Voyage of Musical Discovery

EDUCATION KIT 2022

DESIGN & INNOVATION

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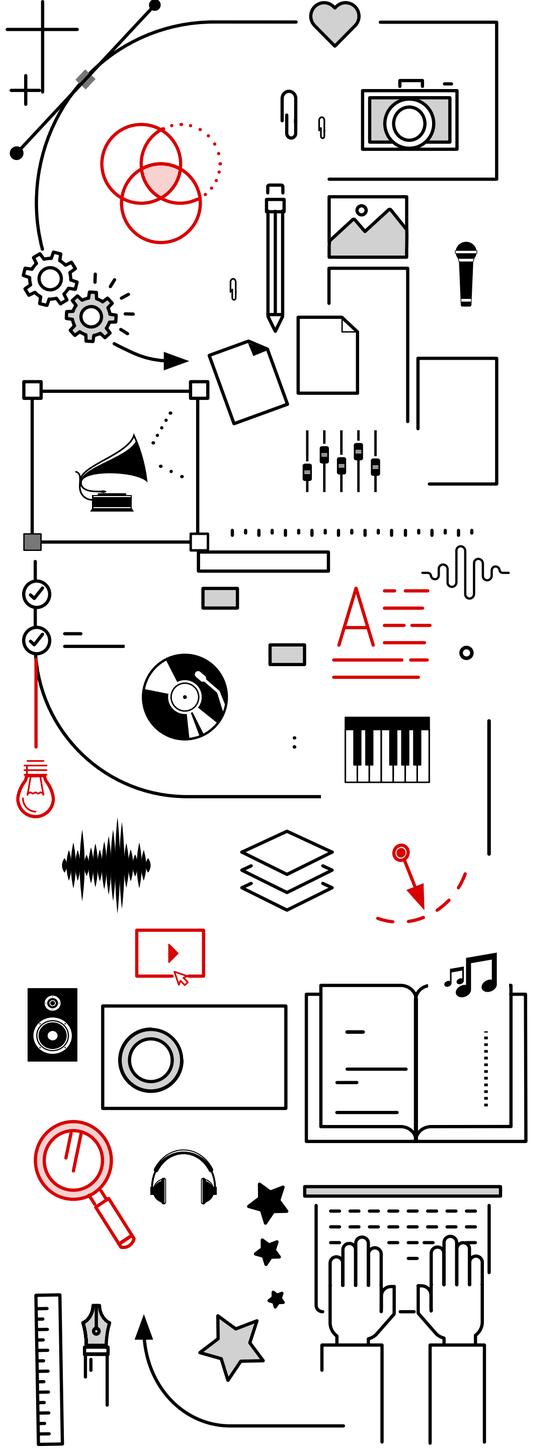

AUSTRALIAN ROMANTIC & CLASSICAL ORCHESTRA

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.

QLD
Friday 25 March 2022, 11.30am
Performing Arts Centre
St Peters Lutheran College, Brisbane

Edward ELGAR | *Serenade for Strings* (1892)
Gustav HOLST | *St Paul's Suite* (1912–13)

performed by the
Australian Romantic & Classical Orchestra

Chris PERREN
Go Seigen vs. Fujisawa Kuranosuke (2014)

performed by
Nonsemble

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

TOPIC & FORMAT OF KIT

Important aspects of **DESIGN & INNOVATION** connect the above works. To discover these connections, the kit looks in detail at:

1. Subject Matter

2. Structure

3. Layers

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 elements 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

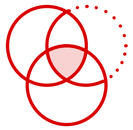
- Expanding for adult listeners, composers or musicians on the lookout for new ideas

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

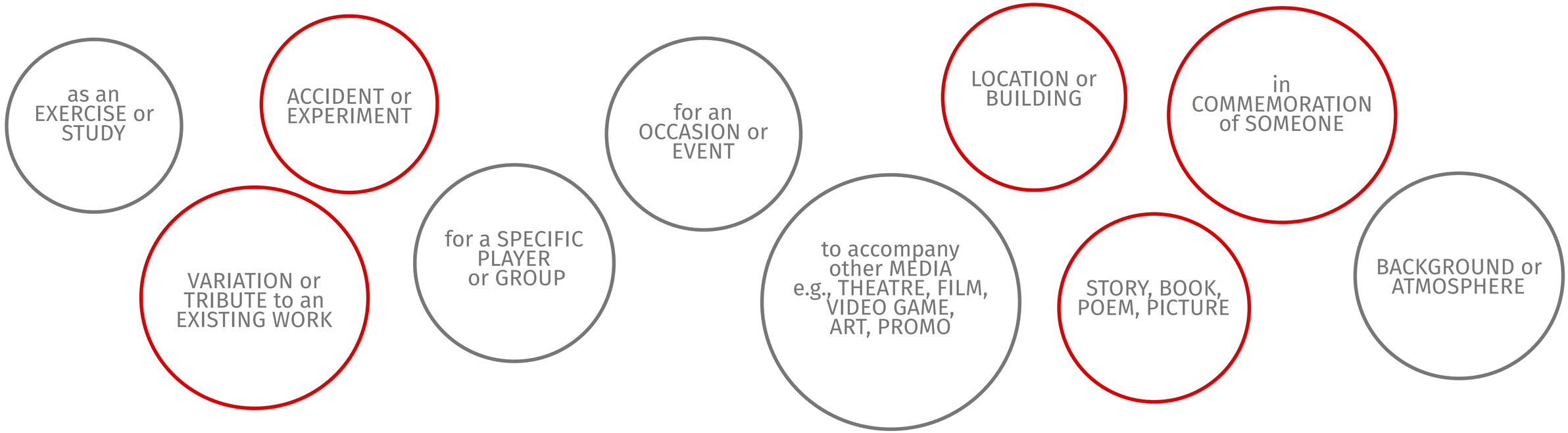
This interactive landscape edition is optimised for laptop or tablet, however no third-party audio or video media is embedded in the file. The links require an active internet connection, and headphones are recommended for concentrated listening. Downloading the PDF and opening it in Adobe Acrobat Reader 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).

The links to the audio of the examples discussed go to YouTube for the reason that specific starting locations and sections can be pinpointed with the link itself. 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. SUBJECT MATTER

A. Background & Definitions

Where do ideas for music come from?



In many of these cases, the subject matter will be a significant part of the discussion before starting work on a piece. It's not often that someone just says *write me something*. And if they do, there will still most likely be many discussions along the lines of: how long it should be, what instruments/voices, what it's for, where it will be recorded or performed, what the other works in the program are, how easy/difficult, what the budget is, and so on. The answers to these questions become the **constraints.**

Constraints are helpful in the creative process because they:

- **act as guidelines**
- **narrow down the possibilities**
- **help lead to imaginative solutions**

There is a popular romantic image of the genius composer walking alone in a forest by a creek, when suddenly an entire idea for a symphony bursts forth from the clouds above. Returning to a candle-lit upstairs room with a piano in the background, the inky notes fly onto the parchment – cut to rapturous applause in the concert hall. **This is generally not the way music comes to life**. The reality is much messier, and involves discussions, sketches, revisions, erasing, editing, adapting, workshops, rehearsals and multiple takes. And many people along the way. Even if a composer or songwriter is officially the sole creator of a work and was alone during its physical scoring or recording, it is still almost always the product of some form of collaboration.

The collaborative process is looked at in more detail in Kit 3 – **MUSICAL IDENTITIES.**

Tia DeNora, *Beethoven and the Construction of Genius: Musical Politics in Vienna, 1792–1803*. University of California Press, 1995.

B. Activities & Projects

Do you remember when you were little and wanted to draw something but didn't know what? Someone nearby would say ***draw a house*** and suddenly you got to work. After 45 minutes, an incredible picture emerged with a whole world of balloons, trees, and people in front of a backdrop of rainbows and faces in clouds. It's probably still stuck to a fridge or wall somewhere.

Having a clear subject or topic to start with often produces more creative results than saying, ***I don't know, draw whatever you want***... And the same goes for music.

BRAINSTORM

From the headings below think of something to fit each category:

	game	**place**	**person/animal**	**object**	**instrument in room**
e.g.,	*dominoes*	*corridor*	*beetle*	*paper*	*voice*

Add one or two words to each of your choices to provide more information. It can be poetic or practical and don't worry about making a story or links between the individual items.

domino *effect*	*long-mirrored* corridor	beetle *wings*	*blue* paper	*raspy* voice

Save your best three and write them on pieces of paper or cards – these will become part of a larger project.

INVENTION

Inventing new words to describe things with a sound can provide excellent ideas and the raw materials for new music. Canadian composer and music educator R. Murray Schafer had students come up with new words to describe things such as *moonlight* or *rain*.

Try this with a couple of your terms from the previous exercise – if there is no obvious sound to imitate, think instead of how the thing or situation might make you or someone feel.

R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester: Inner Traditions, 1993.

LAYOUT

To begin the larger composition project, put each person's three chosen brainstorm word pairs face down on the floor. In a small group or individually, select three at random, then get somebody to shuffle the invented words and hand one to each person or group.

Select two from the three pairs you chose. In combination with the made-up word, these are the ingredients, raw materials, ideas, subject matter and titles of your new work – in other words, these are the constraints.

The first task is to make a plan for the music you will create. This might be a diagram, list of possibilities, group of instruments or players you have access to, a title constructed from one or more of the words. Software tools are handy, but you might find it helpful to go back to simple devices like a big sheet of paper and some different coloured markers. Use circles, boxes, arrows and make notes as you go. Post-it notes are useful too, because you can easily rearrange the components. Set it up on a wall or whiteboard, like detectives piecing together a crime.

Nothing has to be finalised at this stage – you are just workshopping possibilities.

Remember too that our understanding of what constitutes a musical score has changed a lot in recent decades. Your work might not necessarily end up being scored with conventional notation, and could retain some of the elements from the initial diagram. Or the end result might be best achieved by explaining the parameters to the players verbally, or directing them in real time with hand signals, flashcards, whispers or via SMS...

> In the 1980s, Australian-based composer and psychologist Jeff Pressing explained the sort of things – or referents as they are known – that improvisers can translate into sound, and this list is a good guide for ideas behind works more generally. He wrote that "virtually any coherent image" can allow a "sense of engagement and continuity."

> *"A musical theme, a motif, a mood, a picture, an emotion, a structure in space or time, a guiding visual image, a physical process, a story, an attribute, a movement quality, a poem, a social situation, an animal."*

Jeff Pressing, 'Cognitive Processes in Improvisation', in *Advances in Psychology: Cognitive Processes in the Perception of Art vol. 19* eds W. R. Crozier and A. J. Chapman. Amsterdam: Elsevier Science Publishers, 1984. 345-66.

C. Examples from Voyage Repertoire

Recycling

Firstly, it is very common in many types of music for pieces to exist in multiple versions. Once a writer comes up with a strong idea and interesting material, it makes sense to adapt it for different situations, instruments, groups or occasions.

Titles

Notice too how the titles of pieces – especially those written recently – already provide some information about what the music might be about, and how it could sound.

Chris Perren (1983–)
Go Seigen vs. Fujisawa Kuranosuke

This 30-minute work is composed for a septet of drums, 2 violins, viola, cello and electric guitar. The title and piece itself refer to a famous 1953 Go tournament, and the actual moves from the board game provide the basis for the harmonic, rhythmic and melodic material. The composer – Chris Perren – explains that "it's an experiment in extracting musical ideas from abstract patterns and sequences." Go was invented in China over two thousand years ago, and is now popular in Japan.

On the process of making the piece, Perren says:

"I started making diagrams and number lists to try and convert the patterns into music. The approaches I tried tended to mostly end up sounding very jarring and unnatural, which was not the aesthetic I was after. This piece isn't about revealing the hidden beauty of the numbers, but more of an experiment into stimulating musical creativity with complex patterns. Occasionally I would cook up a system for interpreting the moves which resulted in aesthetically pleasing patterns, which translated readily into a rhythm or a melody. These happy accidents quite often wound up as the recurring motifs you hear in the piece."

More about the breakdown and compositional process in the Nonsemble blog

Gustav Holst (1874–1934)
St Paul's Suite

Holst had a deep interest in and knowledge of literature and poetry, and this led him to write music based on many topics and sources including ancient Indian Sanskrit texts. When visiting Algeria – a doctor had suggested that the warmer weather would be good for asthma as well as depression – he listened attentively to the sounds around him and these seeped into the music he composed.

The *St Paul's Suite* was written for and first performed by his students at the St Paul's Girls' School in London. As the music program at the school expanded to include wind, brass and percussion – he added parts for these instruments so that all the players could be involved. The original string version tends to work better, as the various effects are more transparent. The work's final movement – *The Dargason* – includes an extraordinary experiment where the song *Greensleeves* is superimposed under the dance rhythm. This is discussed in further detail later in the kit under **3. Layers & Ambiguity.**

Kit 2 – **CULTURAL NARRATIVES** includes a more in-depth look at the movement of music across cultures, including information on the difference between influence and appropriation.

Edward Elgar (1857–1934)
Serenade for Strings

Elgar also intended his *Serenade* to be played by advanced students. The detailed and plentiful array of dynamics and expression markings show that he was indicating to less-experienced players the many degrees and nuances of expression he expected in the music.

Among the Elgar archives are some suggestions that the Serenade was a reworking of an earlier string piece, but this version has been lost. Elgar had a habit of jotting down all sorts of extra bits of information in the margins of his scores – often about seemingly unrelated incidents, people, pets or objects. Sometimes conversations, in-jokes, initials, nicknames and codes were translated into actual pitches and rhythms of the music he was writing. We know from some of these notes that Elgar's wife Alice had substantial compositional input into his works, including the *Serenade* itself and a version for piano duet.

Make the time to listen to all the works once through to get an impression of the overall sound world created in each.

D. Extra Examples

This section is optional, but is a chance to discover some music from different styles and times covering a range of subjects and ideas.

Brian Eno *Music for Airports* (1978)
ambient minimalism to counter the stressful sounds of airport terminals

Wuthering Heights (1978) written by Kate Bush in one night when she was 18 and based on Emily Bronte's book of the same name

Krzysztof Penderecki *Threnody to the Victims of Hiroshima* (1960)
written for 52 strings – the original title was 8'37

György Ligeti *Arc-en-ciel* (*Rainbow*)
a piano etude commissioned by a bank for a music festival in Hamburg

Hildegard Westerkamp *Like a Memory* (2002) for piano and recorded tracks – recalls finding a broken piano in an abandoned house

Ros Bandt *No. 7 Fleet, Water, Conduit Hose* (1981)
an improvisation in a water tank

Elena Kats-Chernin *Dance of the Paper Umbrellas* (2013)
for piano four hands

Þuríður Jónsdóttir *Flutter* (2009)
for flute and orchestra and recordings of grasshoppers and crickets

There is a popular but inaccurate story that the architect who designed the Sydney Opera House – Jørn Utzon – got the idea for the building's shape while peeling an orange. Read the story behind the design, including the changes it went through and the years it took.

2. STRUCTURE

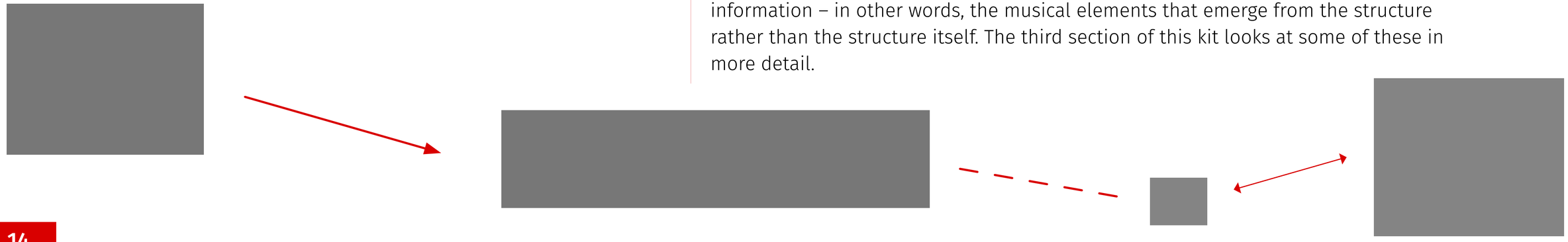
A. Background & Definitions

On page 11 Jeff Pressing mentions continuity. One of the primary mechanisms for ensuring that the elements of a work sound as though they belong together is the form and structure.

Having an outline of a work's overall shape can be helpful when composing, but it does depend on the situation. In many cases a work's form emerges while it is being created – ideas take on their own shape and the larger entity adapts to suit. Think of structure as a framework or scaffolding – the creative content grows with its help, rather than being restrained by it.

A good parallel is the process of writing words. Even with a very detailed list of dot points or chapter outlines, as soon as you start the actual writing, things always seem to change. And unless you are writing an instruction manual or have absolutely strict word limits, this is a good thing because it's the way creative content is made. And in music, things can often be even more flexible – you are not constructing an apartment block.

Textbooks and traditional concert program notes can tend to be quite occupied with the task of identifying and understanding a work's formal structure, but as a listener it isn't always necessary to be aware of it. What we more often react to and recognise are the instances of repeated or recurring rhythmic or harmonic information – in other words, the musical elements that emerge from the structure rather than the structure itself. The third section of this kit looks at some of these in more detail.



B. Activities & Projects

MIXTAPE

The art of making a mixtape was immortalised in Nick Hornby's 1995 novel *High Fidelity*. Instead of an actual tape, your job is to make a playlist of songs you know. Incorporating some of the advice from the 2000 film adaption and 2008 TV series, here are your 10 constraints:

1. As close to 60 minutes in length as possible
2. Make it personal, and tell a story like writing a letter
3. Base it on a feeling, rather than a topic
4. Start with something big, end with something big
5. No repeating of artists
6. Be ambitious; don't underestimate your listener
7. No shuffle play – plan the order
8. Give it a good title
9. Share it
10. Once it's finished, no editing

Completing this exercise is not only fun, but it gives you practice at creating a unique and sophisticated structure with the right combination of variation and consistency.

LAYOUT cont...

Now transfer these mixtape-making skills onto your own piece. Revisit the diagram, plan, notes and ideas from before to make some structural decisions about how the piece can be shaped.

Start by choosing an approximate and achievable duration – you want it to be long enough to get the message across, but not so long that it loses focus. As a guide, look at the typical length of a song.

Somehow or other your piece will have a:
BEGINNING **MIDDLE** **END**

Following the classic three acts of a drama, you could try introducing something, developing it, then eventually resolving it. But don't be hemmed in by Hollywood storytelling – allow some space for detours, open repeats, or make it modular and provide the players with options to choose from. If you are really stuck, give each part a number from 1 to 6 and roll dice to decide on the order. It's been done before, including by Mozart.

Label the sections. A common system is **A-B-C** etc, but choose whatever method suits the work – numbers, shapes, colours, or other names.

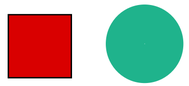
C. Examples from Voyage Repertoire

Elgar *Serenade*

I. Allegro piacevole (~3'30")

II. Larghetto (~6')

III. Allegretto (~2'30")



In addition to the individual structure of each movement, Elgar creates a sense of unity over the whole work by taking the rhythmic figure that begins the first movement and reintroducing it in the last section of the third movement.

Notice too that the form of the second movement is palindromic, and even though the musical material isn't an exact repetition when it returns, the melodic and rhythmic shapes are the same.

Elgar: scrolling score

Holst *St Paul's Suite*

A fascinating feature of the form of the *St Paul's Suite* as a whole is that it is constructed like a mini symphony – including the **Fast–Slow–Dance–Fast** format, although this is disguised by the folk song and dance-like ingredients. It is likely that he wrote the music to be playable and accessible for his students, while at the same time choosing a practical method of demonstrating how standard form components of classical music interact as a whole.

Even though the work runs to little over 12 minutes in total, like a handmade pocket watch, it is remarkable how it manages to contain many of the structural characteristics typical of the huge symphonic works of a similar time.

I. Jig – Vivace (~3'15")

After introducing the jig theme, the first movement goes through a short but elaborate development section.

II. Ostinato – Presto (~1'50")

Despite the Presto marking, this functions as a slow movement as the quick activity is the engine-like hum of the ostinato behind the theme.

III. Intermezzo – Andante con moto (~4'10")

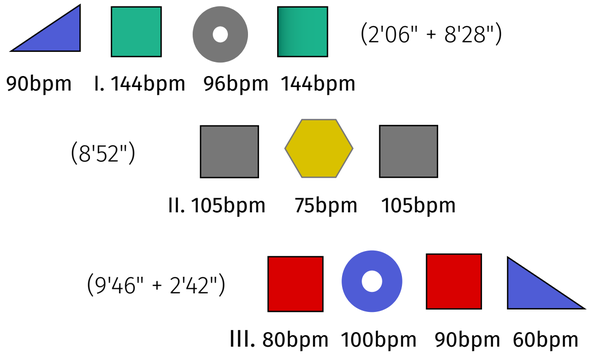
After a calm introduction, this movement rapidly shifts between fast and slow sections imitating vocal lines being interrupted by dance.

IV. Finale – Allegro (*The Dargason*) (~3'20")

The Dargason dance theme becomes more dense with each successive segment, and does this with the help of exciting harmonic and rhythmic manoeuvres – see below

Holst: scrolling score

Perren *Go Seigen vs. Fujisawa Kuranosuke*



The middle sections of each of the three movements contain the more ambiguous musical material – this subsides when the A sections of each return, but these undergo change and variation in the process. The composer adopts an innovative way of moving away from the tonic-dominant harmonic system – arguably the central building block of Western classical music – by creating rhythmic modulations. Note the relationships between the tempo of each section. The opening and closing triangles represent the Prelude and Postlude.

Perren: scrolling score

The unifying structural features can be easier to identify with the help of the score. Listen to the above movements with a scrolling score – links are below each.

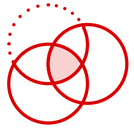
D. Extra Examples

Summary of some standard forms in Western music

American Popular Song Form: AABA (generally 32 bars)

The **A-section** is often referred to as the **Head**. The chord structure of the **B-section** – or **Bridge** or **Middle 8** – in many tunes was so standardised that musicians once gave them nicknames such as the Montgomery Ward Bridge or Sears Roebuck Bridge – after the big department stores and playfully suggesting that the bridges were stock standard.

Example: *Lester Leaps In* is AABA with a Sears Roebuck Bridge. This is one of the many **Rhythm Changes** tunes – contrafacts of the Bebop era and based on the chord sequence of *I Got Rhythm.*



Additional systems for organising and understanding musical structures are discussed in both Kit 2 – **CULTURAL NARRATIVES** and Kit 3 – **MUSICAL IDENTITIES** including free, cyclical and additive systems outside Western music.

Sonata Form: Exposition–Development–Recapitulation

Traditional music theory loves Sonata Form. And it is important, as long as you are also aware of the following:

- the composers generally believed to be those who perfected the form – i.e., Haydn and Mozart – did not refer to it or identify it as Sonata Form at the time
- even when a work is in Sonata Form, there are many variations and exceptions to it. This is a reminder that form in general is a framework rather than a strict set of rules.
- *sonata* is the Italian word for sound
- the form is heavily reliant on a harmonic formula that revolves around dominant to tonic resolution, so fails to take into account music that is built around other harmonic systems. This becomes a problem when Sonata Form is held up as a type of gold-standard in music theory, because it can imply that works outside this scheme are of lesser worth.

Binary Form: AABB
Two sections – related and of roughly the same length, most often played twice.
Example: *Greensleeves*

Theme and Variations Form: A A^1 A^2 A^3 A^4
Examples:
Rachmaninoff *Rhapsody on a Theme of Paganini*
Schoenberg *Variations for Orchestra Op. 31*

Ternary Form: ABA
Verse | Chorus (or Refrain) | Verse
Example: *Twinkle Twinkle Little Star*
or standard marches, where the B-section is called the Trio

Hopscotch is a novel written in 1963 by Argentine author Julio Cortázar. The 155 chapters can be read in different sequences providing alternate endings, and it's possible to get stuck in a story loop that never ends.

Strophic Form: AAAA
Examples: Blues, hymns, chants

Through-composed Form: ABCDE
Each section consists of new material
Example: Queen *Bohemian Rhapsody*

Rondo Form: ABACABA
Main theme digresses to different episodes
Example:
Mozart *Horn Concerto No. 4 in E-flat major, 3rd movt.*

3. LAYERS

A. Background & Definitions

If a creative work – whether music, a book or a new Netflix series – comes across as being too predictable, it can be hard to keep listening, reading or watching. We thrive on surprise, possibility, conflict, adversity and ambiguity – these are the things that keep our attention because they prompt us to ask: ***what's going to happen now?*** Think about how many stories in some way revolve around a main character overcoming dark forces – whether an evil empire, internal conflict, or a life-threatening disease.

Two of the main ways for introducing ambiguity in music involves the layers of harmony and rhythm. We get accustomed to a certain repeating pattern or a sequence of chords, then when something changes it can feel like your heart skips a beat. Composers and songwriters do this deliberately to keep the music interesting. Ambiguity in applying laws or regulations can create problems, but in music it opens a work up to multiple reactions and interpretations. The skill is finding the right balance, and that's where the structure helps. When the overall arc of the piece is mapped out, individual voices and instruments can then do unusual things that surprise us in the moment but ultimately make sense in the larger scheme of things.

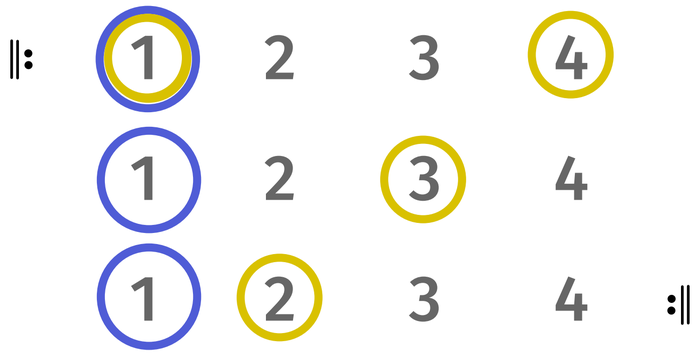
Harmonic Blurring

One of the problems with the traditional analysis of classical music, is that as soon as things get harmonically interesting, it is labelled **chromaticism**. This is about as helpful as describing Van Gogh's *Starry Night* as multicoloured – it tells you nothing.

As mentioned before, the movement of **V–I** is such a defining aspect of so many branches of Western music that it has an almost gravitational pull. Listeners have become accustomed to hearing the notes of a **V** chord literally pulling the music toward a **I** chord, and it tends to signal a sort of relief, like answering a question or solving a puzzle. It is no surprise that it is called a resolution, or that musicians often talk in terms of tension and release. This harmonic grammar is so entrenched in the Western music system that it is the foundation of entire musical structures developed over centuries – e.g., Popular Song Form or Sonata Form as discussed above.

However, like any widespread and mainstream system, there have been many upheavals and overhauls, including initiatives to move away from it altogether. Some of these – as well as those outside the world of Western music – will be looked at in both Kits 2 and 3. But even working within this system, composers, songwriters and music creators have come up with hundreds of ingenious ways of expanding the definitions and breaking the rules – and many of these innovations are not as recent as you might think.

RATIOS



GREY NUMBERS: metronome click
BLUE CIRCLES: left-hand finger snap
YELLOW CIRCLES: right-hand finger snap

Follow the same logic and create grids for learning and practising additional polyrhythmic patterns:
e.g., **5:4, 6:5, x:x**

LAYOUT PROJECT continued after examples...

SUPER SCALE

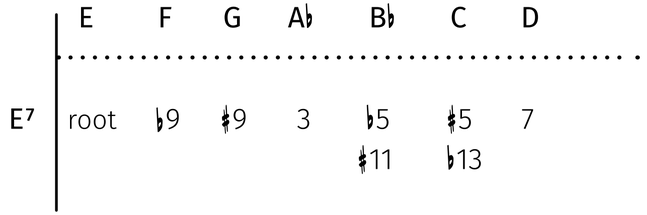
This activity is best done on your instrument or a piano, and it might help to have some manuscript paper and a pencil nearby.

1. Play **E♭ major** scale slowly over one octave – up and down

2. Now play it again but change each **E♭** to **E♮** and keep everything else the same

This incredible scale is called the **Super Locrian** and Ravel loved it. It's also known as the **Diminished Whole-Tone** scale – can you figure out why?

It's a secret weapon for building altered dominant chords, because it provides all of the standard alterations and keeps the defining **root**, **3rd** and **7th** unaltered.



Transpose to the correct key for your passage (the above example would work when the **I** is **A**), then sprinkle a few of these notes in instead of your regular **V** chord. If you voice it with enough vertical space between parts, you can put them all in! If you are using chord symbols, this can be shortened to simply **E⁷alt**

C. Examples from Voyage Repertoire

1. Holst

One of the most popular techniques for working within the **V-I** system but disguising or making it more ambiguous, is **chord substitution**. That means finding related chords that share enough tonal information so they can fill in or be proxies for the original. Depending on the context and desired result, this can have the effect of blurring the progression anywhere from the subtle to the extravagant. Around the middle of the final movement of the *St Paul's Suite*, Holst gives us an amazing demonstration of chord substitution.

It all begins with a conflict between two related keys – C major and A minor. It's a subtle argument because they already have much in common. For example, if you compare A natural minor and C major – they are both made up of the same notes but starting in different spots. The scales are siblings – they stem from the same DNA but have different personalities. The *Dargason* theme itself hops along built from this collection of pitches.

Two books to learn more about the terminology discussed in this section. As Holst demonstrates, these techniques are not restricted to jazz theory.
Mark Levine, *The Jazz Theory Book*. Sher Music Co., 1995.
Jerry Coker, Bob Knapp and Larry Vincent, *Hearin' the Changes*. Advance Music, 1997.

Now, if we regard each of these keys as a potential **I** or home key, then naturally they have different preparatory **V** chords. But even these (G⁷ and E⁷) share a number of tones, meaning they can also be used interchangeably. What's really happening by swapping them, is that an **altered dominant** is created.

	G⁷	E⁷
G	root	♯9
G♯	♭9	3
B	3	5
D	5	7
E	13	root
F	7	♭9

In **A minor,** by substituting a G⁷ for an E⁷, the context and surrounding progression can make it function as an E⁷ with ♯9 and ♭9 alterations. And it also makes the progression feel like it's heading to a **C**, but doesn't arrive.

Another common technique is switching dominants a tritone apart. **Tritone substitution** works because the shared notes are symmetrical e.g., the 3rd becomes the 7th and the 7th becomes the 3rd. The new pitches become juicy alterations and the root of the new **V** can approach the **I** from a semitone above, creating smooth – **chromatic**! – bass lines.

In **A minor**, by substituting a B♭⁷ (or A♯⁷) for E⁷, the context and surrounding progression make it function as an E⁷ with ♭5 and ♭9 alterations.

Holst does both of these substitutions in a row – see below.

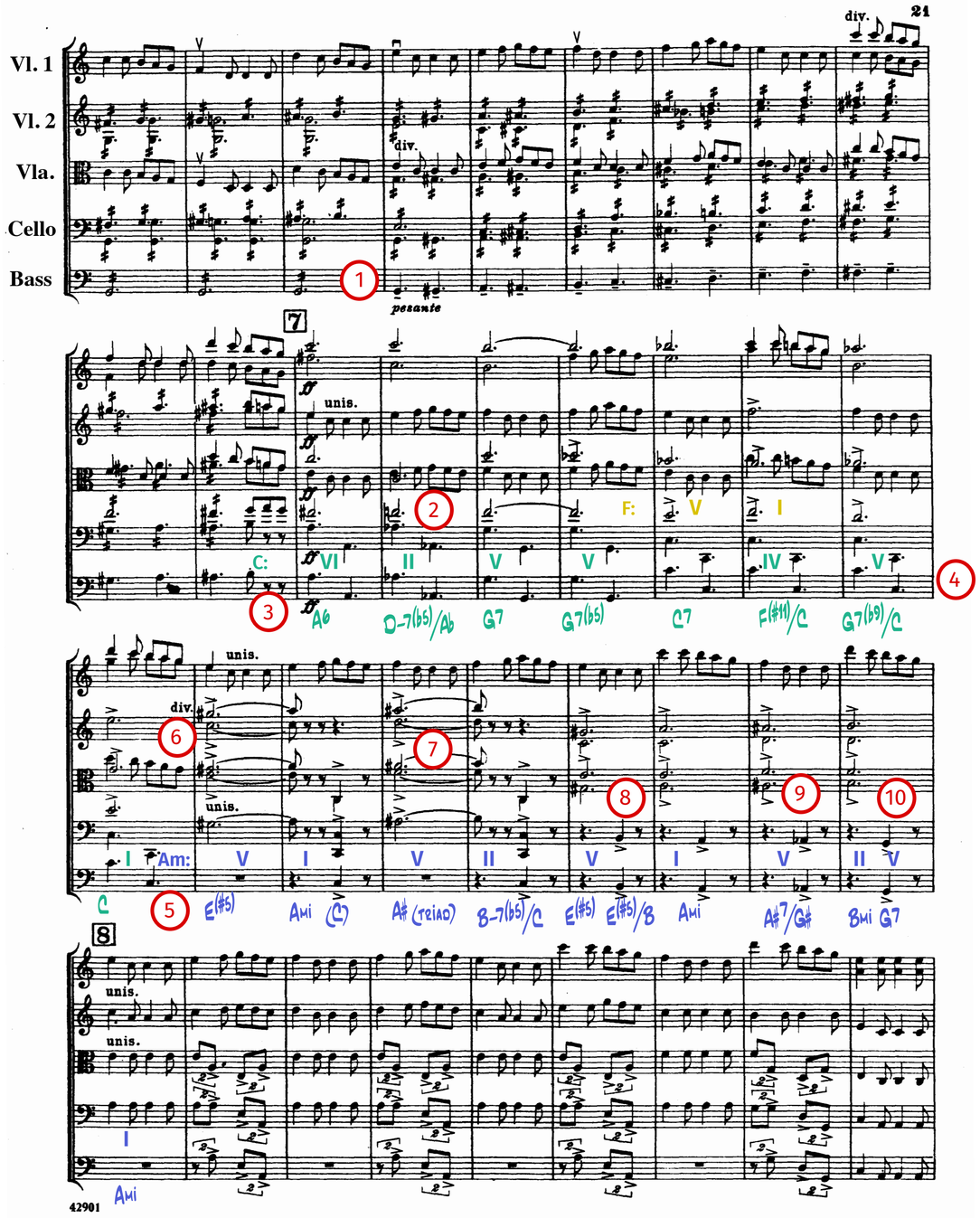
	E⁷	B♭⁷
E	root	♭5
F	♭9	5
G♯/A♭	3	7
B♭	♭5	root
B	5	♭9
D	7	3

Before going any further, listen to this section in context a few times (stop at 2:20).

Listen out for the change in the harmonies that occurs when the ensemble suddenly drops in dynamic (**1:49** – 9th bar after the audio begins). Divisi cellos and seconds begin a sequence of two ascending chromatic bass lines – one starting on a **G**, followed by another from an **E**. It's concealed in the texture, so to make it clearer Holst repeats it with basses and half the violas joining in and marked *pesante*. This sets up the harmonic battle – each scale half starts on the notes of the respective **V** chords, and they also provide a sneak preview of the altered chord tones to follow.

1. Second entrance of the preparatory ascending chromatic basslines
2. D half-diminished (no root)
3. Green Roman numerals show chord functions in C, with brief visit to F
4. C pedal makes progression more static
5. Blue Roman numerals show chord functions in A minor
6. Augmented triad suggests multiple harmonic directions / sudden absence of bass voice
7. Setting up tritone substitution but no 7th – also no bass voice
8. Sparse chromatic descent
9. Tritone substitution
10. G^7 substituting for E^7

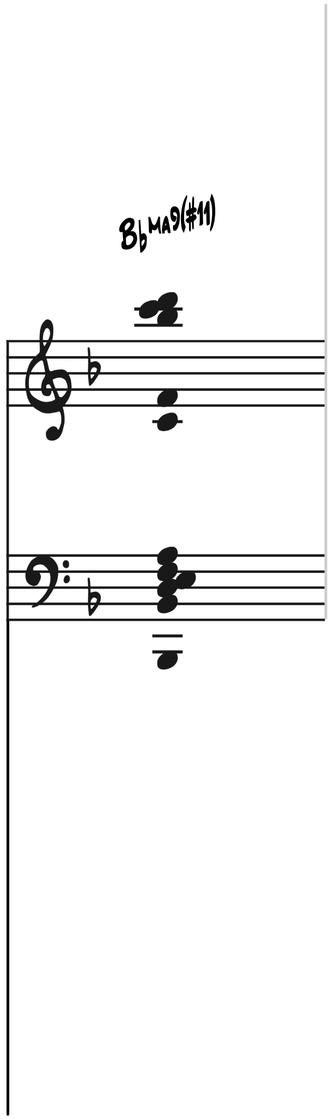
On the topic of innovation, here we have a composer in England writing a work for school students with altered dominants and tritone substitutions. To put that in historical perspective, at that time Duke Ellington was a teenager selling peanuts at the baseball and Charlie Parker wasn't yet born.



2. Go

Working with a group of string instruments – two violins, viola, cello, electric guitar, and piano along with drum kit – Chris Perren demonstrates a number of additional ways to disrupt the standard harmonic system.

The first method involves adding tonal layers to thicken or obscure the harmonies. An example of this occurs in **Ic** – the return of the A section of the first movement. At the very beginning, a **B♭MA9(♯11)** chord is introduced, but listen to the effect of the voicing in the three upper string instruments. With stinging accents they play the **root**, **9** and **3** together in the same register – i.e., the first three notes of the **B♭ major** scale. This tight spacing has the effect of clouding the harmony – it's as if the frequencies of the three pitches are competing for tonal space and this tension makes it take on the quality of a cluster. Towards the end of that movement, the effect becomes even more pronounced. The ensemble plays rhythmic-unison stabs on the same chord but the piano is added to the texture with a thick voicing of **B♭** (in octaves) **D E F C** in the octave below **middle C** – where the guitar also sits. The presence of the major **7**, **9** and **♯11** extensions (**A C E**) already suggest a polychord – i.e., an **A minor** triad over a **B♭** triad. Further, by voicing it in concentrated clumps across a wide range gives the impression is could split apart and shatter at any point.



And that's exactly what happens – the string and guitar/piano chords ratchet into different beat divisions and the first violin soars across the top in a partially-scripted solo to end the movement. The solo begins with a trilled downward slide that swoops back up then down again. This has the effect of further smearing an already opaque harmony by adding every possible pitch in the cracks between the official notes.

3. Elgar

Sliding between pitches is nothing new, and listening to the Elgar *Serenade* provides some important clues about its ancestry. The recording linked to in the kit dates from 1933, and is the London Philharmonic Orchestra conducted by Elgar himself. From the start of the 1st movement, notice how the melodic phrases are shaped – the string players slide between the notated pitches considerably more than would be the custom today. It has the effect of flavouring the melodic contour in a similar way to what a modern singer might do – deliberately directing the ear to the region of overlap between two adjacent notes. It is safe to conclude that this is not sloppy or lazy playing for the reason that the musicians only do it in specific lyrical situations – the *portamento* was a deliberate expressive device.

Further, Elgar was one of the first composers in the world to recognise and anticipate the importance of recording in the process of composition and performance. Despite it being such a new technology at the time, he managed to get most of his works recorded twice in his lifetime. It is extremely unlikely that a composer who notated articulations and dynamics to his degree of precision would have tolerated players putting slides in wherever they felt like it. These recordings not only provide a window into how Elgar wanted his music to be interpreted, but also suggest that the practice of portamento may have been considerably more widespread – for example, in the interpretation of Brahms and Beethoven from a generation before. It's impossible to know without a doubt, but if nothing else, Elgar's recording serves as a reminder that the definitions of what constitutes an exact or correct rendering of successive pitches in music have changed as much over the years as the meanings of words themselves.

Polyrhythm

Finally, a brief look at polyrhythmic devices across the works represented. As will you have noticed above, successful manipulation of harmonic colour as a musical element does not happen in isolation. Further, we have also seen how the movement and gravitational pull of chords is closely linked to the development of entire musical structures. This is rhythm on a large scale. Within these forms, and working hand-in-hand with harmonic innovation, is also the design of overlapping and conflicting rhythms, precise tempo relationships, metric modulations and ostinati. These are the little eddies and swirls that ensure the musical engine never becomes static.

1. Elgar

Listen the same opening section as on the previous page, but this time ignore the melodic activity and focus only on the dotted rhythmic figure in the violas. In the 10th bar he either adds a beat or drops a beat – it's subtle, but it's enough to make you sit up in case it happens again. It's a little easier to hear and follow in the score version.

2. Holst

First, listen to the second movement and follow the ostinato activity all the way through. Notice how it dovetails between the two halves of the section, shifts from 3 to 2, then softly rolls down to the low end of the ensemble. It's brilliant.

Next, before all that interesting harmonic activity we looked at in the final movement occurs, have a listen to how the ***Greensleeves*** layers make their way into the music. He has changed the tune a little bit here and there to make it fit.

A surprising recent discovery was a manuscript of the ***St Paul's Suite*** in cupboards at the school itself. Pencilled in this version of the score are entry points for the audience – i.e., the girls listening to the string orchestra perform – to sing ***Greensleeves*** at the same time. Perhaps with the exception of Charles Ives, this may be one of the earliest examples of a mashup on record – pre-dating the borrowing and quotation typical of contemporary music in the 1960s by decades.

3. Go

Almost the entire piece is built around extensions and subdivisions of patterns in 5. A good example is the very opening of the third movement.

This section and similar ones are composed to elaborately interlock, meeting the more sparse and stretched lines at occasional synchronisation points before splitting off again onto their own paths. A section later in the movement takes this idea to the extreme. The viola and the two violins begin an open repeat playing soft-repeated pizzicato notes on **F**, **G** and **A** respectively. However, the **F** is at **100bpm**, the **G** as **105** and the **A** at **110**. There must be some mathematical link between these three closely aligned pitches and the three autonomously-moving tempi – they synchronise at certain points like multiple car blinkers occasionally coinciding when stopped at an intersection waiting to turn right.

This would fit the rationale of the piece's structure, with rhythmic modulations favoured in place of more traditional harmonic ones. These may not always be immediately obvious when listening, but they are nevertheless carefully calculated to establish links and relationships between the sections – e.g., a quaver in the **144bpm**, of **1a** becomes an exact triplet quaver of the **96** in **1b**.

LAYOUT cont...

Pick up where you left off with the layout project from earlier.

Work loosely within your existing structure, consult the original brainstormed words you were assigned, and incorporate the following as a way of expanding your understanding of the information that has been presented.

The aim now is to introduce some ambiguity into the music with a combination of harmonic blurring and rhythmic displacement.

Complete all remaining bits of the piece, and go as deeply into the following as you can manage. Remember, you do not need to create a masterpiece – just try out some ideas!

1. Build some form of altered dominant into the work – either an isolated chord, a progression, or a short bass or melodic line.

2. Find some spots in the above to smudge or obscure the harmonies or lines even further – either with clusters or slides etc.

3. Either working with the same material or a different section, build in some small areas where there are two separate rhythmic pulses, meters, or tempi occurring at the same time.

4. As a final way of fixing up any parts of the piece that are weak, or to create some new textures and transitions – layer some larger parts. This can be tried by recording a section, playing it back and playing something else live over the top. Or split the group in two, go to opposite sides of the room, then play without looking at one another. Alternatively, put two separate project groups together and assign an extra person to direct the groups to play overlapping one another. If it works, keep it! If not, try it another way.

D. Extra Examples

The above examples are just a few of many – you can certainly discover more. The playlists below contain pieces that go in all sorts of different directions. Absorb these ideas, and take them as inspiration to design your very own innovative sound.

Layers & Ambiguity

Playlist on Spotify

Ideas & Forms

Playlist on Spotify

Voyage 1 Repertoire

Playlist on Spotify

Scrolling Scores
YouTube

Elgar *Serenade*

Holst *St Paul's Suite*

Perren *Go Seigen vs. Fujisawa K*

Voyage of Musical Discovery