



**THE MUSIC AND MUSIC THEORY OF  
PAUL HINDEMITH**



**SIMON DESBRUSLAIS**

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To my parents, who taught me never to give up.

The time may perhaps return, when musical rules will be, as they were in olden times, an essential part of the code of the physical sciences. It is an alluring idea to think of a reorganization of scientific concepts on a musical basis. Instead of a plan for the world's destruction by superbombs, a blueprint of music theory would be drawn up to serve as a plan for a tremendous reformation of the universe. Harmonic, melodic, and rhythmic laws, as worked out in a most beautiful and exalted composition, would transform the world's woes and falsehood into the ideal habitat for human beings, who by the same process of musical ennoblement would have grown into creatures worthy of such a paradise.

—Paul Hindemith, *A Composer's World: Horizons and Limitations*  
(Cambridge: Harvard University Press, 1952) p. 102

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## List of Abbreviations

ABRSM	Associated Board of the Royal Schools of Music
DMA	Doctor of Musical Arts
HI	Hindemith Institute
<i>HJb</i>	<i>Hindemith Jahrbuch</i>
<i>JMT</i>	<i>Journal of Music Theory</i>
OHAM	Oral History of American Music
<i>PNM</i>	<i>Perspectives of New Music</i>
THC	Thomas Hall Collection
YHC	Yale Hindemith Collection



## Preface

Like many readers, I came to know Paul Hindemith through one of his instrumental sonatas. In the gap between sixth form and university, I would visit trumpet professor Iaan Wilson at the Royal Academy of Music in London, who introduced me to Hindemith's *Sonata for Trumpet and Piano*. Our lessons occurred during a vital part of my technical and musical development, although – again, similarly to many readers – I look back on my endeavour with mixed feelings. I remember it being hard work – I had to improve my physical level to play the first movement convincingly – and, when it came to putting the trumpet part with the piano, it took me many attempts before I was able to execute a coherent and accurate rendition. However, it was not unrealistic. After practice I soon came to enjoy the work and appreciate the technical platform it offered. This highlights, I believe, the position that these duo sonatas often take. They are encountered regularly along the road to securing instrumental technique and are particularly common in examination, audition and competition environments. This does not necessarily make them popular – but undoubtedly, they are familiar to many. I was also to encounter his *Elementary Training for Musicians* whilst an undergraduate student at King's College London, guided by the now prominent British composer Joseph Phibbs. The case of Hindemith's music and writing is therefore of sentimental value, both due to the time in my life I first encountered it and the formative role it played in my development as a musician.

But this is to form a narrow image of Hindemith's musical legacy. Though works such as the instrumental sonatas have found a natural place in the repertoire – indeed, for many instruments they remain as some of the key works for recitals, examinations, auditions and competitions – they offer only one side of Hindemith's creative personality. This is also the man who wrote the ingenious *Ludus Tonalis*; the song cycle *Das Marienleben*; the jazz-tinged *Suite 1922*; and the radical, scandalous one-act opera *Sancta Susanna*. He was also an essential pioneer of the early music movement in North America through the establishment of the Yale Collegium Musicum; one of the most highly regarded proponents of the viola in the early twentieth century; and, for a time, seen as the future of German modernism. Finally, and central to the concerns of this book, Hindemith built one of the most ambitious music theories of the twentieth century. I came to this central aspect of his legacy only after his *Trumpet Sonata* and *Elementary Training*,

which I believe is typical of the majority of musicians who know Hindemith today. We come to his music theory *through* his music. This book is a study of Hindemith's music theory and an examination of how his compositions evidence his pioneering approach. It is hoped that this study will revitalise interest in, and examination of, his theoretical ideas.

## Acknowledgements

This book began at Christ Church, Oxford, under the supervision of professors Eric Clarke and Jonathan Cross. I am indebted to their highly significant and formative contribution to my work, and to their careful development of my approach and ideas. I would not be where I am today without them. I would also like to take this opportunity to thank the music staff at the University of Oxford for countless meetings and corridor conversations; the Oxford Faculty of Music Librarians Jenny McParland, Martin Holmes and the late Stephen Jordan; Michael Spitzer, Benedict Taylor and Guy Rickards for their careful editing and commentary on my work; Lena Kleinschmidt from Schott Music; the staff of the Hindemith Institute, Frankfurt-am-Main; the Hindemith Collection at Yale University and its librarians Richard Boursey and Emily Ferrigno; the Oral History of American Music and Anne Rhodes; the late John McCabe; Antje Kalcher and the Universität der Künste Berlin; my students at the universities of Oxford, Nottingham, Bristol, Surrey, King's College London and Hull, many of whom contributed unwittingly to my ideas, and the many colleagues who offered invaluable comments after reading drafts of this book including David Neumeyer, Deborah Pritchard, Charles Wilson, Mark Slater, Milos Zatkalik, Helen Prior, Nicholas Attfield, Stephen Farr, Julian Empett, Rebecca Lancashire, Peter McMullin, Toby Young, Amy Skinner and diligent copyediting by Henry Bertram. It could not have been completed without the financial support of Christ Church, Oxford and the Oxford Music Faculty; a grant from *Music & Letters* to obtain transcriptions from the Oral History of American Music; the Royal Musical Association Fellowes Student Research Grant for copies of the Thomas Hall Collection; the good faith, support and encouragement of Michael Middeke and Megan Milan at Boydell & Brewer, in addition to various conversations with musicians and academics too numerous to mention. I want to extend particular gratitude to all of the staff in my new home at the University of Hull for providing the environment necessary to complete this book.

A new English translation of Theodor Adorno's provocative essay, 'Ad vocem Hindemith' was made in connection with this book,<sup>1</sup> by Daniela Fountain, and funded by a University of Hull Research Grant. The full

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<sup>1</sup> 'Ad vocem Hindemith. Eine Dokumentation', in Theodor W. Adorno, *Musikalische Schriften IV. Gesammelte Schriften* [Collected Works], Vol. 17, ed. Rolf Tiedemann.

translation is available by visiting [https://boydellandbrewer.com/media/wysiwyg/Docs/Adorno\\_translation\\_Web\\_Copy.pdf](https://boydellandbrewer.com/media/wysiwyg/Docs/Adorno_translation_Web_Copy.pdf).

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# Introduction

This book is a critical study of Hindemith's music theory, through a close analysis of his music. His writing and theoretical ideas can be hard to grasp, particularly given his often hazy description of how ideas such as 'harmonic fluctuation' and 'Series 1 orders' can describe and compose music. The reader should not be deterred by Hindemith's rhetoric, however, as within his oeuvre lies one of the great practical musicians of the twentieth century. Since the time it was written, his music and music theory have encountered conflicting receptions, dividing those performers whose repertoire owes its foundations to a Hindemith sonata and those who claim that he was an unnecessary tinkerer of his compositions and whose meddling in music theory caused widespread mischief. Though this book does not refrain from offering critical perspectives on Hindemith's works, it does so with the agenda that the reader may become more acquainted with Hindemith's proto-theory and may reflect on how it may be developed and nurtured within the context of the twenty-first century.

## Hindemith's Theory Publications

Hindemith finished seven theoretical and pedagogical textbooks, all but one of which are published by Schott & Co. and have enjoyed several revised editions. Following Hindemith's move from Germany to the USA during 1937, the original language of some of his texts switched to English. However, they were still translated back to German, which is testament to his popularity after the Second World War. In order of publication these include:

1. *Unterweisung im Tonsatz: Theoretische Teil* (Mainz: Schott & Co., 1st edn 1937, 2nd edn 1940) [*The Craft of Musical Composition: Theoretical Part*, trans. Mendel, Arthur (Mainz: Schott & Co., 1942)].
2. *Unterweisung im Tonsatz: Übungsbuch für den zweistimmigen Satz* (Mainz: Schott & Co., 1939) [*The Craft of Musical Composition: Exercises in Two-Part Writing*, trans. Ortmann, Otto (Mainz: Schott & Co., 1941)].
3. *A Concentrated Course in Traditional Harmony, Vol. 1* (Mainz: Schott & Co., 1943) [*Aufgaben für Harmonie-Schüler*, trans. anon, probably Hindemith (Mainz: Schott & Co., 1949)].

4. *Elementary Training for Musicians* (Mainz: Schott & Co., 1946).
5. *Harmonie-Übungen für Fortgeschrittene* (Mainz: Schott & Co., 1949) [*A Concentrated Course in Traditional Harmony, Vol. 2: Exercises for Advanced Students*, trans. anon, probably Hindemith (Mainz: Schott & Co., 1953)].
6. *A Composer's World: Horizons and Limitations* (Cambridge: Harvard University Press, 1952a) [*Komponist in seiner Welt*, trans. Hindemith, Paul (Mainz: Schott & Co., 1959)].
7. *Unterweisung im Tonsatz: Übungsbuch für den dreistimmigen Satz*, ed. Briner, A., Meyer, P. D. & Rubeli, A. (Mainz: Schott & Co., 1970).

The 1937 German *Unterweisung* edition ended with an appendix listing compositions by Hindemith which best represent his theory in practice. This document, which was omitted from future editions, is quoted below. It provides a tremendously valuable insight into Hindemith's opinion of his theoretically based music at the time of writing his first textbook. That the appendix was subsequently removed from all editions of the *Unterweisung* – including the English translation as *The Craft of Musical Composition* in 1942 – begs the question of how these works relate to the political climate of 1930s Germany.<sup>1</sup>

Die Verwirklichung der in diesem Buche vorgetragenen Ansichten über die Technik des Tonsatzes läßt sich am besten in den nachstehenden Werken des Verfassers verfolgen:

[The realisation of the views presented in this book on the technique of composition can best be observed in the following works by the author:]

- Sonate in Es für Violine und Klavier, op. 11<sup>1</sup> (1920)
- Sonate für Bratsche und Klavier, op. 11<sup>4</sup> (1922)
- Streichquartett, op. 22 (1922)
- Die junge Magd. Sechs Gedichte von Georg Trakl für eine Altstimme mit Flöte, Klarinette und Streichquartett, op. 23<sup>2</sup> (1922)
- Kleine Kammermusik für 5 Bläser (Flöte, Oboe, Klarinette, Horn und Fagott) op. 24<sup>2</sup> (1922)
- Sonate für Bratschen allein, op. 25<sup>1</sup> (1923)
- Sonate für Viola d'amour und Klavier, op. 25<sup>2</sup> (1929)
- Sonate für Violoncell allein, op. 25<sup>3</sup> (1923)

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<sup>1</sup> Because the appendix was left out of the second edition of the *Unterweisung* in 1940, it failed to make the journey into Mendel's translation in 1942. For this reason, it has been overlooked in many studies of Hindemith's music theory in the English language.

Fünf Stücke in der ersten Lage für Streichorchester, op. 44<sup>4</sup> (1927)  
 Frau Musica. Musik zum Singen und Spielen nach einem Text von  
 Luther, op. 45<sup>1</sup> (1928)  
 Konzertmusik für Solobratsche und größeres Kammerorchester,  
 op. 48 (1930)  
 Konzertmusik für Klavier, Blechbläser und Harfen, op. 49 (1931)  
 Konzertmusik für Streichorchester und Blechbläser, op. 50 (1931)  
 Das Unaufhörliche. Oratorium nach einem Text von Gottfried Benn für  
 Soli, gemischten Chor, Knabenchor und Orchester (1931)  
 Plöner Musiktag. Musik zum Singen und Spielen: A. Morgenmusik,  
 B. Tafelmusik, C. Kantate, D. Abendkonzert (1932)  
 Philharmonisches Konzert. Variationen für Orchester (1932)  
 Trio Nr. 2 für Violine, Bratsche und Violoncell (1933)  
 Symphonie Mathis der Maler für Orchester (1934)  
 Mathis der Maler. Oper in sieben Bildern (1934)  
 Der Schwanendreher. Konzert nach alten Volksliedern für Bratsche und  
 kleines Orchester (1935)  
 Sonate in E für Violine und Klavier (1935)  
 Trauermusik für Bratsche und Streichorchester (1936)  
 Drei Sonaten für Klavier (1936)  
 Sonate für Flöte und Klavier

Als praktische Erläuterung wird ferner eine Neufassung des 1924 erschienenen  
 “Marienleben” (Gedichte von Rainer Maria Rilke) und des “Liederbuches für  
 mehrere Singstimmen” (1925) veröffentlicht werden. Das im Text wiederholt  
 erwähnte Übungsbuch erscheint, sobald die bei der Verwendung des  
 theoretischen Teils gemachten Erfahrungen es gestatten.

[As a practical demonstration, a new version of the 1924 published  
 “Marienleben” (poems by Rainer Maria Rilke) and the “Liederbuches für  
 mehrere Singstimmen” (1925) will also be published. The workbook that has  
 been repeatedly mentioned in the text will appear as soon as the experience  
 gained from the use of the theoretical part permits it.]

This book uses the appendix to create the following three categories, which  
 form the analytical basis of chapters 3, 4 and 5:

1. music written before the *Unterweisung* and yet quoted in the appendix;
2. music written immediately after the *Unterweisung*, such as the *Ludus Tonalis* (1942);
3. music written before the *Unterweisung* but subsequently revised as a corollary of his theory, such as *Das Marienleben* (1923, revised 1948).

### Hindemith's Theory and Practice in Primary Sources

In addition to the chronological placement of Hindemith's compositions and theory, there is a corpus of rich documents which give reference to his theory and practice. These include:

1. *Unterweisung* drafts
2. *Unterweisung* appendix
3. *Das Marienleben* foreword
4. Hindemith Institute, Frankfurt am Main
5. Yale Hindemith Collection
6. Oral History of American Music
7. Blonay Bibliothek
8. Thomas Hall Collection
  - a. Correspondence with Arthur Mendel
  - b. Edward Ballantine, *Variations on Mary Had a Little Lamb*
9. University libraries at Buffalo, Berkeley and Berlin
10. Rebner and Amar String Quartet Programmes
11. Continuing expansion of the Hindemith Complete Edition

Giselher Schubert (1980) has examined Hindemith's *Unterweisung* drafts from 1935–1937, although a detailed examination of the (significant) alterations between the published 1937 and 1940 versions is still needed.<sup>2</sup> The *Unterweisung* appendix, though an exceptional document, is often unnoticed. The foreword to Hindemith's *Das Marienleben* has also often been overlooked because of the scarcity of the English translation. It is widely available in German, as the front to the Schott publication of the 1948 revised version, although no translation is provided. For this, one must look to a separately published English translation (Schott & Co., 1948), which is poorly disseminated and out of print; at the time of writing this book, there was not a single library copy in the United Kingdom. The foreword is a valuable document, perhaps even more so than the *Unterweisung*, for investigating the relationship between Hindemith's theory and compositional practice.

Following Hindemith's death in 1963, two international research centres were founded: the Hindemith Institute, Frankfurt am Main (HI), and the Yale Hindemith Collection (YHC). Between them they hold the majority of Hindemith autographs and correspondences. Frankfurt retains archival ties with Schott Music and publishes an ongoing collected-works edition (*Hindemith Sämtliche Werke*), a journal (*Hindemith Jahrbuch* [henceforth

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<sup>2</sup> Schubert, Giselher, 'Vorgeschichte und Entstehung der "Unterweisung im Tonsatz: Theoretischer Teil"' *HJb*, Vol. 9 (Mainz: Schott & Co., 1980) pp. 16–64.

HJb]) and a pamphlet (*Hindemith Forum*). It is also affiliated with the Paul Hindemith Prize in composition at the Schleswig-Holstein Music Festival (since 1990) and the Paul Hindemith Prize of the City of Hanau (since 2000). The Blonay Bibliothek is a paper resource held within the Institute, which records the various books and papers owned by Hindemith in his personal library. These books are stored in a Hindemith Library in Blonay, Switzerland. It contains valuable information about the theoretical books Hindemith was interested in, and includes details on those that he dated and annotated. Within the YHC, there are several thousand pages of primary source material. Access is facilitated by an online catalogue. Furthermore, the Yale archive catalogue system keeps archives for all its notable alumni and staff. Within the Yale Collection is a collection of manuscripts entitled ‘Thomas Hall’. These contain material such as Arthur Mendel correspondences and the unpublished score of Edward Ballantine’s *Mary Had a Little Lamb Variations*, in the style of Hindemith.

Much of this material appears perhaps for the first time in this book, lending a new perspective on Hindemith’s music theory. Key sources include:

1. Class notes from Hindemith’s students at Yale
2. Hindemith’s corrections to student compositions
3. Letters and correspondences, particularly concerning Arthur Mendel and the *Unterweisung* translation
4. Reminiscences from former students, contemporaries and colleagues held in the Oral History of American Music
5. ‘Blackboard’ fugue fragments recorded by students in Buffalo and Yale
6. The connection of Hindemith’s source material to his Blonay library
7. Unpublished documents referring to Hindemith’s work in the Berlin Rundfunkversuchsstelle

The chronological placement of Hindemith’s music theory within his compositional activity; the *Unterweisung* appendix; the compositional revisions and the classroom teaching, all invite an investigation into the relationship between Hindemith’s theory and practice.

### **Secondary Sources on Hindemith**

Two key texts that relate to this field are Ian Kemp, *Hindemith* (1970) and David Neumeier, *The Music of Paul Hindemith* (1986). Kemp’s text is sixth in the *Oxford Studies of Composers* series, edited by Colin Mason, which also includes monographs on Fux, Marenzio, Cherubini, Tallis and Schoenberg: save for the latter, these were composers who had been quantitatively marginalised in musicological publications at that time. As Kemp’s book was

published only seven years after Hindemith's death, it allowed him to take advice from Gertrud Hindemith (who died in 1967) and therefore includes valuable perspectives. Moreover, Kemp published, for the first time, many anecdotes from Schott's Hindemith archive, which was to become part of the HI.

Kemp both introduces the central *Unterweisung* concepts and offers a brief application. Notable strengths include his discussion of pitch centres from Hindemith's *Mathis der Maler Symphony* and his appliance of Hindemith's analytical principles in graph form.<sup>3</sup> However Kemp's text is concise at only fifty-nine pages in length. It therefore leaves many areas for investigation. These include most notably the analysis of complete scores, rather than segments; critical engagement with Hindemith's theoretical methods; and an *Unterweisung* reception history.

This book is indebted to the work of Neumeier, whose 1986 monograph is the major study of Hindemith's music theory and compositions. It is part of the *Composers of the Twentieth Century Series*, edited by Allen Forte (Neumeier's doctoral supervisor), which also includes monographs on Scriabin, Varèse and Stravinsky. The book is structured in four parts: (1) preliminaries on theory, composition and analysis; (2) *Mathis der Maler*; (3) music before *Mathis*; and (4) music after *Mathis*. Neumeier therefore associates *Mathis* (1933–1935) with a stylistic watershed in Hindemith's music. It is the seminal text on Hindemith, both for its analytical depth and reference to Hindemith's theoretical and compositional sketches.

Neumeier similarly analyses Hindemith's *Das Marienleben* and *Ludus Tonalis*, which is unsurprising given the theoretical context surrounding them. My book differs from Neumeier's in three fundamental ways. Firstly, it does not consider the third *Unterweisung* volume as an accurate document of Hindemith's theoretical position. One of the reasons for this is precisely due to the doubts that Hindemith had when writing it. Hindemith certainly intended to add volumes in three- and four-part writing immediately following the publication of the first two volumes; whether the posthumous third volume truly represents this, however, is unclear. Secondly, the method in this book is wholly unrelated. Neumeier does not investigate the theoretical potential of quartal pitch systems, nor their close relationship to Hindemith's theoretical writing, choosing instead to invent an elaborate inventory of symbols based on the third *Unterweisung* volume. Indeed, Stephen Hinton finds it 'a series of hieroglyphics which is imprecise and tends to confuse rather than enlighten'.<sup>4</sup>

<sup>3</sup> Kemp, Ian, *Hindemith* (London: Oxford University Press, 1970) pp. 35–9.

<sup>4</sup> Hinton, Stephen, 'Review: Neumeier, David, *The Music of Paul Hindemith* (New Haven: Yale University Press, 1986)' *Music Analysis*, Vol. 7, No. 3 (October, 1988) pp. 356–9.

Thirdly, Neumeyer does not use Hindemith's *Unterweisung* appendix to the extent I do here.

It has been over twenty-five years since Neumeyer's monograph. In the meantime, there have been no detailed examinations of the relationship between Hindemith's theory and composition in the English language that have not been the complement of a doctoral degree (DMA) in performance. Since then, many unpublished documents have come to light, such as the Yale Thomas Hall Collection (THC) and material from the Berlin Universität der Künste. Secondary material used in this book, published since Neumeyer's monograph, includes complete repertoire lists for the Rebner and Amar String Quartets (1991–1993), a succession of dedicated Hindemith articles in the *Journal of Musicology*, and a Hindemith monograph in Danish by Niels Viggo Bentzon (1997).

The analytical method developed here is indebted to post-tonal prolongation models by Joseph Straus (1987) and Fred Lerdahl (1989 and 2001). Earlier concepts of atonal prolongation may be traced to Felix Salzer (1952) and Robert Morgan (1976).<sup>5</sup> In these forms, it exists as an ironic consequence of Heinrich Schenker's tonal reductive technique, applied liberally to diverse music examples from Machaut to Bartók and Stravinsky. Straus advises caution concerning the range of repertoire that prolongation is applied to, and adds four conditions to define and enhance the theoretical definition of prolongation. A sensitivity towards pitch salience, discussed by Lerdahl, is added to express precisely why certain pitches are more prominent than others and may therefore be subject to prolongation. This book is particularly concerned with the prolongation of Hindemith's quartal pitch collections, as an expression of *Unterweisung* theory.

Apart from the two monographs by Kemp and Neumeyer, which are out of print, detailed and committed studies of the close relationship between Hindemith's music and theory are surprisingly few. The overwhelming majority of texts that attempt to relate Hindemith's *Unterweisung* to his compositional process are DMA doctoral theses in performance. The Trumpet Sonata (1939) has already earned six complete dissertations, perhaps due to its proximity to the publication of *Unterweisung* in 1937.<sup>6</sup>

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<sup>5</sup> Salzer, Felix, *Structural Hearing* (New York: C. Boni, 1952) and Morgan, Robert P., 'Dissonant Prolongation: Theoretical and Compositional Precedents' *Journal of Music Theory*, Vol. 20, No. 1 (Spring, 1976) pp. 49–91.

<sup>6</sup> These include Morton, P., *The Influence of Paul Hindemith's The Craft of Musical Composition on his Sonata for Trumpet in B-flat and Piano* (University of Alabama, DMA, 1995); Bogard, R., *The Trumpet in Selected Solo and Chamber Works of Paul Hindemith: Elements of Trumpet Technique and their Relationship to the Gebrauchsmusik Concept* (University of North Texas, DMA, 1994); Retzlaff, C.,

There is a short and rudimentary application of the *Unterweisung* to Hindemith's Third Piano Sonata by Radoslavova (2006) and a more general analysis by Thurston (1984), in addition to studies of Hindemith's chamber music, which focus on the output from the 1930s.<sup>7</sup> These include his sonatas for Harp (Poeschl-Edrich, 2005), Viola (Whang, 2005), Flute (Ohlsson, 1975), Clarinet (Townend, 1967), Bassoon (Koper, 1972) and Trombone (Walter, 1996).<sup>8</sup> As the DMA degree includes a substantial performance component, the analytical discussion of the music is usually brief and relates the *Unterweisung* to each composition by its chronological connection rather than on how the music itself may demonstrate Hindemith's theoretical ideas.

Notable biographical material includes Andres Briner (1971), Geoffrey Skelton (1975), Luther Noss (1989) and Guy Rickards (1995). They provide useful documentary evidence but do not investigate the specific relationship of Hindemith's theory and compositional practice. Noss is noteworthy as one of the few authors to present material from the YHC, including valuable information for this book, such as Hindemith's student lists. Routledge's prominent music bibliography series is yet to attempt an edition on many mainstream Western composers, such as Monteverdi, Beethoven, Mozart

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*World War II Symbolism and Programmatic Content in Paul Hindemith's Sonata for Trumpet and Piano* (California State University, DMA, 2008); and, more loosely, Cox, B., *Selected Chamber Compositions of Paul Hindemith Employing Trumpet: A Stylistic and Performance Analysis* (University of Southern Mississippi, DMA, 1995); Toering, R., *A Performance Interpretation of the Sonata for Trumpet and Piano by Donald H. White and a Comparison with the Trumpet Sonatas of Paul Hindemith and Kent Kennan* (University of Cincinnati, DMA, 1981); and Heinzen, C., *Semiotic Modelling: Relevance to Trumpet Performance and Musical Interpretation using Paul Hindemith's Sonata for Trumpet and Piano* (Louisiana State University, DMA, 2006).

<sup>7</sup> Radoslavova, I., *Paul Hindemith's Craft of Musical Composition and its Application in his Third Piano Sonata* (University of Wisconsin, DMA, 2006). This took the form of a lecture recital in a performance and research doctorate. See also: Thurston, V., *Hindemith's Third Piano Sonata: A New Assessment* (Ohio State University, DMA, 1984).

<sup>8</sup> Poeschl-Edrich, B., *Modern and Tonal: An Analytical Study of Paul Hindemith's Sonata for Harp* (Boston University, DMA, 2005); Whang, D., *Observations of Paul Hindemith's Approach to Form and Tonal Language: The Three Sonatas for Viola and Piano* (University of Hartford, DMA, 2005); Ohlsson, J., *Paul Hindemith's Music for Flute: Analyses of Solo Works and Stylistic and Formal Considerations of Chamber Work* (Ohio State University, DMA, 1975); Townsend, G., *A Stylistic and Performance Analysis of the Clarinet Music of Paul Hindemith* (University of Illinois, EdD, 1967); Koper, R., *A Stylistic and Performance Analysis of the Bassoon Music of Paul Hindemith* (University of Illinois: EdD, 1972), Walter, R., *Paul Hindemith's "Sonata" for Trombone: A Performance Analysis* (Louisiana State University, DMA, 1996).

or Stravinsky. However, there are already two on Hindemith (2005 and 2009).<sup>9</sup> This further highlights the wealth of archival material available on Hindemith; and yet, no devoted monograph has been published on Hindemith in the English language since Neumeyer. The quantity of archival material is disproportionately rich compared to the quantity of monographs.

### Book Outline

The first challenge faced by Hindemith scholarship is the clarification of the identity of his music theory. Chapter 1 addresses this, in addition to critically engaging with some of his theoretical inconsistencies. Chapter 2 develops a method for the analysis of Hindemith's music, based on set theory and voice leading, which is connected to the areas of *Unterweisung* theory that have the clearest relationship with free composition: quartal harmony and chromatic counterpoint. Chapters 3–5 comprise the main analytical data of this book and investigate the three areas relating to Hindemith's *Unterweisung* appendix: music written before, music written after, and music revised. These demonstrate the evolving presence of theory-principles in his music, in addition to changes in Hindemith's style that are not directly referred to in theory. Chapter 6 focuses on the biographical circumstances of Hindemith's influential sonata sequence and draws together a wide range of anecdotal information to assemble an image of current perceptions. It also considers the more practically oriented textbooks *Elementary Training for Musicians* and *Traditional Harmony*, which stem from the different requirements of the Yale teaching environment. While Chapter 1 partly investigates imperfections in Hindemith's theory-writing, Chapter 7 shows that the expression of these problems in the English-language journal *The Music Review* carries an inappropriate level of venom. The level of criticism in this influential academic publication (one of the only journals to publish in depth on *Unterweisung*-theory in English) is unreservedly caustic. This further shows that an understanding of Hindemith's ideological position is necessary for an accurate evaluation of his music theory: in other words, it is unfair to attack the *Unterweisung* without first trying to understand what Hindemith was trying to achieve. Chapter 7 examines the legacy of Hindemith's work, with a particular focus on how the identity of his music theory, and his relationship to his students, affected its dissemination. Hindemith was both unfortunate, leaving the United States at precisely

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<sup>9</sup> See Desbruslais, Simon, 'Review: Stephen Luttman, *Paul Hindemith: A Research and Information Guide*, 2nd edn (New York: Routledge, 2009)' *Twentieth-Century Music*, Vol. 8, No. 2 (September, 2011) pp. 266–9.

the time when set theory and Schenkerian theory gained a foothold, and lacking in the delicacy and subtlety necessary to achieve the admiration of a large proportion of his students. It also shows subsequent theoretical and compositional fashions that are indebted to his work, notably music theory that blends music with natural science, accompanied by the aspiration to create a theory that is in some way applicable to all forms of Western music. Chapters 1–5 focus on detailed theoretical analysis, followed by chapters 6–7 which include more emphasis on critical and historical musicology.

This book therefore addresses the following three central questions: what is the identity of Hindemith's music theory, how does it relate to his music, and what legacy did it leave? Hindemith scholarship is ripe for such enquiry in 2017, through the lens of unpublished archival sources. The connection between his music and theory deserves a re-evaluation.



# An *Unterweisung* Critical Commentary

## Setting the Scene

Not all composers are music theorists, and fewer still publish theoretical textbooks. Of these few, the connection between their music and theory varies: Johann Joseph Fux wrote music in a mature Baroque style, yet his theory codified the earlier polyphonic practice of Giovanni Pierluigi da Palestrina. The French composer Jean-Philippe Rameau wrote an extensive treatise on thorough-bass, beginning with a first part that speculatively justifies the diatonic system using the overtone series. In turn, the Austrian thorough-bass theorists wrote practical treatises which reflected the harmonic character of their music-making, such as Johann Georg Albrechtsberger, Simon Sechter and Anton Bruckner.<sup>1</sup> The German theorist Hugo Riemann took Rameau's speculative application one step further and invented harmonic dualism to objectify the minor mode.<sup>2</sup> Some composer-theorists were prominent composers in their lifetimes. Many were not.

Against this backdrop is a rare occurrence of a composer who turned to the writing of music theory textbooks as a way of streamlining his own compositional style: Paul Hindemith (1895–1963). Though he has been classed among the great composers of the early twentieth century, in the esteemed company of Béla Bartók, Arnold Schoenberg and Igor Stravinsky, his legacy and music theory remain enigmatic.<sup>3</sup> Unlike Schoenberg, who wrote textbooks to observe features of earlier, diatonic music, Hindemith created a speculative music theory that offered a direction for contemporary composition to follow which did not sever its ties with tonality, and yet used the chromatic scale. He entitled it *Unterweisung im Tonsatz*.

Hindemith's committed engagement with music theory is, further, unusual given his early popularity as a performer and a composer. His

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<sup>1</sup> See Wason, Robert W., *Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg* (New York: University of Rochester Press, 1985).

<sup>2</sup> See Rehding, Alexander, *Hugo Riemann and the Birth of Modern Musical Thought* (Cambridge: Cambridge University Press, 2003).

<sup>3</sup> For example, see Lampert, V., Somfai, L., White, E. W., Noble, J., Kemp, I., *New Grove Modern Masters: Bartók, Stravinsky, Hindemith* (New York: W. W. Norton & Co., 1984).

initial achievements in performance included entering the Frankfurt Opera Orchestra aged nineteen and subsequently playing in the Rebner and Amar String Quartets. The status of his technical prowess as a viola soloist was elevated to the highest international standing during the 1920s and 1930s, where he premiered his three viola concertos and, in addition, William Walton's *Viola Concerto* at infamously short notice.<sup>4</sup> Hindemith performed his viola concertos with some of the leading musicians and ensembles of the twentieth century: for example, his fifth *Kammermusik* was premiered in November 1927 with the Berlin Staatskapelle under Otto Klemperer. Moreover, these were not isolated performances; Ian Kemp reports that, by 1938, Hindemith had played the *Kammermusik* ninety times.<sup>5</sup>

Many composer-theorists turned to theory after their works received limited popularity or attention. This was emphatically *not* the case for Hindemith: by the mid-1920s, he was widely regarded as the leading, living German composer. This was due in part to the success of three modernist one-act operas (*Mörder, Hoffnung der Frauen, Das Nusch-Nuschi* and *Sancta Susanna*), five String Quartets and the *Kammermusiken*. He also held an influential director position at the Donaueschingen music festival, which was to become the prominent Baden-Baden festival, and from 1 July 1919 he had secured the influential support of the publisher Schott & Co. He was an ideal candidate to continue the line of German New Music after the death of Max Reger in 1916; indeed, many of his early works were influenced by Reger, and his later Organ Sonatas.<sup>6</sup> Though his music was not always received with unanimous critical acclaim, it was undoubtedly well known and effectively disseminated during his lifetime.

Hindemith published the first instalment of his music theory at the age of forty-one, in June–July 1937, just prior to his emigration to the United States. Before this date, he had written in excess of 103 compositions, which included a wide range of genres from opera and oratorio to orchestral and instrumental works.<sup>7</sup> Afterwards he wrote at least seventy-five compositions,

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<sup>4</sup> William Walton's *Viola Concerto* was to be premiered in 1929 by Lionel Tertis, who declined the work. Hindemith stepped in to give the premiere performance, at a Henry Wood Promenade Concert on 3 October 1929, conducted by Walton.

<sup>5</sup> Kemp, Ian, 'Some Thoughts on Hindemith's Viola Concertos' *Hjfb*, Vol. 35 (Mainz: Schott & Co., 2006) p. 69.

<sup>6</sup> Kemp, Ian, *Hindemith* (London: Oxford University Press, 1970) p. 7.

<sup>7</sup> The breakdown of works before June 1937 include: eleven stages works, twenty orchestral works, one oratorio, six unaccompanied choral works, seven works for solo voice and orchestra, fourteen works for solo voice and piano, eleven chamber works for three or more instruments, twenty-one chamber works for one to two instruments, and twelve works for keyboard. There are numerous other fragments, lost works, works

in addition to a large number of canons and compositions for amateurs (*Sing- und-Spielmusik*). His theory-making therefore occurred in a middle period of his compositional life. This chronology offers a valuable opportunity to analyse the connection of Hindemith's music theory to his compositions in a manner that may rarely be found in other composers, particularly of international standing. We are able to look at both early works, ostensibly written without theoretical concerns, and late works, written in a conspicuously theoretical manner. Moreover, some works, such as *Das Marienleben* (1923 rev. 1948) were written before his theory and subsequently revised as a consequence of it.

Hindemith has been described by Geoffrey Skelton, the first author to publish a Hindemith biography in the English language, as achieving technical mastery with the completion of the pivotal seven-scene opera *Mathis der Maler* in 1935.<sup>8</sup> Its close proximity to the completion of *Unterweisung I* in 1937 is no coincidence. Skelton suggests that Hindemith was keen to remove the element of chance in the process of composition – 'the variation of quality brought on by an over-reliance on artistic inspiration' – and arrive at a complete control of his 'craft'. He concludes that it was 'an essential part of the process of Hindemith getting to know and understand himself'.<sup>9</sup> Skelton's believable interpretation offers an enticing rationale to the *Unterweisung*: the writing of a grand theory text may have been concerned as much with Hindemith consolidating his technique, and refining his own methods, as it was for teaching others. It may also have been written to address his lack of formal academic qualifications. Parallel to Hindemith's academic and compositional mission, one may argue convincingly that the complex, and in many ways chaotic, compositional environment of 1920s Germany, and the pluralistic nature of Hindemith's music from this time, invited a thinker to create order in an increasingly multifarious musical language. We may also look to other developments in music theory during the early twentieth century which paved the way for Hindemith's approach: Schenker's rethinking of contrapuntal structural levels and organicism; Schoenberg's harmonic theory and Ernst Kurth's 'Spannung' (part of the school of Energetics), were all essential precursors of Hindemith's work. Of further influence on his theory-

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for mechanical instruments, miscellaneous dramatic music, film scores, incidental music, and music for amateurs. After June 1937, Hindemith's works include: four stage works, eighteen orchestral works, one requiem and four other works for choir and ensemble, eight unaccompanied choral works, one work for solo voice with orchestra, eleven works for solo voice and piano, six chamber works for three or more instruments, sixteen chamber works for one or two instruments, and six works for keyboard.

<sup>8</sup> Skelton, Geoffrey, *Paul Hindemith: The Man behind the Music* (London: Gollancz, 1975) p. 143.

<sup>9</sup> *Ibid.*

writing was the assortment of colleagues in the Berlin Musikhochschule whose expertise likely steered the direction of Hindemith's acoustic experiments. This particularly includes Friedrich Trautwein, inventor of the Trautonium and who was affiliated with the Berlin Rundfunkversuchsstelle (an experimental radio institute). Finally, a ban on Hindemith's music and an increasing sense of artistic isolation following 'Der Fall Hindemith' in 1934 likely contributed to the grand and speculative essence of the *Unterweisung* text.

The unique relationship of Hindemith's musical compositions and musical theory opens up rich possibilities for investigation, which are central to this book. For example, what elements of the *Unterweisung* are applicable to free composition? And of these components, which have had the greatest impact upon Hindemith's musical language, particularly given the chronological placement of Hindemith's theoretical work during his compositional activity? The results provide a context for Hindemith's compositional legacy.

### Overview, Description and Identity

The first volume of the *Unterweisung im Tonsatz* is an original, speculative and generalising theory of music. It consists of six chapters which introduce and apply concepts of harmony, melody, and analytic method. The *Unterweisung* is based on two main premises: Series 1, which creates an order of melodic relationships, and Series 2, which creates an order of harmonic relationships. These are founded on the acoustic, and scientifically verifiable, phenomena of overtones and combination tones respectively. Series 1 and 2 are then used to develop a new understanding of harmony – including two-voice framework, chord value, harmonic fluctuation and degree progression – and of melody – including step progression, chordal association and melodic degree progression. Both theories of harmony and melody prioritise the fourth and the fifth over other intervals. Unfortunately, Hindemith's chapter order lacks a logical progression:

1. Introductory;
2. The Medium;
3. The Nature of the Building Stones;
4. Harmony;
5. Melody;
6. Analyses.

Series 1 and 2 are introduced in *Unterweisung* Chapter 3. They concern melody and harmony respectively. The following two chapters run the opposite order: harmony and then melody, which confuses the practical application of Series 1 and 2. Hindemith also uses his concept of two-voice

framework to describe harmony in Chapter 4, even though it is primarily a contrapuntal technique and therefore harmonically incomplete. There is a further lack of distinction between the concepts of harmonic degree progression and melodic degree progression. The final and most disruptive layout in this volume is the presence of a short section entitled 'practical application': before the melody section has been introduced.

Through his music theory, Hindemith hoped to rekindle interest in a synthetic approach to music and the natural sciences – particularly physics and astrology.<sup>10</sup> His aspiration that music theory and science would one day converge in a universal form reflects the polymath music theorists of old, from Pythagoras to Hermann von Helmholtz, who pioneered work across a range of disciplines.<sup>11</sup> The introduction to the first *Unterweisung* volume is abundant in language that implicitly links Hindemith's music theory to Johannes Kepler's *Harmonices Mundi* (1619), most notably the concept of 'harmonic gravitation'.<sup>12</sup> This relationship was made explicit twenty years later in Hindemith's opera of the life of Kepler, *Die Harmonie der Welt* (1957), and it is the most speculative aspect of his treatise. Hindemith also believed that his music theory could be applied to music from all genres and eras, as demonstrated by the analysis of music from Gregorian Chant to Schoenberg and Stravinsky, although it is critical of serialism and polytonality. It is one of the most ambitious works of music theory ever written.

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<sup>10</sup> Hindemith, Paul, *A Composer's World: Horizons and Limitations* (Cambridge: Harvard University Press, 1952a) p. 102. The final paragraph of Chapter 5, on 'Means of Production', outlines in poetic detail Hindemith's hopes for the future of music theory: 'The time may perhaps return, when musical rules will be, as they were in olden times, an essential part of the code of the physical sciences. It is an alluring idea to think of a reorganization of scientific concepts on a musical basis. Instead of a plan for the world's destruction by superbombs, a blueprint of music theory would be drawn up to serve as a plan for a tremendous reformation of the universe. Harmonic, melodic, and rhythmic laws, as worked out in a most beautiful and exalted composition, would transform the world's woes and falsehood into the ideal habitat for human beings, who by the same process of musical ennoblement would have grown into creatures worthy of such a paradise'.

<sup>11</sup> The Blonay Bibliothek lists that Hindemith kept a copy of Albert Einstein's *Relativity* (New York, 1947). His interests in the progress of natural science towards theories that could cover a wide variety of phenomena corresponds with the aims of the *Unterweisung*.

<sup>12</sup> The first reference to this concept occurs in *Craft* (1942) p. 22: 'In the world of tones, the triad corresponds to the force of gravity'. Hindemith also owned a copy of Kepler's *Welt-Harmonik* (Munich & Berlin: Oldenbourg, 1939), which contains a German translation of Kepler's *Harmonices Mundi* (1619).

Volume I of the *Unterweisung* is a peculiar and hazy blend of practical species counterpoint and speculative music theory, and consequently the prescriptive and descriptive elements of theory and analysis. It begins with a quotation from Fux's *Gradus ad Parnassum* (1725) – a wholly practical textbook, without speculative theory, which trains the student to imitate the contrapuntal style of Palestrina.<sup>13</sup> Whether Hindemith foretells accurately that 'the success of Fux's work shall be a good omen for mine', however, is surely a matter for debate.<sup>14</sup> *Unterweisung I* has a different status to both Kepler's speculative *Harmony of the Worlds* and Fux's practical species counterpoint. Common ground between the *Unterweisung* and Fux's *Gradus* includes the pedagogic structure of the four *Unterweisung* volumes, both on a larger scale in the progression from each volume from two- to four-part counterpoint, and on a smaller scale within each volume, whereby the student begins with a restrictive set of rules, which are gradually relaxed. Hindemith's concept of 'two-voice framework' is the closest to species counterpoint. It concerns a contrapuntal reduction, whereby only the outer two parts are shown. These parts may then be analysed for voice-leading progressions. However, Hindemith's failure to complete the publication of the third and fourth parts has left this pedagogic structure incomplete; the final product, a work of free composition, is never reached. The second *Unterweisung* volume, on two-part composition, is the closest in style and substance to Fux's species counterpoint.

Three texts written by Hindemith after *Unterweisung I* provide clearer insights into his music theory with the benefit of hindsight: an article, 'Methods of Music Theory' in *The Musical Quarterly* (1944); the monograph *A Composer's World* (1952); and a talk entitled *Sterbende Gewässer* (*Polluted Waters*, 1963).<sup>15</sup> The first of these summarises his objectives:

Music theory investigates, arranges, and explains the working material of the composer. The ideal goal of this investigation, arrangement, and explanation is to comprehend once and for all the whole domain of tone in all directions and relationships, so that every conceivable sort of music can be explained,

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<sup>13</sup> Fux is one of only three theorists referenced by Hindemith in the *Unterweisung*. Riemann and Prout are the others, mentioned in passing. Hindemith owned a German translation of Fux's *Gradus Ad Parnassum* published in 1938.

<sup>14</sup> *Craft* (1942) p. 11.

<sup>15</sup> *Sterbende Gewässer* was delivered on 28 June 1963 in Bonn. It has since been translated by one of Hindemith's students as 'Polluted Waters'. This translation is unpublished, and is held in the YHC.

so far as its technical nature is concerned, whether it be a composition that comes down to us from the remotest ages or the work of a composer of the future.<sup>16</sup>

Hindemith desired therefore a generalising theory of music – one which may be applied to every possible type of composition. He contextualises his ‘physical’ approach to music theory – in other words, one which is based in part upon scientifically observable phenomena – against the work of Jean-Philippe Rameau (the justification of the diatonic system in acoustics) and Giuseppe Tartini (one of the first authors to publish on combination tones).<sup>17</sup>

Hindemith’s failure to complete the *Unterweisung* four-volume set led him to revise these goals in *A Composer’s World*, which is the published form of his Harvard Charles Eliot Norton lecture series. Compiled nearly twenty years after Hindemith began to formulate the *Unterweisung*, it afforded him a historical perspective on his own theory and offers reasons why the *Unterweisung* was, and is, needed. Moreover, Neumeier (1986) has suggested that it is a more accurate representation of his theory as expressed in *Unterweisung III*.<sup>18</sup> A recurring theme in *A Composer’s World* is his reference to ‘Musica est scientia bene modulandi’ [Music is the knowledge of modulating properly] from Boethius’ *De Institutione Musica* (early sixth century C.E.) which dictates the importance of a scientific approach to music.<sup>19</sup> This does not refer to the initial moment of artistic inspiration, which Hindemith likens to a bolt of lightning brightening a landscape, but to the technical working out and realisation of this vision.<sup>20</sup> It is implied during this discussion that Hindemith’s theory teaching, based on the *Unterweisung*, offers a way of refining musical technique to achieve this outward expression of the internal artistic creations of a composer.<sup>21</sup> His

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<sup>16</sup> Hindemith, Paul, ‘Methods of Music Theory’ *The Musical Quarterly*, Vol. 30, No. 1, trans. Mendel, Arthur (January, 1944) pp. 20–28.

<sup>17</sup> *Ibid.*, p. 23. Overtones form the basis of Rameau, Jean-Philippe, *Traité de l’harmonie* (Paris, 1722). Combination tones were first observed by the German organist Georg Andreas Sorge in his *Anweisung zur Stimmung der Orgelwerke und des Claviers* (Hamburg, 1744). This was succeeded by Giuseppe Tartini in his *Trattato di Musica* (Padua, 1754), who used combination tones as a method for tuning the violin.

<sup>18</sup> Neumeier, David, *The Music of Paul Hindemith* (New Haven: Yale University Press, 1986) p. 22. Hindemith’s work on *Unterweisung III* was still ongoing at that time.

<sup>19</sup> The first part of *De Institutione Musica* relates to ‘Musica Mundana’ (Music of the Spheres), and therefore to Hindemith’s fascination with Kepler.

<sup>20</sup> Hindemith (1952a) p. 60 and 67. He also uses the metaphor of turning a negative photographic image into a colourful positive on p. 220.

<sup>21</sup> *Ibid.*, p. 59.