

SCALES AND ARPEGGIOS

for the

VIOLIN

A Musical Approach

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Preamble

‘Give a man a fish and you feed him for a day. Show him how to catch fish and you feed him for a lifetime.’

Proverb of (disputed) ‘Old Chinese Origin’ but nonetheless Good Common Sense.

This book is in no way intended as a thoroughly comprehensive collection of Scales and Arpeggios. It does not, for example, contain any Chromatic Scales, nor does it feature any Scales in Double Stops (these can of course still be found, happily and plentifully, elsewhere).

It is, rather, an honest attempt to answer the angst-ridden question that has been so often asked of me (and, one can reasonably assume, of thousands upon thousands of other instrumental teachers) after a student has performed in a lesson or concert.

And that question is:

‘... But ... how can I play it with more Feeling and Emotion? How can I play more Musically?’

For too many students, sentenced in time-honoured fashion by their teachers to ‘Practice their Scales’, the prospect appears appallingly gloomy, and the actual operation inescapably dreary. It can feel to them as if their often recalcitrant fingers are no more than digital convicts, condemned to the drudgery of some mind-numbing hard-labour to be executed endlessly upon the elongated black-top prison yard of the fingerboard.

How wonderful it is, therefore, to look at Scales and Arpeggios anew, and in a totally different light. Not aside from, but as the essence of music itself. Using Scales and Arpeggios to learn and to experiment with Musical Phrasing, Character and Narrative, begins the exciting process of transforming that miserable prison yard into a fantastical adventure playground!

... And as this change starts to happen, the realization suddenly dawns that the ability to play ‘Musically’, whatever that really means, is no longer quite such a distant dream.

Scales, both in passage-work and as melodic pathways, and Arpeggios, as ‘broken’ harmonies or melodic ladders, play a huge role in some, if not almost all, of the most passionate, exciting and heart-rending moments in the musical repertoire. Why then, in their study, do we so often remove them from this legacy? We should instead, using tone, tempo and direction, accord each of them vital Character and, through our Phrasing, build a strong and convincing Narrative...

Admittedly, the narrative of any scale is reasonably predictable to us, the practitioners; but to treat each one as a jewel in its own right, to attempt always to play it as beautifully as we can, and with as much direction as possible, will by necessity jumpstart an ongoing natural acquisition of further instrumental technique and initiate the construction of a vigorous and persuasive musical sensitivity.

Forget ‘Feeling’, ‘Emotion’ and ‘Musicality’. These are fuzzy and unhelpful semi-concepts that will actually keep you from getting inside the music. Imbuing your playing with Character and Narrative will give it real life and meaning.

So where to start?

A random Scale-book that I came across recently opened with what seemed almost like an injunction:

‘Scales are to be played with an even tone using the whole bow.’

I could not disagree with this more.

The bow is our primary expressive tool, and it should not be relegated to the status of some sort of violinistic windscreen wiper.

We will shortly leap into a discussion of this book’s approach to bowing (phrasing) and fingering (gymnastics for the Left Hand), but perhaps first, a few general guidelines would not be amiss.

Guidelines for using this book

1. There are no rules. I hope that this book encourages you to think about Scales and Arpeggios in a new and exciting manner, but it is your book and I want you to feel free to use it however you wish. If you want to stop reading this intro and dive into a scale or two right now, Just Do It! You can always come back and read some more later. Likewise:
2. Don't overdo it. You will not be able to see each Scale and Arpeggio as a unique musical experience if your aim is to play twenty-or-so of them in one practice session. Spread them out – enjoy them, they'll still be here tomorrow.
3. Everything you do on the violin counts. Every time you create something beautiful, or find yourself using noticed or discovered errors or fallibilities to work along a path that leads you towards creating something even more beautiful, you are learning and progressing. As we all know, the best and most secure way to learn is always from our own mistakes. The flip side, of course, is that if you find yourself playing robotically, without focus, concentration or, above all, without *listening*, you are actually damaging your playing. This is when all sorts of errors and fallibilities can creep in, installing and embedding themselves into your technique as effectively as viruses can vandalise a computer. If you have lost your concentration or are not in the right mood to practice, go and do something else for a while before returning refreshed.
4. The fingerings I offer are simply to be seen as suggestions. If they are meaningful and make sense to you I will be delighted. If they encourage you towards considering, inventing and substituting your own fingerings, either through my gently having opened your eyes to new horizons, or through my having stirred you into an orgy of passionate rage on account of my grotesque stupidity and overweening crassness, I could not be more overjoyed.

Phrasing and Expression

The Narrative of a scale is a simple one. It goes up, reaches a peak, and comes down again. Usually we will tend to build (escalate) the drama as we rise, and relax it as we descend. We do this by increasing tone production as we near the top, *placing* the musical climax of the peak, and then decreasing tone production as we return. We will also perhaps create some excitement within the tempo before broadening on our approach to the peak, and again relaxing.

Sing a one-octave scale to yourself (repeating the tonic both at the bottom and at the top to give it a palatable shape) as if, in its own context, it is the most powerful piece of music imaginable. Like climbing a mountain - picture the peak, look towards it, acquire it, and return. After all, let's not forget, many of the great climaxes in all musical repertoire occur at the summit of scales.

Then, for fun, reverse the phrasing. It is much more of a challenge to make this counter-intuitive version work but, with good timing and expression, it can be done. There is still drama, but of a different sort.

There are two main phrases in a scale. The one that goes up, and the one that comes down. Each of these phrases can be divided into mini-phrases (for string players, bow strokes) that slot into and divide up the journey. In this book the mini-phrases consist of two, three and four-note groups.

The concept of the *whole* journey should however never be compromised - you would never walk out of your house without a firm idea of your destination, though the route you take, and therefore the sights you encounter, may vary.

The main character of the Scale/Arpeggio is of course dictated by both the key and the tempo.

The obvious distinctions are between major and minor, fast and slow: stereotypically Major/Fast will usually be open and bright, Minor/Slow, dark and mysterious. But again, reversing this norm by the experimentation of playing a major scale convincingly in a character of, say, 'Adagio Lamentoso' (just feel

the weight of the tragedy in that major third!), or a minor scale in a cheeky ‘Allegro Giocoso’, is all good fun and good practice!

[In this book I have eschewed the use of metronome markings as, whilst I do believe that the metronome, used sparingly, is a useful tool (particularly when used in the righteous crusade against rushing), it is also a merciless robotic dictator and rhythmic crutch. I have instead used standard Italian tempo suggestions that not only give some metronomic leeway but also strongly imply musical character.]

Think of both a tempo/character, and a general dynamic (or dynamic plan) before you start each Scale/Arpeggio. These can, and should, be as varied as you wish to make them.

Phrasing and Character are supplied by the bow (though sympathetic vibrato is often used in a supporting role). The acquisition and practice of left hand wizardry, trickery and virtuosity is perhaps the aspect of playing that is, superficially, the most fun - and we will get there soon; but it is the actual shaping of each phrase, each bow stroke (a mini-phrase in itself), wherein lies the real satisfaction.

Bowing

Too often an individual bow stroke is seen as some sort of necessary wrapping for the varying amount of oh-so-complicated notes that are scheduled to be contained within.

But the bow is our most important expressive tool, and each bow-stroke far more important in shape than the notes it contains.

Depending firstly on the character, then the direction, and then the number of notes to be phrased, an Energy for each stroke, relating to all of the above, needs to be found.

This might sound quite complicated, but it is actually very simple.

Picture the phrase, or set of phrases in your head. How much breath do you need to take in order to sing them as set in your imagination? That will pretty much correlate with the amount of bow needed. How much breath do you use at the *beginning*, *middle*, *end* of the phrase? That - *quite a lot*, *not so much*, *perhaps a little more/perhaps a little less* - will correlate with the shape of your bow stroke. Try it out. Experiment.

It is best to think of each bow stroke as a container (and a living, breathing container, not a coffin) into which we set the notes so they can best express their part of the overall musical narrative.

The bow stroke is often regular, but never *Even*. Even, as mentioned earlier, is for windscreen wipers.

For example, phrasing a three-octave scale in groups of three notes (in the Galamian-style note pattern I have adopted for the book) gives you 16 bow strokes (henceforth numbered S1–S16) before you return to home base on S17.

In a lively tempo (Allegro con Spirito, for example) it is very easy to picture the ascent as one phrase and the descent as another. But now picture the bow strokes. You may or may not wish to lean a little on S1 and slightly accelerate away, but other than that there is surely a slight broadening of the bow stroke as we reach the peak with S7 and S8 (the climax) surely being the broadest strokes before we recede downwards, broadening again a little as we prepare to land.

In a slower tempo, an Andante Appassionata (or Andante Funebre) - you may wish slightly to bring out S5 as a sort of staging post before the drawn out excitement (or tragedy) of the final ascent. If you decide to do so, how does that affect the broadening at the summit? And what is the correlation of the two? I would suggest that, naturally, the more you broaden in the middle, the less you will want or need to at the top. If the main action of the scale becomes S5 you would probably wish only to suspend a little at the summit before the return where, on S13, you will probably nod some sort of a passing acknowledgement to S5 before you reach the familiar warmth of home base.

Without exception the left hand should follow the shape provided by the bow rather than the other way around. Each bow-stroke will obviously have to be of the correct length needed to contain - in character - the set of notes in the mini-phrase, but those individual notes should be seen only as sub-divisions (not necessarily *rhythmically even* in themselves) of a single stroke; therefore each set of three quavers (eighth notes) should be felt in the right hand/arm as a sub-divided dotted crotchet (dotted quarter-note). Sets of four as a minim (half-note).

Faster tempi will, of course, use less bow than slower tempi. Use all parts of the bow, experiment with different strokes, but never feel that you have to use all of the bow (though sometimes, of course, you might wish to). Tempi and bow stroke should be dictated by the character for which you are aiming. Don't always

start the scale/arpeggio on a Down bow - or, for that matter, a Downbeat. Experience the physical and phrasal differences you can encounter by starting on an Up Bow and/or an Offbeat.

Each bow stroke should have a curve to it so that there is a shape and swing to each mini phrase - the initial energy is almost always the fastest part of the stroke, and great care should be taken to avoid 'bulging' in the middle of a stroke - a cardinal sin for string players.

Fingering

We, all of us, vary somewhat in our physical makeup, and this will, to a certain extent, dictate the fingerings with which we are each most comfortable.

I have reasonably big hands for a violinist (rather helpful for stretching at the lower end of the fingerboard, less so for playing semitones at the top), but my hands are by no means the biggest I've seen, nor certainly the smallest.

Your hands and fingers are unique to you and, simply because of that, your own violin fingerings will be unique too. Although we will all share some standard patterns of fingering, we should not hesitate to design our own bespoke fingerings also. Quite often these custom made patterns will coincide with the standards, but we should, to some extent, try to think outside the box; I have many times found students to be mired unthinkingly in rigid, inherited, and often very dated concepts of fingering that they have read and accepted straight off the page.

It is solely as a thought process, rather than with any dictatorial insistence, that I share my ideas in this book; I hope that the suggestions I make, both here and in the main body of the book, will help you to find the most comfortable and meaningful fingerings for yourself.

At this moment I will remind you of guideline number 4 above. I personally (almost) always totally disregard editors' suggested fingerings in the violin repertoire and strive as hard as possible to find unmolested Urtext editions that print only the composer's markings so that I can work out my own fingerings to best fit in with my impression of his or her phrasings. Therefore I will be not only understanding but absolutely thrilled for you to disregard any or all of my suggestions once you have thought them through! When *your* ideas genuinely lead you to sound better - as I do hope so often they will - no-one will be happier than I. [Do bear in mind that you may wish to vary your fingerings according to your tempi. Sometimes what seems like an optimal fingering at one speed doesn't gel in another.]

Fingering as related to scales and arpeggios

A fingering should always serve the music. We should always aim, as much as possible, to keep each phrase (or mini-phrase) on one string to preserve the integrity of the general timbre. Gratuitous string-crossing, or string crossing in unfortunate places within a phrase, should be avoided as this can sound just as jarring as a sudden inappropriately-judged open string.

There are two basic techniques that we use for travelling up and down the fingerboard. Stretching and Shifting.

Stretching

Each finger is comfortably able to create three different intervals (musical and physical distance as measured in intervals) in relation to its neighbour. A semitone (half step), a whole tone, and a minor third (up, or down). Higher on the fingerboard, as intervals become smaller, it is possible to stretch larger distances.

If one stretches all the minor thirds from 1st position, let's say on the A string (supporting the fingers by following up each comfortable finger-stretch with the hand), one starts on B \natural and, via D and F, ends up on A \flat in 4th position. This gives us an overall potential hand-stretch of a diminished 7th (or G \sharp , a major 6th - though that, officially, would only be 3rd position and therefore not quite as dramatic an example).

Starting with 1st finger in 3rd position, on D, takes us to B \natural , etc.

(You will of course notice that this pattern of Minor Thirds provides all the notes of a Diminished 7th Arpeggio).

To stretch the large interval all in one go, particularly at the lower end of the fingerboard can be quite difficult, particularly for those with smaller hands, however to accomplish it in two or three stages should pose no problem to anyone. And it always gets easier the higher you go.

A very enjoyable and instructive TV interview with Itzhak Perlman, many years ago, has always stayed in my mind. In response to a question on fingering and ‘positions’, he talked about using only three Left Hand positions: Low, Medium, and High.

The more you open yourself to thinking about musical intervals within the Low/Medium/High spectrum, the less you will remain tied to the confines of standard fingerings within standard positions. As you begin to think in this way new possibilities start to occur that give you so much more freedom and flexibility, and along with that, relaxation and fulfilment.

It is important to note that we can also stretch across strings: E (2nd finger, 3rd position on A string) to G \sharp (1st finger - the equivalent of a semitone stretch back from 3rd position - on the E string), etc.

When we have to stretch, always prefer the smaller of any two intervals to be played with adjacent fingers and the larger interval with non-adjacent fingers. (This can change, for personal comfort, right at the top of the fingerboard where distances are smaller).

Stretching is more likely to occur in Arpeggios as, with the exception of the Harmonic minor, Scales are made up solely of tones and semitones. Bear in mind that one should stretch intelligently. If, for example, you have a minor third followed by a major third, 1,2,4 is best, if a major third is followed by a minor third then 1,3,4 would seem obvious. (Always stretch the smaller of two adjacent intervals.)

Shifting

Two basic types of Shift exist. The Functional, and the Expressive.

There is perhaps nothing more satisfying within the realm of violin playing than performing a well-executed Expressive Shift. The musical aspect can be almost *too* intense, blowing an audience away with a warm, sensuous, romantic yearning blossoming out from the body of your instrument, while physically you, yourself, feel like a world-class baseball player caught in slow motion, sensationally neither over nor undershooting your mark, but judging your slide exquisitely in order perfectly to acquire your base. . . .

However, this is a book about Scales and Arpeggios so, with but a fond, regretful backward glance, we shall have to leave all that for another time.

This is not to say that Functional Shifts are mundane or unexciting to any degree. Although they remain our basic (left-hand) bread and butter as violinists, they are also the means for us fully to display, as we zip casually up and down over a range of almost five octaves, our absolute command of Left-Hand wizardry - our Potter-esque prowess as veritable Fiends of the Fingerboard. . . !

The Perfect Shift

A Functional Shift is one that gets us from one position to another without the listener having been aware that a shift has occurred; the shift should be, as far as is possible, inaudible.

I have witnessed (amazingly on youtube demonstration videos as well as in person) the most atrocious examples imaginable of what should be Functional Shifts - almost as if, instead of aiming for discretion and inaudibility, the shifter seems to want to draw attention to the operation and actually advertise the fact that they are shifting. The visual image that always appears in my mind when I hear these incompetent shifts is that of baboons at the zoo who seem perpetually to want to draw everyone’s attention to the dubious attractiveness of their bright red rear-ends.

To give ourselves the optimum chance of a successfully inaudible shift, the Location we choose within the passage/phrase, i.e., the two notes between which we will execute the shift, is the most important criterion. When scouting about for the ideal location for a functional shift within a Scale (and in passagework in general) I look for three things:

1. A change of bow.
2. The Interval to be shifted - ideally a semitone, but possibly a Minor Third.
3. The opportunity to shift from ONE finger to a DIFFERENT finger.

If all three of these criteria manage to converge at a single moment then it is a foolproof option and there is surely no doubt that this is the place to shift (as long, of course, as it is not going to adversely affect the musical integrity of the timbre at any point either side).

Two out of three criteria present should pretty much guarantee almost effortless repeated success. One out of three should certainly be OK; with a little bit of practice you'll nail it.

Zero out of three, and it is definitely time to look for a new shifting location.

Let us examine those three criteria again and in a little more detail:

1. Bow Change: The small, ever-so-slightly malleable triangle of opportunity afforded by each (curved) change of bow, and the beginning of a new mini-phrase, allows us to hide a multitude of potential shifting problems. That priceless space allows us to be secure in far more daring functional shifts than the (nonetheless always ideal) semitone. Tone shifts and Major Third shifts are *significantly* more treacherous than the semitone or the minor third, but these can quite happily be accomplished when hidden by a bow change. A new bow (or mini phrase) is also the ideal place to change string (timbre).
2. Intervals. Semitone shifts should always be inaudible as long as they are from one finger to another. Minor Thirds can be functionally shifted better than any interval other than a semitone (more comfortable and therefore safer, to my mind, than shifting a whole tone). [The Minor Third, by the way, can also be stretched, as discussed above, and Expressively shifted; it is the violinist's most versatile interval.]
3. Finger to a DIFFERENT finger: The slippy unarticulated laziness of a 1-1, 2-2, 3-3, or 4-4 is genuinely a horror to behold. Shifting from one finger to another is important for articulation but also for maximum mobility. The most common shift is 2 to 1 going up, but, if you take the second finger out of the equation by raising it skywards, 1 and 3 become neighbours (go ahead, touch the tips of your 1st and 3rd fingers together whilst raising the 2nd finger. Do it now as you read. Then try it on your forearm by putting 3 down, raising 2 and slipping 1 right next to 3). Shifting from 3 to 1 now becomes as simple as was 2 to 1, and look at how much more forward space you have opened up: imagine the possibilities of that on the fingerboard. Likewise, take 2 and 3 up and you can touch the 4th finger tip with your 1st with the same result. In this way we can also add 'crabbing' up and down the fingerboard to our two staples of shifting and stretching.

If you are seemingly stuck with a bad shift somewhere there are usually ways, working backwards through the previous fingerings, to set yourself up differently and solve the dilemma. Working backwards in designing fingerings is much more sensible than working forwards as we always know where and on what finger we want to end up at a certain point, and we can therefore plan everything around that final destination.

Only very rarely will there be absolutely no alternative to risking a zero-criteria shift. When, however, that is the case, we simply have to lump it and perform the operation with as much articulation as we can muster. This articulation should be kept as much as possible within the left hand, but a tiny bit of help from the bow is usually acceptable (to all but the most constipated of purists).

For all shifts it is important to think about the various possible angles of the fingers on the fingerboard as well as your general hand position. Usually, when shifting, fingers will be at an acute angle to the scroll end of the fingerboard. In the 'crabbing' movement described above (3-1, 4-1), the upper finger should be almost at a right-angle, or even a slightly obtuse angle, while the lower finger remains at an acute one. As always, experiment to find your own optimum angles for each situation.

Show jumping

When you have two or more shifts in quick succession you must prepare for the whole sequence in its entirety as you approach the first. The image most clearly in my mind comes from show jumping where a horse negotiates a series of jumps - but there is always one double-jump where horse and rider have no time to recollect themselves in between. The double-jump must be performed as a (broken) whole.

Final thoughts on fingering

Fingering is often a process of compromise. We only rarely have everything lying ideally for our Left Hand. Therefore we are often forced to choose between unfortunate alternatives. Make these choices solely on a musical basis and choose the fingering that least disrupts the musical flow, even if it a bit more difficult than its competitors.

Lastly, it is necessary to think about each shift in its own context. Whether it occurs at the start of a bow stroke (mini-phrase), or in the middle of one, it is not just the actual shift from that one note or position to another that we are dealing with, but the finding of an Energy and a Momentum that will see us smoothly through the whole operation. In my mind it is similar to a tennis player or cricketer who, in preparing a stroke, channels the energy to get his (moving) feet in exactly the right position both to execute the shot with the right momentum and, crucially, allow for an effortless follow-through.

The Energy should be primed as early as possible - certainly on or within the previous bow stroke, sometimes on or around a proximate change of string. It gets the hand in the optimum position, and builds the right momentum to accomplish the shift and exit smoothly into the follow-through. For myself, I find that the physical energy originates at the very bottom of the spine, the coccyx which, gently jolting the upper body into action, provides that swing and momentum which will then guide the transition through in its entirety.

It is, however, important to remind ourselves that, whatever the physical result, the Energy apportioned to a shift and its context should not adversely alter the sound, dynamic or integrity of the phrasing within the passage. You will have to work out how best to discover and optimize your own energy in this regard.

A lot of this might seem quite complex. It is difficult to explain in the abstract. But in the various small commentaries I have adjoined to some of the scales in the main body of this book I will seek to make things clearer.

This Book

In this book, each Three-octave Major and Minor Scale is offered three times, one time each in mini-phrases of 3, 4 and 2. Arpeggios and 7ths are offered twice, grouped in 3's and 4's. I also highly recommend you consider making up your own groups (6's, 8's, 12's, 24's, mix'n'match, etc.).

As you will see, depending on the phrasing of each individual Scale/Arpeggio/7th (hereafter referred to as Units), each fingering will be different; often not fundamentally, but always, I hope, significantly.

I have included small commentaries on my fingerings for many of the Units, though these slowly start to fade out as, I hope, the general thinking behind my fingerings becomes clear.

Half-way through the book I have ceased to offer either fingerings or commentary as, by that stage, not only should you be fully self-sufficient, but, at those dizzy heights, the unique size and shape of your own hands will become evermore relevant. The reason that the rest of the Units are given is that I have not seen them in exactly this format before and it will give you an opportunity, if you so desire, to add your own fingerings without having to cross out any existing ones.

Do bear in mind, however, that by the time you have covered the three octaves up from 'E above middle C', you will already have entirely mastered the tonal range in which 99.43% of the complete violin repertoire takes place.

You will have gathered by now that, to my mind, there should be no *set* fingerings for Scales or Arpeggios. Fingerings are the servants of the musical phrases and therefore should serve accordingly. There will obviously be some crossover between fingerings for different phrase lengths, but to impose an inappropriate fingering on a musical phrase out of convenience is as wrong as fitting the dog to the collar.

Occasionally there occur 100% optimum fingerings for a particular Unit but, surprisingly perhaps, this does not happen often (interestingly, Melodic Minor Scales are always the most natural to finger). Usually there are several musically viable alternative fingerings for a phrase or a piece of passagework. I often find myself unwilling to commit to a specific one until I have lived with all of them in my head for a while. Many times I will then eventually opt for one, only to change it a week/a month/several years later depending on my mood, my taste, or a change in my impression of the phrase (and its context) in question. To retain this versatility can add so much to the fun, and the never ending challenge, of playing the violin and making music.

Occasionally the fingerings in this book are slightly whimsical or capricious. Sometimes they take risks which seem crazy when there are safe, if mundane, alternatives. But that risk-taking, too, is an important part of music making. You are not, presumably, going to be performing these actual scales in public, so why not expose yourself in private to a few thrilling options - it can only add to your store of knowledge and increase your general left hand mobility and dexterity. If you do then decide positively to reject them, the exercise will still have been of some definite use.

Each Unit is fingered as if it were a stand-alone melody or piece of passage work. The fingerings are based upon phrasing, integrity of timbre and, only lastly, comfort.

For the sake of simplicity I have offered only one fingering per unit. Final choices, whether or not they bear ANY relation to my admittedly sometimes eccentric suggestions, are yours and yours alone.

Our job - our Mission - as Musicians, is to make the music Sound Good.

If you make that your only goal, you can't really go wrong.

G

1

S3. When the option of an open string occurs as the middle note of a set of three, with therefore a timbre change inevitable within the stroke, there are no rules as to whether to use the open string or stop the note - simply adjust to your personal taste (in a major scale I usually like the brightness of the open string, but it shouldn't 'stick out').

S6. If you shift to a 2 on the E you are, pleasantly, in the right position for the A. I prefer to shift to 1 and stretch back for the A in S7, as the hand is now generally in a forward position and does not have to move on S7 or 8, simply pivoting either side of the hand position for S6.

S14. Shifting to 3 has much more articulation than 2-2. The E can be played with 1 or 2 depending on personal comfort.

2

S3. The shift is on the third note of S3, but the energy for the shift must come from the first note of the slur. This, the energy coming from the beginning of the mini-phrase, should always be the case for a mid-slur shift.

S4. When we have no option but to change string within a mini-phrase it is usually best to do so in the middle of a 4 note phrase.

S6. Note the extra energy required for a whole tone shift as opposed to the semitone shift encountered in S3.

S7. The top G needs energy to reverse the upward momentum, changing the angle of the hand both by tilting back (towards lower positions) as the 4th finger is placed on the fingerboard, and by a slight anti-clockwise twist of the left hand as 4, 3 and 2 are lifted, thereby bringing 4 into a more effective position for the shift. Experiment to find the optimum degree of the angle changes in order to help you execute this difficult shift cleanly. Make sure that any angle change doesn't interfere with the intonation of the leading note (F#) which will threaten to be flat.

3

S9. Phrasing in twos we choose to shift on the semitone in S9 rather than on the whole tone in S11.

4

S3. In a minor scale I would usually opt to stop a note rather than play an open string (see Unit 1), as this helps to preserve a darker character.

S12/S13. Try to find the energy of an upbeat on S12 to help with the 3rd finger extension for the B \flat of S13. ‘Crabbing’ up the fingerboard (despite being on the downward half of the scale) allows for excellent integrity of timbre, and a finger to different finger shift onto S15.

A nice alternative fingering for the Upward half of the scale sees you shift to 1 on C (S3), rock back to 1 for F \sharp (S4), shift to 2 for B flat (S5), crab back to 1 for A (S7) and rejoin given fingering.

5

S9. Hand position (edging low) and energy important on the F to accomplish the shift to D cleanly.

S11/12. Nice finger to different finger opportunity, rejecting a standard 1–1 (wooden in both feeling and sound).

6

S9/10/11/12. A ‘Show-Jumping’ style double shift. Firstly the 3–1 on S10, which will require the right energy from the F \sharp in S9, then the whole tone shift to the E in S12. This is a difficult shift, but you can maximize efficiency by minutely shortening the D (S11 - think of a dot printed on top of the D) in order to increase the triangle of opportunity between the two bow strokes. It gives you fractionally more time for the shift and can also supply a feeling of ‘lift’ for the left hand. This sort of meddling is for you only - it should be extremely subtle to the point of not being much more than a psychological aid. If it is detectable by an audience (or a teacher!) you are, I’m afraid, overdoing it!

7

S8. An unpleasant and clumsy stretch from E \flat to F \sharp , but it works and is, as far as I can see, pretty unavoidable.

S11. You could come down to 1st position on the A (crabbing up for the E \flat on S12), but going over to the A string keeps 2 strokes on each string for the journey down, creating a pleasant pattern and allowing for a comfortable minor third (shaped) shift from S11 to S12.

8

S7. Choosing on our descent not to mirror the fingering on the ascent creates a wider span of the LH and encourages the right energy (and angle) for the downward leg.

S9. A minor third (shaped) shift within a stroke allows possibilities for either practicing a functional (inaudible) minor third shift, or for a rare moment of tasteful expressivity. If you feel these options are inappropriate and you wish to avoid them, you can shift to a 3 on the A of S8!

9

S14–S18. A Triple Show Jump shift should be prepared as one (broken) whole.

S20. Very comfortable to use the 4th finger here, avoiding the ungainly stretch we would otherwise have between F \sharp and E \flat . It is always good, also, to build up strength and versatility in your little finger (pinky).

10

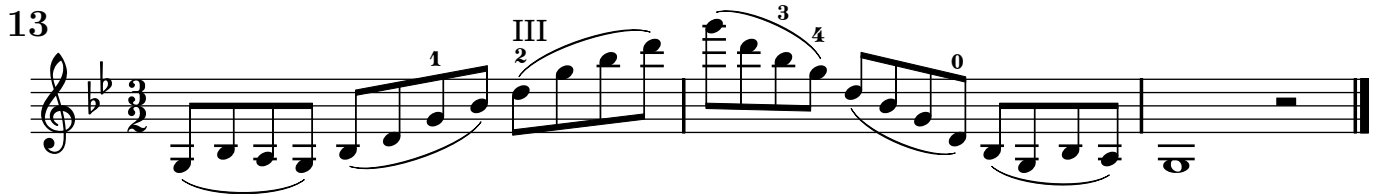
S4/S5/S6. Another ‘crabbing’ movement. Be careful here; although our descent is a mirror of the ascent it feels less natural and somewhat trickier - the 3rd finger has a lot of distance to cover, coming parallel to where the 2nd was on the D, and then moving back the equivalent of a semitone (had it been on the same string) to find the B.

11

12

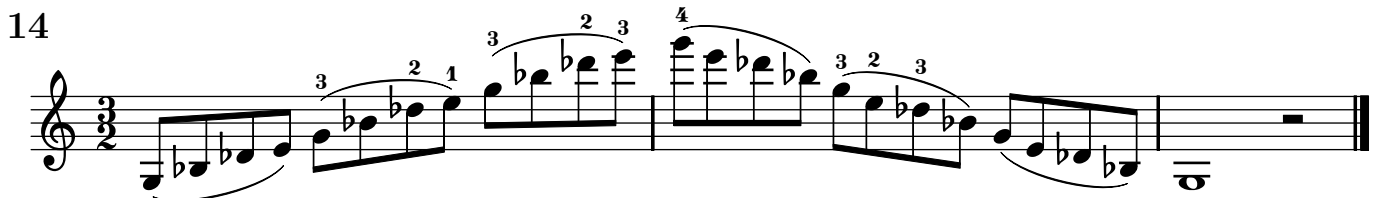
S3. The first note of S3 is where the energy for the shift to S4 should originate.

S5/S6. The 3–4 shift is much underused. Try shifting from G (4th finger) up to B \flat (3rd finger). Shifting down is exactly the same as this most comfortable shape, but in reverse.

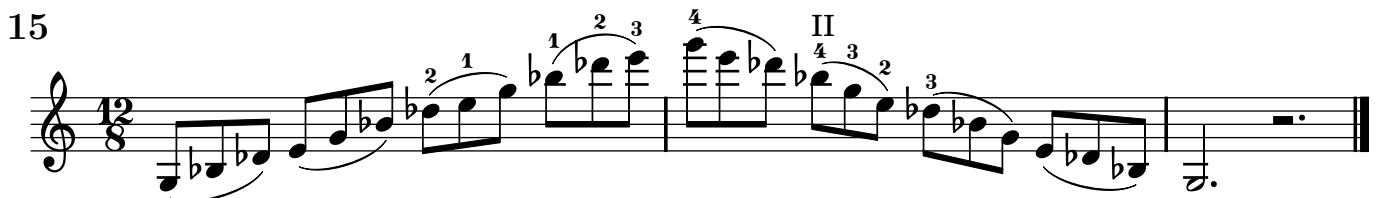


S3. This is an uncomfortable major third shift, but it sets up the top half of the Arpeggio far better than any other fingering so, in my view, worth it.

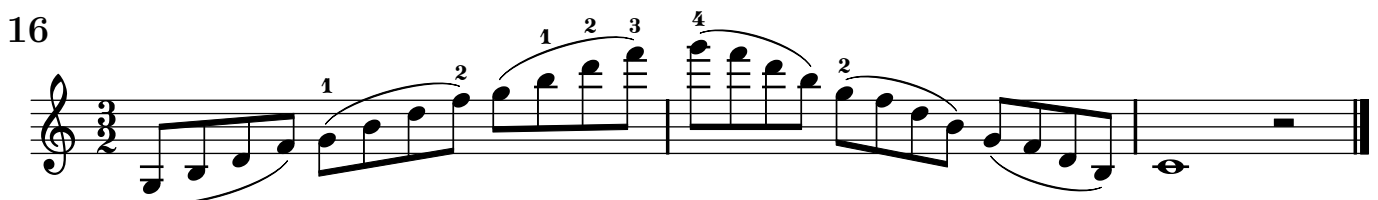
S4. As our downward minor third shift is within a bowstroke (as opposed, in Unit 12, in between strokes), a very discreet amount of help from the R.H. in the form of bow articulation is acceptable. Again, if it is noticeable to an outsider, it is too much.



S5. A little extra energy on the G will facilitate the minor third shift well.

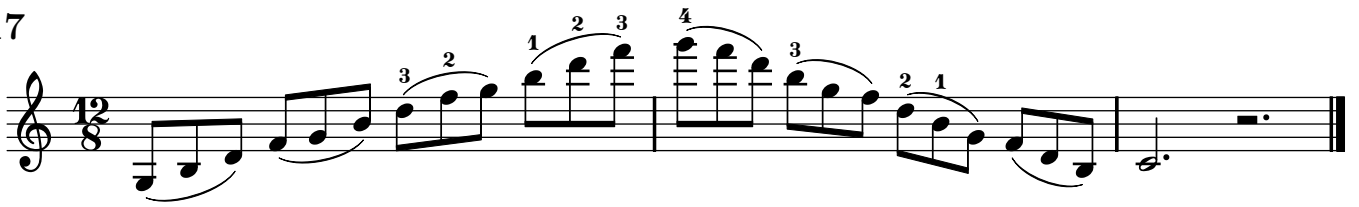


S6. Finding the B \flat on the A string (after having played top B \flat already with the same finger) is quite tricky, but as well as the interval relationship to the D \flat you can remind yourself that B \flat is a fifth down from F (parallel on the E string), which in turn is a semitone above the E we have just played with the 3rd finger. This gives us another piece of information, and by acknowledging both pieces we can feel more secure about the location. I am always on the look out for these extra relationships if there are three (and there often can be) it is exactly like triangulating the location of something as one reads about in many excellent thrillers! Alternatively, one could come down to a 3rd finger on the B \flat , and then use the open E (always a free pass for the LH to travel anywhere on the fingerboard) to come back down to First Position.



S3. The hand position for the Dominant seventh is very similar to the Diminished 7th only adjusting the last relationship from a minor third to a whole tone.

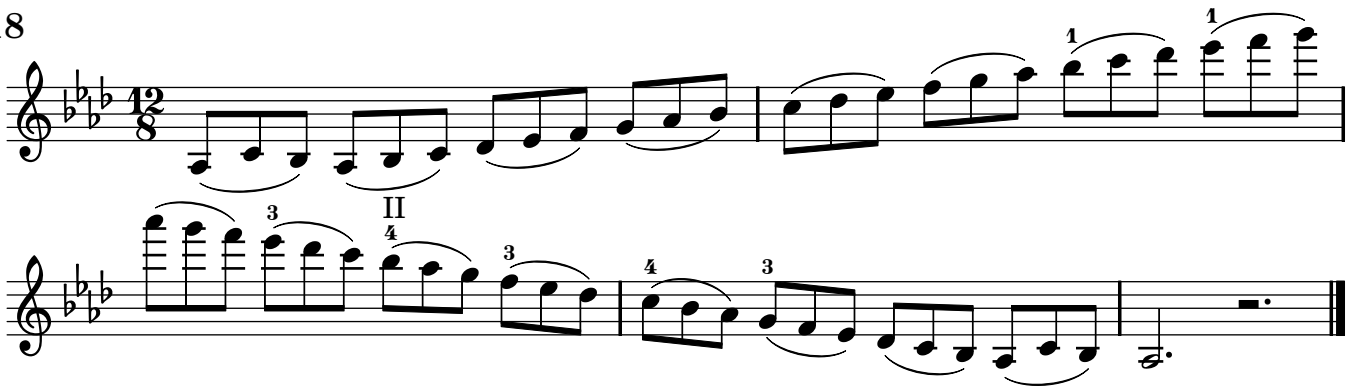
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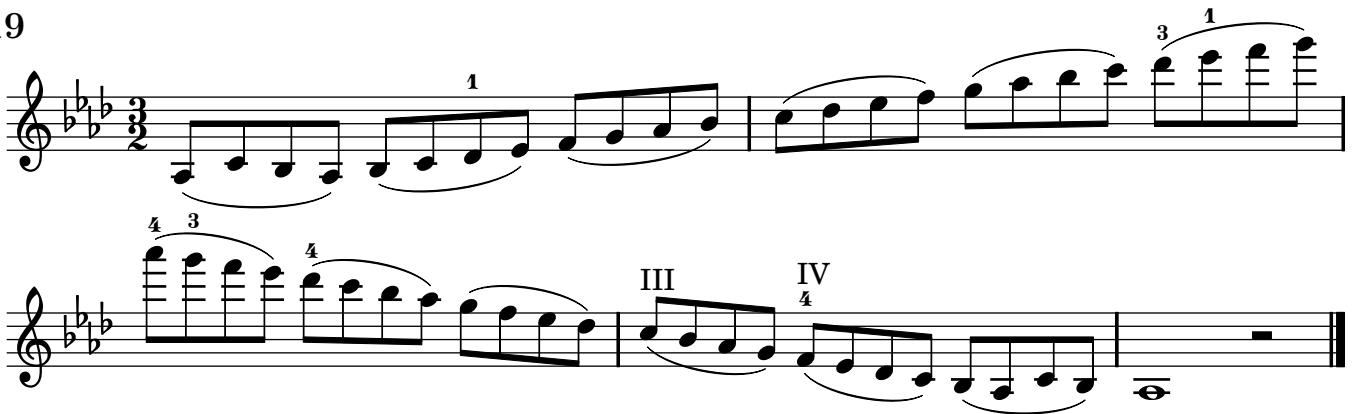
S3. Experimenting with the angling of the 3rd finger will facilitate a clean shift. S7. A little energy boost on the D for comfort of the extension back to the B.

A \flat

18



19



20

21

22

S9. Energy and alteration of finger angle needed on the F \sharp for a pivot-style shift to the D \sharp . Once the shift has been accomplished you can move the hand down if needed (try never to move the hand *while* shifting finger to adjacent finger semitones - perform the shift and then adjust hand as necessary).

23

Musical score for exercise 23, featuring two staves with treble clef and a key signature of three sharps (F#, C#, G#). The piece is in 3/4 time. The first staff contains a melodic line with slurs and fingerings (1, 3, 4). The second staff contains a bass line with slurs and fingerings (4, 3, 1, 4, 2, 4, 4, 2). Both staves end with a double bar line and a final chord.

24

Musical score for exercise 24, featuring two staves with treble clef and a key signature of three sharps (F#, C#, G#). The piece is in 12/8 time. The first staff contains a melodic line with slurs and fingerings (2, I, 1, 1, 3, 1, 3). The second staff contains a bass line with slurs and fingerings (2, 3, 3, III, 4). Both staves end with a double bar line and a final chord.

25

Musical score for exercise 25, featuring two staves with treble clef and a key signature of three sharps (F#, C#, G#). The piece is in 3/4 time. The first staff contains a melodic line with slurs and fingerings (1, III, 1, II, 1, 1, 3). The second staff contains a bass line with slurs and fingerings (2, 3, 3, 4, 4, 2). Both staves end with a double bar line and a final chord.

31

32

33

S4-6. Just for some variation - but it's good on timbre integrity also.

34

A

35

S13. Energy for the upcoming shift should be from C#.

36

S5. Rocking back slightly (not shifting) to the G \sharp gives a great hand position for the shift at S6.

37

38

39

40

Musical score for exercise 40, measures 1-4. The score is written in treble clef with a 3/4 time signature. The melody in the upper staff consists of eighth and quarter notes, with a final triplet of eighth notes. The bass line in the lower staff features a sequence of chords and eighth notes, including a double bar line and a final chord. Fingerings are indicated by numbers 1-4, and a second position (II) is marked.

41

Musical score for exercise 41, measures 1-4. The score is written in treble clef with a 12/8 time signature. The melody in the upper staff includes a triplet of eighth notes and a final triplet of eighth notes. The bass line in the lower staff features a sequence of chords and eighth notes, including a double bar line and a final chord. Fingerings are indicated by numbers 1-4, and second (II) and third (III) positions are marked.

42

Musical score for exercise 42, measures 1-4. The score is written in treble clef with a 3/4 time signature. The melody in the upper staff consists of eighth and quarter notes, with a final triplet of eighth notes. The bass line in the lower staff features a sequence of chords and eighth notes, including a double bar line and a final chord. Fingerings are indicated by numbers 1-4, and a first position (I) and second position (II) are marked.

43

44

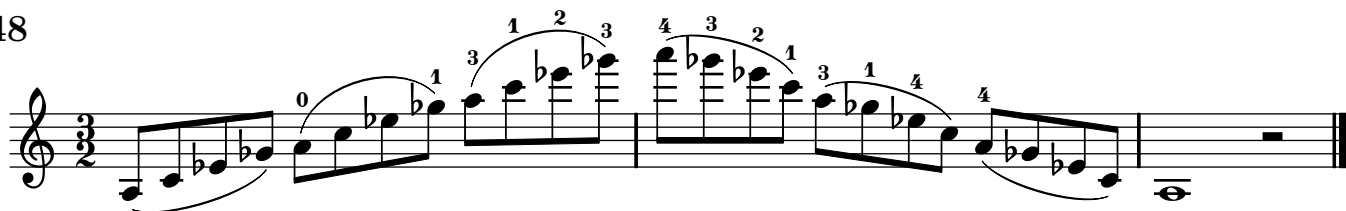
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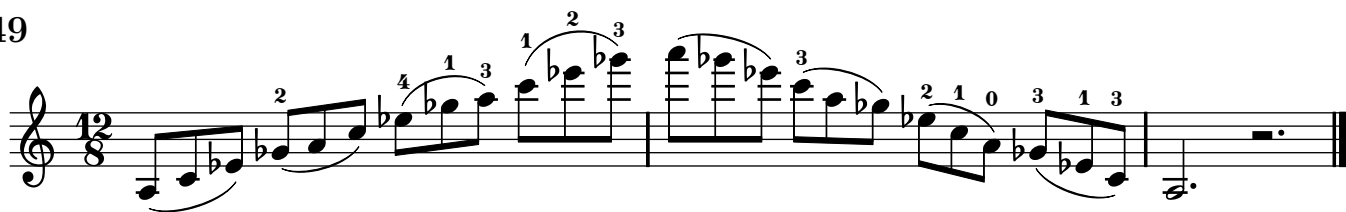
47

S2. Putting a 2 on the C somehow allows, by making that second C a little more special, extra energy flow for the journey up at least for me!

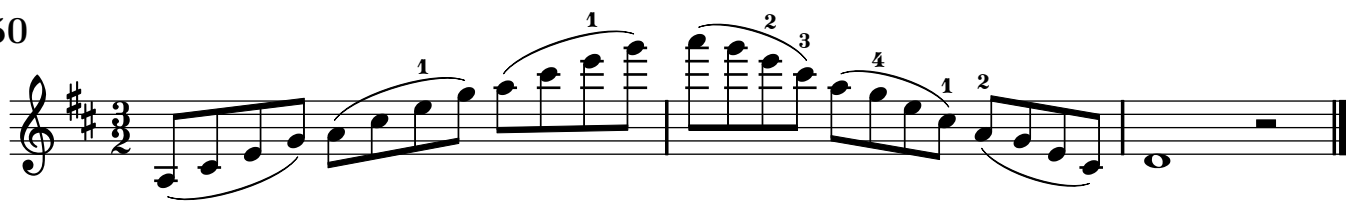
48



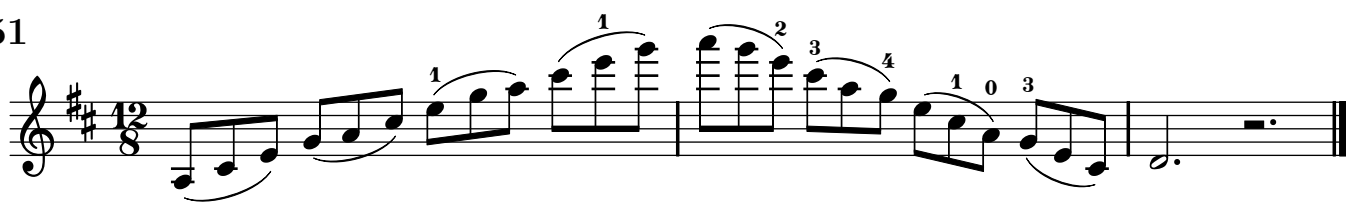
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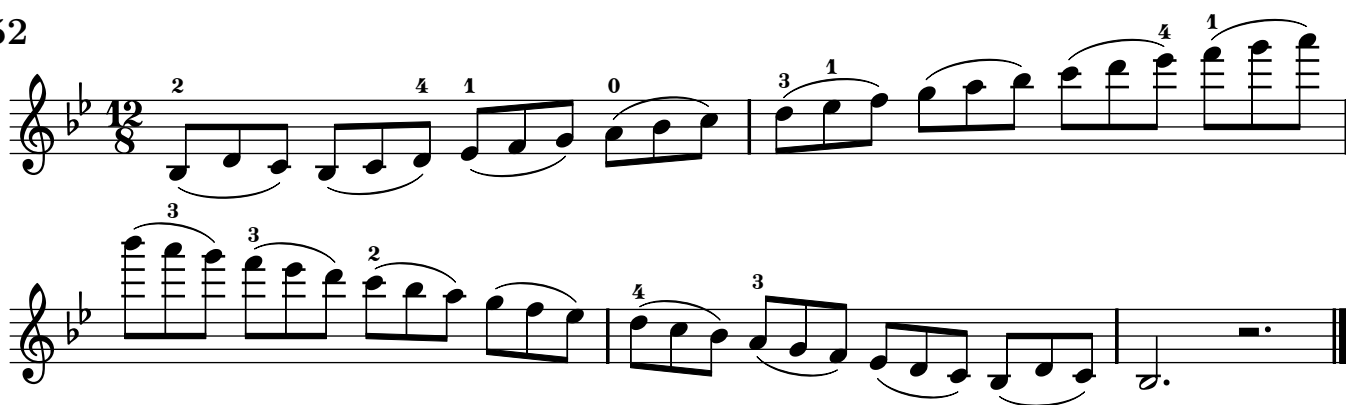


51



B \flat

52



S9-11. In Showjumping mode. S13. Energy on D for next shift.

53

Musical score for exercise 53, featuring two staves with treble clefs, a key signature of one flat, and a 3/2 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, along with fingering numbers (1, 2, 3, 4) and a second ending bracket labeled 'II'.

S6/S8. Be aware that it is a semitone shift to S6 but, due to the 4-4 semitone at the top, a whole tone shift coming down onto S8.

54

Musical score for exercise 54, featuring two staves with treble clefs, a key signature of one flat, and a 3/2 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, along with fingering numbers (1, 2, 3, 4).

55

Musical score for exercise 55, featuring two staves with treble clefs, a key signature of three flats, and a 12/8 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, along with fingering numbers (0, 1, 2, 3, 4) and a first ending bracket labeled 'I'.

56

Musical score for exercise 56, featuring two staves with treble clefs, a key signature of three flats, and a 3/2 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, with fingerings 1, 2, 3, and 4 indicated above the notes.

57

Musical score for exercise 57, featuring two staves with treble clefs, a key signature of three flats, and a 3/2 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, with fingerings 1, 2, 3, and 4 indicated above the notes.

58

Musical score for exercise 58, featuring two staves with treble clefs, a key signature of three flats, and a 12/8 time signature. The score includes various musical notations such as eighth notes, quarter notes, and slurs, with fingerings 0, 1, 2, 3, and 4 indicated above the notes.

59

Musical notation for exercise 59, featuring two staves with treble clefs, a key signature of three flats, and a 3/8 time signature. The piece includes various fingerings and slurs.

60

Musical notation for exercise 60, featuring two staves with treble clefs, a key signature of three flats, and a 3/8 time signature. The piece includes various fingerings and slurs.

61

Musical notation for exercise 61, featuring a single staff with a treble clef, a key signature of three flats, and a 12/8 time signature. The piece includes various fingerings and slurs.

S7. Some expressivity for a special treat.

62

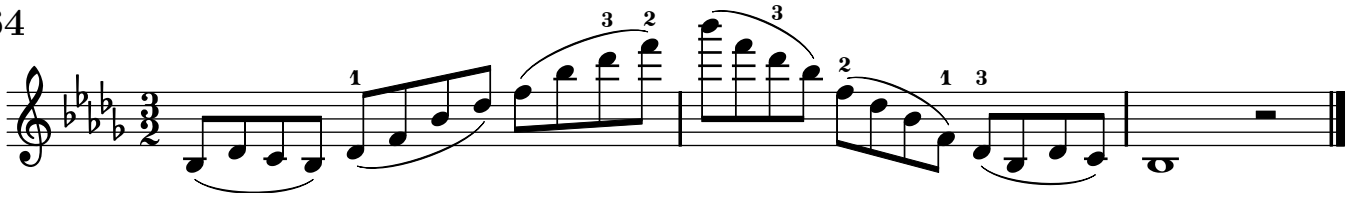
Musical notation for exercise 62, featuring a single staff with a treble clef, a key signature of three flats, and a 3/8 time signature. The piece includes various fingerings and slurs.

63

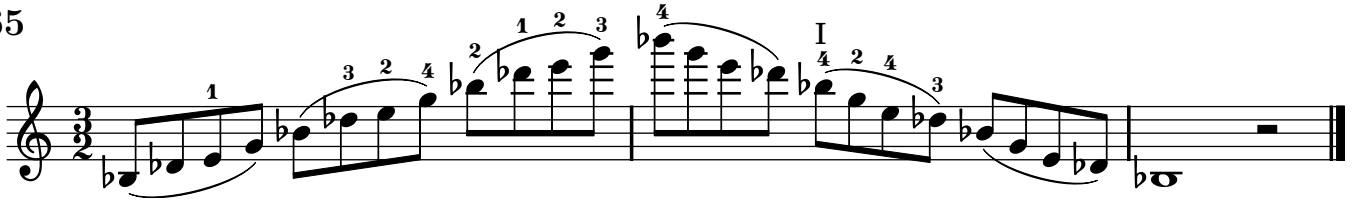
Musical notation for exercise 63, featuring a single staff with a treble clef, a key signature of three flats, and a 12/8 time signature. The piece includes various fingerings and slurs.

S4. Watch out for the (rare) major third shift.

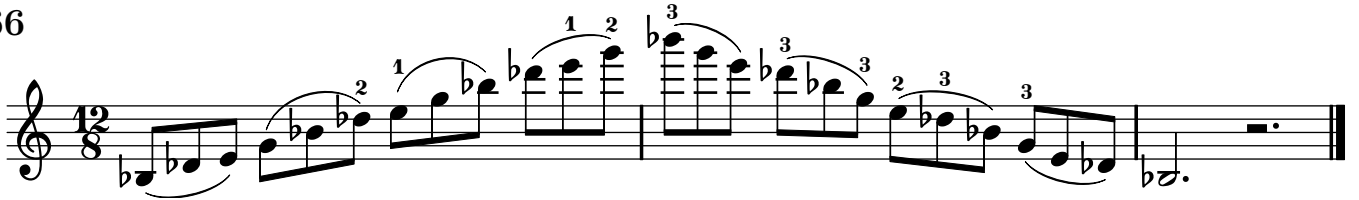
64



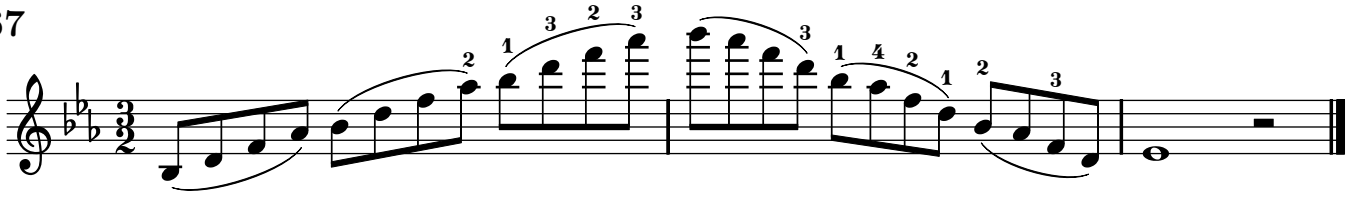
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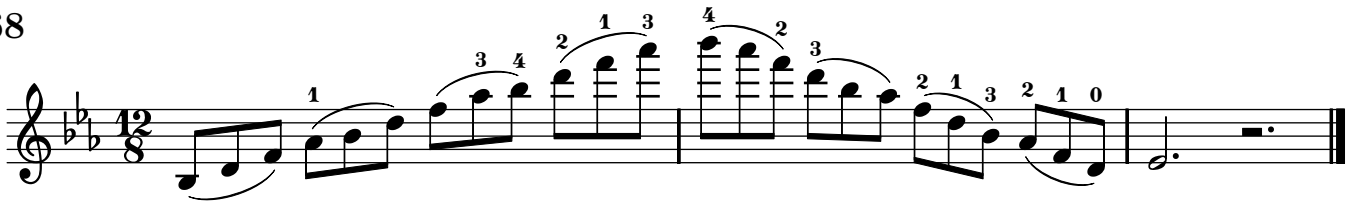
66



67



68



B

69

Exercise 69 consists of two staves in treble clef with a key signature of three sharps (F#, C#, G#) and a 12/8 time signature. The first staff contains measures 1 and 2, featuring eighth-note patterns with fingerings 2 and 1. The second staff contains measures 3 and 4, featuring sixteenth-note patterns with fingerings 3, 3, 2, 4, 4, 3, and 1.

S14. Pivot the hand back for the shift to A \sharp , then complete your hand's movement back when comfortable.

70

Exercise 70 consists of two staves in treble clef with a key signature of three sharps (F#, C#, G#) and a 2/2 time signature. The first staff contains measures 1 and 2, featuring eighth-note patterns with fingerings 1 and 1. The second staff contains measures 3 and 4, featuring sixteenth-note patterns with fingerings 4, 3, 4, II, III, IV, and 3.

71

Exercise 71 consists of two staves in treble clef with a key signature of three sharps (F#, C#, G#) and a 3/4 time signature. The first staff contains measures 1 and 2, featuring eighth-note patterns with fingerings 1 and 1. The second staff contains measures 3 and 4, featuring sixteenth-note patterns with fingerings 4, 3, 4, II, 2, and 1.

72

Exercise 72 consists of two staves in treble clef with a key signature of two sharps (F# and C#) and a 12/8 time signature. The first staff contains the melody, and the second staff contains the accompaniment. Fingerings are indicated by numbers 1-4 above notes. The first measure of the melody has a fingering of 2. The second measure has a fingering of 2. The third measure has a fingering of 1. The fourth measure has a fingering of 1. The accompaniment features triplets and other rhythmic patterns. The third measure of the accompaniment has a fingering of 3. The fourth measure has a fingering of 3. The piece ends with a double bar line.

73

Exercise 73 consists of two staves in treble clef with a key signature of two sharps (F# and C#) and a 3/2 time signature. The first staff contains the melody, and the second staff contains the accompaniment. Fingerings are indicated by numbers 1-4 above notes. The first measure of the melody has a fingering of 2. The second measure has a fingering of 1. The third measure has a fingering of 1. The fourth measure has a fingering of 4. The accompaniment features triplets and other rhythmic patterns. The first measure of the accompaniment has a fingering of 4. The second measure has a fingering of 3. The third measure has a fingering of 4. The fourth measure has a fingering of 3. The piece ends with a double bar line.

74

Exercise 74 consists of two staves in treble clef with a key signature of two sharps (F# and C#) and a 3/2 time signature. The first staff contains the melody, and the second staff contains the accompaniment. Fingerings are indicated by numbers 1-4 above notes. The first measure of the melody has a fingering of 4. The second measure has a fingering of 1. The third measure has a fingering of 1. The fourth measure has a fingering of 1. The accompaniment features triplets and other rhythmic patterns. The first measure of the accompaniment has a fingering of 4. The second measure has a fingering of 3. The third measure has a fingering of 2. The fourth measure has a fingering of 3. The piece ends with a double bar line.

75

Exercise 75 consists of two staves in treble clef with a key signature of two sharps (F# and C#) and a 12/8 time signature. The first staff contains the melody, and the second staff contains the accompaniment. Fingerings are indicated by numbers 1-4 above notes. The first measure of the melody has a fingering of 1. The second measure has a fingering of 2. The third measure has a fingering of 3. The fourth measure has a fingering of 1. The accompaniment features triplets and other rhythmic patterns. The first measure of the accompaniment has a fingering of 2. The second measure has a fingering of 3. The third measure has a fingering of 3. The fourth measure has a fingering of 4. The piece ends with a double bar line.

76

77

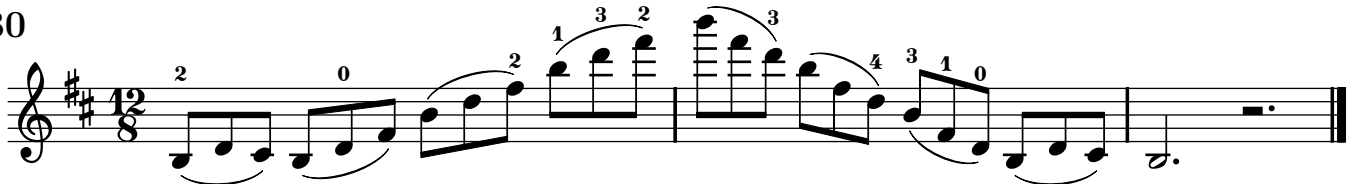
78

S1. The hand should essentially be in medium (third) position, just leaning back until you commit on S3.

79

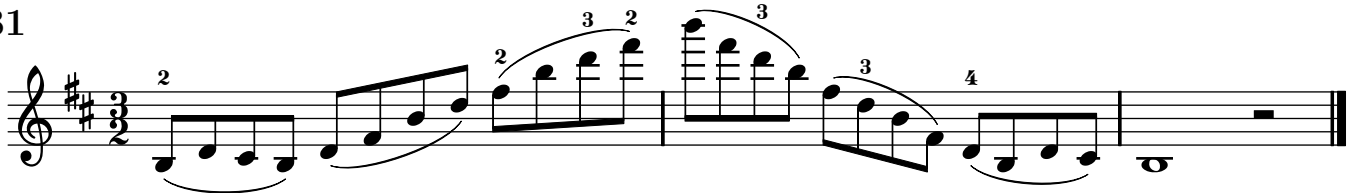
S2. Another rare chance for some expressivity.

80

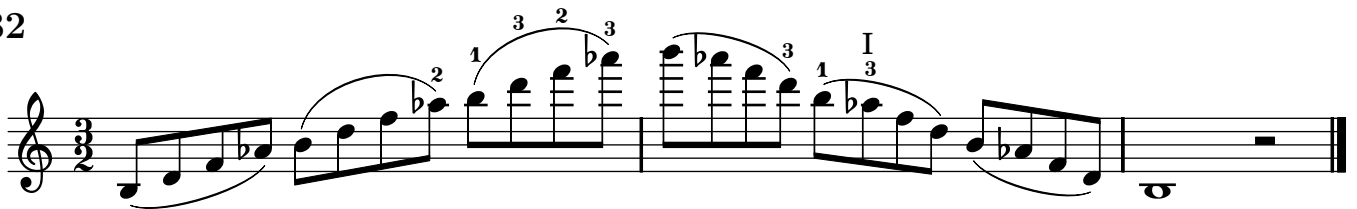


S4. No easy options with this arpeggio. We need the 2nd finger on F#, and with a major third one side, and a perfect fourth the other, it is not really stretchable; this is one of the few acceptable ways of getting there. S7. Energy on the B for the minor third/perfect fourth stretches either side.

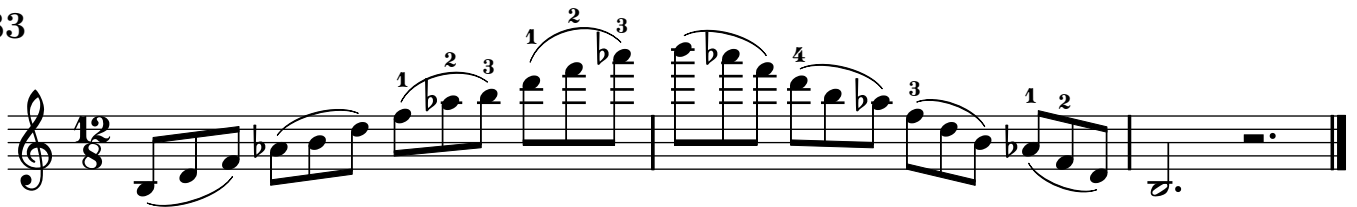
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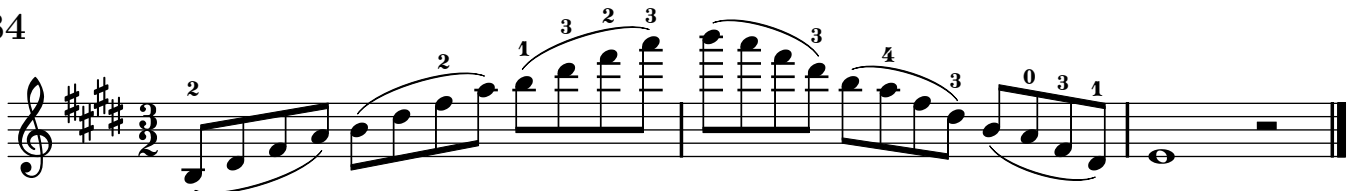
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83

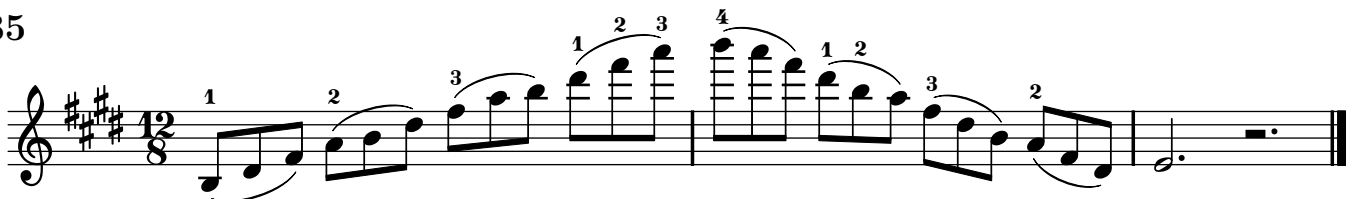


84



S2. Energy on B for the shift.

85



C

86

Musical score for Unit 86, featuring two staves in 12/8 time. The top staff contains a melodic line with a fingering of 1 at the beginning and 1 at the end. The bottom staff contains a bass line with fingerings 4, 3, 2, and 1. The piece concludes with a whole note chord.

S9/10. Hand angle and slight rotation needs careful consideration in setting up the shift to E.

87

Musical score for Unit 87, featuring two staves in 3/2 time. The top staff contains a melodic line with fingerings 1, 0, 1, and 1. The bottom staff contains a bass line with fingerings 4, 3, I 4, II 4, and 2. The piece concludes with a whole note chord.

S6/7. Hand angle and rotation needs consideration (different from Unit 86)

88

Musical score for Unit 88, featuring two staves in 3/2 time. The top staff contains a melodic line with fingerings 1 and 2. The bottom staff contains a bass line with fingerings 4, 3, 4, 2, and 2. The piece concludes with a whole note chord.

89

Exercise 89 consists of two staves in G minor (one flat) and 12/8 time. The first staff contains a melodic line with a fingering of 1 at the start and another 1 at the end. The second staff contains a bass line with fingerings 3, 3, 4, 3, 2, 4, and a Roman numeral IV in the fourth measure.

90

Exercise 90 consists of two staves in G minor (one flat) and 3/4 time. The first staff contains a melodic line with fingerings 1, 0, 1, and 4. The second staff contains a bass line with fingerings 4, 3, 2, II, III, IV, and 2, along with Roman numerals I, II, III, and IV.

91

Exercise 91 consists of two staves in G minor (one flat) and 3/4 time. The first staff contains a melodic line with fingerings 1, 0, 0, and 1. The second staff contains a bass line with fingerings 4, 3, 2, II, 2, 4, and Roman numeral II.

92

Exercise 92 consists of two staves in G minor (one flat) and 12/8 time. The first staff contains a melodic line with fingerings 2, 1, II, 1, 1, 3, 1, and 3. The second staff contains a bass line with fingerings 2, 3, 3, 3, 3, 4, 2, 1, 4, and Roman numeral II.

93

Exercise 93 consists of two staves of music. The first staff begins with a treble clef, a key signature of two flats (B-flat and E-flat), and a 3/2 time signature. It contains a sequence of notes with fingerings 1, 0, 1, 3, 1, and a slur over the final two notes with fingering 1. The second staff continues the sequence with fingerings 2, 3, 3, 1, 4, and includes a double bar line with a Roman numeral II above it, followed by fingerings 3 and 4.

94

Exercise 94 consists of two staves of music. The first staff begins with a treble clef, a key signature of two flats, and a 3/2 time signature. It contains a sequence of notes with fingerings 0, 1, 1, 3, 1, and a slur over the final two notes with fingerings 1 and 3. The second staff continues the sequence with fingerings 2, 3, 3, 1, 3, and includes a double bar line with a Roman numeral II above it, followed by a Roman numeral III above it and fingerings 4, 2, 2, 2.

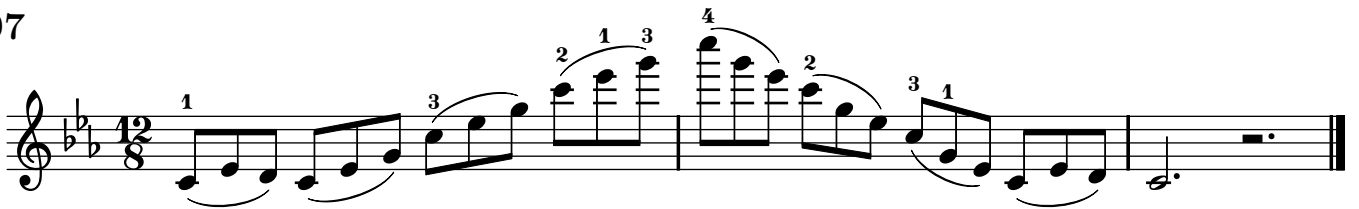
95

Exercise 95 is a single staff of music in treble clef, key signature of two flats, and 12/8 time signature. It contains a sequence of notes with fingerings 3, 2, 1, 2, 3, and ends with a double bar line.

96

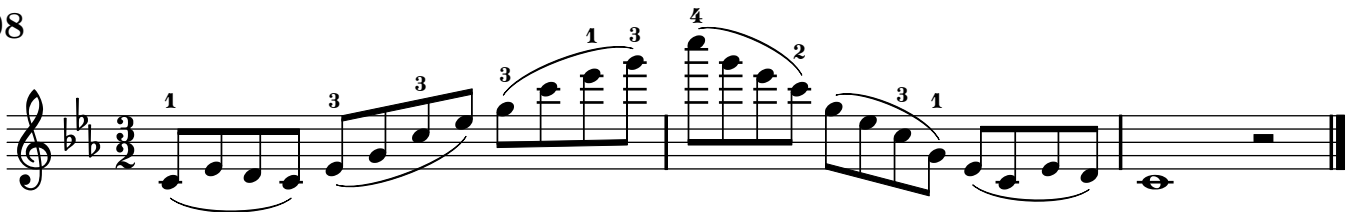
Exercise 96 is a single staff of music in treble clef, key signature of two flats, and 3/2 time signature. It contains a sequence of notes with fingerings 3, 1, 2, 2, 3, and includes a double bar line with a Roman numeral III above it and fingerings 4, 1.

97

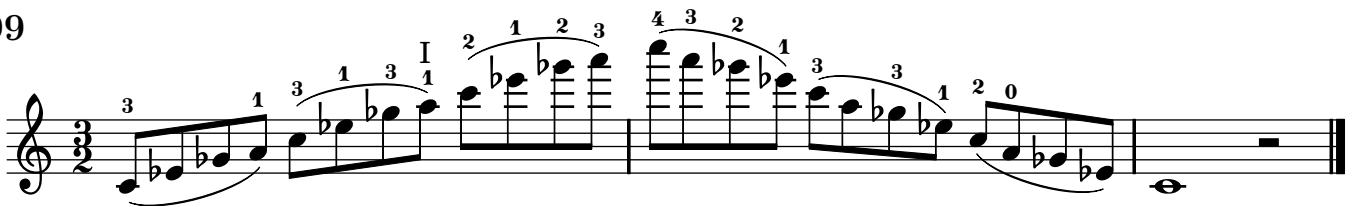


S4/5. Here the stretch of a perfect fourth seems possible as we are higher on the fingerboard. Take care of the angle of 3rd. finger.

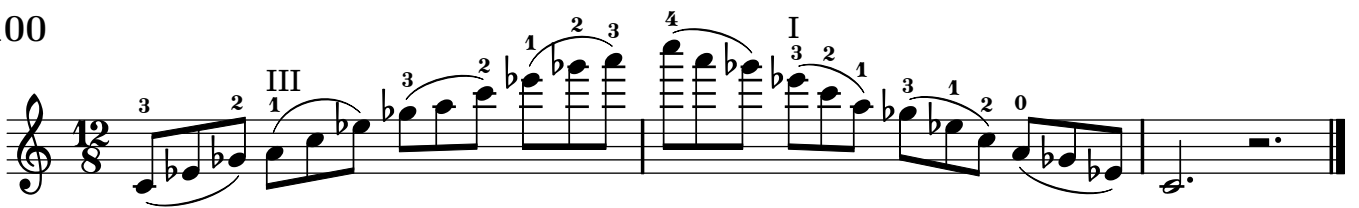
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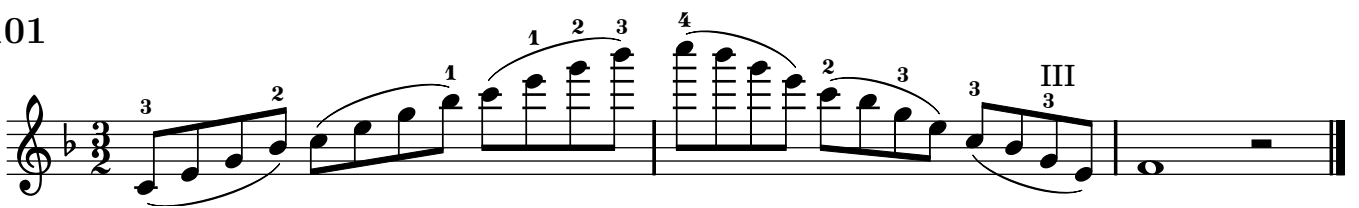
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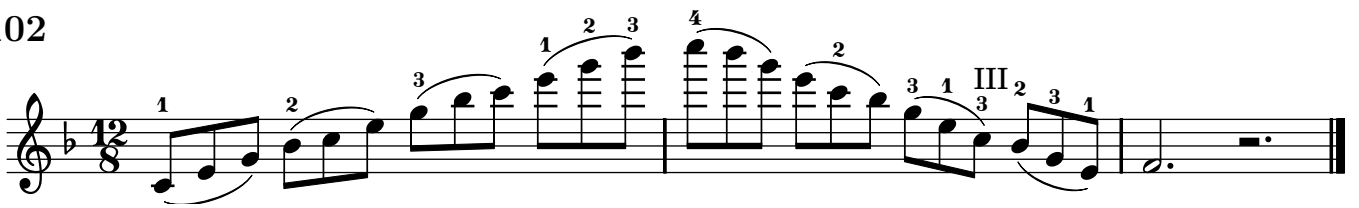
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101



102



About the author

‘I have known Leo for many, many years and have always appreciated his genuine musicianship, his imagination, his instrumental skill and his individual approach to the music he plays ...’

Steven Isserlis CBE, Cellist

Born in London, Leo Phillips studied the violin both in Europe, with David Takeno and Sandor Vegh, and in the USA with Dorothy DeLay and Shmuel Ashkenasi. He has appeared as violin soloist with many orchestras including the London Philharmonic, Manchester Camerata, the City of Oxford Orchestra, l’Orchestre de Chambre de Genève, and the National Symphony Orchestra of South Africa. A dedicated chamber musician, Leo was a founder member of the Vellinger String Quartet, and leader of the internationally regarded Nash Ensemble of London with whom he toured extensively and has made many critically acclaimed recordings and broadcasts. He is a regular participant at IMS Open Chamber Music, Prussia Cove, and has also recently appeared at the Australian Festival of Chamber Music, the Hong Kong International Chamber Music Festival, the Singapore International Festival of Music, the Nuremberg International Chamber Music Festival and the Akaroa International Chamber Music Festival (NZ).

Leo has appeared as Leader/Concertmaster and often Director of more than 30 world-renowned orchestras performing in over 60 countries world-wide. These include the London Philharmonic, the Hallé Orchestra, the Bournemouth Symphony Orchestra, the BBC National Orchestra of Wales, the BBC Scottish Symphony Orchestra, the BBC Philharmonic, the Scottish Chamber Orchestra, the Chamber Orchestra of Europe, Bergen Philharmonic, Stavanger Symphony Orchestra, Tenerife Symphony Orchestra, Orchestre de Chambre de Genève, Orquestra Sinfónica Portuguesa, Orchestra Teatro Lirico di Cagliari, the Hong Kong Philharmonic, Sichuan Symphony Orchestra (Chengdu), the Bangkok Symphony Orchestra, Pro Musica Bangkok, and the National Symphony Orchestra of South Africa. He has worked closely with conductors such as Nikolaus Harnoncourt, Claudio Abbado, Paavo Berglund, Sir Georg Solti, Sir Peter Maxwell Davies, and Sir Simon Rattle.

In 2003, Leo was invited to conduct the Thailand premiere of Benjamin Britten’s opera ‘The Turn of the Screw’ at the Thailand Cultural Centre. The opening night was graced with the attendance of H.R.H. Princess Galyani Vadhana, and also present was the then director of the Bayreuth Festspiele, Wolfgang Wagner. Subsequent to this much acclaimed debut, Leo has been performing regularly with the Bangkok Symphony Orchestra, the Thailand Philharmonic, the Siam Philharmonic, the Siam Chamber Orchestra, the Bangkok Wind Ensemble and, most recently, the Galyani Vadhana Institute Orchestra, of which, in 2011, he was appointed Principal Guest Conductor. Leo has also appeared with the Symphony Orchestra of India in Mumbai, the Chamber Music Society of Colombo, the Philippine Philharmonic Orchestra and has trained orchestras in Australia, New Zealand and Singapore.

Much in demand as a violin teacher and chamber music coach, Leo has given lessons and conducted master classes at the Royal Academy of Music, the Guildhall School, Chetham’s School of Music, Silpakorn University and Chulalongkorn University in Bangkok, Princeton University in the USA, the Academy of Performing Arts in Hong Kong, Sangokan Concert Hall (Toyotashi) Japan, the Universities of Auckland, Canterbury (Christchurch) and Otago (Dunedin) in New Zealand, for the Chamber Music Society of Colombo in Sri Lanka, and at the Yehudi Menuhin School. He has also been Artist in Residence at the Sydney Conservatorium, Australia, and the Nanyang Academy of Fine Arts, Singapore, and adjudicated competitions in Hong Kong, Indonesia and Thailand.

In addition to his musical career, Leo studied improvisational comedy in Chicago with Del Close and Charna Halpern, co-wrote a full-length comedy screenplay: ‘Vivaldi - The Movie’, and was commissioned to devise the six-part documentary series ‘Living Music’ for Channel 4 television (1991). Articles of his have been published in the Daily Telegraph, ‘Art’ magazine and ‘Autocar’, and his photographic portraits of Dame Iris Murdoch have been displayed in Britain’s National Portrait Gallery. A keen contract bridge player, Leo is proud to have played in the UK at county level representing Oxfordshire.