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A style discussion of Jeanne Zaidel-Rudolph's *Pendulum* for Piano and Orchestra and a comprehensive catalogue of her orchestral, chamber and piano compositions

by

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Declaration

I, Oluwakayode Samson Ibiayo, hereby declare that this thesis submitted for the degree DMus (Music) at the University of Pretoria, is my work and it has not been hitherto submitted by me for the purposes of obtaining a degree at neither this university nor any other tertiary institution.

SIGNED: _____

DATED: _____13 December 2022_____

Acknowledgements

Summary

Jeanne Zaidel-Rudolph is a South African composer and pianist with a proven track record. Her numerous achievements and most importantly her role in and influence on South African art and indigenous African music is hugely significant. Over the years, she has been recognised both locally and internationally for her major contribution in the awarding of numerous prizes, decorations, academic and honorary positions, as well as the granting of music commissions; most notably is an award given to her by former South African President, Thabo Mbeki, "for her outstanding contribution as composer, pianist and teacher in the development of music in South Africa and internationally". Her original works have been performed both locally and abroad. Her compositional style features diverse musical elements and various compositional devices from the post-tonal era; some of which uniquely set her apart from her contemporaries and establish her as a renowned composer in South Africa.

This study includes a brief biography of Zaidel-Rudolph, as well as a catalogue of the composer's orchestral, chamber and piano compositions.

This research explores the background to the chosen works and the inspiration behind the creation of the selected work. Furthermore, the compositional techniques employed by the composer, as well as the distinguishing features of her compositional style are also discussed.

Additionally, this study aims to analyse the selected piece with reference to harmonic devices and vertical techniques, melody, rhythm, form structure, and texture. The chosen piece is comprehensively discussed with emphasis on the above parameters.

Further research could focus on a style discussion of Zaidel-Rudolph's more recent compositions in other genres and for different instrumental ensembles.

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Chapter 1

Introduction

1.1. Background and personal motivation

Jeanne Zaidel-Rudolph (1948-) is regarded as the most prominent female composer in South African art music (Van Wyk, 2008a:64). As noted by researchers such as Johnson (2012:55), Jorritsma (2001:19), Van Wyk (2000:6), and Van Wyk (2008a:65), Zaidel-Rudolph amongst other significant achievements was the first woman in South Africa on whom a Doctoral degree in Music Composition was conferred.

Zaidel-Rudolph has received numerous commissions from individuals and notable organisations such as the Southern African Music Rights Organisation (SAMRO Foundation), the University of South Africa (UNISA)/Transnet, the Doctoral award ceremony in honour of former (late) President Nelson Mandela, the International Classical Music Festival (ICMF), University of Pretoria, The South African Broadcasting Corporation (SABC), The Foundation for the Creative Arts, Centenary Celebrations in Johannesburg (Johnson, 2012:55–56; Jorritsma, 2001:19–20; Van Wyk, 2000:11) and various universities in the USA, among them Albion College in Michigan .

Zaidel-Rudolph's compositions have been performed in numerous locations around the world including South Africa, Italy (Rome), the USA (New York, Atlanta, Chicago, Los Angeles) the UK (London), Israel (Jerusalem, Ra'anana), Canada (Toronto), and Australia (Sydney, Melbourne) - (Johnson, 2012:56; Van Wyk, 2008a:65). Amongst the vast majority of her works, notable compositions include: *Five Pieces for Woodwind Quartet and Soprano* – first performed at the *Donne in Musica* Festival , when Zaidel-Rudolph represented South Africa during the 1982 Festival for Women Composers in Rome (Van Wyk, 2008a:65); *Fanfare Festival Overture* - composed during the 1986 Johannesburg Centenary celebrations and performed by the SABC National Symphony Orchestra (Van Wyk, 2008a:65); *Suite Afrique* (1995), and *Masada* (1989)*, both of which have had many performances both locally and abroad; Four Minim* for cello and piano - published in New York, became one of Zaidel-Rudolph's most frequently performed works(Van Wyk, 2008a:65).

Furthermore, other compositions by Zaidel-Rudolph include: *Oratorio for Human Rights* - composed in 1996 for soloists, choir and orchestra in celebration of the Olympic Games in Atlanta, USA (Van Wyk, 2008a:65), (revised in 2018 for Donne in Musica competition); *He walked to Freedom* - composed in honour of former (late) President Nelson Mandela, and debuted in Cape Town (Johnson, 2012:56), *Lifecycle* - commissioned by the International Classical Music Festival (ICMF, later MIAGI) and written for the *Ngqoko* Women's Choir and an Ensemble of Eleven playing Western instruments (Johnson, 2012:56); *Pendulum* for piano and Orchestra was debuted by Malcom Nay and the Johannesburg Philharmonic Orchestra in 2010 (Johnson, 2012:56).

A remarkable contribution to South Africa is Zaidel-Rudolph's vital role in the production of the South African National Anthem. Johnson (2012:55) notes Zaidel-Rudolph's invitation to serve on the Anthem Committee in February 1995, which resulted in a rewritten and shortened composite version of the South African National Anthem, as well as a full orchestral arrangement by Zaidel-Rudolph. Furthermore, in recognition of her unique musical contributions both to South Africa and internationally, the *Order of Ikhamanga* medal was bestowed on Zaidel-Rudolph in October 2004 by former President Thabo Mbeki (Johnson, 2012:56). The inscription reads, "for her outstanding contribution as a composer, pianist and teacher in the development of music in South Africa and internationally" (framed medal and scroll).

This author's undergraduate music studies, coupled with the successful completion of a Master's degree in Composition at the University of Pretoria has significantly exposed him to the music and compositional styles of prominent South African composers - including Jeanne Zaidel-Rudolph. However, the author's decision to choose and research the selected musical piece and to produce a catalogue of selected Zaidel-Rudolph's compositions, stems from perceiving a void in the following two areas: first, although there exists a 'mini-dissertation' study on Zaidel-Rudolph's *Pendulum* for Piano and Orchestra by L.D. Smith (2015), the work is, by its nature, not an in-depth or extensive study, as the stated requirements for a 'mini-dissertation'. In addition, there is an Anglophonic dearth of this material; a significant limitation to non-Afrikaans-speaking readers, audience or researchers, for example, like the author and people abroad. Furthermore, the author believes that this full thesis encompasses a comprehensive study of Zaidel-Rudolph's *Pendulum* for Piano and Orchestra. Secondly, no comprehensive catalogue of her compositions (or selected compositions as in this study) has been compiled – this is much needed for scholars of contemporary South African art music composers – and the materials are more accessible while she is alive.

However, from a "preservation, documentation point of view" as well as the fact that Zaidel-Rudolph is not "young anymore" the author agreed to the compilation of a catalogue of her orchestral, chamber and piano compositions being the "most important" in her oeuvre of compositions (Personal interview, 11 August 2020). This will ultimately be of value to researchers, students, performers, as well as interested audiences because without a proper and comprehensive cataloguing of chosen works, there will be no resource to gain information and access to such compositions (Martens, 2017:2). Additionally, a compilation of the catalogue will enable the interested parties to have a guide to what genres of music by Zaidel-Rudolph are available - the instrumentation, duration for performance purposes, as well as obtain informed assistance in the choice of repertoire for various perusal (Martens, 2017:2).

The style discussion and analysis of the selected composition, as well as the comprehensive catalogue of particular works will hopefully be beneficial to the younger generation of composers, performers, music scholars and researchers in South Africa and abroad. The author deems it worthy of research through this thesis to analyse and document the important oeuvre of an older established South African composer, who has been under-researched - yet who has made a significant contribution to the art music canon of this country. In this regard, this thesis addresses existing gaps in the knowledge about Zaidel-Rudolph's work, her style, aesthetic and technique.

The author presents a style discussion and analysis of Zaidel-Rudolph's *Pendulum* for Piano and Orchestra as well as a comprehensive catalogue of her orchestral, chamber and piano compositions. This will add and contribute significantly to the extant literature of music by South African composers and also to indigenous knowledge, given the extent to which her own research is located in the music of the Xhosa women, the Ngqoko women's Cultural Group in the Eastern Cape. The study will enable performers, concerned readers and audiences to learn from Zaidel-Rudolph's musical prowess. It is also intended through this thesis to provide further insight into the existing literature for audiences seeking to know more about the style and sound-world of this South African composer – Prof Jeanne Zaidel-Rudolph. Other compositions by Zaidel-Rudolph also merit detailed research and discussion. The author hopes that this thesis will encourage other writers to undertake such study and research in the near future.

1.2. Purpose of the study

The purposes of this study are to:

● explore the background of *Pendulum* for Piano and Orchestra and what prompted the creation of the work.

● explore to what extent the composer liaised with the pianist for the Premiere of the work.

● discuss the compositional techniques and musical idioms employed by Zaidel-Rudolph to establish an artistic style in *Pendulum* for Piano and Orchestra.

● ascertain appropriate methods of analysing *Pendulum* and then apply these methods to the parameters of the music.

● compile a comprehensive catalogue of Zaidel-Rudolph's orchestral, chamber and piano compositions to provide a reflexive account of her style - and for reference purposes.

1.3. Research questions

Main research question

How can compositional techniques and stylistic elements in Jeanne Zaidel-Rudolph's *Pendulum* for Piano and Orchestra be defined?

Sub-questions

What are the most predominant aspects of Jeanne Zaidel-Rudolph's compositional style in *Pendulum* for Piano and Orchestra?

How does the composer's accomplishments as a pianist impact on her writing for the instrument in her work *Pendulum*?

How can the information on Zaidel-Rudolph's orchestral, chamber and piano compositions best be organised into a catalogue?

1.4. Literature review

The relevant literature consulted for this study includes (but is not limited to) books, online articles, publications as well as websites; most importantly, the ones pertaining to Zaidel-Rudolph; and lastly the transcript of an interview with the composer.

The focus of this thesis is on musical style. However, all the sources included are relevant because they lay the foundation for subsequent exploration of the work discussed herein.

The following materials are consulted for their respective accounts of musical developments as well as compositional traditions and innovations from the twentieth through to the twenty-first centuries.

Dallin's *Techniques of 20th Century Composition* (1974:29–30) addresses twentieth century melodic conventions. In contrast to the conventional seven diatonic-tonal pitches (with the other pitches used as ornaments), modern composers use all twelve pitches. Composers therefore often choose to avoid the use of key signatures due to the rapid changes in keys and modes as well as the frequent presence of atonality (Persichetti, 1961:41). According to Simms (1996:12), composers used innovative "harmonic sequences" which are reiterated patterns comprising recurring bass lines and a series of chords executed to decrease the influence of apparent tonality. The author scrutinises Zaidel-Rudolph's work *Pendulum* for Piano and Orchestra to ascertain the evidence of this technique therein. It also ascertains where in the score the music tends to be more harmonic and where it is more linear-contrapuntal.

Concerning atonality in music, Forte (1973:1) backs up Persichetti by pointing out that the presence of pitches combined in unusual ways is a characteristic of atonal music. Furthermore, the existence of atonality is indicated by the unorthodox usage of typical pitch combinations or chords (Forte, 1973:1).

Post-tonal melodic lines, which are not appropriate for singing like traditional vocal-friendly melodies, are also discussed by Dallin (1974:29–30). Instead, in post-tonal works, melodic lines are intentionally disjunctive, non-lyrical, and stretch to odd ranges. The author examines the chosen composition to see to what extent it reflects the current trend of non-lyrical melodic lines.

In his study of the characteristics of twentieth century music, Kamien (2002:287–293) agrees with Dallin. Composers got more inventive in their search for their own sound, incorporating odd materials to generate a wide range of tone colour. Other modern

composers, according to Kamien, used unique, loud, and percussive sounds, unusual playing styles, and non-musical components such as clacking typewriters, sirens, and automobile brake drums. Zaidel-Rudolph's use of tubular bells in *Pendulum* for Piano and Orchestra shows intent for a specific pre-planned tone colour (Zaidel-Rudolph, 2020).

According to Kamien (2002:287–288), early twentieth century composers abandoned the traditional distinction between consonant and dissonant harmonies; chords that were once stacked together and perceived as "unstable" are now recognised as stable, regardless of whether they are consonant or dissonant. New chord structures emerged and composers began to utilise polychords, namely, two chords combined and heard simultaneously. Kamien also refers to the stacking of non-tertian chords, namely quartal chords (chords stacked in fourths). Tone clusters, which are stacked chords with pitches as near as feasible (separated by a half step or a whole step), are another harmonic method used by twentieth century composers. "A cluster is not always introduced by sounding all its tones simultaneously," Persichetti (1961:129) advises. When each note is sustained until the final note is heard, the effect of a cluster played sequentially is obtained. It is ascertained that clusters are evident in Zaidel-Rudolph's *Pendulum* for Piano and Orchestra.

Rhythm in post-tonal composers' vocabulary underwent fast changes as rhythmic patterns grew increasingly irregular and unexpected. Composers began to use unorthodox meters in five- or seven- beat time signatures, as well as polyrhythms, which is defined as the use of two or more distinct rhythms at the same time (Kamien, 2002:287–288). Zaidel-Rudolph's rhythmic utilisation in *Pendulum* is analysed.

Burkholder, Grout and Palisca (2010:805) however, contend that some post-tonal composers still embraced tonality: "For all composers of the time, tonality was an unavoidable issue: the demand for originality made conventional chord progressions seem stale, yet if they strayed too far they might lose their audience." Despite being aware of the immense possibilities and changes open to them, composers like as Ravel, Vaughan Williams, Strauss, and Rachmaninov continued to use tonality in their compositions. Others, like de Falla, Janácek, Debussy, and Scriabin, abandoned tonality in their compositions to build their own sound. Whilst a tonal center may be discerned in some of their compositions, labelling them as "tonal" would be misleading owing to the excessive and unconventional harmonic vocabulary used; that is, a significant departure from the standard traditional practice of harmony. It is for this reason that their works are

referred to as "post-tonal." Kostka (2012:126) agrees with Burkholder et al. (2010:805) on several tonal musical features that are still present in the post-tonal period: "All of the tonal era's formal structures and methods persisted in post-tonal music." He maintains that historical form traditions such as "sonatas and rondos, canons and fugues, sectional and continuous variations, binary and ternary forms" are still used in post-tonal works.

According to the writers cited above, post-tonal composers had preferences for the tonality of their works as well as the traditions they followed. Hence, in line with the main research question and sub-question, it has been investigated which tradition Zaidel-Rudolph followed in *Pendulum* for Piano and Orchestra.

Beard and Gloag (2016:13) define analysis as "a subdiscipline within musicology that is concerned with a search for internal coherence within a musical work" in the second edition of their book. In other terms, the work is analysed when the structure of a musical score is studied and broken down into smaller units or themes. As a result, it requires looking for unity in a musical framework. Form, style, and genre are also related within analysis, which implies that a music score is evaluated in terms of its technical and formal characteristics.

Cook (1987) provides a thorough examination of music analysis. He distinguishes between many techniques of analyzing music scores, including "conventional ways of analysis."

Lastly, Schenker (1969), Forte and Gilbert (1982), Pankhurst (2008), Morgan (2016), and Baker (1990), all comprise the foundation for a discussion on analysis and serve as a useful background for analysing the selected piece for this study, while Beard and Gloag (2016:13) and Cook (1987) are used as supporting sources.

The concept of style comes to the fore in relation to the main research question. The following literature examines the term "style" in relation to a composer's personal style.

Style is defined by Pascall (2001:1) as the "manner, mode of expression, type of presentation." Furthermore, Beard and Gloag (2016:237–238) suggest that texture, rhythm, melody, and harmony, as well as the way these qualities are interlinked, fragmented, or categorised in their application, define style. Personal style, which is a critical topic among contemporary critics, is impacted by a variety of elements, according to Pascall (2001:1). The 'personal' style of a composer is crucial to an objective analysis, although societal viewpoints may contribute to a composer's individual style. Pascall also observes that in the Western tradition, personal style is an important aspect, as indicated

by the speed with which new music notations are created. As a result, a composer's stylistic techniques evolve through time, building on prior musical styles.

Furthermore, the idea of personality may have a significant impact on a composer's style due to the 'personality' changes that an individual encounter at various phases of his/her career. Consequently, these alterations may be seen throughout the composer's work (Beard & Gloag, 2016:238). However, stylistic change (that is, how a composer's composing style has evolved and changed through time) is unique to each artist and is impacted by a variety of elements such as the composer's age, temperament, creative aptitude, culture, and economic circumstances (Pascall, 2001:6). The composer's personal style may also be impacted by the instructors with whom he or she trained; the composer may establish his or her own style or have a predecessor's style imposed on him or her (Pascall, 2001:6).

Finally, according to Pascall (2001:11), unique sounds represent style: "By the application of stylistic questions one may arrive at a deeper view of musical utterance, and intellectual interpretation of music which enriches the response to it." Teachers have a significant impact on the style and composition philosophy of a young composer.

Pascall's opinions clearly demonstrate that each composer has his or her unique style.

During the research, the personal compositional style employed by Zaidel-Rudolph was studied and identified. It is also established that her 'style' changes from one movement to the next in the chosen work.

Zaidel-Rudolph's official website www.jeannezaidel-rudolph.com/ accessed 15 June 2020, was consulted for biographical information, as well as for lists of publications and compositions.

Regarding the sub-question of the research, the compilation of the catalogue, employs an empirical study, as noted by Mouton (2001:165). The process of collection of data and cataloguing forms part of a comprehensive discussion in section 6.2.1.

1.5. Research methodology and approach

The three primary methodologies to study in the social sciences, according to Morgan (2014:2) and Creswell (2014:3), are qualitative, quantitative, and mixed methods research; and Antcliffe (1932:406) contends that music may be classified as a social

science. As a result, because this research is "qualitative," it was conducted using the qualitative research approach. Worthy of note is that the qualitative research methodology comprises numerous sub-types of research technique. Nonetheless, all methodologies classified as qualitative research approaches, as well as the research data acquired and used, are dependent on information representations in texts and pictures, as well as event observation (Abawi, 2008:9; Creswell, 2014:183). Furthermore, it is appropriate when the researcher wants to develop a theory from observations, and a starting point for discovery and inquiry, as well as to demystify certain objective or goals at hand (Morgan 2014:4, 6). According to Abawi (2008:5), "the goal of qualitative research is to develop an understanding of a social or human problem from multiple perspectives."

After establishing that qualitative research can be approached using a variety of sub-methods, the specific research sub-method(s) and design that was used in this thesis will be addressed in depth in the sub-sections that follow. Its relevance to the primary research question and sub-questions have been addressed.

1.5.1. Research design

According to Creswell (2014:187), the focus of qualitative techniques and approaches study designs is analysis, acquired data, and texts. As a result, content analysis was chosen as the research strategy for this thesis, and it corresponds with both the primary research question and the sub-question/s. It's worth noting that content analysis is classified as qualitative research (Abawi, 2008:11). The following paragraphs provide details to support the chosen research design.

Content analysis (Category 13) is an empirical study methodology used in the analysis of "content of texts or documents (such as letters, speeches, annual reports)," according to Mouton (2001:165). Content analyses are commonly used in "forms of human communication" such as written communication mediums, audio-visual media, human conversations, and, of course, music, according to Leedy & Ormrod (2001:155). Given that this thesis will use content analysis as its research method, it is crucial to understand that content analysis may be both qualitative and quantitative (Leedy & Ormrod, 2001:156; Mouton, 2001:166). As a result, in a qualitative research environment, content analysis is concerned with the comprehensive interpretation of a text that has previously

appeared equivocal, with the goal of illuminating hidden components in the text that would otherwise be impossible to extract (Julien, 2008:2; Atkinson, 2017:84).

The research design option necessitated the decision on how data was collected with the purpose of answering the main research question and sub-question(s). Hence, the next section 1.5.2 will cover data collecting methods.

1.5.2. Data collection techniques

Leedy and Ormrod (2001:158), state that qualitative data collection includes, but is not limited to, the use of written documents and interviews. Data collecting approaches that relate to the research approach and designs previously outlined will be addressed in depth in section 1.5.2.1.

1.5.2.1. Content analysis

The utilisation of written documents as a source of data is required by the suitability of content analysis research to address the research questions (Leedy & Ormrod 2001:158). "The only methodological issues concern the principles and procedures of selecting the data or documents," since data sources are already available (Mouton, 2001:166).

All Zaidel-Rudolph's compositions serve as data or documents in question. According to Mouton, the selected data or documents include Zaidel-Rudolph's published composition *Pendulum* for Piano and Orchestra, as well as all her orchestral, chamber and piano compositions. During the research, these texts acted as "written documents," and they were obtained directly from the composer. The scores - *Pendulum* for Piano and Orchestra were examined to establish the compositional style and techniques used in answering the main research question. In addition, the orchestral, chamber, and piano compositions are catalogued as needed for the sub-question. Additionally, an existing audio recording of *Pendulum* for Piano and Orchestra was acquired from the composer and utilized as a supplementary resource to the study.

A secondary data collecting strategy that corresponds to the research approach and design will be discussed in Section 1.5.2.2.

1.5.2.2. Qualitative Interview

While this study uses a qualitative research strategy and methodology, the qualitative interview was used as a secondary data gathering strategy, as Morgan has indicated (2014:10). Documents by other writers, based on the composer's biographical overview, were used as supplementary data collecting strategies (Leedy & Ormrod, 2001:157). The Internet, educational websites, magazine and newspaper articles, as well as media reports, were used as additional material. These papers augmented biographical information and testimony regarding Zaidel-Rudolph and her works.

Interviews in a qualitative research might be open-ended or semi-structured, according to Leedy & Ormrod (2001:159). Other forms of structured interviews are discussed by Hofstee (2006:135), such as those in which all participants are asked similar questions or focus groups are asked more comprehensive questions. The open-ended interview, also known as a "one-on-one" interview by Hofstee (2006:135), was employed in this case. Morgan (2014:10) adds that the "most obvious strength that open-ended interviewing brings to an inductive research is the ability to pursue topics that emerge during the course of the conversation," which is a significant justification for the choice of interview questions as the composer herself is accessible.

Leedy and Ormrod (2001:159) provide suggestions for conducting effective interviews. This study followed the following guidelines: The interviewee was Zaidel-Rudolph, and it took place through an internet video conference using Zoom - a reputable video conferencing provider. It began with a pre-discussion to create a welcoming atmosphere. Before the participant signed the informed consent form, the nature of the study and its goals were described. The comments of Zaidel-Rudolph were captured verbatim using the meeting platform's built-in video/audio recorder. However, just sound was be captured during this interview.

The analysis of the data gathered is discussed in Section 1.5.3.

1.5.3. Data analysis

Data collected for content analysis were analysed in two parts; from documents, viz. the score of *Pendulum* for Piano and Orchestra, as well as supplementary audio recordings, mainly to serve as guidance during analysis.

Qualitative data analysis, according to Mouton (2001:166), entails applying the most prevalent themes in the data. As a result, the piece was scrutinized and analysed in order to determine Zaidel-Rudolph's compositional style and approaches in relation to thematic style features such as melody, harmony, rhythm, texture, and form. As supporting aspects, orchestration and pianism were covered. The following sections examine the analytical approach to each theme:

Melody (horizontal dimension): Melody, according to Burkholder et al. (2010:A11), is the "[s]uccession of tones perceived as a coherent line," or a "tune," or the "principal part accompanied by other parts or chords." Kennedy & Kennedy (2007:485) further explain that the horizontal dimension refers to how the notes in a melody are perceived one after the other. As Kostka points out, the phrase "horizontal dimension" refers to melodic lines in post-tonal pieces (2012:68). Melody is used in a different way by post-tonal composers than it is by conventional composers. "Twelve-tone melody," "avoidance of traditional harmonic implications," "less emphasis on melody," "more leaps," "wider range," "more chromaticism," and "motivic use of pitch-class cells" are among the topics that were considered (Kostka, 2012:83).

Melody according to Pascall (2001:4), is a significant musical element; it can be considered the basic state of music, driven by form, accompanied by harmony and expressed by texture and rhythm. Pascall (2001:5) advises that melody should not be undervalued as an aspect of form. Melody is an essential musical element and stylistic phenomenon that interconnects with form (Pascall, 2001:5). Although it comprises a single line of interrelated pitches, melodies based on an arpeggio (particularly that of the Baroque period) can entail multiple lines (or minimally sturdily make up their harmonic structure) (Pascall, 2001:5). Melodies are combined simultaneously by contrapuntal forms. Post-tonal music may be presented as a textural structure (as evident in Krzysztof Penderecki's *Polymorphia*); in such instances, the horizontal develops in a blend with the vertical (Pascall, 2001:5). Melodic styles may be presented in regular or irregular forms, smooth or sporadic, motivic or supplemental, expositional or progressive, "conjunct or disjunct vocal or instrumental," ornate or structural, enhanced or straightforward (Pascall, 2001:5).

Pendulum for Piano and Orchestra was examined using the material gathered from the sources listed above, with a focus on Zaidel-Rudolph's composing style and techniques regarding scale formations, voice-leading, motives, intervals, melodic direction and form.

- **Harmony (vertical dimension)**: Harmony is defined by Burkholder et al. (2010:A8) as the "aspects of music that pertain to simultaneous combinations of notes, the intervals and chords that result, and the succession of chords." Harmony is referred to as "vertical" by Kennedy and Kennedy (2007:331) because the notes all sound at the same time, unlike melody. Many post-tonal composers have used the vertical dimension in novel ways. According to Kostka (2012:41), the tonal age employed "tertian harmonies," or chords stacked in thirds. Although some post-tonal composers used tertian harmonies, according to Kostka (2012:41), they did so in a way that differed from traditional usage in that they used new kinds of extended tertian structures, such as 7ths 9ths etc, as well as chords created from seconds and fourths.

    Harmony, according to Pascall (2001:4), is often an indication of historical role as a medium for style; it is part of the vocabulary, and its practices must be understood under evolving practises. It may appear modal, diatonic, atonal or chromatic (Pascall, 2001:4). However, certain composers have expanded and improved their harmonic language aimed at expression, as evident in the works of composers such as Carlo Gesualdo, Wagner and Debussy (Pascall, 2001:4). For such reasons, opera composers have also purposely compared different harmonic styles (Wagner's *Parsifal* amongst others is just a notable example of a composer who employs chromaticism to symbolise evil, sorcery or "sensuality and diatonicism" for honesty, "naturalness and innocence") (Pascall, 2001:4). Furthermore, harmony often has contrary concepts connected to these - ideologies that result from part-writing or sound thoughts (Pascall, 2001:4). A distinctive feature of successive music, such as existed in pre-and early Renaissance periods, is harmony arising primarily from part-writing, as seen in Guillaume de Machaut's Mass; in some Wagner and Impressionist forms, harmony resulting from sonorous creativity can be seen (Pascall, 2001:4). Again, the two values do not exist in seclusion (Pascall, 2001:4). With some understanding of how they would suit, successively composed pieces were written (Pascall, 2001:4).

    The harmonic content and chord construction of the work were extensively examined in this research to identify the approaches used by Zaidel-Rudolph.

- **Rhythm**: Rhythm is defined by Kamien (2002:32) as "the flow of music through time." Rhythm, however, is linked to other musical elements such as beat, meter, accent, syncopation, and tempo (Kamien, 2002:32). In contrast to traditional methods, post-

tonal composers developed a variety of innovative rhythmic organization techniques. They emphasised irregular and unpredictable rhythms, which introduced new challenges for performers because the rhythms are not simply interpreted on sight as they are in the tonal era's traditional rhythmic setup (Kamien, 2002:291; Kostka, 2012:121).

Rhythm according to Pascall (2001:5) is the very life force of music; it is, however difficult, the expression for organized transition. The formal, textural, harmonic and melodic considerations are an important part of it (Pascall, 2001:5). Musical rhythm can be interpreted as a blend of time-based (pulsation) objective fragments and expressive cycle (the "ebb and flow" produced for instance, by "discord and resolution", "cadence", distinguished "melodic and harmonic note values, melodic shape, accents, syncopation") (Pascall, 2001:5). Pascall (2001:5) further notes that rhythmic styles may support a smooth progression. There exists a close connection between stylistic rhythmical features and musical art forms/dance; dance however critically influences music as well as open to criticism (Pascall, 2001:5).

Syncopation, non-traditional time signatures, complex meters, polyrhythms and polymeter, as defined by Kostka (2012:121), were addressed in relation to Zaidel-Rudolph's piece *Pendulum* for Piano and Orchestra in this research. A term frequently used in relation to contemporary rhythmic usage is "rhythmic texture".

- **Texture**: The "texture" of a musical work or a segment in a musical presentation, according to Burkholder et al. (2010:A19), is referred to when a musical work or a section in a musical presentation employs a blend of components. These monophonic, polyphonic, or homophonic components might be thick, thin, dense, transparent, heavy, or light, and they are used to create "contrast and drama" (Kamien, 2002:48).

Texture according to Pascall (2001:3), is the outlook of the components of "musical argument on the chosen forces," it is sonority, with tone-colour, idiom and compositional technique as its conditions (Pascall, 2001:3). The term refers both to parallel and successive sonorities (Pascall, 2001:3). Texture connects to stylistic expression, and certainly textural characteristics have given emergence to stylistic terms such as "monodic style, homophonic style, polyphonic style (stratified or imitative), keyboard style," and the likes of such (Pascall, 2001:3–4). A skilled composer will utilise possible textural elements to sculpt as well as improve his/her

musical assertion. Texture is often of formal importance, as found in the motet or the fugue of any era (Pascall, 2001:3–4).

As a result, texture was examined in *Pendulum* for Piano and Orchestra.

- **Form**: Form is defined by Kennedy & Kennedy (2007:269) as "the structure and design of a composition." Form, like the rapid changes of post-tonal compositions, is not thought of as "simple." According to Kamien (2002:352), early twentieth century post-tonal composers used "conventional meters" in seven- and five-time signatures, however later composers disregarded both beats and meters entirely, resulting in a new "form" of music. Many composers also stopped employing traditional musical forms in their compositions; sonatas, ABAs, rondos, and other comparable forms were no longer used (Kamien, 2002:352). However, Kostka (2012:126) contends that all traditional forms from the tonal era endured into the post-tonal era. The selected work in this research was examined in light of the viewpoints of these two authors in order to identify which form tradition the composer followed. DeLone, Kliewer, Reisberg, Wennerstrom, Winold, and Wittlich (1975) is also used as a supplement to further strengthen the discussion on "form." The composer, however shows that she is partial to particularly fugal-type forms.

- **Catalogue**: Each piece and catalogue compilation are explored. The observations are divided into sub-sections based on each characteristic. Where relevant, examples of music notation are supplied, and all findings are summarised in the conclusion.

A qualitative (open-ended) interview is used as a secondary data collecting strategy to obtain information from the composer. Crucial information from the interview concerning the research gave further compositional insight into the selected work. Because the interview was open-ended, the composer's responses led to more sub-questions.

The interview data was analysed using the method described by Rubin and Rubin (2005:2): "As you complete each interview, you examine its content to see what you have now learned and what you will still need to find out." The main questions may be revised as the interview progresses, and follow-up questions may be asked to provide insight on developing topics. "When you are done interviewing, you then examine all the interviews together to pull out coherent and consistent descriptions, themes, and theories that speak to your research question" (Rubin & Rubin, 2005:2). The interview notes were typed up immediately, and the audio recorded version were transcribed verbatim (Rubin & Rubin, 2005:4). The interview's content was summarised after the completed

transcription. The respondent's name, the time and place of the interview, the reasons for including the respondent in the study, and the length of the interview were documented (Rubin & Rubin, 2005:6). The key points that address the study's sub-questions, as well as other ideas that have emerged, are included (Rubin & Rubin, 2005:6).

According to Rubin and Rubin (2005:7), the proper analysis begins once the researcher possesses transcripts, summaries and memos. They note that analysis comprises some steps, many of which overlap:

> The first stage is recognition, in which you find the concepts, themes, events, and topical markers in your interviews. Next, you systematically examine the different interviews to clarify what is meant by specific concepts and themes and synthesise different versions of events to put together your understanding of the overall narrative. After you find, refine, elaborate, and integrate your concepts and themes, you begin to code them, that is, figure out a brief label to designate each and then mark in the interview text where the concepts, themes, events or topical markers are found. Once you have systematically coded your interviews, you try to figure out what these coded data mean. You begin by clarifying and summarising concepts and themes, grouping information around particular events or stories, or sorting information by groups of interviewees (Rubin & Rubin, 2005:2, 7).

To reach a suitable conclusion, the steps suggested by Rubin and Rubin (2005:2) were followed in a methodical manner.

The data from both parts (content analysis and interview) were integrated and compared using the "constant comparisons" technique to achieve a complete analysis. The results obtained highlighted how the primary research topic and sub-questions were addressed (Rubin & Rubin, 2005:7; Corbin & Strauss, 2015:85).

1.6. Ethical considerations

This research involves an interview with Zaidel-Rudolph, whose work has been studied. Bak (2004: 28) emphasizes the necessity of ethical declarations when conducting empirical research on humans. As a result, in accordance with the University of Pretoria's Code of Ethics for Research (n.d.), page 25, section 6.2.2, an information letter was presented to the interviewee. The interviewee agreed and both the researcher (interviewer) and the interviewee signed a letter of informed consent. A sample of the information letter and the letter of informed consent are included as appendices.

1.7. Delimitations of the study

● The focus of this study is on *Pendulum* for Piano and Orchestra by Zaidel-Rudolph. Therefore, a brief discussion of the time-period and the compositional stylistic features of the composition will be presented.

● This study will only analyse *Pendulum* within the context of a catalogue. No other works of the composer will be discussed or compared for analytical purposes. Should there be any mention of Zaidel-Rudolph's other work(s), it will be only for brief reference.

● The study will not discuss or compare works by other South African and international composers or contemporaries of Zaidel-Rudolph. Any mention of other composers will only serve to support the point being made.

● The aim is to provide a brief discussion of Zaidel-Rudolph's style as employed in the selected work, supporting the conclusion with an interview with the composer.

● This study will analyse the harmonic, melodic, rhythmic and form structure of the pieces. Harmonic devices and techniques employed by the composer will also be addressed and discussed if necessary and where applicable, orchestration and pianism will be discussed as supporting elements.

● The form and structure of the selected piece will be discussed briefly.

● It is noted that there is a dearth of Anglophonic literature on Zaidel-Rudolph. For example, Van Graan (2009), and L.D. Smith (2015) the latter whose mini-dissertation is also a study on *Pendulum* for Piano and Orchestra, were both written in Afrikaans.

● Although the composer is aware of the mini-dissertation of L.D. Smith (2015) as outlined above, the author deems it a necessity to research and present an Anglophonic thesis on the same work by the same composer. The study will eliminate the limitation of Anglophonic dearth for researchers in need of further research/study on Zaidel-Rudolph's *Pendulum* for Piano and Orchestra.

● The recording of *Pendulum* will be a supporting tool for my analysis.

● The section of the study containing the compilation of musical catalogue is strictly based on three different categories of Zaidel-Rudolph's musical oeuvre; orchestral, chamber and piano compositions.

1.8. Value of the study

The researcher believes that there is limited literature about Zaidel-Rudolph and her compositions. Hence, this thesis will contribute significantly towards documentation about Zaidel-Rudolph, her position as distinguished South African composer, her compositional style and, significantly, the selected piece – *Pendulum* for Piano and Orchestra.

While gathering data for this study, it became evident that there is a substantial quantity of literature concerning composers outside of South Africa's boundaries (Africa and the rest of the world), and yet only a few South African composers have been researched, making this project even more significant. As a result, the author includes an interview with the composer (a privilege rarely afforded to other researchers) to support the conclusions based on this study in relation to the research question and sub-question of this thesis. Composers, performers and music scholars who seek to understand the compositional style and techniques of Zaidel-Rudolph as a South African composer will find this study to be a meaningful contribution to their research.

The compilation and cataloguing of the selected categories of Zaidel-Rudolph's compositions will provide support for further research and study, as well as a quick reference for performing musicians (Joubert, 2013:10).

Finally, the author hopes this thesis will make a meaningful contribution towards further national and international exposure of Zaidel-Rudolph's work.

Chapter 2

Jeanne Zaidel-Rudolph: a biographical overview

2.1. Introduction

Born in the city of Pretoria in South Africa on the 9th of July 1948, Jeanne Zaidel-Rudolph was born into a very musical Jewish family. Her journey to becoming a virtuoso pianist and composer began at age 5. Her brother was learning the piano, and she would climb up on to the piano chair, where she could hardly reach the pedals and copy what her brother had just played and then go on to improvise. Her mother knew from then onwards that a new improviser/composer had emerged within the family, which she eventually proceeded to prove (Personal interview, 11 August 2020). She initially studied piano with Goldie Zaidel - her aunt, which led to many achievements during her elementary music education: distinctions in every piano exam and several performance prizes and awards (Jorritsma, 2001:16). VanWyk (2008:64) attests to Zaidel-Rudolph's piano performance and academic skills; she passed all the UNISA piano exams with distinction, her piano performances were also featured on the "Young South Africa" radio show. She was Head Girl of the Pretoria Girls' High School, where she matriculated in 1965 with a first-class pass. The composition traits were also evident in the young pianist, which led to her first composition- *Rushen Dance* (VanWyk, 2008:64).

2.2. Biography, educational background

After high school, Zaidel-Rudolph furthered her piano studies with Philip Levy, Adolph Hallis, and eventually John Lill at the Royal College of Music in London (Zaidel-Rudolph, 2020). Her undergraduate (BMus) and post-graduate (MMus) were awarded with distinction. Having studied composition with György Ligeti in Hamburg, Germany, in 1973/1974 and Prof Stefans Grové back in South Africa (1977-79), she obtained her Doctorate in Music Composition in 1979 - the first woman in South Africa to achieve that level of academic excellence in the music field. The world-renowned composer, Ligeti (in addition to Zaidel-Rudolph's other composition and piano teachers) later became a significant influence on her music (Personal interview, 11 August 2020).

Zaidel-Rudolph has made appearances in Europe as guest composer, with a focus on women's music compositions as well as "indigenous African music and its intercultural influence on Western art music by South African composers" (Zaidel-Rudolph, 2020). In Ohio (USA), Zaidel-Rudolph was also invited as 'Composer-in-Residence' at the DANA Festival of New Music where several works of hers were featured, including *Suite Afrique* for viola and piano, with the composer being the pianist for this performance and Prof Walter Mony on viola (Zaidel-Rudolph, 2020).

Being a Jewish-born composer, Zaidel-Rudolph has made remarkable contributions to Jewish music in South Africa, specifically in the *Celebration* show premiered in Johannesburg (1994); she handled the positions of being pianist, musical director, composer and arranger. The show was subsequently performed internationally many times over 15 years, namely in the USA, Canada, England (London), and Australia (Zaidel-Rudolph, 2020).

Zaidel-Rudolph was appointed lecturer in the Wits School of Music in 1975 and in a fulltime capacity in 2001 as Professor of Theory and Composition until her 'retirement' in 2014 (Zaidel-Rudolph, 2020). In spite of being officially 'retired', she continued lecturing and supervising postgraduate students on a sessional basis till the end of 2021.

In the 1960s/70s, Zaidel-Rudolph was awarded Piano Performer's Licentiates, all with distinction, namely: LTCL (1969); LRSM (1969); FTCL (1970); UPLM (1971) (Zaidel-Rudolph, 2020). In addition to her DMus (UP 1979) in 2008 she received an honorary Doctorate in Education from the University of Pretoria (DEd).

Zaidel-Rudolph is currently an Honorary Research Professor and Professor Emeritus at the Wits School of Arts, positions worthy of recognition, having achieved her career peak as a renowned lecturer at the Wits music department (Zaidel-Rudolph, 2020).

2.3. Career highlights and positions held

Being a renowned composer, Zaidel-Rudolph has held several positions in her professional life, including being invited to serve as an adjudicator for several music composition competitions and various piano festivals. She has been an active Director on the South African Music Rights Organisation (SAMRO) Boards and the SAMRO Foundation for many years (Zaidel-Rudolph, 2020). The following paragraphs discuss Zaidel-Rudolph's career highlights as well as the positions she has held.

In 2019 two new piano works were commissioned by SAMRO for the 2020 UNISA International Piano Competition, namely: *Ebb and Flow* and *AfrEtude* (Zaidel-Rudolph, 2020).

Other new compositions in 2019 include:

- *Quin-tête-à-tête* for String Quartet and Percussion, commissioned by the Composers National Collegium for the University of Pretoria Music Symposium from 12 till16 August, 2019. The Odeion Quartet and Gerben Grooten premiered the work on 12 August in the Musaion (Zaidel-Rudolph, 2020).This was followed by a performance in September at the Atrium, Wits University

- *Dia(fro)belli* for Piano: Based on the Diabelli Variations and was commissioned by Dr Lia Jensen-Abbott - NCTM Associate Professor at the music department of Albion College (Zaidel-Rudolph, 2020).

In 2019 Zaidel-Rudolph was invited to Hannover, Germany, for a lecture-demonstration as part of the "Magnified and Sanctified II" Conference on Liturgical Music in the Synagogue - from 9 till 12 September (Zaidel-Rudolph, 2020). Her lecture on "The Power of the Nigun" was warmly received. This included a 'powerpoint' presentation and piano demonstration.

2018 featured the year's highlight for Zaidel-Rudolph when she became the winning composer in "Global Women in Music for Human Rights" - a Gala Concert in Italy, with the compose present was held; here Zaidel-Rudolph's *Oratorio for Human Rights* was performed (on 5 November 2018) at the *Teatro Argentina*, Rome (Zaidel-Rudolph, 2020). The Roma Sinfonietta performed the work together with a choir and 2 soloists; conducted and directed by Fabio Maestri (Zaidel-Rudolph, 2020).

In June 2016, Zaidel-Rudolph was invited to the "Music Alliance" in Jerusalem to present lectures and workshops on African Music to post-graduate students (Zaidel-Rudolph, 2020). Three major libraries in Jerusalem also gave her support by inviting her to pursue her research in the field of intercultural music of the Middle East, having being commissioned by SAMRO to compose a work for piano trio (Zaidel-Rudolph, 2020).

In 2015, Zaidel-Rudolph was invited to a conference in Leeds, UK, to present two conference papers at the Conference entitled, 'Magnified and Sanctified 1: The Music of Jewish Prayer' (Zaidel-Rudolph, 2020).

Towards the end of the year in 2014, Zaidel-Rudolph was commissioned by SAMRO to compose a work for string quartet and percussion - *Epochs and Edifices* (Zaidel-

Rudolph, 2020). The premiere of the work was held at the University of Pretoria during the "Composers National Collegium" in October 2014. One month after that, a repeat performance at the University of Stellenbosch took place in November 2014 (Zaidel-Rudolph, 2020).

The year 2013 featured the "JZR Tribute Concert"- an evening of works by Zaidel-Rudolph to honour her lifelong contribution to music, especially to Wits University, held at the University (Zaidel-Rudolph, 2020). On this occasion, Zaidel-Rudolph's works - *Hebrotica* for Marimba and *Wits Trio Tribute* were premiered, the latter by the Wits Trio (Zaidel-Rudolph, 2020).

In 2012 Zaidel-Rudolph became scholar-in-residence at the Jerusalem Music Academy, where an evening concert of her music was presented at the *Ra'anana* Music Centre, Israel, featuring various chamber and solo works (Zaidel-Rudolph, 2020). In the same year, she became the Head of the Music Division at the Wits School of the Arts (Zaidel-Rudolph, 2020).

SAMRO commissioned Zaidel-Rudolph in July 2009 to compose a piano concerto to be premiered by the Johannesburg Philharmonic Orchestra with Malcolm Nay as piano soloist and conducted by the Italian conductor - Walter Attanasi (Zaidel-Rudolph, 2020). In 2009, she was the composer-in-residence in Ohio, where her performances of her works were featured (Zaidel-Rudolph, 2020).

In 2009, the University of Johannesburg commissioned Zaidel-Rudolph to compose a "Youth Oratorio" for the UJ s choir - and the premiere of the work was held in August at the University of Johannesburg. The work has been performed throughout South Africa (Zaidel-Rudolph, 2020).

Zaidel-Rudolph received a special award in 2007, a 3-year NRF grant to research the Ngqoko Women's Cultural Group's overtone/throat singing, which led to an inter-institutional team-up with Cape Town University (Zaidel-Rudolph, 2020). In the same year, UNISA commissioned Zaidel-Rudolph to compose two piano works for the UNISA piano syllabus - *Times-They-Are A-Changing* and the compulsory South African piano piece - *Partials and Pedals.* The latter was commissioned for the 11th UNISA International Piano Competition 2008 and was inspired by the composer's research into the Ngqoko Women's overtone singing, highlighting overtones. (Zaidel-Rudolph, 2020). Furthermore, in 2007, Zaidel-Rudolph received the TuksAlumni Laureate award, a bronze statue of the Alumni House (Kaya Rosa) from the University of Pretoria (Zaidel-Rudolph, 2020).

In 2006 Zaidel-Rudolph was promoted to being full Personal Professor in the Music Division of the Wits School of Arts, while in the same year, she composed a work - *Strange Quartet*, which the Sontonga String Quartet premiered in the Atrium Auditorium at Wits. In the same year, the Music Rights Society of the USA presented her with an ASCAP Award for her original music featured in a public performance by a foreigner in the USA between 2004 and 2005 (Zaidel-Rudolph, 2020).

On 17 August 2005, the Cape Town City Hall witnessed the successful performance of *Lifecycle* - a large-scale intercultural work composed by Zaidel-Rudolph for the Ngqoko women Xhosa singers for Women's Day (Zaidel-Rudolph, 2020). The work was initially commissioned in 2003 by the International Classical Music Festival (ICMF), currently known as MIAGI, and it was premiered at the ZK. Matthews Auditorium, UNISA on 5 November 2003 (Zaidel-Rudolph, 2020).

In 2002 Zaidel-Rudolph was promoted to Associate Professor at Wits University, while in 2001, her work - *Ukukhala* (an African Ballet), was flighted on two occasions on Italian Television (Zaidel-Rudolph, 2020).

In 1997 Zaidel-Rudolph was commissioned to write a song in honour of President Mandela. In September at the Baxter Theatre, Cape Town University, the song was premiered during President Mandela's Doctoral Award Ceremony (Zaidel-Rudolph, 2020).

SAMRO commissioned Zaidel-Rudolph in 1996 to compose a section of a larger work in collaboration with other selected composers – this was the *Oratorio for Human Rights* (soprano, baritone, SATB Choir, and Orchestra) for the Olympic Games in Atlanta, USA (Zaidel-Rudolph, 2020).

In February 1995, Zaidel-Rudolph was invited to join the South African Anthem Committee to rewrite and shorten the South African National Anthem. Her contribution to this comprised of a new re-arrangement of the two anthems into a composite whole - as well as a full orchestral arrangement and the English words at the end of the Anthem (Zaidel-Rudolph, 2020).

1994 witnessed the launch of her work - *Music of the Spheres*; a compact disk (CD) comprising six compositions. In 1988, UNISA/TRANSNET commissioned Zaidel-Rudolph to compose a work as part of the compulsory South African works required to be performed by all the participants of the International Piano and String Competitions in

1988 and 1992 (Zaidel-Rudolph, 2020). Lastly, in 1986 Zaidel-Rudolph received the first prize in the TOTAL OIL SA Competition for composers (Zaidel-Rudolph, 2020).

2.4. Awards

- The Burton Award (2000)

    - Contemporary Art Music Award (2000) Presented by Canary Burton to Zaidel-Rudolph as the favourite composer on the international new music program, *The Latest Score* in Cape Cod, USA. (Zaidel-Rudolph, 2020).

- Order of Ikhamanga (2004)

    - Bestowed on Zaidel-Rudolph by former South African President Thabo Mbeki for her "outstanding contribution as a composer, pianist and teacher in the development of music in South Africa and internationally" (Zaidel-Rudolph, 2020).

- TuksAlumni Laureate Award (2007)

    - Presented by the University of Pretoria to Zaidel-Rudolph; a bronze effigy of the Alumni House, *Kaya Rosa* (Zaidel-Rudolph, 2020).

- Honorary Doctorate (2007)

    - Awarded by the Council of the University of Pretoria to Zaidel-Rudolph upon recommendation by the Senate of the University (Zaidel-Rudolph, 2020).

- Medals from both Pretoria and Wits Universities

2.5. Jewish music and mysticism

2.5.1. Jewish music

Born into a Jewish and musical family, Jeanne Zaidel-Rudolph was significantly exposed to the lush richness of Jewish traditional liturgical music (Zaidel-Rudolph, 2020). Her father was a renowned Tenor soloist who sang in opera and in the Synagogue Choir for over fifty years. Her late brother, Malcolm, a singer and guitarist, directed and conducted the Sydenham Shul Choir for over twenty years (Zaidel-Rudolph, 2020).

Zaidel-Rudolph's compositions and arrangements have been featured in various Jewish celebrations such as the *Yom Ha'atzmaut* (Independence Day - Israel) and other Israeli and Jewish stage events. She held the post of resident composer, arranger, and organist for the choir at the Sydenham Highlands North Synagogue, one of the world's most famous Jewish male choirs. She has collaborated for many years with several Cantors (*Chazonim*), especially with Oshy Tugendhaft and Cantor Helfgot. (Zaidel-Rudolph, 2020).

In 1981 Zaidel-Rudolph was privileged to have a private audience with The *Lubavitcher Rebbe, Rabbi Menachem Mendel Schneerson o.b.m. Rabbi Menachem* gave her "a special blessing to continue composing music to give great joy to the world and to extend her talents to benefit the Jewish Community" (Zaidel-Rudolph, 2020). Each time the American Jewish soul singers - Mordechai Ben David and Avraham Fried paid a visit to South Africa, Zaidel-Rudolph was the pianist, composer and arranger for parts of the music programme required for the concerts (Zaidel-Rudolph, 2020).

November 1989 featured the launch of a cassette tape (subsequently CD) of the "Songs of David" – "*Hallel*" - an exquisite musical adaptation of the Psalms orchestrated and with choral-arrangements by Zaidel-Rudolph (Zaidel-Rudolph, 2020).

In 1993 Zaidel-Rudolph concentrated on the composition and arrangement of traditional Jewish music and songs, which ultimately resulted in "The Triumph of a Nation Celebration" featuring four nights of successful stage productions and studio CD recordings (Zaidel-Rudolph, 2020). These accomplishments resulted in a series of subsequent *Celebration* concerts and events over fifteen years and several CDs of various Celebration productions, locally and in other countries (Zaidel-Rudolph, 2020).

In April 1995, during the Youngstown State University Music Festival in Ohio, USA, Zaidel-Rudolph was invited to present a lecture on "Jewish Music in South Africa"; She

frequently presents lectures on Jewish music locally and abroad, the most recent being in Hanover, Germany in 2019 (Zaidel-Rudolph, 2020).

Zaidel-Rudolph toured annually to the United States of America and Canada from March 2000 to 2007 as Music Director and Pianist in *Celebratio*n. In March 2003, she appeared with the Show at the Royal Festival Hall in London and also made a debut appearance at the Stage Musical "Celebration" in Australia (November 2008), where Zaidel-Rudolph was the composer and arranger of all music for the production (Zaidel-Rudolph, 2020).

2.5.2. Jewish mysticism

The word "mysticism" is related to the *Kabbala*[1] (Kabbalistic teachings) and those teachings come from a book called the *Zohar*[2] (Personal interview, 11 August 2020). However, the mystical side is far deeper in terms of containing philosophies that are often based on a term called *Gematria*[3] - numerology. Because the spheres, planets, the sun, the earth, and our existence are every closely tied to numbers and interrelationships of mathematical design, numerology plays a very important role in Jewish mysticism (Personal interview, 11 August 2020).

Music itself is numbers – counting of values, beats, bars, and notes in a bar. If numbers have mystical meanings, so much the better; because then one can create a language out of numbers with profoundly spiritual and religious connotations (Personal interview, 11 August 2020). Furthermore, Jewish mysticism is also connected to a term and concept called "The Tree of Life[4]."

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[1] According to the Oxford English Dictionary (n.d.), the *Kabbalah* is defined in two categories. Firstly, it is "The name given in post-biblical Hebrew to the oral tradition handed down from Moses to the Rabbis of the Mishnah and the Talmud". Secondly, it "applied to the tradition of the mystical interpretation of the Old Testament" as the thirteenth century AD began.

[2] Knowles (2014) describes the *Zohar* as the "chief text of the Jewish Kabbalah, dating from the 13th century, presented as an allegorical or mystical interpretation of the Pentateuch." This being the five books of Moses.

[3] Browning (2010) discusses *Gematria* as a Hebrew word used concerning a methodological interpretation of the Bible as utilized by *rabbis* and seldomly Christians. The author further clarifies: "It involved the system in Hebrew where numerals were represented by a particular letter, and so a word or name could be assigned a number" (Browning, 2010).

[4] Some People who dabble in *Kabbalah* do it very superficially; they go into the "Tree of Life" and connect into esoteric values such as kindness, severity, beauty, and the likes of such. (Personal interview, 11 August 2020). Stevenson (2010) states that the "Tree of Life" in the *Kabbalah* is "a diagram in the form of a tree bearing spheres which represent the sephiroth." Stevenson and Lindberg (2011) describe the sephiroth as "each of the ten attributes or emanations surrounding the Infinite and by means of which it relates to the finite." These are found as spherical representations on the Tree of Life.

Not until recently did the "Biblical Themes and the Spiritual World of Religious Jewish Mysticism and the Kabbalah" become a profound inspirational background for the more significant part of Zaidel-Rudolph's "classical" (though intercultural) art music works. Such compositions include *Four Minim*, *Masada*, *Virtuoso 1*, *At the End of the Rainbow*, as well as the *Sefirot Symphony* (Zaidel-Rudolph, 2020).

2.6. Conclusion

Zaidel-Rudolph's achievements and musical contributions to South Africa are not only commendable but accompanied with honourable accolades; most notably, the "Order of *Ikhamanga*" medal as presented by President Mbeki in 2004 for her "excellent contribution to music nationally and internationally" (Zaidel-Rudolph, 2020). Furthermore, the accomplishments of this composer have laid the groundwork for many more works to be composed by her, which add value to the canon of South African music - as well as music infused with Jewish themes. Her earlier works however, were heavily influenced by African indigenous themes and motifs. This will very likely contribute powerfully to indigenous knowledge for both local and international consumption.

Chapter 3

Compositional output

3.1. Introduction

Van Wyk (2008a:64) attests to Zaidel-Rudolph's musical prowess as well as her compositional style and technique: "Jeanne Zaidel-Rudolph is undoubtedly South Africa's most eminent female art music composer." Her oeuvre consists of over seventy works and encompasses several musical genres, including the large-scale symphony, orchestral, choral, chamber, rock opera, ballet, film, as well as solo instrumental music (Van Wyk, 2008a:64).

3.2. List of compositions

Below is a comprehensive list of Zaidel-Rudolph's compositions acquired from her official website.

Acronyms and abbreviations used within this list are as follows:

- SAMRO (South African Music Rights Organisation)
- SABC (South African Broadcasting Corporation)
- NCTM (National Council of Teachers of Mathematics)
- UNISA (University of South Africa)

Orchestral

- *Oratorio for Human Rights* re-arranged and revised for Chamber Orchestra, choir, soloists and percussion (2018). Winner of the *Global Women in Human Rights* Competition and premiered in Rome, Italy (Zaidel-Rudolph, 2020).
- *Pendulum* for Piano and Orchestra (2010). Commissioned by SAMRO for the Johannesburg Philharmonic Orchestra and premiered at the Linder Auditorium with pianist Malcolm Nay and conducted by Maestro Walter Attanasi (Zaidel-Rudolph, 2020).
- *Human Rights Oratorio* for Orchestra, choir, soloists and African percussion (1996). Commissioned for the Olympic Games, Atlanta, USA (Zaidel-Rudolph, 2020).

- *South African National Anthem* (1995). The current version; composite rearrangement for voice and piano, full orchestral setting and additional 4 lines of English words (Zaidel-Rudolph, 2020).

- *Ukuthula* for soprano, mezzo-soprano and orchestra (1993). Premiered at the Johannesburg City Hall on February 25, 1994 (Encyclopedia.com, 2021).

- *Sefirot Symphony* for woodwind, brass, percussion and harp (1991). Commissioned by The Foundation for The Creative Arts (Zaidel-Rudolph, 2020).

- *At the End of the Rainbow* (1988). Symphonic poem commissioned by the South African Youth Orchestra (Zaidel-Rudolph, 2020).

- *Tempus Fugit* for orchestra (1986). Winner of the Total Oil Competition in 1996 (Zaidel-Rudolph, 2020).

- *Fanfare Festival Overture* (1986). Commissioned by the SABC for the Johannesburg Centenary Celebrations (Zaidel-Rudolph, 2020).

- *Construction Symphony* for youth orchestra (1985) (Zaidel-Rudolph, 2020).

- *Five Chassidic Melodies* for youth orchestra (1981) (Zaidel-Rudolph, 2020).

- *Concert Overture* (1979) (Zaidel-Rudolph, 2020).

Chamber Music

- *Quin-tête-à-tête* for String Quartet and Percussion (2019). Commissioned by the Composers National Collegium for the University of Pretoria Music Symposium from 12th to the 16th of August; premiered by the Odeion Quartet and Gerben Grooten on the 12th of August in the Musiaon (Zaidel-Rudolph, 2020).

- *Alma Mater* for piano trio (2017). Premiered at the University of Pretoria in 2017 (Zaidel-Rudolph, 2020).

- *Epochs and Edifices* for string quartet and percussion (2014). Premiered by The Epoch String Quartet and Magda de Vries (Zaidel-Rudolph, 2020).

- *Wits Trio Tribute* for piano violin and cello (2013). Premiered by the Wits Piano Trio (August 2013) at the special Tribute Concert in honour of Jeanne Zaidel-Rudolph's service to Wits Music preceding her retirement at the end of 2013 (Zaidel-Rudolph, 2020).

- *Hebrotica* for solo marimba. Premiered at Zaidel-Rudolph Tribute Concert (2013) by Alex Jacobowitz (Zaidel-Rudolph, 2020).

- *Strange Quartet* for String Quartet (2006). Premiered by the Sontonga String Quartet in October 2006 (Zaidel-Rudolph, 2020).

- *Lifecycle* (2003) for the NGQOKO Women's Choir, traditional instruments (bows and drums) and an Ensemble of 11 Western instruments. Commissioned by the International Classical Music Festival (ICMF) (Zaidel-Rudolph, 2020).
- *Suite Afrique* transcription for viola and piano (1995) (Zaidel-Rudolph, 2020).
- *Suite Afrique* for cello and piano (1993). Commissioned by SAMRO) (Zaidel-Rudolph, 2020).
- *Masada* for string quartet and bassoon (1989). Commissioned by the University of Potchefstroom (Zaidel-Rudolph, 2020).
- *Margana* for flute, violin, cello and percussion (1985). Commissioned by the University of Pretoria (Zaidel-Rudolph, 2020).
- *Brass Quintet - And All That Jazz* for two trumpets, French horn, trombone and tuba (1983). Commissioned by the SABC (Zaidel-Rudolph, 2020).
- *Four Minim* for cello and piano (1982). Commissioned by the SABC, revised in 1992, first published in New York (Zaidel-Rudolph, 2020).
- *Three Chassidic Pieces* for flute, violin and piano (1982) (Zaidel-Rudolph, 2020).
- *The Fugue that Flew Away* for flute and piano (1979) (Zaidel-Rudolph, 2020).
- *Chamber Concertino* for eleven instruments (1979) (Zaidel-Rudolph, 2020).
- *Reaction* for piano, cello and percussion (1973) (Zaidel-Rudolph, 2020).
- *Canonetta* for Four for trumpet, viola and vibraphone (1973) (Zaidel-Rudolph, 2020).
- *Kaleidoscope* for wind and percussion (1971) (Zaidel-Rudolph, 2020).

Piano

- *DiA(fro)belli* for Piano. Based on the Diabelli Variations and commissioned by Dr Lia Jensen-Abbott - NCTM Associate Professor, Music Department, Albion College (Zaidel-Rudolph, 2020).
- *Ebb and Flow*. Commissioned by SAMRO for the 2020 UNISA International Piano Competition (Zaidel-Rudolph, 2020).
- *AfrEtude*. Commissioned by SAMRO for the 2020 UNISA International Piano Competition (Zaidel-Rudolph, 2020).
- *Takes Two to Tango* for 2 pianos. Commissioned by The SAMRO Foundation, premiered by Peter Cartwright and Sonja van Zyl at Pretoria University (2013) (Zaidel-Rudolph, 2020).
- *Partials and Pedals*. Commissioned for the 11th UNISA International Piano Competition 2008 (Zaidel-Rudolph, 2020).

- *Ebony and Ivory* for **harpsichord**. Commissioned by the SAMRO Endowment for the Arts (2001) premiered by Michael Blake in October 2004 (Zaidel-Rudolph, 2020).
- *"5 6 7 8."* Commissioned by UNISA for their graded examinations (2001) (Zaidel-Rudolph, 2020).
- *The Juggler and the King* (1998). Piano duo commissioned by SAMRO and premiered by Jill Richards and Wessel van Wyk (Zaidel-Rudolph, 2020).
- *South African National Anthem* (1995). Arranged for piano and solo voice (official version). Full orchestral arrangement written by Zaidel-Rudolph and premiered in 1997 at the Cape Of Good Hope Centre in Cape Town
- *Awaiting Game* (1993) (Zaidel-Rudolph, 2020).
- *Mosaic* (1989) (Zaidel-Rudolph, 2020).
- *Mixed Feelings for Sara* (1988) (Zaidel-Rudolph, 2020).
- *Virtuoso I* (1987). Commissioned by UNISA for the 1988 International Piano Competition (Zaidel-Rudolph, 2020).
- *Back to Basics* for piano, prepared piano and narrator (1983) (Zaidel-Rudolph, 2020).Premiered at the SABC Contemporary Music Festival in 1983.
- *Three Dimensions* (1974) Commissioned by the SABC (Zaidel-Rudolph, 2020).
- *Seven Variations on an Original Theme* (1971) (Zaidel-Rudolph, 2020).
- *Times They Are A-Changing* (2007) Commissioned for UNISA for the Grade III Syllabus (Zaidel-Rudolph, 2020).
- *Sonata No.1* (1969) (Zaidel-Rudolph, 2020).

Guitar

- *Five African Sketches* for guitar (1991) (Zaidel-Rudolph, 2020).
- *Tango for Tim* (1973) (Zaidel-Rudolph, 2020).

Organ

- *Five African Sketches* – Arrangement for Organ (1991) (Zaidel-Rudolph, 2020).

Marimba

- *Hebrotica* for Marimba (Zaidel-Rudolph, 2020).

Vocal

- *Youth Oratorio* (2009) for mixed choir and Ensemble of Seven (flute, oboe, trumpet cello, 2 percussionists, and Synthesiser) (Zaidel-Rudolph, 2020).
- *Vocalise* for soprano and flute (can also be performed by 2 flutes) (Zaidel-Rudolph, 2020).
- *Tribute to Ilan Ramon* for tenor, piano, violin and saxophone (2003) (Zaidel-Rudolph, 2020).
- *He Walked to Freedom* (1997). Written for the occasion of President Mandela's Honorary Doctorate (Zaidel-Rudolph, 2020).
- *Hell Well Heaven* for soprano and piano (1992). A poem by Mongane Wally Serote (Zaidel-Rudolph, 2020).
- *Peace* for mixed choir and guitar (1991). Transcribed and edited as *Peace-Ukuthula* for soprano, mezzo-soprano and orchestra with an available piano version (Zaidel-Rudolph, 2020).
- *It's a Woman's World* for choir and piano (1984) (Zaidel-Rudolph, 2020).
- *Boy on a Swing* for female choir, piano, percussion (1983). Oswald Mtshali's poem transcribed for soprano and piano (1992) (Zaidel-Rudolph, 2020).
- *Song Cycle* (1976) for the Totius Centenary (Zaidel-Rudolph, 2020).
- *Swaziland National Anthem* for choir and piano (1974) (Zaidel-Rudolph, 2020).
- *Five Pieces* for Woodwind Quartet and Soprano (1971) (Zaidel-Rudolph, 2020).
- *Dialogue of Self and Soul* for eight soloists and speech chorus (1971). Text by William Butler Yeats (Zaidel-Rudolph, 2020).
- *Setting Afrikaans Poems to Music* for soprano and piano (1968). Poems by W.E.G. Louw (Zaidel-Rudolph, 2020).

Multi-media work

- Music composed for Natasha Christopher's art video Exhibition, River (2004) (Zaidel-Rudolph, 2020).

Stage Musical

- *Voices of Africa*. A two-hour multi-media stage production for an eight-piece Ensemble, male soloists and male Choir. Premiered in March 2007 (Zaidel-Rudolph, 2020).

- *A Rage in a Cage* (1983). Rock opera for soloists, choir and chamber group (premiered by National Youth Theatre) (Zaidel-Rudolph, 2020). The list of songs in the musical are as follows:
    - *Boy this is one fruitcake*
    - *Children it's all so easy*
    - *Dance no 1*
    - *Dance no 2*
    - *Dance no 3 (Desperate)*
    - *Dance no 4 (Lies)*
    - *Dance no 5 (Frankie's)*
    - *Dance no 6 (Round & Round)*
    - *Fee Fie Foe Fum*
    - *Flipped Tripped*
    - *Hear us somebody*
    - *Hey these friends understand*
    - *I'm so tired*
    - *Incidental music*
    - *Incidental music (Pathos)*
    - *It's not just normal*
    - *Just look what you've done*
    - *Lady you got the wrong end*
    - *Love is everywhere*
    - *Mm Nice Boy*
    - *Mother Mother Mother*
    - *Oh mother weep*
    - *Overture*
    - *We don't want to look*
    - *What a terrible lesson*

Ballet

- *Ukukhala*. A twenty-minute modern ballet choreographed by Christopher Kindo (Zaidel-Rudolph, 2020).
- *Abantubomlambo* - The River People. Based on the African mythology of the Ancestors and the mermaid-*sangomas* (traditional healers) (Zaidel-Rudolph, 2020).

Film Music

- *An African Dream* (1988) – full length feature film (Zaidel-Rudolph, 2020).

Jewish/Hebrew Stage Musicals

- Celebration I, Celebration II and Celebration III, a two-hour multi-media stage performance for tenor and baritone soloists, male choir, nine-piece ensemble plus audio-visual (Zaidel-Rudolph, 2020).
- *A Medley* (1980) (Zaidel-Rudolph, 2022).
- *Uforatzto, Keil, Atoh, Nye Zhuritze Chloptzi* (Zaidel-Rudolph, 2022).
- *Adon Olam* (1985) (Zaidel-Rudolph, 2022).
- *Adon Olam* (1995) (Zaidel-Rudolph, 2022).
- *Ahavti* (1995) (Zaidel-Rudolph, 2022).
- *Al tira* (1995) (Zaidel-Rudolph, 2022).
- *Ana Hashem* (1995) (Zaidel-Rudolph, 2022).
- *Ani Maamin* (1995) (Zaidel-Rudolph, 2022).
- *Anim Zmirot* (1983) (Zaidel-Rudolph, 2022).
- *Atzabeihem* (1995) (Zaidel-Rudolph, 2022).
- *Avinu Malkeinu* (1995) (Zaidel-Rudolph, 2022).
- *B Nei Veitcha* (1995) (Zaidel-Rudolph, 2022).
- *Baruch Hahever* (1995) (Zaidel-Rudolph, 2022).
- *Btzeit Ysrael* (1995) (Zaidel-Rudolph, 2022).
- *Dai Dai* (1995) (Zaidel-Rudolph, 2022).
- *Durme Mi Angelico* (1995) (Zaidel-Rudolph, 2022).
- *Eshet Chayil* (1985) (Zaidel-Rudolph, 2022).
- *Eshet Chayil* (2001) (Zaidel-Rudolph, 2022).
- *Galeh Kvod* (2002) (Zaidel-Rudolph, 2022).

- *Hallelu* (1995) (Zaidel-Rudolph, 2022).
- *Hanshama Lach* (1995) (Zaidel-Rudolph, 2022).
- *Hop Kossack* (1983) (Zaidel-Rudolph, 2022).
- *Hu Avinu* (1995) (Zaidel-Rudolph, 2022).
- *Hu Elokeinu* (1995) (Zaidel-Rudolph, 2022).
- *Im Eshkacheich* (2001) (Zaidel-Rudolph, 2022).
- *Kad'sheinu* (1985) (Zaidel-Rudolph, 2022).
- *Kad'sheinu* (1995) (Zaidel-Rudolph, 2022).
- *Kein Anachnu* (1995) (Zaidel-Rudolph, 2022).
- *Kol Nidrei* (1995) (Zaidel-Rudolph, 2022).
- *Kvodo* (2002) (Zaidel-Rudolph, 2022).
- *L'Man Achai* (1995) (Zaidel-Rudolph, 2022).
- *L'Cha Dodi* (1985) (Zaidel-Rudolph, 2022).
- *L'Cha Dodi* (1995) (Zaidel-Rudolph, 2022).
- *Lhoshini* (1995) (Zaidel-Rudolph, 2022).
- *Lishmoa* (1995) (Zaidel-Rudolph, 2022).
- *Lo Amut* (1995) (Zaidel-Rudolph, 2022).
- *Ma Ashiv* (1995) (Zaidel-Rudolph, 2022).
- *Magein Avot* (2005) (Zaidel-Rudolph, 2022).
- *Mimkomo* (1995) (Zaidel-Rudolph, 2022).
- *Mizmor Shir* (1995) (Zaidel-Rudolph, 2022).
- *Mkimi* (1995) (Zaidel-Rudolph, 2022).
- *Moshiach* (1995) (Zaidel-Rudolph, 2022).
- *My mother's Shabbos candles* (2002) (Zaidel-Rudolph, 2022).
- *Napoleon's March* (1980) (Zaidel-Rudolph, 2022).
- *Nigun Rikud Zol* (1980) (Zaidel-Rudolph, 2022).
- *Od Yishama* (1985) (Zaidel-Rudolph, 2022).
- *On Sinai we witnessed* (1995) (Zaidel-Rudolph, 2022).
- *Ozi Vzimrat Ka* (1995) (Zaidel-Rudolph, 2022).
- *Pitchu Li* (1995) (Zaidel-Rudolph, 2022).
- *Rei Rachel* (1985) (Zaidel-Rudolph, 2022).
- *Russian Trad Melody* (1995) (Zaidel-Rudolph, 2022).
- *Schindlers List Medley* (2001) (Zaidel-Rudolph, 2022).
- *Shabbat Candles* (1995) (Zaidel-Rudolph, 2022).

- *Shalom Aleichem* (1995) (Zaidel-Rudolph, 2022).

- *Sim Shalom* (1995) (Zaidel-Rudolph, 2022).

- *Sinai* (1993) (Zaidel-Rudolph, 2022).

- *Torah Tziva Lanu* (1996) (Zaidel-Rudolph, 2022).

- *Uv'yom hashabbat* (1995) (Zaidel-Rudolph, 2022).

- *V Choi Karnei Reshoim* (1986) (Zaidel-Rudolph, 2022).

- *V Hu Yashmienu* (1995) (Zaidel-Rudolph, 2022).

- *V Rau Vanav* (1995) (Zaidel-Rudolph, 2022).

- *Vekaren Pezireinu* (1995) (Zaidel-Rudolph, 2022).

- *Were Weary Hashem* (1995) (Zaidel-Rudolph, 2022).

- *Nigin Rijut* (1983) (Zaidel-Rudolph, 2022).

- *Yedid Nefesh* (1995) (Zaidel-Rudolph, 2022).

- *Yisme'chu* (1995) (Zaidel-Rudolph, 2022).

- *Yisrael Btach* (1995) (Zaidel-Rudolph, 2022).

- *Yvarech* (1995) (Zaidel-Rudolph, 2022).

Others (with some cross-reference and repetition)

- *Animal Farm* Opera – Prologue and Act 1 completed. (1980). Zaidel-Rudolph's Doctoral Thesis Project (Zaidel-Rudolph, 2022).

- *Boy on a swing* (1985) (Zaidel-Rudolph, 2022).

- *Boy on a swing* (1993) (Zaidel-Rudolph, 2022).

- *Concert overture* (1980) (Zaidel-Rudolph, 2022).

- *It's a woman's world* (1985) (Zaidel-Rudolph, 2022).

- *L Chaim Logo* (1996) – Music for TV (Zaidel-Rudolph, 2022).

- *Like a sister and her brother* (1983) (Zaidel-Rudolph, 2022).

- *Medley Chossen Kalah* (2001) – Wedding (Compact disk) (Zaidel-Rudolph, 2022).

- *Mi Bansiach* (2001) Wedding (Compact disk) (Zaidel-Rudolph, 2022).

- *Mikolot* (2005) Wedding (Compact disk) (Zaidel-Rudolph, 2022).

- *Mitteler Rebbe's Kapelye* – String quartet (1983) Wedding (Compact disk) (Zaidel-Rudolph, 2022).

- *Ntyilo Ntyilo* (2011) – Arrangement for String Quartet (Zaidel-Rudolph, 2022).

- *Oral health song* (1994) (Zaidel-Rudolph, 2022).

- *P H S G Centenary Song* (2003) (Zaidel-Rudolph, 2022).

- *River* (Installation Music – Natasha Christopher) (n.d) (Zaidel-Rudolph, 2022).

- *Russian Dance* (1980) (Zaidel-Rudolph, 2022).

- *Setting – Swaziland Anthem* (1974) (Zaidel-Rudolph, 2022).

- *Together we are one* (1993) (Zaidel-Rudolph, 2022).

- *Vaalvalk* (Settings W.E.G Louw) (1968) (Zaidel-Rudolph, 2022).

- *Wedding Music arrangements* (2001) (Zaidel-Rudolph, 2022).

- *Dialogue of Self & Soul (1972)* (Zaidel-Rudolph, 2022).

3.2. Conclusion

Zaidel-Rudolph has been composing since she was 6 years old but her more serious works were written since the early 1970s, and her style has gone through several stages of growth. She has established herself as an icon in the twentieth and twenty-first century music composition and performance sectors, thanks to her extensive performances, original compositions and contributions to music in South Africa and worldwide.

Chapter 4

Post-tonality in the twentieth and twenty-first centuries

4.1. Introduction

It is critical for this author to provide broad references to the history, music practices, methods, and trends of the post-tonal period in order to portray a better knowledge of Zaidel-Rudolph's work.

In contrast to the listener's notion of 'classical' tonal music, Deri (1968:14) argues that music is often not for relaxation; it also does not have to be beautiful and appealing to the ear. According to Hall (1996:1), regardless of how peaceful it began, twentieth century music is "the most violent in human history." Tonality, the most important factor in musical comprehension, has been largely abandoned in modern music, which is central to the main tendencies in post-tonal music (Deri, 1968:14). Within the first decade of the twentieth century, for example, Arnold Schoenberg (1874-1951) abandoned tonality (Hall 1996:3). Deri's perspective is supported by Kamien (2002:287–288). Cope (1989:5), Kostka (2012:126), and Burkholder, Grout, and Palisca (2010:805), however, argue that tonality is still employed in most post-tonal music. According to Hall (1996:1), the bourgeois style remained as important and Romantic as ever at the dawn of the 1990s.

Nonetheless, as expressed by the above-discussed authors, post-tonal composers may be divided into three groups: those who have completely abandoned tonality, those who have clung (and continue to hold) on to tonal traditions, and those who have engaged in both (Hanning, 2006:546). Ultimately, the composer makes the decision. Because Zaidel-Rudolph is a post-tonal composer, I investigate into which of the aforementioned categories she falls. Perhaps, a hybrid combination of all? The paragraph following that provides an overview of post-tonal classical art music's history, style, movements, and methods. The succeeding paragraph continues a brief discussion of other musical trends in post-tonal music with regard to scale formations, melody, harmony, rhythm, texture, and form.

4.2. Post-tonal Western art music

Post-tonal Western art music was void of a prevailing stylistic tradition and broadly diverse (Lumen Learning, 2020:612)[5].

The subsequent discussion outlines the musical development of the Western art music style during the post-tonal era.

4.2.1. History

As the twentieth century emerged, prevailing music was predominantly late Romantic in style (Lumen Learning, 2020:613). Noticeable transformations were seen in the Post-Romantic symphonic works of composers such as Gustav Mahler, Jean Sibelius, and Richard Strauss. Coincidentally, composer Claude Debussy led the Impressionist movement, which began in France (Lumen Learning, 2020:613). Debussy, who did not fancy the term, expressed his dissociation: "… 'Impressionism' is a term which is as poorly used as possible, particularly by art critics" (Politoske and Martin, 1988:419). However, although Maurice Ravel also shared the term's association with their music, the reality is that their works explore various styles seldom related to Impressionism[6] (Lumen Learning, 2020:613).

For some composers, the Post-Romantic and Impressionist styles did not appeal to them; their reactions led to a diversion in total contradiction (Lumen Learning, 2020:613). However, there seemed to be a unifying conceptual idea that defined the twentieth century - the general abandonment of traditional tonality, as seen in composers' works during the emergence of the century (Lumen Learning, 2020:613). This issue of abandonment ultimately led to innovations of rather new concepts with regards to style, technique, and expression, which Morgan (1984:458) expressed as "linguistic plurality" - Schoenberg and the development of atonality with his pupils, Alban Berg and Anton Webern; the twelve-tone technique as utilised by Igor Stravinsky having "absorbed Schoenberg's method, but on his own terms" (Lumen Learning, 2020:613; Ross, 2007:53–59, 292–293). Popular cartoon (Tom and Jerry) composer Scott Bradley even

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[5] Lumen Learning is an educational website that gives access to an array of authors and texts.
[6] See the discussion at the section on Neoclassicism.

utilised the twelve-tone method in his score *Puttin' on the Dog and The Cat That Hated People* (Ross, 2007:228).

Several composers post the First World War in search of inspiration retraced their steps by utilising elements of form, harmony, melody and structure in their works, thus the term "Neoclassicism" (Lumen Learning, 2020:614). Neoclassicism was evident in the composers such as Stravinsky in works like *Pulcinella* and *Symphony of Psalms*, Sergei Prokofiev's *Classical Symphony*, Maurice Ravel's *Le tombeau de Couperin*, as well as Paul Hindemith's *Mathis der Maler* (Lumen Learning, 2020:614).

Furthermore, "Futurism" - a style that strives to recreate traditional sounds while placing them in a '"Futurist" context" - emerged as developed by Italian composers, including Francesco Balilla Pratella and Luigi Russolo (Lumen Learning, 2020:614). Futurist works include George Antheil's *Machine Music,* notably his Sonata no.2 - *The Airplane*, and Alexander Mosolov's *Iron Foundry* (Lumen Learning, 2020:614). The quest for experimentation and creation of broader musical expressions by composers led to the utilisation of "Microtones[7]" as evident in the works of composers such as Charles Ives, Alois Hába, Julián Carrillo, Ivan Wyschnegradsky, John Foulds, as well as Mildred Couper (Lumen Learning, 2020:614).

Composers, most notably Pierre Schaeffer, began to explore the application of technology to music in musique concrète in the 1940s and 1950s (Dack, 2002). Later, the phrase "electroacoustic music" was established to encompass all types of music that use magnetic tape, computers, synthesisers, multimedia, and other electronic instruments and processes (Lumen Learning, 2020:614). Cage's Cartridge Music was an early example of live electronic music, which incorporates live electronic sounds during a performance (as opposed to pre-processed sounds that are overdubbed during a performance) (Lumen Learning, 2020:614). Electroacoustic music was regularly created by Cage, Berio, Boulez, Milton Babbitt, Luigi Nono, and Edgard Varèse (Lumen Learning, 2020:614).

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[7] Griffiths & Whittall (2011) describe microtone: "Any interval smaller than a semitone. Such intervals have long been used in Asian cultures, but their use in Western art music is a 20th-century phenomenon." During the 1920s, quarter-tones were introduced by notable composers - Alois Hába and Julian Carrillo, while Harry Partch took his quest for intonation further by utilising smaller intervals (Griffiths & Whittall, 2011). However, it must be noted that performance issues tend to arise with microtonal works as such works may occasionally require specially constructed musical instruments as opposed to the electroacoustic sphere where such executions are limitless, with composers having immediate accessibility to computers (Griffiths & Whittall, 2011).

The early 1950s featured John Cage's development of "Chance operations[8]" in his works, while Karlheinz Stockhausen as well as Steve Reich introduced "Process music[9]" in their works *Prozession*, *Aus den sieben Tagen;* and *Piano Phase*, *Clapping Music* respectively. Experimental music[10] was also featured during this era; Mauceri (1997) argues that the term may have been invented by Cage whose interest was in the composition of works with an intent for the unpredictable when performed, rather than the composer's personal objective. Furthermore, the term connects to the description of music of selected styles that utilise rather unique and innovative elements void of traditional approaches (Lumen Learning, 2020:614).

Worthy of note is the importance of cultural leanings in the music of this period; Stravinsky and Prokofiev leaned towards primitivism[11] at the beginning of their careers as featured in their works *The Rite of Spring* and *Chout* respectively (Lumen Learning, 2020:614). Dmitri Shostakovich (amongst other Russian composers) leaned on the "social impact of communism" which resulted in working "within the strictures of socialist realism in their music" (McBurney, 2004). Benjamin Britten (amongst other composers) voluntarily leaned on the concept of "politics" (Evans, 1979:450). At the beginning of the century, nationalism became another notable concept explored by composers to express themselves in their music (Lumen Learning, 2020:615). The Americans embraced their traditional forms of classical music as evident in the works of Charles Ives, John Alden Carpenter, as well as George Gershwin; the folk music of Vaughan Williams (*Five Variants of Dives and Lazarus*), Gustav Holst (*A Somerset Rhapsody*); the Jazz styles of Gershwin, Leonard Bernstein, and Darius Milhaud - all of whom were equally significant (Lumen Learning, 2020:615).

Later on, into the century, composers explored the concepts of eclecticism, polystylism and minimalism - all which became essential (Lumen Learning, 2020:615).

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[8] Latham (2011) defines chance operations: "A term introduced by John Cage for techniques that open the compositional process to chance, for example the tossing of a coin to determine pitches."

[9] Process music involves the exploration of "a particular process" in which the performer has no particular execution instructions; the "process" is basically "vague" and "laid bare in the work."

[10] "an experimental action is one the outcome of which is not foreseen" (Cage, 1961:39).

[11] Stevenson (2010) defines primitivism as "a belief in the value of what is simple and unsophisticated, expressed as a philosophy of life or through art or literature: the stark primitivism of the music."

4.2.2. Styles

4.2.2.1. Romantic style

As the nineteenth century concluded, the Romantic style gradually began to diversify into several ideals, style approaches and concepts such as Impressionism and Post-romanticism (Lumen Learning, 2020:615).

However, as the twentieth century emerged, nineteenth-century Romantic music was still featured as an extension into the new century by several composers who maintained traditional music performance setups, typically the orchestra and the string quartet (Lumen Learning, 2020:615). Furthermore, the symphony and the concerto were continually employed in newer ways, though, as seen in the works of Gustav Mahler as well as Jean Sibelius (Lumen Learning, 2020:615). Neighbour (2001:582) maintains that Schoenberg's work encompasses late-Romantic music ideals. Simultaneously, Salzman (1988:10) supports the view that Schoenberg is "the composer who most directly and completely connects late Richard Wagner and the 20th century."

4.2.2.2. Neoclassicism

Neoclassicism - a style utilised in selected twentieth century composers' works, developed between world wars I and II (Whittall, 2001). During this time, composers retraced their steps to the revival and utilisation of traditional musical forms and structures of prior musical styles (Whittall, 2001). These composers sought to replace what they perceived as "the increasingly exaggerated gestures and formlessness of late Romanticism" (Whittall, 2001). Numerous composers wrote works utilising the compositional characteristics of the seventeenth and eighteenth centuries in a move to oppose the use of extreme orchestration that dominated the late nineteenth century (Kennedy, Kennedy & Rutherford-Johnson, 2012).

Notable composers who utilised the concept of neoclassicism in their works include Stravinsky (*Pulcinella*), Paul Hindemith (*Symphony: Mathis der Maler*) as well as Darius Milhaud (Lumen Learning, 2020:615).

Although the movement began with Stravinsky and Paul Hindemith, Prokofiev's *Classical Symphony,* as well as Richard Strauss's *Ariadne auf Naxos* (1912), can also be said to be neo-classical (Kennedy, Kennedy & Rutherford-Johnson, 2012).

4.2.2.3. Jazz and classical fusion

A fusion of jazz elements and classical characteristics was evident in the works of composers such as Ravel, Milhaud, Gershwin, Copland and Bernstein (Lumen Learning, 2020:615).

4.2.3. Movements

4.2.3.1. Impressionism

Before the 1880s, the term "Impressionism" had no connection with musical art, except for its earlier use in titles of "travel pieces" and portrayals of nineteenth-century programme music (Pasler, 2001).

However, the concept of Impressionism (apart from its musical connotation) has various individual underlying meanings and connections – "aesthetic and scientific principles, stylistic innovation, social and political associations, neo-Impressionism and post-Impressionism" (Pasler, 2001).

In music, the connection between Impressionism and innovation was quite fleeting and very close to Debussy (Pasler, 2001) - those whose music he had either influenced or had some similarities between his music and theirs (Pasler, 2001). In their relatively short-lived quest to explore "the mystery of life", these composers sought to express the elements of nature in their music - water, fog, fountains, clouds and the night (Pasler, 2001). Furthermore, they utilised the "substitute sequences of major 2nds", "unresolved chords", as well as other timbres crafted for specific setups, "extended tremolos", non-traditional *ostinato* and dense rhythms (Pasler, 2001).

Following Debussy's death in 1918, several composers continued to utilise elements of Impressionism in their works which undoubtedly made a considerable impact on each of them (Pasler, 2001).

4.2.3.2. Futurism

Futurism was a concept initiated amongst composers during the twentieth century in which their music was mainly influenced by noise (Burkholder *et al.*, 2010:805). Russolo (1986:23) supports Burkholder *et al.*: "Ancient life was all silence. In the 19th century, with the invention of machines, Noise was born." The quest for "musical noise" has led composers to utilise the most complex polyphony, extreme variations of instrumental sounds and tone-colours, as well as the most complicated series of dissonant chords Russolo, 1986:24).

The movement originated in 1909 as an "artistic" movement, originally Italian, which was led by Filippo Tommaso Marinetti, and it immediately appealed to the Russian avant-garde (Dennis & Powell, 2001). The composer Francesco Balilla Pratella was the first to formally associate himself with the movement (Dennis & Powell, 2001).

4.2.3.3. Exoticism

Exoticism[12] , according to Burkholder *et al.* (2010:A7), is a style utilised during the nineteenth century in which the music is inspired and connected to a different culture, environments, and way of life. Locke (2020) further argues that the "exotic locale" that in question may be quite close or rather faraway.

Works based on Exoticism usually utilise descriptive titles with music characteristics that connect to the people or group being featured (Locke, 2020). There were also specific compositional techniques tied to the musical practice of Exoticism such as the use of modes and harmonies (different from traditional major, minor and pentatonic scales), plain textures, parallel 4ths or 5ths, drones and invariable harmonies, rhythmic

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[12] Locke (2020) defines Exoticism as "The evocation of a place, people, or social milieu that is (or is perceived or imagined to be) profoundly different from accepted local norms in its attitudes, customs, and morals."

repetitions or melodic patterns (Locke, 2020). Others include the use of rare musical instruments (predominantly percussion), performance techniques such as *pizzicato*, vocal *portamento* and double stops, and the likes of such, as well as textures containing rhythmically stratified layers as seen in works that evoked e.g. the Indonesian gamelan (Locke, 2020).

Exoticism did slip into the twentieth century. Locke (2020) notes that its practice was not totally "submerged" in the century, as evident in the works of specific composers such as Ravel, Eichheim, Poulenc, Cowell, McPhee, Lou Harrison, Cage, and Britten. All of them utilised the gamelan style to project obvious signals; Britten, for example, particularly used the 'gamelan style' to signal homosexual desire Locke (2020).

4.2.3.4. Primitivism

This type of musical style utilises primitive or traditional characteristics such as pulsation (in place of meter), repetition, unresolved spontaneous dissonances, dark tone colours, and the likes (Burkholder *et al.*, 2010:A15).

4.2.3.5. Symbolism

According to R. Smith (2011), symbolism was a literary movement (although it has existed since the Middle Ages) that originated in France during the late nineteenth and early twentieth century. Symbolism encompasses "extra-musical phenomena" such as a person or the emotional state of such individual, poetry, as well as the natural sphere (R. Smith, 2011).

The nineteenth-century utilised musical symbolism in two significant ways: scene-painting and *leitmotiv*, as evident in the songs of Schubert, Mendelssohn's *Hebrides* overture, as well as Wagner's *Das Rheingold* (R. Smith, 2011).

However, the second half of the 19th century witnessed a set of literary individuals known as Symbolists, made up of poets such as Paul Verlaine (1844–96) and Stéphane Mallarmé (1842–98), and playwrights such as Maurice Maeterlinck (1862–1949) and

Auguste Villiers de L'Isle Adam (1838–89) (R. Smith, 2011). They utilised literary symbols with a superfluity of meanings as opposed to using specific signs (R. Smith, 2011).

Numerous French composers set Symbolist poems as songs, as seen in Debussy's "wordless orchestral," *Prélude* adapted from Mallarmé's poetry work *L'Après-midi d'un faune,* as well as Maeterlinck's play *Pelléas et Mélisande* - the latter in which Debussy utilised symbols (fountain doves, light on the sea) as musical concepts (R. Smith, 2011). Debussy occasionally introduced a musical motive to establish "dramatic irony' - the listener's attention is drawn to unseen elements (R. Smith, 2011).

4.2.3.6. Expressionism

According to Burkholder *et al.* (2010:A7), Expressionism - an early twentieth century style - relies on the intense expression of an individual's emotion through the utilisation of excessive chromaticism and technically complex executions. These were musically exhibited in the works of composers such as Schoenberg, Berg and Webern (Kennedy, Kennedy & Rutherford-Johnson, 2012). In support of Kennedy *et al.* (2012), Fanning (2001) further confirms Expressionism to be found in the works of the composers mentioned by Kennedy *et al.:* Schoenberg's "violently eruptive" Piano work op.11 no.3 as well as the first and final of his *Five Orchestral Pieces* op.16, Berg's "comparatively aphoristic and atypical" Clarinet works (op.5), cited by Adorno (1982) as Berg's "only true expressionist work", and finally Webern (despite being closely related to Schoenberg's expressionist ideal) whose music diverged by concealing its ardent centre of expression.

4.2.3.7. Serialism

1910 featured the emergence of Serialism[13] - "all 12 notes of the chromatic scale are arranged in a fixed order" and utilised for melodic and harmonic purposes throughout the entire piece (Whittall, 2011). Other parameters, such as rhythm, were also later serialised - as found in Boulez's *Structures 1A and Structures 1B*. Burkholder *et al.* (2010:A17)

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[13] Whittall (2011) defines Serialism as "A compositional technique in which the basic material is an ordered arrangement—row, set, or series—of pitches, intervals, durations, and, if required, of other musical elements."

further argue that the style (serialism) is based on the twelve-tone method developed by Schoenberg, which comprise numerous musical characteristics.

4.2.3.8. Neo-romanticism

According to Burkholder *et al.* (2010:A12), neo-romanticism developed during the latter part of the twentieth century; composers reintroduced and embraced the tonality of nineteenth-century Romanticism.

4.2.3.9. Modernism

Beard and Gloag (2016:165) clarify that in diverse contexts, modernism means different things. While applied concurrently to individual composers and works, it suggests a historical epoch. Still, it is commonly used as a descriptive concept that embraces significant art innovations during the late nineteenth and early twentieth centuries (Beard & Gloag, 2016:165).

Modernism, according to Griffiths (2011), is connected to musical innovations. Composers sought to completely abandon existent musical traditions in search of fresh and innovative ideas (Burkholder *et al.*, 2010:A11). By the second decade of the twentieth century, certain composers and their works had identified with the movement: Stravinsky's *The Rite of Spring* (1913), Schoenberg's transition into atonality (around1908), Italian Futurists and their compositions, Russian disciples of Alexander Skryabin, as well as Ferruccio Busoni's *Sketch for a New Esthetic of Music* (1907) (Griffiths, 2011).

The history of Modernism goes way back, and when it started, or even whether it ended, there is still controversy about it. Clearly, in relation to the old, every historical era imagines itself as 'modern', that is as new (Beard & Gloag, 2016:165). Still, modernism shows a stronger self-conscious obsession for the new, projecting a drive for a utopian change. Modernism is no longer akin to being 'current' but rather 'progressive' (Beard & Gloag, 2016:165).

4.2.3.10. Postmodernism

Beard & Gloag (2016:202) suggest that postmodernism is "a term that is highly resistant to definition." Further supported by Kramer (1996:21), "postmodernism is a difficult concept to define rigorously" Nevertheless, both authors provide some valuable insights. Burkholder *et al.* (2010:A15) state that postmodernism was an artistic style that developed halfway through the twentieth century; an artist could have access to the utilisation of all previously established styles and genres. Kramer (1996:21) suggests the possibilities of characterizing postmodern music: it is neither just a rejection nor continuation of modernism, but combines elements of both; ironic to a certain degree; disregards the boundaries between sonorities and methods from the past and the present; aims to deconstruct barriers between "highbrow" and "lowbrow" stylistic distinctions; scorns the frequently accepted importance of structural unity; does not recognize the distinction between "elitist" as well as "populist" ideals; avoids "totalizing forms" whereby an entire piece is tonal, serial or set in a particular form; quotes and references music from numerous traditional and cultural values; contradictions are valued in postmodern philosophy; rejects "binary oppositions"; embraces incoherence and disintegrations; embodies "pluralism and eclecticism"; depicts diverse connotations and "multiple temporalities"; in contrast to scores, performances, or composers, postmodernism places more value on listeners as sources of meaning and even structure.

4.2.3.11. Minimalism

Burkholder *et al.* (2010:A11) argue that minimalism is considered as one of the significant genres towards the conclusion of the twentieth century. According to Kennedy *et al.* (2012), the term originated as a musical style in American during the 1960s. It comprises the utilisation of minimal elements to their total capacity - compositions may comprise prolonged reiteration of fleeting musical motives and extensive sustaining of monotones or chords (Kennedy *et al.*, 2012). Leading figures who practised Minimalism include Philip Glass, Terry Riley, Steve Reich, as well as La Monte Young; however, subsequent composers such as John Adams, Louis Andriessen, as well as Michael Gordon proceeded to develop the style with more complexity.

4.2.3.12. Post-minimalism

Post-minimalism comprises the utilisation of various methodologies to minimalism by the inclusion of existing musical practices, various components with greater expression than its predecessor (Burkholder *et al.*, 2010:A15).

4.3. Stylistic trends in the post-tonal era

Given that the focus of this dissertation is on Zaidel-Rudolph and her chosen work, post-tonal stylistic trends will be fleetingly addressed, and with relevant examples.

4.3.1. Scale formations

Post-tonal composers began to utilize new scales, either newly developed or those derived from conventional scales, in their drive to explore new approaches (Cope, 1989:8; Kostka, 2012:16). Five-note (pentatonic) scales, six-note (hexatonic) scales, seven-note (heptatonic) scales in 'diatonic' modes, and eight-note (octatonic) scales are some of the scale materials used in post-tonal music (Kostka, 2012:16–27). Other scales, such as the chromatic scale[14] and micro-tonal scale[15] are employed in post-tonal music (Kostka, 2012: 27–30). Examples from Kostka (2012: 17–25) are illustrated in the following sections.

Example 1: Five-note scale (Pentatonic with E tonal center)

The pentatonic scale has five modes that may be adjusted. Example 1 employs mode 3, using 'E' as the tonal centre. The first mode would start on C, the second on D, and so on. The pentatonic scale may be transposed into many modes as well (Kostka, 2012:17).

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[14] The **chromatic scale** comprises every semitone found within an octave (Persichetti, 1961:60).

[15] A **microtonal scale** involves the use of "microtones," that is intervals smaller than a minor 2nd as used by post-tonal composers like Alan Berg, Béla Bartók, and Witold Lutoslawski (Kostka, 2012:28).

Example 2: Six-note scale (Whole-Tone scale 'WT-0')

In post-tonal music, the whole-tone scale is the most commonly utilized six-note scale. WT-0 denotes that C is the pitch class 0 in this whole-tone scale (Kostka, 2012:17).There are only 2 Whole Tone scales possible – one which begins on C as tonic and one which begins on C# as tonic. The rest is repetition.

Example 3: Seven-note scale (Diatonic scale mode–Mixolydian)
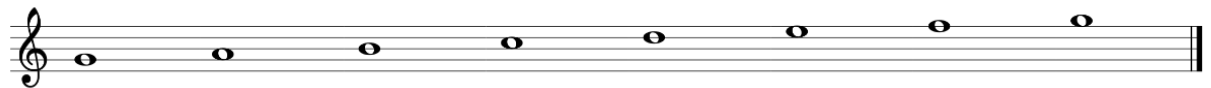
Modal scales were lost over time until post-tonal composers began to include them in their compositions in the twentieth century. The fifth mode, known as the **Mixolydian** mode, is illustrated in example 3 (Kostka, 2012: 21). This is characterised by a major 3rd and 6th but with a flattened leading note.

Example 4: Eight-note scale (The Octatonic scale)

Because it may be split into two diminished 7th chords, the octatonic scale is sometimes known as the "diminished scale." It's also called a whole-step-half-step scale (though it may alternatively be written half-step-whole-step) (Kostka, 2012:25). It can also begin with a whole tone followed by half-tone etc.

Synthetic scales, often known as "original" scales, are created by randomly placing major, minor, and augmented seconds conjunctly (Persichetti, 1961:43).

4.3.2. Melody and voice-leading (Horizontal dimension)

According to Kennedy & Kennedy (2007:485), the horizontal dimension refers to how the notes in a melody are interpreted one after the other. As a result, as observed by Kostka (2012:68), 'horizontal dimension' refers to melodic lines in post-tonal works. Post-tonal composers utilize melodies in a different way than conventional composers. These include 'non-vocal melodic lines'[16], 'melodic doubling'[17], 'wider range'[18], 'twelve-tone melody'[19], 'more chromaticism'[20] (Dallin, 1974:29–30; Kostka, 2012:83).

Nonetheless, some motivic devices generally employed in tonal melodies (such as sequences, repetitions, as well as inversions) still found roots in twentieth century compositions (Kostka, 2006:81). However, some melodic devices uniquely associated with twentieth century music have also found roots in composers' music in the century; one is the use of pitch-class cell[21] (Kostka, 2006:81). The utilisation of cells (generally three to four notes each) plays a significant role in some twentieth century compositions, a role that is as important as developing a terminology attached to it[22].

For a good reason, the traditional study of tonal harmony vests colossal importance to the subject of voice-leading or part-writing (Kostka, 2006:83). For centuries before the tonal era and to its end, there have been voice-leading practices adhered to by all composers, which resulted in so many similarities in their styles (Kostka, 2006:83). These similarities were most distinct among composers and their contemporaries, such

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[16] Unlike instrumental and, more significantly, vocal music from the Classical and Romantic eras, post-tonal composers utilise very disjunct and non-singable melodic lines (Dallin, 1974:29–30; Kostka, 2012:68). Melody use has become "less lyrical",, as seen in the works of Hindemith, Boulez, and Bartók (Kostka, 2012:70).

[17] Post-tonal composers utilised "melodic" doubling of melodic lines at the 3rd, 6th and octave as this was a prevalent practice in post-tonality (Dallin, 1974:50). Melodic doubling is employed for "special effects", thus used now and then by composers (Dallin, 1974:54). An example of melodic doubling is found in Béla Bartók's *Giuoco delle coppie* from his *Concerto for Orchestra* (Dallin, 1974:50).

[18] Since 1900, melodic passages have been presented in extreme ranges (Kostka, 2012:70). An example is found in the flute part of Boulez's *Le Marteau sans maître* (Kostka, 2012:68). Excellent examples of extreme registers are to be found in the music of Gyorgy Ligeti.

[19] Developed by Schoenberg, twelve-tone melody involves using a single set of twelve different tones of the chromatic scale (Deri, 1968:112).

[20] An essential aspect of any post-tonal melody is its use of chromaticism; that is, the chromatic scale being employed in the organisation of such melody (Kostka, 2012:70).

[21] Kostka (2006:81) defines the pitch-class cell as "a collection of intervals that can be rearranged and inverted."

[22] Atonality- a significant aspect of twentieth-century music, has become a distinguishing factor between the more significant part of the century's music and any other music in the Western tradition (Kostka, 2006:175). In the 1920s, nonserial atonality (otherwise referred to as "free" atonality) led to a more efficient atonal method termed serialism or twelve-tone music (Kostka, 2006:175). However, the utilisation of nonserial atonality is still widely common today (Kostka, 2006:175).

as Haydn and Mozart; however, some features are common among all the tonal era composers (Kostka, 2006:83). Such features include voice-leading principles which suggest the avoidance of chords comprising parallel fifths and octaves (particularly the latter), as well as the resolution of any 7th chord down by step (Kostka, 2006:83). While some twentieth century compositions still employ these traditions as well as the practice of "smooth voice-leading," a significant characteristic of twentieth century voice-leading practice is "disjunct voice-leading" (Kostka, 2006:83). Furthermore, twentieth century composers have been uninhibited in their utilisation of harmonic parallelism[23], otherwise known as "planning" (Kostka, 2006:86).

Composers used tone-colour melody ('*Klangfarbenmelodie*,') which Auner (2013:48) defines as "a series of distinct tone colours created on one chord or pitch." Kennedy & Kennedy (2007:405) define it as a "melody of tone colours" that explains the fluctuations in tone colours in certain modern works, generates a structural component, and has the same weight and relevance as any other musical feature like pitch or duration.

DeLone, Kliewer, Reisberg, Wennerstrom, Winold and Wittlich (1975:271) argue that the following three musical traits should always be present to create a melody: length, pitch and quality. The link between duration (rhythm patterns) and pitch (pitch movement) comprised the fundamental aspects of melody in previous centuries, whereby the timbre (pattern change regarding tone colour, texture or dynamics) was considered less important (DeLone et al., 1975:271).

Various compositions published during the tonal era involve durational patterns that are repeated occurrences at the structural level (DeLone et al., 1975:271). Music advances in time and melodies and songs will be inexistent without numerous distinct patterns of duration (DeLone et al., 1975:271). DeLone et al. (1975:271) clarify that the repetition of both durations and durational patterns remains melodically essential and influential in the post-tonal period. The twentieth century performer has ample opportunities for rhythmic expression directly related to his/her perception (DeLone et al.*,* 1975:275).

Another important factor regarding twentieth century melody is the twelve-tone melody - a term that is rather perceived as a melody in which every pitch class is employed only

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[23] According to Kostka (2006:86), parallelism may occur as being "diatonic" (the utilisation or part transposition of only the white keys of the piano), "real" (an exact transposition of the passage), or "mixed" (lacking consistence regarding diatonic or real parallelism).

once (except for tremolos and immediate repetitions) than a perception of the melody comprising the whole chromatic scale (Kostka, 2006:81).

According to DeLone et al. (1975:277), the pitch dimension is as important as the dimension of duration. The pitch dimension in tonal music refers to the sound components that contain set pitches (A=442Hz) (DeLone et al., 1975:277). However, post-tonal period composers use a wide range of different pitch resources, so the pitch dimension reflects all sound components that can be classified as high or lower (this often includes set or unset frequencies) (DeLone et al., 1975:277). Cataloguing the myriad ways in which pitches can be arranged remains an arduous task (DeLone et al., 1975:277). During the twentieth century, the twelve-tone scale was employed widely as pitch material (DeLone et al., 1975:279). These pitch materials (such as chromatically embellished diatonic notes) are mainly used for embellishment or ornamental purposes (DeLone et al., 1975:279).

Kostka and Santa (2018:80) however introduce the concept of "dissonance treatment" amongst twentieth century composers. The utilisation of voice-leading no longer followed the traditions of resolving dissonances. Composers became free to employ dissonances without boundaries which Schoenberg referred to as "emancipation of the dissonance." This kind of 'freedom' however was perceived as problematic, laying emphasis on what Stravinsky described as the "abyss of freedom" (Kostka & Santa, 2018:81).

Furthermore, Kostka and Santa (2018:81) discuss "aligned interval cycles" - a twentieth-century voice-leading concept developed by Alan Berg during the start of the era. Berg introduced the concept of "aligning different interval cycles" atop each other. According to Kostka and Santa (2018:81), a current employment of aligned interval cycles is found in Thomas Adès Piano Quintet (2000); the composer employs "various orderings of short aligned C2, C3, and C4 cycles."

DeLone et al. (1975:283) argue that composers during the post-tonal period have been even more reliant on the qualitative factor (which involves "colour, timbre, texture and loudness"). The features of quality, particularly during the tonal period, were evident but remained substandard (DeLone et al., 1975:283). However, during the post-tonal era, a key function similar to pitch and rhythm was introduced; sound quality has become essential to music because composers have increasingly become more open to modern musical trends and practices (DeLone et al., 1975:283).

According to DeLone et al. (1975:284), some melodies can be represented as '*Klangfarbenmelodie*' (tone-colour melody), where colour plays a structural melodic role. Melodic content may contain sound patterns that are changed (set pitches apart) in other cases, such *as Sprechstimme* (speech-like voice), where speech-like sounds are utilised to create pitch (DeLone et al*.,* 1975:285).

DeLone et al. (1975:290) provide a list of essential characteristics regarding melody while giving more attention to the melodic line:

A rhythmic and melodic musical line is typically produced from a simple structural shape that plays a crucial melodic role (DeLone et al*.,* 1975:301). Post-tonal music partly covers elements of melody, arrangement, and architecture (DeLone et al., 1975:303). A brief overview of how these facets are integrated into melodic processes is given below (DeLone et al., 1975:303).

- Expansive linear processes: DeLone et al. (1975:303) argue that not all post-tonal period composers lost faith in the 'long line' melodic concept of the nineteenth century. Many long-line post-tonal melodies are still used (DeLone et al*.,*1975:303). Some features of the expansive linear method include important expansive melodic lines (DeLone et al*.,* 1975:303); structural arrangement practices (DeLone et al.,1975:304); some post-tonal composers' preference and use of traditional long melodic lines (DeLone et al*.,* 1975:305); and finally, some composers' delicate integration of "motive and figure" into melodic lines (DeLone et al*.,* 1975:307).

- Non-expansive linear processes: According to DeLone et al. (1975:310), a melody is not necessarily linked to an expansive linear process, which then leads to the creation of non-expansive linear processes. The melodic materials are then described as strata (layers) that undertake a spatial and objective feature instead of producing long goal-directed lines (DeLone et al*.,* 1975:310). Also, the melodic layers are only presented where the line consists primarily of "segmental groupings," ultimately making the long line less significant while giving way to spatial features (DeLone et al., 1975:310).

DeLone et al. (1975:292) stress the importance of "continuity" and "coherence" in the development of melody as artistic and architectural traditions and ensure that these

mutual practices typically complement each other. Because of rhythmic patterns and pitch, continuity and coherence emerge (DeLone et al., 1975:292). Worthy of note is that repetition plays a significant role in continuity and accuracy (DeLone et al., 1975:293).

DeLone et al. (1975:290) state that by mixing multiple elements, musical tension can be created; two of the essential combinations involve repetition and the tendency to a higher tone. Tension can be produced by mixing short note durations with various facets of motion at a melodic level, and the adjustment in the time duration of a given pitch produces a broad selection of tension changes (DeLone et al., 1975:291). Any type of musical or harmonic "release" is inevitable once tension has been built, and this can be produced by rapid descent in pitch (DeLone et al., 1975:290). There are numerous other methods in which tension and release patterns can also be employed (DeLone et al., 1975:291).

The isolation, highlighting and division of musical events have led composers to employ events that vary from each other, cadential characteristics and tools that interrupt or interact with each other (DeLone et al., 1975:296). DeLone et al. (1975:296) note that cadences are commonly regarded as a "product of the tonal context" and that the priority should instead be put on aspects of melodic cadence. Due to their "structural functions" in many tonal compositions, ordered relations between pitches are heeded (DeLone et al., 1975:296). The cadence becomes a structural feature of both rhythm and pitch (DeLone et al., 1975:296). To systematically finish an action, a cadence may be used to bring it to a sudden halt (DeLone et al., 1975:297). The action mostly takes the form of material for phrases (motives or themes) (DeLone et al., 1975:298). DeLone et al. (1975:297) clarify that the former (abrupt cadence) produces a sense of completion that is less distinct than the latter, where the motion patterns reveal progressive development. Any change of tempo or duration can be related to cadences, mainly where pitch direction and hierarchy are secondary elements of the organisation (DeLone et al., 1975:297). Any modification of the tempo and duration may also produce a fine articulation (DeLone et al., 1975:297). As a result, the effect of the cadence is explicitly related to the number of tempo changes that happen (DeLone et al., 1975:298). There are numerous forms in which cadential effects can be achieved, and an excess of cadential varieties can be found in the post-tonal period alone (DeLone et al., 1975:298). Worthy of mention is that Zaidel Rudolph (having studied with Ligeti) employs parallel cadential movements in her works; these are based on the way Ligeti used static interval

movements to form a "quasi-cadence" – like an 8ve or a tritone (Personal communication, 5 September 2022).

Melody in the post-tonal era has significantly developed, and related operational roles are also being accomplished (DeLone et al., 1975:320). In the twenty-first century, melodic material is much more complex than before, and composers have access to a vast collection of resources, making it much more volatile (DeLone et al., 1975:321).

In conclusion, although the traditional functions of melodic composition are still evident in the twentieth century alongside newer practices, composers are not compelled to follow any particular tradition, but rather as tools available to inspire unique and consistent compositional techniques (Kostka, 2006:91). I will attempt to relate these finding to the analysis of Zaidel-Rudolph's music.

4.3.3. Harmony (Vertical Dimension)

According to DeLone et al. (1975:322), twentieth century music is more than just a period of 'time'; it is a "diversity of practices" in which every harmonic material is used in different ways. Prior to 1900, chords were divided into two categories: consonant and dissonant, with the former perceived as stable and relaxed, and the latter as unstable and tense, demanding forward motion or a resolution to a more stable chord (Kamien, 2002:288). In tonal music, triads are traditionally considered consonant, whereas any additional note is considered dissonant (Kamien, 2002:288). The successive progression of these tertian structures was dependent on tonal harmonic functions and voice-leading methods (Susanni & Antokoletz, 2012:8). Therefore, the only freedom the tonal music composer possessed was to choose the individual chords that would meet the prescribed progression (Susanni & Antokoletz, 2012:8). Composers had abandoned utilizing such categorised concepts as consonance and dissonance by the turn of the twentieth century, and there was no longer any distinction between both (Kamien, 2002:288). Twentieth century composers began to stress the highly dissonant sonorities, and the structure of chords was based on fewer than three intervals (Baur, 1985). As a result, post-tonal composers began to construct chords out of 2nds, 4ths, and various other sorts of intervals (Kostka, 2012:41). Prior to the late nineteenth century and early

twentieth century, composers never emphasised tertian sonorities[24] larger than the 7th chord. However, the emergence of post-tonal music brought about essential extended sonorities such as 9th, 11th and 13th chords (Kostka, 2012:41). These chords have been established as stable structures without the necessity for a preparation or resolution (Persichetti, 1961:75). Seventh and ninth chords - although sometimes perceived as dissonant sonorities requiring resolutions – are now treated as independent chords with the capability of triads. (Persichetti, 1961:75).

However, Persichetti (1961:66–74) stresses that the twentieth century composers utilized triads in specific ways not highlighted in the eighteenth and nineteenth centuries. While the tonal era utilized chords I, IV and V as primary chords (the rest being secondary), post-tonal composers have established different ways to build primary and secondary chords contrary to their predecessors.[25]

The following examples adapted from Kostka (2012:42) and Persichetti (1961:82) shows 9th, 11th and 13th[26] sonorities.

Example 5 a and b: Tertian (triads) chord extensions

C: ii^9 1^{11} 1^{13}

C 13   2nd inv. (C 13)   incompl. 2nd inv. (C 13)
        or   C 13 . becomes G 11
        G 13

New harmonic structures were introduced by certain composers who combined two different chords to achieve a simultaneous perception of sonorities referred to as

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[24] Same as chords (Kotska, 2012:41).
[25] Primary chords employed by twentieth century composers include chords I, III, and VI (the remaining being secondary); I, II, and VII (the remaining being secondary).
[26] Persichetti notes that the inversion of the thirteenth chord is rather futile as the resultant effect will be a recurring eleventh or thirteenth.

polychord;[27] this is seen in example 6 below from Copland's *Appalachian Spring* (Kamien, 2002:289). Kostka (2006:65) argues that the only condition for a chord to qualify as polychord is that the listener can see the chords as separate entities. There will undoubtedly be unclear situations, though, where one listener hears a polychord, while another hears a single complicated sound. Persichetti (1961:83–84) however stresses that should a chordal structure present itself as "two separate triadic units" the resultant effect would be that of a polychord. Kostka (2012:65) nevertheless cautions that using a polychord does not always suggest that the passage is polytonal.
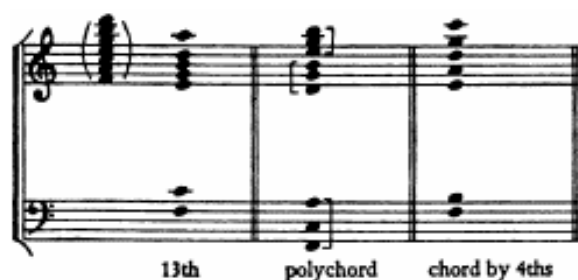
Example 6 a: Copland, *Appalachian Spring*

E major chord

A major chord

Example 6 b: Polychord illustration from Persichetti (1961:84)

Non-tertian harmony where chords are stacked in fourths[28] (hence the term 'non-tertian') was introduced by composers into post-tonal music. An example is illustrated in example 7 below (Kamien, 2002:259). Various non-tertian chords that emerged include quintal

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[27] Kamien (2002:289) notes that a polychord may be perceived as one combined sound or separate layers. However, the perception depends on the contrast of the two combined chords regarding tone colour and register (Kamien, 2002:289).

[28] Otherwise referred to as **quartal chords** as noted in DeLone et al. (1975:343). For post-tonal composers, due to limited use of quartal chords as the main idea in a composition, they began to utilise different variations of the quartal chord; such variations include combinations of perfect 4ths with tritones as well as other intervals (DeLone et al., 1975:347).

chords[29] (example 8), chords based on 2nds[30] (example 9), open-5th chords[31] (example 10), tone clusters[32] (example 11), and mixed-interval chords[33] (DeLone et al., 1975:350–363). Additionally, chords with added notes[34] (example 12) and whole-tone chords[35] (example 13) were also employed in post-tonal music (Kostka, 2012:44, 57).

Example 7 a: Quartal chord

Example 7 b: Four-note chords by fourths illustration from Persichetti (1961:101)

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[29] Post-tonal composers also utilised the **quintal chords**, that is, chords stacked in 5ths (DeLone et al., 1975:350). Noteworthy is that the quintal chord possesses intervallic similarities with the quartal chord because they (quintal and quartal chords) both belong to the same interval class, just an inversion of one another (DeLone et al., 1975:350). Quintal chords possess characteristics that include being more vertically spaced and open with a stable sound (Kostka, 2012:50).

[30] Otherwise known as **secundal chords**, Kostka (2012:54) notes that secundal chords are constructed from 2nds (either major 2nds or minor 2nds) except for the chords voiced as 7ths. Notes of the secundal chord are often placed in adjacent positions, which thus results in the notes being a "cluster" or otherwise known as "tone cluster" as illustrated in example 11 (Kostka, 2012:54).

[31] Otherwise known as **chord of omission**, Kostka (2012:49) notes that the open-5th chord is realised by taking the traditional triad and simply omitting the 3rd of the triad, thus transforming the sonority into a strange sound. Kostka (2012:49), however, cautions that continuous use of the open-5th chord results in a tiresome sound; hence it is rarely used by post-tonal composers except for the use of portraying or imitating ancient moods.

[32] DeLone et al. (1975:355) state that **tone clusters** were theoretically first studied and debated by composer Henry Cowell. However, Ives used clusters in his published composition (Concord Sonata) between 1909 and 1910 before Cowell, whose first use in composition was in 1912 (DeLone et al., 1975:355).

[33] Kostka (2012:54) explains that a **mixed-interval chord** is a sonority built from neither of the following series: 2nds, 3rds, or 4ths but with the combination of two or more of those interval series which results in a complex sonority. Such complex chords are primarily found in atonal music (DeLone et al., 1975:368).

[34] Otherwise referred to as **chords of addition**, Kostka (2012:44) discusses that the foundation of the chords is often triads with additions (figured above the root) of 2nds, 6ths and seldomly 4ths. I call them "added-note chords". See Persichetti book.

[35] **Whole-tone chords** are derived from the whole-tone scale; hence there are several whole-tone chords (Kostka, 2012:57).

The quartal chord in example 7 a is stacked in perfect fourths. Regarding example 7 b, Persichetti (1961:101) refers to this (amongst other types) as "four-note chords by fourths[36]."

Quartal chords are constructed from fourths and were among the first innovative sonorities to be popularly embraced (DeLone et al., 1975:343). DeLone et al. (1975:346) argue that quartal chords are rarely used as the basis of a composition. Instead, they are utilised as the foundation for a section or passage where the latter contains numerous sonorities (DeLone et al., 1975:346). Quartal harmony is primarily used to ensure that the encompassing context is not viewed as dull (DeLone et al., 1975:346). Turek (2007:664) notes that the pentatonic scale is part of quartal harmony. Persichetti (1961:94) supports that three-, four-, and five-note chords stacked in fourths have a pentatonic sonority.

Example 8 a: Quintal chord adapted from Kostka (2012: 51)

Example 8 b: Quintal chord adapted from Persichetti (1961:104).

Made from fifths, quintal chords are noted for having a more open and robust sound and were very popular with many composers of the twentieth century (DeLone et al., 1975:350). Persichetti (1961:104) notes that just as chords by thirds may be rearranged into sixths, quintal chords are also realised from fourths (see Example 8 b). Kostka (2006:55-56) states that the quintal chord uses more vertical space than the quartal

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[36] Other types of chords by fourths according to Persichetti (1961:93–108) are three-note chords and multi-note chords.

chord and, being members of the same intervallic group, possesses identical character qualities (DeLone et al., 1975:350). Another feature of the chord (which is the reason why it gained favour amongst twentieth century composers) is its unique sound and tone quality[37] (DeLone et al., 1975:350).

Example 9 a: Chords based on 2nds (Secundal chords)

Example 9 b: Three-note chords adapted from Persichetti (1961:123)

Example 9 c: Multi-note chords by seconds adapted from Persichetti (1961:126)

Secundal chords are built from major and minor seconds (including their inversions) or a mixture of the two and are more generally known as 'clusters' or 'tone clusters' (Kostka, 2006:59). Such chords are derived from the whole-tone scale harmonic materials (major seconds) as well as added-note chords (DeLone et al., 1975:353). These chords are rarely viewed as tone clusters, but are divided by wider intervals instead (DeLone et al.,

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[37] The uniqueness of the sound is found in its restlessness as the fifths dominate the fourths (Persichetti, 1961:104). However, Persichetti (1961:104) advises the resolution of "the fourth to a third of a compound quartal chord before returning to the pure chord by fourths."

1975:353). 2nds may also appear as 7ths and/or 9ths when inverted, thus known as compound seconds or dyads (DeLone et al., 1975:353). Persichetti (1961:121–134) categorises secundal chords as three-note chords and multi-notes chords by seconds as illustrated in Example 9 b and c.

Example 10: Open-5th chord

When the 3rd of a triad is omitted, the chord becomes an open fifth chord, and it is usually used to arouse the Orient mood or one of a distant past (Kostka, 2006:54).

Example 11 a: Tone cluster
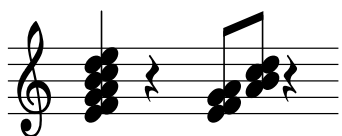
Example 11 b: Tone cluster adapted from Persichetti (1961:129)

Tone clusters are stacked notes, usually played on the piano with the fist or forearm (Kamien, 2002:290). The tone cluster, big or small, produced new tone colours and "expression modes" that were highly utilised (DeLone et al., 1975:355). Also, a tone cluster or a set of tone cluster produces a 'sound mass' (DeLone et al., 1975:355). Sound mass applies to the whole vertical and horizontal sound (simultaneous pitch sounds),

concealing each pitch and chord's identity to the point that there is no harmony (DeLone et al., 1975:358). The sound mass plays the primary role while each note takes on a subordinate function within the sound mass (DeLone et al., 1975:355).

Persichetti (1961:129) however cautions that a cluster contrary to its traditional execution may be introduced by sounding and sustaining the notes (from top to bottom or vice versa or from centre to its extremes) consecutively until the last note is heard (see Example 11 b).

Example 12 a: Chords with added notes adapted from Kostka (2012:44, 45)
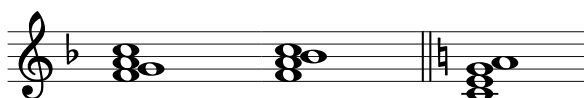
F: 1add2   1add4   C: 1add6

Example 12 b: Chords with added notes adapted from Persichetti (1961:110)
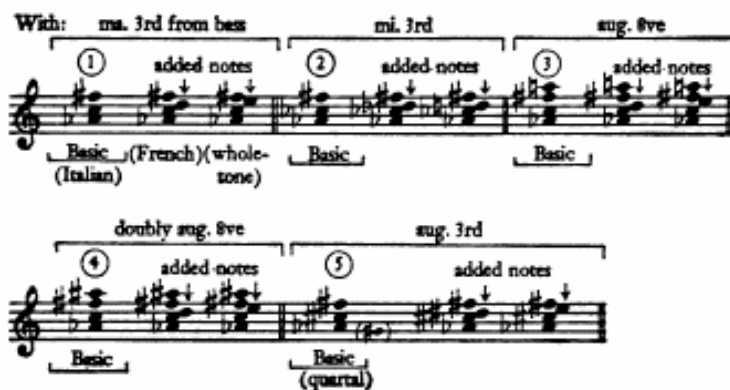
While the option of a triad having a 6th added above the root was recognised as early as the eighteenth century by theorists, chords with additional notes (sometimes called chords of addition) only became recognised as part of the harmonic terminology in the twentieth century (Kostka, 2006:49). The basic chords are typically triads, and the added notes are usually 2nds or 6ths, less often 4ths (always figured above the root) (Kostka, 2006:49). An added 6th triad may also be analysed as a 7th chord, but the context involved will typically solve it (Kostka, 2006:49). Traditional examples (see Example 12

b) include the cadential tonic six-five as well as the French augmented sixth chord (Persichetti, 1961:109).

Example 13: Whole-tone chords

The illustration in example 13 (whole-tone chords) is adapted from Kostka (2012:57).

Whole-tone chords are chords based on notes taken from the whole-tone scale (Kostka, 2006:63). The whole-tone scale was used commonly in compositions throughout the twentieth century (Kostka, 2006:24). It has two possible transpositions (Persichetti, 1961:54) and is therefore confined (as opposed to the pentatonic scale) to melodic and harmonic material (Persichetti, 1961:54; Kostka, 2006:25). Impressionism and the music of Debussy are frequently related to it (Kostka, 2006:25).

4.3.4. Rhythm

Rhythm is defined by Kamien (2002:32) as "the flow of music over time." It is however, linked to other musical elements such as beat, meter, emphasis, syncopation, and tempo (Kamien, 2002:32). "Functional rhythmic patterns" that produced "metric regularity" (e.g. the use of balanced four-bar phrases) encompassed the tonal era (Benjamin, Horvit & Nelson, 2008:187). Around end of the 1800s and the beginning of the 1900s, composers utilised rhythmic features that were either fixed or compelling; both generated using intermittent and varying meters throughout or during a piece (Baur, 1985). By the twentieth century, as Benjamin *et al.* (2008:187) observed, a variety of resources had been used that previously fell beyond the limits of pre-twentieth century practice. Benjamin *et al.* (2008:187) conclusively support that much of the twentieth century music has been asymmetrical, containing complex rhythmic motives. Other styles where metric setups are omitted are referred to as 'ametrical' (Benjamin *et al.,* 2008:187).

In contrast to conventional approaches, post-tonal composers emphasized irregular and unpredictable rhythms, which posed new challenges for the performer because the rhythms are not easily read on sight as they were in the tonal era (Kamien, 2002:291; Kostka, 2012:121). As rhythmic patterns got more complex, post-tonal composers' vocabulary of rhythm underwent a rapid transformation. Composers began to utilise unusual meters in five- or seven-time signatures, as well as polyrhythm, or the use of two or more distinct rhythms at the same time (Kamien, 2002:287–288). In the post-tonal era, several sorts of rhythmic devices were used, such as:

- **Polymeter**, otherwise known as multimeter, is a technique for layering two distinct meters in the same music composition, such as a seven-eight time against a three-four time (Deri, 1968:39).

- **Cross-rhythm** occurs when different rhythmic values are layered on top of one another (for example, two against three or three against four), resulting in some irregularities (Deri, 1968:39). In tonal music, this approach was used infrequently, but it is used often in post-tonal music (Deri, 1968:38). Brahms is full of 2s against 3s!

- **Syncopation,** has existed and been utilised as a rhythmic device since ancient times, according to Deri (1968:37). It is distinguished from misplaced accent by the presence of recurrent beats that are negated by a separate melodic line - although the pulse remains constant, the syncopated note enters while ignoring the pulse (Deri, 1968:36).

- Deri (1968:36) defines **displaced accent** as a fleeting shift of accent with emphasis on the weak beat to produce tension and, for a limited period, interrupt the rhythmic flow (Deri, 1968:36). The method was seldom employed in tonal music but was widely utilised in post-tonal music (Deri, 1968:38).

- **Changing meters** as described by Deri (1968:40) is a rhythmic technique predominantly used in post-tonal music; emphasis is placed on East-European folk songs. There are two types of changing meters; one is utilised for absolute rhythmic effect (as used in Stravinsky's "Sacrificial Dance" from *Rite of Spring*) where the meter rapidly changes in every measure, thus resulting in rhythmic obscurity (Deri, 1968:40). The other is utilised to emphasise the melody, therefore, creating a special rhythmic effect (Deri, 1968:40).

- DeLone et al. (1975:217) discusses another frequently employed practise being the utilisation of **time signature with irregular top values**, eventually leading to complexity. Odd metric values such as quintuple meter (5/4 or 5/8), septuple meter (7/4 or 7/8) and other various meters are frequently employed in post-tonal music (DeLone et al.*,* 1975:217).

- Post-tonal composers sought to gain freedom from the practice of strict tempo, which eventually led to the concealing of metric structures by employing irregular pulse rates as well as groupings (DeLone et al.*,* 1975:229). Stravinsky, amongst other composers, however, maintained the use of metronome markings which indicated a constant and unwavering pulse (DeLone et al.*,* 1975:229). Structural sections are indicated by tempo shifts in many post-tonal compositions (DeLone et al.*,* 1975:229). Post-tonal composers regularly used peculiar metric formations that require pulse grouping modification and pulse rate alteration; this mixture is referred to as **'metric modulation'** (DeLone et al.*,* 1975:230). A pivot note value is to be defined to achieve metric modulation. In the corresponding tempo and meter, a note value from the current tempo and meter becomes equal to the new note value (DeLone et al.*,* 1975:230).

- The employment of **obscured pulses** is not a newly developed idea as it was used in recitatives (established in vocal compositions) and solo instrumental compositions during the tonal period (DeLone et al.*,* 1975:231). This technique has been popular with post-tonal composers; however, as it can be broadly applied to many styles (DeLone et al., 1975:231). It is possible to generate an obscured pulse utilising the following: the use of irregular metric systems with pulse rate modification, the alteration of pulse groupings, or where pulse groups are not coordinated at various levels (DeLone et al.*,* 1975:232). Two contrary contemporary (post-tonal) compositional methods, notably in automated music (with the inclusion of both electronic and computer-generated music) and aleatoric music, can also produce an obscured pulse (DeLone et al.*,* 1975:233).

Within the rhythmical sphere, Kostka (2006) states the following characteristics: time signatures that were outside the existing traditions became popular (Kostka, 2006:118); the actual perception of written rhythms in comparison to the original idea played an important role (Kostka, 2006:116); composers utilised added note values as well as non-

retrogradable rhythms (Kostka, 2006:128), tempo modulations (metric modulations) (Kostka, 2006:130), serialised rhythm and isorhythm[38] (Kostka, 2006:133).

According to DeLone et al. (1975:209), rhythm can be broken down into two parts: the "background," which is the metric form, and the "foreground," which contains durational patterns that are projected towards it. The terms "foreground" and "background" should however not be confused with that which relates to "texture" as discussed in Adler (1989:467–472)[39]. The background (metric structure) involves meter (beat or pulse arrangement into groups) and tempo (the beat or pulse speed) (DeLone et al., 1975:209). The rhythmic analysis involves, most notably, considering the metric structure (background), the durational patterns (foreground) and their relationship with each other (DeLone et al., 1975:211).

The **metric structure (background)** refers to the sound of pulses at different stages (DeLone et al., 1975:213). The pulses occurring at a particular stage are usually received audibly as the primary (or main) timekeeping unit (DeLone et al., 1975:213). Pulses can be distinguished (using "strength or accentuation") from each other (DeLone et al., 1975:213). In any area where essential improvements in the musical fundamentals (harmony, texture, tone colour or melodic direction) are inevitable, the different accents (length, pitch, and dynamics) can take place (DeLone et al., 1975:213). Conclusively, the meter marginally determines the location of the accents and beat groupings (DeLone et al., 1975:213).

DeLone et al. (1975:236) define duration as the length of time taken by one pulse to arrive at the next. As durations are grouped into patterns, there are two approaches, either through rhythmic units or rhythmic gestures (DeLone et al., 1975:237). In the metric structure, the former has a length equal to one beat (DeLone et al. 1975:237). However, rhythmic gestures being the second approach is freer since the underlying metric structures do not limit it (DeLone et al., 1975:239). The beginning and endpoint

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[38] Latham (2011) defines isorhythm as "a modern term for the technique of using a repeated rhythmic and melodic pattern as a main structural component."

[39] Adler (1989:467) discusses foreground and background as musical textural elements: "It is more accurate to identify this texture by a more abstract label than "melody and accompaniment." Adler (1989:467) further expatiates that on numerous occasions, when only two elements are present (not precisely melody or accompaniment), but two distinctive and unique musical ideas. The most straightforward example is undoubtedly a melodic foreground with a rigid harmonic background, being the most evident and effectual kind of scoring (Adler, 1989:467).

and the length can be viewed in different ways that are influenced by criteria that encourage or impede unity (DeLone et al., 1975:239).

According to DeLone et al. (1975:239), rhythmic gestures can be classified by how they begin and end. Also, there are three potential beginnings as pointed by DeLone et al. (1975:239): "thetic," which begins on a strong pulse, usually the initial pulse of a measure; "anacrustic," which starts on a weak pulse that corresponds to a measure's upbeat; and the "initial rest" which starts after a rest or a tie and is often found in a measure's first beat or first division of the beat. Three alternative endings are possible: "strong," which ends on a strong pulse, usually the first beat of a measure; "weak" which ends on a weak pulse, usually the second beat or second division of a measure; and finally, the "upbeat" which ends on a strong or weak pulse in a measure's upbeat (DeLone et al., 1975:239).

Some post-tonal composers use durational patterns that are focused on particular "pre-compositional approaches" controlled by both mathematical and aural applications (DeLone et al., 1975:259). These pre-compositional methods, and their sophistication and variety of use, have been an essential part of post-tonal music, albeit foreshadowed by techniques such as isorhythm used in the 1300s (DeLone et al., 1975:259). The composer Webern's mathematically guided compositional methods is a good example (DeLone et al., 1975:260) as well as the initial approach of Olivier Messiaen to rhythm, using added values, augmented/diminished rhythms, non-retrogradable rhythms as well as rhythmic pedals (DeLone et al., 1975:261).

DeLone et al. (1975:268) state that the importance of rhythm in post-tonal music is shown both by the attempts by composers to develop new rhythmic elements and by the importance of rhythm in the compositions of the twentieth century. Examples as evidence are seen in the variety of compositions created for solo percussion (including all percussion instruments) in which no attention is given to pitch and harmony as essential elements, thereby giving importance to rhythm primarily, while texture and timbre are given secondary consideration (DeLone et al., 1975:268).

4.3.5. Texture

According to Burkholder et al. (2010: A19), when a musical work or a section of a musical presentation employs a blend of components, this is referred to as the work's (or section's) texture. These components, which can be monophonic[40], polyphonic[41], or homophonic[42], can sometimes be thick, thin, dense, transparent, heavy, or light, and are used to generate 'contrast and drama' (Kamien, 2002:48). As a result, texture depicts a music composition's vertical structure; that is, the relationship between elements of a piece of music sounding together over a short period of time (Newbould, 2011:1).

Deri (1968:73) states that texture refers to two distinctive components of musical line - the first is how thick or dense the line is (more precisely the quantity of lines and their relationship to each other), and the second component deals with the quality of the line (mostly the instrumental colour and timbre). Deri (1968:74) expatiates that the utilisation of a composition's specific texture is an essential and regularly "revealing stylistic feature." However, it should be noted that the texture of a composed work is not always separately categorised as one or the other kind (Deri, 1968:74). Worthy of mention is that Zaidel-Rudolph works a great deal with "rhythmic textures" (Personal communication, 12 September 2022).

Composers integrated melodic lines (more than one melody) from the tenth through to the seventeenth century, and this laid the groundwork for the development of even grander musical units (Deri, 1968:77). Secular music became increasingly common and culminated in homophonic thoughts (Deri, 1968:77). By the seventeenth century, opera performances became standardised, and significant improvements in texture came with it (Deri, 1968:77). Opera demanded personal expression and consistent enunciation, accelerating homophonic texture development (Deri, 1968:77). The end of the polyphonic Baroque era progressively gave way to the eighteenth century's homophony (Deri, 1968:77).

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[40] **Monophonic**, meaning "one sound," refers to an unaccompanied melody or sound (Kamien, 2002:48).
[41] **Polyphonic**, meaning "many-sounds," refers to the simultaneous sounding of two or more musical elements (Kamien, 2002:48).
[42] **Homophonic** texture is characterized by one melodic line being accompanied by chords (Kamien, 2002: 49). Furthermore, **Heterophony** is closely related to a slight difference of two contrasting melodies being performed simultaneously (Burkholder *et al.*, (2010: A9).

Italian composers, who stressed individual melodic lines and preferred the lighter homophonic texture, promoted the incremental departure from the polyphonic texture of the Baroque period (Deri, 1968:78). Numerous German composers remained intransigent, however (Deri, 1968:78). Composers (especially in Austria) abandoned their polyphonic thought entirely by 1750 when compositions by Franz Joseph Haydn and Wolfgang Amadeus Mozart (1756-1791) developed and earned recognition (Deri, 1968:78). Their early compositions, especially the quartets, frequently maintained a definite break between homophony and polyphony with three movements - each homophonic in texture, and a fourth, being fugal polyphonic movement (Deri, 1968:78)

Polyphony (previously abandoned by the nineteenth century) stands out as the most preferred conventional texture by post-tonal composers owing to their search for new sounds (Deri, 1968:78–79). Stravinsky, Bartók, Schoenberg, Berg, Webern, and Hindemith were among the composers who used polyphony in their works (Deri, 1968:78–79). Essentially, Zaidel-Rudolph's works (as also employed extensively by Ligeti) feature frequent contrapuntal and fugal techniques (Personal communication, 12 September 2022).

According to Deri (1968:78), the assumption was that these two textures could not be combined into the same movement. However, both composers aimed at incorporating the two textures in their later works to the degree that lush counterpoints added to the harmonic base (Deri, 1968:78). Ludwig van Beethoven's compositions not only showed comparable approaches to combining the two textures but also overshadowed the thought of his precursors (Deri, 1968:78). After his death, more chromaticism began to be incorporated in several composers' harmonic material due to their interest in all elements of melody and harmony (Deri, 1968:78).

A new approach to counterpoint came to the fore following the break from tradition by post-tonal composers. Numerous melodies may now concurrently but neither dependent nor related to each other, thus resulting in augmented or diminished intervals (2nds and 7ths) known as 'dissonant counterpoint'[43] (Deri, 1968:79). As a result, post-tonal music's texture is plainly contrapuntal, making it more difficult than tonal music (Deri, 1968:86).

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[43] Schoenberg's *Three Piano Pieces*, Op. 11, No. 1 is an example of **dissonant counterpoint**, while other post-tonal contrapuntal works can be found in Hindemith's Fourth Quartet (last movement), Schoenberg's *Pierrot Lunaire* (No.8), Stravinsky's Symphony of Psalms (second fugal movement), Bartók's *Music for Strings, Percussion, and Celesta* (first movement) (Deri, 1968:79).

However, composers used harmonies for their sound qualities during the second half of the Romantic period because many were not proficient in the art of counterpoint. (Deri, 1968:78). Deri (1968:78) asserts that one of the contributing factors in the contempt for counterpoint by the Romantic composers may be reflected in the Romantic ideal: The Romantic composer strove for subjective expression, which led to homophony being more favoured than polyphony.

Melodic content (or musical lines) can be described by both density and colour characteristics, according to Deri (1968:80), where the latter depends on the sound quality, generally known as 'tone colour' or 'timbre.' Deri (1968:80) notes that only once the medium (instrument or voice) producing the tone/timbre has been established can the particular texture (including monophonic texture) be represented adequately. There are defined variations in the tone colour(s) in the different textures, such as in monophonic texture- a human voice relative to a flute, and in homophonic texture - a violin melody accompanied by either a piano or three other string instruments (Deri, 1968:80). There are other ways to determine tone colour according to Deri (1968:81), including the variance in sound value within the same medium such as in male voice and female voice, dynamics (loud and soft), articulation - *pizzicato* and *arco*; *legato* and *staccato*; vibrato and non-vibrato; muted and non-muted, as well as the number of players in a group such as small string orchestra as opposed to modern orchestra.

Kamien (2002:287–288) states regarding post-tonal (sound) texture; composers got inventive in seeking their unique sound by employing unusual elements to reveal new tone colour. Deri (1968:84) supports that sound was highly influenced by the esthetic philosophy of the twentieth century. The new ideal (the quest to make music not just for the sake of listening pleasure) eventually shifted the approach to sound (Deri, 1968:84). In addition, the latest melodic writing, increased emphasis on rhythm, and the renewal of harmonic materials have contributed to a new form of composition (Deri, 1968:84). Moreover, the establishment of the modern sounds of the twentieth-century was due to the improvement of rhythmic elements and, particularly, the development of percussion instruments (Deri, 1968:84). The works of Stravinsky, Bartók and the popular jazz influences of the period led to the utilisation of both exotic rhythms (rhythms of other cultures) and the extensive sound resource of the percussion instruments (Deri, 1968:84).

Non-musical components such as clacking typewriters, sirens, and car brake drums were utilised by modern composers to create distinctive loud and percussive sounds, as well as unconventional playing techniques (Kamien, 2002:288). In the works of post-tonal composers, percussion, woodwind, and brass gained centre stage in the order of significance and emphasis, revolutionising the traditional instrumental setting (and usage) of the tonal era (Deri, 1968:84). Because woodwind and brass were used as foreground instruments in various spheres of chamber music, the strings became obsolete, thus making the former the "virtuosi of the orchestra"[44] (Deri, 1968:84).

Composers used non-pitched instruments including slapstick, woodblocks, thunder stick, and wind machine, as well as the vibraphone (used by Boulez and Berg) and the xylorimba[45] (Deri, 1968:85). As a result, composers had access to a wider range of percussion instruments, allowing them to write for various combinations of percussion instruments, as evidenced in Varese's *Ionization*, which was composed for thirteen percussionists performing on twenty instruments and more (Deri, 1968:85).

In post-tonal music, the piano was repurposed for percussive purposes; composers began to consider the piano as a percussion instrument rather than a "singing instrument," as evidenced in Bartók's *Allegro Barbaro* (Deri, 1968:85). However, by the end of 1920, various composers were attempting to write for smaller orchestras rather than huge orchestras, as Stravinsky and Schoenberg had done in their earlier works (Deri, 1968: 85).

The end of the First World War marked the evolution of the Neoclassical style as composers gave more attention to writing for single instruments as opposed to the larger ensemble groups (Deri, 1968:85). Dull sonorities alongside graceful contrapuntal lines became a preferred technique employed by composers who practised this style (Deri, 1968:85). Furthermore, to emphasise rhythm and simplify counterpoint, the utilisation of instrumental effects became a norm (Deri, 1968:85).

The Viennese atonal school (Schoenberg, Berg, and Webern) also used unusual instruments, including the mandolin, guitar and tenor saxophone, and used tone colour (timbre) to produce "eerie, tenuous psychological effects" (Deri, 1968:85). Special

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[44] Notable examples of this newly discovered technique are found in the works of Bartók (*Concerto for Orchestra*), Stravinsky (*Octet* for wind instruments), Stockhausen (*Zeitmasse* for five woodwind instruments) (Deri, 1968:84–85).
[45] The **xylorimba** is a larger type of xylophone (Deri, 1968:85).

instrumental techniques were also common, such as flutter tonguing for wind instruments (Deri, 1968:86). Avant-garde composers, like John Cage, used the 'prepared piano' to produce special effects by manipulating sound produced by the piano by placing objects between some of the piano strings (Deri, 1968:86).

During the twentieth century, innovative approaches to tone colour had evolved through the following: the careful handling of existing sound sources (such as the use of piano, voice, or any amalgamation of timbres typical to traditional music) and the development of new sound sources (most notably the collection of sounds created from electronic sound sources) (DeLone et al., 1975:70). DeLone et al. (1975:80) note that jazz influences, especially those of technique and tone colour effects, played an essential role in the choice and use of instrumentation by many twentieth century composers.

According to DeLone et al. (1975:85-86), the utilisation of traditional instruments to bring about the invention of new soundscape include the following: pitched - *sprechstimme*, sounds from a prepared piano, rare woodwind harmonics, humming and blowing, woodwind *glissandi*, string microtones, vocal *glissand*i, exaggerated *tremolo*s,etc.; and non-pitched - speech chorus, activation of wind instrument keys or valves without blowing, sound creation from soundboard of a stringed instrument, and suchlike.

In many of the twentieth century compositions, texture was essential to structural design and the establishment of unity (DeLone et al., 1975:88). Also, factors such as dynamics and tempo generated diversity and added significantly to textural consistency (DeLone et al., 1975:90). The utilisation of computers has also played an essential role in the development of sound (DeLone et al., 1975:86). Several composers have made investments in electronic music, including Olivier Messiaen, Iannis Xenakis (1922-2001), Luciano Berio (1925-2003), Luigi Nono (1924-1990), John Cage (1912-1992) and Ernst Křenek (1900-1991) (DeLone et al., 1975:87). Ultimately, the development of electronic music in the twentieth century brought about an extensive evolution of musical sound and texture (DeLone et al., 1975:87).

Kostka (2006:239) discusses **stratification (**otherwise known as 'block juxtaposition') - the juxtaposition of multiple textures, more precisely diverse sounds. The 'strata' in the term refers to layers placed side by side (Kostka, 2006:239). DeLone et al. (1975:96) support that stratification is based mainly on the comparison between tone colours, registration, degrees of intensity and texture density, which generally leads to an intense

sound difference caused by a simultaneous transition in almost all components. Stratification is also an important method used in developing musical form in compositions where conventional methods are seldom used (such as key shift, thematic debate and sectionalisation) (DeLone et al., 1975:96).

DeLone et al. (1975:99) discuss **monophonic texture** in a musical work; the monophonic texture is produced either by a single instrument or a solo passage in a multi-instrumental work. Effectually, the result is one of timbral, dynamic and rhythmic disparity rather than definite pitches (DeLone et al., 1975:100). Compositions comprising single parts are often written ambiguously, using different strategies (including rapid register changes or dynamics) to create the appearance of more than one voice (DeLone et al., 1975:99). Some post-tonal composers instead embraced writing in a monophonic texture: firstly, many composers abandoned harmonic and tonal concepts in the post-tonal period, which gradually contributed to the freedom of the line as the accompaniment restraints were no longer applicable; secondly, the attention gained from exotic and early music eventually advanced line and contrapuntal processes (DeLone et al., 1975:100); finally, a wide variety of tone colours and instrumental effects culminated in the growth of instituted and new sound sources, as well as the ever-growing abilities of the individual performers (DeLone et al., 1975:101). DeLone et al. (1975:101) state that these are best appreciated in a solo (exposed) setting.

In conjunction with its accompaniment, **homophony** is usually generated by the primary voice, which involves the repetition of chords (DeLone et al., 1975:113). The repeated chords act primarily as "rhythmic and colouristic" material (DeLone et al., 1975:114). There are two types of **homophonic texture**: firstly, it consists of the main voice being accompanied, while the second category, described as 'chordal homophony,' consists of layers of voices utilising the same thematic material, where the primary position is evident in the higher part (DeLone et al., 1975:110–111).

Rhythm and pitch are beneficial to the textural organisation; however, rhythm consistently provides an impartial basis for textural analysis (DeLone et al., 1975:113).

DeLone et al. (1975:113) expatiate more precisely that rhythm is simply duration on a broader scale (DeLone et al., 1975:113). No dynamics (loud or soft), pitch (high or low) or key-related (tonic or dominant) materials are included (DeLone et al., 1975:113).

The chord outline and figuration (involving proven patterns) and accompaniments that contain more complex harmonic materials are prominent features of the post-tonal homophonic texture (DeLone et al*.,* 1975:118). Many post-tonal works are based on harmonic accompaniments that are not linked to a key (DeLone et al*.,* 1975:111).

Ostinato is one of the post-tonal era's most popular and widely used accompaniment techniques (DeLone et al*.,* 1975:123). DeLone et al. (1975:125) clarify that *ostinato* requires the repeated use of accompanied melodies, in which the main thematic content is not the primary element (DeLone et al*.,* 1975:125). There are two key reasons why composers used *ostinato* techniques: firstly, the abandoning of efficient harmonic progressions used to form phrases and define tonality occasioned in discord; and secondly, as it interacted well with their stylistic and esthetic principles, many composers used *ostinato* devices of the passacaglia[46] type (DeLone et al*.,* 1975:123).

In the post-tonal era, **pedals** became more popular as different variants of pedal points developed (DeLone et al*.,* 1975:141). A sustained note (usually bass) with separate movement in the remaining voices comprises the pedal point (DeLone et al*.,* 1975:141). The pedal technique is evident in homophonic and contrapuntal textures as well as possible in either a solo voice, voice layers, chords, or sound layers (DeLone et al*.,* 1975:141). Several pedal techniques were developed by post-tonal composers (DeLone et al*.,* 1975:141). In works where tonality was not considered essential, pedals (specifically repeated static notes, dyads, or chords) appear to indicate tonal references (DeLone et al*.,* 1975:147).

Regarding **contrapuntal (polyphonic) textures and procedures**: counterpoint is defined by DeLone et al. as the "technique of combining melodies (1975:152)." The authors note that tonal and post-tonal composers' opposing approaches were both in the use of counterpoint and the "general projection of melody against melody, rhythm against rhythm, and textural layer against layer" (DeLone et al*.,* 1975:153). In the 1900s, the resurgence of contrapuntal processes is sectionalised into two major categories - compositions in which the outermost voices decided the texture; and compositions in which the outermost voices did not decide the texture but remained linear and contrapuntal (DeLone et al*.,* 1975:155).

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[46] According to Kennedy and Kennedy (2007:566), passacaglia is a triple-time dance with a reiterating (motive) bass line.

In the larger part of the music of the post-tonal period, "textural complexity and compositional precision" were prevalent (DeLone et al., 1975:200). Not only does the music challenge the artist and audience, but it also reflects the need of the post-tonal composer to produce innovative sounds and a distinctive style (DeLone et al., 1975:200). The idea of texture offers a collective approach (without the conventional limitations related to pitch features and structure) to compare various styles and genres (DeLone et al., 1975:96).

Conclusively, the musical texture of compositions during the post-tonal period is unquestionably more contrapuntal than those of previous periods (Deri, 1968:86). The evolution of texture has contributed to the following: the less common usage of string instruments; the prevalence of percussion instruments; the more percussive use of conventional instruments (including piano and strings); the more effective and extended use of wind instruments (woodwind and brass) in contemporary compositions; and lastly, the novel treatment of new instruments and new sound devices as well as electronic sound production have all produced an enormous sphere of new sounds (Deri, 1968:86).

4.3.6. Form

Form as defined by Kennedy and Kennedy (2007:269) is "the structure and design of a composition." DeLone et al. (1975:1) note that a composition's form or structural setup is an important part of any piece of art and further clarification of that form refers to a unit's arrangement of elements or materials. Form, like with the frequent changes in post-tonal compositions, is not perceived as "simple." According to Kamien (2002:352), early twentieth century post-tonal composers used 'conventional meters' in seven and five time-signatures, but succeeding composers abandoned both beats and meters entirely, resulting in a wholly distinct 'form' of music. Several composers also abandoned established musical forms in their compositions, such as the sonata, ABA, rondo, and other comparable forms (Kamien, 2002:352). DeLone et al. (1975:2) note that a simple conventional style is rarely seen in many compositions of the twentieth- century. There is mostly no clear division, and the music lacks developmental processes (DeLone et al., 1975:2). As a result, many were prompted to challenge the twentieth century music's structural design; some argued a lack of structure, while others claimed that the structure was outdated (DeLone et al. 1975:2). DeLone et al. (1975:2) clarify, however, that

without having "some form to it," an artwork cannot exist, even though identifiable patterns are blurred.

According to Kostka (2012:126) however, conservative composers still maintained the use of most traditional forms from the tonal era into the post-tonal period.[47] These include binary form[48], ternary form[49], rondo form[50], sonata form[51], sectional variations[52], continuous variations[53], canon and fugue[54], and proportion (golden mean)[55] (Kostka, 2012:127–138).

DeLone et al. (1975:5) support by further expatiating on the form structures utilised in the twentieth century; **sectional forms** - conventional forms used in the tonal era - **ternary** (A-B-A), a mixture of "contrast and restatement" to create uniformity within a unit; and **rondo forms** (A-B-A-C-A or A-B-A-C-A-B-A), which are simply extensions of the ternary form in a recurring pattern. DeLone et al. (1975:5), reiterating Kostka (2012:126), states that in the post-tonal period, these structures persist.

Furthermore, regarding **developmental forms**, DeLone et al. (1975:17) note that in much of the compositions of the twentieth century, the compositional approach is applied in the same way as in previous eras. Chant music, where the same group of notes are permutated, serves as an example (DeLone et al*.,* 1975:17). DeLone et al. (1975:18)

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[47] According to Kostka (2012:126), other non-conservative composers such as Schoenberg did compose using traditional forms.

[48] **Binary** form (either AA' or AB), as defined by Kostka (2012:127), is employed in short compositions or the sections (movements) of a Durationy work. Examples of binary form are evident in the works of Hindemith ("A Swan"), Cage (Sonatas and Interludes), and Ligeti (Sonata for Solo Viola) (Kostka, 2012:127).

[49] Kostka (2012:127) defines **ternary form** as a flexible idea that can be employed in large or small sections of a composition. However, most full-Duration works are treated in a ternary form, such as Britten's *Pastoral* from Serenade for Tenor, Horn, and Strings (Kostka, 2012:127).

[50] Although both "**five-part**" (either "ABACA" or "ABABA") and "**seven-part**" (ABACABA) structures are evident in post-tonal music, they do not always follow the traditional setup (Kostka, 2012:131).

[51] Although the **sonata form** was most prominent during the tonal-era, post-tonal composers frequently use the movements of sonata form (Kostka, 2012:133).

[52] According to Kostka (2012:134), **sectional variation** is used "to distinguish the theme with variations from the ground bass or continuous variations (passacaglia and chaconne)." Examples are evident in the works of composers such as Ravel (*Bolero*), as well as Babbitt (*Semi-Simple*) (Kostka, 2012:124).

[53] Kostka (2012:135) notes that the passacaglia remains the traditional forms of **continuous variations** characterized by a reiterating bass line known as the "ground" and the *chaconne* characterized by a reiterating harmonic progression.

[54] Kostka (2012:136) cautions that **canon and fugue** are not categorized as "forms" like others such as rondos and sonatas, but are actually "contrapuntal procedures" that can be employed; in any chosen series of "formal designs." Nevertheless, canons, unlike in the tonal era, have been used mainly by post-tonal composers as seen in the works of composers such as Webern (Five Canons, Op. 16), Schoenberg (trio from Suite, Op. 25), Webern (Variations for Piano, Op. 27) (Kostka, 2012:136)..

[55] Otherwise known as "golden section," the **golden mean** (being a proportion) dates to centuries ago and employed in the fields of art and architecture to achieve beautiful designs (Kostka, 2012:138).

note that through rhythm, dynamics as well as transformations in instrumentation, several post-tonal compositions encompass permutations of interconnected motives. DeLone et al. (1975:18) also state that two strategies can establish form: developmental sections and variational sections. Sonata form is the form structure most synonymous with 'development' (DeLone et al., 1975:18).

The open form is another type of form utilised by post-tonal composers. According to DeLone et al. (1975:59), numerous pieces in post-tonal music have taken a distinct structural design approach since the 1950s. These approaches contrast entirely with conventional practices, preferring "ongoing procedures" rather than "closed designs" (DeLone et al., 1975:59). In the end, the structural setup of the composition was decided by the music population (DeLone et al., 1975:59). Also, different aleatory functions were introduced into the compositional process, which produced a very precise composition (explicit notation of material) or allowed the performer more flexibility to improvise (DeLone et al., 1975:59). The performer could pick either his/her pitch material in some instances (DeLone et al., 1975:59) or experiment with sound and tone colours (DeLone et al., 1975:60). DeLone et al. (1975:60) note that composers had free rein to add or remove any criteria they desired, which eventually resulted in the performing artist becoming more involved in the whole process. In short, open form relies on the composer, the performer, and the audience (occasionally) for an overall formal output[56] (DeLone et al., 1975:59).

4.3.7. Conclusion

In conclusion, some new characteristics in the application of form emerged during the twentieth century, including the assortment of materials used, the scale of the work and the different processes used in the structural process (DeLone et al., 1975:2). The music of the tonal period depends, according to DeLone et al. (1975:2), on the structural outline of a work (more precisely, the various parts/voices) and how they are assembled to form a unit. This can also be described as 'sectionalisation' in which divisions (each with its objective) are merged into a larger structure through restatement, variation, and contrast (DeLone et al., 1975:2).

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[56] For example, a performer is allowed to make a choice of own pitch(es) for a given duration to freely experiment with sounds as well as tone colour (DeLone et al., 1975:59–60).

Due to composers' eagerness to include new sounds into their compositions, the post-tonal period has seen a significant shift in almost every aspect of music creation (DeLone et.al., 1975:85, 320). Melody is one constant essential shift in post-tonal musical composition; a broad diversity of methods and concepts are currently being employed to the point where a post-tonal work's predictability is severely weakened (DeLone et al., 1975:320). In post-tonal music, composers have also modified the conventional concept of rhythm, as composers have made enormous efforts to "seek out new possibilities" (DeLone et al., 1975:268). The creative ability of post-tonal composers is now strengthened owing to their access to a diverse range of **harmonic** resources from the past, that may be employed in novel ways (DeLone et al., 1975:322). Composers are no longer constrained by harmonic rules, as the tonal harmonic system's conventional norms have been abandoned (DeLone et al., 1975:323).

Due to the innovations and experimentation of musical sounds that eventually became the norm in post-tonal music, post-tonal harmonic texture has become more contrapuntally intense compared to the tonal era, as the concept of "sensuous beauty" as a significant characteristic of texture became insignificant to composers (Deri, 1968:86). Structural elements regarding 'form' from the past lasted into the post-tonal era as composers developed and expanded on them, resulting in a synthesis of long-standing forms and new post-tonal inventions (DeLone et al., 1975:4). Regardless, due to a variety of techniques and ideas, the twentieth century proceeded into the twenty-first century without a defined style (Kostka, 2012:310). Later generations may however, recognize the post-tonal era via the very apparent stylistic techniques that distinguish each composer and the sound that post-tonal works comprise – a similarity with how distinct sounds defined previous eras (Kostka, 2012:310).

Zaidel-Rudolph, (referencing the above paragraph) as a post-tonal composer, is no exception, as her chosen work entails methods, techniques and tendencies common in post-tonal music. The compositional style of Zaidel-Rudolph is discussed in the next chapter, as well as an analysis of *Pendulum*.

Chapter 5

Zaidel-Rudolph - major influences and style transformation

5.1. Introduction

According to Pascall (2001:1), the concept of style denotes the manner of debate, expressional manner; mainly how a work of art is implemented. The word poses extraordinary difficulties in discussing music geared towards relationships rather than meanings; it can be used to signify music typical of a specific composer, an era, a geographical region, or a community or social occasion (Pascall, 2001:1).

Style according to Pascall (2001:1) is the "manner, mode of expression, type of presentation." Style for the **aesthetician** concerns exterior or appearance; even in music, in the long run, "appearance and essence" are indivisible. The **historian** sees style as a concept with distinguishing and ordering factors, both of which are constant and signifying generalisations; samples of music are grouped by him or her, centred on the parallels between them (Pascall, 2001:1). A style may be recognisably amalgamated with other styles; clear cases are the keyboard style of J.S. Bach or Mozart's operatic style (both encompass distinguishing harmonic styles, unique melodic styles, and the likes of such, and, they are mergers with several stylistic traditions) (Pascall, 2001:1). A style likewise denotes a range or chains of possibilities determined by a unit of specific examples, such as 'homophonic style' and 'chromatic style' (Pascall, 2001:1).

Style, a style or styles (or altogether), may be evident from the largest to the smallest in any conceptual entity in the music sphere (Pascall, 2001:1). Music in its entirety is an artistic style, and based on its instrumentation, pitch and duration, a single note may have stylistic consequences (Pascall, 2001:1). Pascall (2001:1) furthermore note that style, a style or styles are evident in a sonority, phrase, section, movement, work, oeuvre of compositions, genre, life's work, period (of any range) as well as culture.

While style may define "historical periodisation" and exercise a reflexive association with a work's form, function as well as genre (Beard & Gloag, 2016:238), style is also exemplified by texture, rhythm, melody, harmony and form, and the way these aspects

are interrelated, disconnected, or classified in their usage (Beard & Gloag, 2016:237; Pascall, 2001:1).

5.2. Major influences

Beard and Gloag (2016:238) explain that some aspects of a composer's style may be identified in another's work, which indicates some sort of stylistic intertextuality. There are pieces of evidence of Beard and Gloag's above statement in Zaidel-Rudolph's style as authenticated by her in an interview organised by Alexander Johnson, documented in the *Musicus* Journal. Zaidel-Rudolph's music mainly was (amongst other teachers such as Johann Potgieter, Arthur Wegelin, Stefans Grové and John Lill) influenced by the renowned composer György Ligeti (Johnson, 2012:57); Zaidel Rudolph attests:

The fact that Ligeti was the most powerful influence on my music has resulted in the fact that I am essentially and predominantly (I think) a contrapuntal composer (Johnson, 2012:57).

Alternatively, as in Stravinsky's neoclassical works (see modernism), older styles can be modified and amalgamated into a more modern musical vocabulary Beard and Gloag (2016:238). This is true, as confirmed yet again by Zaidel-Rudolph in the interview with Johnson:

I usually look back to the last piece that I've composed, and it is almost like a kind of a life imperative for me to take a thread from something from the last work that I can carry through and manipulate the material into something new and fresh. So, in a funny way, I borrow from myself (Johnson, 2012:57).

The reality that composers have used multiple styles, from Mozart to Stravinsky, points again to the notion of a style being a path that a composer can follow, like an actor can "put on a mask;" it persists regardless of something a composer can add to it (Beard & Gloag, 2016:238). A composer's personal style may be impacted by whoever he or she studied under — he or she may establish their own style or be driven to follow in the footsteps of a predecessor (Pascall, 2001:6). To buttress Pascall's point, Zaidel Rudolph's time of study with Ligeti did result in some similar style traits as confirmed by

Zaidel-Rudolph in the interview with Johnson: "Similar to Ligeti, I like to think of myself as a "tone-colour" composer" (Johnson, 2012:57). Furthermore, the music of Ligeti being linear shares the same concept with Zaidel-Rudolph's music (Personal interview, 11 August 2020).

"Generally, an artist's work will mirror to some extent the cultural climate in which he lives," writes composer Deri (1968:3) in support of Pascall's view on composers and the impact of their surroundings on them. Such knowledge, according to Beard and Gloag (2016:239) will be linked explicitly to the geographical setting as well as a historical period. This is evident in Zaidel-Ruloph's musical journey as a composer with a deeply rooted Jewish and African background, as confirmed by her. In the interview with Johnson (2012:57), Zaidel-Rudolph noted that due to her learning of Jewish Cabalistic teachings, which indeed comprise Jewish mysticism (see Jewish mysticism on page 34), she had been influenced by "Gematria" (see Jewish mysticism on page 34) (Johnson, 2012:57). Since numerology is an exciting element linked with astrology, astronomy, and other various ancient philosophies, Zaidel-Rudolph began to develop an interest in utilising numbers in several contexts such as metre, bar numbers, as well as the relationships between instruments in numbers. The composer notes: "Numbers talk to me in terms of Cabalistic studies" (Johnson, 2012:57). Zaidel-Rudolph's African roots have also greatly influenced her music. According to Zaidel-Rudolph, in her family lineage, she was a third-generation South African, with her grandparents being the first to settle in South Africa (Personal interview, 11 August 2020). She furthermore noted that her love for African music was so deep that she frequently incorporated African elements in her music (Personal interview, 11 August 2020).

Therefore, style brings about musical evolution as composers make challenging choices and potentially abolish established styles or the earlier musical works of the composer Beard & Gloag (2016:239). This is true and apparent in Zaidel-Rudolph's style transformation (discussed in the next section). In agreement with Deri's position, Zaidel-Rudolph, being a South African composer, has been greatly influenced by Jewish, African, European, and Western traditions. The African influence is more evident than the Jewish and European influences, owing to her being a resident in South Africa. *Pendulum* thus portrays her roots, influence, and the environment. Therefore, the work's compositional style portrays a blend of Jewish, African, European, and Western post-tonal elements.

The views of Pascall and Deri conclude that every composer has a distinct compositional style, and Zaidel-Rudolph is no exception.

5.3. Style transformation

Beard and Gloag (2016:238) indicate that (as with the notion of early, middle and late Beethoven styles) there may be an aspect of "personality to style and a sense" of a transforming personality may be conveyed by detecting stages in the career of a composer.

However, stylistic change (the process by which a composer develops and remodels his or her composing style through time) is unique to each composer and is impacted by a variety of elements including his or her age, temperament, creative aptitude, culture, and economic circumstances (Pascall, 2001:6). To buttress the views of Beard and Gloag (2016:238) and Pascall (2001:6), Zaidel-Rudolph's style has transformed over the years - about sixty-five years now. According Zaidel-Rudolph in Jorritsma (2001:22), the composer's music is divided into three transformational periods.

The **first period** was "**the student life**" of Zaidel-Rudolph during her studies at the University of Pretoria, the Royal College of Music, London, and later with Ligeti in Hamburg (Jorritsma, 2001:22). Zaidel-Rudolph in Jorritsma (2001:21) noted that she spent one year with Ligeti and the way she composed there was hugely Eurocentric (Jorritsma, 2001:22). Zaidel-Rudolph admits she tried to incorporate a style in which she was still unfamiliar by writing quasi-Ligeti music, while striving to be very avant-garde and experimental (Jorritsma, 2001:22). In 1972, Zaidel-Rudolph wrote her first indigenous composition *Three Dimensions* for piano, which comprised some ethnic elements (Jorritsma, 2001:22). VanWyk (2008,10) attests that the piece, being an outstanding creation, provides the artistic performer with an excellent medium for innovative interpretation; its distinct African essence positions it as a leading example of native art music. Ligeti's influence on Zaidel-Rudolph's compositional style was evident in her piano composition, as well as led her into a more contemporary style as opposed to her previous style (VanWyk, 2008:66). The composer attests concerning that feat:

> …this work shows my liberation from the constriction of strict formal ordering and excessive rhythmic permutation – as in my early Sonata no. 1 for piano – to a

more modern approach where I was experimenting with sonority per se as a means of expression" (VanWyk, 2008:66).

The **second period** began, according to Zaidel-Rudolph in Jorritsma (2001:22), when (towards the end of 1970) the composer began to write extensive music hugely influenced by Africanism. The period lasted right through the eighties, she added (Jorritsma, 2001:22).

The **third period** began according to Zaidel-Rudolph in Jorritsma (2001:22), when the composer started to embrace religious mysticism in her music partly from Jewish sources while others comprised numerology, as well as the non-material world of mysticism and spiritual elements. However, the composer hints that she is entering a period where she is not consciously applying any styles or specific elements but rather employs instinct with the goal of oblivious revelation of combination technique, background, talent life experiences, as well as music experiences (Jorritsma, 2001:22).

In conclusion, Zaidel-Rudolph's style transformation over the years as a composer can be said to have accumulated into a climax with the creation of *Pendulum* for Piano and Orchestra. This is because the work is the composer's most proud creational output to an extent, reason being that it synthesises much of who the composer has been and is, and it presents the facets of her musical experiences, as well as the passion with which she works (the passion of energy) (Johnson, 2012:57). The composer noted that even in a very slow music, there must be an underlying energy - the kind that is experienced in *Pendulum* (Johnson, 2012:57).

Chapter 6

Pendulum for Piano and Orchestra - compositional style and analysis

6.1. Introduction

This chapter (and the next) seeks to answer this study's central question and sub-questions, respectively.

Pascall (2001:1) notes that style is exhibited by "creative personalities," conditioned by social, historical and geographical aspects, performing sources and conventions; and it is evident in characteristic utilisations of form, texture, harmony, melody, rhythm as well as ethos. Style may be applied to individual composers' work to describe the creation of styles, such as Verdi's operatic style, or to imply certain elements of the whole output of a composer compatible from one work to another (Beard & Gloag, 2016:238).

Given that Beard and Gloag (2016:237) suggest that style can be viewed concerning the "concept of **identity**," according to Pascall (2001:1), personal style, which is a widely discussed topic among modern critics, is impacted by a variety of factors. The personal style of a composer is critical to objective analysis, but social views may influence a composer's distinctive style. Pascall (2001:6) adds that personal style is an important component in Western heritage, as shown by the quickness with which new musical notations are created. As a result, a composer's stylistic techniques frequently evolve throughout time, building and expanding on past creative styles. Furthermore, the concept of personality may have a significant impact on a composer's style due to the 'personality' changes that an individual undergoes at various phases of his/her career. These modifications might be seen in his or her work (Beard & Gloag, 2016:238).

Given that Zaidel-Rudolph has achieved extensive feats in her career as a musician, her compositional style has also evolved over the years. However, according to the composer, certain musical concepts from previous works were carried through into *Pendulum*; these concepts comprise rhythmic compilations forming the basis for polyrhythmic design and intervallic elements. These are discussed in the next section.

6.2. Compositional style in *Pendulum*

Pendulum for Piano and Orchestra was commissioned by SAMRO for a debut performance in 2010 by the pianist, Malcolm Nay with the Johannesburg Philharmonic Orchestra (Zaidel-Rudolph, 2020).

Pendulum for Piano and Orchestra is a "stand-out" work unique to other works composed by Zaidel-Rudolph. According to the composer, she had always wanted to write a piano concerto throughout her compositional years, pre-2010 when it was completed (Personal interview, 11 August 2020). Zaidel-Rudolph stated that writing a piano concerto was the "ultimate form of expression" for her being a pianist - a vicarious one at that as elucidated by the composer:

> …I knew I wasn't going to be the one to perform it so I was living vicariously through somebody who was going to perform it much more brilliantly than I ever could. Because it came a point in my music career where being a composer became far more important to me than being a performing pianist…what makes it [*Pendulum*] a stand-out [is] because I achieved my life's desire to write a work for Piano and Orchestra, and I wish it didn't take me so long to make the decision to compose it because then I could have maybe written two or three works for piano and orchestra and possibly even a "real" piano concerto where the pianist is…the most important soloist (Personal interview, 11 August 2020).

Although an excellent virtuoso pianist herself, Zaidel-Rudolph's piano performance abilities were unfortunately affected during her undergraduate (BMus) final year piano studies and exams (Personal interview, 11 August 2020). This ultimately led to being the "vicarious pianist" for *Pendulum,* as discussed above. Zaidel-Rudolph discusses the incident:

> The Bach- Busoni transcription of the Chaconne was so demanding that it caused a ganglion...and it was rolling around my wrist from the intense practice; I used to practice four/five hours a day...

Unfortunately, while trying to make the ganglion disappear by squashing it with a Bible (following an alleged myth often laughed about by doctors), Zaidel-Rudolph's wrist (although it squashed the ganglion) developed other infections (Personal interview, 11

August 2020). Over time her concert performance career began to end due to her wrist damage (Personal interview, 11 August 2020). This led her to focus more on her composition skills; however, having been an active pianist contributed to her desire to write *Pendulum* (Personal interview, 11 August 2020).

In her statement above, Zaidel-Rudolph's comparison of a "real" piano concerto in the juxtaposition of the concept behind *Pendulum* is quite explanatory; the standard piano concerto features the soloist as the principal performer, whereas in *Pendulum,* the pianist instead adds a colourful blend to the orchestra utilising foreground/background techniques[57]. The composer further clarifies:

> I did not give Pendulum the title "Concerto" as the piano part frequently blends into the orchestral texture as another instrumental colour/timbre and does not necessarily demand that it should be perceived as a separate virtuosic entity. Having said that, though, there are some very challenging technical figurations for the piano (Zaidel-Rudolph, 2020).

Zaidel-Rudolph further notes that, as was the case with her mentor and teacher, György Ligeti, she often dreamt of "ringing bells and chiming clocks and the unrelenting mechanisation of our century" (Zaidel-Rudolph, 2020).

Pendulum, according to the composer, is an amalgamation of the different periods in her life:

The first movement represents the European contemporary avant-garde because of her teachers' influences from the composer's study years, such as the Royal College of Music (Personal interview, 11 August 2020), The *Hochschule für music*, Darmstadt, and the Pretoria University culminating in the music for her first movement (Personal interview, 11 August 2020). According to the composer, this movement - a reflection of the contemporary influences discussed above - is not written in a particular key or tonality, but instead, there are shifting tonal centres; there are also elements of atonality as well as applications of chordal characteristics (Personal interview, 11 August 2020).

The **second movement, however** comprises a far more yearning and passionate soundscape with religious, spiritual and Judaic elements and represents a sphere where

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[57] See footnotes on page 65. Further discussion can be found in Adler (1989:467).

modalism and scales produce rising emotional gestures to portray this state of intense yearning (Personal interview, 11 August 2020). The composer cleverly utilises the bassoon at the beginning of the second movement as the "heartbeat," and she expatiates on the idea:

> That's my own heartbeat searching; that's my own living force trying to find exactly who I am because I'm in a country where there are so many diverse cultures, and eventually one is not sure who one actually is... (Personal interview, 11 August 2020).

Figure 1: Bassoon "heartbeat" in *Pendulum* 2nd movement

Zaidel-Rudolph further notes that the heartbeat signifies a statement of the composer's inner-most deep self, in relation to gender. religion and culture (Personal interview, 11 August 2020). The second movement represents the composer's cultural roots in Judaic writing and numerology (Personal interview, 11 August 2020).

The **third movement** signifies a return to Africa; the design, shape and essence of the music are absolutely where she lives and have always lived, the African continent; precisely South Africa (Personal interview, 11 August 2020). The third movement comprises rhythmic compilations of aggregates of 2s and 3s forming a 5 + 7 ratio, which then forms the 12/8 - a powerful driving force, all of which form the basis of polyrhythmic design. As briefly discussed on page 86, this concept runs throughout most of Zaidel-Rudolph's works, including *Fanfare Festival Overture, Abantubomlambo - The River People* and other works (Personal interview, 11 August 2020).

Zaidel-Rudolph asserted that the three movements of *Pendulum* comprise almost her entire stylistic outputs (Personal interview, 11 August 2020).

To avoid writing tertian sonorities in *Pendulum* - and typical of twentieth century composers, Zaidel-Rudolph, utilised other non-tertian intervallic elements such as 4ths (descending 4ths, augmented 4ths, diminished 5ths/tritones), major 2nds, minor 2nds

both vertically as well as horizontally in her music. Excerpts of these are shown as follows:

Figure 2: Non-tertian sonorities (4ths) in *Pendulum* 1st movement

Figure 3: Non-tertian sonorities (Aug 4ths and Dim 5ths) in *Pendulum* 2nd movement

Figure 4: Non-tertian sonorities (4ths & 2nds) in *Pendulum* 3rd movement

The concept of polyrhythmic textures (a concept carried into *Pendulum* from previous works) is always evident in Zaidel-Rudolph's compositions. It is quite concomitant with the concept of imitation, where the composer utilises rhythms polyrhythmically in an alternated manner. On occasion, the polyrhythm is vertical, revealing the two(s) and

three(s) in 12/8, sub-divided as 5/8 + 7/8 against other subdivisions; this creates a polyrhythmic element that can be utilised in diverse ways - depending on how many pulses desired in the dotted crochet, for example, one beat or two or three pulses. This is further discussed in the study. An example from the excerpt is illustrated below.

Figure 5: Polyrhythm in *Pendulum* 3rd movement

Zaidel-Rudolph uses intervallic essences as a focus in her music. According to the composer, she strictly utilises intervals (another concept carried into *Pendulum* from previous works) in her works in various ways (Personal interview, 11 August 2020). The composer favours these intervallic mixtures because they create a "natural dissonance" and are skilfully utilised to create a "deliberate" false relation[58] creating various forms of dissonance (Personal interview, 11 August 2020). Utilising the deliberate false relation is not to give the music a "harsh" dissonance but rather a "closed" dissonance to eliminate any possible tonality. An excerpt of a deliberate false relation is seen below:

Figure 6: Intervallic mixtures creating deliberate false relation in *Pendulum* 1st movement

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[58] Also referred to as cross-relation, non-harmonic relation, Dyson (2001) defines false relation as "a chromatic contradiction between two notes sounded together or in different parts of adjacent chords.

In Figure 6 above, Zaidel-Rudolph displays skilful intervallic mixtures intending to create deliberate false relations, ultimately eliminating the possibilities of a tonality. The main intervallic mixture occurs in the piano part left hand (minor 7ths) and the right hand (major 7ths), all marked in red, ultimately creating the deliberate false relations (marked in blue). Secondary intervallic mixtures occur in the rest of the notes in both the right and left-hand parts of the piano; these are significant 9ths (compound minor 2nds) and major 7ths in inversion. A similar setup is found in bar 73.

Other significant sections in the movement featuring significant intervallic mixtures by the piano are from bars 48–64. The piano part utilises intervallic mixtures of major 2nds, minor 2nds, minor 3rds in arpeggiated manner, while the rest of the instruments provide quartal harmonic background textures. An excerpt is illustrated below:

Figure 7: Bar 55 Intervallic mixtures in *Pendulum* 1st movement

Another compositional element in Zaidel-Rudolph's works is the use of neo-tonality. Having discussed atonality earlier in this study, the composer's interpretation and

utilisation of neo-tonality is at times expressed by "shifting tonal centres" (not "tonality", as deliberately avoided by the composer) otherwise referred to as "multi-tonality" - as coined by Zaidel-Rudolph (Personal interview, 11 August 2020). After all, Schoenberg himself did allude to tonality in nearly every piece of music; be it as a relation from one tone to another by the placement of such tones to yield a perceivable continuity, or masking the tonality to make it difficult to realise or even inconceivable (Baker, 1990:178).

In confirmation of Schoenberg's opinion, Zaidel-Rudolph did mask every possible tonality in *Pendulum* by her utilisation of "shifting tonal centres" and by skilfully utilising chord extensions, placing them strategically in specific instruments to achieve the most sonorous effect. "Shifting tonal centres" and chord extension utilisations are shown below.

Table 1: Shifting tonal centres in *Pendulum* 1st movement

Tonal Centre	Bar
E	1-14
A	15
C#	16
E	19-20
Eb	21-22
E	23

A	24-26
E	27-29
C	30
Db	31-33
C	34-36
E	38-44
C	45-50
C	55-80

Db	81-82		E	122-125
G	83		D	126-127
Bb	84-85		Eb	128
C	86		C	129-132
Ab	87		E	133-138
Eb	90-95		E	182-185
C#	96-106		D	186-189
Eb	107-110		E	190-197
D	111-114		Eb	198-199
C#	115		C	202-208
Bb	116		A	209
D	117-120		E	210-End
Eb	121			

Table 2: Shifting tonal centres in *Pendulum* 2nd movement

Tonal Centre	Bar		Tonal Centre	Bar
Bb	1-13		A	44
B	14-22(1)		Bb	45
G	22		A	46-47
F#	23		Bb	48-49
A	24		C#	50
			D	51-52(2)
			E	52(3)-54(1)
Bb	25-26		Bb	55
G	27-29		A	56-57
C	30		B	58
E	31-32		E	59
A	33		F	60-61
Bb	34-37		Gb	62
A	38-42		F	63
Bb	43		D	64

F	65
Bb	66
B	67
Bb	68-71
F	72-75
B	76
D	77

Eb	78
F	79-81
Eb	82
C	83-84
B	85-87
A	88-94(2)
Eb	94(3)-End

Table 3: Shifting tonal centres in *Pendulum* 3rd movement

Tonal Centre	Bar
Eb	1-10
E	11-15
Bb	16
B	17
Bb	18

B	19
Bb	20
B	21-22
C#	23
C	24-25

F#	26		Ab(G#)	62-63
G	27		G	64-65
A	28		A	66-67
E	29-33		F	71
F	34-36		D	72
E	37-		E	73
Ab	38-39		D	74
D	40		G	75
Db-D	41		Db	76
A	42-46		C	77
D	47		Bb	78
E	51-55		C	79
Eb	56		Bb	80
F	57-58		C	81
Eb	59		F#	82
G	60-61		F	83

D	84	G	102-107
G	86-88(1)	D	108
Gb	88(2)	G	109
Db	89	Bb	110
D	90	C#	111
Db	91	E	112
D	92	F#	113-114
Db	93	Eb	115
D	94-95	E	116
E	96	A	117
Eb	97-98	G	118-122
A	99	Db	123
Bb	100	D	124-126
C	101	G	127-End

Figure 8: Tonal centre Db with chord extensions (Maj7[th]/Maj6[th]) in *Pendulum* 1st movement

In the excerpt above (bar 29), the marked trumpet, piano, and violin 1 sections show Zaidel-Rudolph's utilisation of chordal extensions (forming added note chords) by adding the major 7th and major 6th intervals (the latter as a lower auxiliary note in the trumpet and violin sections) to mask the tonality of the Db (brief) tonal centre. The composer has meticulously placed these extension notes in instruments with bright-sounding sonorities and high pitch range capacities to emphasise and further effect the masked tonal centre.

Toward the end of the nineteenth century, composers began experimenting with new harmonic ideas as the traditional cadential formulas began to fade (Ammer, 2004:56). Tenney (1969:8) further asserts that in post-tonal music, the utilisation of conventional cadences is lacking. Due to Zaidel-Rudolph's compositional technique of shifting tonal centres in *Pendulum*, any possibility of the music arriving at conventional cadences is futile. An excellent example of this is seen at bars 36–37 of the first movement. To avoid the "tonal" resolution, Zaidel-Rudolph resolves the progression upwards to an entirely non-tonal sonority with a shifting tonal centre of G#, suggesting an Augmented sonority. An excerpt is seen below:

6.3. Analysis of *Pendulum*

The selected composition for this research is studied to establish Zaidel-Rudolph's compositional style and output. The criteria considered comprise melody, harmony (harmonic devices), rhythm, texture and form. Hence, these categories form the basis of this study.

Although the Schenkerian analytical method was considered in the literature review of this study, it was not utilised as the basis of this study's analysis. The composer herself, though, has a deep knowledge of Schenkerian principles, which in a limited way influence her compositional decisions. When distinguishing between important and unimportant notes, omissions seem to occur in Schenker's analysis. In his graphs, Heinrich Schenker (1868 - 1935) neglects to refer adequately to rhythmic elements and

register is not considered - the octave displacement is generally given preference. Milton Babbitt (1916 - 2011) described Schenker's fascination with the major triad as the basis for all compositions as a "naturalistic fallacy" - a tendency in nature that leads to false beliefs (Dunsby & Whittall, 1988: 51).

Schenker's theories are restricted to Western tonal music, and therefore not entirely suitable for this study because of the diverse nature of the harmonic structure in *Pendulum*. The music of Zaidel-Rudolph consists mainly of harmonic techniques from the twentieth century.

It must, however, be noted at this juncture that composers, according to Cope (1997:29) in their works, need not account for notes regardless of anything but their intuition. This sort of puts a limitation to every note's in-depth analysis, especially in a unique twentieth century work like *Pendulum*. Given that intuition is a significant factor in such compositions, the author believes that Zaidel-Rudolph's *Pendulum* is scarcely based on intuition (although there may be some sections based on intuition) because the composer plans the overall output of her works even before putting the very first note. Zaidel-Rudolph in Johnson (2012:57) confirms:

> For a composer, beginning to compose is the most challenging part – committing oneself to something. I am not one of those composers who starts with something ten times and then throw it away. I think about it; I commit to an idea, a shaped form, a structure. In other words, I plan it (Johnson, 2012:57).

Based on the composer's statement, this author decided to have an in-depth **vicarious**[59] analysis of *Pendulum* based on the composer's compositional style. Due to this, the findings from the study are merely (but grounded) suggestions from the author. Furthermore, it must be noted that should there be measures or sections not discussed; the author considers such sections to be based more on intuition by the composer.

The **first movement** is stately and thematically based, the longest of the three; it begins with the tubular bells sounding in falling 4ths, followed by the drum and the bassoon

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[59] Following meetings and an interview with the composer, and coupled with data for *Pendulum* (score and audio) the author attempts to "interpret" the composer's mindset through "in-depth vicarious analysis" of the composition. However, the author deems the findings emanating from the analysis of *Pendulum* as "merely (but grounded) suggestions."

(Zaidel-Rudolph, 2020). The descending bell feature is taken over by the strings, adding the motive before the first piano entry (Zaidel-Rudolph, 2020). The material is dominated by linear and vertical figures with lively interaction between the piano and orchestra in this movement (Zaidel-Rudolph, 2020). The piano later features a cadenza-like solo in which the bells then join in return to the opening segment (Zaidel-Rudolph, 2020).

The **second movement** is very eerie, shimmering and enigmatic, with dissonant orchestral sound blocks and vibrating tone colours punctuated by *pizzicati* in the strings (Zaidel-Rudolph, 2020). With nocturnal shadows, underlying suspense, and foreboding, it evokes an atmosphere close to that found in the slow segment of Zaidel-Rudolph's work - *Tempus Fugit* (Zaidel-Rudolph, 2020). The piano's role is to pierce the dense texture with rapid arpeggiations that use diminished 7ths as the chord bases, lifting the atmosphere into a sacred dimension as atonement for the night's terrors (Zaidel-Rudolph, 2020). The illusion of a fast tempo is developed, but in fact, it is still the slow movement which uses increasingly shorter note values (Zaidel-Rudolph, 2020). Using the same small intervallic structures, the arpeggios are turned into intense melodic entities (Zaidel-Rudolph, 2020).

The **third movement** continues *attaca*, but this time with a rhythmic texture derived from a generic and composite African rhythm and sound-world; namely, 12 pulses per measure separated into aggregates of 2s and 3s, creating a polyrhythmic 5+7 loop (Zaidel-Rudolph, 2020). This fundamental cyclical pulse propels the music forward in dance-like patterns, punctuated by piano dialogues, as the various instrumental groups take over (Zaidel-Rudolph, 2020). The percussion section is crucial in this piece, as it is in all of Zaidel-Rudolph's African-influenced pieces and many others as well. *Pendulum* presents the convergence of various sound realms but those situated in 21st century South Africa (Zaidel-Rudolph, 2020).

6.3.1. Melody (Horizontal dimension)

Melody, as explained by Ammer (2004:237), is a series of pitches, but two key considerations are involved: intervals (the distance between one pitch and the next) and length (how long each pitch lasts or is held). De Leeuw (1974:478) further attests that melodic sequence is achieved by utilising the same intervals and rhythmic patterns

created. Materials that are melodically presented, such as motives or patterns, are typically linear (DeLone et al., 1975:270). This is true of Zaidel-Rudolph's compositional style, as evident in this movement.

According to Cope (1997:26), the construction of good melodic lines is an essential part of a composer's overall output; it should not be ignored regardless of his/her compositional style. Cope (1997:26–37) discusses various categories of contemporary melodic organisation: scales, motives, extended melodic lines and accompaniments.

Zaidel-Rudolph's melodic figures and shapes in *Pendulum* are discussed under the following bullets.

- **Motives**

Motives in the **first movement** play an essential role in the overall structure by keeping coherence and comprehensibility throughout the movement. Zaidel-Rudolph features the motive, skilfully allocating it to different instruments - some melodically and others harmonically - throughout the movement. The first motive (see Figure 10) is sounded by the tenor trombones and tubular bells in bar 1. Zaidel-Rudolph being very expressionistic, perhaps chose this naturally loud instrument (tubular bell) to sound the "clarion-call" to draw attention to the motive. However, she cleverly curbed the bells' sound into a more "soothing" but more powerful yet commanding sonority by doubling with the tenor trombones.

Pendulum for Piano and Orchestra

Jeanne Zaidel-Rudolph

As shown in Figures 11 a and b, the motive is introduced at bar 7 and 11; by violin II and viola sections, while the rest of the selected instruments provide background textures on the current "shifting tonal centre" of E. However, the violas n in both bars features a textural variant of the motive through the utilisation of specific techniques, namely *pizzicato* (bar 7) and accelerated rhythm (bar 11), suggesting an attempt to keep coherence of the music for the listener. However, as discussed above, Zaidel-Rudolph masks the tonality by predominantly utilising non-tertian sonorities, particularly the quartal chords as seen in the horn and violin I sections (bar 11).

Figure 11 a and b: Motive 2 (Violin II and viola sections)

Zaidel-Rudolph introduces a variation of the motive at bar 49 in the strings, alternating the fourth note (marked in red), suggesting a technique to blend with the left-hand chord (marked in red) in the piano passage. However, it is rather interesting how the composer has left the original tonal centre of the motive in violins I and II while skilfully sounding the motive in an intervallic manner (lower 4ths) amongst the rest of the strings in quartal harmony.

Figure 12: Motive 3 (String section)

At bar 66, the motive appears again in violins I and II and violas; however, in skeletonized versions (see "Skeletonizing" in Cope, 1997:29), as well as different shifting tonal centres of C# (violin II), D, F#, and Bb (violin II), D and F# (violin I), D (viola). Zaidel-Rudolph again features the motive in its varied form in bar 70 (melody in violins I).

Figure 13: Motive 4 (Shifting tonal centres and skeletonizing in Violins I and II and violas)

At bars 180–181, Zaidel-Rudolph employs s the motive during the piano cadenza in the outer parts amid the piano passage's virtuosic expressions. This again suggests the importance of the motive in the movement. Placing the motive in the outer parts of the

passage portrays deliberate emphasis by the composer to highlight a specific compositional device.

Figure 14: Motive 5 (Piano cadenza)

From bars 182–183, the tubular bells are reintroduced to sound the motive, however, on two different tonal centres, namely E and A, as the piano cadenza concludes.

Figure 15: Motive 6: Tubular bells in E and A shifting tonal centres

The motive is heard on its original tonal centre (E) in bar 184 in a texture using the woodwinds and tubular bells.

Figure 16: Motive 7 (woodwinds and tubular bells)

Like the second motive at bar 11, violins I and the violas sound the motive at bar 190 while selected instruments provide a background texture on the current "shifting tonal centre" of E. Zaidel-Rudolph again masks a tonality by utilising *quartal* chords in the horn section and open-5th in the trombones. It is interesting to note, however, how the composer creates a continuous enhancement of the motive in different ways by utilising rhythmic acceleration techniques in the violins II and *pizzicato* in the violas.

Figure 17: Motive 8 (Violin II and viola sections)

Amid non-tertian sonorities and in the original tonal centre format, the motive appears at bar 194 in the trombone and in violin I and II and in the violas.

Figure 18: Motive 9 (Trombone, violin I, II and viola sections)

Finally, the motive is present from bar 213 onwards to the end in virtually all sections of the orchestra as shown below:

Figure 19 Motive 10 (a and b)

At bar 15, the first piano entry features a short motive with the outer voices comprising intervals of a major 2nd, perfect 4th and a tritone, while being further strengthened by open-5ths. The motive is repeated (in transposed form) at bar 16, while the rhythmic element of the motive is featured in bar 24; the interval sequence is maintained but in reverse form. The motive (on its original tonal centre) is again reintroduced at bar 198 as the movement prepares to conclude. Excerpts are illustrated below.

Figure 20: Bar 15

Figure 21: Bar 16

Figure 22: Bar 24

Figure 23: Bar 198

The motive at bar 19 alternates between the piano and orchestra. The piano (accompanied by the trumpets and trombones) sounds the four-note motive while the strings respond using the same intervals as the piano; while utilising *quartal* intervals

and open-5ths in the violins I and cellos. The motive is reintroduced at bar 28, transposed on to a different tonal centre.

Figure 24 a and b: Bars19 and 28

As discussed previously in this study, the **second movement** begins with the "heartbeat" motive, sounded by the bassoons. This two-note *ostinato* recurs at different sections in the movement. An excerpt is illustrated as follows.

Figure 25: "Heartbeat" motive in *Pendulum* - 2nd movement

The compositional idea in the **third movement** is more rhythmically than melodically based. Being highly infused with African elements, rhythm, as discussed previously, plays a significant role in this movement.

Zaidel-Rudolph utilises **ubiquitous chromaticism** in the first movement**,** a typical feature of twentieth century music. In bar 17, the composer features a unique quintuplet chromatic motive in meticulously selected instruments with high pitch and clarity capacities (marked in red) to project the move into a new shifting tonal centre (Figure 26 a). This same quintuplet chromatic motive is found in bars 19, 27, and 29. However, other non-chromatic quintuplet motives feature scales rather than chromaticisms from bar 195–197. Another section that features a skilful utilisation of the chromatic scale is found in bars 42 and 43 (Figure 26 b). In violins I and II melodic lines clearly outline chromaticism, while the rest of the instruments simply provide background texture.

Figure 26 a and b: Quintuplet chromatic motive and chromaticism in *Pendulum*

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In the **second movement**, select chromaticism is employed by the composer, as notably seen in bar 40 (marked in red). From bars 43–45 while pedal notes are being sounded by the trombone, cello and contrabass sections (only trombone is shown in the example), the composer employs the flutes, *Cor Anglais*, clarinets and bassoons to play contrapuntal chromatic passages. The result is an instantaneous suspenseful/haunting sonority, accentuated by the thin texture. Other sections where some chromatic passages are employed include bars 31 in the flutes, oboes and clarinets; and bars 36-37 in the trombone and bass trombone sections.

Figure 27: Chromaticism in *Pendulum* 2nd movement

In the **third movement** Zaidel-Rudolph employs chromaticism as evidenced in bar 12 in the piano section amid contrapuntal textures employed in other instruments. Other sections where chromaticism is employed include bars 15 and 88 in the piano part; bar 25 in the woodwinds; bars 96 and 98 in the flutes, oboes and clarinets.

Figure 28: Chromaticism in *Pendulum* 3rd movement

- **Scales**

The use of scales in *Pendulum* are fundamental, thus contributing to a continuous melodic flow. Zaidel-Rudolph's scale formations in the **first movement** of *Pendulum* comprise non-tonal scales, discussed in the following paragraphs.

With reference to Cope (1997:26), scales play a supporting role in *Pendulum*. Cope (1997:26) discusses the significance of non-tonal scales; they are essential elements in a composer's resources. Twentieth century composers regularly utilise non-traditional scales originating from folk, non-Western or synthetic resources (Cope, 1997:26). Renowned early twentieth century composers, such as Debussy and Bartók, extensively utilised non-tonal scales in their works (Cope, 1997:26–28).

According to Cope (1997:29,) there several approaches to varying motives to generate melodic lines, such as: adding a note to fill in skips, altering the intervals within the motive by augmenting and diminishing intervals, skeletonising by omitting a note or notes, elongating by adding notes to the beginning, middle or end of the motive, altering the rhythm of the motive or augmenting the duration thereof.

In bars 3–4 of the **first movement**, Zaidel-Rudolph's choice of notes that make up the melodic structure suggests utilising the Locrian scale on the E tonal centre. However, the composer diminishes the sixth note - one of the methods according to Cope

(1997:29) of varying motives - which suggests support of the melodic and harmonic flow in the current tonal centre while eliminating the tonality that could have been perceived in the original construction of the scale.

Figure 29: E Locrian scale (sixth note diminished) in *Pendulum* 1st movement
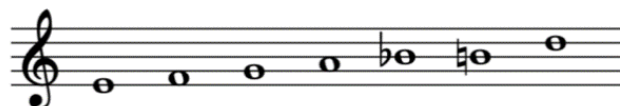
Figure 30: Bars 3–4 suggesting E Locrian scale (the diminished note is marked in red)

In bars 5–6, however, two types of scales fit the melodic structure, namely "Aeolian" and the "Slendro" scale (see Cope, 1997:27) both on the E tonal centre. The Aeolian features the omission of the third note, while Slendro features the addition of an extra penultimate note.

Figure 31: E Aeolian scale (third omitted) in *Pendulum* 1st movement
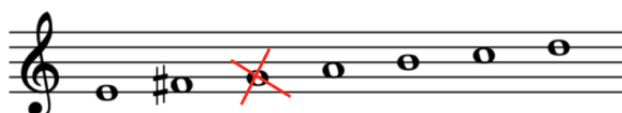
The marked note indicates the omitted note.

Figure 32: Slendro scale (penultimate note added) in *Pendulum*
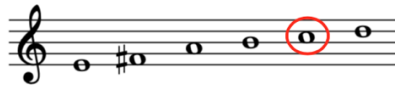
The marked note indicates the added note to the scale.

Figure 33: Bars 5–6 suggesting both E Aeolian scale (with the third omitted) and Slendro scale (with a penultimate note added)

Bars 7-14 comprise notes that suggest the E Phrygian scale (Bar 12 suggests a similar scale as discussed later). However, as seen in other scales discussed, an extra note (Bb) is added after the first half of the scale in bar 8 (note marked in red), which suggests chromaticism in the melodic lines of violins II and the violas. The Phrygian scale is also utilised in bars 34–36, while skeletonised versions are seen in bars 44–47. Other sections that feature the scale are bars 95 and 97 utilising non-chromatic quintuplet motive - and bar 206 with a skeletonised version of the E Phrygian scale in descending order utilising a sequential technique. Excerpts are illustrated in Figure 34 and 35 A–C below:

Figure 34: E Phrygian scale (chromatic note added) in *Pendulum*
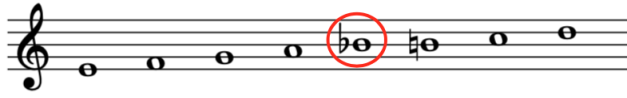
The marked note indicates the chromatic note added to the scale.

Figure 35 a to c: Excerpt of E Phrygian scale with added chromatic note (marked in red)

Zaidel-Rudolph's Jewishness perhaps comes to the fore at bar 12, where she features the (almost identical with the Phrygian scale but for the third note) "Jewish *Ahavoh-Rabboh*" scale (Cope, 1997:27) as illustrated in Figure 36 by omitting the third in the horn section. At the same time, on the E shifting tonal centre (see Figure 37). Zaidel-Rudolph's omission of the 3rd suggests a deliberate decision to eliminate the perception of tonality in the passage. The scale is again utilised in bars 202–203, employing downward sequences separated by major 2nd intervals (Figure 38). However, in bars 204–205, the scale is varied by augmenting the last two notes (C# and D#) of the scale (Figure 39), as hinted by Cope (1997:29) concerning other approaches to varying motives to generate melodic lines. Zaidel-Rudolph once again employed sequences separated by, this time around, minor 2nd intervals.

Figure 36: Jewish *Ahavoh-Rabboh* scale excerpt from Cope (1997:27)

The cross marked in the excerpt above indicates the scale without the third as utilised by Zaidel-Rudolph.

Figure 37: Jewish *Ahavoh-Rabboh* scale (3rd omitted) in *Pendulum*

Figure 38: Bar 202–203 (Jewish *Ahavoh-Rabboh* scale in *Pendulum*)

Zaidel-Rudolph features another scale called the "Asian-Bartók" (Cope, 1997:27) from bar 103-105, from which she builds melodic lines (see Figure 40). Again Zaidel-Rudolph omits, this time the fifth note of the scale amid the scale's melodic use (see Figure 41). Since the fifth note introduces the second half of the scale, it implies a "tonal" link from the first half. Hence, the composer's perhaps deliberate decision to omit the note cuts off the listener's tonal perception during the passage. The hint to the scale arrangement is seen in the first four beamed semi-quavers of the left-hand piano passage (marked in blue). The rest of the scales' notes are meticulously distributed amongst the rest of the composer's selected instruments (examples marked in green). Other sections featuring the scale include bars 96–103 (Figure 39).

Several of these scales can be termed "exotic scales" as she frequently creates original scale patterns which do not necessarily align with existing scales.
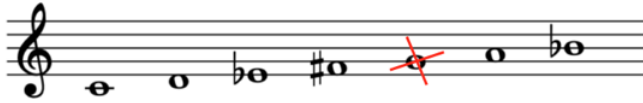
The cross marked in the excerpt above indicates the scale without the fifth as utilised by Zaidel-Rudolph.

Figure 41: Bar 103 (Asian-Bartók scale (5th omitted) in *Pendulum)*

Bars 76–78 comprise the melodic movements accompanied by a parallel voice-leading as shown in the excerpt in Figure 42.

The melody in bars 93–98 (Example in Figure 44) suggests the C Dorian scale amid a quartal harmony background texture, while bars 130-132 suggests the C Ionian scale (Example in Figure 46). Scale formation excerpts from Cope (1997:27) are illustrated in Figure 43 a to c.

Figure 42: Bars 76–78 comprising melodic movements accompanied by parallel voices in other instruments.

Figure 43 a to c: Dorian, Harmonic Major and Ionian scale excerpts from Cope (1997:27)
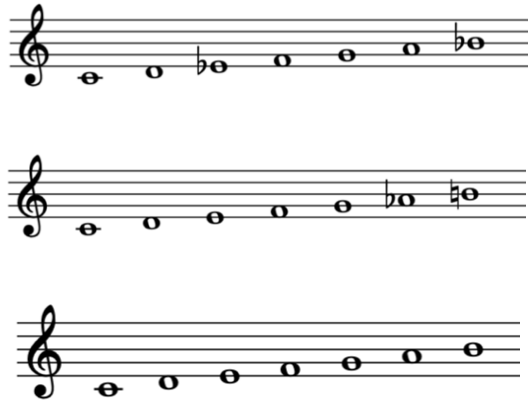
Figure 44: Bar 93 comprising the C Dorian scale in Zaidel-Rudolph's *Pendulum*

Figure 45: Bar 97 comprising the Asian Bartók scale construction

As evident throughout the movement, quartal melody (accompanied by quartal harmonic texture) is again seen at bars 114-129.

Figure 46: Bar 130 comprising the Ionian scale on C

The melodic arrangement in bars 136–138 (semi-quaver groups amongst the strings and piano) suggests the India-*Dharmavati* scale in E. Excerpts of the scale from Cope (1997:27) is illustrated in Figure 47, while an example from *Pendulum* is seen in Figure 48.

Figure 47: India-*Dharmavati* scale excerpt from Cope (1997:27)
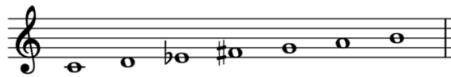
Figure 48: E India-*Dharmavati* scale in *Pendulum*

The Pentatonic scale melody in F (fourth mode) is featured in bar 196 in the flute, oboe, horn and trumpet I sections. An excerpt is illustrated in Figure 49.

Figure 49: F Pentatonic scale (fourth mode) in *Pendulum*

In the **second movement, the** scale materials comprise chromaticism and the diminished (octatonic) scale - the latter mainly arpeggiated. These are so abundant that this study will only select some examples for discussion purposes.

Zaidel-Rudolph utilises the chromatic scale (in an adapted form) in this movement; as seen for example at bar 43 in the bassoon section (Figure 50 a) with the melodic shape comprising the notes of the B chromatic scale from B–F#; bars 38–39 in the *Cor Anglais* melody and bassoon solo (Figure 50 b). The composer explores the use of these scales further to accentuate the evocation of dark, haunting moods. An example of an arpeggiated diminished scale is seen most notably at bar 16 (Figure 51).

Figure 50 a and b: Chromatic scale in *Pendulum* 2nd movement

Figure 51: Arpeggiated diminished scale in *Pendulum* 2nd movement

In the **third movement, the** scale **material** is highly influenced by the composer's African background and comprises mainly modal and motivic passages built on 7th chords - the diminished 7th and major 7th chords. Kostka (2006:28) advises that studying the modes in relation to the major and natural-minor scale patterns is the most effective way to learn them. Furthermore, since not all composers employ modal key signatures, it becomes challenging to identify the scale by determining the tonic and glancing at the key signature (Kostka, 2006:28). Instead, a composer could use a regular major or minor key signature and add the required accidentals to achieve the desired modal scale (Kostka, 2006:28).

For example, at bar 36– 37, Zaidel-Rudolph utilises the Aeolian mode on 'A' in the piano part, as illustrated in Figure 52. However, the inclusion of the D sharp in the passage suggests the note as an auxiliary note. Another section where the composer utilises the Aeolian mode is from bars 29–32 (E Aeolian), accentuated by the trumpet sections. The mode recurs later at bar 86 and 118 on a different tonal centre (G). The E Dorian ♭2 mode is predominantly employed in the movement, recurring on different tonal centres as seen at bars 32–35 in the piano's melodic line (Figure 53). The mode recurs at bars 42–45 on a different tonal centre as A Dorian ♭2, and back to E tonal centre at bar 51– 55. A reappearance on yet a different tonal centre (G) is seen at bar 64, then back to E tonal centre at bar 71. At bar 77, it recurs on C and G at bar 102.

Figure 52: Bar 36 (Aeolian mode in *Pendulum* 3rd movement)

Figure 53: E Dorian ♭2 mode in *Pendulum* 3rd movement
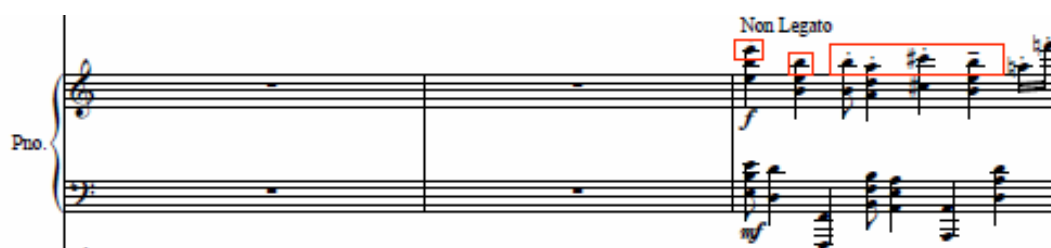
The composer employs melodic passages built on 7th chords, which also serves as a melodic motive due to its recurring pattern in the movement. The resultant effect of its appearances suggests that of suspense, thus leading to points of arrival[60]. In bar 38 (Figure 54), Zaidel-Rudolph employs a 'call-and-response' feature, an essential element in African traditional music.

- **Call-and-response**

According to Stone (2008:10), ethnomusicologists describe musical sounds as pitches (labelled with numbers or letters of the alphabet), but people in Africa often think of these sounds as voices. People, instruments, and birds all use voices, which musicians mimic while performing (Stone, 2008:10). Performers envision one voice singing a part and another responding in a 'call-and-response' exchange (Stone, 2008:10). The conversational metaphor captures several conversations that are the fabric of realization in the concept of call and response (Stone, 2008:10).

Collins (2004:25) further asserts that African music is full of harmonic polarities. The call-and-response of cantor and chorus, or voice and instrument, is one example. For instance, highlife[61] audiences will sometimes clap at intervals one and four, which correspond to the first two strikes of the gahu bell (Collins, 2004:51). This technique establishes a call-and-response relationship between the listener and the three offbeat highlife bells (Collins, 2004:51).

Agawu (2003:248) supports that highlife melody takes numerous forms. It borrows the outline of a familiar melody or hymn tune at the most fundamental level (Agawu, 2003:248). This could be a full tune with a distinct beginning, middle, and end, or it could be a set of fragments, one of which, when sung as the answer in a call-and-response style, stands out as the most unforgettable (Agawu, 2003:248).

Arom (1991:18) states that musical repetition in its most fundamental nature is responsorial or litanical. The soloist sings a sequence of phrases punctuated by the choir with a typically shorter response than the solo utterance (Arom, 1991:18). This response, or consequent, is most frequently sung in unison and may be delivered by a single

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[60] According to Cope (1997:30) point of arrival (or climax) is a significant element in melodic construction, which mostly occurs at the highest, loudest, or longest notes of melodies (Cope, 1997:30).
[61] A famous Ghanaian and West African dance-music (Collins, 2004: 31).

speaker in the last resort: it is often sporadically in intervals of parallel fourths and fifths (Arom, 1991:18). In a dance music situation, for example, the leader, often the vocal soloist, makes the call to which all other performers respond (Arom, 991:13).

Bebey (1975:68) presents a good discussion of call-and-response which buttresses Zaidel-Rudolph's call-and-response utilisation, as discussed in the next paragraph.

In the **third movement,** the 'call' is made (minor 7th arpeggio) by the string section, which is immediately answered by the piano (major 7th arpeggio). Another call is made by the winds (major 7th arpeggio), which is answered by the brass section in an entirely different pattern - one that leads to the point of arrival. A reappearance of the call-and-response feature in different tonal centres is seen at bars 41,56, and 111–112.

Figure 54: Melodic passage built from 7th chords in *Pendulum* 3rd movement

Interesting use of the diminished 7th chord in a melodic passage is seen right at the beginning of the piano introduction. Based on Eb, Zadiel-Rudolph builds a melodic passage by utilising the first three diatonic notes of each note in the Eb diminished 7th chord (**Eb**-f-g-**Gb**-a^b-b^b-**A**-b-c$^\#$-**C**-d-e) as illustrated below.

Figure 55: Melodic passage utilising the diminished 7th chord in *Pendulum* 3rd movement

- **Intervallic relationships**

Pendulum, being based predominantly on select intervals melodically, presents various interval choices. As earlier discussed in this study, Zaidel-Rudolph applies intervallic mixtures to achieve specific results. However, in the **first movement,** the quartal intervallic melody is sounded by the tubular bells. Tenor trombones at the beginning of the movement serve as a unifying factor and ultimately become vertical throughout the movement, previously extended horizontally. In bar 46 (Figure 56), contrasting melodic material is featured in the flute and clarinet parts, emphasising intervallic perfect 4ths.

However, more complex sections of intervallic mixtures are evident in the movement; in bars 48 to 49, for example (Figure 57), Zaidel-Rudolph features intervallic mixtures in the piano comprising horizontal patterns of perfect 4ths and tritones (marked in blue), ultimately resulting in vertical false relation between the notes marked in red. As earlier discussed, Zaidel-Rudolph utilises this technique to mask any appearance of tonality. Another example is in bar 54 (Figure 57 b); the composer utilises vertical intervallic relationships of compound minor and major 7ths (marked in red) and horizontal intervallic relationships of perfect 4ths and tritones (marked in blue). Similar intervallic mixture ideas are found in bars 50–53, 55–58, 60, 62–63 and 64.

Figure 57 a and b: Intervallic mixture

At bar 200, a special section is evident; Zaidel-Rudolph skilfully utilises an intervallic relationship where the piano part effects a passage comprising intervals of minor 3rds (diminished scale) while the violas, cellos, and contrabasses effect a contrary (but supportive) passage comprising major 3rds. The resultant sound effect creates tension leading to a climax into another section in bar 202. An excerpt is illustrated in Figure 58 below.

This technique is carried into the **second movement** where Zaidel-Rudolph employs rapid passages of diminished 7th arpeggios, separated at different intervals, and split either between the left and right-hand parts of the piano or amongst specific instruments.

At bars 10–11, for example, in the piano part, the composer skilfully masks the sonority from tonal perceptions by employing an intervallic relationship of a compound diminished 3rd (D# and F) between the left and the right-hand parts of the piano. The resultant effect, accentuated by other post-tonal elements such as quartal and quintal sonorities, eliminates the tonal perception that could have otherwise occurred (Figure 59). This technique continues from bars 12–13. The composer employs other instruments to play the diminished arpeggios utilising the same intervallic distance and beginning notes of D# and F in their respective pitches. The same technique is employed by the composer in bar 13 on the second beat of the piano but transposed a semitone higher. This new transposition recurs from bars 15 till the second beat of bar 18. The composer employs a similar technique at the following sections; bars 63–65 revealing intervals of a compound major 2nd (bars 64–65 being transposed a semitone higher).

Figure 59: Bars 10–11 (Intervallic relationship in *Pendulum* 2nd movement)

Zaidel-Rudolph further creates identifiable intervallic relationships in the **third movement**; bar 17 (Figure 60 a), for example, between the oboe and the clarinet, features a horizontal intervallic relationship of diminished octaves (marked in red) - also vertical intervallic relationship comprising augmented 3rds (marked in blue) and major 3rds (marked in green). This melodic shape recurs at bar 90 but in different intervallic relationships. As seen in Figure 60 b, the horizontal intervallic relationship comprises major 7ths (marked in red). In contrast, the vertical intervallic relationship comprises tritones (marked in blue) and major 3rds (marked in green).

Figure 60 a and b: Intervallic relationship in *Pendulum* 3rd movement

- **Accompaniments**

Cope (1997:34) states that a melody can imply harmonies by defining (arpeggiating) harmonic functions and adding accents to the notes of a range of chords. To support Cope's statement, in bar 53 of the **first movement** (see example in Figure 61), the upper (outer) notes of the arpeggiated pattern of the piano are accented, forming the melody, which is also doubled by the strings (the violin and the piano playing the same melody). In contrast, the rest of the instruments double the melody at intervals of 4ths. Similar ideas are evident all over the music in bars 48–52, 54, 56–57, 62–64, 76–87, 96–102.

The same technique is found in the **third movement** (none is employed in the **second movement**) at bar 136 (Figure 62). Zaidel-Rudolph places accents on specific notes, which suggests some prominence given to the selected notes to accentuate their melodic importance amid dense sonorities.

Figure 61: Bar 53 (1ˢᵗ movement)

Figure 62: Bar 136 (3rd movement)

Another skilful way Zaidel-Rudolph utilised melody in *Pendulum* is found in bar 15 of the **first movement**. The composer builds a melodic passage built on the C diminished 7th chord. Each note of the chord (C - Eb - F# - A) is foregrounded using crochet beats by specific instruments marked in red (see Figure 63) while other selected instruments (marked in blue) move in chromatic contrary motion from C. Zaidel-Rudolph's utilisation of chromaticism in contrary motion suggests masking the possibility of tonality in the diminished 7th sonority passage. Furthermore, the primary melodic line is found in specific instruments (marked in green); the composer expertly builds the melody on the first three diatonic notes in each note of the diminished 7th chord, i.e., C (c-d-e) / Eb (eb-f-g) / F# (f#-g#-a#) while the last note of the diminished scale is chromatically ornamented with four notes, i.e., A (a-a#-b-c). This arrangement is similarly found in bar 24. The composer builds the melody and chromaticism on the "A" diminished chord while countering the move and masking tonality with chromaticism in the cello section's contrary motion. Another section where the composer utilises the diminished scale is from bar 200–201 in the piano part amid rising 3rds amongst selected instruments (see the "Intervallic relationship section).

Figure 63: Bar 15 (Melody and chromaticism built on the diminished 7th sonority) 1st movement

- **Melodic doubling**

Melodic doubling is another essential feature in twentieth century music that is hugely utilised in *Pendulum*. In the **first movement,** however, there are more specific sections presenting doubling in 3rds; bars 21–23, 26, and 107–111 feature melodic doublings in 3rds as illustrated in Figure 63 a and b below. Zaidel-Rudolph's utilisation of the 3rds suggests creating more tension while ultimately masking any possible tonality in the section as the vertical results are dissonant.

Figure 63 a and b: Excerpts of Melodic doubling in 3rds (1st movement)

This technique is further employed by the composer in the **second movement,** as seen at bar 89 in the piano section (Figure 64), where Zaidel-Rudolph employs falling 3rds in the right-hand part.

Figure 64: Melodic doubling employing falling 3rds in *Pendulum* 2nd movement

In the **third movement**, Zaidel-Rudolph continues to employ melodic doublings in 3rds. The first one is seen at bar 14 in the right-hand of the piano (Figure 65), while subsequent ones are found at bars 17–20, 23, 25–26, 90–93, 96, and finally bars 98–99.

Figure 65: Melodic doubling employing 3rds in *Pendulum* 3rd movement

6.3.2 Harmony (Vertical dimension)

According to Ammer (2004:174), harmonic analysis comprises the study of chords utilised in a musical work and how they are interconnected. However, applying the traditional harmonic analysis methods to post-tonal musical works has become a more arduous task, hence not appropriate due to the harmonic complexities of twentieth century music (Ammer, 2004:174). Kostka (2006:46) contends that the larger part of twentieth century music still utilises fundamental tertian sonorities, but with additions of several chords built from 2nds, 4ths as well as interval combinations. Cope (1997:38) states that the evaluation of interval strengths and roots provides a valuable foundation for creating consistent harmonies and coherent templates for harmonic progression.

Harmony in *Pendulum* features various post-tonal harmonic devices, including quartal and quintal chords, interval exploration - other chords built from other intervals (chromaticism, secundal chords/ tone cluster), whole-tone chords, mixed-interval chords, open-5th chords, and chords with added notes. As much as Zaidel-Rudolph features

these chords, the utilisation and placement of these chords are proficiently executed for specific purposes; further discussed with illustrated excerpts from the work.

- **Quartal and quintal chords**

The utilisation of Quartal and quintal chords make up the more significant part of the **first movement**. These are so abundant that they cannot all be illustrated or pointed out in this study. As a significant characteristic of twentieth century harmony, Zaidel-Rudolph utilised these elements extensively, majorly to mask tonality while maintaining momentum, throughout the movement. Kostka (2006:55) notes that a quartal chord may have about three pitches and more, while the possibilities of omitting some notes of the quartal and quintal chord (while keeping its character) are existent. Quintal chords possess a more open and stable sonority with more space vertically (Kostka, 2006:56). The remarkable feat by Ligeti in his work *Melodien for Orchestra* (1971) whose ten-note quintal chord spans a range of more than five octaves (A♭1 to B6), seen towards the end of the music, deserves a record-breaker for range. Here again is evidence of the influence of Ligeti on the music of Zaidel-Rudolph. As mentioned earlier, her utilisation of quartal and quintal chords are evident all over the movement. However, specific examples have been identified by the author for illustration purposes. In bar 15, for example, Zaidel-Rudolph utilises the quartal and quintal chords both vertically and horizontally. Interestingly, the composer utilises these harmonic elements to mask tonality and avoid the tertian resolutions. Cope (1997:50) supports the notion that since fourths are naturally akin to tertian resolutions, compositions utilising quartal harmony employ a substantial number of fourths to define the interval as a compositional convention and to discourage perceptions of a triadic resolution.

Figure 65: Quartal and quintal chords in *Pendulum* 1st movement

Zaidel-Rudolph continues to utilise quartal and quintal sonorities in the **second movement.** As discussed earlier, these are extensively employed. Hence only one example is given for discussion. In bar 66 (Figure 66), the composer employs both quartal (marked in red) and quintal (marked in blue) sonorities.

Figure 66: Quartal and quintal chords in *Pendulum* 2nd movement

This technique is carried into the **third movement,** as seen below. For example, at bars 30–33, the composer extensively utilises quartal and quintal sonorities as illustrated in

Figure 67. Again, the composer utilises these sonorities to mask every possibility of tonal perceptions.

Figure 67: <u>Quartal and quintal chords in *Pendulum 3rd* movement</u>

- **Chromaticism**

According to Cope (1997:46), interval exploration may be evident vertically, horizontally or in both instances. Vertical utilisation includes stacking, consecutive placement of similar intervals, octave displacement, and inversion as similarly utilised in tertian harmony (Cope, 1997:46). According to Cope (1997:46), the vertical concept is essential due to the options of varying intervals as well as being able to alternate the root position.

As an interval exploration element, chromaticism may be achieved by planing (parallel motion in all parts), or it can evolve from various altered chords found in traditional harmony (Cope, 1997:47).

Zaidel-Rudolph utilises chromaticism ubiquitously in *Pendulum.* In the **first movement**, most notably in bar 95; with a range spanning about four octaves, the composer adeptly employs all the notes of the chromatic scale from D to Db while distributing the notes of

the scale amongst specific instruments; notably, the oboes and clarinets are in quartal harmony, while the left-hand of the piano, as well as the oboes and clarinets, employ chords planing a whole-tone downwards. An excerpt is illustrated in Figure 68. Other sections where the composer employs chromaticism includes bars 142–145.

Figure 68: Chromaticism in *Pendulum* 1st movement

Due to the harmonic structure of the **second movement**, the composer does not feature vertical chromaticism. However, in the **third movement**, Zaidel-Rudolph employs vertical chromaticism through chord planing at bar 14 (Figure 69 a) in the piano part, amid the subtle and thin textural background provided by other instruments. This idea recurs at bar 88, however, transposed at the n interval of a minor 3rd higher. Another interesting example is seen at bars 23–24 (Figure 69 b); the composer employs chromatic passages amongst the flute, oboe, and clarinet sections, and in contrary motion. Again, this idea recurs at bar 96, transposed at an interval of a minor 3rd higher. Other sections where the composer employs vertical chromaticism include bars 25, which recurs at bar 98; also transposed at the interval of a minor 3rd higher.

<u>Figure 69 a and b: Chromaticism in *Pendulum* 3rd movement</u>

- **Mixed-interval chords**

Kostka (2006:62) describes mixed-interval chords as those that are not presented as series of 2nds, 3rds or 4ths but rather a combination of two or more of those interval categories (including their inversions as well as compounds) to further develop chordal complexity in a composition. Kostka (2006:62) advises that the possibilities of mixed-interval chords are quite vast; however, mixed-interval chords could be presented as secundal, tertian, or quartal sonorities, depending on the context where such constructs appear. Such arrangements, however, if found within the context of an atonal composition, would be referred to as mixed-interval chords (Kostka, 2006:63) and otherwise referred to as "added-note chords (Persichetti, 1961:109–120).

In the **first movement** of *Pendulum*, Zaidel-Rudolph employs many mixed-interval chords, mainly originating from non-tonal scales and melodic passages. In bar 103, for example, the Asian Bartók scale (discussed in the "melody" section) serves as the foundation on which the mixed-interval chords (marked in green) are constructed (see Figure 70). The interval mixture comprises 2nds, 3rds, 4ths 5ths, 6ths and 7ths. Other sections where the composer utilised mixed-interval chords include bars 39–40, 65, 104–105, 136–137, 149, 151, 153, 161, 163, 178–179, 182, and 215.

Figure 70: Mixed-interval chords in *Pendulum* 1ˢᵗ movement

Likewise, the **second movement** comprises mixed-interval chords, as seen at bar 6 in the piano part (Figure 71). Other sections in the movement where mixed- interval chords are employed are at bars 14 and 15, 53–58, and 60–62, all in the piano part.

Figure 71: Mixed-interval chords in *Pendulum* 2ⁿᵈ movement

In the **third movement**, Zaidel-Rudolph also features mixed-interval chords. Figure 72 a and b hints at how the composer utilises the mixed-interval chords in the movement. There are several other sections where these chords are further employed - some sections extensively, and others, sparingly.

<u>Figure 72 a and b: Mixed-interval chords in *Pendulum* 3rd movement</u>

- **Secundal chords/tone clusters**

Kostka (2006: 59) describes secundal chords as sonorities constructed from either significant or minor 2nds or both. Cope (1997:50) further adds that secundal chords include both 2nds and 7ths. Due to both interval's tendency to resolve to tertian harmonies, composers utilising these mainly employ a considerable amount of unresolved 2nds and 7ths before proceeding to introduce other nonharmonic intervals. Stacked 2nds, which create thick textural sonorities, are referred to as "clusters" (Cope, 1997:50).

Zaidel-Rudolph utilises secundal chords in the **first movement** of *Pendulum,* as seen in bars 162–163 (Figure 73), where the composer employs secundal chords in strong 2nds.

Figure 73: Bar 163 (Secundal chords in *Pendulum*)

The **second** and **third movements** do not feature secundal (cluster) chords.

- **Open-5th chords**

Referred to by Kostka (2006:54) as the only significant "chord of omission,"[62] the open 5th (amongst various possibilities of added-note chords) stands essential, contrary to the omission of the root, 5th or any note from a 7th chord which ultimately results in nonetheless another traditional sonority. Kostka (2006:54) further hints that the sound of open-5ths have been outdated for centuries, but for its seldom use in two-part counterpoint works. Furthermore, the resulting sound output of the open-5th promptly becomes boring to the listener when used extensively; its extended use is very uncommon (Kostka, 2006: 54). Due to this limitation, Zaidel Rudolph, in the **first movement,** skilfully utilises pure open-5ths (marked in red) extensively by blending the harmony with some quartal intervals (marked in green) at bar 198 (Figure 74) in the piano part, ultimately creating a completely unusual but unique sound, coupled with the melody's intervallic structure of the outer parts. Other sections where the composer sparingly employs the chord include bars 15–18, 24–25, 135, and 168.

There is no feasible utilisation of open-5th chords in the **second movement**, probably due to the movement's overall harmonic structure being built on the diminished 7th sonority. However, in the **third movement,** Zaidel-Rudolph again features the open-5th chords; for example, vertically in the strings (Figure 75), three measures before the end

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[62] According to Kostka (2006:54) the chord of omission comprises the exclusion of a note (specifically the 3rd) from a traditional tertian sonority.

of the work. The red-marked part shows the sonority with auxiliary notes, while the blue-marked part shows unadulterated open-5th sonority as the work concludes.

Figure 74: Open-5th chords in *Pendulum* 1st movement

Figure 75: Open-5ths in *Pendulum* 3rd movement

- **Chords with added notes**

Otherwise referred to as "chords of addition", or "added-note chords" as in Persichetti (1961:109–120), chords with added notes did not become favoured and included as a harmonic element by composers until the twentieth century (Kostka, 2006:49). In addition to the possibility of a triad with the added 6th above the root being existent since way back in the eighteenth century, other added notes (always figured above the root) include 2nds and seldomly 4ths (Kostka, 2006:49). A triad with an added 6th could otherwise be analysed as a 7th chord. In contrast, one with an added 2nd or 4th could be interpreted as an incomplete 9th or 11th chord, specifically the voicing where the added note is above the triad (Kostka, 2006:49). Generally, any chord with an added 2nd or 4th could be presented as added 9th or 11th (Kostka, 2006:49).

In the **first movement** of *Pendulum*, Zaidel-Rudolph utilises chords with added notes (marked in red), as seen notably at bar 149, with a reappearance at bar 151. In the piano part, the composer employs 6ths and 9ths as added notes to the chords resulting in 6/9 (pronounced "six-nine") chords both on the root notes of D and F. An excerpt is illustrated in Figure 76 a. Another notable instance is found in bar 32 (Figure 76 b), where Zaidel-Rudolph employs added notes both horizontally and vertically amongst the selected instruments. The horizontal arrangement comprises the trumpet and violin I sections alternating between added 7ths and 6ths (marked in green). In contrast, the vertical setup (marked in red) comprises notes making up a D♭maj7 chord.

The **second** and **third** movements feature extensive utilisation of chords with added notes; few examples from the piano part are illustrated in Figures 77 and 78 a and b.

Figure 76 a and b: Chords with added notes in *Pendulum* 1ˢᵗ movement

Figure 77: Chords with added notes in *Pendulum* 2nd movement

Figure 78 a and b: Chords with added notes in *Pendulum* 3rd movement

- **Whole-tone chords**

Kostka (2006:63) states that a whole-tone chord is any chord whose parts can be gotten from a sole whole-tone scale with several possibilities. More importantly, however, is the employment of whole-tone chords in passages that are not primarily built on the whole-tone scale since they provide an unusual harmonic colour (Kostka, 2006:63). The latter part applies to Zaidel-Rudolph's utilisation of whole-tone chords in *Pendulum.* For example, the D-flat whole-tone chord in the **first movement,** notably at bar 32, is set up vertically in the strings (marked in green). The composer's employment of the whole-tone chord in this section creates a fleeting harmonic and tone-colour diversion. An

excerpt is illustrated in Figure 79. The whole-tone chord is also featured in the **second movement,** as seen in the example illustrated in Figure 80 below. Likewise, in the **third movement**, Zaidel-Rudolph features the whole-tone chord as illustrated in Figure 81. In this instance, the composer merges the whole-tone chords (marked in red) with the notes in 3rds at intervals of major 7ths, thus creating cross-relations ultimately masking any tonality involved.

Figure 79: Whole-tone chord in *Pendulum* 1st movement

Figure 80: Whole-tone chord in *Pendulum* 2nd movement

Figure 81: Whole-tone chord in *Pendulum* 3rd movement

6.3.3. Rhythm

Rhythm is considered a significant feature in twentieth century music instead of the music of the tonal era (Kostka, 2006:114). In tonal music, the rhythm is relatively simple and easy to follow, so much so, that study of such pieces sometimes makes little or no acknowledgement of the rhythmic component (Kostka, 2006:114). In twentieth century music, the emphasis is at least as often on rhythm as on the pitch, and the surface rhythms are often varying as well as complex (Kostka, 2006:114). However, twentieth century music encounters rhythmic and pulse constraints relating to music's organisation into "measure-sized units," which results in beat patterns and 'weak beat-strong beat' metric pulses (Cope, 1997:89). As a result, composers sought new possibilities to free themselves from metric constraints and to express their rhythmic ideas (Cope, 1997:89). These are further discussed in the following paragraphs.

- **Meter changes, composite meters and non-traditional time-signatures**

Meter changes and composite meters are two of the most obvious ways of evading the regularity enforced by meters (Cope, 1997:90).

Zaidel-Rudolph utilises the concept of meter changes throughout *Pendulum*. In the **first movement**, most notably at bars 32–36 (Figure 82). The composer employs alternating metric changes between 7/4 and 5/4, thus avoiding traditional rhythmic and metric normalcy and regularity. The same applies to the **second movement** in which the composer alternates between 4/4 and 5/4 (Figure 83), and the **third movement**, where the composer similarly alternates between different meters - 4/4–12/8–6/8–13/8. An example is illustrated in Figure 84.

Figure 82: Meter changes in *Pendulum* 1ˢᵗ movement

Figure 83: Meter changes in *Pendulum* 2ⁿᵈ movement

Figure 84: Meter changes in *Pendulum* 3rd movement

Composite meter is employed by the composer only in the **third movement** at bar 4 (Figure 85 a) and bar 42 (Figure 85 b). The 12/8 meter is subdivided into a 5+7 rhythmic pattern as indicated by the composer, which again ultimately eludes traditional rhythmic elements as discussed earlier regarding the application of meter changes.

Figure 85 a and b: Composite meter in *Pendulum* 3rd Movement

Non-traditional time-signatures are evident throughout *Pendulum*, so much so that it is impossible to illustrate all in this study. Zaidel-Rudolph employs non-traditional time-signatures with frequent values like 5, 7, 8, 13, 15 etc. Kostka (2006:118) states that most examples of non-traditional meters can straightforwardly be heard as changing meters, as discussed earlier under this section.

- **Isorhythm**

Also, isorhythms[63] help reduce the influence of bar lines and weaken their pattern restrictions while maintaining the ensemble's precision (Cope, 1997:90). In *Pendulum,* however, isorhythmic elements are used by the composer, though sparingly, perhaps due to the frequent metric changes throughout the work, which ultimately significantly reduces the possibilities of employing extensive recurring rhythmic patterns.

In the **first movement**, a notable example of isorhythm is seen at bar 15 (Figure 86), featuring the piano's introduction. That same rhythm recurs at bars 16, 24, and 198–199, respectively. In the **second movement,** however, the most notable isorhythmic feature is found in the two quarter-note rhythms in the bassoon, right from the beginning of the movement. As discussed earlier, the composer refers to as the "heartbeat." An illustration is found in Figure 87, where the violin II and contrabass sections also adapt the rhythm as the work proceeds. Isorhythm is also featured in the **third movement,** as illustrated in Figure 88.

Figure 86: Isorhythm in *Pendulum* 1st movement

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[63] According to Kostka (2006:133), the term isorhythm refers to a recurring rhythmic pattern at different pitches. The pitches may or may not form a repetitive pattern of their own, but if that happens, the duration may be different from the rhythmic pattern (Kostka, 2006:133). The word ostinato is used instead of isorhythm, where the rhythm and pitch rhythms are the same (Kostka, 2006:133). Isorhythm is a comparatively rare musical device in the twentieth-century, but it can be quite effective (Kostka, 2006:133).

Figure 87: Isorhythm in *Pendulum* 2nd movement

Figure 88: Isorhythm in *Pendulum* 3rd movement

• **Cross-rhythm**

The use of cross-rhythms also alleviates the effects of internally inferred accents (Cope, 1997: 91). Kostka (2006:120) discusses three possibilities of polymeter - the utilisation of the same time-signature but displaced; employing different time-signatures with corresponding barlines; lastly, different time-signatures with contrasting barlines.

In the **first movement** of *Pendulum*, an example of cross-rhythm is evident at bar 76 (Figure 89) in the piano section; the top line does sound in 12/8 meter (marked in green); like a "perceived rhythm",[64] thus creating a cross-rhythm against the lower line's 6/4 (marked in red). Other notable sections where cross-rhythm is utilised are bars 81–87 and 163. The **second movement** suggests no utilisation of cross-rhythm. In the **third movement,** however, like the example in Figure 89, the cross-rhythm at bar 43 (Figure 90) presents a perceived rhythm of 6/4 amongst the piano and the strings sections, against the actual 12/8 rhythm played by the flute section.

Figure 89: Cross-rhythm in *Pendulum* 1st movement

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[64] According to Kostka (2006:116), the discrepancies between how the rhythm is heard and how it is written are prevalent in the twentieth-century's music. The disparity between written and perceived rhythms frequently emerges out of consideration for the performer.

Figure 90: Cross-rhythm in *Pendulum* 3rd movement

- **Non-retrogradable rhythms**

Kostka (2006:128) discusses non-retrogradable rhythm as a rhythmic pattern that produces the same effect regardless of it being played forward or in retrograde. However, non-retrogradable can be affected by a rhythmic pattern followed by its retrograde, which ultimately results in a rhythmic palindrome[65] (Kostka, 2006:129). Hence, the employment of large scale rhythmic retrogrades in a musical work could also be referred to as an example of non-retrogradable rhythms.

Zaidel-Rudolph employs non-retrogradable rhythms sparingly in *Pendulum*. In the **first movement,** the first appearance of a non-retrogradable rhythm is seen at bar 3 in the trombone section (Figure 61). Another section includes bar 186 (clarinet and bassoon sections). In the **second movement**, an example of a non-retrogradable rhythm is seen at bar 61 (Figure 92), while in the **third movement**, an example is seen at bar 103 (Figure 93).

Figure 91: Non-retrogradable rhythm in *Pendulum* 1st movement

Figure 92: Non-retrogradable rhythm in *Pendulum* 2nd movement

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[65] According to Kostka (2006:129), a palindrome refers to any language or musical structure that reads the same way both forward and backward.

6.3.4. Texture and timbre

Texture and timbre are two aspects of music significant to twentieth century composers' compositions (Kostka, 2006:222). The term timbre refers to the tone colour of a specific instrument or a group of instruments, and twentieth century timbral ranges of both have dramatically developed (Kostka, 2006:222). The definition of texture is a little problematical to describe, albeit the general perception of its definition is clear. An assumption of texture refers to the relationship between sections (or voices) at any time in composition; it mainly involves the relationship between rhythms and contours, but it also deals with spacing and dynamics (Kostka, 2006:222). The line between timbre and texture is rarely ambiguous, particularly when a large ensemble is involved (Kostka, 2006:222).

Some experimentation of new timbres and textures, particularly the former, was partly the product of jazz and folk music, oriental and Latin American music from outside influences (Kostka, 2006:222). Few truly modern instruments in this century have been invented and successfully introduced, most of the exceptions being percussion instruments (for example, the vibraphone) (Kostka, 2006:222).

In the twentieth century, composers wanted performers to learn many different generating sound methods with conventional instruments, so many that it is either irrelevant or impossible to cover in this discussion. One challenge at this stage that has not been fully solved is how all these new methods should be notated while improvement is being made as successful approaches are recognised and imitated (Kostka, 2006:223).

All musicians, regardless of instrument, have been expected to use such methods, such as tapping on the instrument or another surface, whistling, and a wide range of voice sounds (Kostka, 2006:223).

- **Wind instruments**

Any wind techniques used in contemporary scores are not entirely modern but represent an intensification or growth of previous uses, including mutes and glissandi, for example (Kostka, 2006:223). The brasses employ a broader spectrum of mutes than in the past, many of which are jazz-inspired, and the woodwinds have been muted in several ways (Kostka, 2006:223). The "bend," which may be called a form of glissando, is also a jazz innovation (Kostka, 2006:223).

The flutter-tongue and the enharmonic trill are other methods often associated with jazz, in which the singer alternates between two fingerings for the same pitch rapidly (Kostka, 2006:223). Removal of the mouthpiece enables performance without the rest of the instrument on the mouthpiece alone or performance without the mouthpiece only on the rest of the instrument (Kostka, 2006:223). Wind players are often needed to create breath sounds rather than pitches through their instruments, and in some cases, to sing and perform simultaneously (Kostka, 2006:223).

Zaidel-Rudolph, however, does not feature any special wind techniques in *Pendulum.*

- **String instruments**

A wide range of special effects can be found in today's string repertoire. In some instances, these instruments, including the winds, were not invented by twentieth century composers, but they are relatively popular in contemporary scores (Kostka, 2006:225). This includes mutes, open strings, natural and artificial harmonics, nonstandard tunings (scordatura), several stops, and glissandi (Kostka, 2006:225).

In addition to the regular *pizzicato*, left-hand *pizzicato*, snap *pizzicato*, nail *pizzicato*, buzz *pizzicato* (string vibrates against fingernail), plectrum *pizzicato* (use of a guitar pick), and strumming have been created (Kostka, 2006:225). Silent fingering is a *pizzicato* technique in which the musician only uses his left hand to finger the notes, resulting in a subtle, semi-pitched sound (Kostka, 2006:225).

*Tremol*ando, bowing with the wood, *sul ponticello*, different kinds of rebounding bow strokes, and non-pitched bowing are among these contemporary techniques. The aim is to create a scratchy sound rather than a pitch, all traditional bowing techniques in twentieth century music (Kostka, 2006:226). The player may bow at the bridge, over the

fingerboard, or combine the two in circular bowing, in addition to bowing on the regular part of the line (Kostka, 2006:226). Other parts enable the performer to bow between the bridge and the tailpiece, under the strings, or on the instrument's frame (Kostka, 2006:226). The string techniques in Penderecki's *Threnody: To the Victims of Hiroshima* (1961) are well-known (Kostka, 2006:226).

New approaches have also been created for stringed instruments typically played by plucking, such as the banjo, guitar, mandolin, and, most notably, the harp (Kostka, 2006:228).

In the **first movement** of *Pendulum,* Zaidel-Rudolph applies some of the above-mentioned special effects from the regular *pizzicato*[66]–which is extensively employed throughout the movement, starting with the first appearance at bar 7 employed in the viola and contrabass sections (Figure 94)–to a more specialised *pizzicato* at bar 136 which the composer indicates as "Bartók *pizz.*"[67] (Figure 95). Other notable effects include *Sul ponticello*[68] (abbreviated "*sul pont.*") employed at bar 42 in violins I and II (Figure 96); and lastly, tremolo[69] employed in specific sections, most notably at bar 66 in the violin, viola and cello sections (Figure 97).

Some of the techniques mentioned earlier are also featured in the **second movement** of *Pendulum*, including the regular *pizzicato*, snap *pizzicato* (Bartók *pizz.*), specifically at bar 51–52 in the contrabass section (Figure 98). The **third movement** also features some unusual techniques, including the regular *pizzicato* and the Bartók (and snap) *pizz.* from bars 41–42 in the cellos and contrabasses (Figure 99 a and b).

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[66] A term requires the player to pluck the string rather than bowing (Back & Gerou, 1998:16). According to Black and Gerou (1998:16), the abbreviation pizz. must be specified at the stage in the music where the technique is needed. The term *arco* is used to cancel and return to the use of the bow (Back & Gerou, 1998:16). An up-bow *arco* makes it easier to tackle a pizzicato, and if the passage starts with a down-bow, it is better to enter the *arco* and leave pizzicato (Back & Gerou, 1998:16).

[67] The Bartók *pizzicato* is also known as the "snap *pizzicato*" (Black & Gerou, 1998:17). The technique is accomplished by plucking a string hard enough to allow it to snap back against the fingerboard, creating a percussive tone (Black & Gerou, 1998:17).

[68] Black and Gerou (1998:20) describe *sul ponticello* as bowing near the bridge, which creates an eerie, raspy, metallic-sounding effect (rich in dissonant overtones). It can be played at any dynamic level and with any bowing technique (Black & Gerou, 1998:20). To initiate the effect, indicate *sul ponticello*, which means near the bridge, and the result would be cancelled if the words usual (norm.) or ordinary (ord.) are used (Black & Gerou, 1998:20). However, Zaidel-Rudolph indicated a "nat." at bar 43, which suggest the abbreviation for "natural.""

[69] Black and Gerou (1998:14) note that tremolos can be employed as being measured or unmeasured. Measured tremolos display a specified number of repeated notes, while unmeasured tremolos are only displayed with slashes (Black & Gerou, 1998:14–15). Both methods, however, require rapid bowing (Black & Gerou, 1998:20).

Figure 94: *Pizzicato* in *Pendulum* 1st movement

Figure 95: Bartók *pizzicato* in *Pendulum* 1st movement

Figure 96: *Sul ponticello* in *Pendulum* 1st movement

Figure 97: Unmeasured tremolo in *Pendulum* 1st movement

Figure 98: Snap *pizzicato* in *Pendulum* 2nd movement

Figure 99 a and b: Bartók (Snap) *pizzicato* in *Pendulum* 3rd movement
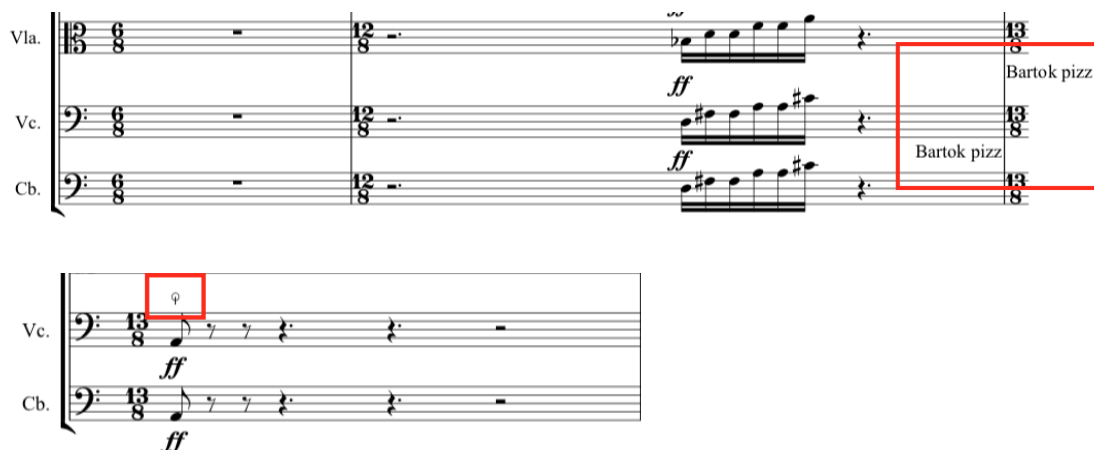
- **Percussion instruments**

The vastly expanded role of percussion is one of the most significant innovations in twentieth century music (Kostka, 2006:228). The orchestra's percussion section has evolved from a single timpanist to a varying number of musicians playing an ever-expanding variety of instruments (Kostka, 2006:228). Some percussion instruments are entirely new, but the rest were already in use in Western music (for example, in bands or folk music) or in other cultures' music (Kostka, 2006:228).

Composers became free to use sounds made from ordinary objects; a resonant piece of furniture pounded with a club, silk and sheets of paper ripped apart, a metal tray filled with dishes only to be broken, a wooden bowl filled with marbles to be shaken, and a tree stump to be axed (Kostka, 2006:229). Traditional percussion instruments are now played in new ways; most of these consist of unconventional methods of striking the instruments (rim shots, dead-stick strokes), unconventional beaters (wire brushes, knuckles), and striking the instrument in unconventional places (the casing, tuning screws) (Kostka, 2006:229). Another exciting technique is using a string-bass bow to produce sounds from cymbals and gongs (Kostka, 2006:229). The percussion ensemble

is one of the more crucial new ensemble types created in the twentieth- century (Kostka, 2006:229).

In the **first movement** of *Pendulum*, Zaidel-Rudolph employs unconventional use of percussion; the composer employs a whip as part of the percussion setup while utilising the same whip on the cymbals instead of a beater (See Figure 100 a and b).

Figure 100 a and b: Unconventional use of percussion in *Pendulum* 1st movement
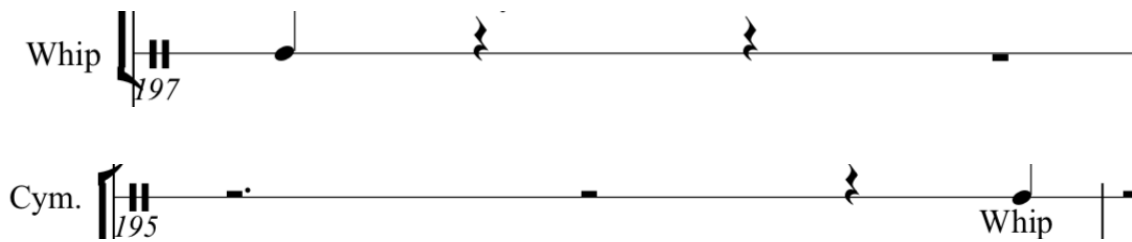
The **second movement** does not feature any unconventional utilisation of percussion. However, in the **third movement**, Zaidel-Rudolph employs the whip yet again, as illustrated in Figure 101.

Figure 101: Unconventional use of percussion in *Pendulum* 3rd movement
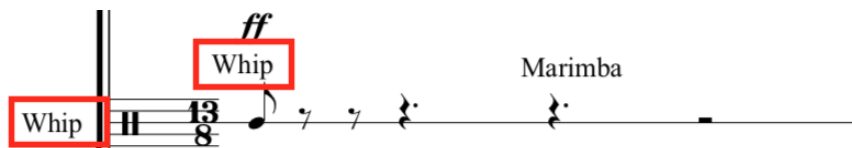
- **The Piano**

Many composers experimenting with new sounds also considered the piano to be an incredibly fertile ground (Kostka, 2006:231). Clusters, as discussed in this study, were initially just a keyboard device; early examples include Henry Cowell's *The Tides of Manaunaun* (1912) and *Charles Ives' Piano Sonata No.2 (Concord)* (1915), all of which call for the cluster to be generated with a board (Kostka, 2006:231). Diatonic (white keys), pentatonic (black keys), and chromatic piano clusters are the most common (Kostka, 2006:231).

A prepared piano, in which items are put on and between the strings before the performance, achieves a much more drastic modification of the piano's timbre (Kostka, 2006:231). While there have been precursors dating back to Ravel, Cage's *Bacchanale* (1938) is generally regarded as the first piece for prepared piano. *Sonatas and Interludes* (1948), a collection of sixteen "sonatas," each in two-reprise form, with four interludes, is perhaps Cage's most famous composition for prepared piano (Kostka, 2006:231). A comprehensive collection of guidelines describes how to prepare 45 of the 88 available notes using bolts, screws, and hard rubber and plastic parts (Kostka, 2006:231). The resulting sounds are difficult to explain. Some are percussive, others tinny, and still, others sounding like gamelan gongs (an early example of Cage's oriental influence), and the score itself provides no hint of how these pieces sound (Kostka, 2006:231).

The pianist plays clusters and prepared notes from the keyboard, but certain specific methods enable the player to reach into the piano (Kostka, 2006:231). Plucking, striking and scratching the strings with fingertips, fingernails, drumsticks, and other instruments are examples (Kostka, 2006:231). Henry Cowell was a pioneer in this field as well, with works such as *Aeolian Harp* (1923) and *The Banshee* (1925) (Kostka, 2006:231). Hand muting and piano harmonics are also possible, pulling threads through the strings to make interesting sounds (Kostka, 2006:231). Another way to get sounds from the piano is to play another instrument into it while depressing the damper pedal, which creates sympathetic vibrations of some parts of rings (Kostka, 2006:231).

In *Pendulum*, Zaidel-Rudolph employs the piano's traditional uses, but at the zenith of a twentieth century soundscape.

- **Instrumentation and orchestration**

The orchestra, string quartet, piano trio, and other traditional ensembles were famous in nineteenth-century music (Kostka, 2006:232). Although both variations are still in use, their influence over the compositional scene has waned (Kostka, 2006:232). For one thing, it is now customary to incorporate or subtract instruments as the musician sees fit to produce the desired sound; saxophones, wind machines, and a plastic piano, for example, may be used in an orchestra (Kostka, 2006:232). Composers' interest has been drawn to various recent "standard" ensembles. One of these, the percussion

ensemble, has already been mentioned; the chamber orchestra, concert band, and woodwind ensemble are among the others (Kostka, 2006:232). However, there are a variety of works that need an ad hoc ensemble–one that is original or nearly unique to the composition (Kostka, 2006:232). Among the numerous examples are Debussy's Sonata for Flute, Viola, and Harp (1916) and Crumb's Madrigals, Book I, for soprano, vibraphone, and contrabass (1965) (Kostka, 2006:232). Many compositions, such as Stockhausen's *Sternklang* (Star-Sound) (1971), for five groups of musicians, each consisting of four instrumentalists or singers and a percussionist, leave the instrumentation unidentified (Kostka, 2006:232).

Zaidel-Rudolph has similarly employed unusual instruments in her orchestral pieces such as the chopi piano, African drums as well as a whip (employed in *Pendulum*) to name but a few (Personal communication, 12 September 2022). Nonetheless, the symphony orchestra is used in many twentieth century compositions, and the following paragraphs will address some of the new orchestration techniques (Kostka, 2006:232). The widening of the percussion section, both in terms of the number of performers and, most significantly, the range of instruments used, has been a significant development (see the section on percussion above) (Kostka, 2006:232). Traditional orchestral instruments are required to perform in a much broader range than before; the normal orchestral range has been raised from around 5 1/2 octaves to 7 1/2 octaves and beyond (Kostka, 2006:232). The standard spacing of a sonority, with broad intervals at the bottom and equal distribution in the middle and high registers, is now considered only one of many choices (Kostka, 2006:232). Stravinsky's Symphony of Psalms' opening chord is a prominent example of unorthodox spacing (Kostka, 2006:232).

The nineteenth-century preference for heterogeneous doublings–that is, doublings involving two or more of the three main instrumental choirs–has been discarded in favour of rich colours in many pieces. The use of **multiple *divisi*** in the strings indicates a greater reliance on orchestral players as potential soloists. Doubling often necessitates irregular pairings or spacing (Kostka, 2006:232).

Zaidel-Rudolph's employment of multiple *divisi* in the **first movement** of *Pendulum* is worthy of mention. The composer employs *divisi* in the strings for specific purposes, with the first appearance at bar 19 amongst violins I and cellos (Figure 102). The effect of the *divisi* by the composer suggests a commanding sonorous response to the antecedent

phrase - principally by the piano in the same bar. Other sections where the composer employs *divisi* are bars 28, 34–36, 38–40, 82–89, 102–105, and 107–111.

In the **second movement** of *Pendulum*, Zaidel-Rudolph employs multiple *divisi* in the strings section to further accentuate the "*misterioso"* effect as indicated by the composer. An excerpt is illustrated in Figure 103. The **third movement** also features the use of multiple *divisi,* as illustrated in Figure 104.

Figure 102: Multiple *divisi* in *Pendulum* 1st movement

Figure 103: Multiple *divisi* in *Pendulum* 2nd movement

Figure 104: Multiple *divisi* in *Pendulum* 3rd movement

Of necessity, **octave doubling** is an integral aspect of standard orchestration (Kostka, 2006:233). Without a few octave doublings, it was virtually difficult to score a triad for full orchestra, and bass and melody lines were sometimes doubled at the octave (Kostka, 2006:233).

Zaidel-Rudolph's employment of octave doublings are encountered at several parts of the composition. However, for discussion purposes, the composer's employment of the fleeting octave doublings in the **first movement** at bar 15 (Figure 105) suggests an apparent intention to create more volume and texture (accentuated by the crescendo signs) to achieve a dramatic *tutti* effect leading to a modulated sonority with the *tutti* on the first beat of bar 16 (accentuated by the "*f*" sign).

<u>Figure 105: Octave doubling in *Pendulum* 1st movement</u>

Octave doubling, mainly amongst the cellos and contrabasses, is also featured by the composer in the **second** and **third movements**.

However, regardless of the medium, octave doublings were usually avoided in atonal and serial music, particularly by Schoenberg and his disciples, giving their orchestral music a distinct tone (Kostka, 2006:233). Schoenberg's idea of **_Klangfarbenmelodie_**, or "tone-colour melody," in which timbre progressions are analogous to pitch successions in a melody, is probably his most far-reaching achievement (Kostka, 2006:233). To others, *Klangfarbenmelodie* has come to mean "the principle of maximum variety of

colour." Perhaps a reasonable definition of tone-colour, according to Kostka (2006:234) will be, "the constant re-orchestration of a line or sonority as it proceeds through time."

Zaidel-Rudolph exceptionally applies *Klangfarbenmelodie* in the **first movement** of *Pendulum*, notably from bars 30–38. For discussion purposes, the excerpt in Figure 106 below shows the composer's utilisation of tone-colour coupled with contrapuntal texture amongst the selected instruments, ultimately resulting in a subtle sound output that highlights each selected instrument's timbre while at the same time blending the instruments to create a rich tone-colour and melodic passage.

Another befitting description of Kostka's (2006:234) definition of *Klangfarbenmelodie* is seen in the **second movement** of *Pendulum* from bar 30–33 (Figure 107); Zaidel-Rudolph presents block of sounds that are constantly re-orchestrated as they move on to different shifting tonal centres and alternate tone-colours. Although subtle in dynamics, the texture simultaneously remains thick, ultimately creating a sound-sphere that creates a profoundly intense emotion being perceived by the listener. However, the third movement does not suggest any form of *Klangfarbenmelodie,* perhaps due to the relatively rigid rhythmic and formal construction of the movement.

Figure 106: *Klangfarbenmelodie* in *Pendulum* 1st movement

Figure 106: *Klangfarbenmelodie* in *Pendulum* 2nd movement

Texture is a rather vast term when applied to the concept of music and can mean different things in different contexts. Although the different aspects of texture are

discussed in the following paragraphs, its relevance to *Pendulum* will be from a selection of the following aspects.

According to Ammer (2004:427), texture is the relationship between the different notes in a musical work, both when they sound together (vertical texture) and one after the other (horizontal texture). The harmony, or vertical texture, refers to the chords created by individual notes. In contrast, horizontal texture refers to the melodies produced by successive notes, not only in the main voice part but in all voice sections (Ammer, 2004:427). Cope (1997:102) supports the views of Ammer that the number of horizontal lines (melodies) and the length and separation of vertical lines are used to define texture (chords). It may also refer to the order in which chords are played (Ammer, 2004:427). Contrapuntal or polyphonic texture defines music in which many voice parts have approximately equal significance (Ammer, 2004:427).

Cope (1997:99) contends, however, that **density** is the most fundamental indicator of texture. Texture comes from a mixture of pitch, timbre, and length and is typically determined by density (Cope,1997:99). Texture may be as **thin** as a single pitch or as **thick** as a broad aggregate of pitches (Cope,1997:99). Before the twentieth century, textures were conceived in terms of one to eight (rarely more) simultaneous pitches shifting in a reasonably regular metric pattern of typically static timbres (Cope,1997:99). Contemporary composers have generalized these principles to include a more expansive vocabulary of sounds, from single notes to dense sound densities (Cope,1997:99).

Textural **density** in the **first movement** of *Pendulum* appears both **thin** and **thick**. For discussion purposes, bar 36 presents a thin texture (Figure 107); within a subtle dynamic level, the *Cor Anglais* plays the melodic line while flute, clarinet, bassoon and horn sections provide subtle background texture to support the melodic line. Thus, this fleeting textural diversion prepares for a sudden entry of a thick texture on the last beat of bar 38, accentuated by dynamic signs and leading into the alternate thick texture from bar 39 (Figure 108).

Figure 107: Thin textural density in *Pendulum* 1st movement –bars 33 to 35

Figure 108: Thick textural density in *Pendulum* 1st movement –bars 36 to 37

In the **second movement** of *Pendulum*, textural density also appears both **thin** and **thick**. The beginning of the movement, for example, presents a thin texture (Figure 109), which gradually develops dramatically and transforms into the thick texture at bar 20 (Figure 110).

Figure 110: Thick textural density in *Pendulum* 2ⁿᵈ movement

Textural **density** in the **third movement** appears primarily thick**.** Like the previous movement, however, it begins thin and then develops into a thick texture as the composer calls for more instruments.

Figure 111: Thin textural density in *Pendulum* 3rd movement

Figure 112: Thick textural density in *Pendulum* 3rd movement

Kostka (2006:236) argues that traditional textures such as monophony, **homophony**, and **contrapuntal** textures - the latter buttressing Ammer (2004:427) - still exist while

giving the possibilities of analysing twentieth century music using the categories mentioned above.

Both homophonic and contrapuntal textures are evident in *Pendulum*. Being an orchestral work, various sections present melody with accompaniment and chordal textures - both characteristics of homophonic texture. Furthermore, several relatively independent lines are both imitative and free - both characteristics of contrapuntal texture.

In the **first movement,** an example of homophonic texture is presented at bar 76, suggesting the composer's intent to introduce a new section, affirmed by the performance direction indication (*poco meno mosso*) and tempo change (♩ =134) by the composer. The oboe and the right-hand part of the piano present the melody, while the strings section provide the background accompaniment (Figure 113).

The **second movement** also presents homophonic texture, as seen at bar 37 (Figure 114). While the bassoon and the *Cor Anglais* present melodic lines, the selected instruments provide background accompaniment.

The **third movement** does present homophonic texture; the section at bar 72 presents the piano melody above blocks of chords while the left-hand of the piano and the strings provide the background accompaniment (Figure 115).

Figure 113: Homophonic texture in *Pendulum* 1st movement

Figure 115: Homophonic texture in *Pendulum* 3rd movement

Contrapuntal texture is presented in the **first movement** of *Pendulum* as seen (for example) in bar 32 (Figure 116). Zaidel-Rudolph employs the selected instruments, playing independent and imitative lines, thus shifting the listener's attention for a fleeting moment before reintroducing new textural characteristics in subsequent sections. In the **second movement**, an example of contrapuntal texture is seen at bar 46 in the winds (Figure 117), with independent melodic lines though in a unifying blend. The **third movement** is largely contrapuntal in style.

Figure 116: Contrapuntal texture in *Pendulum* 1st movement

Figure 117: Contrapuntal texture in *Pendulum* 2nd movement

Compound textures are those that are made more complex by harmonizing the individual lines (Kostka, 2006:236). Compound textures are abundant in Debussy's music, but they can also be found elsewhere (Kostka, 2006:236).

Zaidel-Rudolph employs compound textures in the **first movement** of *Pendulum,* as seen at Bar 39, for example. This is also evident in the **second movement,** as seen, for example, in the piano part at bar 60 (Figure 119), while in the **third movement**, a clear example is found at bar 30 in the brass section (Figure 120).

Figure 118: Compound texture in *Pendulum* 1st movement

Figure 119: Compound texture in *Pendulum* 2nd movement

Figure 120: Compound texture in *Pendulum* 3rd movement

Kostka (2006:239) further points to stratification utilisation (briefly discussed earlier in this study) - any abrupt change of texture or basic sound. A good example is seen in the **first movement** of *Pendulum*; at bar 65, the composer brings the previous texture to a sudden halt by "*sforzando*" and "fortissimo" dynamic indications in the *tutti* while immediately introducing another at bar 66, accentuated by the "*subito pp*" dynamic sign (Figure 121 a and b).

In the **second movement,** an example is seen at bar 22–24; the music builds up to bar 22 and then changes its texture and sound at bar 23–24, effecting an immediate calmness from the previous texture and dynamic.

In the **third movement,** a good example of textural stratification is seen initially; the piano's acceleration and crescendo from bars 1–3 climaxes at bar 4, only to be suddenly cut off by introducing a subtler dynamic level in a thin texture accentuated by the dynamic signs.

Figure 121 a and b: Textural stratification in *Pendulum* 1st movement

Figure 122 a and b: Textural stratification in *Pendulum* 2nd movement

Figure 123 a and b: Textural stratification in *Pendulum* 3rd movement

However, the idea of stratification is akin to compositions where contrasts of texture or timbre are the primary elements in shaping the form of the work (Kostka, 2006:239). This will be further discussed under "Form structure" in *Pendulum.*

6.3.5. Form structure

Because of the absence of any conventional tonality, musical form has taken a different approach where many compositions have no "themes" and tonal era practices (Kostka, 2006:239). Other elements must be used to shape a composition—to give it form—in the absence of tonal and thematic potencies (Kostka, 2006:239). In various twentieth century compositions, the primary form-determining factor is texture, typically with a great deal of support from dynamics, timbres and registers (Kostka, 2006:239). Regarding Kostka's views, as discussed above, the author deems it fit to discuss *Pendulum*'s formal structure based on **texture**, **dynamics** (where necessary), and **tempo indications** as form determinants. These are discussed in the following paragraphs.

Form structure in the **first movement** are as follows:

Section	Bars	Content
Introduction	1-6	The **texture** is thin, with light contrapuntal elements employed by the composer. It effects a clearer and more obvious introduction. The **dynamic** levels are generally loud, which suggests the composer's intent (as discussed earlier in the study) to accentuate the introductory "clarion call" by employing the tubular bells and trombone (with loud dynamic levels) to sound the main motive of the movement. The composer begins the movement with a **tempo indication** of 132 BPM. Changes to the tempi are further discussed. This further accentuates the "clarion call" effect portraying the hurriedness of people congregating in response to the "call".

| Introduction cont'd | 7-14 | The other sections of the orchestra, join in the continuation of the introduction while the motive further sounds amid a moderately thick **texture**.

The **dynamic** level increases as more instruments are introduced with loud dynamic indicators. This suggests that the composer is about to introduce a new section, which is accentuated by the acceleration of **tempo** with the "accel" sign from bar 13. |
|---|---|---|
| A1 | 15-21 | The piano is introduced as the **texture** thickens.

The **dynamic** sign "*sforzando*" in the string section on the first beat of bar 15 suggests a preparation to the link.

The **tempo** indication of 140 BPM at bar 15 further accentuates the entrance of a new section. |
| Link | 22-23 | A short passage to prepare the entrance of the next section.

The **texture** again is thinned out but is rhythmically complex, suggesting a preparation for a thick texture in the next section.

The presence of the **tempo** alteration sign "*poco rit.*" Bar 23 accentuates the progress into another section. |
| A2 | 24-29 | The variation of the previous "A" section with the piano as the principal character.

Texture returns to alteration between thick and thin.

The composer again utilises the **dynamic** sign "*sforzando*" in the wind section on the first beat of bar 24, suggesting the beginning of a new section.

The **dynamic** level is maintained, except for bar 29 with the soft dynamic indications, which suggests moving into a different section.

The tempo indication returns to 140BPM, which further suggests the beginning of a new section. |

Link	30-38(6)	A short passage to prepare for the entrance of the next section. The **texture** again thins out as the composer employs the solo C*or Anglais* amid subtle contrapuntal textures. The **dynamic** level softens, indicating a fleeting passage into another section. Although the **tempo** remains at its current state, the composer's utilisation of long note values in the background instruments presents a slow-paced tempo.
A3	38(7)-40(6)	Another variation of previous "A" sections with the piano as the principal character. The **texture** returns to alternating between thick and thin. The composer again utilises the **dynamic** sign "*sforzando*" in the woodwind section on the last beat of bar 38, suggesting a new section. Although the **tempo** remains at its current state, the composer's excessive utilisation of triplets presents the perception of a fast-paced tempo.
Link	40(6)-45	A short passage to prepare for the entrance of the next section. **Texture** remains relatively thick and gradually becomes thinner as the composer releases some instruments and reduces the **dynamic** level to '*piano*' in preparation for the next section. **Tempo** is maintained. However, at bar 45, the composer indicates a "*poco accel.*" indicating an upcoming change into a new tempo and section.
B	46-65	The piano is reintroduced with new material, suggesting a new section, further accentuated by this section's greater length compared to previous sections.

		The **texture** is now relatively thin in support of the principal character (piano) being in the foreground for this section.
		The *sforzando* sign on the first beat of bar 65 with the *tutti* signifies the section's end.
		The **tempo** indication of 156 BPM at bar 46 further suggests the beginning of the new section.
Link	66-75	A relatively short passage to prepare for the entrance of the next section.
		Texture becomes thin with a soft **dynamic** level at the beginning parts. However, the dynamic level shifts into loud from bar 72 as the music proceeds to the next section. The *sforzando* sign on the first beat of bar 75 in selected instruments signifies the section's end.
		Although the **tempo** remains at its current state, the composer's excessive use of *tremolos* presents the illusion of a fast-paced tempo.
C	76-87(5)	The beginning of a new section as indicated by the performance direction sign "p*oco meno mosso."*
		Texture alternates between thin and thick with a steadily soft **dynamic** level. The **tempo** indication of 134 BPM further accentuates the new sectional idea.
Link	87(6)-91	A short passage to prepare for the entrance of the next section.
		Although the **texture** is relatively thin, the increasingly loud **dynamic** levels from bars 87-89, coupled with the rhythmic acceleration - by the composer's utilisation of tremolos from bars 88-89,
		suggest the perception of a fast-paced **tempo** and a move to prepare for the entrance of a new section.
		However, at bar 90, the dynamic levels are altered to '*piano'* as the link section closes to introduce the next section.

D	92-105	The beginning of a new section. The piano introduces new material. The **texture** is thin, while the **dynamic** levels generally maintain a steady degree of softness except for some occasional loud dynamic levels, utilised by the composer for dramatic purposes. **Tempo** indication is at 156 BPM which further accentuates a new sectional idea.
Link	106-116	A relatively short passage to prepare for the entrance of the next section. The **texture** remains thin. Although **tempo** remains constant, the utilisation of multi-rhythmic elements further accentuates the section as a link to prepare for an entrance to a new section.
E	117-138	The beginning of a new section. The piano introduces new material. **The texture** is relatively thin, but for bars 136-137, it changes to thick in preparation for a new section entrance. The **dynamic** levels are maintained throughout this section, which suggests a climax and preparation for the next section entrance. Again, the **tempo** remains constant. However, the composer employs multi-rhythmic elements to develop the current section and prepare for the new section's entrance.
Link	138	A one-bar passage to introduce the next section **The texture** is thin. Simultaneously, the **tempo** alteration indication - *molto meno mosso* - loosens the current **tempo** to further accentuates the move towards a slower new section.

Cadenza	140-181	The pianist's *cadenza* section. **Texture** is relatively thick. The composer utilises several **tempi** during the cadenza to further strengthen the technicalities ad complexities involved.
Link	182-183	A short passage to introduce the next section. **Texture** remains thick. **Tempo** remains constant; however, the tubular bells' motive suggests the preparation for the entry of a new section.
F	184-197	The beginning of a new section with motivic materials borrowed from previous sections. **Texture** loosens thinly. However, the dynamic level is maintained suggesting that the music is soon to climax. The **tempo** alteration indication sign *poco accel.* at bar 197 further accentuates the move to a new section.
A4	198-201	A variation with materials borrowed from previous sections. **Texture** is relatively thin. The **tempo** indication of 148 BPM further accentuates the new section.
Coda	202-End	The final section of the movement. **Texture** is constantly thick, while the **dynamic** level is maintained. The faster **tempo** indication of 150 BPM and the composer's rapid passages further accentuate a strong move towards the end of the movement.

Form structure in the **second movement** is as follows:

Section	Bars	Content
Introduction	1-8	The **texture** is thin to clearly effect the composer's intention of portraying her "heartbeat" by utilising the bassoons. The **dynamic** levels correspond to the thinness of the texture. The composer begins the movement with a **tempo indication** of 72 BPM.
Introduction cont'd	9-24	The piano, including some other sections of the orchestra, join in the continuation of the introduction. However, the **texture** remains relatively thin, but for bars 20–22, which features a fleeting change into a thick texture. The **tempo** remains unchanged.
A1	25-35	The main melodic idea is introduced by the piano, doubled by other selected instruments of the orchestra, amid rapid sextuplets accompaniments in the left-hand part. The **texture** relatively thin but for bars 30–32 where it changes fleetingly to thick. The **tempo** remains unchanged.
Link	36-48	A contrasting passage comprises new melodic material, independent melodic lines, and solos presented by specific instruments, namely the *Cor Anglais* and the bassoon. The **texture** is thin. The **tempo** remains unchanged.
B	49-62	A new section with some borrowed elements from the A section.

		The **texture** is relatively thin, **dynamic** levels are heightened, while **tempo** remains unchanged.
C	63-65	Introduction of new material. **Texture** is remains thin, while **tempo** remains unchanged.
D	66-79	Introduction of new material with some borrowed melodic materials from A section. **Texture** remains thin. A slower **tempo** of 66 BPM is introduced, accentuated by the performance direction "*meno mosso.*"
Link	80-81	A short passage to prepare for the entrance of the next section. **Texture** remains thin. The **tempo** remains unchanged.
E	82-89	A new section with some borrowed melodic materials from the A section. The **texture** becomes thick as the music approaches the end. The **tempo** remains unchanged.
Coda	90-End	The final section of the movement. **Texture** changes to thin as the music concludes. The **tempo** remains unchanged.

Form structure in the **third movement** is as follows:

Section	Bars	Content
Introduction	1-10	The piano introduces the beginning of the movement. The **texture** is thin. The composer begins the movement with a **tempo indication** of 120BPM.
Introduction cont'd	11-12	The piano re-surfaces playing a short passage, including some other orchestra sections in continuation of the introduction, leading to the main motive. However, the **texture** remains relatively thin. The **tempo** remains unchanged.
A1	13-14	The motive is introduced by the strings The **texture** is relatively thin. The **tempo** remains unchanged.
B	15-28	A new section is introduced, with the piano being the principal instrument. The **texture** alternates between thick and thin. The **tempo** remains unchanged.
A2	29-31	The brass section presents a variation of the motive. The **texture** is relatively thick. The **tempo** increases to 124BPM.
A3	32-35	The piano presents a variation of the motive.

		The **texture** remains thin, while **tempo** remains unchanged.
Link	36-37	A linking passage to the next section. **Texture** remains thin. The **tempo** remains unchanged.
C1	38-41	A short section comprising rapid piano executions as well as call-and-response technique, characteristic of African musical culture. **Texture** remains thin. The **tempo** remains unchanged.
A4	42-45	A variation of the motive is presented by the piano and supported majorly by the strings. The **texture** is relatively thin and the **tempo** remains unchanged.
Link	46-50	A short passage to introduce the next section. The **texture** is relatively thin and the **tempo** remains unchanged.
A5	51-54	A variation of the motive is presented by the viola and supported by the marimba. The **texture** is relatively thin and **tempo** remains unchanged.
Link	55	A quite short passage to introduce the next section. The **texture** is relatively thin, and **tempo** remains unchanged.
C2	56-61	A recurring section of call-and-response, characteristic of African musical culture.

		Texture remains thin. The **tempo** remains unchanged.
Link	62-63	A quite short passage to introduce the next section. The **texture** is relatively thin and the **tempo** remains unchanged.
A6	64-67	The piano presents a variation of the motive. The **texture** is relatively thin, and the **tempo** remains unchanged.
Link	68-70	A quite short passage to introduce the next section. The **texture** is relatively thin, and the **tempo** remains unchanged.
A7	71-82	The piano presents the motive in rhythmic augmentation. The **texture** is relatively thin, and the **tempo** remains unchanged.
Link	83-85	A quite short passage to introduce the next section. The **texture** is relatively thin, and dynamic levels are relatively loud. The **tempo,** however, resumes at 128BPM after a *rit..*
A8	86-108	The motif is restated with borrowed materials from previous A sections. The **texture** is relatively thin, and **tempo** maintains the current BPM.
Link	109-110	A quite short passage to introduce the next section.

		The **texture** is thin, and the **tempo** remains unchanged.
C3	111-117	A recurring section with variations. The **texture** is relatively thick, and the **tempo** remains unchanged.
A9	118-121	The motif is restated with variations. The **texture** is relatively thin, and the **tempo** remains unchanged.
Link	122-124	A quite short passage linking to the coda. The **texture** is thin, and **tempo** remains unchanged.
Coda	125-End	The conclusion of the movement, as the music climaxes through the utilisation of the *tutti* amid increased dynamic levels while ending with a "*Sforzando*" The **texture** is thick, and the **tempo** remains unchanged.

In conclusion of this chapter, it is evident (upon the in-depth analysis provided) that Zaidel-Rudolph's compositional style in *Pendulum* is three-folded in influence and content – **European** (1st movement) as a result of extensive study with her teacher and mentor Ligeti; **Jewish** (2nd movement) being grounded in the Judaic traditions; **African** (3rd movement) being a South African and grounded in African art music traditions. Lastly, the employment of the post-tonal compositional techniques discussed in this chapter unify the three movement to achieve a unique output of a 'multicultural' art music.

Chapter 7

Catalogue of Zaidel-Rudolph's orchestral, chamber and piano compositions

7.1. Introduction

Music catalogue acquisitions have been in the limelight of the music world in recent years and have deservedly attained much importance. While creative property transactions have always occurred in the music industry, they have recently attracted a lot of attention from large capital players, predominantly in the popular music industry. With multi-million-dollar acquisitions, a lot of momentum has been built, and music catalogue valuations are constantly rising, while partly due to the continuous growth of the streaming industry (ANote Music, 2018). Nevertheless, what defines a "music catalogue"?

ANote Music (2018) defines a music catalogue as "a collection of songs coming from the same owner" which comprises "a list of musical compositions and songs" from a composer's oeuvre. These works may either be registered under the name of an individual or company while the titleholder owns and controls the copyright (publishing, sync, and master rights) to the songs in the music repertoire, and he or she makes a profit from the generated music royalties every time the music is featured (ANote Music, 2018).

Certain individuals however may hold all the rights to the music they have recorded and released, although this is a very uncommon circumstance in today's music industry as in most circumstances, the copyrights of songs are distributed among all parties that contributed to the creation of the music compositions (ANote Music, 2018). This includes the performing artist or band, songwriters, musicians, beatmakers. Publishers, record labels, managers, and other stakeholders, often receive a split (somewhat unequal) portion of the rights and can include them in their music repertoire. This implies that the same song might be in numerous music catalogues and, as a result, the royalties received will be split proportionally (ANote Music, 2018).

ANote Music (2018) notes that the number of songs in a music catalogue might range from one to many thousands. Depending on how many compositions or songs they composed (for others or themselves) or performed over their career, certain artists, songwriters, or musicians may have hundreds or thousands of songs in their catalogues. With regards to publishers and record labels, the catalogue may comprise thousands or even millions of songs dependent on how many rights to songs individuals or entities control and, as a result, how these individuals classify the rights under their own music catalogues (ANote Music, 2018).

The issue of cataloguing and the rights tied to the compositions of various composers and musicians have started loosening its grip. In recent news, some musical celebrities in the pop/contemporary industries- mostly senior citizens – are selling off their musical catalogues and rights to multi-million companies. According to Alan Cross (2021), many businesses, such as *Hipgnosis*, believe that these works are classic and will continue to create revenue for decades to come if properly managed. Meanwhile, for the aging artists, the idea of selling off their catalogues seems ideal as it provides immediate access to royalties which hitherto could have taken longer, besides its periodic availability. This enables them to enjoy their money as well as the instantaneous security that comes with it (Cross, 2021). Ingham and Wang (2021) note that by obtaining ownership of catalogues, entities potentially profit from royalties, licensing, brand partnerships, and other sources of revenue that would have gone to the musician.

However, there are some rather different (classical-music-based) reasons and approaches to cataloguing; those that are beneficial to both the composer and the prospective performer/audience, as presented by selected researchers and briefly discussed in the following paragraphs.

Webb (2005:1–88) presents an annotated catalogue of nineteen selected works for clarinet by South African composers which are chronologically arranged by the year each work was composed. The author fleetingly discusses the biography of each composer, and consequently analyses of his/her work(s) while indicating those that have been graded (Webb, 2005:1–88)

Magalhães (2011:1–320) in an annotated version presents a more comprehensive catalogue format based on works for piano duet comprising each composer's full names, birth and death dates as applicable, as well as their nationality. Furthermore, the author

documents information regarding websites, full title of the work(s), the titles of individual movements (as applicable), the duration of the work(s), information regarding the arranger (as applicable), publisher, as well as some notes regarding the work(s) of each composer (Magalhães, 2011:1–320).

Van der Spuy (1988:96–101) – quite comprehensively lays out a catalogue totalling eighteen sectional organisations of the compositions of Ivy Priaulx Rainer (1903–1986). These sections are: the catalogue number/title of the work, medium/genre, poet/source of text, excerpts from the score, instrumentation, duration, dedicatee(s), commission information, debut performance, publications, manuscript sources, date of composition, reviews, annotation, program notes, extra notes, ballet and lastly, recordings.

Martens (2017:2) discusses the importance of researching and documenting music catalogues:

> South Africa is a country blessed with inspiring, innovative, vibrant composers, drawing eclectic inspiration from various aspects of our country, both musical and more general. We have access to a wide range of contemporary South African compositions as a result. However, without the proper cataloguing of such works, it is virtually impossible for performers, students and other interested parties to know exactly what is available and how to gain access to these works (Martens, 2017:2).

To buttress Martens' opinion above, Zaidel-Rudolph expressed her reasons in support of cataloguing of her selected music:

> ...I'm not young anymore and one day, you know, twenty years' time somebody is going to say "what did she write?" ...and nobody knows what I wrote and there's no catalogue... (Personal interview, 11 August 2020).

From a preservation and documentation point of view, (as with Zaidel-Rudolph's documentation of the Ngqoko Women's Cultural Group's overtone/throat singing), the composer supports the idea of cataloguing her selected music. Zaidel-Rudolph noted that had she not (amongst other researchers) documented the culture of the above group, it may not exist in years to come; an unfortunate loss of a most important cultural entity (Personal interview, 11 August 2020).

7.2. Catalogue layout

According to Joubert (2013:6), all catalogues serve certain purposes and are compiled in diverse ways. Hence, the layout of the catalogue (with the works in alphabetical order by the first letter of the composition's title) follows a modified version of Magalhães' (2011:xiii) and Van der Spuy's (1988:96–101) layout:

- Title and date of the work

- Commission information (where applicable)

- Movements (where applicable)

- Duration

- Arranger's name and original source (where applicable)

- Lyricist/Text origin (where applicable)

- First performance/performer (where applicable)

- Dedication information

- Recording details

- Publishing details/discography and score access information (where applicable)

- Descriptive comment/program notes (where applicable).

Furthermore, the chosen works are listed according to genre (as specified in this thesis' title) like Stoltz's (2010:137) order of listing namely: orchestral, chamber and piano.

7.2.1. Orchestral

A

At the end of the rainbow (1988)

- Commission: The National Youth Orchestra for their 25th Anniversary Celebrations.
- Movement: A single movement work divided into 3 distinct sections.
- Duration: 16'.

Worthy of note is that the work is exactly 365 bars, which uniquely symbolises a full year of the biblical Flood from the first drop of rain until the very end of the flood.

- Arranger's name and original source: Based on the Biblical Story of the Flood.

- First performance/performer: The National Youth Orchestra (1988).
- Publishing details/discography and score access information: SAMRO archives, SABC,1990; http://jeannezaidel-rudolph.com/Contact/
- Descriptive comment/program notes:

> This work is based on the biblical account of the Flood. The first section creates the mood of social decadence which led to the catastrophe with instruments used in their low registers to symbolise the depths of immorality to which the generation had sunk. An insistent E flat (Es in German), refers back to the original sin – to 'eat from the tree of knowledge'. The 'sin' motif, is enunciated by the bassoon and is derived from the Hebrew word CHET, meaning sin. This is a snake-like crawling figure which leads to the theme being enunciated throughout the orchestra in an irregular measure.

> The Drunken Waltz which follows, underlines the mindless, pleasure-seeking atmosphere.

> Suddenly there is a fresh sound and the pentatonic figure on the Xylophone heralds the building of the Ark by Noah. Seven different pairs of wind instruments depict the pairs of animals entering the Ark. Very gradually the first rain drops start to fall with a harp ostinato and pizzicato strings. Throughout this section there are ominous warnings to repent (in tympani) or face the consequences.

The rain becomes heavier and the storm then erupts – a variation on the 'sin' theme. Then the heavens open up and the bowels of the earth gush forth boiling mud. There is chaos and panic, which gradually subside, leaving the aftermath of the storm – the waters have purified the earth.

C

Concert Overture **(1979)**

- Commission information: National Youth Theatre.

- Movement: A single movement work.

- Duration: 4'.

- Recording details: Composer's archives.

- Publishing details/discography and score access information: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Descriptive comment/program notes:

    This work was composed with younger performers in mind.

Construction Symphony **for youth orchestra (1985)**

- Commission: P.A.W organisation.

- Movements: A single movement work.

- Duration: 8'.

- First performance/performer: Students from The Performing Arts Workshop (P.A.W).

- Publishing details/discography and score access information: Commission information: SAMRO.

- Movements: A single movement, large-scale work.

- Duration: 12".

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  This Construction Symphony was an "occasion" piece, fit for the specific requirements of the "Entertainer", a stage production (i.e. its line-up of instruments, as well as the abilities of the students) and can in no real way be used again.

F

***Fanfare Festival Overture* (1986)**

- Commission: SABC as part of the Centenary Celebrations in 1986.

- Movements: A single movement work loosely divided into four sections.

- Duration: 10'.

- Publishing details/discography and score access information: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Descriptive comment/program notes:

  This work was commissioned by the South African Broadcasting Corporation as part of the Centenary Celebrations in 1986. This work embodies traditional as well as new compositional techniques. The mood of the work is of a highly festive nature and revolves around a "centenary" fanfare. It explores both contemporary Western and indigenous African sounds and techniques.

  The work is loosely divided into four sections. It begins with swirls of tone colour using whole-tone material, reminiscent of the turn of the century sound (± 100 years ago). The trumpets announce the fanfare.

  The principal celebratory theme is first announced in the horns and trombones and follows the 4-syllable rhythm of the word "Cen-te-na-ry"

The theme is reinforced by the Cor Anglais and strings. In the second section the lower strings take over the whole-tone theme Ab Gb Ab D Ab Gb Ab C using changing metres.

The third section sees the metamorphoses of previous motifs and focuses on the ambiguity of major/minor 3rds. There is an overlay of several themes and the texture becomes transparent and luminescent. The trumpet fanfare also sporadically returns.

The fourth section brings us to the present climate, with a strong indigenous African flavour. The very large percussion serves to focus on African polyrhythmic melodies which impress themselves on the texture. This culminates in a riveting "Chopi Piano" solo ostinato. Other "African" instruments include Cabasa (rachet), Cowbells etc.

The centenary theme is transformed and woven into this rhythmic fabric and the material becomes pandiatonic. The marimba ostinato carries the music to a rousing climax in C.

Five Chassidic Melodies **for youth orchestra (1979)**

- Movements: A work divided into five sections.

- Duration: 25'.
- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Descriptive comment/program notes:

  This is an instrumental version of five Chassidic songs.

H

Human Rights Oratorio **for Orchestra, choir, soloists and African percussion (1996)**

- Commission information: SAMRO.

- Movements: A single movement, large-scale work.

- Duration: 12".

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    This work for Choir and Orchestra is based on the text of the Universal Declaration of Human Rights. The composer set to music the adapted texts from Section SIX, the longest section from the Universal Declaration of Human Rights. This encapsulates the rights to social security, work and rest, standards of living, education, culture and copyright. The work was scored for full orchestra, soprano solo, baritone solo and mixed SATB Choir. An African percussion section uses the Djembe drum, 2 *dumdumbas* (or 2 different sized bass drums plus shakers (preferably made from seed pods).

    After a "Call for Scores" was circulated world-wide by the International Women Composers' Organisation, *Donne in Musica*, (based in Italy) in partnership with the United Nations Human Rights wing, an adapted version of this orchestral work was submitted to the *Donne In Musica* international Composers Organisation based in Italy. Among 400 entries submitted Jeanne Zaidel-Rudolph was a winner. The words are printed below:

    Social security
    Economic, social and cultural rights, give us dignity – and humanity
    We each have the right to develop our own personality
    Social security helps one become the person one wants to be.

Work and Rest

We all have the right to do the work that we do best

And to rest and recreate, to recreate and rest.

We need protection when we can't, and when there's argument.

Equal pay for equal work, for work of equal value,

A chance to show our enterprise. Opportunity… and security.

We all have the right to work and to play.

That's what it's all about.

Standard of living

Mother and child are special, they need that extra care.

Everyone's standard of living is the issue everywhere.

Education

Education is the heart and soul of our humanity – UBUNTU (Eng. 'humanity')

Peace pivots on the justice and caring it can bring.

Everyone shall have the right to receive it free.

The only limit lies in our capacity, for enlightenment. Meritocracy, for democracy.

Education is the heart of our humanity – UBUNTU UBUNTU!

That's what it's all about!

Culture and copyright

We all have a right to the better life,

Sharing the culture of our community

Enjoying the arts, the sciences and new technology.

Everyone has the right to own and profit from their creative work.

Morally; Materially. We all have a right to the better life.

That's what it's all about.

O

***Oratorio for Human Rights* re-arranged and revised for Chamber Orchestra, choir, soloists and percussion (2018)**

- Commission information: SAMRO.

- Movements: A single movement, large-scale work.

- Duration: 12".

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes: See Human Rights Oratorio for Orchestra, choir, soloists and African percussion (1996).

P

***Pendulum* for Piano and Orchestra (2010)**

- Commission: SAMRO for the Johannesburg Philharmonic Orchestra and premiered at the Linder Auditorium with pianist Malcolm Nay - Conductor Walter Attanasi.

- Movements: A work in three movements with three distinct moods and characters.

- Duration: 1st movement (11'25"), 2nd and 3rd movements (14'12").

- First performance/performer: Premiered at the Linder Auditorium by pianist Malcolm Nay with the Johannesburg Philharmonic Orchestra, under the direction of Walter Attanasi.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/programme notes (as originally written by the composer):

    This work was commissioned by SAMRO (South African Music Rights Organisation) for a premiere performance in 2010 by Malcolm Nay with

the Johannesburg Philharmonic Orchestra. I did not give Pendulum the title "Concerto" as the piano part frequently blends into the orchestral texture as another instrumental colour/timbre and does not necessarily demand that it should be perceived as a separate virtuosic entity. Having said that though, there are some very challenging technical figurations for the piano. As was the case with my mentor and teacher, György Ligeti, I frequently dream of ringing bells and chiming clocks and the unrelenting mechanisation of our century. The concept of the 'pendulum' not only embraces this aural image but also suggests balance and inevitable movement; a cycle that 'normalises' the extremes of life but with an underlying dynamic pulse.

Pendulum is a work in three movements with three distinct moods and characters, though the 2nd movement (misterioso) follows segue into the lively 3rd. The 1st Movement, the longest of the three, is stately and thematically-based; it opens with the clanging of the tubular bells in falling 4ths, accompanied by drum percussion and bassoon. This descending bell figure is taken over by the strings before the first entry of the piano introducing the characteristic 4-note syncopated motif. The material throughout this movement is dominated by linear and vertical entities in 4ths with animated dialogue between the piano and orchestra. The piano comes into its own in a cadenza-like solo which is eventually joined by the bells as it accompanies the piano on its return to the opening orchestral texture.

The 2nd movement is rather dark, brooding and mysterious with dissonant orchestral sound blocks and vibrating tone colours, punctuated by plucked string pizzicatos. It recreates a mood similar to the one found in the slow section of my Tempus Fugit with nocturnal shadows, underlying tension and foreboding. The role of the piano is to cut through the opaque texture with rapid arpeggiations using diminished 7ths as the chord basis to lift the atmosphere into a spiritual realm as expiation for the terrors of the night. An illusion is created of a quick tempo but in reality this is the 'slow movement'. The arpeggios are transformed into impassioned melodic entities using the same small intervallic structures.

The 3rd movement picks up where the 2nd left off, but this time banishing all bleakness, and morphing into a rhythmic texture gleaned from a generic and composite African rhythm and African sound-world; namely 12 pulses per measure divided into aggregates of 2s and 3s, forming a polyrhythmic 5+7 cycle. This underlying cyclical pulse drives the music forward in dance-like shapes taken over by the different instrumental groups, punctuated by piano dialogues. As with all my African-influenced works, the percussion section plays a pivotal role.

Pendulum presents the intersection of different sound worlds but ones which are located in the context of 21st century South Africa.

Now that the programme note has been read, please ignore it and experience the music as an art that speaks for itself.

S

***Sefirot Symphony* for woodwinds, brass, percussion and harp (1991)**

- Commission: The Foundation for The Creative Arts.

- Movements: A work with seven concurrent sections.

- Duration: 22'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  The Sefirot Symphony is inspired by and based on the Kabbalistic spheres or spiritual levels that exist in Mysticism. I have concentrated on seven out of the ten spheres, as the first three (Crown, Wisdom and Understanding) are so esoteric and G'dly that they are almost beyond understanding. A hint of "Crown" is given which finally comes full circle to "Kingship" at the end.

The seven spheres of the Kabbalistic Tree of Life depict all the attributes and characteristics that exist in both worlds (the spiritual and the physical). These are Kindness, Judgement (restraint, severity), Beauty, Victory (endurance), Splendour (glory), Righteousness (foundation) and Kingship.

The seven concurrent sections of the work attempt to create the atmosphere and power of each level, e.g. Kindness with unlimited giving and open-handedness, depicted in flourishes of outgoing scale-like passages.

Every section is based on a different tonal pivot moving through C D E F G A to B in the seventh level. Thus each attribute is spiritually bound up with the particular colour of a different pitch. Although the "scale" is rising from C to B, it is contradiction with the "lowering" of the spiritual levels from the heavenly state towards the physical world.

The Harp is used in connection with Kingship (King David) and beauty. The application of numerological devices is paramount to this work.

The "Sefirot" are divine manifestations or attributes of the spiritual world manifest through creation. These **ten** spiritual levels can be actualised in the physical world. The highest three of the ten spheres are:- KETER (Crown), CHOCHMAH (Wisdom), and BINAH (Understanding). If, however, KETER is omitted then the first three are CCHOCHMAH, BINAH and DA'AT (Knowledge). These are followed by **seven** SEFIROT (Spheres), sub-divided into two triads and a singular last one. They are:

CHESED   (Kindness, Grace, Benevolence)

GEVURAH   (Strength, Judgement, Restraint, Power)

TIFERET   (Beauty, an [Sic] harmonious blending of CHESED and GEVURAH)

NETZACH   (Victory, Glory, Endurance)

HOD   (Splendour, Majesty)

YESOD   (Foundation, Righteousness)

MALCHUT   (Kingship, Sovereignty)

***South African National Anthem* (1995). The current version; composite rearrangement, orchestral setting and additional English words**

- Commission: An invitation to serve on the Anthem Committee in February 1995.

- Movements: Single movement with sections in different South African languages.

- Duration: c.2'.

- Arranger's name and original source: Jeanne Zaidel-Rudolph (South African National Anthem's current version; composite rearrangement, Orchestral setting).

- Lyricists: Jeanne Zaidel-Rudolph (The current South African National Anthem's additional English words), Enoch Sontonga (Nkosi) and C J Langenhoven (Die Stem).

- Recording details: https://www.gov.za/about-sa/national-symbols/national-anthem#listenanthem

- Publishing details/discography and score access information: http://www.dirco.gov.za/protocol/national_anthem0120.pdf , https://www.gov.za/about-sa/national-symbols/national-anthem

T

***Tempus Fugit* for orchestra (1986)**

- Movements: A work in two movements that flow into one another.

- Duration: 12'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

The scoring of the Total Collection's prize-winning work, 'Tempus Fugit', is for full orchestra, but it is possible for a smaller, chamber ensemble also to play the work.

In this work the composer attempts to capture the spirit of a multi-faceted South African society with all its cultural diversity. In order to achieve this collage in the music, Tempus Fugit comprises complex layerings of African music elements together with Western timbres and orchestrations. In the work there are musical gestures symbolising sameness and contrast, unity and diversity.

In our 'rainbow' society the contrasts and changes are reflected in the music by metrical changes, change of pace and constant timbral metamorphoses by alternating instrumental groupings. Its multi-dimensional nature is interpreted musically by the use of multi-tonalities where the tonal focus constantly shifts. The piece is energized by driving and sometimes relentless rhythmic patterns. The percussion section is very large and includes many drums, roto toms, shakers, bells and tuned percussion like Xylophone, marimba etc.

Three contrasting sections flow into one another without a break.

Tempus Fugit opens with a marimba introduction with a simple 4-note statement from which most of the material of the piece is derived, i.e. a descending major triad in 3rds followed by a sudden upward semitone, which somehow 'spoils' the equilibrium of the chord. This is immediately followed by a statement of the theme (inverted) in the flutes and violins, supported by the basses which occasionally interject with the rising semitone 'feature'.

In this opening the horizontal themes are synchronized at various unisons and octaves between instruments to symbolize common societal goals and unity, yet octave displacements allow for cultural differences. Large melodic leaping gestures are gradually replaced by a smoother melodic texture. Additive techniques are used and each repetition takes the theme a little further. Here the tonal centre is 'A', symbolically the tuning note of the orchestra, and forms the nucleus of the work.

After the introductory section there is an accelerando into a 4-note statement reminiscent of the opening. This leads into the characteristic responsorial African choir (i.e. antiphonal 'call and response'). This is enunciated in opposing instrumental blocks – the winds in long note values with a response by the strings in shorter note values. The focus is still harmonic and thematic. What follows next is more linear and contrapuntal:- a section in 9/8 metre 'dances' with changing note groupings, e.g. 2+3+2+2 then 3+2+2+2 , typical of African rhythmic sub-divisions. Harmonically, open 5th are used. Against this regular pulse background a melody is layered in the Cor Anglais and flute solo. A 4-note descending motif (C Bb A G) is established and interpolated at various junctures and a 7/8 section ensues based on the 4-note pattern. This motif is used in diminution as well as augmentation in the last movement as well.

The texture is poly-rhythmic with melodic layerings of 4 pulses against 6, resulting in phase shifting, cross rhythms and overlapping phrases. A final 4-note fanfare brings this section to a close but retains a marimba tremolando on middle C, (representing the physical world), which is a link to the second section.

"*Nox et solitudo plenae sunt diabolo*" (Night and quietness bring many demons) sub-titles the second 'spiritual' section. This is the African bush at night. Out of the darkness emerge terrifying creatures and screeches which burst through the calm background texture, then recede again. Various instruments emerge highlighting these sudden flashes. This reflects life as it is in our surreal imagination – fear of the unknown! Instruments are used in extreme registers to increase tension and penetrate new levels of consciousness. The seemingly haphazard outbursts become united in a central synchronized climax, and then disintegrate again until the blurred texture clears harmonically to octaves on 'E'.

This 'E' pitch moment forms a link to the 3rd section which opens with a 'chirping', mechanical, repetitive 'E'. It symbolizes the clocklike mechanized precision of a world dominated by technology – a kind of

moto perpetuo which the renowned composer Ligeti would have called "a granulated continuum", i.e. quick repetitions of the same note. The trumpets announce a descending 7-note theme against this repetitive texture. It is a poly-rhythmic section with syncopations, ending with frenetic, irregular groups of 2s and 3s. The hypnotic, repetitive texture is given tone colour through changing timbres in the orchestration.

U

***Ukuthula* for soprano, mezzo-soprano and orchestra (1993).**

- Movements: Single movement, large scale work.

- Duration: 8'30".

- Lyricist/Text origin: Composition and text by Jeanne Zaidel-Rudolph with extracts from Isaiah chapters 10 and 11.

- First performance/performer: Premiered at the Johannesburg City Hall on February 25, 1994. National Symphony Orchestra under the direction of Michael Hankinson. Soprano: Hilary Friedland – Mezzo soprano: Hanre Lass.

- Dedication information: Especially written for THE LAST NIGHT OF THE PROMS CONCERT.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes (lyrics based on biblical prophesies) printed below:

> Have you heard the Word?
>
> The Word is Peace
>
> Ukuthula – Peace
>
> Peace throughout our country
>
> Piece [Sic] in every language
>
> Peace will be our future

Give peace a chance

Let's make this land a better place

Ukuthula – Peace

A stem from the root of Yishai will come

The wolf will dwell with the lamb

The leopard will lie down with the goat

Together with the calf, the young lion and the fatted ox

And a little child will lead them

And a spirit of wisdom and understanding

Will rest on the world

And when all the madness, the madness is over,

Peace will come – Ukuthula

And when all the madness, the madness is over

Peace will come for a thousand years.

Let's make this land a better place

Ukuthula – Peace

A stem from the root of Yishai will come

The wolf will dwell with the lamb

The leopard will lie down with the goat

Together with the calf, the young lion and the fatted ox

And a little child will lead them

And a spirit of wisdom and understanding

Will rest on the world

And when all the madness, the madness is over

Peace will come for a thousand years.

7.2.2. Chamber

A

Alma Mater **for piano trio (2017)**

- Commission information: SAMRO for the Music Festival at the University of Pretoria in 2017.

- Movements: Single movement (unitary form).

- Duration: c. 12'.

- First performance: Premiered at the University of Pretoria.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  Since this work was commissioned for the Music Dept of the University of Pretoria, the composer called the work, Alma Mater, referencing the University of Pretoria at which she had obtained all her degrees including a DMus and an honorary degree in Education (DEd). The percussion

instruments include a glockenspiel, marimba, maracas, cabassa, cymbals and snare drum.

After a virtuosic *ad lib* introduction in the cello, a rhythmic figure in a jazzy style enters in the piano accompanied by the cello and snare drum. The cello takes over the thematic material in adapted form which is itself followed by the motivic material in the marimba on a different tonal centre. The main motivic material constantly undergoes variation in irregular meters and reappears in different forms on shifting tonal centres. Throughout the work, one of the instruments is foregrounded - with the other 2 instruments (playing longer note value 'punctuations'), occupying a supportive role. Only towards the end do the instruments play equally important material in a responsorial style.

This takes the form of a *quasi* "question and answer' format. The motives are applied in contrary motion to one another.

A 2nd important theme is introduced forming 3rds both harmonically and melodically. There is a build-up of tension by application of sequential rising figures on shifting tonal centres – sometimes a sense of staticity and at other times terraced motives. There are several mood changes which are built in rather than by changing tempi. The material is more fragmented and intense towards the end.

B

Brass Quintet - And All That Jazz **for two trumpets, French horn, trombone and tuba (1983)**

- Commission: SABC.

- Movements: A single movement work

- Duration: c. 5'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> An early work which was influenced by the gestures and writing of my teacher, György Ligeti; this in the sense that it evidences experimental composition techniques using rhythmic displacements contrapuntally in various dovetailing figures and very fluid ascending interlocking scale patterns. These are foregrounded in small note values in trumpets against longer-valued, more ponderous notes in the other brass instruments. Like Ligeti the writing is not necessarily idiomatic for the instruments, but goes against traditional writing for brass instruments.

C

Canonetta for Four for 2 trumpets, viola and vibraphone (1973)

- Movements: One movement (unitary form).

- Duration: 5'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

According to the composer, this is not an important work as she was just starting to formulate her own style.

Chamber Concertino for eleven instruments (1979)

- Movements: 3 movements.

- Duration: 15'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  The score is notated at Concert Pitch.

  Piccolo, Celesta and Double Bass are transposed at the octave in the score.

  The celesta is best placed at the left front so that the sound is aimed directly at the audience; and at a slight angle so that the player can also see the conductor when playing the Electric Organ.

  The Electric Organ is placed with its keyboard perpendicular to the keyboard of the Celesta; the two keyboards thus forming a right-angle.

  The bar lines serve only to synchronise the parts; bar lines and bar subdivisions never indicate accentuation.

E

***Epochs and Edifices* for string quartet and percussion (2014)**

- Commission information: SAMRO.

- Movements: One movement (unitary form).

- Duration: c. 14'.

- First performance/performer: Premiered by The Epoch String Quartet and Magda de Vries (percussionist).

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

The violinist, in the Epoch Quartet, Jacques Fourie is also an architect. He sent me beautifully graphic coloured photos of various contemporary buildings and architecture from around the world. This was the inspiration for my work – Epochs, the name of the Quartet is also reflective of various contemporary styles - the edifices were very varied, ranging from rich flowing smooth lines to very angular and sharp, jagged edges in the photographs. These translated so beautifully into music.

F

Four Minim **for cello and piano (1982 and revised in 1992)**

- Commission: SABC.

- Movements: Four movements– entitled *Esrog, Lulav, Hadassim, Arovos.*

- Duration: 17'.
- First performance/performer: 1982 by Marion Lewin-Kimmel (cello) and Sini van den Brom (piano) at the SABC.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes (where applicable).

    The 4 - "Minim" for Cello and Piano is based on the four species of flora used in the Jewish festival of Sukkoth. During the festival, the four "kinds" are unified, though each symbolises different characteristics. These are reflected in four movements, called *Esrog, Lulav, Hadas,* and *Arovos,* each displaying different stylistic features but unified by the minim value.

    The first movement is conceived vertically, that is, it is harmonic and looks back to tradition.

    The second movement is smoothly spiritual, always looking heavenward, with high notes and harmonics.

The third movement is a type of passacaglia canon and is contrapuntally interwoven.

The fourth movement is free and improvisatory.

Many structures in the music are based on the magic square of the moon, a mathematical formula which leads itself to musical numerology. The number 9 plays an important role throughout.

K

Kaleidoscope for wind and percussion (1971)

- Duration: 15'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    Instrumentation:

    Flute, alto flute, piccolo – oboe, cor anglais – clarinet, bass clarinet, bassoon,

    Alto saxophone, horn in F, trumpet in C, tenor trombone.

    Percussion - 20 instruments with 2 or 3 players.

    As the title suggests, the composer explores and exploits the numerous kaleidoscopic tone colours found in the variety of orchestral instruments – a very early work influenced by the work of her teacher, György Ligeti, whose early works were categorised as "tone colour" compositions.

L

Lifecycle **(2003)**

- Commission information: The International Classical Music Festival (ICMF).

- Movements: A single but large-scale work consisting of different sections forming a cyclical work.

- Duration: 30'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment:

  > *Lifecycle* – for flute (piccolo), oboe, clarinet (bass clarinet), bassoon, horn, 2 percussionists, 2 violins and cello.

  > In the words of the composer:

  > The composing of this piece has been a process that began with a visit to the Ngqoko Village several months ago. I recorded and filmed the unique and beautiful 'overtone' singing, playing of instruments and dancing. After repeated 'listenings' to the music I transcribed it in part. This original Xhosa music forms the core of this composition.

  > The themes of their songs gave rise to the title, *Lifecycle*, which depicts very important aspects and religious and social occasions in the life of the community. I have attempted to facilitate the natural music and abilities of the group and have tried to embrace the spirit that is intrinsic in the music. The 'overtone' or 'split-tone' singing generates earthly and vibrant colours and makes the music of this group unique and exciting. The singers accompany themselves with three kinds of bows and two drums, namely the *Uhadi* (calabash bow), the *Umrhubhe* (mouth bow), the *Inkinge* (friction bow with petrol tin), the *Ugubu* (two-sided drum) and the *Umasengwane* (friction drum).

The piece begins with a brief instrumental introduction that portrays the pastoral character of the village, yet with a gentle underlying energy The choir enters with a song of thanks to the Ancestors – *I camagu Livumile.* This flows immediately into a Lullaby expressing anxiety about the return of a mother who has gone to collect firewood as her crying baby needs pacifying – not the usual soothing lullaby. After an instrumental link an initiation song follows – *Ikamani* with traditional instruments and overtone singing. In this song the young man expresses his preparedness to face circumcision rites as he is 'already a man' and does not mind.

The cycle continues with a marriage song *Makhaya Akude-le,* which describes a bride that comes from far away and the man coming from a distant land to form a union. This leads instrumentally to a plaintive and heart-rending plea in a song, *Umyeyezelo,* by a mother singing with her *Uhadi* about her son who was sent away for initiation – will she ever see him again or will he die?

The work ends with a song in which the 'prophets' of the community teach the young adults to dance – *Magulesinyanga.* In this culture death is greeted with quiet silence and no music.

M

***Margana* for flute, violin, cello and percussion (1985)**

- Commission information: The University of Pretoria.

- Movements: A single movement, large scale work with different sections.

- Duration: 10'.

- Dedication information: Arthur Wegelin.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

"Margana" is based on authentic African rhythms and polyrhythms and expresses the moods and spirit of Africa.

Arthur Wegelin, to whom this work is dedicated, used a 12-tone theme for his piece, ANAGRAM, premiered at a concert in his honour in. I had the honour of being commissioned by Pretoria University to compose a piece for this concert. The row is as follows:

D   E   F   A   G   F#   C   Bb   Eb   Cb   Bb   Ab

I have used Wegelin's tone-row but in *retrograde,* to reflect that my title *Margana* is the retrograde of Wegelin's title *Anagram*. The Sotho word 'margana' – or something that sounds very similar to 'margana' – means 'many words' (i.e. 'chatter-chatter'). I have used this meaning semiotically in the piece – a kind of a chatty use of the material reflected through dialogue between instruments.

I used the 12-note row backwards as a point of departure –but Margana is not a serial piece, as it does not follow the rules or limitations of serial technique but rather applies the intervals in a melodic and thematic manner.

There are seven continuous sections, one for each letter in the word *Margana.* The sections consist of irregular rhythmic groupings which are dance-like.   The rhythmic shapes are reminiscent of African dance-rhythms. Due to the vertical combination of several different rhythmic figures a more complex polyrhythmic texture is created.

The linear woven textures of the first part finally resolve into the last section before the *Coda*, referred to as the 'call and response' section, the basis of which is the presentation of a leading solo cantorial declamation answered by a chorus or group of instruments, reminiscent of the *concertato* style of early Baroque – however in this instance more in keeping with traditional African practice. In *Margana,* I have used the flute as the *call* instrument and the rest of the instrumental ensemble as the *response*.

In a similar manner to composers quoting Bach in their music by reflecting pitches related to his name, (Bb A C B), I used the notes, A E G E, derived

from [A]rthur and from W[EGE]LIN. This forms a 4-note diatonic theme used in a hypnotic, repetitive manner.

The work uses a full battery of percussion instruments played by two percussionists –this is to broaden the timbre possibilities and to reinforce rhythmic punctuation.

The first three notes of the row, Ab Bb Cb form the basis of the thematic material and also the dramatic gestures. The eleven-bar opening introduces one to the instruments, using the 3 notes melodically together with an ominous bass drum keeping the pulse.

Bar 12 ushers in an irregular, light, dance-like figure in 5/8. The use of parallel minor 6ths between the instruments creates linear 'false relations', namely dissonant intervals. Typical in the first section is the pairing off of instruments –for example, the flute and violin pairing off with interjections by the percussion – a garrulous dialogue. Pizzicatos in the cello punctuate the texture on syncopated beats, this leading to a less static texture.

Some influence of Ligeti is audible in the staggered entries and a more Eurocentric application of a polyrhythmic contrapuntal weave.

In a funny sense, I have been influenced in this piece by two diametrically opposed points of view:

1.   The European avant-garde, through Ligeti, who works with tone colour and what he calls a 'granulated continuum of sound' where you have lots of little pulses which all come in in different colours, shapes and sizes.

2.   At the other end of the spectrum is the African influence.

In a strange way, the two meet and are very similar (polyrhythms and pulses).

My teacher, György Ligeti, wrote a string quartet in which the middle movement is completely pizzicato with this kind of 'granulated continuum' which is like a *moto perpetuo*. The piece is very African – in concept.

He has never been to Africa, but I would say that it is one of the most African pieces I have ever heard. It is very interesting and strange.

Something untypical of African music is in that last system on page 3 where the flute comes in, where you have a long, rather cantabile flowing melodic line against the rhythm underneath. This is not something which African music would necessarily do.

This continues on page 4, and there is nothing really different about it, except that we now jump from 5\8 to 5\4. I use this quite a lot as I love to have the instant diminution or augmentation. This is quite typically African, actually.

A lot of the tone colour that I get on page 4 and 5 is working very much with timbre, because I think that music is made up of so many different colours and I like to illustrate this point.

On page 5, a lot of the intervals are pulled directly out of the original theme (which I use in my forward way, which is Wegelin's backward way). What comes out of that theme, for me, which is the essence of this piece (talking purely pitch and melody) is a MAJOR TRIAD, but with the superimposition of the MINOR THIRD. There is this duality and ambiguity running right throughout this piece.

This can be seen in different forms and ways right throughout. In fact, it can be seen at B on page 5 with F D A F#. These form all sorts of figures, and once again I have this inverted minor 6th ensemble. (It would have been F Db at the top – now I have put the Db at the bottom) which again forms this ambiguous tonality.

This piece is totally ambiguous as to what tonality it is in. Sometimes it sounds like D minor, but of course it is not – it is purely atonal. Not atonal in the sense of being largely dissonant at all. (It is just 'working its way through ambiguous triads' which could mean one thing or another – but it goes through various keys).

I've moved the *crotales* to punctuate what is going on there in page 5, because I think that it gives a kind of ethereal air to it. Then we reach the ground with a bit of a bump on page 6 with the entry of the cello which starts up a fugue (of all things!) right in the middle of a rather ethnic piece.

This seems to work because it's done in a strictly rhythmical way, and has a counterpoint of rhythm against it which makes it in a sense a little jazzy, a bit syncopated. There we have a fugal theme which is taken directly from that theme.

Then the drums start to come in a rhythmic punctuation (various drums, banjos, tenor drums etc.). Again, I am using ambiguous tones

e.g. F   F#   F   F# etc.

Finally, the last entry of the fugal theme is in the flute. It is very loosely fugal – a sort of canonic, fugal idea where a subject 'pops up'. The flute goes into a rather free sounding lead up into the entry of the xylophone in 7/8 which has a typical African ostinato pattern (page 8).

The claves form a polyrhythmic counterpoint, but within different time frames. The xylophone is going at a 7/8 metre; the claves come in at a 4/8 metre, completing its pattern in a far shorter time than the xylophone does. So what I have to do then is to link up 4x7 which is 28. At each point of 28 beats I link up and co-ordinate again. So in fact, there are 4 full bars before I come together again.

I try and pull out the intervals from the theme which are pentatonic, because pentatonic has a primitive relationship.

Page 9 goes into an area of moving away from the 'feet on the ground' rhythmic feel into a far more mysterious use of *tremolandi* and little figurations there in the violin -- It is like a sudden *sheherezade* -- you're suddenly in a mystical, spiritual world.

It comes back to earth with a bump at the letter D, where these figures are very precise and rhythmical (and very difficult to play because they are staggered at rather strange and difficult moments).

Page 10 is like a *stretto* of these figures – they come closer and closer together until they are literally on top of one another.

I then stretch the extremes of register in the middle system where I take the instruments into a terribly high register. This gives them an almost unrealistic, screeching quality, as though one has reached a mental

catharsis which all culminates at E, and after a rather loaded silence, the cello comes in at the other extreme, which is way down in its lowest register in this *tremolando*. So we're almost preparing ourselves for a catharsis from the Western avant-garde into what becomes the simple, happy, primitive, indigenous part towards the end.

But still at this part, there are all sorts of 'Western avant-garde' figurations: The flutter-tonguing, the *tremolandi,* the non-specific rhythm (this is not a rhythmical section, it is an atmospheric section with all the timpani -- glissandos up, glissandos down, glissandos in the cello with *spiccato,* which give a very strange and mysterious atmosphere).

In the very last bar on page 11, there is once again the ambiguity of major\minor with the minor 3rd accentuated.

On page 12, there is a sense of always bringing back that focus on the major\minor 3rd ambiguity within the perfect 5th of the triad.

At the 6\4 bar in the middle system, it becomes more rhythmical, and at the bar after that, one can see for the first time our top 3 instruments which are the flute, violin and cello, co-ordinate in a rather frantic dotted rhythm. We are then left with a rather vague minor 3rd *tremolando* on the violin which is taken over by the vibraphone.

On page 9, the xylophone figure in the middle system is a very largely augmented imitation of the quick xylophone figure – now with the four sticks in his hand at the 'pesante' part in the middle system.

Continuing on page 12, the vibraphone sets up a sort of atmospheric section, bringing into play all sorts of interesting dissonances because of the spacing and combining of various minor 3rd within the one chord; but it is still fairly triadically bound.

I haven't gone away from the triad in this piece because I felt that it was my unifying factor. In most other pieces I have gone completely away from any triadic writing because I have used 7^{ths}, 2^{nds}, 9^{ths} and all sorts of arrangements which were not specifically fourths or triadic.

On page 14 there are all sorts of augmentation of figures like

D F Bb Db A, which came in with quavers and semiquavers before. This is very much a bridge passage to what is going to be happening quite soon.

On page 15, the figure in the violin sets up a kind of mobility with those triadic figures, but using all sorts of thematic manipulation in terms of augmentation, picking out points in the writing (e.g. one can see a figure -- it pulls out the A again and again, but it is all across the bar), hypnotic figure repetition and ostinatos across the bar. It then becomes quite frantic and busy.

On page 16, there is a kind of 'grand coming together' or 'grand unison' in all the instruments except the timpani, which keeps the main pulse while the other instruments anticipate this pulse by the semiquaver just before the main beat. There is a concentration on the pitches A and C – the minor 3^{rds}, and the timpani start up a regular triplet figure which is very typical.

I bring in something quite startling – one of the percussionists plays a referee's whistle which is so typical of the mine dance idea. It is quite effective in getting everyone's attention, to say "listen all of you".

Then at G, the call in the flute is a very positive call -- it is a high note on the A. Here we have the A E G E (Wegelin) theme, and the rest of the ensemble answers in typical fashion, instrumentally though.

There is then a second call which is extended -- A   E   G   E, but it goes

D   C   A as a kind of resolution. The rest of the instruments once again respond in a slightly extended way.

The 3rd call is extended further -- A E G E, back to A, back to G,

A E G E, back to A, playing almost as though it were improvised and they respond.

The temple blocks then usher in with a 2-bar introduction, a figure in changing 6\8, 5\8, 5\8, 6\8.

After a 2-bar 5\8 introduction, the violin starts up this pattern which is the pattern of the last section, the simple A E G E taken over immediately

by the cello, punctuated by the xylophone, continually changing from 5
to 6 which gives it a very 'jazzy' feel, and taken over by the xylophone.

The last system of page 18 is punctuated with an 'odd' rhythm i.e. on a
weak beat, while the xylophone has everything on the beat. On the
recording, this entire section was repeated three times. In terms of
working up a hypnotic fervour, which is so typical, I needed a longer
space.

The last bar of the piece is a terrific climax. Once again there is ambiguity
-- there is an A and an E, with a C alternating with C# -- so one really
doesn't know whether it is minor or major.

Masada **for string quartet and bassoon (1989)**

- Commission: The University of Potchefstroom.

- Movements: Single movement large scale work with different sections.

- Duration: 13'.

- First performance/performer: Premiered in May 1989.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's
  archives.

- Descriptive comment/program notes:

    The inspiration for this work is the mountain "Masada" which lies
    alongside the Dead Sea in Israel. In the year 73 BCE, after the destruction
    of Jerusalem and the Holy Temple, a stronghold was built on the top of
    the mountain by 960 Israelites. When the Romans, after many years of
    trying to conquer this mountain stronghold, finally managed to get to the
    top, they were greeted by dead silence: All 960 people, the Zealots, had
    committed suicide, rather than be enslaved by the Romans.

    A central thematic idea is taken from the falling harmonic minor scale and
    further Middle Eastern effect is obtained in the use of the Responsorial
    style between the Bassoon and the Quartet. The Bassoon has a more

expressive, declamatory and melodic role, while the String Quartet functions more as a rhythmic and harmonic basis.

It is a very intense work with many thematic ideas in it. The composer tried to achieve a sense of special dimension with the idea of the mountain reaching great heights and the Dead Sea which is the lowest point on Earth.

Q

Quin-tête-à-tête for String Quartet and Percussion (2019)

- Commission: The Composers National Collegium (CNC).

- Movements: One movement (unitary form).

- Duration: c. 12' 40".

- First performance/performer: The Odeion Quartet and Gerben Grooten on the 12th of August 2019 in the Musiaon.

- Recording details: http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> As the *tête-à-tête* in the title suggests this is an intimate musical conversation between two music personas – between the String Quartet as a homogenous group with its own timbre - and the various different timbres and colours of the array of percussion instruments scored for in the work. It begins with long note values in a gentle sustained *tête-à-tête* character as a friendly interaction, punctuated by little left-hand pizzicato interruptions. But very soon the texture becomes musically quite intense - eventually erupting into a fiery argument with quick bursts of sound, hurried scale-like passages and the use of loud extreme registers. In spite of the fragmented texture which ensues, granulated repeated pedal points in the marimba, taken over in the lower strings, lend an air of sustained stability to the texture. Though played by one percussionist, the variety of

percussion instruments required in the piece creates very different timbres and contrasting textures and is quite demanding on one percussionist. A brief Reprise leads into a quasi-indigenous African music section with aggregates of 2s and 3s in a very rhythmic and rather aggressive sound-world. This finally leads into a 'tagged-on' Coda, bringing back the persistent rising Triplet figures and interlocking polyrhythms, typical of the characteristic figures in the work.

R

Reaction for piano, cello and percussion (1973)

- Commission information: Written as a competition piece and it won the Cobbett Prize for Composition at the Royal College of Music in 1973.

- Movements: One movement (unitary form).

- Duration: 4' 40".

- First performance/performer: Performed by 3 female students at the Royal College of Music in June 1973 –the composer played the piano part.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    This piece was conceived on two levels: first as a "reaction" to tonality and traditional forms (my wanting to experiment in *avant garde* techniques) – and second, as a young female composer, a "reaction" to the lack of inclusion and respect for women composers. It was highly reactionary and employed very *avant garde* techniques in all instruments.

S

***Strange Quartet* for String Quartet (2006)**

- Movements: A single movement work.

- Duration: c. 10'.

- First performance/performer: Premiered by the Sontonga String Quartet.

- Dedication information: György Ligeti (Zaidel-Rudolph's mentor and teacher).

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

The following notes are by **Christo Jankowitz edited Zaidel-Rudolph:**

> A composer may occasionally produce a work that defies any of his/her hitherto known penchants for a certain style. This can be viewed as a fresh approach, a revolution in style, or a temporary foray into unexplored territory. "Strange Quartet' appears to fall into the latter category. Unlike most of her previous oeuvre this work is texturally conceived and explores a range of string timbres and techniques in an abstract milieu.
>
> The macro structure is almost completely episodic and eludes any relationship to historically established formal patterns – the closest could be to a modified sectional arch-form. Although this may appear to be the result of irrationality, the composer's management of rhythm and melodic material re-models this initial perception into an understanding that the overall structure is the result of a very finely honed musical intuition. In this regard the composer displays a unique grasp of listener cognition and her precision in the control of musical proportions is a testimony of this.
>
> The first section, which opens with a bold, aggressive gesture in triplets – almost throwing the proverbial gauntlet to the listener - consists of brief segments presenting the core material, which undergoes 'development' into quasi minimalist textures. This static interplay between instruments experiences subtle motivic manipulation and explores a variety of string

articulations (*saltando* bowing and Bartok *pizzicati* are but a few) and cross-rhythmic effects. The composer appears to use material from various sources, and even though her expressed intention is not so, the roots of some of this rhythmic material appear to be African in concept.

A second section presents an energetic strutting idea which is offset by an auxiliary note figure harmonized in sixths. This provides welcome relief from the static textures heard previously, but, in an unexpected twist, this material is also developed in quasi minimalist fashion. A brief 'interruption' by the 'gauntlet theme' gives way to a third section, this time characterised by 'call and response' activities between the cello and viola working in tandem against Violins I and II. This leads to another call and response passage this time pitting scale-like figures in the cello against the other three instruments reiterating a transformation of the auxiliary note idea.

The fourth section is more reflective and less energetic. It again presents numerous newer motivic ideas. Later a canon, coloured by a characteristically Judaic Lydian fourth degree, appears to be framed on either side by an 'optimistic' melody with a rising contour. At first this melody appears in unison in Violin I, II and Viola over a C pedal, but at its repetition more textural activity in the Viola and Cello support the build of tension to lead back to a shortened reprise of the first section. The 'gauntlet' theme appears abruptly and then follows an almost exact reiteration of the opening bars of the piece. However, a surprise awaits! The work closes with a wild semiquaver passage that seemingly comes out of nowhere!

Although 'Strange Quartet' may initially appear to be fit into the category of a stylistic revolution, elements which are the personal stamp of this composer still saturate the music, albeit approached in a somewhat oblique, perhaps intuitive manner. The composer herself remarks quizzically that "'It's a very strange quartet…". Mirroring perhaps the 'strangeness' of Lewis Caroll, and dedicating the work to her teacher and mentor Ligeti, the composer, who quotes, "There was a long pause. 'Is that all? Alice timidly asked. 'That's all,' said Humpty Dumpty. 'Good-bye'"!

Suite Afrique **for cello and piano (1993)**

- Commission: SAMRO.

- Movements: 4 Dances.

- Duration: 18'.

- First performance/performer: Premiered by Mark Drobinsky in Belgium in October 1994.

- Dedication information: Composed for Mark Drobinsky.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    The four dances may be played in any order as they are very much self-contained pieces. Two versions of this work exist:

    One for a virtuoso cellist and the other for a cellist with average technical ability.

    My sincere thanks go to MARIAN LEWIN-KIMMEL for her valuable editing advise.

    "SUITE AFRIQUE" for Cello and Piano (1993) was composed for the Russian Cellist, Mark Drobinsky, who premiered the piece in Belgium, in October 1994. The composer transcribed the work for Viola, and this version was premiered at a Festival in OHIO, USA by the composer and Professor Walter Mony (Viola).

    "*Suite Afrique*" consists of four "Dances" depicting the spirit and moods of Africa. It therefore naturally explores the African indigenous and ethnic elements derived from the music of its peoples. Each dance embodies a critical element typical of life in South Africa. These "Dances" are not abstractions. They are real physically-based living movements. The shadow of tribal life is always there, All of life's dramas are expressed in dance.

4. *Afro Angst*

This is the fourth Dance in the Suite. This is not much a dance as a mood and feeling. There is deep anxiety in our present-day society based on fear, mistrust and violence. This is expressed musically in sudden gestures and long dotted values, followed by short notes in falling minor 3rds.

However, the tension is relieved by a melody or chant in the cello in long notes against a fluid shifting 'ostinato' in the piano – Cantus Firmus of hope and redemption – a kind of supplication for peace.

The low "grumbling" section in the cello again creates "Angst" and expresses the primeval undercurrent of fear. A musical "convergence" takes place when ascending triplet figures in the piano criss-cross with descending triplet figures in the cello – a kind of optimistic "meeting of minds".

The "PESANTE" Section predominantly in open 5ths, is a repeated bell-like figure heralding a pragmatic resignation.

A CODA of rising figures in the cello brings the piece to an end on the tonic of D, where it began.

Suite Afrique transcription for viola and piano (1995)

- Commission information: SAMRO (1993).

- Movements: 4 Dances.

- Duration: 18'.

- First performance/performer: Premiered by Zaidel-Rudolph and Prof. Walter Mony (Dana State University Festival, Ohio, USA).

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    The four dances may be played in any order as they are very much self-contained pieces.

    My sincere thanks go to Professor Walter Mony for his valuable editing advice.

    "Suite Afrique" for Cello and Piano (1993) was originally commissioned for the Russian Cellist, Mark Drobinsky who premiered it in Belgium in October 1994. In 1995, a Viola transcription was made of the work which was premiered by the Composer and Prof. Walter Mony at the Dana State University Festival in Ohio, USA.

    "Suite Afrique" consists of four "dances" depicting the spirit and mood of Africa. It explores the African indigenous and ethnic elements from the music of its peoples. Each dance embodies a dynamic element typical of life in South Africa. These "dances" are not abstractions. They are real physically-based living movements. The shadow of tribal life is always there. All of life's dramas are expressed in dance e.g. birth, death and outpouring of emotions (Toyi-toying).

    1. **Rain Dance**

    This is a stamping, beating, rhythmic invocation for the ancestors to help bring the rain – the only saviour and substance of crops and life. The tone "D" is the basis of this piece as "Reh" signifies the Cabbalistic attribute of strength and G-D's [Sic] judgements – hence the intense praying and dancing of the people and tribal witchdoctor.

    The constant alternating of metre from 5 to 6 is typical of the irregular groupings and shifting stress of African music. Also within the metre, groupings change i.e. 3 + 2, 2 + 3, 2 + 2 + 2.

    The rather violent "off the beat" string punctuations are part of the cry to the "Rain G-D" to send rain. The more primitive sounding "aggressive stamping" becomes more gentle and a beautiful African folk song is introduced, however in a "transformed" way.

"Amangwane Mpulele" also has to do with the rain, but in more "domestic" way. A man is calling to his aunt to let him in the door as it is raining – he also informs her that with 2 or 3 cows, he can buy his bride.

2. **War Dance**

The theme of "closed" intervals i.e. semitones and tones signifies the "closing" of ranks against the enemy: G# G A G# - a tight-knit motif that revolves around itself. A history of tribal wars abound in Africa.

The tonal centre at the beginning is C# which finally settles on C (Doh) at the end, showing the futility of war i.e. "Back to square one – Doh!".

Like the "Rain Dance", the style is fairly aggressive, but whereas the "Rain Dance" was constructive, this is destructive and disintegratory.

The 'triplet' motif features throughout this dance as a warlike fanfare. The "leg-stamping" motif here widens out of a falling major 3rd followed by a rising minor 3rd. There are different "attacks" on the viola/cello, showing the different strategies of war.

A central quieter section ensues with a mournful piano ostinato (again falling 3rds) in an irregular 7/8 metre against a plaintive string line, bewailing the losses of war and the helplessness and futility thereof.

The first motif returns briefly and winds down in triplets alternating contrapuntally until it fades out on a "C".

3. **Hypnotic Dance**

The essence of this "hypnotic" style dance is a search for the spiritual connection that brings a sense of peace – a meditative introspective approach.

The opening in slow harmonics is reminiscent of a man in the veld walking along whistling quietly and peacefully to himself – a sense of introspection. A 7-note falling theme in [Sic] heard: -

D C G D C E D – a mixture of pentatonic and later mixolydian mode.

The piano joins the viola/cello in a desynchronised counterpoint with the same melody and the viola/cello strums like a guitar. Gradually, the tempo accelerates and small units are repeated. These become more intense and lead to a new theme of 11 notes.

The viola/cello now joins the piano in many counter melodies derived from the same material. The downward "glissando slides" between notes is very typical of African song. Themes are repeated in different irregular patterns and polyrhythms, even in canon (strict imitation).

A mini string cadenza reminds us that we are still listening to a virtuoso piece of serious music. A jazzy pizzicato section follows before a return to the quiet "harmonics" theme. A coda follows which builds up into a frenetic hypnotic repetitive dance.

4. **Afro Angst**

This is not so much of a dance as the creation of a mood and feeling. Anxiety is expressed musically in sudden gestures and long dotted values, followed by short notes in falling minor thirds. The tension is relieved by a chant in the viola in long notes against a fluid shifting 'ostinato' in the piano. A musical 'convergence' takes place when ascending triplet figures in the piano criss-cross with descending triplet figures in the viola.

The *Pesante* Section, predominantly in open fifths, is a repeated bell-like figure heralding…acceptance. A coda of rising figures in the cello brings the piece to an end on the tonic of D, where it began.

T

The Fugue that Flew Away **for flute and piano (1979)**

- Movements: A single movement piece.

- Duration: c. 5'.

- First performance/performer.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  Composed in 1979, 'The Fugue That Flew Away' for piano and flute is a light-hearted piece which pokes fun at the strictness of fugal form. The introduction is a statement of the fugal subject suspended in time and space. This leads into an uncompromisingly strict fugue which gradually disintegrates because the two instrumentalists attempt to assert their individuality. The piano tries in vain to reinstate the fuge [Sic], but the 'cheeky dialogue continue until the last remnants of the fugue 'fly out of the window'. In the first section of the piece the music stand of the piano must be flat and the pianist should stand, in order to pluck the strings inside the piano. Before the beginning of the $^6_4$ section, the music stand must be raised and the pianist must be seated.

  The piece was composed as a 'tongue in cheek' statement. A contradiction? Yes; the piece itself is a contradiction - a juxtaposition of opposing yet allied forces.

  The composer attempts to reconcile an Avante Garde work for flute and piano with a traditional Baroque form like Fugue. There is naturally a concentration on the contrapuntal and linear aspects, an influence which came directly from the Zaidel-Rudolph's studies with Gyorgy Ligeti in Hamburg in 1974/75. It is also an attempt to reconcile the timbre of a wind instrument, whose duration and sound depends on the ongoing breath, as opposed to the fast decaying sound of the piano as a 'percussion' instrument. Tone colour and blending is an important aspect of the piece. The piece begins with an '*ad lib'* slow Introduction - almost Prelude-like, but with fugal treatment. The "free" treatment in this Introduction highlights the shape of the fugal subject and links up the "plucked" notes (1,2 and 8,9) on the piano with the '*flutterzunge'* notes on flute (also 1,2 and 8,9). It is a resonant legato Introduction written in proportional notation.

  The subject is announced alone in piano, the end note being the beginning of the answer (i.e. a 5th above) and the last note of the answer (G) becoming the first note of the subject (or 2nd answer). The original

note is not returned to. The subject itself contains 11-notes plus 1 note link, which sounds like a 12-note row but is not (repetition of 3 notes A, C, C#) - the sound-world created is instead freely atonal and suspended in time. The rhythm is determined by the graphic interaction of the two instruments. An identifiable counter-subject accompanies first the flute, then the piano (also a 5th up).

The fugue proper begins with the 6/4 section in strict metre. The free-flowing subject of the Introduction is now regimented into a strict rhythmical structure with large leaps and jagged and sharp gestures.

The piano leads, the flute following at an unconventional distance of a tone up (the 5th relationship no longer exists). It now displays a relentless, driving force, again with its own counter-subject repeated in the flute. The 3rd entry in piano (bar 3, pg. 2) is now yet another tone higher (Eb) with a rhythmic shift, i.e. now on the 2nd crotchet, so the whole emphasis changes.

The left hand of the piano is in Augmentation (long note values) beginning on D (bar 3 of 6/4) while the right hand plays an augmented version of the counter-subject. In bar 5, a Stretto occurs with the flute entering with the subject beginning on Ab against the piano, now on the 4th beat of the bar.

The flute becomes the 'leader' with the (Ab) subject inverted, followed by the answer a semitone lower (G) also inverted - the counter-subject is undergoes inversion and extension (bending convention). In bar 7 the counter-subject is augmented in the flute.

An episode follows (8/9) with free imitative material derived from the counter-subject. In bar 11, the piano reintroduces subject material (i.e. 'correct' intervals) but in a totally different rhythmic structure, as well as in unison with both hands, with a rather 'cheeky' counterpoint in the flute.

After a couple more 'subject' entries, the real meaning of the piece (game) becomes clear. The flute tires of the restrictions and impositions of the

form and starts to break away from the restraint by using material in a free way from bar 16 heralding the calmer section that follows. The piano obviously 'disapproves' and reiterates the last few notes of the subject to bring the flute 'back into line'. But the flute is enjoying its freedom and goes into a brilliant Cadenza. The piano lodges its objection with aggressive tremolandi, but to no avail. So the piano retaliates and launches into a brilliant Cadenza of its own.

From page the last page, the fugue form has disintegrated and the flute and piano assert their own independence with very dissimilar material. There is a feeling of 'winding down' and ultimately a feeling of resignation that the fugue has 'fallen to pieces' and with a final gesture of disdain in the flute (G-B , G-Bb) it finally 'flies away'.
To sum up: - The piece parodies a strict form, namely the fugue, being able to 'take wings and fly away'.

Three Chassidic Pieces **for flute, violin and piano (1982)**

- Duration: 6'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  This is an early work - a medley of three *nigunim* (songs emanating from the Chassidic Jewish masters). The framework is a religious devotional work – which although based on age-old 'songs' whose essence is the "cleaving to Gd", this is purely an instrumental work without words with plaintive melodies merging into one another.

W

***Wits Trio Tribute* for piano violin and cello (2013)**

- Commission: The Wits Trio.

- Movements: Three movements in total.

- Duration: c. 18'.

- First performance/performer: Premiered by the Wits Piano Trio (August 2013) on the occasion of the composer's Farewell Tribute Concert

- Dedication: The Wits Trio.

- Recording details: http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes: Composed for the special Tribute Concert in honour of Jeanne Zaidel-Rudolph's service to Wits Music preceding her retirement at the end of 2013.

> This work is in three movements with the outer energetic segments encasing a middle expressive movement.
>
> A rotating murmuring figure introduces the material for the 1st movement which is in a loose Rondo form in which the recognizable motivic material recurs several times in different forms and instrumental transpositions. Each instrument has its turn to enunciate the thematic material. A middle celebratory section in longer note values is located on the tonal centre of 'A', but the dissonance triplets soon return. The rhythmic units are unpredictable and irregular, making it extremely difficult to perform – just ask the Trio.
>
> The 2nd movement is an elegiac and plaintive lament of a time and place long gone; its longing character yearns for a glimpse into a bygone era with distinctly Judaic nostalgic overtones. The opening rising figure in the cello represents a kind of supplication, a prayer - this is followed by ambiguous harmonies in the piano ranging from dissonant intervals reflecting angst to the more optimistic tonal harmonic resolutions. The falling harmonic minor intervals are offset by the constant attempt to rise

higher and higher in register, ending with high harmonics in the violin. This is an example of music expressing my roots and spiritual essence - resulting in music of deep longing, nostalgia and yearning.

The 3rd movement is driven by a relentless mechanical figure, which contains sequentially repeated patterns. Although pulse-based and rhythmical there are enforced signposts that interrupt and halt the momentum. This is life! When things are going smoothly there are unexpected intrusions and interruptions, but one resumes with vigour and energy. The musical figures are broken up with interjections and imitation between the instruments like an interdependent symbiotic relationship. Again, this is the *weltanschauung* of my mature years. WE are interdependent human beings. The music develops into a heavy rather exaggerated Russian-sounding dance – my Lithuanian ancestry and roots are clearly showing!

7.2.3. Piano

A

AfrEtude (2020)

- Commission: UNISA.

- Movements: A single movement work.

- Duration: c. 4'.

- Dedication information: Malcom Nay.

- Recording details: http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    Jeanne was commissioned to compose 2 new piano works, *AfrEtude* and *Ebb and Flow* for piano for the 2020 UNISA International Piano Competition at the University of South Africa (UNISA), Pretoria, as compulsory South African Piano works for all competitors in the 1st Round

of the Competition –The commissioning brief from UNISA was to write 2 piano works, in contrasting style, that were on a very high performance level, demanding both musical and technical prowess. Yet at the same time the pieces had to be musically accessible for the contestants and audiences alike.

AfrEtude was conceived with indigenous rhythmic and textural elements in mind – contrasting conventional and regular metres and groupings are juxtaposed between the additive 'African traditional' rhythmic sub-divisions and groupings of aggregates of 2's and 3's. The harmonic language in these sections is mostly diatonic with open intervals of perfect 4ths and 5ths. The character of the piece is imitative of indigenous dance styles and copies the complex dance-drum percussive accompaniment figures. An introductory section in irregular metric units builds up to the 12/8 Dance section. The rhythmic dialogue between the 2 hands creates a syncopatory contrapuntal effect. The contrasting (Western-conceived) rhythmic sections are superimposed and interpolated. The left hand figures give the pulsating energy and driving force to the piece. A central section in this ABCAB form consists of a 'static' D major/D minor texture – this ambiguous chordal 'stasis' is achieved by the use of 'Short-long' uneven values and is characterised by a pounding relentless drive. The work ends with the central dance theme in a flourish and with forceful *marcato* chords.

Awaiting Game (1993)

- Movements: Single movement.

- Duration: 3'.

- First performance/performer: Sara.

- Dedication information: Specially composed for Sara, one of Zaidel-Rudolph's children.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> The title is meant to be ambiguous. After a visit to the Kruger National Park, my daughter Sara asked me to write her a 'Game Reserve' Piece. When one is 'Awaiting Game' it becomes "A Waiting Game'".

> This is definitely a piece of music with a dramatic aspect that needs to be acted out! In general terms, the music illustrates the peaceful, unsuspecting bush with a 'slow motion', languid, hot atmosphere, which is broken occasionally by a little 'buck run' here or a 'zebra run' there. When no major kill takes place all is peaceful again.

> This piece is written for an older child (about 14 years up), who can stretch octaves and express the dramatic content required. Unlike the previous piece, which was based on a triadic concept (i.e. intervals of 3rds), "Awaiting Game" is based on 4ths, i.e. quartal harmonies and melodies.

> *Section A* starts atmospherically and very softly, with much pedal. The technique of a split arpeggiated chord is taught, and the bell-like sound of a cluster is introduced. Clever pedalling is important – a static atmosphere is established with some dissonant clashes. A flutter of action is felt with a flurry of split octaves.

> There is heightened tension, but nothing comes of it – the "Waiting Game" continues.

> However, the second "piu mosso" (Bar 39) begins another chase, this time longer, and finally a triumphant kill. The 4-bar Coda that follows is the victorious feast of the lions, with hands alternating in octaves down the perfect 4ths to a resounding climax.

> This programmatic piece provides much opportunity for musical imagination and fun illustration. There is a great deal of rhythmic freedom as space and silence are an integral part of the interpretation. Agile

fingers are needed and again technical exercises can be based on the semiquaver figures of the chase.

B

Back to Basics **for piano, prepared piano and narrator (1983)**

- Movements: Single movement with theatrical aspects.

- Duration: c. 6'.

- First performance/performer: Premiered at the 1983 SABC International Composers Festival (with Morton Feldman as guest composer). Performed by Jeanne Zaidel-Rudolph (piano), Shirley Hoffman (prepared piano) and Mary Rorich (narrator).

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  For practical reasons this version of "Back to Basics" is written for 2 pianos; one prepared, one unprepared. However, the work is comfortably able to be performed by one pianist at a piano prepared as illustrated.

  As the title suggests, "Back to Basics" is a plea for a return to a way of life which symbolises purity and goodness, as opposed to the artificial and plastic values so prevalent in today's society.

  The unprepared sounds symbolise the stark reality of contemporary life in its supersophisticated [Sic] chaotic state. Many clichés of the 20th Century compositional style (i.e. harsh dissonance, fragmented and jagged rhythms) are used to portray impurity, excess, overload and incomprehensibility – the mechanised sound of homogenous piano colour.

  In contrast the colourful timbres of the primitive percussive sounds of the "prepared" notes with a distinct African flavour symbolise Nature and

simplicity – these sounds infiltrate the whole fabric and finally dominate and take over.

The brief reference to the American National Anthem symbolises the peak of modern Technology, but questions the resulting Quality of Life.

The "unprepared" sounds are generally written in proportional notation which further emphasises randomness whereas the prepared music is strictly and conventionally notated showing order + [Sic] form.

NB: The text can be narrated as is written i.e. alternating between the two performers – the one plays while the other narrates.

OR: A separate narrator can be used to relay the whole text. This definitely improves the music theatre aspect. It is recommended that a microphone be used.

D

DiA(fro)belli **for Piano (2019)**

- Commission: Dr Lia Jensen-Abbott (pianist) - NCTM Associate Professor, Music Department, Albion College, Michigan, USA.

- Movements: A single movement work (unitary form).

- Duration: c.3'.

- First performance/performer: Lia Jensen-Abbott.

- Recording details: Composer's archives.

- Publishing details/discography and score access information: http://jeannezaidel-rudolph.com/Contact/

- Descriptive comment/program notes:

  I was contacted by Dr Lia Jensen-Abbott, piano lecturer from Albion College, Michigan in the USA. She had learned about my music from Sophie and Pierre van der Westhuizen in the USA (for whom I had written a Duo piano work) Her exciting new Project was to commission several

composers from around the world to write new Piano Variations on the Anton Diabelli Waltz; she invited me to be one of the commissioned composers. As a social justice project, she was searching internationally for composers from every continent around the globe. Carter Pann, Adam Schumaker and Ron Di Salvio, American composers had already written new pieces for the Project. I sourced the original composition online by Diabelli to use as my model for a new work inspired by the composer. I approached the composing of this work through the lens of interculturality and the requested brief by the commissioner to "Africanise" the Diabelli Variations. I studied the other works written by the other commissioned composers and then decided how to make mine completely different and indigenous to this part of the world.

Detailed analysis: The central thematic material is inspired by the Diabelli name and historical context - I use the letters found in the composer's name for my indigenous African theme, namely <u>D</u> i <u>A B E</u> l l i. So aside from the obvious letters in his name, D, A, B and E, I devised a mechanism of counting pitches to find parallel pitches for the other (non-tonal) letters. I developed the motivic material from the original rhythmical "*Oom-pah-pah*" waltz cliché by Diabelli, but in my piece with heavy chords on the 2nd and 3rd beats; this had to in some way be a parody and not a 'normal' waltz – so I exaggerated the rhythmic element. This waltz-like figure introduces my work. Arpeggiated rising and falling figures in the left hand accompany the waltz. After a neutral bridge passage the deviation from the waltz begins to take place; this is achieved by the lengthening of the metre from 3/4 to 4/4/, then to 5/4 (with triplets to prepare for the compound time) and it then jumps into the 12/8 indigenous rhythmic pattern with smaller aggregates of 2s and 3s; (2+3+2+2+3). The mode used in this 'African' section is the Natural minor (Aeolian) on the tonic of 'E'. What follows is a 'foot-stomping' syncopated ethnic dance (not the elegant or gentle waltz upon which the piece is modelled). When the original 3/4 material returns, it is in a faster tempo and livelier mood - more aligned with the African dance-like sound-world than a traditional classical piece of waltz music. The bridge passage also briefly returns as before; the 'waltz' becomes slightly bizarre and distorted -and the piece ends with

waltz triplets instead of chords on the 2nd and 3rd beats. The effect is somewhat disturbing!

E

Ebb and Flow (2020)

- Commission: UNISA.

- Movements: A single movement work (unitary form).

- Duration: c. 4'.

- Dedication information: Dedicated to Pianist Prof Malcolm Nay.

- Recording details: http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> I was commissioned to compose 2 new piano works in 2019 for the UNISA International Piano Competition taking place in January, 2020 at the University of South Africa (UNISA), Pretoria, as the compulsory South African Piano works for all competitors to choose and perform one of them in the 1st Round of the Competition – the commission was from the South African Music Rights Organisation (SAMRO). The piece under discussion here is *Ebb and Flow* for Piano Solo. The other piece, *AfrEtude,* will be discussed separately. All classical music contestants were obliged to choose one of these two compulsory South African piano pieces and to include it in their first recital programme. This first Round took place on the 22nd January, 2020. All 16 Classical Music competitors performed one of the two new South African virtuoso works as part of their recitals. Most of the competitors played the pieces brilliantly and most without the score, having memorised these very complex and demanding piano pieces. The commissioning brief from UNISA was to write 2 piano works, in contrasting style, that were on a very high performance level, demanding both musical and technical prowess. Yet at the same time the pieces had to be musically accessible for the contestants and audiences

alike - as opposed to being in an *avant garde* or esoteric style. The pieces were extremely well-received by the judges, competitors and audiences alike. The Head of the Music Foundation and Examinations at UNISA, Prof Karendra Devroop wrote the following to me immediately after the 1st round:

"Dear Jeanne, I am so sorry I did not get more time to chat to you. These events are really hectic for me trying to juggle the demands of the competition and jury. Ben (Schoeman, one of the jurors) and I spoke at length about your works and he could not get over how incredibly well composed they were. The jury was truly impressed by your works.

One of our requirements is that when the winners return to SA they must perform the commissioned works. I am certain that will happen in due course. Thank you so much for composing the works. They were right on target in terms of difficulty, duration and appropriateness for the competition. The works will be broadcast on DSTV channel 144 when the broadcast of the competition takes place starting 8 March. I am not certain which candidates MNET will feature performing the SA works but I am most certain there will be a few. Regards, Karendra (Devroop)".

Ebony and Ivory for harpsichord (2001)

- Commission: SAMRO Endowment for the Arts.

- Movements: A suite with three pieces.

- Duration: 8'.

- First performance/performer: Premiered by Michael Blake in October 2004.

- Dedication information: to my teacher and mentor, György Ligeti.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

The title "Ebony and Ivory" for the harpsichord Suite of three pieces was inspired by the obvious distinction of the black and white keys on a music keyboard and how a composer can integrate or separate these notes.

As can be seen in the **first** piece "*Ebony and a Little Ivory*" the concentration of material on the 'black' notes yields a pentatonic melody, which dominates this piece. Use is made of the two manuals of the harpsichord to maximize note duplication and rhythmic illusions. It is African in concept.

The **second** piece "*Go Fourth*" is driven by a 5-note motif in 4ths, but the simplicity of this open interval is manipulated into a textural web more suited to the sound world of contemporary art music.

The **third** piece is subtitled "*Ligeti Ist Auch Dabei*". The composer, Ligeti, used this subtitle in his 2-piano work "*Selbsportret*" as follows: "*Chopin ist auch dabei*". This 'mechanical', almost electronic-sounding work was inspired by my teacher, György Ligeti, to whom this work is dedicated; he was the master of musical illusion, and thus his spirit exists in this music.

M

Mosaic for Tamar (1989)

- Movements: Short piece, single movement.

- Duration: 2'.

- First performance/performer: Tamar.

- Dedication information: Specially written for Tamar Rudolph-Levin, one of Zaidel-Rudolph's children.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

This short piece introduces the child to a modal sound world rather than a tonal one. It opens in the Lydian mode (on F) which immediately produces the augmented 4th (tritone) interval F to B between the hands.

It returns to the Lydian mode at Bar 12 now with C as its tonic with F# above. But before this at bar 5 there is a "delicious" clash of the F (R.H) against the F# in the left hand – the children really enjoy this ff moment of harsh dissonance. Bars 5 and 6 in the R.H. also introduce them to the WHOLE TONE scale of six pitches G F Eb Db B A, showing the HEXATONIC scale (meaning six notes).

It is not a technically demanding piece – the challenge is to express a musical flow, which has an undulating meditative quality. Much can be made of the dynamic levels and pedalling has deliberately been omitted to give the student and teacher ab opportunity to experiment with different pedalling to enhance the atmosphere.

It is important for the child to feel the difference between regular quavers and the dotted quaver followed by the semiquaver.

The interpolated 5/4 Time Signature instead of ¾ in Bar 11 illustrates for a child that a composer does not have to stick to the same metre throughout, if the logical sense of the music dictates otherwise.

Bars 15 and 16 are a MINI CODA in the PHRYGIAN MODE (a last sigh). So the name "MOSAIC" can now be understood to call for many different colours, yet the piece needs to hang together well with a feeling of forward movement.

Mixed Feelings for Sara (1988)

- Movements: Short piece, single movement.
- Duration: 3'.
- First performance/performer: Sara.

- Dedication information: Specially written for Sara Rudolph-Bronstein, one of Zaidel-Rudolph's children.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

  This piece has been prescribed for the UNISA Piano Syllabus Grade IV. The title "Mixed Feelings" is meant not only to convey the many moods in the piece, but also to show contrast in more subtle ways, e.g. a triplet in quavers as opposed to a triplet in semiquavers; this demands rhythmic accuracy.

  The first 9 bars *(first section A)* introduce the almost march-like theme with a triplet (in the R.H.) in descending 3rds (melodically) followed by the L.H. descending chromatically in major 3rd intervals.

  Suddenly a "con fuoco" appears as a dramatic fanfare. It teaches the student how to play a tremolando alternating between the two hands, which is great fun, as it sounds so terribly difficult and smart, but actually lies quite easily under the hands. The chords are in Whole Tone material, thereby avoiding harsh dissonances up to this point. A great deal of tonal and dynamic control has to be exercised in the "pianissimo subito" repetition of this tremolando.

  The *Second Section (B)* is an immediate contrast and marked "playfully" – it has a skipping lilt and waltz-like theme in ¾ time and the melody now rises using the same main notes as the opening E C A ascending instead of descending with the triad filled in: A (B) C (D) E. The left hand keeps the ostinato Eb Gb Bb, again rising thirds. So the brain integrates vertical and horizontal 3rds.

  The climax of these 3rds follows in a quick passage of alternating broken triads, which can give quite a dazzling display, which greatly impresses a child.

The piece moves into the *Third Section (C)* (Bar 22), which goes back to a march-like mood, demanding rhythmic precision and care with demi-semi quavers.

A run up at Bar 29 demands an agility in alternating and crossing hands over one another. "Here I developed technical exercises of runs up as well as down to loosen and co-ordinate the fingers" – an example of a technical exercise taken directly out of a piece instead of being clinical or abstract.

At Bar 30 we return to the first theme *(A)* but altered to build the cadence for the ending. B flats in the left hand remind one of the focal importance of B flat at the beginning in the Right Hand.

The piece also teaches different forms of articulation, e.g. short staccato against long-held notes, mezzo staccati, smooth short phrases, long phrases, sforzandi, accents and tremolandi.

A wide range of registers of the piano is used requiring the student to find a good physical seating position, to allow for maximum mobility without shifting around on the piano stool.

As there are no octaves involved, even a child with a smaller hand can cope pretty well with the technique.

P

***Partials and Pedals* (2008)**

- Commission: Composed for the 11th UNISA International Piano Competition 2008.

- Movements: A single movement work (unitary form).

- Duration: c. 5'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> This work was inspired by the 'overtone' (split-tone) singing of the **Ngqoko** Women's Group from the Eastern Cape. Having worked with this vocal ensemble I was immediately impressed by the richness of tone and timbre produced in their vocal music by this vocal technique. In this piece no literal transference of that sonic world is attempted, but rather the concept of harmonics and pedal points (fundamentals) has been introduced to add a special colour.

> The intervals that dominate the work are octaves, fifths and thirds, namely, the strongest partials in the harmonic series. These generate multi-phonics which enrich the texture. Lively octaves in contrary motion open the piece and these are located on a shifting "Bb" pedal point. The rhythmic patterns fall naturally into groups of notes in twos and threes irrespective of the changing metre and there are subtle alterations of values. Although there are polyrhythmic moments, the focus is more on cross-rhythms and vertical harmonic states. Ambiguous major and minor thirds further emphasise the harmonic series.

> The unrelenting motion gives way to a central synthesis – the free expression of three fundamental tones (C, Ab and E) and their resulting eleven overtones, in a swirl of sound. This is followed by a grounded section in rotating motion around the pedal points of Eb and Bb, sometimes straight and sometimes in triplets. A return to the descending chordal figure finds itself located on the pedal point of Eb, the obvious 'dominant-tonic' relationship, so manifest in the natural acoustic realm of overtones. Clever use of the sustaining pedal can enhance this sound-world.

> The piece comes to a close with a return to the octave figure, this time positioned on the Eb pedal point. Partials and Pedals is a tactile and virtuosic work that allows for relative freedom in interpretation.

S

Seven Variations on an Original Theme **(1971)**

- Movements: Seven variations.

- Duration: 12'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

Theme.

The predominant intervals in this theme are perfect 4ths, minor 2nds, diminished 5ths and major and minor 3rds. The theme is made up of several short motive which are conducive to variation treatment. The motives are indicated above the theme.

Variation I.

In this variation the music attempts to create an atmosphere and a feeling for tone colour. The interval of a diminished 5th predominates and the first 3 notes of the theme are found in various guises.

Variation II.

This variation is based on the interval of a 4th; mainly the augmented 4th, but also the perfect 4th. The rhythm is designed to move into the realm of Jazz, and the syncopation is the chief character of this variation.

The technique of augmentation and diminution of note values is employed here in the opening and closing bars. The augmented 4ths move up and down mainly stepwise in semitones.

Once again, the opening motive of the original theme is exploited, as well as the second motive.

Variation III.

This variation is based on a 12-tone series which has been so designed as to contain the first 3 notes of the theme. The rhythm is extremely irregular to eradicate the concept of the barline. Triplets in different forms are featured here. Midway through, the row is used in canon.

This row is used in its following forms: -ORIGINAL, INVERSION, RETROGRADE, RETROGRADE INVERSION and the augmented 4th and augmented 5th transposition of the ORIGINAL.

Variation IV.

This variation is a fugue in 3 voices. The subject of the fugue is based on the intervallic motives of the original theme (mainly motives 1, 2 and 3). The countersubject in bar 3 is derived from motives 3 and 5 of the original theme. Although only 2 voices are heard simultaneously, this fugue is conceived in 3 voices.

Brief analysis:

3-voiced exposition: Bars 1 to 6: In the order alto, bass, soprano.

1st Episode: Bars 7 to 11, based on 4-note motive from
the subject.

Middle entry of subject: Extended stretto from bar 12 to 16 which
contains an

inversion of the subject.

2nd Episode:	Begins at 16 and ends at bar 23. Based on
the last 4	notes of the subject as well as the
interval of a major 7th.	

| 2nd Middle entry: | Bars 24 to 27 in bass and soprano. |

| Subject in Augmentation: | End of bar 27 to end of bar 30 in the bass |
| voice. | |

Variation V.

This variation is based on the interval of 3rds and 6ths (mainly major 3rds and minor 6ths). Contrasting metres are placed vertically under each other and at the same time each hand is acting individually with an "accumulative" technique: that is repetition of a phrase with an additional motive added each time. Motive 2 of the original theme is used here extensively.

At bar 15 the left hand takes over the "thirds" motive from the right hand and augments it in stages until the music takes over the use of 6ths.

Variation VI.

1). This variation is based on a tone row of 12 notes. It is as follows:-

The following is a list of the forms of the row and the transpositions that are used: -

i) ORIGINAL plus transpositions of diminished 4th, augmented 4th and major 6th.

ii) INVERSION and transpositions of augmented 4th and major 2nd.

iii) RETROGRADE and transpositions of augmented 4th and major 2nd.

iv) RETROGRADE INVERSION and transposition of major 3rd.

2). The rhythmic proportions are also serialised in this variation. The relative note values have been derived from the relative intervallic values of the above row.

3). This variation attempts to create a very broad spectrum of tone colour and relative tensions.

4). Note that the accidentals used apply only to the notes alongside which they stand. Hence, there is no use of the "natural" sign.

5). In order to eradicate the concept of the barline, only dotted indications are given as divisions for the benefit of the performer, but the notes have their correct values irrespective of these markings.

Variation VII.

This final variation is based on the interval of a perfect 5th. Motives 1, 3 and 6 of the original theme predominate in the melodic line of this variation.

Irregularity in rhythm is obtained by the interpolation of a half beat, i.e. a quaver, after every bar containing 4 beats, i.e. 4 crotchets in a bar plus a half.

Sonata No.1 **(1969)**

- Duration: 16'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    This is an early work in which the "sonata form" dictates the structural architecture but not the tonal relationships. I attempt to rather use free-

flowing contrapuntal techniques, such as inversion and imitation within vertical structures (i.e. harmonic polyphony).

The first movement, **Allegro**, adheres to the segments i.e. enunciation, development and recapitulation using a "contracting" motif pivoting around the major third. The themes are more percussive than melodic, with aggressive dissonants and syncopations on repeated notes. The melodic shape of the second theme also resolves into a rising and falling major third. A percussive *marcato* shifts between 3/4 and 6/8 leading to the development of themes which shifts around chromatically, and abounds in contrapuntal techniques. Rising thirds bring us back to the recapitulation in the original "atonal" register. Some leaping octaves end this movement rather abruptly.

The second movement, **Canon**, has *misterioso* as a mood indication. Rising semitones (with an octave displacement) are followed by a falling minor third. The dissonant major seventh gives it a haunting quality. The left hand enters at a two-bar distance and two octaves lower. The alternating quaver movement gives way to a figure of a double-dotted quaver, followed by a demi-semiquaver which begins a much freer contrapuntal section where the imitation is rhythmic rather than melodic. A texturally thick climax is reached with tension in double dotted rhythms.

This winds down in rising semitones until the original canon is resumed. An augmentation in the left hand follows and a unison melody (4 octaves apart) leads *attacca* into the third movement, **Rondo**.

Here the main subject is based exactly on the first five notes of the **Canon**, but rhythmically altered in a 9/8 meter. *Scherzando e marcato* sets the tone for leaping rhythmical gestures. Again free contrapuntal techniques are employed, especially inversion. The second motif is quieter and in dotted crotchets (again displaced semitones). There is much usage of the first movement's opening theme, i.e. major third and falling semitone. After a lively "development" the theme returns in a "quasi-canon" and summarises most the material heard before in the entire work.

South African National Anthem (1995)

- Commission: An invitation to serve on the Anthem Committee in February 1995.

- Movements: Single movement with sections in 10 different South African languages.

- Duration: c.2'.

- Arranger's name and original source: Jeanne Zaidel-Rudolph (South African National Anthem's current version; composite rearrangement, Orchestral setting).

- Lyricist/Text origin: Jeanne Zaidel-Rudolph (The current South African National Anthem's additional English words).

- Recording details: https://www.gov.za/about-sa/national-symbols/national-anthem#listenanthem

- Publishing details/discography and score access information: http://www.dirco.gov.za/protocol/national_anthem0120.pdf , https://www.gov.za/about-sa/national-symbols/national-anthem

- Descriptive comment: Arranged for piano and solo voice (official version).

T

Takes Two to Tango for 2 pianos (2013)

- Commission: The SAMRO endowment for the National Arts.

- Movement: A single movement work (unitary form).

- Duration: 10'.

- First performance/performer: Premiered by Peter Cartwright and Sonja van Zyl at Pretoria University. The work has had several excellent performances by other duo pianists.

- Dedication information: Dedicated to Pieter and Sophie.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment: The work was composed for Pieter and Sophie as seen on the score's cover page.

The Juggler and the King for two pianos (1998)

- Commission: SAMRO Endowment for the National Arts.

- Movements: A single movement piece

- Duration: 9'.

- First performance/performer: Premiered by Jill Richards and Wessel van Wyk

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> The title of this work was inspired by a book with the same name, "The Juggler and the King". In the book the wisdom of our great Sages is revealed through a language which shrouds their teachings in legends, parables, riddles and cryptic debates.

> The 'Juggler' represents the aspect of Man that is constantly throwing one ball after another in the mindless pursuit of pleasure and physical gratification, seeking prestige and honour. For me, personally, he symbolises my own struggle to 'juggle' life's activities and demands in order to achieve balance and serenity.

> The figure of the 'King' manifests that which is Godly within us, striving to reach higher goals and our true spiritual and physical potential, i.e. controlling the juggler within oneself to bring man to a nobler density.

> Through the music I have tried to portray these two forces in gentle opposition to one another in a style that is both stately and frivolous. Towards the end is a quotation from 'Avinu Malkeinu' (our Father out [Sic]

King), a prayer for renewal and life. This 'return' to a kind of tonal language.

Three Dimensions (1974)

- Commission: SAMRO.

- Movements: A work in three distinctive sections.

- Duration: 8'.

- First performance/performer: Wessel van Wyk.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

    The Three Dimensions for piano was written after I had been in London for a year. The three sections of the piece are called: -

(i)	A European city awakens.
(ii)	An African city pulsates.
(iii)	An Eastern city meditates.

    I combined the three levels of my interests, to construct a three-dimensional piece – my present home, which was London then, the home of my birth, South Africa, and my interest in Eastern philosophy. The style and form of this piece allows the performer more freedom than the previous ones. Spot a quotation of our National Anthem in the 2nd section – a parody! The 3rd section should convey the timelessness of the East.

Times They Are A-Changing (2007)

- Commission: UNISA for the Grade III Syllabus.

- Duration: c.2'.

- First performance/performer:

- Dedication information: for Nisi (Zaidel-Rudolph's youngest daughter).

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

> This fun piano piece was commissioned by UNISA for their Grade 3 piano Syllabus. The basis for this work was a reflection on a more rural atmosphere inspired by the beauty and constantly changing colours and landscape of the Ngqoko village in the Eastern Cape. It is also a reflection of the changing pace of life which threatens to erode the traditional music values of our diverse heritage. The title gives the clue to the metric changes in the piece as a didactic work - to teach young pianists how to adjust to metre changes within a short work. The notes lie easily under the hands of a young pianist and the *con brio* indication indicates a bright showy piece in a dance-like structure. The material is dominated by the use of 3rds melodically and by 5ths harmonically.

V

Virtuoso I (1987)

- Commission: UNISA.

- Movements: A single movement piece.

- Duration: 3'25".

- This work has had numerous performances by superb young pianists and has been played in many piano competitions.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

Virtuoso I was commissioned by the UNISA for the Fourth International Piano Competition, Pretoria 1988. For the occasion it was written to challenge the technical and musical abilities of the performer. The point of departure for the composer is the piano itself with its own technical possibilities.

After the rapid introductory figures, heavy chordal textures are contrasted with light flowing patterns of a watery nature which gives it its neo-impressionistic sound – water is the source of life and 'sustains' the theme.

The 'Victory' theme is heralded midway in the piece. This is the victory of good and spiritual forces over the forces of evil, i.e. the ultimate redemption.

This piece marks a return for the composer to an idiomatic virtuoso style.

"Although I have not consciously used indigenous material, as in my previous work, the spirit of Africa is reflected in the driving rhythms and constantly changing metre. The first 26 bars form an introduction, which emphasises the interval of a minor 3rd. This later becomes one of the main motifs of the piece.

Addendum

***"5 6 7 8."* (2001)**

- Commission: UNISA for the grade VII examinations.

- Movements: A single movement work (unitary).

- Duration: 3'.

- Recording details: SAMRO archives, http://jeannezaidel-rudolph.com/Contact/

- Publishing details/discography and score access information: Composer's archives.

- Descriptive comment/program notes:

As the title implies, the metric structures progress from 5/8 to 6/8 through 7/8 and to 8/8. As a summing up of the metric changes the final few bars follow this pattern as a final statement. The title is also a play on the shout-out for dancers, "5,6,7,8" as a common instruction in contemporary dance to alert the dancers to begin. There is a nine-bar introduction in predominantly quartal harmony (in 4ths). The main *Ritmico* section from bar 10 presents a melody in 3rds and harmony in 6th intervals. This thematic material dominates the work applying several variations, making it a loosely-constructed 'rondo' form. This thematic usage plays out on shifting tonal centres and the music is propelled forward with an underlying pulsating rhythmic drive.

Chapter 8

Conclusions and suggestions for further research

Two important tasks have been attempted in this research document; one being an in-depth style discussion of Zaidel-Rudolph's *Pendulum* and the other being the catalogue compilation of the composer's orchestral, chamber and piano works. These tasks are deemed 'important' as there has not been a comprehensive research study on the chosen work as well as no current catalogue documenting the composer's works.

It has been the aim of this thesis to introduce interested individuals – both musical elites and general music appreciators alike to the works of a renowned South African composer – Jeanne Zaidel-Rudolph as well as provide information on the diverse works the composer has in her *oeuvre*. Although the style discussion of the composer's work (*Pendulum*) is the main subject of this research document, the catalogue is a crucial part of the composer's wishes as she believes in the documentation of her life's work as she grows older. The composer furthermore wishes that after she passes on, her legacy still lives on in Africa – and that the rest of the world will have access to her works for research, references and performance purposes; hence the analysis of *Pendulum* and the cataloguing of her works.

As noted in this research document, only the orchestral, chamber and piano compositions of the composer have been catalogued. This leaves a gap to be filled and gives room for further research (both style discussion and cataloguing) into other genres of the composer's *oeuvre*, already listed (up to date as at the time of this research) such as vocal, guitar, harpsichord, organ, marimba, multi-media works, Jewish musicals/songs, stage musicals, music for T.V as well as various arrangements of both African and Jewish folksongs. Worthy of note is the constant update of the composer's creative output as catalogues become outdated over a short span of time due to newer works being composed by the composer; hence the author's recommendation to other researchers regarding Zaidel-Rudolph's life works to pursue still further.

Another gap and the author's recommendation for further research is the concept of voice-leading in *Pendulum*, which in this study is undeveloped. Although Zaidel-Rudolph's music generally comprises twentieth century ideals, her overall compositional structures with regards to melody and voice-leading (particularly the latter) comprises a

considerable interpretation of Heinrich Schenker's (1868-1935) melodic diminutions and voice-leading logic as comprehensively discussed by Forte and Gilbert (1982:7–66), and Schenker (1969). According to the composer, from Schenker she learnt about logical voice-leading principles; the voice-leading graphs in Schenker's *Five graphic music analyses* (1969) are grounded in her musical psyche (Personal interview, 11 August 2020). According to Zaidel-Rudolph, voice-leading does not mean one always has to utilise stepwise conjunct movement but instead have a certain intelligence and logic behind it (Personal interview, 11 August 2020).

Furthermore, this study's exploration of a nexus between movements in *Pendulum* and the phases in the life of the composer leaves another gap for research on Zaidel-Rudolph by scholars in the fields of psychology, sociology, music therapy as well as other disciplines.

It is believed that the author has contributed to knowledge by:

- Setting an example for future research of this nature through this study's approach, technique and method of musical stylistic analysis of the twentieth and twenty-first centuries.
- Providing resourceful materials (through this study's in-depth analysis and a comprehensive catalogue) to researchers in the field of musicology as well as related areas to leverage on for their respective studies.
- This study's documentation of Zaidel-Rudolph's work for the purposes of posterity thus promoting and expanding the frontier of knowledge on them, as well as creating more awareness for their circulation and performance on both the local and international scenes.
- Bridging the gap in knowledge between earlier study (mini dissertation) on *Pendulum* by L.D. Smith (2015) and this study's thesis.

Lastly, during a 'research visit' to the composer's home studio, Zaidel-Rudolph, being a very organised individual, has in her studio a collection of her life's work neatly arranged in several files and other documents for proposed researchers. She, however, stated that this huge library of works will at some point be moved to the University of Pretoria for preservation purposes to further enable easy access for prospective researchers. This, the author believes is commendable and very crucial to accessing every detail

needed regarding the composer – a rare feat amongst composers both in Africa and the rest of the world.

References

Books

Adler, S. 1989. *The study of orchestration.* (2nd ed.). New York: W.W. Norton.

Agawu, K. 2003. *Representing African music.* New York: Routledge.

Ammer, C. 2004. *The facts on file dictionary of music.* (4th ed.). New York: Facts On File.

Arom, S. 1991. *African polyphony and polyrhythm: musical structure and methodology.* Cambridge: Cambridge University Press.

Auner, J.H. 2013. *Music in the twentieth and twenty-first centuries.* New York: W.W. Norton.

Bak, N. 2004. *Completing your thesis: A practical guide.* Pretoria: Van Schaik.

Baur, J. 1985. *Music theory through literature.* Vol. 2. Englewood Cliffs: Prentice Hall.

Beard, D. & Gloag, K. 2016. *Musicology: the key concepts.* (2nd ed.). London: Routledge.

Bebey, F. 1975. *African music: a people's art.* New York: Lawrence Hill.

Benjamin, T., Horvit, M. & Nelson, R. 2008. *Techniques and materials of music from the common practice period through the twentieth century.* (7th ed.). Belmont, CA: Thomson Schirmer.

Black, D. & Gerou, T. 1998. *Essential dictionary of orchestration.* Los Angeles: Alfred.

Burkholder, J.P., Grout, D.J. & Palisca, C.V. 2010. *A history of Western music.* (8th ed.). New York: Norton.

Cage, J. 1961. *Silence: lectures and writings.* Middletown: Wesleyan University Press.

Collins, J. 2004. *African musical symbolism in contemporary perspective: roots, rhythms and relativity.* Berlin: Pro Business.

Cook, N. 1987. *A guide to musical analysis*. London: Dent.

Cope, D. 1997. *Techniques of the contemporary composer*. New York: Schirmer.

Cope, D. 1989. New directions in music. (5th ed.). Dubuque, Iowa: Brown.

Corbin, J. & Strauss, A. 2015. *Basics of qualitative research: techniques and procedures for developing grounded theory*. (4th ed.). Los Angeles: SAGE.

Creswell, J. W. 2014. *Research Design: qualitative, quantitative, & mixed methods approaches*. (4th ed.). Los Angeles: SAGE Publications.

Dallin, L. 1974. *Techniques of 20th century composition: a guide to the materials of modern music.* (3rd ed.). Dubuque, Iowa: Brown.

Dack, J. 2002. Technology and the instrument. In: *Musik netz werke - Konturen der neuen Musikkultur*. Edited by Grün, L & Wiegand, F. Taschenbuch: Germany. pp. 39–54.

Deri, O. 1968. *Exploring twentieth century music*. New York: Holt, Rinehart and Winston, Inc.

De Leeuw, T. 1974. Melody. *Dictionary of Twentieth century Music*. Edited by J. Vinton. London: Thames & Hudson.

DeLone, R., Kliewer, V., Reisberg, H., Wennerstrom, M., Winold, A. & Wittlich, G.E. 1975. *Aspects of twentieth century music*. Englewood Cliffs, N.J: Prentice Hall.

Dunsby, J. & Whittall, A. 1988. *Music analysis in theory and practice*. London: Faber Music.

Evans, P. 1979. *The Music of Benjamin Britten*. London: Dent.

Forte, A. 1973. *The structure of atonal music*. New Haven: Yale University Press.

Forte, A. & Gilbert, S. E. 1982. *Introduction to Schenkerian analysis*. New York: Norton.

Hall, M. 1996. *Leaving home: A conducted tour of twentieth century music with Simon Rattle*. London: Faber and Faber.

Hofstee, E. 2006. *Constructing a good dissertation: a practical guide to finishing a master's, MBA or PhD on schedule*. South Africa: EPE.

Kamien, R. 2002. *Music: an appreciation*. (4th brief ed.). New York: McGraw-Hill.

Kennedy, M. & Kennedy, J.B. 2007. *The concise Oxford dictionary of music.* (5th ed.). New York: Oxford University Press.

Kennedy, J., Kennedy, M., & Rutherford-Johnson, T. (Eds.). 2012. *The Oxford dictionary of music.* (6th ed.). New York: Oxford University Press.

Kostka, S. 2006. *Materials and techniques of twentieth century music.* (3rd ed.). New Jersey: Pearson Prentice Hall.

Kostka, S.M. 2012. *Materials and techniques of post-tonal music.* (4th ed.). Boston: Pearson.

Kostka, S. & Santa, M. 2018. *Materials and techniques of post-tonal music.* (5th ed.). New York: Routledge.

Leedy, P.D. & Ormrod, J.E. 2001. *Practical research: planning and design.* (7th ed.). New Jersey: Merrill Prentice Hall.

McBurney, G. 2004. Fried Chicken in the Bird-Cherry Trees. In L.E. Fay (Ed.). *Shostakovich and His World*. Princeton: Princeton University Press. pp 227–73.

Mouton, J. 2001. *How to succeed in your master's and doctoral studies: A South African guide and resource book.* Pretoria: Van Schaik.

Morgan, R.P. 2016. *Music theory, analysis, and society: selected essays.* New York: Routledge.

Neighbour, O.W. 2001. Schoenberg, Arnold. In S. Sadie & J. Tyrrell (Eds.). *The new grove dictionary of music and musicians* (2nd ed.) Vol. 22. London: Macmillan, pp 577–604.

Pankhurst, T. 2008. *Schenker guide: a brief handbook and website for Schenkerian analysis.* New York: Routledge.

Persichetti, V. 1961. *20th-century harmony: creative aspects and practice*. New York: Norton.

Politoske, D.T. & Werner, M. 1988. *Music*. (4th ed.). N.J: Prentice Hall.

Ross, A. 2007. *The rest is noise: listening to the twentieth century*. New York: Picador.

Russolo, L. 1986. The art of noises. New York: Pendragon.

Salzer, F. 1982. *Structural hearing: tonal coherence in music*. New York: Dover.

Salzman, E. 1988*. Twentieth century music: an Introduction*. (3rd ed.). N.J: Prentice-Hall.

Schenker, H. 1969. *Five Graphic Music Analyses*. New York: Dover.

Simms, B.R. 1996. *Music of the 20th century: style and structure*. (2nd ed.). New York: Schirmer.

Stone, R.M. 2008. *The Garland handbook of African music.* (2nd ed.). New York: Routledge.

Susanni, P. & Antokoletz, E. 2012. *Music and twentieth century tonality: Harmonic progression based on modality and the interval cycles*. New York: Routledge.

Tenney, J. 1969. *Form in 20th century music.* Tenney.

Turek, R. 2007. *Theory for today's musician*. New York: McGraw-Hill.

Scores

Zaidel-Rudolph, J. 2010. *Pendulum for Piano and Orchestra*. South Africa.

Journals and electronic articles

Abawi, K. 2008, January 3–12. *Qualitative and quantitative research*. Proceedings of Reproductive Health Research Methodology Training, Ministry of Public Health, Kabul, Afghanistan. Downloaded from

https://www.gfmer.ch/Medical_education_En/Afghanistan_2008/pdf/Qualitative_quantit
ative_research_Abawi_Afghanistan_2008.pdf [Accessed 5 May 2018].

Antcliffe, H. 1932, October. Music as a social science. *Music & Letters*, 13(4), 405–417.
Retrieved from http://www.jstor.org.uplib.idm.oclc.org/stable/728265 [Accessed 5 May
2018].

Arnold, D., Latham, A. & Dunsby, J. 2011. Form. In A. Latham (Ed.). *The Oxford
companion to music*. Oxford: Oxford University Press. Retrieved from
http://www.oxfordreference.com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037.
001.0001/acref-9780199579037-e-2624 [Accessed 16 May 2018].

Atkinson, J.D. 2017. Qualitative methods. In *Journey into social activism: qualitative
approaches*. New York: Fordham University. Pp 65–98. Retrieved from
http://www.jstor.org.uplib.idm.oclc.org/stable/j.ctt1hfr0rk.6 [Accessed 9 May 2018].

Baker, J.M. 1990. Voice leading in post-tonal music: suggestions for extending
Schenker's theory. *Wiley*, 9(2), 177–200. Downloaded from https://www-jstor-
org.uplib.idm.oclc.org/stable/pdf/854227.pdf?refreqid=excelsior%3Ae0cce4fbbc3a9183
9d76fc99d6123dec [Accessed 31 January 2021].

Browning, W. 2009. Gematria. *A Dictionary of the Bible*. Oxford: Oxford University
Press. Retrieved from https://www-oxfordreference-
com.uplib.idm.oclc.org/view/10.1093/acref/9780199543984.001.0001/acref-
9780199543984-e-735 [Accessed 21 December 2020].

Cross, A. 2021. You know those companies buying up song catalogues? Here's how
one is making back its investments. *A Journal of musical things!* Retrieved from
https://www.ajournalofmusicalthings.com/you-know-those-companies-buying-up-song-
catalogues-heres-how-one-is-making-back-its-investments/ [Accessed 10 February
2021].

Dyson, G. 2001. False relation. *Grove Music Online*. Retrieved from https://www-
oxfordmusiconline-
com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-
9781561592630-e-0000009269 [Accessed 29 January 2021].

Fanning, D. 2001. Expressionism. *Grove Music Online*. Retrieved from https://www-oxfordmusiconline-com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000009141 [Accessed 10 January 2021].

Griffiths, P. 2011. Modernism. In A Latham (Ed.). *The Oxford companion to music*. Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-4473 [Accessed 11 January 2021].

Griffiths, P., & Whittall, A. 2011. Microtone. In A. Latham (Ed.). *The Oxford companion to music*. Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-4403 [Accessed 27 December 2020].

Ingham, T, & Wang, A.X. 2021. Why Superstar Artists Are Clamoring to Sell Their Music Rights. *Rolling Stone*. Retrieved from https://www.rollingstone.com/pro/features/famous-musicians-selling-catalog-music-rights-1114580/ [Accessed 11 February 2022].

Johnson, A.F. 2012. Conversations with composer Jeanne Zaidel Rudolph who turned 65. *Musicus*, 40(2), 55–59. Downloaded from https://journals-co-za.uplib.idm.oclc.org/docserver/fulltext/musicus/40/2/musicus_v40_n2_a6.pdf?expires=1592224209&id=id&accname=57715&checksum=4225C95CC83F04A2237A2D4C38FC7930 [Accessed 15 June 2020].

Julien, H. 2008. Content analysis. In L.M. Given (Ed.). *The SAGE encyclopedia of qualitative research methods*. Thousand Oaks: SAGE, pp 1–5. doi: 10.4135/9781412963909. Retrieved from http://methods.sagepub.com.uplib.idm.oclc.org/Reference//sage-encyc-qualitative-research-methods/n65.xml [Accessed 5 May 2018].

Kramer, J. D. 1996. Postmodern Concepts of Musical Time. *Indiana Theory Review*, 17(2) Fall: 21–61. Downloaded from http://www.jstor.org/stable/24044674 [Accessed 22 September 2022].

Mauceri, F.X. 1997. From Experimental Music to Musical Experiment. *Perspectives of New Music,* 35(1) Winter: 187–204. Downloaded from https://www-jstor-org.uplib.idm.oclc.org/stable/pdf/833684.pdf?refreqid=excelsior%3Ab81e220f9ec4558a f999391d5ee7956e [Accessed 27 December 2020].

Morgan, D.L. 2014. Research design and research methods. In *Integrating qualitative and quantitative methods: a pragmatic approach.* London: SAGE, pp 1–19. doi: 10.4135/9781544304533. Retrieved from http://methods.sagepub.com.uplib.idm.oclc.org/book/integrating-qualitative-and-quantitative-methods-a-pragmatic-approach/i174.xml [Accessed 5 May 2018].

Morgan, R.P. 1984. Secret Languages: The Roots of Musical Modernism. *Critical Inquiry,* 10(3) March: 442–61.

Newbould, B. 2011. Texture. In A. Latham (Ed.). *The Oxford companion to music.* Oxford: Oxford University Press. Retrieved from http://www.oxfordreference.com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037. 001.0001/acref-9780199579037-e-6743 [Accessed 16 May 2018].

OED Online, n.d. *Kabbalah. Oxford English Dictionary.* Oxford: Oxford University Press. Retrieved from https://www-oed-com.uplib.idm.oclc.org/view/Entry/25725?redirectedFrom=Kabbalah& [Accessed 20 December 2020].

Knowles, E. (Ed.). 2014. Zohar. *Oxford Dictionary of Quotations* (8th ed.). Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780199668700.001.0001/q-author-00010-00003539 [Accessed 21 December 2020].

Latham, A. (Ed.). 2011. Isorhythm. *The Oxford Companion to Music.* Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-3491 [Accessed 18 January 2021].

Locke, R. 2020. Exoticism. *Grove Music Online.* Retrieved from https://www-oxfordmusiconline-

com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000045644. [Accessed 5 January 2021].

Lumen Learning. 2020. *Music Appreciation,* 1–727. Downloaded from https://courses.lumenlearning.com/musicapp_historical/chapter/pdf/ [Downloaded 26 December 2020].

Pascall, R. 2001. Style. *Grove Music Online*. Downloaded from https://www-oxfordmusiconline-com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027041?print=pdf [Accessed 22 January 2021].

Pasler, J. 2001. Impressionism. *Grove Music Online*. Retrieved from https://www-oxfordmusiconline-com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000050026 [Accessed 28 December 2020].

Rubin, H.J. & Rubin, I.S. 2005a, Analysing coded data. In *Qualitative interviewing: the art of hearing data*. (2nd ed.). Thousand Oaks: SAGE, pp 1–21. doi: 10.4135/9781452226651. Retrieved from http://methods.sagepub.com.uplib.idm.oclc.org/book/qualitative-interviewing/n11.xml [Accessed 9 May 2018].

Rubin, H.J. & Rubin, I.S. 2005b. The first phase of analysis: preparing transcripts and coding data. In *Qualitative interviewing: the art of hearing data*. (2nd ed.). Thousand Oaks: SAGE, pp 1–22. doi: 10.4135/9781452226651. Retrieved from http://methods.sagepub.com/book/qualitative-interviewing/n10.xml [Accessed 9 May 2018].

Smith, R. 2011. Symbolism. In A. Latham (Ed.). *The Oxford Companion to Music*. Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-6586 [Accessed 10 January 2021].

Stevenson, A. (Ed.). 2010. Tree of life. *Oxford Dictionary of English* (3rd ed.). Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-

com.uplib.idm.oclc.org/view/10.1093/acref/9780199571123.001.0001/m_en_gb087978
0 [Accessed 22 December 2020].

Stevenson, A. & Lindberg, C. (Eds.). 2011. Sephira. *New Oxford American Dictionary* (3rd ed.). Oxford: Oxford University Press. Retrieved from https://www-oxfordreference-com.uplib.idm.oclc.org/view/10.1093/acref/9780195392883.001.0001/m_en_us128913 9 [Accessed 22 December 2020].

Van Wyk, W. 2008a. "Jeanne Zaidel-Rudolph at Sixty: Personalia," *Musicus* 36(2), 64–67. Downloaded from https://repository.up.ac.za/bitstream/handle/2263/10254/VanWyk_Jeanne%282008%2 9.pdf?sequence=1&isAllowed=y

Van Wyk, W. 2008b. Three Dimensions for piano – Jeanne Zaidel-Rudolph. *Musicus* 36(2), 1–28. Downloaded from https://repository.up.ac.za/bitstream/handle/2263/10252/VanWyk_Three%282008%29. pdf?sequence=1&isAllowed=y [Accessed 15 June 2020].

Whittall, A. 2001. Form. *Grove music online*. Retrieved from http://www.oxfordmusiconline.com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/97 81561592630.001.0001/omo-9781561592630-e-0000009981 [Accessed 16 May 2018].

Whittall, A. 2001. Neo-classicism. *Grove music online*. Retrieved from https://www-oxfordmusiconline-com.uplib.idm.oclc.org/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000019723 [Accessed 28 Dec 2020].

Whittall, A. 2011. Rhythm. In A. Latham (Ed.). *The Oxford companion to music*. Oxford: Oxford University Press. Retrieved from http://www.oxfordreference.com.uplib.idm.oclc.org/view/10.1093/acref/9780199579037. 001.0001/acref-9780199579037-e-5635 [Accessed 16 May 2018].

Whittall, A. 2011. Serialism. In A. Latham (Ed.). *The Oxford Companion to Music*. Oxford: Oxford University Press. Retrieved from https://www.oxfordreference.com/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037 [Accessed 25 December 2020].

Yin, R.K. (Ed.). 1994. *Case study research: design and methods.* (5th ed.). London: SAGE. Retrieved from http://www.madeira-edu.pt/LinkClick.aspx?fileticket=Fgm4GJWVTRs%3D&tabid=3004 [Accessed 7 May 2018].

Thesis and dissertation

Magalhães, L. 2011. *An annotated catalogue of works for piano duet: A supplement to Cameron McGraw's piano duet repertoire.* (Doctoral thesis). University of Cape Town. Downloaded from https://open.uct.ac.za/bitstream/handle/11427/11376/thesis_hum_2011_magahaes_l.pdf?sequence=1 [Accessed 10 February 2022].

Martens, H.S. 2017. *String quartets by South African composers: a comprehensive catalogue and annotated discussion of works composed between 1940 and 2016.* (Doctoral thesis). Retrieved from University of Pretoria: Electronic Theses and Dissertations.

Jorritsma, M. R. 2001. *South African "Songprints": The Lives and Works of Jeanne Zaidel-Rudolph, Princess Constance Magogo, and Rosa Nepgen.* (Masters' dissertation). Texas: Rice University. Retrieved from https://www.academia.edu/1393682/South_African_songprints_The_lives_and_works_of_Jeanne_Zaidel-Rudolph_Princess_Constance_Magogo_and_Rosa_Nepgen

Joubert, A. 2013. *Solo violoncello music: a selective investigation into works composed between 1980 and 2010 and the compilation of a catalogue.* (Doctoral thesis). Retrieved from University of Pretoria: Electronic Theses and Dissertations.

Schumann, N.V. 2005. *Two piano performance: Its classification, history and challenges with a compilation of a detailed catalogue of works.* (Doctoral thesis). University of Cape Town. Downloaded from https://open.uct.ac.za/bitstream/11427/8032/1/thesis_hum_2005_schumann_nv.pdf [Accessed 11 February 2022].

Smith, L.D. 2015. *'n Analitiese bespreking van Jeanne Zaidel-Rudolph se Pendulum met verwysing na komposisietegnieke en invloede*. (Masters' dissertation). Retrieved from University of Pretoria: Electronic Theses and Dissertations.

Stoltz, L. 2010. *A study and catalogue of French flute music written between 1945 and 2008.* (Doctoral thesis). University of Cape Town. Downloaded from https://open.uct.ac.za/bitstream/handle/11427/11119/thesis_hum_2010_stoltz_l.pdf;sequence=1 [Accessed 11 February 2022].

Van der Spuy, H. 1988. *Compositions of Priaulx Rainier – an Annotated Catalogue.* (Doctoral thesis). University of Stellenbosch. Downloaded from https://scholar.sun.ac.za/handle/10019.1/66544 [Accessed 11 February 2022].

Van Graan, C. 2009. *'n Analitiese oorsig van Stefan Grové se Danrapsodie – 'n Afrika-stad en Jeanne Zaidel-Rudolph se Fanfare Festival Overture met spesifieke verwysing na die aanwending van Afrika-etniese elemente.* (Masters' dissertation). Retrieved from University of Pretoria: Electronic Theses and Dissertations.

Van Wyk, W. 2000. *Jeanne Zaidel-Rudolph: Three piano works –analysed and edited.* (Doctoral thesis). Retrieved from University of Pretoria: Electronic Theses and Dissertations.

Webb, C.L. 2005. *An annotated catalogue of selected works for clarinet by South African Composers.* (Dissertation). University of Cape Town. Downloaded from *https://open.uct.ac.za/bitstream/item/8187/thesis_hum_2005_webb_cl.pdf?sequence=1* [Accessed 19 June 2020].

Internet

ANote Music, 2018. *What is a music catalogue? What has it to do with royalties?* Retrieved from https://anotemusic.com/what-is-a-music-catalogue-what-has-it-to-do-with-royalties/ [Accessed 3 February 2022].

University of Pretoria, n.d. *Code of ethics for research*. Downloaded from http://www.up.ac.za/media/shared/6/ZP_Files/ethics-n-university-of-pretoria-code-of-ethics.zp140982.pdf [Accessed 15 May 2018].

Zaidel-Rudolph, J. 2020. *Jeanne Zaidel-Rudolph*. Retrieved from http://jeannezaidel-rudolph.com/Home/ [Accessed 1 December 2020].

Zaidel-Rudolph, Jeanne. n.d. *Encyclopedia.com.* Retrieved from https://www.encyclopedia.com/arts/dictionaries-thesauruses-pictures-and-press-releases/zaidel-rudolph-jeanne [Accessed 22 July 2021].

ANote Music, 2018. *What is a music catalogue? What has it to do with royalties?* Retrieved from https://anotemusic.com/what-is-a-music-catalogue-what-has-it-to-do-with-royalties/ [Accessed 3 February 2022].

Sources for further study

Bent, I.D. & Pople, A. 2001. Analysis. In S. Sadie (Ed.). The new grove dictionary of music and musicians Vol. 1. London: Macmillan, pp 526–589.

Berry,W. 1976. Structural functions in music. New Jersey: Prentice Hall.

Blake, M. 2005. The present-day composer refuses to budge: case studies in new South African orchestral music. *South African Journal of Musicology*, 25, 127–143.

Cook, N. & Pople, A. (Eds.). 2004. The Cambridge history of twentieth century music. Cambridge: Cambridge University Press.

Crichton, R. 1976. *Manuel de Falla: Descriptive catalogue of his works.* London: Chester Music.

Erickson, R. 1975. Sound structure in music. California: University of California Press.

Evans, D., Gruba, P. & Zobel, J. 2014. How to write a better thesis. (3rd ed.). Switzerland: Springer.

Ewen, D. 1968. The world of 20th-century music. Englewood Cliffs, N.J: Prentice-Hall.

Kinsey, A. 2009. *Music for classical guitar by South African composers: a historical survey, notes on selected works and a general catalogue.* (Masters' dissertation). University of Cape Town.

Klatzow, P. (Ed.). 1987. Composers in South Africa today. Cape Town: Oxford University Press.

Kumar, R. 2014. Research methodology: a step-by-step guide for beginners. (4th ed.). Los Angeles: SAGE.

Lawrence, I. 2001. *The twentieth century quartet – A historical introduction and catalogue.* Lanham: The Scarecrow Press.

Lester, J. 1989. Analytical approaches to twentieth century music. New York: Norton.

Levy, M.S. 1992. *Catalogue of serious music - original works, arrangements and orchestrations. (1962–1992) Published and in manuscript by South African composers and arrangers.* Johannesburg: SAMRO.

Nketia, J.H. K. 1975. The music of Africa. London: Gollancz.

Ottman, R.W. 1992. Advanced harmony: theory and practice. (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Salzer, F. 1982. Structural hearing: tonal coherence in music. New York: Dover.

SAMRO, 2017. Catalogue of South African string quartets.

Schuijer, M. 2008. Analyzing atonal music: pitch-class set theory and its contexts. New York: University of Rochester Press.

Sherman, R.W. 1989. Concept and design in music. San Diego: Harcourt Brace Jovanovich.

Whittall, A. 2003. *Exploring 20th-century music: tradition and innovation.* Cambridge: Cambridge University Press.

Williams, E. 1992. *Harmony and voice leading.* New York: HarperPerennial.

Wolff, U. L. & Stewart, L. A. 1988. *The elements of African music in the works of the South African composers.* (Dissertation). Pretoria: University of Pretoria.

Zainal, Z. 2007. Case study as a research method. *Jurnal Kemanusiaan,* 9(June). Pp 1–6. Downloaded from http://psyking.net/htmlobj3837/case_study_as_a_research_method.pdf [Accessed 16 November 2018].

Zbikowski, L.M. 2002. *Conceptualizing music: cognitive structure, theory, and analysis.* New York: Oxford University Press.

Selected publication of papers by Jeanne Zaidel-Rudolph

1981: 'First International Congress on Women in Music' in *SA Journal of Musicology*, Vol 1.

1981: Review: 'Klatzow P Chamber Concerto for Seven' in *SA Journal of Musicology,* Vol 1.

1981: Review: 'Schnittke: a Concerto Grosso' in *SA Journal of Musicology,* Vol 1.

1988/89: 'Thomas Rajna: Preludes for Piano' in *SA Journal of Musicology,* Vol 8/9.

1989: 'A Tribute to Witold Lutoslawsky' in *Musicus (Special Edition) UNISA,* Vol 17(2).

1997: 'A Tribute to Goldie Zaidel' in *Musicus, UNISA,* Vol 25.

Theses, research studies and articles written on the life and works of Jeanne Zaidel-Rudolph

1981: 'Jeanne Zaidel-Rudolph - A Contemporary Woman in Music' by Penelope Jane Clough. B Mus Thesis, Wits.

1981: 'Zaidel-Rudolph, Jeanne' in *International Encyclopaedia of Woman Composers* by Aaron I Cohen.1st Edition, p. 513.

1982: 'Zaidel-Rudolph, Jeanne' in *The South African Music Encyclopaedia*, Vol IV, JP Malan: Oxford University Press, pp. 516-518.

N.D.: 'Rainier, Gerstman, Zaidel-Rudolph - Their Lives, Times and Music' by D Springer. B Mus Thesis, University of the Witwatersrand.

1985: 'An Analytical Study of 'Four Minim' for Cello and Piano by Jeanne Zaidel-Rudolph' by Leah Lesicnik. B Mus Honours Thesis, University of South Africa.

1985: 'Zaidel-Rudolph, Jeanne' in *International Who's Who in Music* - 10th Edition, p. 1021.

1985: 'Zaidel-Rudolph, Jeanne' by Margaret Nabarro. Published in Scenaria, November, p. 377.

1987: 'Zaidel-Rudolph, Jeanne' in *International Encyclopaedia of Woman Composers* by Aaron I Cohen. 2nd Edition. Published by Books & Music, USA, p. 773.

1987: 'Zaidel-Rudolph, Jeanne' in *Composers in South Africa Today* by Peter Klatzow (ed). Article by Penelope Jane Clough, pp. 208-210. Oxford University Press, Cape Town.

1988: Record Reviews of Music on L.P. and Cassette by ZAIDEL-RUDOLPH - Dr. Mary Rorich. Scenaria, issue No. 89, June 1988. Julius Eichbaum (Ed.).

1988: 'Scenaria Interviews Jeanne Zaidel-Rudolph' in *Scenaria*, issue No. 89, June 1988. Julius Eichbaum (Ed.).

1992: 'Zaidel-Rudolph, Jeanne' in *The Encyclopaedia "CONTEMPORARY COMPOSERS"* St James Press Chicago and London, pp. 992-993.

1994: 'Esoteric Symbolism & Mysticism In Two Works By Jeanne Zaidel-Rudolph: *At The End Of The Rainbow and Sefirot Symphony*' by J.R. Helmstedt.

1995: 'Flashpoints for Creation - Composer Jeanne Zaidel-Rudolph' by Mary Rorich. In *Lantern* Winter 1995 - 44.2, p34.

1995: 'African Elements in the Music of Jeanne Zaidel-Rudolph' by Riette Ferreira. M.Mus Thesis, University of Pretoria**.**

1996: 'Women in Music' in *Tomorrow Magazine* by Paddy O'Byrne, June 1996.

1998: 'Jeanne Zaidel-Rudolph: Leading the Way in South Africa' by Riette Ferreira. IAWM Journal Vol.4, No.3, Fall issue 1998, p4.

2000: 'Women Marching Into the 21st Century' – HSRC Book Publication, August 2000, (Chapter 2 – The Arts).

2022: 'A style discussion of Strange Quartet, Wits Trio Tribute, and Quin-tête-à-tête: Three chamber works of Jeanne Zaidel-Rudolph composed between 2000-2019' by Altus Hendriks. D Mus Thesis, University of Pretoria.

APPENDICES

Appendix A

Faculty of Humanities
Department of Music
6 August 2020

LETTER OF INFORMATION

Dear Prof. Jeanne,

My name is Oluwakayode Samson Ibiayo. I am a student at the University of Pretoria and I am currently enrolled for a Doctorate degree in Music.

Research topic: A style discussion of Jeanne Zaidel-Rudolph's *Pendulum for Piano and Orchestra* and a comprehensive catalogue of her piano compositions, orchestral and chamber works.

Purpose of the study: The purpose of the study are as follows:
- To explore the background of *Pendulum for Piano and Orchestra* and what prompted the creation of the work.
- To explore to what extent the composer liaised with the designated performer of the work at its Premiere.
- To discuss the compositional techniques and musical idioms employed by Zaidel-Rudolph to establish an artistic style in *Pendulum for Piano and Orchestra*.
- To ascertain appropriate methods to analyse *Pendulum for Piano and Orchestra*.
- To compile a comprehensive catalogue of Zaidel-Rudolph's piano compositions, orchestral and chamber works.

What will be expected of you? Your participation will involve an open-ended interview which will take approximately 45 minutes of your time. The interview will be audio-recorded. The information will be treated with strict anonymity/confidentiality.

Approval: The study will only begin after ethical approval by the Research Ethics Committee of the Faculty of Humanities, University of Pretoria, has been obtained.

Risks and benefits: Participation in the study is completely voluntary and you are free to withdraw at any time. There are no risks or direct benefits in participating in this project. If you decide to withdraw there will be no negative consequences to you, nor will you need to explain your reason. You are encouraged to ask any questions you might have about the study.

Who will have access to the results of the study? The research will be conducted by myself as principle researcher, and my supervisor. It will be used for academic purposes only. The data will be archived at the department of music for a minimum of 15 years. If any other researchers would like to use this data during this time they may only do so with your consent.

Please feel free to contact me or my supervisor if you require more information about the study.

Kinds regards

(Signature of student)

Researcher name: O.S. Ibiayo

email: kayvirtuoso@gmail.com

Tel.: 060 415 2658

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities

Department of Music

6 August 2020

LETTER OF INFORMED CONSENT: REPLY SLIP

FULL NAME: Jeanne Zaidel-Rudolph

RESEARCH TOPIC: A style discussion of Jeanne Zaidel-Rudolph's *Pendulum for Piano and Orchestra* and a comprehensive catalogue of her piano compositions, orchestral and chamber works.

I hereby give my consent to participate in the aforementioned research project and acknowledge that the data may be used in current and future research. I confirm that I understand what is required of me in the research project. I am aware that I may withdraw from the study at any time, should I wish to do so.

_____   7 August 2020.

Signature of participant   Date

_____

Signature of student/principle researcher

Appendix C

Oluwakayode Ibiayo <u13046285@tuks.co.za>

Research Interview Schedule
4 messages

Oluwakayode Ibiayo <u13046285@tuks.co.za>   Mon, Aug 10, 2020 at 8:00 AM
To: Jeanne Zaidel-Rudolph <jzrudolph@telkomsa.net>
Cc: Alexander Johnson <alexander.johnson@up.ac.za>

Dear Prof. Jeanne,
Thank you for giving your consent to be interviewed regarding my research.
Kindly find the Zoom online meeting link below:

Kayode Ibiayo is inviting you to a scheduled Zoom meeting.

Topic: Research Interview
Time: Aug 11, 2020, 11:00 AM Johannesburg

Join Zoom Meeting
https://us04web.zoom.us/j/72594284749?pwd=d1hoallNWjNLRktDOHZQSHJVdDNsZz09

Meeting ID: 725 9428 4749
Passcode: 8USNNa

Thank you very much, ma'am.

Kind regards,
O.S Ibiayo.

Jeanne Zaidel Rudolph <jzrudolph@telkomsa.net>   Mon, Aug 10, 2020 at 8:47 AM
To: Oluwakayode Ibiayo <u13046285@tuks.co.za>

Thank you Kayode! I will look at the questions today and we will talk tomorrow.

Sent from my iPhone

> On 10 Aug 2020, at 08:00, Oluwakayode Ibiayo <u13046285@tuks.co.za> wrote:

[Quoted text hidden]
This message and attachments are subject to a disclaimer. Please refer to
http://www.it.up.ac.za/documentation/governance/disclaimer/ for full details.

Oluwakayode Ibiayo <u13046285@tuks.co.za>   Mon, Aug 10, 2020 at 9:41 AM
To: Jeanne Zaidel Rudolph <jzrudolph@telkomsa.net>

Thank you very much, ma'am. I truly appreciate it.

Kind regards,
Kayode.
[Quoted text hidden]

Oluwakayode Ibiayo <u13046285@tuks.co.za>   Tue, Aug 11, 2020 at 1:59 PM
To: Jeanne Zaidel Rudolph <jzrudolph@telkomsa.net>
Cc: Alexander Johnson <alexander.johnson@up.ac.za>

Dear Prof Jeanne,

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Appendix D

Interview questions

INTERVIEW TYPE: OPEN-ENDED

INTERVIEWER: OLUWAKAYODE SAMSON IBIAYO

INTERVIEWEE: JEANNE ZAIDEL-RUDOLPH

1. What are the major influences behind your compositional style?

2. Could you shed more light on the concept of Jewish mysticism regarding your journey as a composer and how it has influenced you.

3. What makes *Pendulum* for Piano and Orchestra a standout from other works you have composed over the years?

4. Apart from the general overview of the techniques employed by 21st-century composers, are there any specific stylistic techniques featured in *Pendulum*?

5. Being an accomplished pianist, how has that fact contributed to the writing in *Pendulum*?

6. 4-note syncopated motive seems to be of importance in *Pendulum*. If so, what are these and why are they important?

7. How have you utilised the concept of polyrhythm in *Pendulum*? Seen in the 3rd movement.

8. During a previous conversation, you did mention make mention that some musical concepts from previous works were carried through into Pendulum. Could you shed more light on this and perhaps any specific reasons?

9. You also did mention make mention that your music is a mixture of Neo-tonality and atonality. Could you shed more light on this please? Evaluate this in *Pendulum*.

10. What are your views on the concept of gender in the world of music composition and performance? Is this of any specific concern to you? If so, could you shed more light on this?

11. Do you think it is important that your piano compositions, orchestral and chamber works be organized into a catalogue? If so, could you kindly state your reasons.