

OPENING REFLECTION



Getting from A to B

Learning to move around the fingerboard is liberating and opens up another realm of expressive possibilities. This Companion is designed to deepen understanding of **ergonomic and artistic choices** available to us whenever we shift.

We'll warm up with some **playful "glides,"** approaching arrival notes from both below and above to increase our ease and knowledge of the fingerboard, as well as to acquaint ourselves with the idea of **"thinking outside the box"** (or shift!) when dealing with tricky position changes.

The Technique exercises encourage us to move as directly as possible from A to B, in straight lines. **How to move most efficiently** between positions is often neglected when we learn to shift, but it is incredibly important! This section also introduces the **"inchworm"** motion, which helps refine our sense of **continuous movement** in the left hand and arm.

Stretch Zone A invites you to finesse your shifts moving into **thumb position**, while Stretch Zone B focuses on the **subtle arcs** (rainbows and scoops) present in our shifting motions.

Our explorations find context in the repertoire section; **Saint-Saëns beloved "Swan."** Here, you will explore which motions seem to best fit each shift in the first 9 measures, both ergonomically and musically.

As we explore this month, try to stay **curious and playful**. We want our left hand and arm motions to connect organically to both our natural body movements and to the music at hand. Keep in mind that shifting is about **the journey** as much as the arrival.

**Take your time,
find your ease,
and enjoy the ride!**



RHYTHM AND PULSE INTERNALIZATION

Welcome to your journey into shifting!

This month, you'll explore shifting as a guided process: **hearing the arrival note before you move, economical traveling with balance and confidence**, and **coordinating your shoulder, arm, hand, and fingers as one**.

You'll isolate each element, then bring them together so your shifts feel purposeful and musical.

Clarity of destination, ease of travel, and coordination are the foundations of confident movement across the fingerboard. Every shift you make shapes not only accuracy, but the musical intent behind each phrase.

Over time, clearly sensing where you're going, how you get there, and why a particular shift exists in the music will no longer be about rushing, guessing, or hoping, and you'll begin to recognize shifting as storytelling, not mechanics.

With time, you'll notice how each shift incorporates a timed release (I encourage watching for this in the Play Along videos too!), how your shoulder guides the arm which in turn carries the fingers, and how **your ear leads the way**.

Let's get started...

Incorporating This Companion Into Your Practice Routine

To get the most out of this companion, approach it with a sense of curiosity and patience.

Treat each section as a building block in your tool kit development.

Start by incorporating the warm-ups into your daily routine—they're designed to reinforce foundational skills in a way that's both focused and fluid. **Then, on to the technique exercises and STRETCH ZONE**, you'll expand as you challenge yourself as you apply these skills in varied contexts.

The **repertoire application** section will show you how it all fits into real music—

Remember, there's no rush! Consistency over perfection is key.

And, if you stumble along the way, embrace it!

Sometimes the best insights come from those moments —because that's when you pause to discover what you are actually doing; you allow what you are focusing on to fall into place.



WARM UP PREPARATION

GENERAL TIPS FOR SUCCESS WITH THE WARM UPS & TECHNIQUE PLANS

GENERAL TIPS FOR SHIFTING, & WARM UPS

- Left arm should feel like it is **floating**; imagine a balloon under the L arm
- Feel **“air in the armpit”** (~Janos Starker)
- Always **release the thumb** before shifting
- **Sing/hear pitch** in inner ear before playing (ahead of movement, brain then sends hand to destination)
- Establish the target note first
- **Enjoy the journey...** focus on ease and fluidity
- Keep a playful, “out of the box” approach to troubleshooting tricky shifts. Approach target notes from **multiple alternative starting points** (from both below and above)

TIPS FOR THE TECHNIQUE EXERCISES

- **Economy of motion.** Regardless of whether the shift incorporates a bigger or smaller arc motion, aim to move with as little motion as needed for maximum efficiency
- Incorporate the **“inchworm”** motion (see Technique Section) for a more seamless motion in the left hand and arm
- **Rounded fingers**
- **Fingers move in a straight line above the same string**

- Always shift with the finger that’s about to play (just for these specific exercises centered on efficiency)
- The left thumb movement should be a continuation of the arm movement

TIPS FOR STRETCH ZONE A

- **Thumb should be placed firmly down over two strings** before shift
- Always aim for **thumb to go down at an octave to 3rd finger** on arrival note (regardless of finger arrival note is played with)

TIPS FOR STRETCH ZONE B

- **“Rainbow” shift** (involving an outward rotation of the wrist and forearm)
- **“Scoop” shift** (involving an inward rotation of the wrist and forearm)

COMMON SHIFTING PITFALLS

- Not releasing thumb just before the shift
- Not leading from the shoulder
- Not allowing slight turn of torso/head as you shift up and down the fingerboard



WARM-UP (5–15 minutes)

Time stamps are in the description area to allow you to go directly where you want.

A SINGLE CONTINUUM: GLIDING UP AND DOWN THE FINGERBOARD

Sitting tall with grounded feet and feeling the support of your chair beneath you, gently glide the left hand up and down the length of the fingerboard (right to the very end and back again). Focus should be on ease of movement.

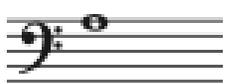
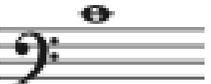
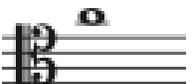
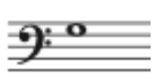
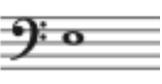
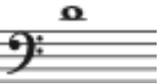
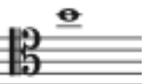
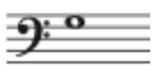
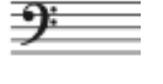
Try to **lead the movement from the shoulder** and note how the torso and head slightly turn to the right as your left hand moves higher up the fingerboard.

PLAYFUL APPROACHES TO THE ARRIVAL NOTE

When working on a shift, it can be extremely valuable to **start with the arrival note** --in other words, to “work backwards”...

1. First, establish the “arrival” (target) note ...play it with a **free, confident sound**.
2. Try playing the arrival note using **different fingers**. Note which fingers feel best, and which need a bit more work/adjustment to find balance.
3. Next, try approaching the arrival note from the **different departure notes** suggested below. Again experiment with using different fingerings for both the departure and arrival note. Feel free to choose different departure notes too!

Play the arrival and departure notes slurred in one bow to better focus on the smoothness of the shift

ARRIVAL NOTE		ARRIVAL NOTE		ARRIVAL NOTE	
					
DEPARTURE NOTE		DEPARTURE NOTE		DEPARTURE NOTE	
					
					

Don't forget to make a written note of your observations



TECHNIQUE EXERCISE

THE IMPORTANCE OF ECONOMY OF MOTION IN SHIFTING

The goal of this month's Technique exercise is to increase awareness of **Economy of Motion** in your shifting. While the movements we make playing cello generally incorporate a lot of arcs (notably the Rainbows and/or Scoops described in Stretch Zone B this month), it is also good to simplify things and **reduce excess** motion as much as possible, in order to **maximize efficiency**.

These introductory shifting exercises therefore focus on moving **as directly as possible from A to B**—in straight lines, always shifting with the arrival (or “new”) finger.

For further refinement, try integrating an **“inchworm” motion** when moving upward from a higher to lower finger, or downward from a lower to higher finger (see explanation of this motion below).

THE “INCHWORM” MOTION

Essentially, the “inchworm” motion is a **sequence of compression and expansion** in the hand and fingers.

The “inchworm” motion can be utilized when shifting:

- **upward from a higher finger to a lower finger**, or
- **downward from a lower to a higher finger**.

For an **upward inchworm shift**, the higher finger playing is pushed out of the way by the upcoming lower finger which then slides onward (and upward) to its destination. The inchworm motion is aided by first lifting any fingers between the higher and lower finger.

For a **downward inchworm shift**, the lower finger playing is pushed out of the way by the upcoming higher finger which then slides onward (and downward) to its destination. Again, the inchworm motion is aided by first lifting any fingers between the lower and higher finger.



GUIDELINES FOR ECONOMICAL SHIFTING: 1ST TO 4TH POSITIONS

- Rounded fingers
- Fingers move in a **straight line above the same string**
- Always **shift with the finger that's about to play** (for these exercises)
- The left thumb movement should be a continuation of the arm movement
- For further refinement, try integrating an "inchworm" motion when moving upward from a higher to lower finger, or downward from a lower to higher finger

All these exercises should be done very slowly and deliberately

PREPARATORY EXERCISE



II * = Possibility of Inchworm Shift

Optional challenge: Which of the shifts below can benefit from a subtle inchworm motion?

Starting on 1st finger



II

Starting on 2nd finger



II

Starting on 3rd finger



II

Starting on 4th finger



II

slurring two notes to a bow allows us to focus on the LH shift more easily without being concerned about a bow change



the
STRETCH ZONE
For Advanced and Curious Players

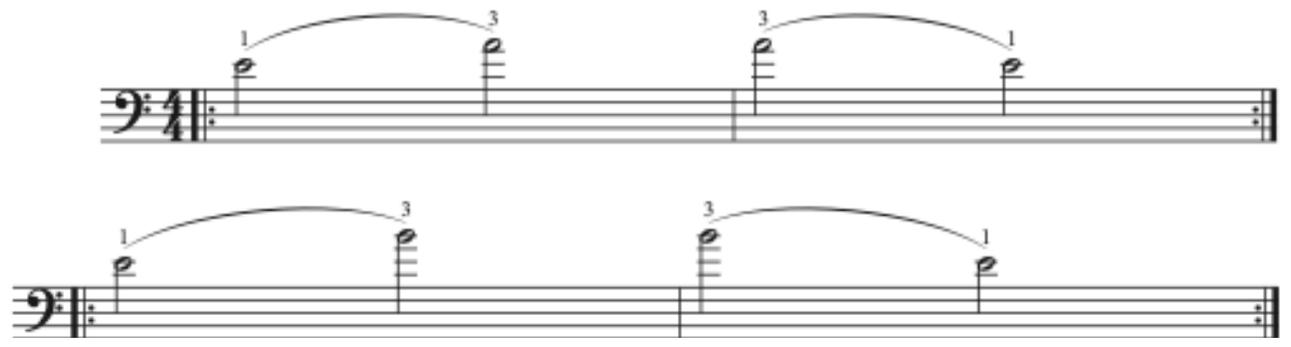
[STRETCH ZONE A DEMONSTRATION VIDEO]
Time stamps are in the description area to allow you to go directly where you want.

STRETCH ZONE A

Shifting from 4th to Thumb Position

Reminder...

- Shift with finger moving in a **straight line above the same string**
- Always **shift with the finger that's about to play**



Reminder...

- The left thumb should be a continuation of the arm movement
- Keep fingers hovering above the same string you are playing
- **NEW: Thumb should be placed firmly down over two strings before shift**



Reminder...

- Thumb/elbow lifts quite high and **goes down firmly on two strings before shift**
- Always **shift with the finger that's about to play** (for these exercises), moving with purpose
- **NEW: Always aim for thumb to go down at an octave to 3rd finger on arrival note** (regardless of finger arrival note is played with)



the
STRETCH ZONE
For Advanced and Curious Players

[STRETCH ZONE B DEMONSTRATION VIDEO]
Time stamps are in the description area to allow you to go directly where you want.

STRETCH ZONE B
Rainbows and Scoops

The exercises below are taken from Steve Doane’s handbook, “**Cello Ergonomics.**” In it, Doane explains the difference between:

- I) a “**rainbow**” shift (involving **an outward rotation** of the wrist and forearm), and
- II) a “**scoop**” (involving **an inward rotation** of the wrist and forearm).

These are both subtle motions and it is worth practising them very slowly and deliberately, carefully observing the rainbow or scoop motion, without exaggerating it.

RAINBOWS (OUTWARD ROTATION)

Musical notation for Rainbow exercises in bass clef, 4/4 time. The first line shows shifts from G2 to A2 (fingerings 1 2, 4), G2 to B2 (1 4, 4 1), and G2 to C3 (1 3, 3 1). The second line shows shifts from A2 to B2 (1 3, 3 1), B2 to C3 (1 4, 4 1), and then a sequence of eighth notes: G2, A2, B2, C3, B2, A2, G2, F2, E2, D2, C2.

Remember...

- **Lead the shifts from the shoulder** as you move higher up the fingerboard

SCOOPS (INWARD ROTATION)

Musical notation for Scoop exercises in treble clef. The first line shows shifts from G4 to A4 (fingerings 2 4, 1 2, 4 1, 2 3), G4 to B4 (1 2, 1 2), and G4 to C5 (1 2, 3). The second line shows a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4.



...CONNECTING TECHNIQUE TO REAL MUSIC...

OPENING MEASURES

The Swan

-Camille SAINT-SAËNS

On the following Links and pages, you will find two copies of the opening measures of Saint-Saëns' "The Swan" with my suggested bowings and fingerings. All shifts are marked in **red**.

On the first copy, you are invited to explore what **kind of shifting motion** may best fit each position change, taking into consideration the various motions we have explored (straight line/rainbow/scoop/possible use of inchworm motion).

On the second copy, you are invited to explore what **kind of musical shift** you would like to hear (less or more audible/possible change of fingerings or bowings/dynamic shaping).

Ultimately, we always want a shifting motion that best suits our musical intention.

[\[THE SWAN PLAY-A-LONG VIDEO\]](#)

Time stamps are in the description area to allow you to go directly where you want.

THE SWAN

~Camille Saint-Saëns

Saint-Saëns composed his beloved "Carnival of the Animals" in 1886, a collection of colourful musical depictions of an assortment of creatures. Fittingly, he chooses the soaring and plaintive cello to personify a Swan, using long, smooth lines with leaps that beckon expressive shifts. The graceful long-necked cello reveals its measured song over shimmering

arpeggiated 16ths in the piano, suggestive of rippling or sparkling water.

The expressive, legato nature of this celebrated piece creates a true playground of shifting possibilities for the performer. Shifting considerations include audibility of shift, dynamic shaping of heard shift, fingering, bowing, best motion (including arc/scoop/inchworm) for a specific musical shift etc...



REPertoire APPLICATION

The Swan

(Opening Measures 1 -9)

Saint-Saëns
(1835 - 1921)

Sh. = Shift (also marked in red)

Adagio.

Cello

Sh. Sh. Sh.

Sh. Sh. Sh.

Sh. Sh. Sh. Sh.

RECOMMENDED EXERCISE: WHAT TYPE OF SHIFTING MOTION IS BEST?

Take each shift in turn, and experiment to see what type of movement feels the most reliable and musical option for you. Is the movement...

- i) a **bigger or smaller** motion?
- ii) a more or less **direct/straight line** motion?
- iii) a **rainbow or scoop** motion?
- iv) incorporating an **inchworm** motion?



REPertoire APPLICATION

The Swan

(Opening Measures 1 -9)

Saint-Saëns
(1835 - 1921)

Sh. = Shift (also marked in red)

Adagio.

Cello

Sh. Sh. Sh.

Sh. Sh. Sh.

Sh. Sh. Sh. Sh.

RECOMMENDED EXERCISE: WHAT TYPE OF MUSICAL SHIFT WOULD YOU LIKE?

Take each shift in turn, and experiment to see what type of shift most appeals to you. You could consider:

- i) Shift **audibility** (more or less)
- ii) Possible **fingering/bowing changes** to support your musical shift choice
- iii) **Dynamic shaping**
- iv) Conscious coupling of **musical intention with the shift motion**



LISTENING & INSPIRATION

THE FOLLOWING RECORDINGS ARE SUGGESTED TO ENCOURAGE LISTENING SKILLS, AND TO DEEPEN MUSICALITY.

As you listen, pay attention to how shifting is used by each artist as a means of musical shaping and expression. Keep an eye out for any of the motions and artistic choices we have explored.

What do you notice, like or dislike about each of these recordings?

This kind of critical listening is a great exercise; feel free to explore other recordings too!

1

The Swan

Saint-Saëns (1835 - 1921)

Yo-Yo Ma and Kathryn Stott: [\[LINK\]](#)
(note how Ma uses extensions in combination with shifts)

Gautier Capuçon and Frankfurt Radio Symphony: [\[LINK\]](#)
(honey golden sound!)

Mischa Maisky and Verbier Festival Chamber Orchestra: [\[LINK\]](#)
(note careful bringing up of thumb before thumb position, faster, expressive vibrato)

WHAT DO YOU NOTICE ABOUT HOW THESE ARTISTS APPROACH SHIFTING?



"The best approach to shifting is a musical one, where you simply decide that there is no such thing as a shift."

~ Jeffrey Pulver (*The Strad*)

