

THE AUSTRALIAN MARIMBA COMPOSITION KIT

BY CLAIRE EDWARDES





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Introduction

Throughout my career as a percussionist specialising in new music, I have worked with a whole raft of composers from around Australia and the world. Many of these composers have generously written pieces for me and this collaborative process is one on which I thrive and have built my career on. After years of never really feeling clear on how best to articulate to composers the most idiomatic way to write for the marimba, during the international COVID-19 crisis of 2020-2021 I decided that it was time to write a little kit and create an accompanying video to help with the process for all composers.

Through my kit I would like to build on the advice and insights provided over the years by such legends in our field as Leigh Howard Stevens, Nancy Zeltsman, Mark Ford, Samuel Z. Solomon, Naoko Tsujita and Adam Tan. My kit and accompanying video aim to provide composers with some really practical tips, references and starting points for writing for the marimba.

Without wanting to influence their aesthetic direction, in my kit I suggest to composers that they would be best to focus on certain techniques or ranges, in order to produce a more idiomatic and playable work. In the assumption that a 5-octave marimba is difficult to access for most people, we will use the thumb and pinky checking technique on the piano to approximate what is possible on the marimba. I also present an overview of the range, mallets and common techniques on marimba, providing examples along the way from recent Australian marimba solos by female identifying composers as part of my *Rhythms of Change* project alongside Jacob Druckman's classic marimba solo *Reflections on the Nature of Water* and Ross Edwards *Marimba Dances & More Marimba Dances*.

As the marimba is a relatively new instrument which is not generally studied in detail in orchestration courses, I hope that my kit will fill a gap in the understanding of how to write idiomatically for it. In the future I look forward to working with composers worldwide on their parts and solos for this unique instrument which I love so much!

Claire Edwardes



[Watch the associated composition kit video here.](#)

ABOUT CLAIRE

From the set of Play School to the mainstage at the Sydney Opera House, Claire Edwardes is 'the sorceress of percussion' (City News, Canberra). The only Australian to win the 'APRA Art Music Award for Excellence by an Individual' three times, Claire leaps between her role as Artistic Director of Ensemble Offspring and concerto performances with all of the Australian and New Zealand orchestras plus numerous European orchestras.

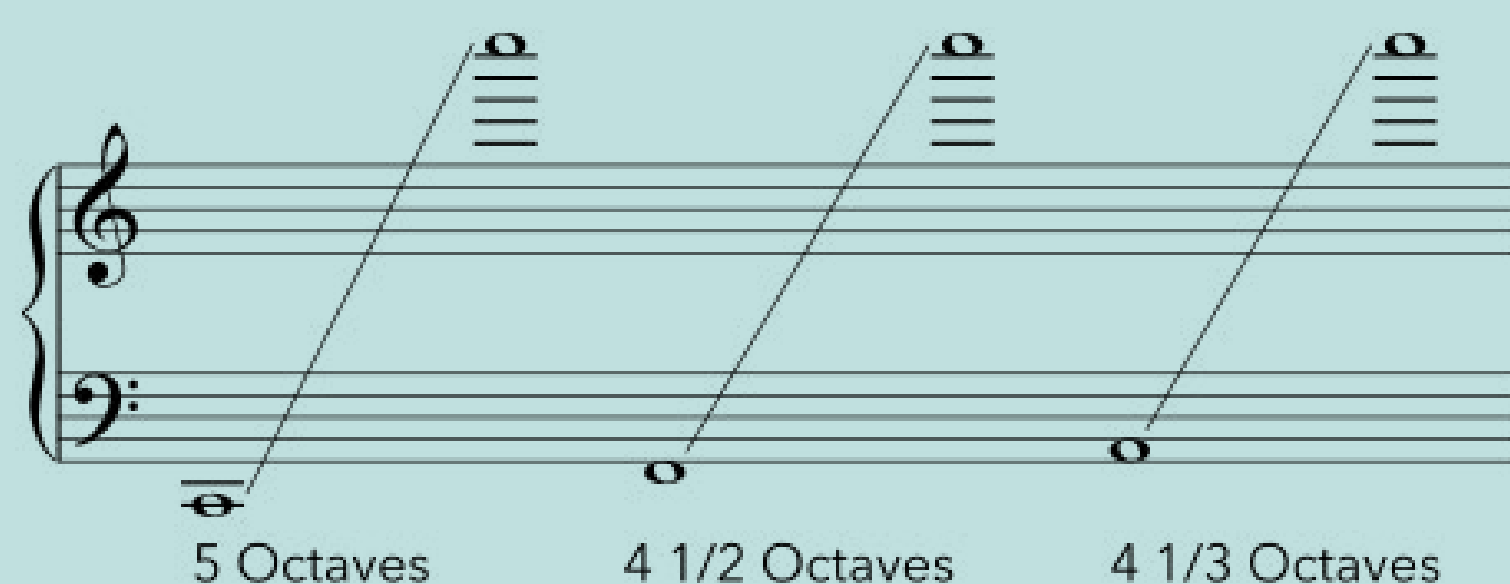
Add her genre-spanning solo concerts, teaching at the Sydney Conservatorium, a broad spectrum of collaborations, premiering hundreds of new works by composers including Harrison Birtwistle and Elena Kats-Chernin, to passionately advocating for gender equity in music and you begin to appreciate her astonishing energy.

Perhaps her most significant contribution, beyond her endless quest for excellence in performance, is in breaking down the barriers between art music and audiences, through her enthusiasm for bringing new music to unexpected places - including bowling clubs and old power stations.

SECTION 1: MARIMBA BASICS

RANGE

While the original marimba range was just 4 octaves there are now three main ranges of marimba one usually finds in schools, Conservatoriums and professional settings – these are 4.3 octaves, 4.5 octaves and 5 octaves. Recently larger 6 octave marimbas have started to be produced however they are still very uncommon so we will focus in this kit on the 5 octave marimba as this is the range of marimba that is most often used by marimba soloists today.



THE MARIMBA IS NOT A PIANO

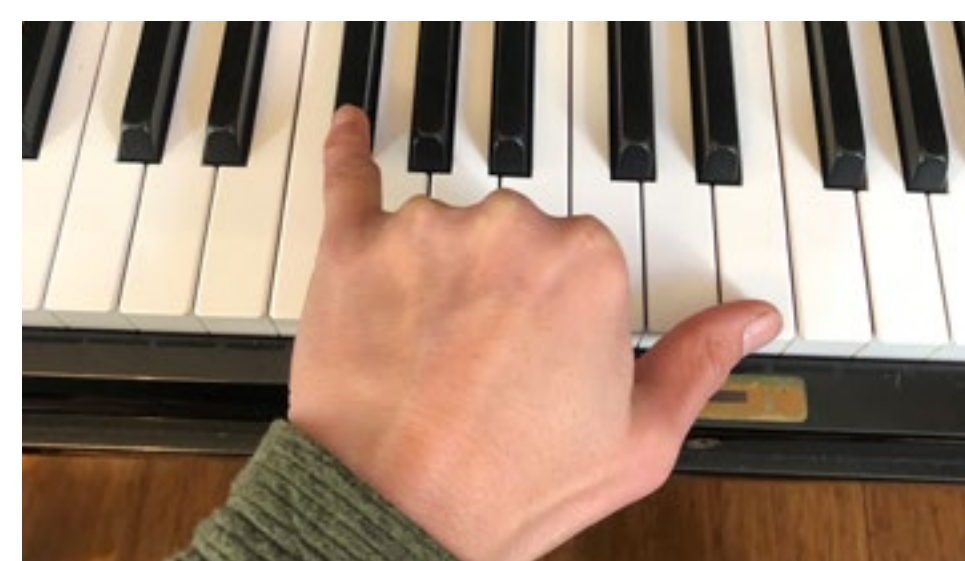
Marimba sheet music is written on two staves (treble and bass) and looks very similar to piano music however we only have the equivalent of 4 fingers rather than the 10 fingers pianists have.

Also, because of the use of mallets rather than fingers, marimba players don't have the same sense of physical touch. The sheer distance between the striking of the bar and the top of the stroke is obviously very different to a piano where the pianist is essentially always in physical contact with the keyboard through their fingers and hands. This means that our margin for error, especially at speed, is high.

THE PIANO IS YOUR FRIEND

Composers should utilise the 'thumb and pinky' checking technique on piano whereby these fingers act as mini mallets and the piano keys are the equivalent of the marimba bars. It is really important that composers have a way to check and are engaged with the physicality of what they write and don't just 'hope for the best'.

CHECKPOINT:



Throughout this kit you should use the 'thumb and pinky' piano checking technique (fold middle fingers in) for the examples throughout and later for checking what you have written.

Main Marimba Techniques

Marimba players use different combinations of strokes when using their 4 mallets. The four main marimba techniques are outlined below and these are taken from Leigh Howard Stevens book entitled *Method of Movement* which is used by marimba students worldwide. These stroke types clearly show the most idiomatic combinations of ways to strike the marimba.

1. Single independent strokes (single mallets striking a single bar or adjacent bars)

The first staff shows two measures of eighth notes in treble and bass clefs, labeled with mallet numbers 4 and 1. The second staff shows two measures of eighth notes in treble and bass clefs, labeled with mallet numbers 3 and 2.

2. Single alternating strokes (one single hand moving between 2 notes)

The staff shows four measures of eighth notes in treble clef, with mallet numbers 3 4 3 4 and 4 3 4 3 written below the notes.

3. Double vertical strokes (striking 2 or 4 notes simultaneously as chords)

The staff shows two measures of chords in treble and bass clefs, with mallet numbers 4 3 and 2 1 written below the notes.

4. Double lateral strokes (almost striking 2 notes simultaneously but offsetting them to create a rhythm)

The staff shows four measures of eighth notes in treble clef, with mallet numbers 4 3 and 6 written above the notes.

5. Mixed strokes

my favourite, as combining techniques is more aligned with how music is actually constructed:

The staff shows a sequence of notes in bass clef, with mallet numbers 1 2 3 4 4 4 4 4 4 3 2 1 1 1 1 1 written below the notes.

REPERTOIRE EXAMPLES

A) CHORDAL COMBINATIONS

Different rhythmic and harmonic patterns can be created simply by changing the combinations of chords and arpeggios. It is very easy on the marimba to change the order that the mallets strike in – they can alternate down and up or up and down and this can also be combined with double vertical strokes (2 notes together).

Example 1: Anne Cawrse – Fancy & Flight (2021)

In example 1, Anne alternates the order in which the notes from the arpeggio are played, creating a syncopated rhythmic element through their irregular placement:

♩ = 132

mp

Example 2: Peggy Polias – Receptor (2021)

In example 2, Peggy retains a single note in the RH to act as a melody line (played by mallet 3 then mallet 4 as it goes higher). The LH focuses on double lateral strokes to act as the accompaniment:

♩ = 80

p *f*

B) REPEATED PATTERNS

Repeated patterns work well on the marimba and can create rhythmic direction while also highlighting harmonic and melodic lines. Repeated patterns can be very effective between the hands where two different strokes are utilised.

Example 3: Anne Cawrse - Meditations & Hymns (2021)

In example 3, Anne combines single alternating strokes and double vertical strokes:

♩ = 66

6

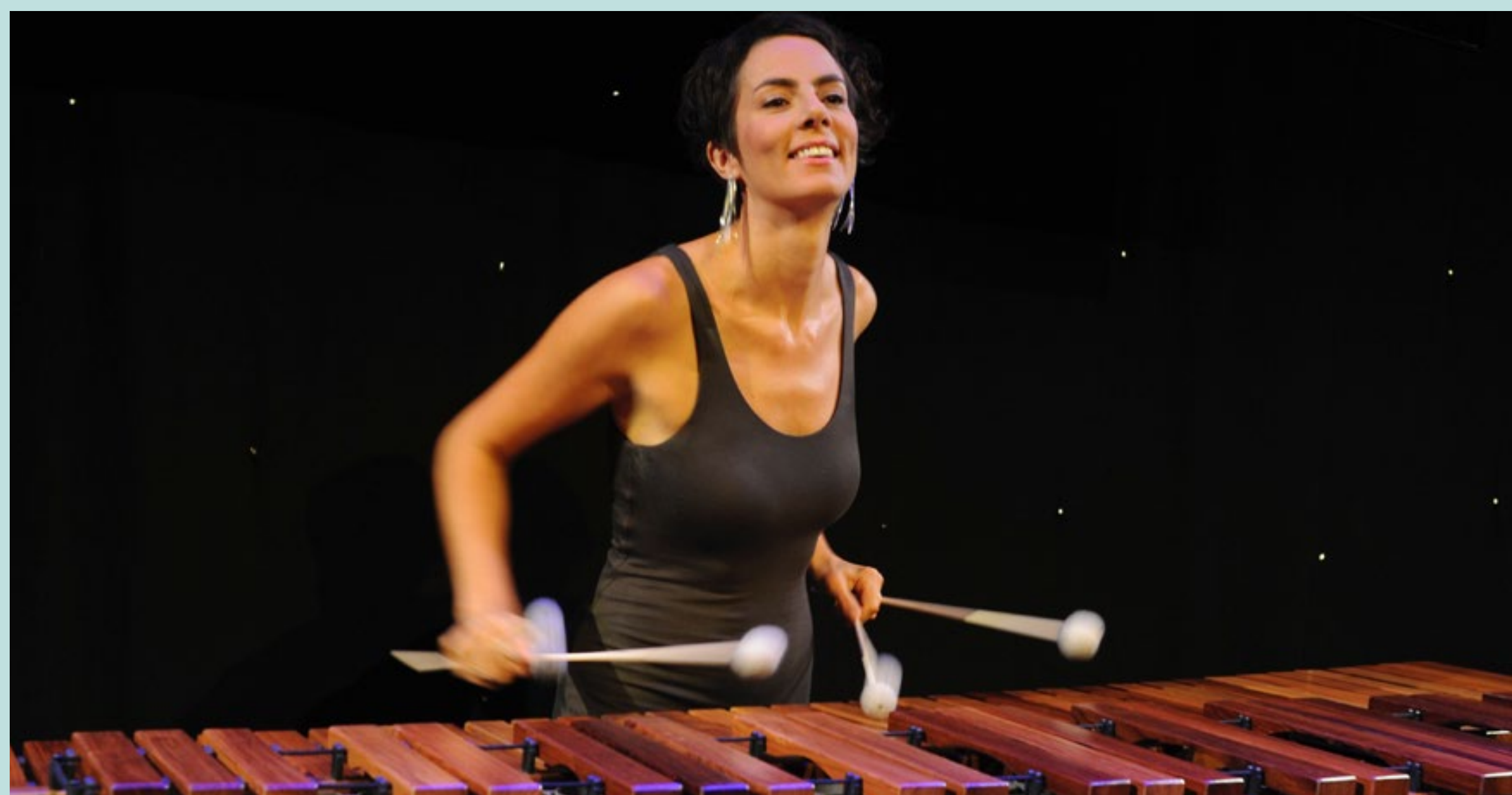
c) INSIDE MALLETS FOR MELODY

A single line melody can be played by the two inside mallets of each hand (mallets 2 & 3). To create melodies, it is also possible to use the outside mallet of the left hand with the inside mallet of the right hand or vice versa. Marimba players have quite a bit of flexibility in this sense, but my favourite way to make legato melodies is rolling between the two inside mallets as in the example below:

Example 4: Jacob Druckman – Reflections on the Nature of Water (movt. 1)

D) AVOID MELODIES IN ONE HAND

Be wary of giving the right hand a detailed melody line to play in the one hand (ie with mallets 3 and 4) while the left hand is busily accompanying with different material. It is extremely difficult to phrase a melody line with a single hand and when melodies are shared between two hands the music sounds more natural and flowing.



CHECKPOINT

Compare playing the top line of this example on the piano using thumbs and pinkies of both hands versus using only your right hand. You will find the version using both hands (and playing all the notes) is more flowing:

Example 5: Peggy Polias – Receptor (2021)

E) TREMOLO/ROLLS

A roll (tremolo) can be utilised to sustain a note or a chord. I like to think of this as the equivalent of a long woodwind note or a bowed string note. An experienced percussionist will be able to control and vary the roll speed depending on the register and acoustic to make the roll sound as constant and legato as possible. Essentially the aim is for it to sound like a sustained note, not a fast rhythmic effect.

Chordal rolls of three or four notes at a time in a chorale style passage can be very effective on marimba. You can notate this by simply stacking two notes in each hand, and have three tremolo/roll slashes going through the stem of the note or above the note (if a whole note).

Example 6: Anne Cawrse - Meditations & Hymns (2021)

Moderato, meditative
♩ = c. 88

Alternating hands is the most typical way to roll however we are also able to play independent single-handed rolls. This means that it is possible to accompany a simple right hand melody with a single-handed roll in the left hand. As already noted it is best to avoid writing a legato melody to be played by one hand only as it is hard to phrase smoothly.

Example 7: Maria Grenfell - Stings & Wings (movt. 2)

In this example the right hand rolled notes can be rolled by mallets 3 and 4 on the top of the single bar or around the close edge of the bar with a vertical movement. The left hand provides a single-handed rolled accompaniment between two notes, the speed of which can be varied

Lento ♩ = 72

Example 8: Ella Macens – Verve

In the first bar of this example, Ella rolls between the two hands to create a combined melody and accompaniment effect. From the second bar the focus is on a single note (A) with changes to the speed of articulation including a roll on the syncopated notes. This creates great directional movement while facilitating the crescendo to the climactic end of the work.

Very slow Poco più mosso, fierce (♩ = 98)

fp *fp*

fp *f* *pp* (2.) (8ve)

F) INTEGRATED MELODY & ACCOMPANIMENT

Jacob Druckman is a master of integrating melody and accompaniment in the 4th movement of *Reflections on the Nature of Water*. The left hand plays a continuous rhythmic accompaniment line and the right hand creates a melody by playing in the left hand's rhythmic gaps.

Example 9: Jacob Druckman – Reflections on the Nature of Water (movt. 4)

♩ = 63 *mp*

mp

mf *f*

SECTION 2: PHYSICALITY OF A FIVE-OCTAVE MARIMBA



I play an Adams Alpha 5 octave marimba, so all size references are in relation to this instrument.

THE INSTRUMENT

A 5 octave marimba spans 254 cm in length. It is an extremely long instrument by any standards. Most people cannot simultaneously reach end to end on the instrument and the maximum span is generally 4 octaves, but even this is not very comfortable.

BAR WIDTH & INTERVAL SPAN

On a 5 octave marimba the bars for each note vary in width: from approx. 7.2cm in the lowest register to 3.9cm in the top register. This affects reach as well as maximum interval span in each register. A performer can span a greater interval distance in the top register than the bottom.

Example 10: Ross Edwards – More Marimba Dances (movt. 3)

The opening of *More Marimba Dances* pushes the limits of what is possible across the range of the marimba with a jump from the lowest G to the highest D within a quaver. Due to the number of times it is repeated in the piece, it is possible:

Vivace ♩ = c. 120
medium hard yarn mallets

x3

Top register reach - my maximum reach with two mallets in one hand is approximately the interval of an 11th.

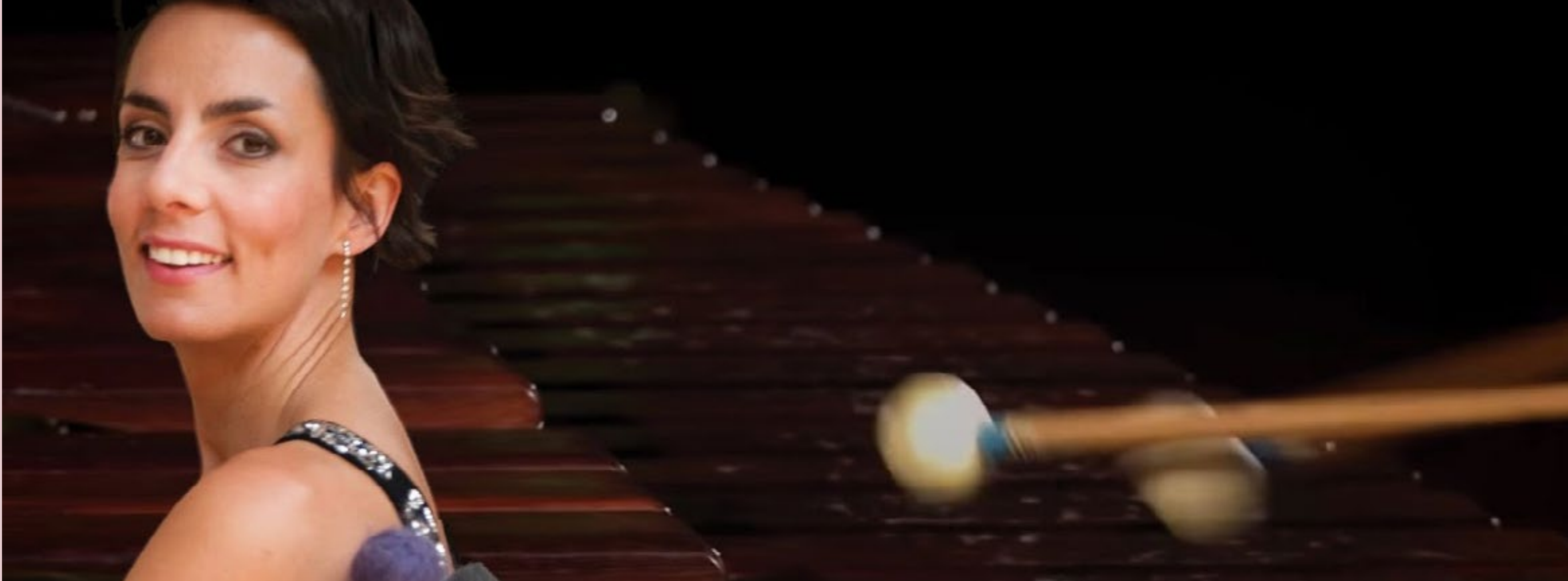
Bottom register reach - my maximum reach with two mallets in one hand is approx. an octave.

INTERVAL CHANGING

Marimba players change intervals with the two mallets in each hand by stretching the distance or contracting it. We are able to move reasonably quickly from a 2nd to an octave, for example, but it is not recommended to do this many times in quick succession. This example from movement 4 of *Reflections on the Nature of Water* works because of the rests between the chords, facilitating the opportunity to reposition the hands:

Example 11: Jacob Druckman – Reflections on the Nature of Water (movt. 6)

♩ = 132



SECTION 3: THE ANCHOR CONCEPT

In the examples below, you will notice that retaining a common single note when changing chords can create a physical anchor point, making for better playability and accuracy.

Example 12: Ella Macens – Verve

The small interval changes in the left hand chords in this section of *Verve* are challenging yet playable. The left hand has a C as it's anchor with the intervals changing slightly from the C each time the repeated right hand chords also act as an anchor.

♩ = 100

Example 13: Ross Edwards - More Marimba Dances (movt. 2)

This section of *More Marimba Dances* is also challenging but possible. The retention of adjacent 3rds in the right hand acts as an anchor. The interval span remains the same and only very slight movements are required to move between these chords. The left hand uses the repeated B flat and G as its anchor:

♩ = 100

Example 14: Ella Macens - Verve

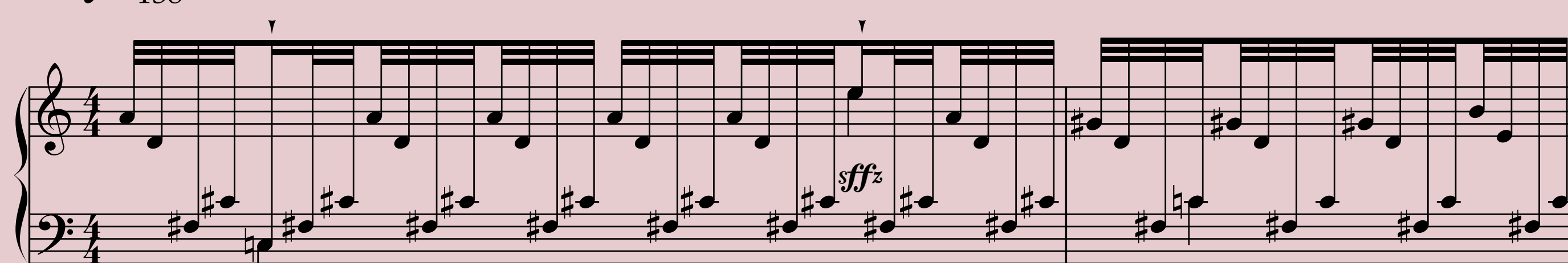
In this example the interval of a 6th (high A with the C below) acts as the anchor while the other notes are constantly changing:

♩ = 100

Example 15: Jacob Druckman – Reflections on the Nature of Water (movt. 2)

The anchor here is the left hand's retained interval of a 5th:

♩ = 138



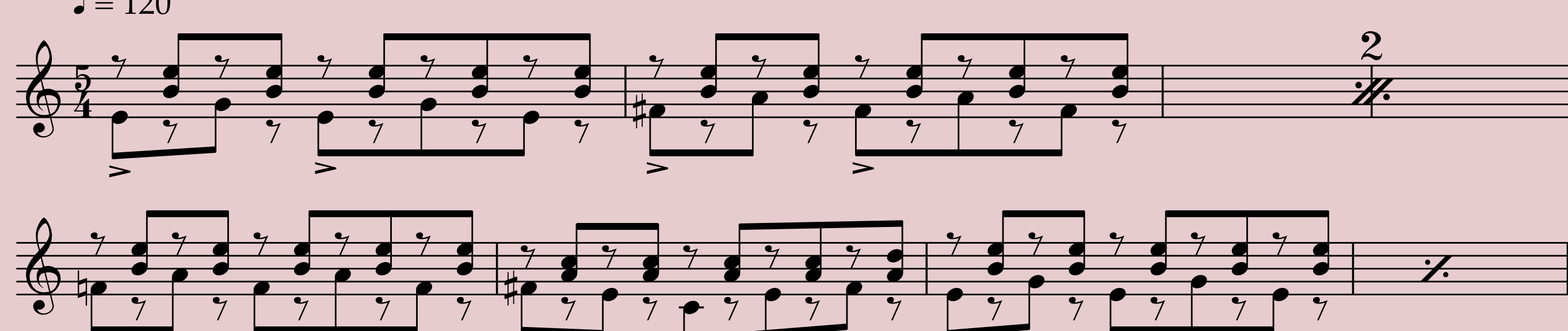
pp *poco sfz (pp)* (*pp*)
(m.d.)

Detailed description: This musical score is for the second movement of 'Reflections on the Nature of Water' by Jacob Druckman. It is in 4/4 time with a tempo of 138 beats per minute. The score consists of two staves: a treble clef staff for the right hand and a bass clef staff for the left hand. The right hand plays a complex, rhythmic pattern of eighth and sixteenth notes. The left hand plays a simpler pattern, primarily consisting of a retained interval of a fifth. Dynamic markings include piano (pp), poco sfz (pp) (m.d.), and fortissimo (ffz).

Example 16: Elena Kats-Chernin - Violet's Etude

The right hand acts as the anchor, mostly retaining the interval of a 4th:

♩ = 120



Detailed description: This musical score is for 'Violet's Etude' by Elena Kats-Chernin. It is in 2/4 time with a tempo of 120 beats per minute. The score consists of two treble clef staves. The right hand plays a steady, rhythmic pattern of chords, mostly retaining a fourth interval. The left hand plays a more complex, rhythmic pattern. The score includes various rhythmic markings and a double bar line with a repeat sign.

By including an anchor note, anchor interval or adjacent repeated intervals, your marimba writing can be played more accurately.



A WIDE SPAN BETWEEN HANDS IS AWKWARD

1 octave between the hands is much more comfortable than the wider span of 2 octaves between the hands, especially for extended periods of time. It is possible for 'special sonic moments' to span wider than 2 octaves between the hands (depending on the angle of the hands) but these should not be ongoing as it can become physically painful to stretch wide intervals in an ongoing capacity.

CHECKPOINT:

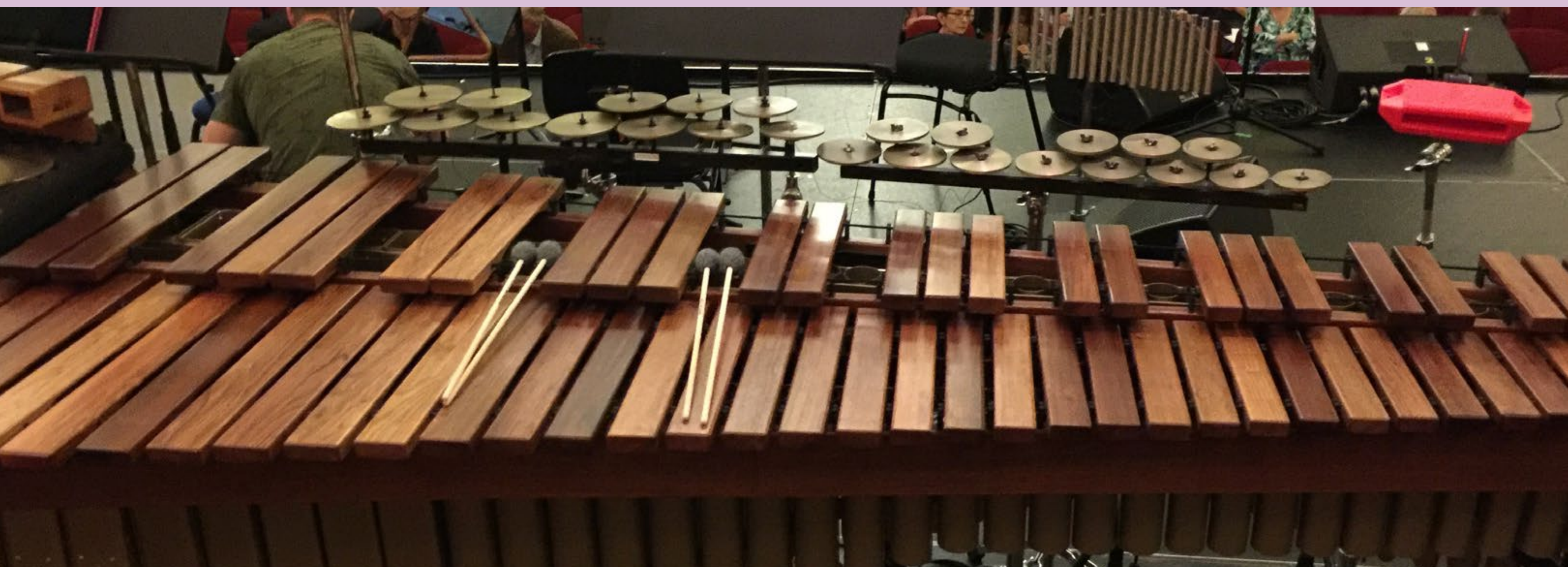
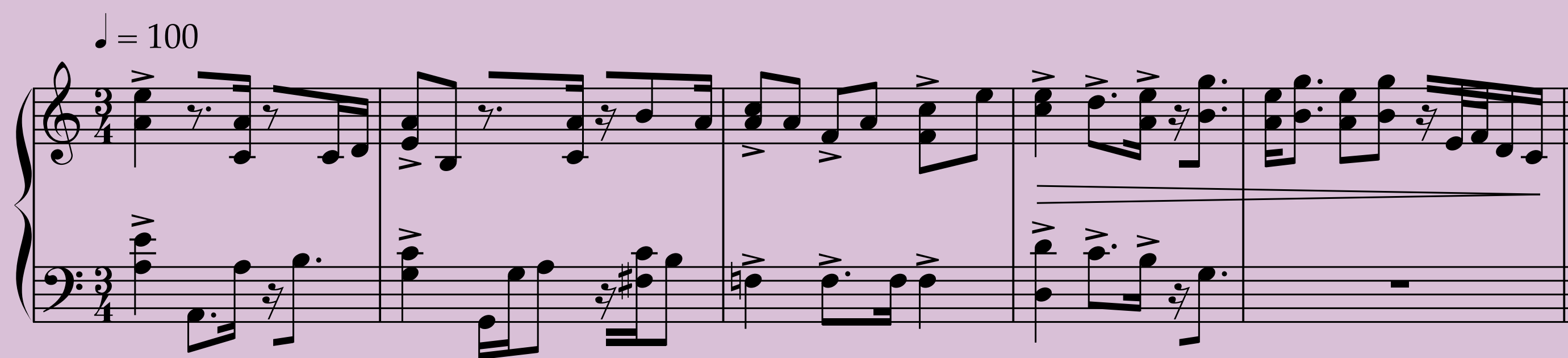
Sit at the piano and focus on middle C. Without moving your head, note the range that you can move your hands while still being able to see them with your peripheral vision. On the marimba it is about a quarter of this vision, approximately an octave or so.

AVOID QUICK REGISTRAL JUMPS

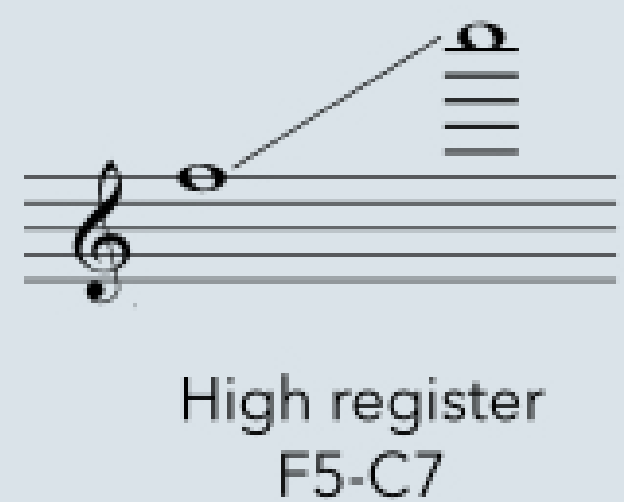
Example 18: Ella Macens – Verve

In this example you will see that the quick changes between registers makes for a challenging passage. Quick registral jumps are possible but challenging to move from low to high so quickly, and they make for an advanced work:

♩ = 100



SECTION 5: REGISTRAL SONIC TRAITS



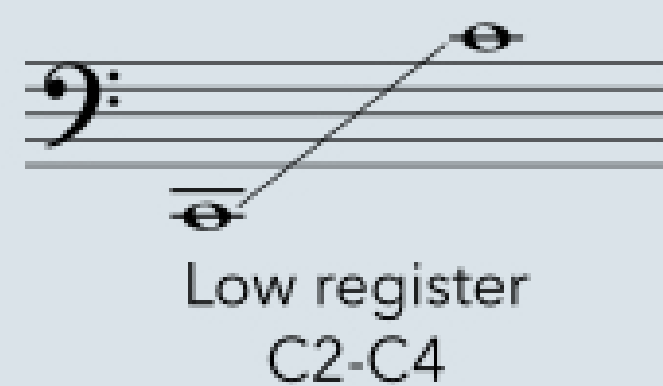
HIGH REGISTER (F5 – C7)

As the high register of the marimba is more like a xylophone in terms of how it behaves, I recommend that composers don't focus too much on the top 1.5 octaves unless they are specifically after a piercing dry quality to the piece. The high register also needs very articulate harder sticks, which makes it more limiting in terms of balance while using them in conjunction with the lower register. The natural length of the note in the top register is generally quite short, so phrasing melodic lines can be quite limiting and unsatisfying in that register.



MID REGISTER (C4 F5)

This is the most resonant and loudest range of the marimba which tends to cut through well in a chamber music context. This register is great for melodic material and well-balanced accompaniment using medium mallets.



LOW REGISTER (C2 – C4)

This is the most mellow register and the one that is the most unique to a 5 octave marimba. Not everyone has access to or will want to write for a 5 octave marimba in which case your piece can go down to F2 (4.5 octave marimba) or A2 (4.3 octave marimba) and this would mean that your piece is more playable by school students for example.

But I do recommend that if you are choosing to write for a 5 octave marimba you should try to utilise the lowest register in a considered manner at some point in the piece. I have had many pieces written for me that have 1 or 2 notes below F2 in them which is a waste given how much work it is to lug around a 5 octave marimba.

Note that bass notes require softer mallets and have strong upper partials especially when played loud with harder mallets, so be kind to the low notes of the marimba and keep stick choice in mind when writing. It is important that marimba players don't play the low notes with mallets that are too hard as the bars are big and thin and can crack easily.

DYNAMICS & ARTICULATIONS

Like most percussion instruments the marimba has an extremely wide dynamic range. We can play very loud (especially in the mid and high registers with hard mallets) and we can also play very soft (especially in the mid to low register with soft mallets).

Make sure you are as considered and specific as possible with your dynamic, phrasing and articulation specifications. The more information you can arm the performer with the better in terms of the depth and scope of their interpretation.

Reflections on the Nature of Water

by Jacob Druckman demonstrates very well what is possible dynamically on the marimba. This composition utilises very effectively the extremes of dynamic that a marimba soloist is capable of, such as ppp to fff. It is both expressive and melodic as well as rhythmic and minimalistic in nature; a supreme example of a well written piece for the 5-octave marimba.



SECTION 6: MALLETs

HOLDING 4 MALLETs VS 2 MALLETs

Even when playing a figure or melody which only requires 2 mallets I will generally always choose to hold 4 mallets as it doesn't limit me but rather extends potential in terms of phrasing options and what I can do next. So it is fine to write mostly for 2 mallets and occasionally add an extra 2 notes to create chords if that is what you desire musically.

Soft mallets don't tend to speak or be able to articulate the top register well, as that register is more like a xylophone so it requires mallets closer to xylophone mallets.

Hard mallets can damage the low register bars, which are relatively thin in the centre. They also sound very brittle when struck with hard mallets and the mellow tone is not celebrated.

You may have noticed that some people have written for 6 mallets on marimba. While it is possible, the issue is that one can't change the intervals once they are set so it is an extremely limited technique. My advice is to avoid 6 mallets.

CHANGING MALLETs

Time is required to change mallets and this needs to be taken into account in the composition with either a rest, pause or caesura (train tracks). Less time is needed to change the mallets of one hand only. Please reference the accompanying video for an example of lengths of time required to change mallets.

A graduated set of mallets from softer to hard tends to work well for a solo that is across the full range of the marimba. For example: mallet 1 soft, mallet 2 & 3 medium soft and mallet 4 medium hard. If not using a graduated set you should focus on containing the piece within a certain register or two registers.



Example mallet combinations

1. graduated mallet combinations (1 soft, 2 & 3 medium, 4 medium hard) – across all registers
2. 4 hard - playing mostly in top register
3. 4 medium - playing mostly in middle register
4. 4 soft – chorale

Specifying mallet types in your composition

I believe this is generally not necessary if enough direction is given in terms of descriptive character of the work at the beginning and throughout. Sometimes it is good to specify hard or soft with the knowledge that the performer will choose what works best sonically for their marimba in the performance space.



SECTION 7: MARIMBA NOTATION

Marimba notation is generally presented on two staves (treble & bass) like a piano or harp because of its large range. It would be appropriate to use a single staff only when you are writing a work for 2 mallets focusing on a single register which fits in either the treble or bass clef. Sometimes you might decide to only include a single staff if the other staff is not being used for an extended period of time. This makes the part more compact (with fewer page turns – always good to keep in mind), but generally marimba players tend to prefer to see the music communicated on two staves.

Works notated in Sibelius, Finale or Dorico are preferable to hand-written scores. The font should be on the larger side keeping in mind the distance the player often finds themselves from the music stand at an extreme register (while keeping in mind the total page numbers).

Example 20: Elena Kats-Chernin - Violet's Etude

In this example Elena chooses to notate the LH part in the treble clef and only move to the bottom staff when the LH moves to the bass clef. This is ideal for legibility:

$\text{♩} = 120$



SECTION 8: EXTENDED TECHNIQUES

Unlike the vibraphone, extended techniques on marimba are not particularly common. Below are some of my favourite techniques, but I don't use these particularly often:

DEADSTROKES

Deadstrokes are notes that are dampened by the mallet itself by holding it down when striking the bar. Using deadstrokes is a really good way to create extra articulation on marimba and can be quite a pointed and extreme sound. For an even dryer sound one can specify striking on the node which produces a very thin sound as the tone is not picked up by the resonators at all. Deadstrokes can be produced with single notes or chords.

Denote deadstrokes with 'd.s.' or '+' above the note.

Example video work:

Eric Sammut - Libertango



SHAFTS

Using the shafts of the mallets on close (naturals) and far edges (accidentals) of the bars can be an effective way of changing up the tone colour with a much more percussive effect.

Keep in mind the physicality of getting from one side of the instrument to the other and the time that is required to do this. It is generally best to have one hand focused on the naturals and the other on the accidentals rather than constantly changing. Using shafts works best with chords rather than single notes.

Denote using a cross notehead (and a notation key at the start of the work).



Example video work:

Leigh Howard Stevens - Rhythmic Caprice





BOWING

Bowing with a double bass bow is especially effective in the mid and low registers (the high register bars are thicker more like a xylophone and don't tend to speak as well).

Note that because of the length of a double bass bow it is best to keep one hand on the naturals and the other on the accidentals. Try to avoid having the hands crossing over because it takes time and can often result in an accidental clip of the bars with the end of the bow.

The low register is also physically wide which makes reaching across the bars for extended periods of time challenging.

A good effect can be using a bow in the left hand to accompany and 2 mallets in the right hand.

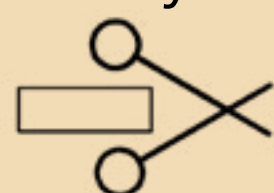
Denote with small bow icon or write 'with bow'.



Rolling around a single bar

Midaré by Ton de Leeuw uses many extended techniques as well as improvisation and graphic notation. One of the interesting techniques de Leeuw utilises is rolling around the bar with 2 mallets in the one hand for a very fast fluttering effect. This can only be utilised on the naturals. Maria Grenfell's work *Dragonfly* from *Stings and Wings* also utilises this effect for the melody line.

Denote with 2 mallets around a bar



Example video work:

Ton de Leeuw – *Midaré*





SECTION 9: OTHER MARIMBA GUIDES & SCORES

OTHER MARIMBA COMPOSITION REFERENCES

Naoko Tsujita - [How to Compose for the Marimba](#)

Nancy Zeltsman – [Memo to Composers](#)

Samuel Z. Solomon – [How to Write for Percussion](#)

Walter Piston - [Orchestration](#)

Heather Roche – [Advice for Young Composers](#)

[Resources for Composer](#) on my website

[Rhythms of Change](#) recordings

RECOMMENDED MARIMBA SCORES FOR STUDY

(for reference only - not for performance, distribution or copying)

Keiko Abe - [Memories of a Seashore](#)

Anne Cawrse – [Dance Vignettes](#)

Jacob Druckman - [Reflections on the Nature of Water](#)

Ross Edwards - [Marimba Dances, More Marimba Dances](#)

Ross Edwards - [More Marimba Dances](#)

Maria Grenfell – [Stings & Wings](#)

Stuart Greenbaum – [April Revisited](#)

Hans Werner Henze - [Five Scenes from the Snow Country](#)

Matthew Hindson - [Flash](#)

Elena Kats-Chernin - [Violet's Etude](#)

Ton de Leeuw – [Midaré](#)

Ella Macens – [Verve](#)

Peggy Polias – [Receptor](#)

Eric Sammut - [Libertango](#)

Leigh Howard Stevens - [Rhythmic Caprice](#)

Martin Wesley-Smith – [For Marimba and Tape](#)

ACKNOWLEDGEMENT OF COUNTRY

I live and play on Gadigal Country.

I acknowledge the traditional owners of the land on which I live and travel.

It was and always will be, Aboriginal land.

I support the Uluru Statement from the Heart.

THE AUSTRALIAN MARIMBA COMPOSITION KIT VIDEO

You can watch the short accompanying video to my kit on YouTube.

THANK YOU

Thanks to **Maria Grenfell** and **Lamorna Nightingale** for their invaluable assistance with editing and proofing the kit.

Thanks to **Ben Robinson** for his help with creating the examples in Sibelius.

Thanks to **Dale Harrison** for his awesome design of the kit.

Thanks to everyone at **Ensemble Offspring** for their constant support and hard work.

Thanks to **Adams Percussion** for sponsoring me and for providing much of the marimba imagery used in the kit.

Thanks to **photographers** Peter Hislop, Heidrun Löhr, Ro Laura and me.

Thanks to **Vic Firth** for sponsoring me and for producing my signature mallets.

Thanks to **all the composers** cited in the kit, especially those who wrote for marimba as part of my **Rhythms of Change** project – your creativity is integral to what I do.

Thanks to **all my colleagues** who have helped with feedback on the kit.

And thanks to **my family** - especially my daughters Violet (13) and Poppy (11) who inspire me each and every day.

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