, sudden leaps into new physical formations or narratives occur. Two U.K. disciples of the Lecoq tradition, Steven Berkoff and Simon MacBurney, have established a fringe tradition of chorus movement generally described as British-based physical theatre. The physical oneness of the chorus and the protagonist in Berkoff’s East End London Oedipus, *Greek* (1980), grew out of actors committed to playing different roles. Positioning his chorus away from realistic and toward physical theatre chorus, Berkoff admits that you cannot train a chorus until it’s a polished mirror, moving sometimes as one beast and sometimes as many, sometimes on a split second and sometimes like lava, multifaceted, throbbing, a fighting machine, a choral group, an opera, sound effects, screams, moans, whines, wind and silence -- in other words alive and not a swaying group of masked faces dabbed with a little choreography and choral speaking. . . .

Simon MacBurney, co-founder of the theatre company Complicité (formerly, Theatre de Complicité), follows similar unscripted rehearsal processes. MacBurney’s chorus evolves structures and forms from internally-driven mimesis (i.e., imagining physicality rather than copying physical shapes). Organization takes shape spontaneously without a priori methodological theories or psychological analysis. As MacBurney admits, ‘there isn’t really any technique, very often it is a lot of chaos in which everything is laid out, where everything is possible.’ Macburney can also be demonstrably Apollonian, as directors at times must intervene at critical moments to order and shape an idea or narrative.

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4 Jacques Lecoq, *The Moving Body: teaching creative theatre*, tr. David Bradby (New York: Routledge, 2002) sums up his views on ensembles in the ‘bouffon’ (pp. 117-26) and ‘tragic’ (pp. 126-43) chorus.


In his *Oedipus plays* (1996 joint productions of *Oedipus Tyrannus* and *Oedipus at Colonus*), Peter Hall focussed on the ‘complex’ language of the chorus and created the impression of ritual and ancientness. In the National Olivier theatre, stylised movement, frontal delivery, and the use of music by composers whose musical styles are inherently structuring and operatic, were all used to deliver an unambiguous visual and aural plan. The Theban Elders, in rehearsal with Michael Keegan Dolan, learned to move and act as a group and then were ‘nudged, edited, and encouraged’ into their places. Complexity is an orchestrated event so that in their performance, the chorus may have moved like a ‘flock of birds’, which is Hall’s naturalistic paradigm of chaos and order, but it was ultimately caged in by dramaturgical and hierarchical considerations.

Story-telling structures and the emotional syntax prompted by the text have been the stimuli for the chorus in the productions of Katie Mitchell (formerly of Classics on a Shoestring). Unlike Hall, Mitchell has emphasized the more spontaneous and figurative aspects of physical theatre. Her prominent handling of the chorus in the 1991 Gate Theatre *Women of Troy*, and subsequent productions, such as the *Iphigenia at Aulis* (2004, Lyttleton, UK) with Struan Leslie, phrased both the language and movement as part of the perceived natural rhythms of order and disorder embedded in the lines of the text. Instinctive and polyphonic movement were ultimately created by the linear exposition of text, a strong sense of time and place, and narrative sound effects (i.e., electronic sounds which enhance movement). The tell-tale sign of the Lecoq-school in incorporating physicality and balancing the stage can be seen in their conventional sense of physical theatre.

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In Ariane Mnouchkine’s acclaimed tetralogy of ancient Greek tragedies, *Les Atrides* (1990-92), the French socialist-inspired and communal-based values of Mnouchkine’s theatre travelled toward an intercultural style incorporating Kabuki, Noh and Indian Kathakali theatre, and shunning drilled recitations, militaristic executions of choral movement, or specifically historical interpretations. The chorus, the chorus leader and the music leader embodied, through song and dance, Wagnerian-style *Gesamtkunstwerk*, if not the original spirit of the ancient festival tragic chorus. Nevertheless, vivid costumes, structured performance hierarchies between chorus and music leader, and the synergising melodies and rhythms of song and dance shaped Mnouchkine’s production. Yana Zarifi and her U.K.-based Thiasos company similarly shape the dramaturgical elements of the play through choral movement and song.

In modern Greece, the importance of the chorus was evident in Karolos Koun’s Teatro Technis production of *Persians* (in the mid-1960s) and the comic plays of Aristophanes. The emergence of the chorus coincided with a ground shift in the conservative post-Junta period of theatre. In the present-day, Theodoros Terzopoulos and his Attis company explore the postmodern tension between structured and fractured narrative. The rehearsal process with his actors shuns dramaturgical considerations and tries to revive forgotten unities between the body, language and space. In the process, words are de-literalised and lose their syntactical organizations. As Terzopoulos admits: ‘I find myself violating certain texts in my need to be confronted by the unfamiliar. I lead actors deeper and deeper, and what they express is on the verge of order and chaos’.

Michael Marmarinos’ coextensive conception of the individual and the collective also comes analogously close to science’s chaos and complexity theory.

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12 Commentary on the role of the chorus in modern productions of Thiasos can be presently accessed at <www.thiasos.co.uk/interview_chorus.htm>.
14 An overview of Terzopoulos’ work can be read in, *Theodoros Terzopoulos and the Attis Theatre: history, methodology and comments* (Athens: Agra, 2002). Quotation on p. 56.
If we go to a bus station in a rush hour we have a tragic chorus before us: People maintaining their individuality under a common condition. When the bus comes they act as a group, the door opens and they get on. However, we can approach and see that the individuality of each one is kept.\footnote{15}

A form of deterministic chaos might be observed in the notion of autonomous order (each person waiting), responding to an external force (the bus) and forming the collective (groups entering the bus). The critical moment that prompts a collective formation of humans might also be analogous to complexity in the way groups spontaneously ‘self-organize’ from prior formations. A movement toward increasing complexity may be identified with, at least in the theatre of Marmarinos, a scientific view of dissipation and humanistic understanding of ‘tragic praxis’.\footnote{16}

One might deduce from Erika Fischer-Lichte’s historical analysis of choric theatre in post-industrial Germany deterministic chaos and aspects of complexity theory. She analyses aspects of organization and uses energy as a descriptor of forces working in Einer Schleef’s *The Mothers* and Volker Hesse’s *TOP DOGS.*

Fischer-Lichte discusses the way self-organization and utopian community were represented in the chorality of Reinhardt’s Theatre of Five Thousand and late in the 1960s, in Schechner’s theatre. This is different, according to Fischer-Lichte, to the choric theatre in the late 1980s and 1990s in Germany which explored disenfranchisement and atomisation.\footnote{17} In the post-industrial age, the conflict of identities formed by the worker and employer, or the citizen and leader, represent the never-ending tension between group cohesion and individual autonomy. In view of complexity theory, one might argue that the communist-style states, perturbed into chaos by the unpredicted collapse of the Berlin wall, created the leap into the sociopolitical, economic and cultural unknown for millions of people. Structures which


\footnote{16} Ioannidou, ‘Casting Postmodern Light on the Classical’, ibid.

represented the parameters of old static economies and national identities broke down and moved organizations and individuals, in socio-political and economic terms, far from equilibrium.

In Volker Hesse’s *TOP DOGS* (Theater am Neumarkt, Zurich, 1997), Fischer-Lichte informs us that the chorus engaged in monotonously rhythmic sounds and movements. They simulated the treadmill world of the contemporary workplace and the Top Managers who embodied the old structure. I would view this as analogous with conditions at (or nearing) total equilibrium, where work is meaningless, and communication is unfruitful. In the production, it is reported that indeterminate perturbations occurred and induced a new level of order, one structured by the singing of old German hymns and songs. But, according to Fischer-Lichte, the unique structure emerged from purposelessness; that is, joyful harmoniousness seemed to result from meaningless behaviour. In the nineteenth-century, the singing *Volkgeist* emerged out of deeply-felt nationalistic idealism and romantic notions of a galvanizing, transcendent spirit. In the 1990s, the impersonal universe embodied in the lifeless workplace gave new life but filled with a melancholic contemplation of the past. Purposeful ambiguity seems to have been Hesse’s existential response to the post-industrial age, where harmoniousness or classical order is an ultimately temporal and ‘delusive’ enterprise.¹⁸

Einar Schleef’s *The Mothers*, a four hour fusion of Euripides’ *Suppliant Women* and Aeschylus’ *Seven against Thebes*, was staged at the Frankfurt Schauspielhaus in 1986. The Nietzschean dialectic of Apollo and Dionysus in Schleef’s production was manifested in the endless irresolvable and aggressive tension between representations of individuality and of community. The chorus in this case was made up of three ensembles represented by costume-coded female choruses. In terms of theatre space, Fischer-Lichte describes the impact of the chaotic movements and sound of the chorus. In such an environment, moments were rare ‘when the chorus and auditorium formed a harmonious community’.¹⁹ A sense of community, or an island of order, would be tantalizingly suggested, then random perturbations, internal to rhythmic movements and the unison-style declamation of choral ‘whispering, shouting, roaring.

howling, screaming, whimpering and whining', would impel the choral actors into an unresolved continuum of individualism and of collectivity. The audience responded by either rejecting the unpredictable scenes (i.e., leaving the performance) or conspiring with its deterministic chaos, turning the 'house into an inferno'. This committed audience breathed with the unfolding order-disorder drama. They joined in the feedback of rhythmical associations between sounds and movement constituting the vital process, as Fischer-Lichte suggests, of 'releasing, transferring and exchanging energy between actors and spectators'.

The use of energy, as the qualitative currency of rhythm in choral performance, is rooted, I believe, in the thermodynamic Hegelian and Nietzschean chorus, and Reinhardt's 1910 chorus (see chapter 'Experimental theatre'), and I concur with Fischer-Lichte that unlike Reinhardt's chorus, Schleef's chorus did not seem to aim for a sense of community between chorus and audience. I would further add that the erratic exchange of energy (described as 'autopoetic feedback loops of interactions' between the speech and movement of the modern German actors) may have suggested 'dissipative structures' that eventually produced, or signalled emergent episodes of, self-organization. The on-going 'battle' between chorus and audience, and within the chorus itself, may have suggested the continuously indeterminate emergence of order and disorder. As in chaos-complexity, the emergence of choral order seemed to depend on indeterminate variables, such as the actor's performance or the profile of the audience on a given day. Immeasurable initial conditions (a main axiom of chaos-complexity), the eternal blur of causality and determinism, the unresolved dilemma of chance and determinism in classical science, seem to correlate in the theatre with the aural and visual fluidity of Schleef's chorus.

One might relate Schleef's chorus back to concerns in Hellenic Athens. His chorus mimicked in theatre space the unresolved relationship of Being (Parmenides) and Becoming (Heraclitus-Empedocles-Atomist). Helmar Schramm's discussion of the analogical co-extensiveness of theatre and science reminds us that 'no other traditional, cultural phenomenon contains the artificial, stylized interaction between

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20 Fischer-Lichte, 'The Rebirth of Tragedy', ibid.
21 Fischer-Lichte, ibid.
perception, movement and language to the same extent as theatre’. A main issue raised by Schleef is perhaps that which was pondered over by Sophocles over two thousand years ago: how much an audience can tolerate complexity in the theatre when chaos and complexity are so much a part of our cultural and socio-political spheres. How much of the cosmic dance and sound of order and disorder, in all its unsettling grandeur, can be contained in a modern adaptation of tragedy? Such issues visited the plague-ridden cattle of Delphi, Texas.

Delphi, Texas: complex chorus.

Issues of chorality and theatricality surfaced in a production of my adaptation, Delphi, Texas. From the start, my aim was to represent the concept of order and disorder in an ensemble that could seamlessly metamorphose, in sound and movement, between a tragic chorus and a group of protagonists. I conceived of the chorus as cattle because of the choral-like sound of cattle’s synchronic and responsorial lowing. I was also fascinated by the intuitive movement of herding and separating. As a basis for a text, I wanted to combine bovine sounds and the sinewy and sensory qualities of Ted Hughes’s Senecan Oedipus (1968). Like Loraux’s analysis of tragic choral prayer, I aimed to produce moments where semantics broke apart and produced a synthetic sound that was part human and part animal.

The small fringe theatre in the upstairs space of the Pleasance Theatre (Islington, London) in its hidden aspect and low-hanging beams conjured a barn where one could imagine a quarantined and plague-ridden chorus of cattle. The space could also bring the audience as near to an infected atmosphere as possible. On a philosophical level, the black box simulated the world of Plato’s cave, were unenlightened creatures balk and quiver at shades of reality. Likewise, the box also constitutes a paradigm of a late-twentieth century fringe experience. A darkened tabula rasa can represent multiple worlds and no world at once. In such a space, we can be in the cosmos of the Presocratics, where being and becoming mix together in a contained theatre space.


23 The author’s play, Delphi, Texas, is an updating of Sophocles’ Oedipus Tyrannus, and previewed at the Stage Space, The Pleasance, London (17th – 19th May, 2005). The script is unpublished.
Text.
In *Delphi, Texas*, it is the time of mad-cow’s disease. Terror, unseen and unknowable, infects the world of plagued cattle. In the rafters of their barn, a radio that is meant to soothe them broadcasts instead evangelical rants and apocalyptic messages. Sometimes the sound of a helicopter swoops down over the barn as it ferries dead cattle to be burned and buried. Fragments of classical-sounding text, radio jungles, and environmental noises amalgamate into ordered phrases but enter the space unpredictably. Out of the chaotic scenario a story takes shape in the minds of the cattle, one that mimics Sophocles’ *Oedipus* and fuses the tragic world of the animal and the human condition. During the first twenty minutes, the text and movement create a facsimile of an emerging dissipative structure in sound and movement leading to the *parodos*. The overarching aim for the *Delphi parodos* was to conjure the stampede, its organizational chaos, and the final dissipation of heat and fire into a naïve reassurance of order and religious faith. The cattle *parodos* is also a double-vision of a family cult, overwhelmed by the pouring down of the Spirit in the form of the rising sun, as shown in this excerpt below.

[Sunrise; light gradually enters the barn]

**FIRST CHORUS**

**FIRST STROPHÉ**

*CATTLE*
(randomly, inflecting ‘sweet’)
Sweet / sweet-what-is-it / voice of sweet light / sweet Heaven (?) /
Wells Fargo golden sweet voice / heaven sent / sweet

**QUEER STEER**
(rhythmic)
rend me!
heal me!
wound me!
heal me!
wound me!

**HOSS/MAMA**
(evenly)
heaven sent
my flesh
my heart
my head
clap my hand

**GOOD SISTER COW**
(bleating)
i am but a stray
i am but a
lost her way
brand me on high
make me a bride

**BIG HOSS**

Clap your hands all ye people
Hope cleave!

*hoof beat*

**CATTLE**
Cleave!
BIG H OSS
Hope pray!

[hoof beat]

CATTLE
Pray!

BIG H OSS
Hope whip crack

CATTLE
Crack!

BIG H OSS
Us dogies* home today! (* ‘dogies’ - cowboy slang for cattle)

[helicopter swoops]

FIRST ANTISTROPHE

QUEER S T EER
Whoop-ti-yi! Whoop-ti-yi! Whoop-ti-YI-YI-YO!

MAMA/GOOD SISTER [D]
get-along-get-along-get-along (etc.)

[hooves beat]

CATTLE
Little Doggies!

BIG H OSS
God be in my Head!

[E]

QUEER S T EER
Whoop-ti-yi! Whoop-ti-yi! Whoop-ti-YI-YI-YO!

MAMA/GOOD SISTER
get-along-get-along-get-along (etc.)

[hooves beat]

Here, in the opening passage of the Delphi’s first choral ode, shafts of light rays enter the barn and perturb the cattle into a state of ecstasy. They first speak collectively ‘in tongues’ [A]. And then in the next stanza [B], the density of the text alters as the cattle divide into autonomous states. The leader of the herd, Big Hoss, literally stamps his authority, driving his hooves into the floor creating a responsorial [C]. The perturbing event that moves the text into the first antistrophe is the congregational-style response and the swooping noise of a helicopter.

The text is transported from ordered responsorial back to chaos in the anti-strophe. The verse starts with a layer of vocalized sound which is Pentecostal in tone [D].
Tongues loll with ‘Get along Little Doggies!’ and ‘Whoop-ti-yi-yo!’, fragments of a cowboy song. Again collective hoof beats momentarily punctuate order, signified by Big Hoss proclaiming God to be in parts of his body, just as the Thebans in Sophocles call to the various gods in their sacred precincts to come to their aid [E]. In the opening, as in other parts of the cattle parodos, cells of order emerge out of random and repetitious blocks of clashing texts.

Similar to Hesse’s *TOP DOGS* (as Fischer-Lichte describes it), these cells of order are momentary and collapse back into polyphonic cacophony. Also, like Schleef’s *The Mothers*, waves of energy are emitted from the collapsed and rebuilt structures found in every pairing of the parodos. Unlike Schleef, the text is treated like a musical manuscript. There are phased periods of order that signals, in narrative fashion, where the changes are bound to occur. The impression of stampede and heat are observed in the clockwise and anti-clockwise movement of the cattle-chorus, and also in its spiritual possession. The overarching energy of the parodos builds to a climax [F] and resolves in the calming but nonsensical drivel of Big Hoss [G].

THIRD STROPHE

CATTLE

(continuously under BIG HOSS’s words and increasingly intense)
Sweet / sweet-what-is-it / voice of light / Heaven (?) / Wells Fargo golden voice / heaven sent

BIG HOSS
For our Fight it is with
the Quiver and the Shake!
For our Fight it is with
the Shiver and the Quake!
For our Fight it is with
the Stand and the Fall!
For our Fight it is with
the Mark and the Sore!
For our Fight it is with
Liberals Moderates and Whores
For our Fight it is with
the Sower of Plague
The killer of the bull

MAMA COW
The Angel with the scroll
Who will take tally and the toll

QUEER STEER
Unfurling the barb-wire Sphinx
Circle the Beast and send it whence

[F]
GOOD SISTER COW
Fire follows fire after fire after fire
Almighty God brand him with your talking iron!!

CATTLE
HAW! HAW! HAW!

[helicopter hovers]

THIRD ANTISTROPHE

BIG HOSS
(calmly)
And the moo shall be for the cow
And the haw shall sound from the bull
And the udder shall fill with milk
And the hooves will stand very still
And the farmer will talk to the cattle
And the cow shall jump over the moon
And the good will be cut from the chattel
And the Voice will call cows home soon.

An instance where the breaking point between language and sound occurred came in the penultimate moment in the play. The cattle realise its leader inadvertently brought the plague, fulfilling, at least its addled imagination what the Voice of Radio Delphi suggested at the start about the second coming of the Messiah. The cattle collectively intone a mourning song. In this section I juxtapose a popular nineteenth-century cowboy song made famous by Woodie Guthrie – ‘Whooppee-ti-yi-yo get along little dogies’ – with my reworking of the fifth choral ode expressing the Sophoclean pessimism of the human condition. In the performance, the isochronal scoring caused moments when the singing tone and the spoken word jarred inducing the tragic sound I imagine is the language ‘strained to the utmost’ (Nietzsche) or the ‘cry of cries (Nicole Loraux). Such sonic fractures, between for instance, the sung ‘road’ or ‘barbed’ and the spoken ‘Hoss’ and ‘hard’, appeared on the page with numbers representing the duration, in seconds, for sustaining the word. So for example,

FOURTH CHORUS
(excerpt)

Text
Song

HOLY COW
That cattle trail’s rough and a hard ROAD (4)

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MAMA COW
Luckless, HOSS
I'd hate to be in your boots.

Sure fire, you shot your bolt
Further then the rest of us

GOOD SISTER COW
You cut the BARBED-wired Sphinx

...card to play...(3)

The song was led by Holy Cow, the Tiresias character, who pounded out his Dionysian rhythms on a milk stool. The rest of the characters stayed primarily in designated spots moving ritualistically with identical cow masks. Free-flowing speech, juxtaposed antiphonally with metric song, worked against the order imposed by rhythm and synchronized choreography.

Movement.
In terms of movement, cattle behaviour transposes easily into theatre. In their natural environment, cattle know each other intimately and will show xenophobic traits towards strange cattle introduced into the herd. Cows develop routine habits so that interferences have a disruptive effect not just on individuals but on the herd as a whole. The animals also react to each other hierarchically. In open spaces, cattle tend to cluster while in closed spaces, they are less social in their spacing. They also have extraordinary peripheral vision (three-hundred degrees) but easily balk at shadows or the sun. They can be calmed by soothing music and are easily stressed by loud noises. Sexually, cows display forms of nymphomania, or steers and bulls might mount each other in times of stress or even boredom. When they are ill, cattle overstretch the neck, hunch the back, kick their belly area, grind their teeth, or even star-gaze. Moreover, cattle under stress suggest modes of behaviour that are not unlike human behaviour. One can easily imagine the Nietzschean chorus in the conflict between the individual (bull/cow) and the collective (herd) that results in forms of destruction (stampede, illness, perturbations in the environment) and the emergence of unity (milling in circles).
Configuring Delphi's 'Chorus of Bovinity' was greatly aided by this rich repertoire of cattle behaviour, yet cross-breeding the pre-figured text with the actor's body generated problems. A kind of battle occurred between the words and the cattle movement. Once this movement became instinctive to the acting group, the logic of the text no longer held, and the words or phrases were either rejected or created into new sounds and language.

Other shades of complexity.

In Delphi, contemporaneous allusions to AIDS, BSE, sexuality, religious fundamentalism, media pollution, and cult mania played into the notion of purposeful ambiguity suggested in text and movement. These topics surfaced on different levels throughout the play and were never tied to moralizing positions or overriding messages. Cattle identity was also ambiguous. Although the chorus members were labelled simply – Mama Cow (Jocasta), Queer Steer (Creon), Holy Cow (Tiresias), Big Hoss (Oedipus), each identity betokened hidden hierarchies. The organizing principles of the collective broke down as the perception of cult leaders and their hippy followers eerily overlapped with an incestuous bull prodding his subservient herd to follow his tragic lead.²⁵

Complexity was further magnified by the claustrophobic barn-like space. One could say that a variety of energy – sexual energy, spiritual energy and animalistic energy – radiated unsettlingly from no particular ideological source. With no buffer zone for the energy to dissipate, the audience was brought directly into the cross-fire of the complex drama. They either left the space, endured chaos-complexity, or connected with the unfolding aural and visual structures in the performance. Those who stayed the course watched the emergence of the doomed cattle into a singing chorus line. In the final moments inside the burning barn, Sophocles' sombre choral finale was transformed into the sight of mad cows intoning the deceptive irony of gospel truths. In ancient terms, it was also the chorus at the edge of chaos and, as Loraux states,

²⁵ In post-production, it was pointed out to me how the chorus of cattle resembled the porcine chorus of Percy Shelley's burlesque Swellfoot the Tyrant (1820). Shelley's own probing of faith and politics opens possible ways to think about historical satire and the satyr-like chorus.
'quick to transform any glimmer of hope into a celebration of their role as the chorus'.
The reception that greeted Delphi, Texas was nearly unanimous about the play’s complicated devices. Discontinuity and randomness – an overkill of the Dionysian perhaps – reflected in the mysterious plagued behaviour of the cattle, in the unexpected intrusion of sounds from outside the barn, and in a text heavy with allusions and phonetic word-play. The play’s Apollonian coherence came from the story’s structure, the rhythms that were deliberately scored into the text, and the ritual synchronicity of cattle movement. The next stage is to create an explanatory and descriptive language in terms of sound and movement that can in some sense match expectation or tolerance of the order-disorder continuum.

In theatre practice, the Delphic command to ‘know thyself’ brought me into an academic setting and into the historical reception of the Greek tragic chorus. In that setting I intuited and elucidated a vital interrelationship between science, music and theatre space. The compulsion to imagine a bovine world as a continuum of opposites went back to the binary framework of the Presocratics and the increasingly complex use of this framework in fifth-century Attic tragedy. I also discovered in my present-day theories a genealogy from Nietzschean philosophy to German choric theatre. As we re-imagine in our time the rebirth of tragedy, with the eyes and ears of modern natural philosophers, order and disorder would appear to be condensing and rarefying dangerously at the extreme ends of religious fundamentalism and numbing materialism. Love and Strife are embodying our warming and cooling response to a distressed planet. If like a shaken vessel the theatre continues to reconfigure the unknowable cosmos, perhaps it will be the tragic chorus that once again gives us something to sing about.
‘Chorus of Bovinity’, from Delphi, Texas
(writer/director, holding bull mask)
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