

Voyage of Musical Discovery

EDUCATION KIT 2022
MUSICAL IDENTITIES

3

AUSTRALIAN
ROMANTIC &
CLASSICAL
ORCHESTRA

RICHARD GILL AO | FOUNDING ARTISTIC DIRECTOR

QLD

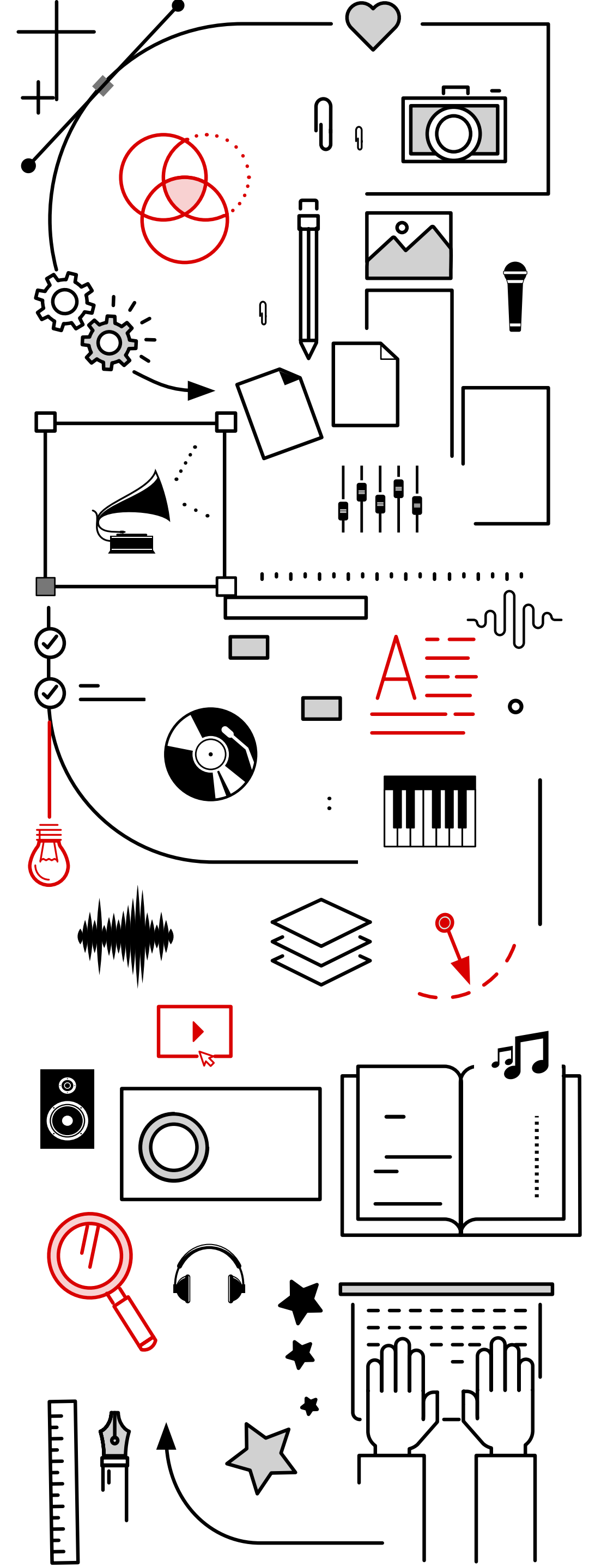


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Introduction

The **Voyage of Musical Discovery** presents musical works of different times, places and styles along with spoken explanations. The first half features orchestral and chamber music from the Classical or Romantic era performed in a historically-informed style. The second takes recently-written Australian works performed by a guest ensemble, often including the composers themselves.

This **Education Kit** works as a stand-alone learning resource, but full educational benefit is achieved by working through the activities in conjunction with attending a live **Voyage** presentation.

Visit www.arco.org.au/voyage for booking information

QLD

Monday 22 August 2022, 11.30am
Performing Arts Centre
St Peters Lutheran College, Brisbane

Wolfgang Amadeus MOZART

Overture to *Don Giovanni* K.527
Symphony No. 41 in C major, K.551 *Jupiter*

John BABBAGE | ΦΧ174 (2003)

Robert DAVIDSON & John BABBAGE
The Singing Politician (2016)

performed by the
Australian Romantic & Classical Orchestra

performed by
Topology

TOPIC & FORMAT OF KIT

Different **MUSICAL IDENTITIES** inhabit each of the above works. To discover more about what and who these are, the kit looks in detail at:

1. Collaboration
2. Sustain
3. Threads

Format

These three musical aspects are explained one by one in the following format:

- (a) background and definition | *why is this important?*
 - (b) activities and projects | *how can I learn to do it?*
 - (c) cross-genre examples from the **Voyage** repertoire |
where and how does it appear in the music?
 - (d) examples from outside works or disciplines |
does it extend to other music and art forms?
-

INFORMATION FOR TEACHERS

1

Structure of Classes

The materials in the kit are arranged from general to specific. While it makes sense to complete them in the order listed, they can also be taken as self-contained units. This means that a specific area and/or activity can be selected to suit the class time available, as well as to complement the current syllabus focus. Students are encouraged to move through the materials freely – for example, in some cases it may be beneficial to listen to the examples before starting the activities.

2

Activities

In many ways, the activities are the most important parts of the kits – this is where things can be invented, experimented with, and explored. The activities are flexible, and options are provided for them to be expanded and integrated into larger composition and performance projects depending upon the needs and resources of the school program.

Many will work best by splitting into groups. Students should take avail of the skills, resources, space, and sound makers that are available, whether these are instruments, voices, electronics or objects lying around. These are the materials with which to try out the tools introduced in the kit.

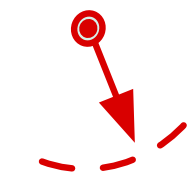
3

Adaptability

As the kits deal with techniques across multiple music styles and types, activities can be adapted by:



- Breaking down into smaller parts for younger students, including in primary years



- Expanding for adult listeners, composers or musicians on the lookout for new ideas

4

Cross Referencing

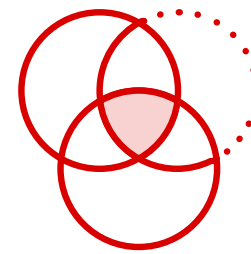


Whole books have been written about each of these subjects – references and suggested additional resources are included.



Students are encouraged to do some sleuthing of their own when it comes to general background of works and biographical information about composers etc.

This kit is one of three produced per year, and there are indications to where related material appears across the kits. Completing all provides a comprehensive survey of the core elements of **composition, performance** and **musicology** and how these align in contemporary creative practice.



DESIGN & INNOVATION

Subject Matter

Structure

Layers

CULTURAL NARRATIVES

Lines & Distance

Improvisation

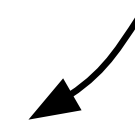
Quotation

MUSICAL IDENTITIES

Collaboration

Sustain

Threads



5



Streaming and Links

This interactive landscape edition is optimised for laptop or tablet, however no third-party audio or video media is embedded in the file. The links require an active internet connection, and headphones are recommended for concentrated listening. Downloading the PDF and opening it in Adobe Acrobat Reader is recommended, or if accessed from a browser ensure that the links open in new tabs with **Command-click** (MacOS), **Control-click** (Windows), or **tap+hold** (Android/iOS).

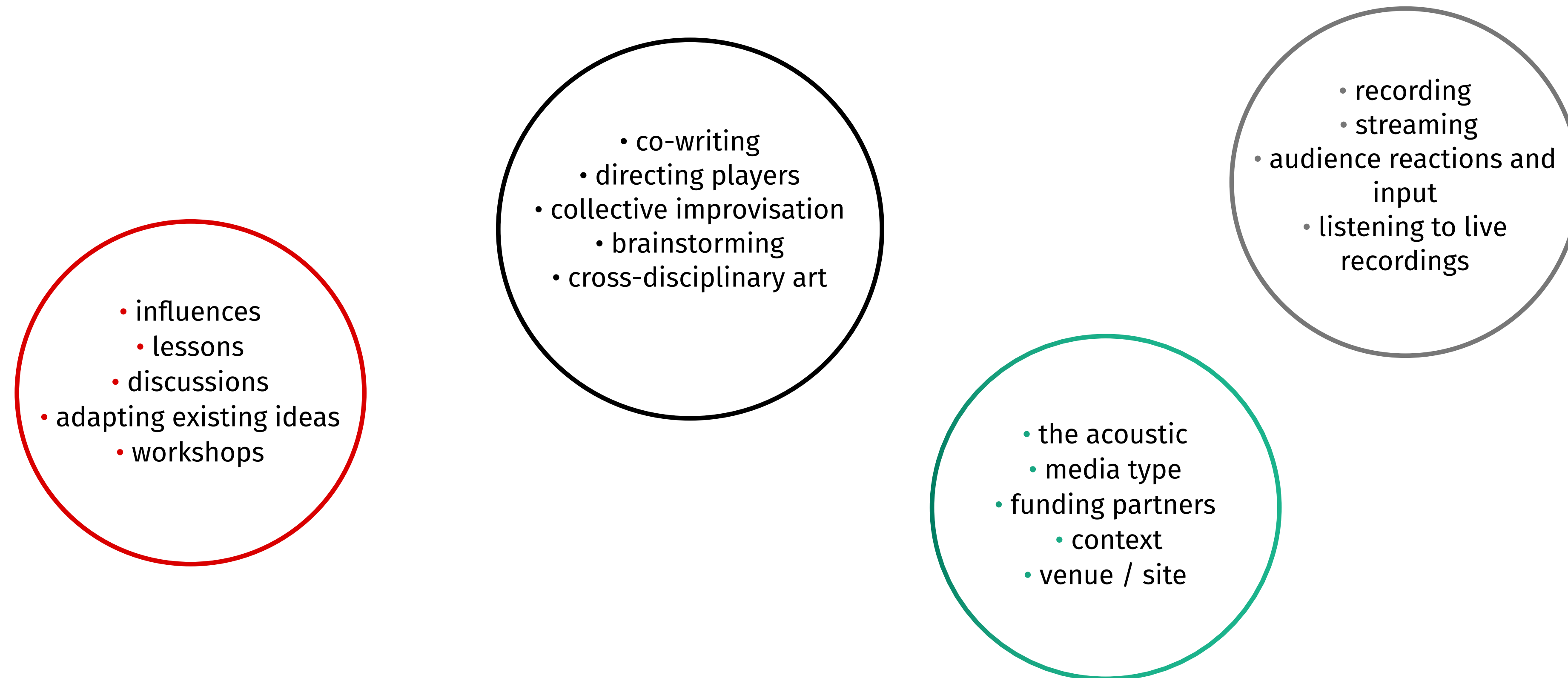
It is important too that whole movements, works and albums are listened to as they were written and intended to be heard – i.e., without starting or stopping halfway through. To make this easier, the music referred to is also collected in a [Spotify playlist](#), however in most cases the works can also be found elsewhere including on other streaming services and on CD.

1. COLLABORATION

A. Background & Definitions

How do we explain collaboration in music?

Composers and musicians tend to be very specific about collaboration – e.g., if two creators like Lennon and McCartney worked on a piece together then they are listed as co-writers. Of course that's entirely correct, but in reality music is hardly ever created in a solitary void. It almost always involves some form of collaboration – direct and indirect.



Christopher Small in *Musicking* explains that we can only really get closer to answering the question as to what music means by looking at actions – **what people do**. Some form of interaction and working together is involved in every step of the musical process.

In composition, collaboration is proven by the many surviving sketchbooks, letters and notebooks from earlier times and it can be observed in any rehearsal, workshop or recording session of a new work today. Whether playing, composing or listening – each and everyone of you can be part of this creative process.

Christopher Small, *Musicking: The Meanings of Performing and Listening*. Wesleyan University Press, 1998.



Murmurs and Swarms

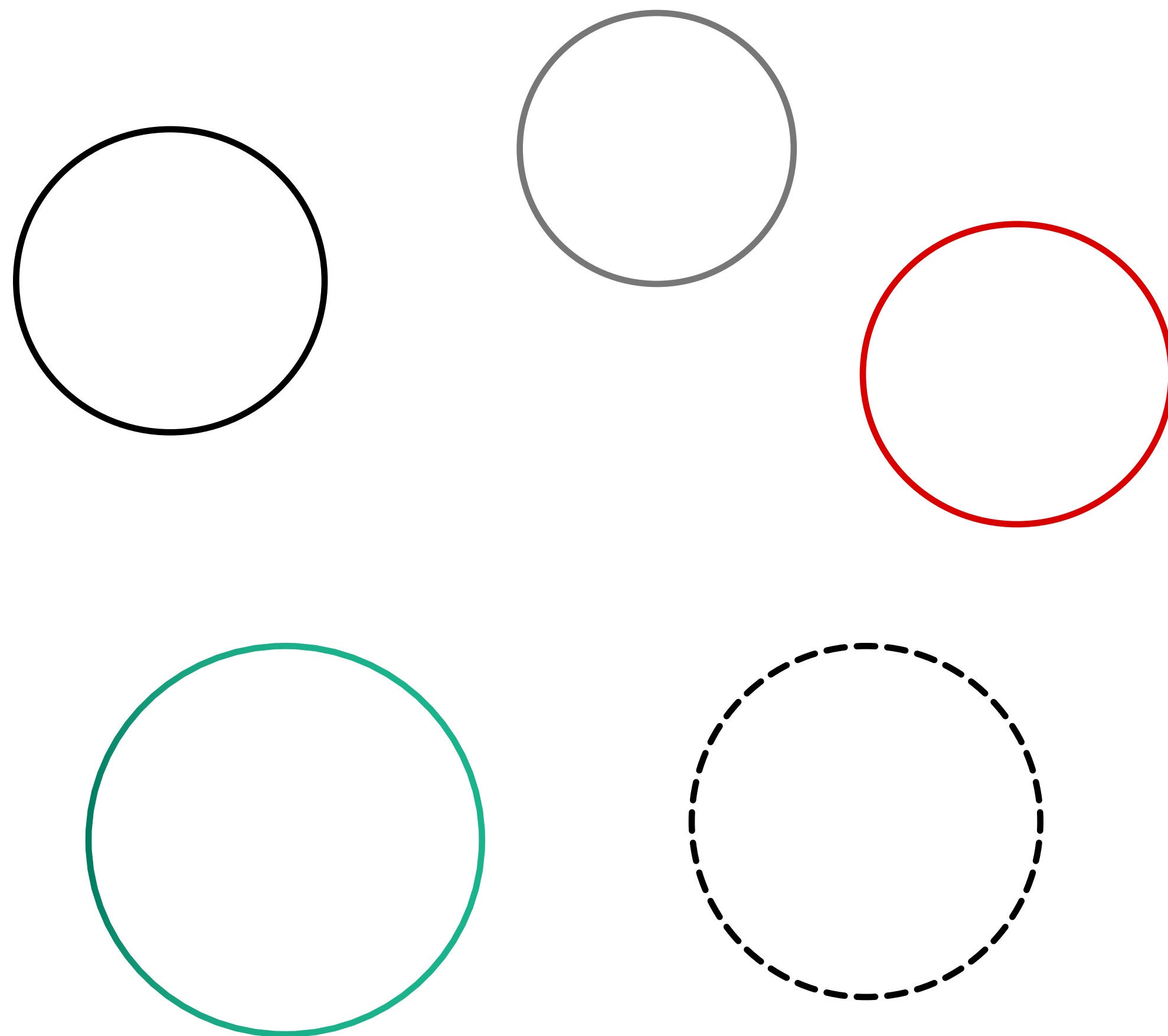
Concert hall or recital venue presenters still struggle with the idea of collaboration in music. The image of a single identifiable composer, conductor, leader or soloist lends itself well to marketing and posters even if it seldom reflects the actual creative process behind the scenes or on stage.

Despite this, over recent years there have been a number of developments in the way music ensembles and groups operate. Rather than a single boss or leader, many of these function as collectives – where the artistic as well as administrative decisions are the responsibility of the members. What is interesting about this, is that it mirrors similar changes in society – e.g., the growing role of community environmental groups, the slow food movement, or local farmers' markets.

As demonstrated by the widespread response to **Greta Thunberg** and many others, people around the world are recognising that their political leaders are failing to act on issues of climate change and global inequality. By being organised and working together on a small scale, it is being shown that there are peaceful and effective alternatives to the established political and corporate top-down structures.

In a musical setting, this approach can be referred to as **distributed creativity**. As a composer, one of the most important influencing factors in the success of your work is creating an environment where each player feels comfortable and knows they are welcome to contribute a musical opinion. To make this happen, your role as composer is equal parts co-director, organiser, facilitator and good listener.

B. Activities & Projects



ROUNDTABLE



- Look again at the collaboration circles on page 7

Either alone in a small group, try and figure out why there are four separate circles.

Direct / indirect collaboration?

Accidental / planned?

Artistic / organisational?

Peripheral / crucial?

Compare the activities listed to real-life collaborative scenarios you are familiar with – including outside of music.

If you disagree with the way the circles are arranged redo them on a sheet of paper, and add any further collaborative examples or categories you think are needed.



BEING SENTIENT

1

This activity is an exercise in collective decision-making.

Form yourselves quickly into groups of four or five players with instruments or voices.

Without any discussion or planning, start together and just play!

Give yourselves three or four minutes and no matter what happens keep going.

2

What occurred?

PLAYERS

Did it work at all?

Was it complete chaos and anarchy?

LISTENERS

What impressions did you have?

What communication did you see or hear amongst the players?

3

Even if the end result was disorganised and raw, assemblages such as these are valuable exercises for understanding how a group of interdependent voices can cooperate rather than compete.

In the following sections, you will learn some techniques for organising different **musical identities**

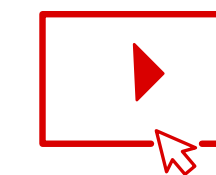
- how sound colours can be combined
- how simple ideas can be extended

C. Examples from Voyage Repertoire

Don Giovanni

Don Giovanni is still regarded as one of the most significant operatic achievements of all time, and was first performed in Prague in October 1787, with Mozart finishing off the overture the night before. Written with librettist Lorenzo Da Ponte, the main character is simultaneously a crook, seducer, hero and writer – and in each of these identities he makes decisions with little regard for the consequences. The fictional protagonist – also known as Don Juan – would have been already familiar to audiences due to various existing versions of the story dating back to a play from the 17th century.

The action oscillates between comedy and horror, and includes a talking statue, murder, masks and seduction. It is a product of and response to European Enlightenment, in particular that the divisions between the classes were shifting away from powers invested by God to codes and laws that – in theory at least – applied equally to all. The various characters in *Don Giovanni* highlight that despite these reforms, behaviour and actions are still very much determined and constrained by social class. Mozart's music is miraculous in that it manages to convey the struggle between the more philosophical ideals of humanity and a government and ruling class reluctant to catch up. That this conflict of ideas sounds oddly contemporary is one of the primary reasons the opera is still a central work of the repertoire.



[Hear the Overture on Spotify](#)

The Singing Politician

The political system of democracy is the modern incarnation and further loosening of the older empires and kingdoms of Europe. It is far from perfect, but at its heart is a mechanism that entrusts elected leaders to ensure the basic freedoms, rights and protections of all people.

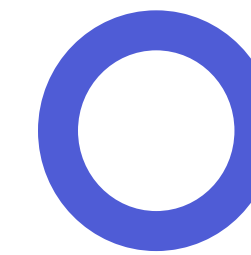
Composers Robert Davidson and John Babbage plus Gordon Hamilton have collaborated to create an extraordinary work for Topology and The Australian Voices that takes famous speeches by Australian prime ministers and sets them to music.

The speeches coincide with important milestones in Australia's recent history, and these range from events of global significance, formal acknowledgments of past injustices, to acerbic criticisms of fellow politicians. Browse the list on the following page, and choose three – one each to match the following criteria:

1. one historical event you are familiar with
2. one leader you know something about
3. one story or moment you know nothing about

While listening to your chosen speeches, make some notes about how the music interacts with the spoken words.

- where and how the rhythms and intonation of speaking is mimicked or contrasted in the ensemble or choir
- how the composers have ensured that the spoken text is still audible
- listen out for if and where the speech samples are cut up and repeated, and what effect this has on the meaning

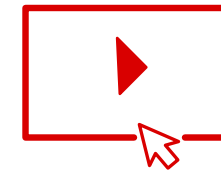


Aside from the direct collaboration of the artists working together to produce and perform these works, you could argue that there are additional layers of collaboration taking place:

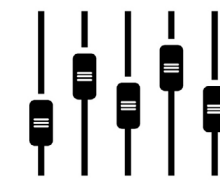
- conversations, dialogue and commentary between historical and contemporary voices

Consider also how someone might respond to hearing a reinterpretation of a recording of a speech that they may have heard live when it first happened. Does this also count as a type of collaboration?

Brief Navigational & Historical Guide



[Album on Spotify](#)



“



1. Nope, nope, nope!

Tony Abbott leaving no doubts about the government's policy on helping refugees in 2015

2. Melancholy Duty

Australia's longest serving Prime Minister **Robert Menzies** announces in September 1939 that Australia is at war with Germany

3. Dark Hour

Billy Hughes' speech in 1917 in the throes of World War I

4. One Thing Remains

John Curtin announcing in 1941 that Japan has entered the Second World War

5. We Will Rise

James Scullin's speech calling for confidence and determination amid the financial depression of 1931

6. I Lie Sent Men To Ease

A paraphrase of one of **Malcolm Fraser's** most famous lines from a 1971 lecture shortly before he became the Minister for Education and Science

7. The Dismissal

An unprecedented event in Australian politics was the November 1975 sacking of Prime Minister **Gough Whitlam** by the Governor General Sir John Kerr

8. Remembrance Day

As president of the ACTU, **Bob Hawke's** response to Whitlam's dismissal in 1975

9. The Reward For Public Life

Lawyer and academic **Noel Pearson's** eulogy for Gough Whitlam in 2014, based on a Paul Keating quote

10. Persistence

Interview with newly-elected Prime Minister **John Howard** in 1996 on parallels between sport and politics

11. We Took The Children From Their Mothers

Paul Keating's 1992 Redfern Speech was the first time a leader officially acknowledged the impact of European settlement on Indigenous Australians

12. A Stain On Our Souls

Tony Abbott in 2014 referencing Keating's Redfern Speech

13. Not Now! Not Ever!

Julia Gillard explains in parliament that she will not be lectured about sexism and misogyny by the 2012 leader of the opposition Tony Abbott

14. Unrepresentative Swill

Branching out from Keating's description of the Senate in 1992, a collection of memorable parliamentary insults and gaffes

15. We Apologise

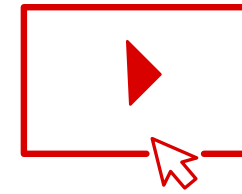
Prime Minister **Kevin Rudd's** formal apology in 2008 to Indigenous Australians, in particular the Stolen Generations



”

D. Extra Examples

Collaboration in many guises:



Stockholm Syndrome

Episode 3 of *This Is Pop* on Netflix tries to look into the collaboration behind the success of Swedish songwriting and production – from **ABBA**, to **Roxette**, **Childish Gambino** and **Ace of Base**.

Anwen Crawford [writing in *The Monthly*](#) correctly points out that the documentary provides very little actual information about why or how the Swedes produced so many hits, and wonders whether it may have something to do with the quality of country's school music education system.

Well my friends the time has come...

[Jacob Collier](#) has made an amazing cover version of **Lionel Ritchie's** *All Night Long* involving a huge number of collaborative partners and hundreds of separate audio and video clips.

Sister moon will be my guide

Saxophonist [David Sanborn](#) has been organising remote recording sessions of songs with each musician playing from their own home studio. This is a collaboration with **Sting** on *Sister Moon*.

You look after your mates and your mates'll always look after you

[Publio Delgado](#) makes an art out of adding guitar harmonisations to the voiceovers in advertisements, interviews on the news, and excerpts of speeches. Here's one he did with an Australian who explains an incident in the local community.

The Demon Barber of Fleet Street

Bryn Terfel and **Emma Thompson** demonstrate their approach to performing with scores on stage in the opening scene of **Sondheim's** [Sweeney Todd](#) – **Live from the Lincoln Centre** in 2014. This is one of the most extraordinary bits of ensemble transformation you will ever witness!

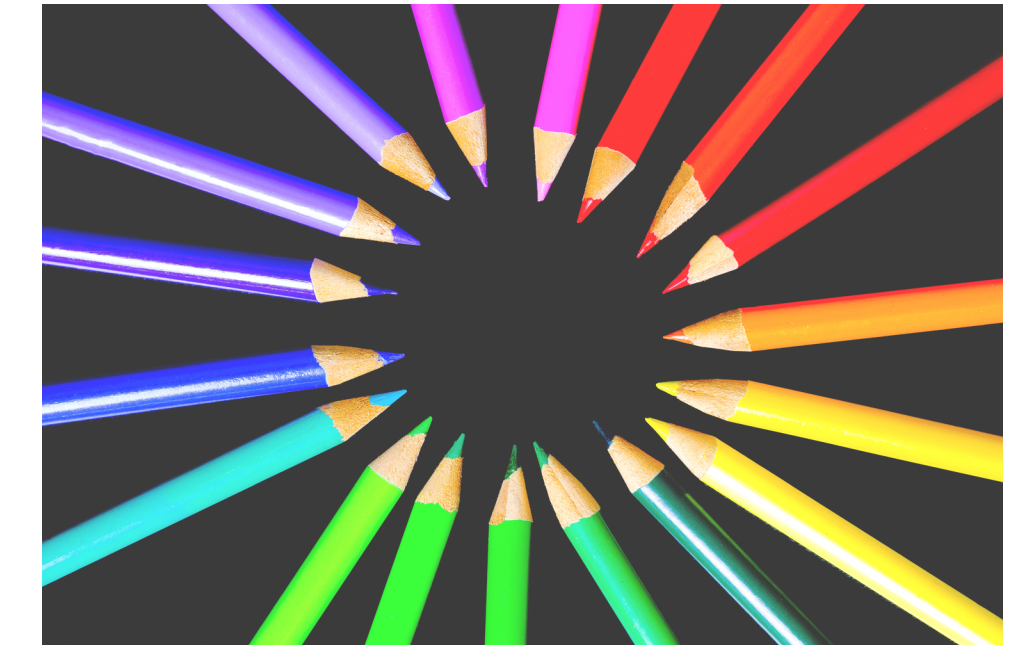
2. SUSTAIN

A. Background & Definitions

For many of you, sustain in music will conjure up lush and interconnected chords with the pedal pressed on the piano or perhaps the swimming reverberations of sound in a cathedral. However, you could also think of sustain as a way of describing the natural or inherent length of a sound.

Some sounds – regardless of how you play them – last longer than others. If you compare a finger snap to singing a note until your breath runs out – there is a huge difference in the sustain or natural length. And even if you sing the shortest note you possibly can, depending on how echoey the room is it might still sustain more than a finger snap. Try both at the same time to see.

These natural differences in length have to do with the built-in acoustic qualities of the instruments or voices – how bright or piercing their timbre is, and how and where the sound is produced. And there will be some variation in sustain depending on the range, volume and the person creating the sound.



If you are creating, composing, arranging or producing music – this information is vital. Think of it as an updated instrumental colour wheel that:

- is an incentive to move away from classifying instruments by their traditional families and roles
- leads to fresh combinations of sounds
- encourages inventive ways of playing and new techniques

Some ideas to get started:

- extend the sustain of short sounds by arranging them in quick succession like a delay
- amplify or disguise long sounds by starting or ending them with short sounds
- activate and energise a passage of long-sustained notes by adding repeated short ones
- make long sounds even longer by staggering or interleaving the entries like a cross-fade

The following exercises will give you some practice at harnessing sustain as a compositional tool, and following that there are some examples of it in action from Mozart to the present day.

Image by Nicholas Erwin (Flickr), CC BY-NC-ND 2.0

B. Activities & Projects



SUSTAIN SET UP

1.

Take your instrument, use your voice, or grab any classroom percussion object

2.

Working quickly on your own, establish what its natural sustain is with a normal playing technique at a medium dynamic

- if it has multiple pitches, choose one in the middle
- if it is stringed, one bow stroke or pluck
- wind or brass – an average length tone; no endurance tests or going red in the face

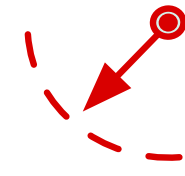
3.

By quick negotiation and comparison, arrange yourselves in a line from short- to long-sounding and play each sound in quick succession

4.

Make any adjustments to the order, then do it again from long to short

SUSTAINABILITY



1.

Keep your instruments from **SUSTAIN SET UP** and return to your **SENTIENT** groups

2.

Start jamming again, except:

- you are now only allowed to play a single pitch
- and it may only be your one natural length from



3.

Follow, answer, respond, copy to create a piece made out of single-note communication

4.

If you need to add a bit of variation to the dialogue:

- keep the playing technique the same, but vary the dynamic
- leave some gaps between responses – **stop, listen, wait, play**

How long can you sustain it?

C. Examples from Voyage Repertoire



Mozart

Before looking at the first Mozart example, bear in mind that he was writing in a time when the roles of the instruments were considerably more constrained than they are now – by convention as well as by technical limitations. Think of this as a sort of class system applied to instruments:

- the nobility of the upper strings enjoy the best melodies and views from a spacious and well-appointed upper storey
- they receive generous support from their relatives in the lower strings
- the hard-working woodwinds are brought in for special tasks and have access to most areas
- the brass and percussion are helpers for special occasions, and share a space at the back out of the way

Remnants of this way of thinking have survived in the names of the positions in the modern orchestra – e.g., chief conductor, concert master, assistant principal, section leader, rank and file.

Mozart doesn't have the possibility to give the instruments words, roles and costumes as he does with the characters on stage, and is more restricted in his palette of colours. Nevertheless, he finds very original ways of breaking up and recombining the instruments.



This is the only opera overture of Mozart's with a slow introduction, and it's as if an entire life has been squeezed into just four bars. Everything that follows in the story is somehow concealed in these opening sound objects, and this almost cinematic effect is achieved primarily through ingenious engineering of the sustain. It's subtle, but it creates a very distinctive sound.

1 Except for the bassoons, the winds and brass sustain through

3 Lower and middle strings pulse on the half bar and next downbeat, and in the gaps between this the upper strings retake. The combined effect energises and activates the chord because there is something moving on every beat.

Towards the end of the opera [these opening chords reappear](#) in an expanded and more menacing version as the statue comes to life in the cemetery and speaks to Don Giovanni.

Mozart has reharmonised it making the first chord a **B diminished** instead of **D minor** – acting as an altered dominant – and to the second he adds a **7th** making it **A⁷/C#**

But the extraordinary addition is a new colour in the orchestration – an alto, tenor and bass trombone. Listen in particular to bars 5–8 where the woodwinds are suddenly absent and the trombones instead answer in sustained ghostly images of the different earthly registers of the human voice.

4 Added lower open-string D in violins amplifies the chord start

5 The short timpani re-articulation cuts off the sustained middle and upper voices, leaving the lower parts exposed and hanging

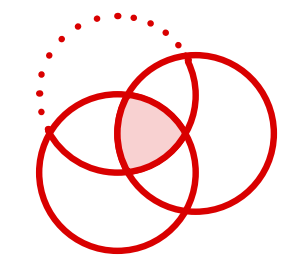
2 timpani extends its sustain with a roll

Kit 1 – **DESIGN & INNOVATION** looks at altered dominant harmonies

Don Giovanni – Overture

Beendet 28. October 1787 in Prag.

The image shows a page of a musical score for the Overture of Don Giovanni. The score is for a full orchestra and includes parts for Flauti, Oboi, Clarinetti in A, Fagotti, Corni in D, Trombe in D, Timpani in D.A., Violino I, Violino II, Viola, and Violoncello e Basso. The tempo is marked 'Andante.' and the key signature is one flat (B-flat major). The score is annotated with red circles containing numbers 1 through 5, pointing to specific musical features. A red play button icon is located at the top left of the score area.



The Singing Politician

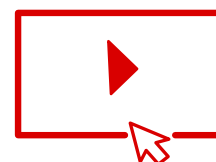
6. I Lie Sent Men To Ease

For voices alone, this piece is an excellent example of how different degrees of sustain can form the basis for an entire short piece. The title is a sort of cryptic clue, and the actual infamous Fraser quote is revealed bit by bit with the voices gradually inserting the missing consonants to complete the meaning.

The singers extend the built-in bite and length of different spoken syllables with a precision that imitates instruments. Listen for how the short **T** comes in like a cymbal choke after the initial repeated longer **I** then **LIE**. Towards the end there is a short passage of exchanged **DOOT-DOOT** – the **T** from before becoming longer by being articulated like brass instrument stabs.

Following that, the sustain is extended by a series of interleaved and stacked 4ths, and this sets up the reveal where the whole ensemble completes the original phrase in rhythmic unison.

[Album on Spotify](#)



1. Nope, nope, nope!

The **P** of **NOPE** at the beginning also acts as a short percussive cut-off to the natural length of **NO**. This sustain feature is mimicked by the entry of the piano, then picked up by the pointillistic inserts of the instruments. Listen for how the ensemble begins gradually adding longer tones and these multiply into phrases, and in this case the instruments are copying the built-in sustaining qualities of the sung text. The juxtaposition of different lengths of one short word tempts the listener to wonder whether there might be more behind this statement than a blunt Nope.

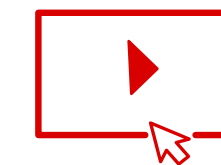
15. We Apologise

Here is an example where almost the entire piece is made up continuous cycles of overlapping sustained sounds, within which short sonic pinpricks pop in and out. These keep the listener's attention because they appear as haptic percussive events resembling gravitational ripples in a huge ocean. Towards the end as the words slowly become discernible, the effect is like a scrambled radio signal being beamed back to earth. It may not seem like much and it took a while to get here, but the fact that it arrived at all has a significance beyond words.

13. Not Now! Not Ever!

This through-composed piece builds on the melodic as well as rhythmic contours of Gillard's words. The sounds of the original recorded speech plus the choir create a deft mixture of sustain layers spanning the short and explosive right through to floating suspensions. Note how the brief eruptions of chaos – **ORDER** – are made up of multiple voices of different lengths and pitches. This makes the interjections sound different from crowd noise – each opinion seems to sit confidently in its own aural bubble.

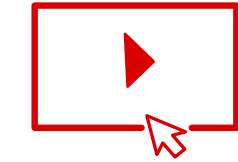
About halfway through, the **NOT NOW–NOT EVER** motif becomes a sort of chant that morphs into a groove. The words are becoming shorter and more insistent, but this transition also moves the mood from the quirky and humorous to the depressing as we suspect that these will likely require repeating for years to come.



[Watch the video of this recording](#)

D. Extra Examples

Sustain as tool:



The following three orchestrations are examples of how to write with sustain potential as the guiding criteria. None of these would have been possible, if the composers had followed text-book approaches to scoring for the different instrument families.

Listen for how lively and fresh the instrument combinations are, and that new colours glimmer on every surface and creep into every corner of the sound.

Laura Karpman
[*Tom's Revenge*](#)
from 'Steven Spielberg presents *Taken*'

Julian Yu
orchestration of Mussorgsky's
[*Pictures at an Exhibition*](#)

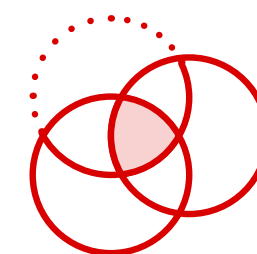
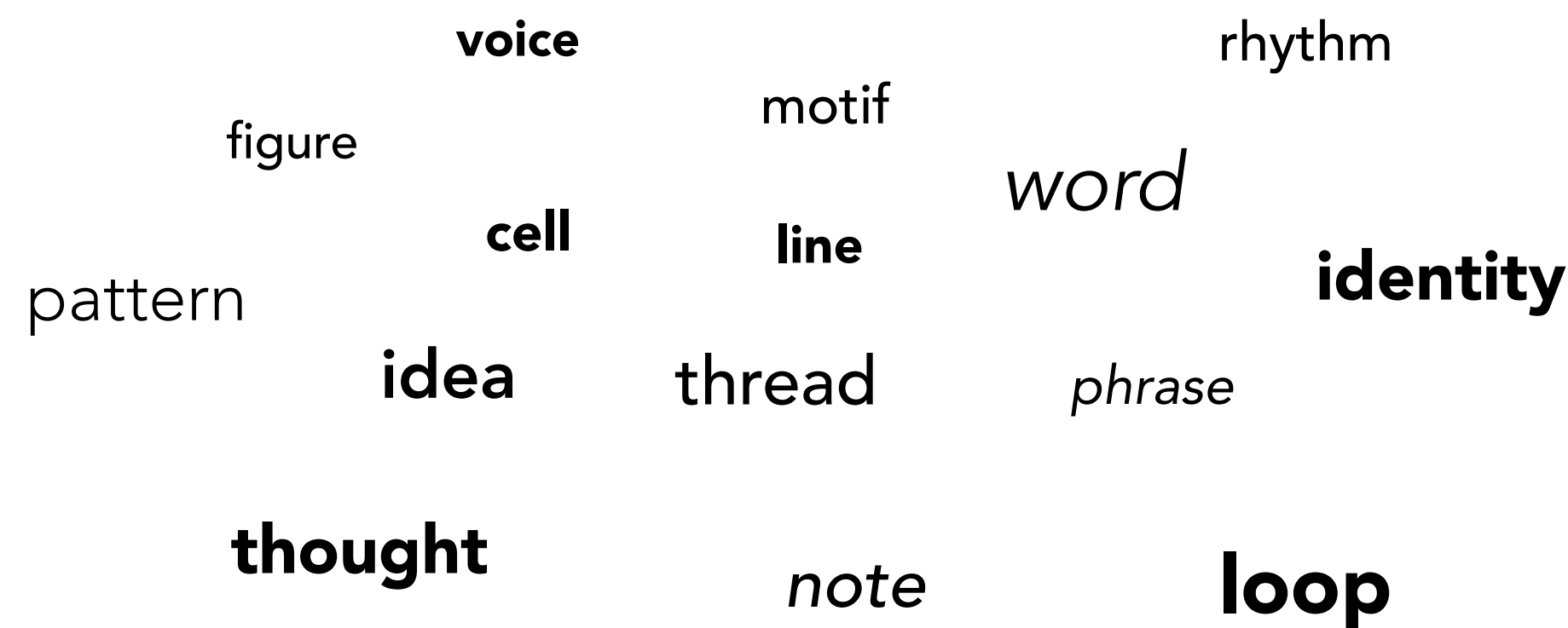
Maria Schneider
arrangement for big band of
[*Kurt Weill's Speak Low*](#)

3. THREADS

A. Background & Definitions

Thread may not be immediately recognisable as a standard musical term, and this is deliberate. It has been chosen to communicate the idea of different musical identities working together, but keeping their own trains of thought. And in a similar way to wavy threads woven into fabric, the potential of multiple musical threads is limitless. A thread could also be how the thoughts and ideas of a single determined person build momentum when combined with others, and become a gentle wave of reform or peaceful revolution. And a thread might also be implied in that famous ancient Chinese saying about a journey of a thousand miles beginning with a single step.

The fascinating thing in music is that even as sound palettes have broadened, structures expanded, harmonic and rhythmic languages evolved, and new hybrid styles emerged – the general processes of establishing, continuing and developing musical threads remains remarkably similar. It is possible to trace these mechanisms dating from the Middle Ages through to the Classical symphony, from Schoenberg to bebop, Australian Indigenous music to the additive rhythms of taiko, minimalism to hip-hop, and in film scores to nursery rhymes. In many cases, entire compositions appear to expand outwards from a single initiating idea – like an organism growing from a single cell. And whether the resulting music is free improv or the scientific precision of a Bach fugue, collaboration and sustain are the cornerstones. In other words, threads spring to life through interaction and negotiation and they keep our attention through the interplay of different lengths and values.



Kit 2 – **CULTURAL NARRATIVES**
looks in more detail at non-
Western music.

B. Activities & Projects

CELLULAR



1.

Keep the instruments from before, and reform the **SENTIENT** groups

2.

Now your job is to transform your single natural-sustaining tones into a length of the opposite extreme, with the following conditions:

- the changes must take place incrementally – gradually making a series of tiny alterations, each one edging slightly closer to the target
 - the resulting note must be produced in a fundamentally different way than the original

Examples:

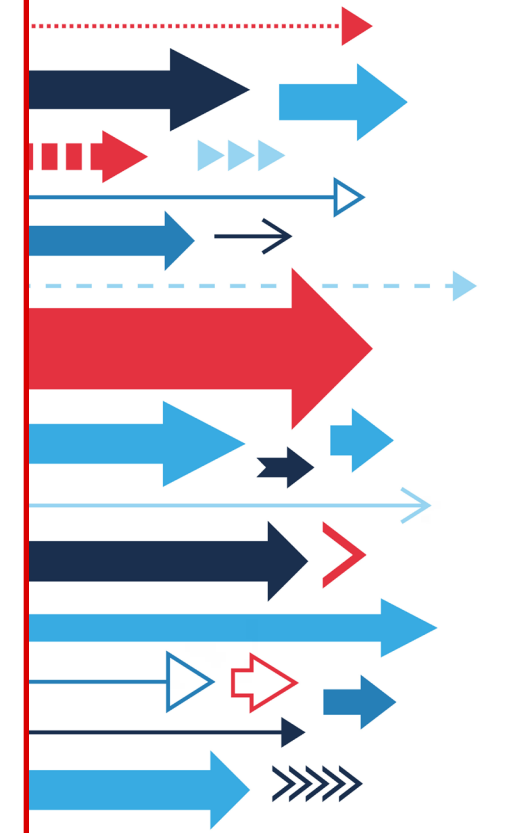
- a long-sustained trumpet note might end up as the short flick of a finger on the rim of the bell, or the thud of a just a valve being pressed
 - a long-sustained sung note could result in a click of the tongue, or a single spoken **P**
 - a short-sustained untuned percussion sound may end up being a tremolo, or being slowly dragged along the surface of a table
- a single piano note might be repeated once then twice and so on, or perhaps the sustain pedal is pressed for increasingly longer time periods

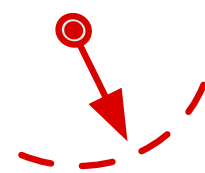
In each case find a personal and inventive way to make the shift, and work out the transition of techniques as smoothly and as gradually as practicable

3.

Start together, and slowly evolve. Stick to your own timing, follow your own agenda of reversing the polarities

Don't play all the time – take small breaks between the increments and listen to what else is changing around you, then rejoin the sound. Decide yourself when you finish – it doesn't have to be synchronised with the rest of the group.





WE ARE GROOT!

Now, put all the groups together and do the whole thing again.

This forest is made of sentient beings – some organisms are growing from single cells multiplying in the wet earth, and other species are slowly breaking down, regenerating, evolving. The whole ecosystem works as one. Don't misinterpret Charles Darwin as the capitalists do – for every act of competition between species in your sound forest, there are a hundred undocumented acts of cooperation.

Find the perfect spot – outside and inside, spread out, perform it again. Get a few people to video it from different angles, or perform it for visitors as they move through a public space.

SOUND WORDS



“

Words and images must be flexible and contain multitudes, they must flicker, and they must have multiple meanings.

”

The poet Elżbieta Drużbacka, a character in Olga Tokarczuk's 912-page historical novel *The Books of Jacob* – written in 2014 in Polish and published in English in 2021.

Choose one of the speeches from page 13 that isn't described on pages 19 or 20.

While listening to it, write a short description of approximately 100 words explaining what's going on. You should provide listeners with introductory information about a work or sound concept they may not be familiar with.

Some things that could appear in your paragraph:

- overall mood or atmosphere
- identify and highlight the different musical identities and how they interact to create the sound
- give the reader some insights into how sustain is handled – repeated sounds, offset entries, rhythms of speech, effects etc.
- how these aspects come together to advance the subject matter or wider context

Be personal and descriptive, but be careful about words such as exciting, awesome, interesting or passionate – unless these terms are unpacked, they can sound vague or like marketing. Show if and how you like something by being enthusiastic and original with your text.

Time limit: **20 minutes**

Select paragraphs to read out and discuss the different views and insights.

C. Examples from Voyage Repertoire

Mozart *Jupiter*

Mozart's Symphony No. 41 – written in 1788 – has an almost mythical status that may in part be magnified by it being the last symphony he composed as well as his longest. We will zoom in on the fourth movement, in particular its fugue. The fugue as a contrapuntal compositional form was of course well established – having grown from canons of the Renaissance and being perfected in the intricate and complex creations of Bach. Mozart's style is more operatic – a collection of five short statements shared democratically between the instruments. Small canonic threads and fragments pop in and out throughout the whole 12-minute movement, but it hits top gear in just the last few minutes.

Despite all that has been written and theorised about this work, it is difficult not to be pulled into its world. In the time of Mozart there may have been little more than the slightest inkling of space travel, quantum mechanics or genomic sequencing – but concealed in this music is the promise of vast possibility. The closing minutes of *Jupiter* are a microcosmic revolution, and the musical identities portrayed therein must suspect that their great grandchildren will one day escape the matrix and ricochet through time and space at the speed of light.

In a departure from what you may be used to, listen without following the score along. Have a quick look at the following thematic stems, play each through on the piano, then listen to the whole movement through once.

The image shows five staves of musical notation, each with a red circle containing a number from 1 to 5 on the left. The notation is in treble clef. Stem 1 shows a whole note chord. Stem 2 shows a melodic line with a trill. Stem 3 shows a melodic line with a trill. Stem 4 shows a melodic line with a trill. Stem 5 shows a melodic line with a trill.

Listen out for how the different voices interact and how each viewpoint is crystal clear even when the texture becomes dense. Try to locate the passage when all five themes are heard simultaneously; it appears like a quick glimpse of a blackboard full of interlocking formulae. Notice how Mozart switches and flips the threads vertically as well as horizontally between the instruments, and how these musical identities are intrinsically linked to their sustain potential rather than their family of origin.



[Jupiter – Movt. IV](#)

ΦX174

“ This Giant Aperiodic Crystal is the base sequence for the chromosome of bacteriophage X174. It is the first complete genome ever mapped for any organism. About two thousand of these pages would be needed to show the base sequence of a single E. Coli cell, and about one million pages to show the base sequence of the DNA of a single human cell. The music of X174 is based on information from this DNA code – the DNA letters are mapped to pitches to create melodic and harmonic material. ”

–John Babbage writing about ΦX174, from Topology’s 2011 album *Difference Engine*

In a similar way to how Mozart’s threads and combinations have the uncanny ability to suggest the immeasurable and ephemeral, ΦX174 demonstrates how sound can embody dizzyingly incomprehensible sequences of information and somehow make them graspable. Could it be due to music’s similarities to speech? When hearing spoken words we don’t marvel at the infinite combinations of phonemes and possible variations in emphases but instead zero in on what’s being said. In both music and speech we recognise patterns and repetitions, and these merge into meanings – whether obvious or opaque.

But in music, we are even more flexible when it comes to specific meaning – the vibrations of sound spiral through the air to our ears and our brains perform the strangest of calculations to translate and process this information. And whether the sounds cause goosebumps, tears, confusion or sleep depends on so many factors, that listing these too would fill thousands of pages.

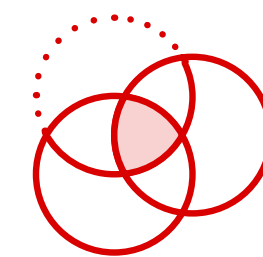


Oliver Sacks, *Musicophilia: Tales of Music and the Brain*. Vintage Books, 2008.

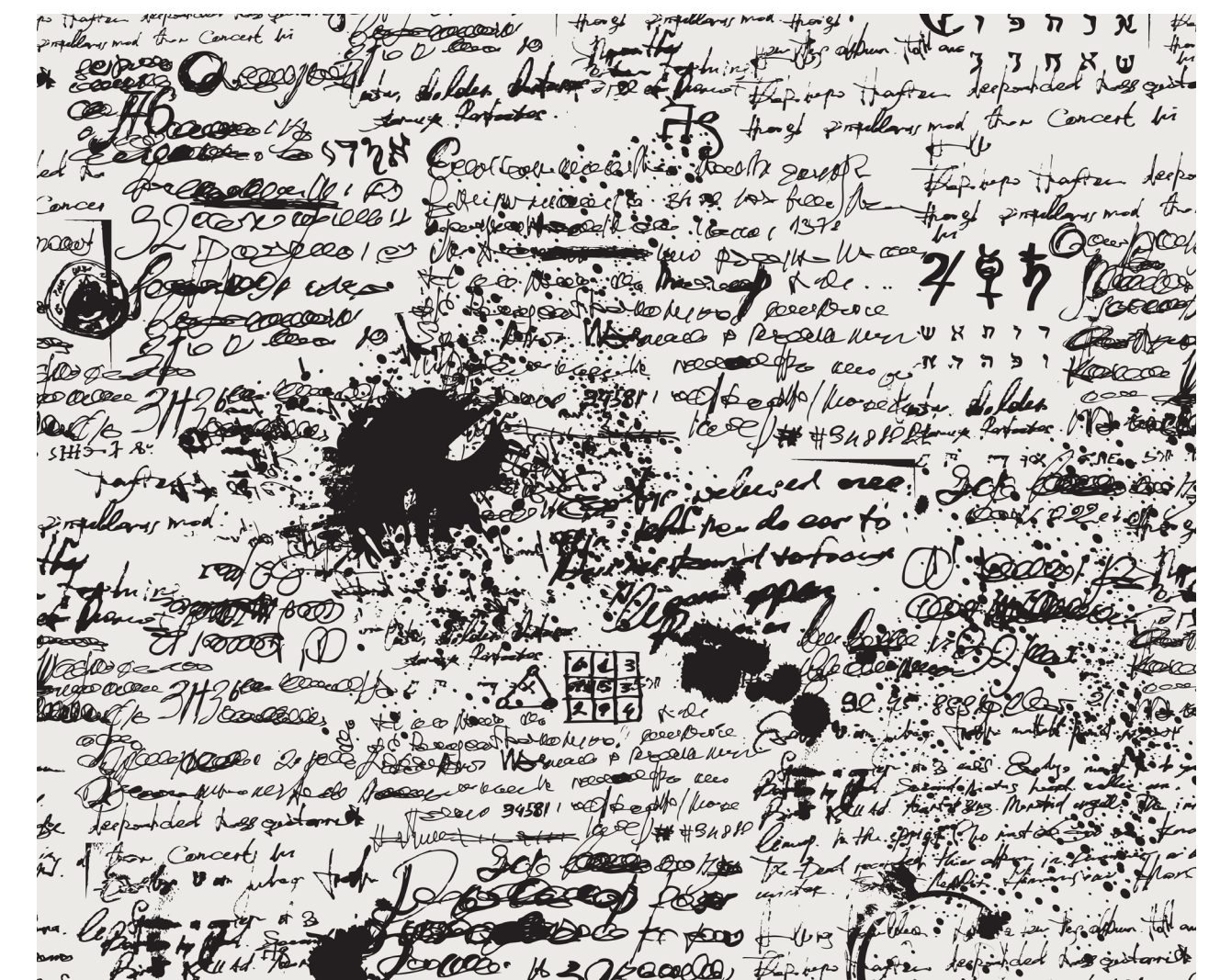
Oliver Sacks – author of *Musicophilia* and an expert on cognitive reactions to music – reminds us too that even though “it is the art most closely tied to the emotions, music is wholly abstract; it has no formal power of representation whatever.”

Titles may mean that the composers intend that we be aware of certain connections to outside stories or situations, but these pieces can still stand alone as works without needing to know or follow these.

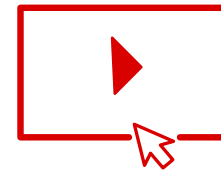
[Listen for how ΦX174](#) begins straightaway with similar long-short pairings as the sung vowels then consonants in *The Singing Politician* – segments and shapes being formed, repeated, but then twisting out of view as others arrive. The shifts in tempo – along with silence and pauses on chords – suggest a recalibration of the lens and field of view, but leave the final meaning entirely up to the listener.



Kit 1 – **DESIGN & INNOVATION** looks into more detail at different subject matter for works.

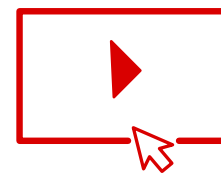


D. Extra Examples



Different Threads

[Playlist on Spotify](#)



Voyage 3 Repertoire

[Playlist on Spotify](#)

[Graphic animation of Bach's Contrapunctus 6](#)
from the **Art of Fugue**

[The first movement](#) of Bartók's **Music for Strings, Percussion and Celesta** is a slow fugue that according to Pierre Boulez "unfolds like a fan."

[Fugue for Tinhorns](#)
from **Guys and Dolls** recorded in 1963 with Frank Sinatra, Bing Crosby and Dean Martin

[The Exploding Psychology](#)

The mechanical precision of samples and electronics undergoes manipulation via different degrees of sustain in the hands of Squarepusher

[Different Trains](#)

Short introduction to Steve Reich's work made from spoken word, Kronos Quartet and field recordings

[Super Critical Mass](#)

A sonic arts project created by Julian Day and Luke Jaaniste where people playing instruments of one type are spread out in a public space

[The Overstory](#) – a novel by Richard Powers
"It changed how I thought about the Earth and our place in it...
It changed how I see things" – Barack Obama



Voyage of Musical Discovery

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