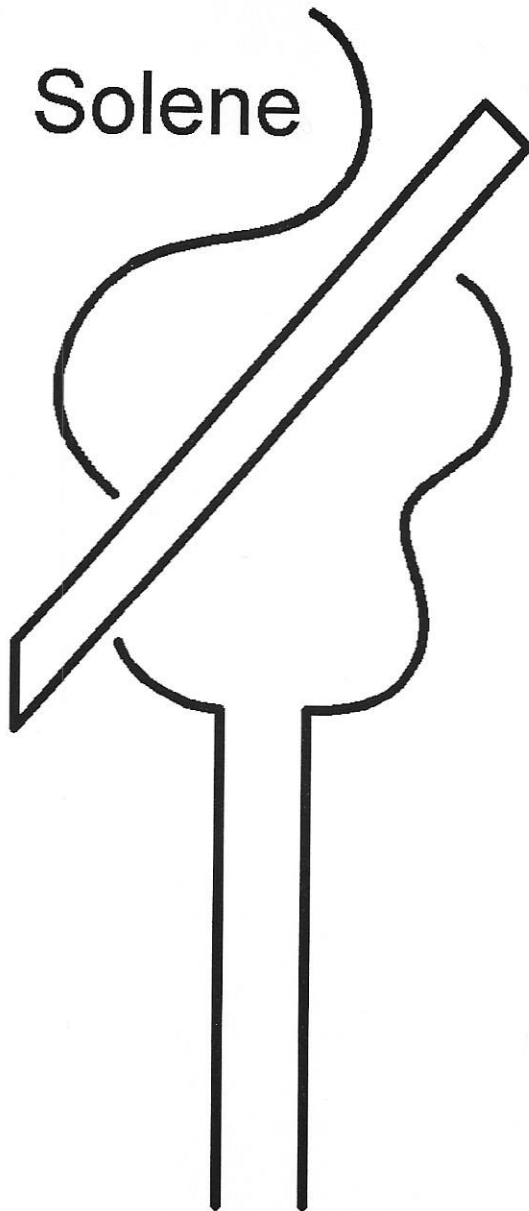


Exploring Two-Handed Tapping *with the*

Solene



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"It will be seen that, since the only motion necessary to produce a note is to press the wire against the fret, both hands may be used for this purpose, instead of, as in the ordinary guitar, using one hand to control the frets and the other to vibrate the strings, whereby the facility of operation is increased."

**George Breed
US Patent 435,679, September 1890**

"...There are improvements which an inventive player may have discovered for (his mouthpiece, for the arrangement of valves, for other) details in the construction of the material of the instrument, technical tricks, derived in the idle hour for the player's amusement. It may be more valuable for progress than any treatise which is primarily based on the achievements of the past.

Thus, the practical instrumentalist through his skill, stimulates the composer to new ideas. Great ideas, on the other hand, which at first does not seem feasible, gradually lifts the instrumentalist to their level. They have had the greatest influence on the progress in the construction of instruments, on improvements in their technique, and on the enrichment of their expressive possibilities."

**Richard Strauss (1864-1949)
(forward of "Treatise on Instrumentation" by Hector Berlioz)**

Exploring Two-Handed Tapping with the Solene

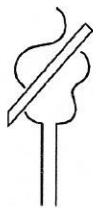
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Preface

The development of the Solene grew from trying to find a new playing surface to perform two-handed tapping. Since the natural contour of the fingers is curled, a conventional flat fingerboard can often make for an unwieldy playing surface for this technique. The idea incorporated into the design of the Solene is a semicircular fretboard to accommodate the natural contour of the fingers. An aluminum tube was chosen for its simple shape and structural strength. I named the instrument Solene. The name is derived from the pronunciation of the Greek word *sōlēn* meaning pipe.

Another feature built into the design of the Solene is slanted frets. If the frets were parallel to the strings the elbows would need to be extended outward in order for the hands to be positioned to finger notes. This would become tiresome over long periods of time. Positioning the frets at an angle with respect to the strings allows the elbows to come closer to the body, a more natural posture. The result is the wrists align with the forearms. This is important since muscle groups work more efficiently and with less tension when they are properly aligned. The slanted frets also make it easier to see the fretboard because the frets are in the performer's line of sight.

The ideas presented in this manual are intended to give a starting point to begin your own exploration of two-handed tapping and to discover musical possibilities not yet realized on the Solene. It is my hope the Solene will provide a new playing surface for expressing musical ideas on strings.



Introduction

This manual is for the guitarist who wants to explore two-handed tapping. It will introduce some fundamental ideas on chord and arpeggio construction and scale exercises spanning both hands. The focus is not on using the right hand for melody and left hand for accompaniment usually associated with two-handed tapping. Nor will it discuss Jazz improvisation or single string tapping. I believe the exercises and ideas presented in this manual will inspire you to begin your own exploration and experimentation.

It is assumed the reader understands elementary music theory and is knowledgeable about the layout of the guitar's fingerboard. The Solene has seven strings and is tuned liked a guitar with an added low B string, BEADGBE. Interval relationships are visualized in a similar way making it easier to think about chords and scales. To the guitarist, the Solene will be familiar terrain; only traveled differently.

Trying to play the Solene like a guitar does not lead one in the right direction. Ideas conceived on the guitar cannot always be played on the Solene and vice versa. I like to think of the Solene as an extension of the guitar. Therefore, realizing the uniqueness of the instrument will provide a new vehicle for musical ideas.

This manual does not include exercises for hammer-ons and pull-offs. Playing shapes with both hands will provide the basic skills of tapping. These skills will give the foundation to develop more advanced techniques.

The initial approach will be to combine groups of notes fingered with each hand. These groups of notes will be referred to as shapes. By organizing a few simple shapes a variety of arpeggios can be constructed. These arpeggios will be formed on adjacent and overlapping strings. This is a practical starting point since it will provide a useful tool for composition and understanding the two-handed approach. Before we start tapping let's discuss how to position the instrument.

The Basics

Positioning the Instrument

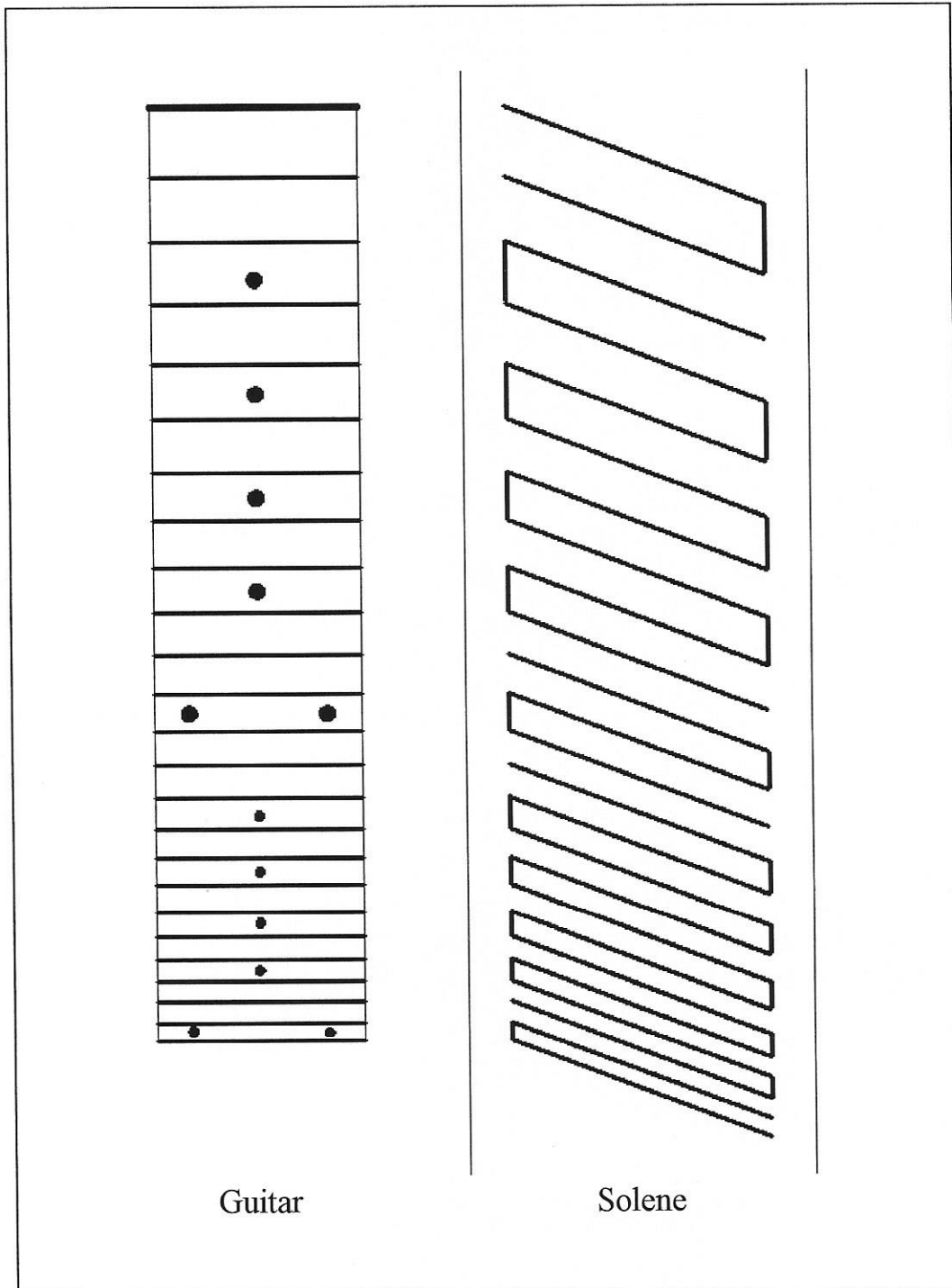
One of the most important physical aspects of playing the Solene is finding the correct position of the instrument across the performer's upper torso. A position should be found to optimize the mobility of both hands. The instrument needs to be held such that the first fret is level with the performer's chin. This is for proper alignment of the hands and wrists. If the instrument is too low, the wrists will be in an awkward position.

Finding the proper position for the Solene is accomplished by adjusting a guitar strap that supports the instrument. It is important the instrument feels balanced. Once the proper position has been found, check forearm and wrist alignment. The below picture demonstrates the proper playing position.



The Playing Surface

Notice how the position markers on the guitar's fretboard correspond to the U-shaped fret wire sections of the Solene's fretboard.



Technique

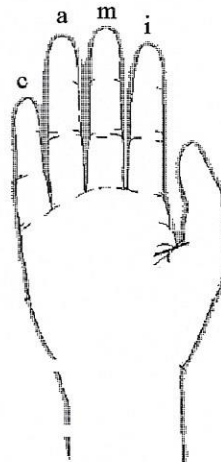
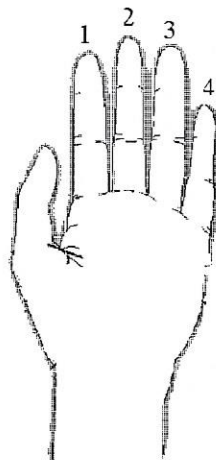
The key to developing good technique is to make a conscious effort to relax your hands, wrists and shoulders. If you feel any sign of tension try to identify its source. Once the cause of tension is isolated, stop and begin in a relaxed state.

Here are some basic things to keep in mind while practicing.

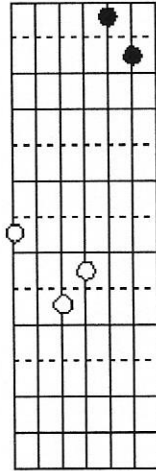
- When tapping, the majority of the finger movement should come from the knuckle not the wrist.
- In general, the left-hand thumb should be positioned away from the palm or in some cases opposite the index finger.
- Care should be taken in finding fingerings that keep the wrists aligned with the forearm as much as possible.
- Be aware of the wrists bending at extreme angles for extended periods of time.
- When possible, keep the elbows close to your body to minimize tension in the shoulders.

Notation

The notation used in this manual is similar to that used for the classical guitar. Below are the letters and numbers used to represent each finger.



In chord and partial fingerboard charts ● represents a left-hand finger and ○ represents a right-hand finger. Below is an example of a fingerboard chart used in this manual. Notice the first dashed line is the zeroth fret.

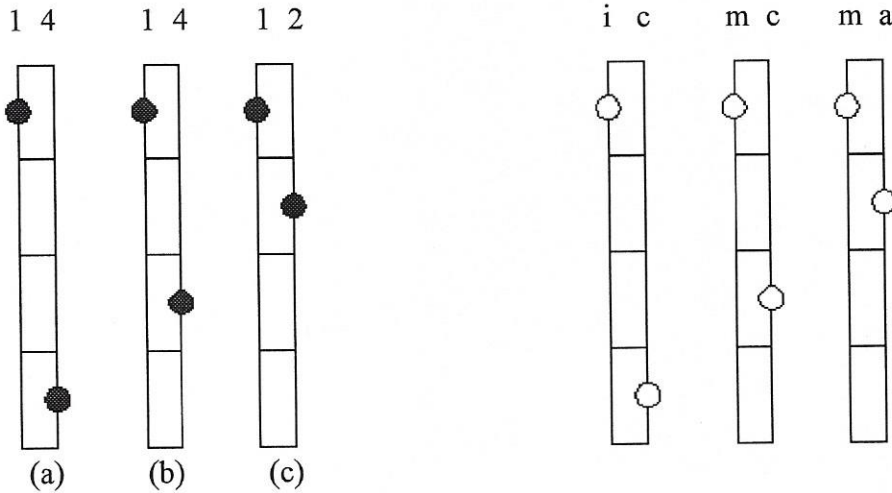


Guitar-like tablature is used as a short hand way to record tunes. Like guitar tablature the top line represents the highest string and the bottom line represents the lowest string. The numbers and letters below the bottom line distinguish what fingers are used to fret notes as shown in the following example.

Now we are ready to start playing some arpeggios.

Interval Shapes

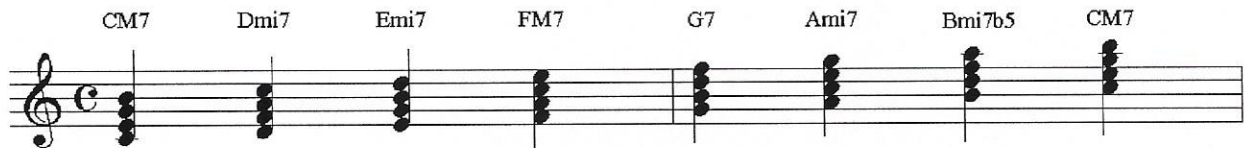
Let's begin our exploration by looking at a few interval shapes. An **interval shape** is the pattern *two notes* make on the fingerboard fingered with *one* hand. Try fingering the below interval shapes on any two adjacent strings. For the left hand try the second position and for the right hand the seventh. Finger each note separately, sustaining each one.



The following exercises show how combining the above interval shapes can form a variety of arpeggios. This will be demonstrated by considering the harmonized major scale. Harmonizing the major scale in different ways provides some useful material for composition and begins to show how to build chords and arpeggios. At first don't be concerned about playing these exercises at any tempo. They are intended for experimentation and to inspire additional exercises.

Note: Interval shapes (a), (b), and (c) form an interval of an augmented 5th, perfect 5th, and diminished 5th respectively except when played on the 3rd and 2nd strings where the intervals are a perfect 5th, diminished 5th and a 4th.

Below is the harmonized C major scale using closed voicing.



To finger each chord we split it into two interval shapes. Have the right hand finger the root and fifth, and the left hand the third and seventh of each chord. In this way each hand fingers an interval of a fifth.

The following two exercises scatter the interval shapes over a wide area. Tap and hold down each note of the chord until the entire chord is played. In this way each note will be sustained as long as possible.

Exercise 1

Musical notation for Exercise 1, showing a treble clef, a C-clef, and a sequence of notes on a staff. Below the staff are two systems of guitar fretboard diagrams with fingerings.

Fingerings: m c 1 4 | m c 1 4 | m c 1 4 | m c 1 4

Four guitar fretboard diagrams for Exercise 1, each showing a chord shape with four notes. The notes are represented by black dots (held notes) and white circles (tapped notes).

Musical notation for Exercise 2, showing a treble clef, a C-clef, and a sequence of notes on a staff. Below the staff are two systems of guitar fretboard diagrams with fingerings.

Fingerings: m c 1 4 | m c 1 4 | m a 1 4 | m c 1 4

Four guitar fretboard diagrams for Exercise 2, each showing a chord shape with four notes. The notes are represented by black dots (held notes) and white circles (tapped notes).

By dropping the root and fifth an octave of exercise 1 we get the next exercise.

Exercise 2

Musical notation for Exercise 2. The first staff is a treble clef with a treble clef, showing a sequence of notes: G4, A4, B4, C5, G4, A4, B4, C5, G4, A4, B4, C5. The second staff is a bass clef with a bass clef, showing a sequence of notes: G3, A3, B3, C4, G3, A3, B3, C4, G3, A3, B3, C4. The guitar fretboard diagram below shows fingerings: 1 3 7 9 3 5 8 10 | 0 2 5 7 1 3 7 9. Below the fretboard are the letters: 1 4 m c 1 4 m c | 1 4 m c 1 4 m c.

Four guitar fretboard diagrams showing the fingerings for the first four notes of Exercise 2. Each diagram shows a vertical grid of strings and frets. The first diagram shows the first note (G4) on the 3rd string, 1st fret. The second diagram shows the second note (A4) on the 4th string, 2nd fret. The third diagram shows the third note (B4) on the 5th string, 3rd fret. The fourth diagram shows the fourth note (C5) on the 6th string, 4th fret.

Musical notation for Exercise 2. The first staff is a treble clef with a treble clef, showing a sequence of notes: G4, A4, B4, C5, G4, A4, B4, C5, G4, A4, B4, C5. The second staff is a bass clef with a bass clef, showing a sequence of notes: G3, A3, B3, C4, G3, A3, B3, C4, G3, A3, B3, C4. The guitar fretboard diagram below shows fingerings: 3 5 9 10 0 2 5 8 | 2 3 7 10 3 5 9 12. Below the fretboard are the letters: 1 4 m a 1 4 i c | 1 2 i c 1 4 i c.

Four guitar fretboard diagrams showing the fingerings for the fifth through eighth notes of Exercise 2. Each diagram shows a vertical grid of strings and frets. The first diagram shows the fifth note (G4) on the 3rd string, 3rd fret. The second diagram shows the sixth note (A4) on the 4th string, 4th fret. The third diagram shows the seventh note (B4) on the 5th string, 5th fret. The fourth diagram shows the eighth note (C5) on the 6th string, 6th fret.

Next, let's consider the harmonized C major scale including the sixth. Once again both hands finger an interval of a fifth. Here the interval shapes are clustered together.

Exercise 3

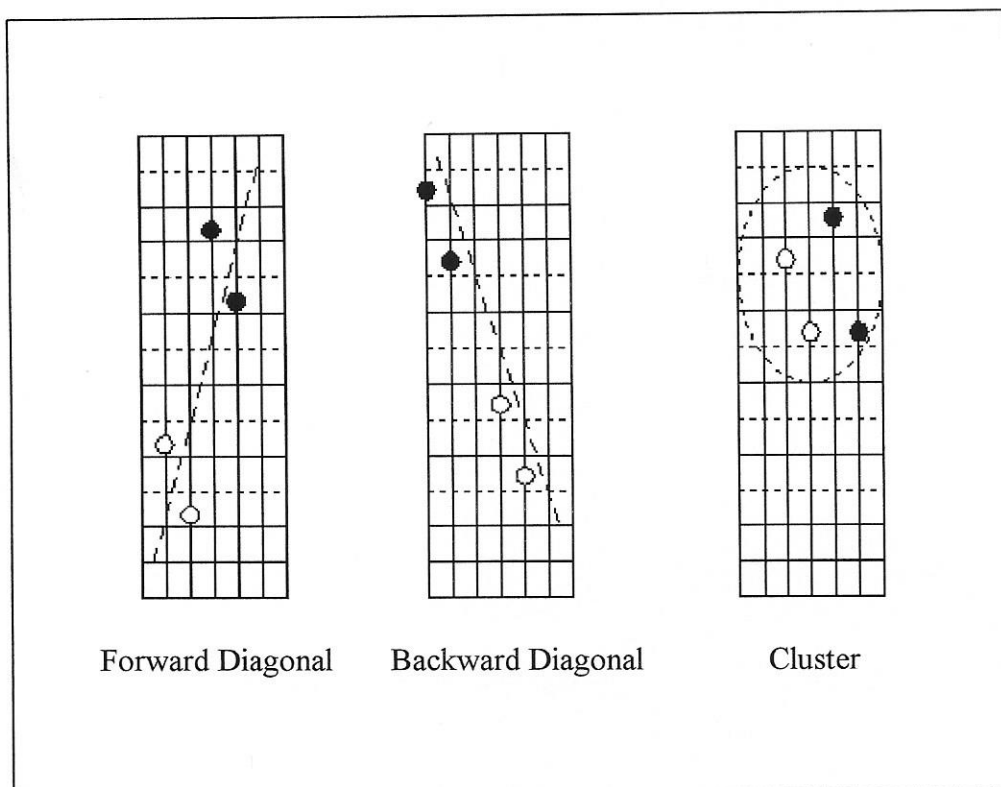
m c l 4 m c l 4 m c l 4 m c l 4

m c l 4 m c l 3 m a l 3 m c l 3

Chord Shapes

A **chord shape** is the *overall* pattern the notes make on the fingerboard fingered with *both* hands.

It is easier to organize and think about chord shapes by observing the pattern the left and right hand fingerings make on the fingerboard. The previous exercises demonstrate three types of chord shapes: a **forward diagonal**, **backward diagonal** and **cluster**. Exercise 1 is an example of a forward diagonal. It is a right hand shape covering a *lower* set of strings positioned below a left hand chord shape covering a *higher* set of strings. Exercise 2 is an example of a backward diagonal. It is a right hand shape covering a *higher* set of strings positioned above a left hand chord shape covering a *lower* set of strings. Exercise 3 is an example of a cluster. It is where both interval shapes share a position very close to one another. Below are examples of the three chord shapes.



Now let's try a tune using the interval shapes played in the previous exercises. The arpeggios form backward diagonals. Remember to sustain each note as long as possible.

Scattered Fifths

Legato

5 7 0 3 5 7 0 3 7 9 0 3 7 9 0 3 2 5 2 5 1 3 1 2
 m c l 4 m c l 4 m c l 4 m c l 4 m c l 2

7 9 0 3 7 9 0 3 8 10 8 10 2 5 2 5 10 12 4 7 11 12 4 5
 m c l 4 m c l 4 m a l 4 m c l 4 m a l 2

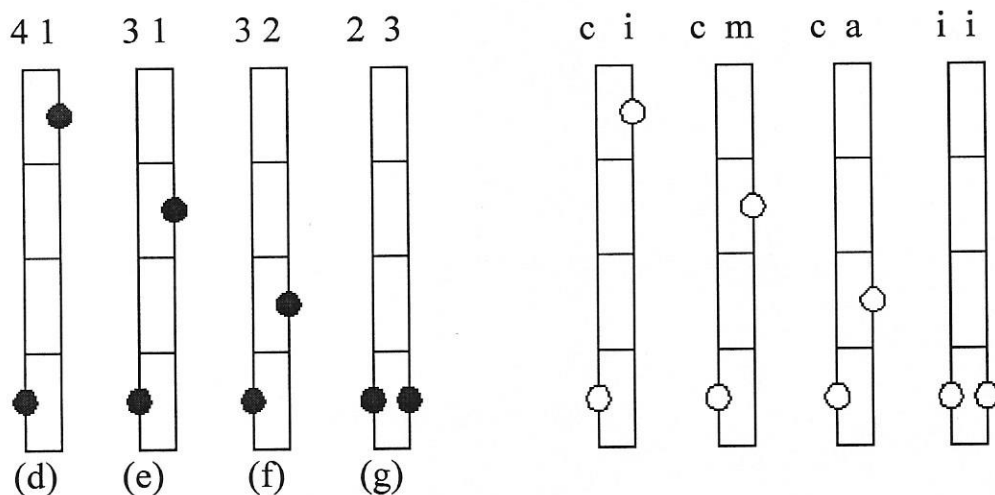
7 10 0 3 7 10 0 3 8 10 8 10 2 5 2 5 2 5 2 4 7 9 7 9
 m c l 4 m c l 4 m c l 4 m c l 4 m c l 3

7 9 0 3 7 9 0 3 1 3 1 3 1 3 1 3 4 5 4 5 5 7 0 3 5 7 0 3
 m c l 4 m c l 4 m c l 4 m a l 2 m c l 4

7 9 0 3 7 9 0 3 2 5 1 2 5 7 0 3 3
 m c l 4 m c l 4 m c l 2 m c l 4 i

More Interval Shapes

Let's look at some more interval shapes. Try the below shapes on any two adjacent strings. For the left hand try the second position and for the right hand the seventh. Finger each note separately, sustaining each one.



Like the previous exercises we will combine these interval shapes to form arpeggios for the chords of the harmonized C major scale.

Note: Interval shapes (d), (e), (f) and (g) form an interval of a major 2nd, minor 3rd, major 3rd, and a 4th respectively except when played on the 3rd and 2nd strings where the intervals are a minor 2nd, Major 2nd, minor 3rd and a major 3rd.

Warm-up Exercises

Before moving on, it probably has become apparent from playing the previous material that the weakest fingers are a and c. The following two exercises are designed to help strengthen these two right hand fingers. Both exercises should become part of your daily warm-up ritual. Make sure each note receives equal volume. Accurate placement of the fingers is more important than speed.

Right Hand Pinky Exercise #1

a c m c i c * Same fingering throughout

Right Hand Pinky Exercise #2

c a c m c i * Same fingering throughout

On the guitar, each chord of the scale would typically be fingered in one position. Using this approach have the right hand finger the root and third, and the left hand the fifth and seventh. In this way each hand fingers an interval of a third. Try the following exercise.

Exercise 4

8 7 5 4 10 8 7 5 | 7 5 4 3 8 7 5 5

c a 2 1 c m 4 2 | c m 2 1 c a 3 4

5 4 3 0 7 5 5 3 | 9 7 6 5 10 9 6 7

c a 3 1 c a 3 1 | c a 3 2 c a 3 2

The next exercise fingers a harmonized C major scale including the second. The right hand fingers an interval of a second and the left an interval of a third.

Exercise 5

8 5 2 0 10 7 3 2 | 7 3 0 0 8 5 2 1

c m 3 1 c m 4 3 c m 1 2 c m 3 2

10 7 4 3 7 4 1 0 | 9 5 3 1 10 7 5 3

c m 3 2 c m 2 1 c m 3 1 c m 3 1

The following tune combines intervals of seconds and thirds to form major and minor pentatonic scales.

2nd and 3rds #1

D mi

c m 4 l c i 4 l l 4 i c i 4 l c m 4 l c m 4 l l 4 i c l 4 m

C

l 4 m c l 3 i c c i 3 l c m 4 l 4 m c l 3 i c c i 3 l

E_b

c i 3 l c m 4 l l 4 i m i 4 l c i 3 l c m 4 l l 4 m c l 3 i

C mi

l 4 i c l 4 m c c m 4 l c i 4 l 4 i c l 4 m c c m 4 l

2nd and 3rds #2

Legato

c i 4 3 c i 2 1 c i 3 1 c i 2 1 c m 2 1 c a 4 3 c i 3 1 1

c a 2 1 c a 3 1 c m 3 2 c a 2 1 c m 4 2 c m 2 1 c a 4 1 1

c i 2 1 c a 4 1 c a 4 1 c a 4 1

c a 3 1 c a 3 2 c a 3 1 c a 3 1 c a 3 1

c a 3 1 c a 3 1 c a 3 1 c a 3 1 1 c i 4 3 c i 2 1

c i 3 1 c i 2 1 c m 2 1 c a 4 3 c i 3 1 1

The following exercise is designed to strengthen the c finger.

Etude in A

Rich Eberlen

9 10 9 10 9 10 9 10 9 10 8 10 9 10 8 10 9 10 8 10 9 10

a c a c a c a c m c a c m c a c

7 10 9 10 7 10 9 10 7 10 9 10 6 10 9 10 7 10 9 10 6

i c a c i c a c i c a c i c a c i c a c i

10 13 12 13 10 13 12 13 10 13 12 13 11 13 12 13 10 13 12 13 11

i c a c i c a c i c a c m c a c i c a c m

8 11 10 11 8 11 10 11 9 11 10 11 9 11 10 11 9 11 10 11 9

i c a c i c a c m c a c m c a c m c a c m

5 8 7 8 6 8 7 8 5 8 7 8 6 8 7 8 7 10 9 10 7 10 9 10 7 10 9 10

i c a c m c a c i c a c i c a c

7 10 9 10 8 10 9 10 7 10 9 10 8 10 9 10 9 12 11 12 9 12 11 12 9 12 11 12 10

i c a c m c a c i c a c i c a c i c a c m

9 10 9 10 9 10 9 10 9 10 9 10 9 10 8 10 9 10 8 10 9 10 8 10 9 10 8 10 9 10

a c a c a c a c m c a c m c a c

7 10 9 10 7 10 9 10 7 10 9 10 7 10 9 10 6 10 9 10 7 10 9 10 7

i c a c i c a c i c a c i c a c i c a c i

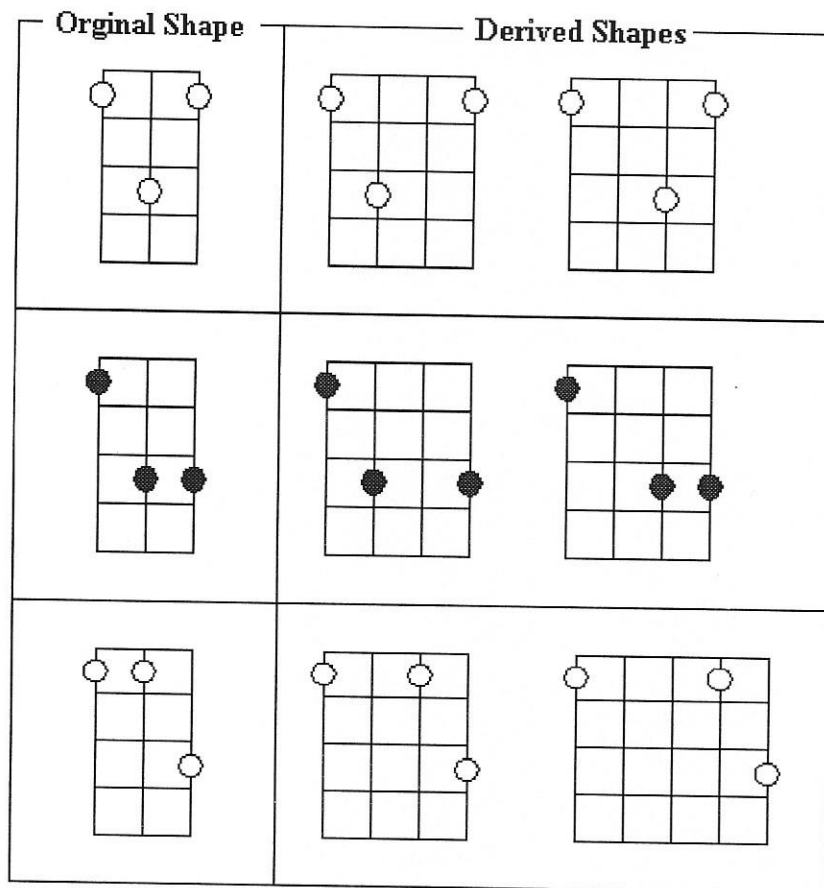
Left-Hand and Right-Hand Shapes

If there are more than two notes fingered by one hand then it will be referred to as a **right-hand shape** or **left-hand shape**. There are 37 unique shapes in the area spanning 3 strings and 4 frets as shown in the figure below. You will find that some of the shapes fall naturally under the fingers while others take some work to finger. Experiment fingering all the below shapes

Group 1				Group 2			
<p>3 2 1 c a m</p>	<p>4 1 2 c i m</p>	<p>2 3 1 i a m</p>	<p>2 1 3 i m a</p>	<p>1 4 2 i c m</p>	<p>1 3 2 i c a</p>	<p>1 4 2 i c m</p>	<p>1 2 3 i m a</p>
<p>4 3 1 c a i</p>	<p>3 1 2 c i m</p>	<p>1 2 3 i m a</p>	<p>4 2 1 c m i</p>	<p>1 4 2 i c m</p>	<p>1 2 3 m a c</p>	<p>1 2 4 i m c</p>	<p>4 1 1 c i i</p>
<p>3 4 1 a a i</p>	<p>3 1 2 i m a</p>	<p>1 3 2 i a m</p>	<p>2 4 1 i c m</p>	<p>1 4 3 i c a</p>	<p>1 2 4 i m a</p>	<p>1 2 3 i m a</p>	<p>1 1 4 i m c</p>
Group 3							
<p>1 3 4 i a a</p>	<p>1 3 4 i c c</p>	<p>3 4 1 c c i</p>					
<p>3 1 4 i c c</p>	<p>3 1 4 i c c</p>	<p>3 1 4 i c c</p>	<p>3 4 1 c c i</p>	<p>4 1 2 c i m</p>	<p>1 3 4 i a c</p>	<p>2 1 4 i m a</p>	<p>4 1 3 c i a</p>
<p>3 1 4 i c c</p>	<p>3 1 4 i c c</p>	<p>3 1 4 i c c</p>	<p>3 4 1 c c i</p>	<p>2 4 1 i c m</p>	<p>2 1 4 i m c</p>		

Like the guitar, a shape fingered on the Solene can function differently depending on what group of strings it is played on. For example, the first shape in group 1 when played on the strings 1-3 forms a minor triad. If it is played on strings 2-4 it becomes a major triad. Group 1 is a collection of shapes used to form major and minor triads. Group 2 is a collection of miscellaneous shapes and Group 3 is shapes readily fingered by the left hand, but not by the right hand.

More shapes can be derived from these 37 basic shapes by moving one or two notes to another string or set of strings while keeping the same fret number. The below figures give an example of this.



Try experimenting with all the shapes in this way. What follows are exercises that use some of these shapes. Once again we will use the harmonized major scale. Remember, don't be concerned about playing these exercises at any tempo.

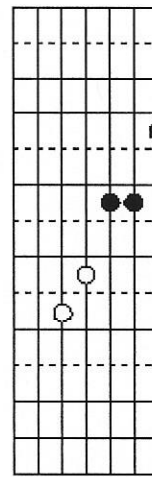
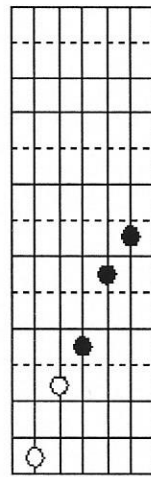
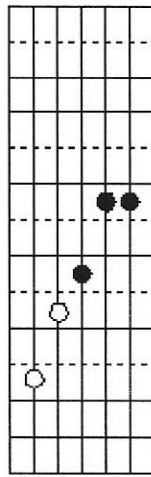
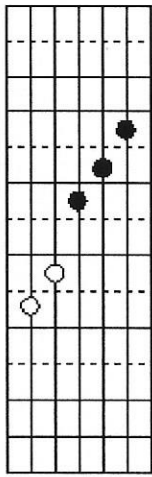
Left-Hand Shapes

Next we will look at how left-hand shapes combined with the right-hand interval shapes of previous exercises are used to form arpeggios. The next exercise is an extension of exercise 4. This exercise uses the shapes from the group 1.

Exercise 6

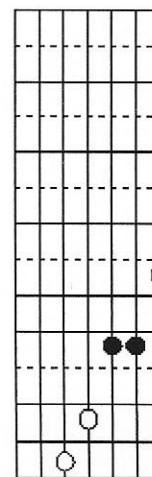
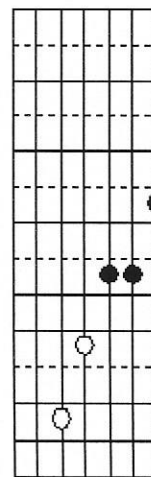
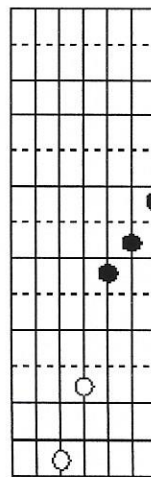
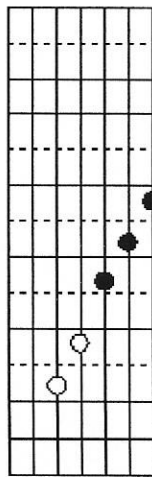
8 7 5 4 3 10 8 7 5 5 | 12 10 9 7 6 8 7 5 5 3

c a 3 2 1 c m 4 1 2 c m 4 2 1 c a 3 4 1



10 9 7 6 5 12 10 9 8 7 | 14 12 10 10 8 15 14 12 12 10

c a 3 2 1 c m 3 2 1 c m 3 4 1 c a 3 4 1



This next exercise is an extension of exercise 5.

Exercise 7

8 5 2 0 0 10 7 3 2 1 | 12 8 5 4 3 8 5 2 1 0

c i 4 1 2 c i 3 2 1 | c i 3 2 1 c i 3 2 1

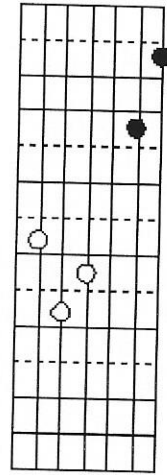
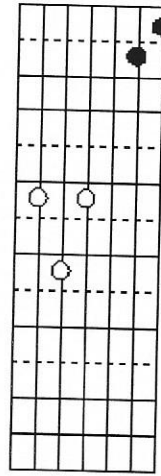
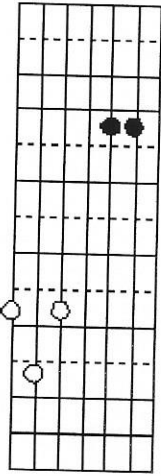
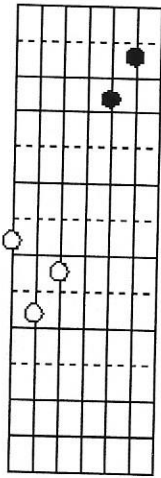
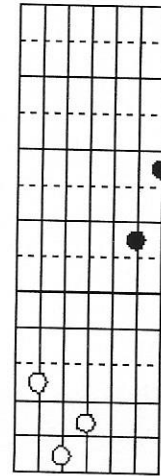
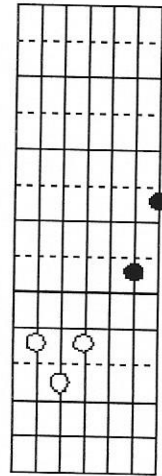
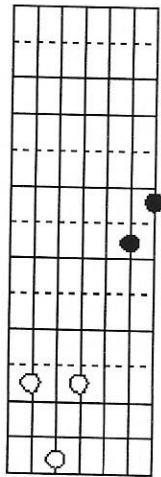
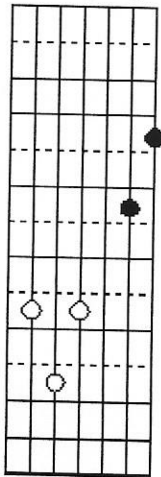
10 7 4 3 1 | 12 9 5 5 3 | 14 10 7 6 5 | 15 12 9 8 7

c i 4 3 1 c i 3 4 1 | c i 3 2 1 c i 3 2 1

Right-Hand Shapes

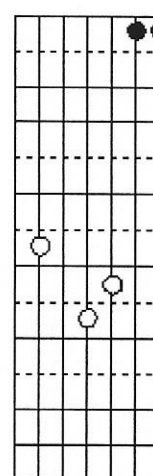
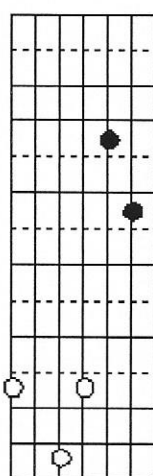
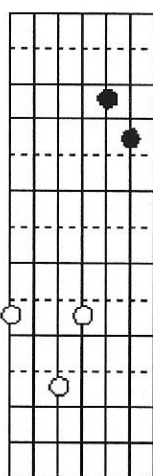
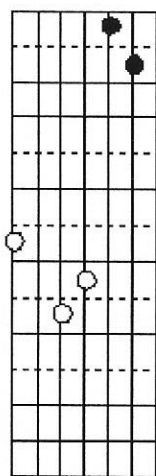
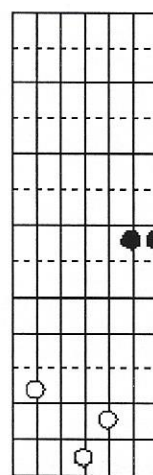
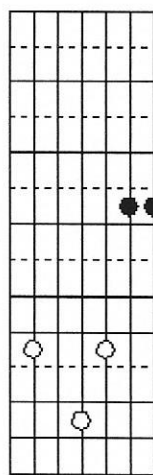
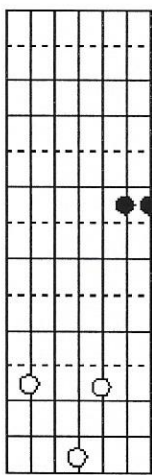
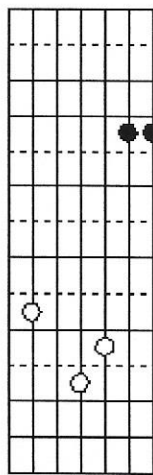
The following exercises show how right hand shapes can be combined with left-hand interval shapes. The follow exercise is the harmonized F major scale. The right hand fingers the root, fifth and seventh. The left hand fingers the third and fifth. Together they form a forward diagonal. This exercise uses shapes from the group 2.

Exercise 8

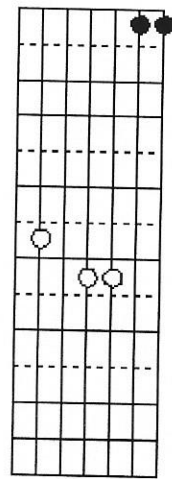
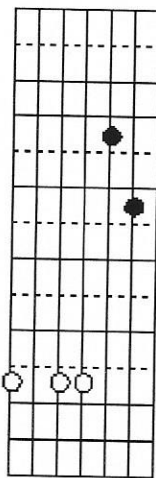
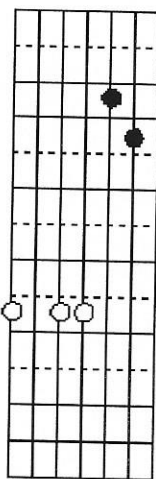
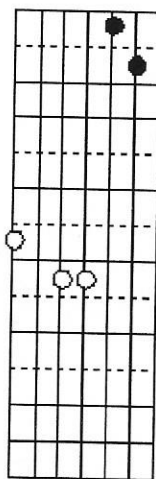
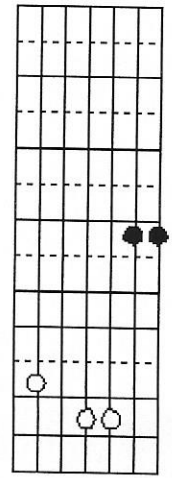
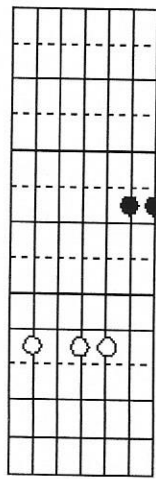
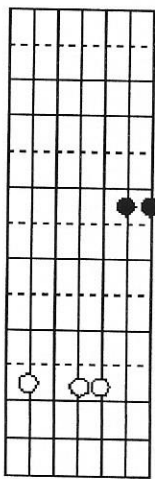
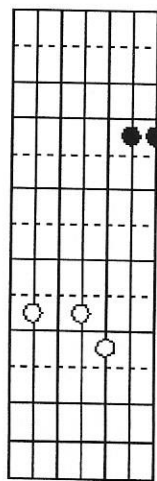
In the next exercise the right-hand fingers the root and third of each chord. The left-hand fingers the ninth and fifth.

Exercise 10

The next exercise is a variation of the previous exercise. Notice it uses the same left-hand shapes. The right-hand fingers the root, seventh and third of each chord.

Exercise 11

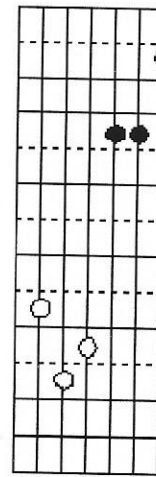
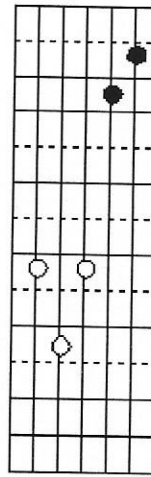
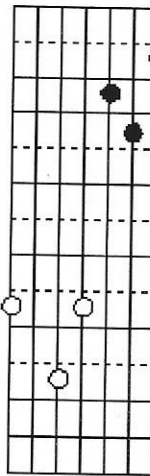
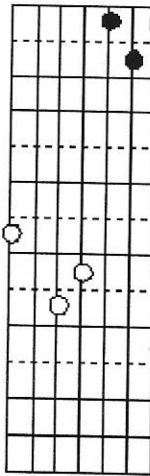



Six Note Arpeggios

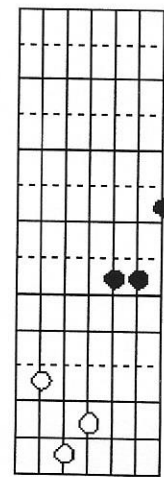
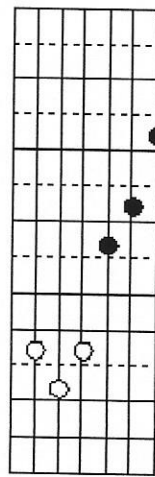
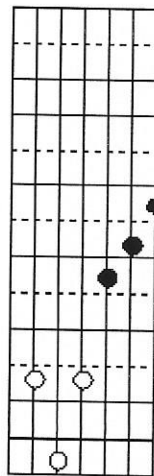
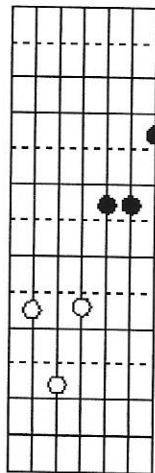
So far we have been constructing five note arpeggios with the right-hand and left-hand shapes. Now let's play some six note arpeggios by using triads fingered with the left hand. The following exercise is an extension of exercise 10.

Exercise 12

i c a 1 3 2 i c m 2 4 1 i c m 3 2 1 i c a 3 4 1



i c m 3 4 1 i c m 3 2 1 i a i 3 2 1 i c a 3 4 1



Exercise 13

i c a 3 4 1 i c m 3 2 1 i c m 3 1 2 i c a 1 3 2

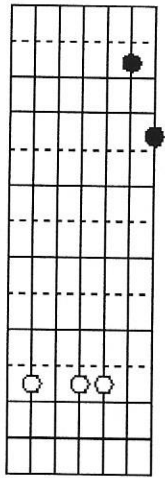
i c a 3 2 1 a c m 2 4 1 i c m 1 3 2 i c a 1 3 2

Building Chords

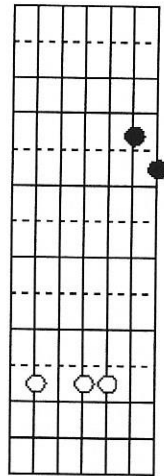
Rather than presenting a comprehensive list of chords, an experimental approach for building them will be given. A variety of chords can be built by keeping the shape of one hand fixed and altering the shape of the other hand. For example, forward diagonal chords can be found by keeping a right-hand shape fixed and changing the left-hand shape. The second row of chords found on the next page demonstrates this idea. Notice how the root, seventh and third of the G7 chord remains fixed. The quality of the chord changes by altering the left-hand shape.

On the following page there are chord charts showing 4 variations of the D minor, G7 and C major chord. By choosing a chord from each row a variety of II-V7-I progressions can be formed.

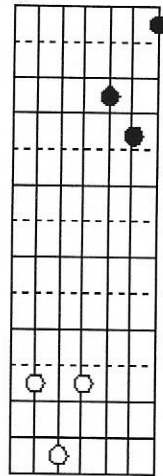
D mi11



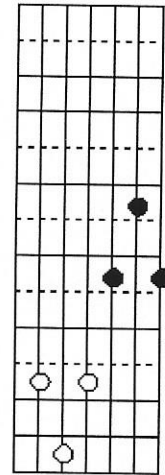
D mi7 b5



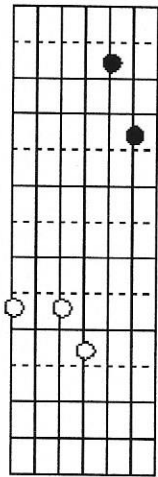
D mi9



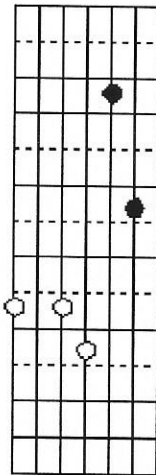
D mi7



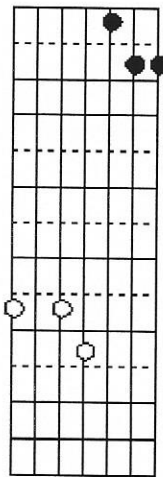
G7 b9



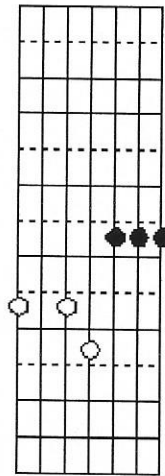
G13



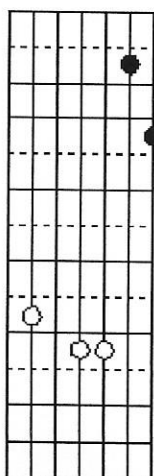
G11



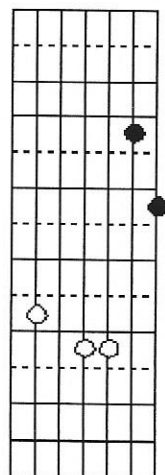
G 7 b5 #9



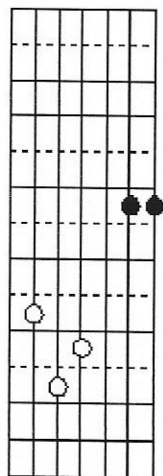
C ma7



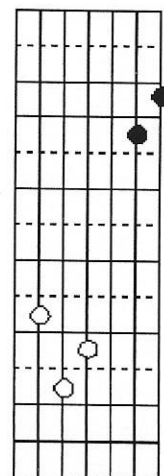
C ma13



C ma13



C ma7 #11



1625

p. *p.* *p.* *p.*
 i c a 1 4 i m a 1 4 i m a 1 4 i m a 2 4

p. *p.* *p.* *p.*
 i c m 1 4 i c m 1 4 i m a 4 1 i c m 2 3

p. *p.*
 1 3 4 i c a 2 3 4 i c a 2 3 4 i c a 2 3 4 c i m

pp
 1 3 4 i m a 1 3 4 c i m 1 3 4 i c m a

1 2 3 i c m 4 1 3 4 i c m a

2 3 4 i c a 4 c 4 i c 4 i c a l 4 i m a l 4

i m a l 4 i m a 2 4 i c a l 3 i c m l 3

i m a l 3 i c m l 4 i c a l 3 i c m l 3

i m a l 4 i m a l 4 i c m l 4 i m a 2 3

i m a l 4 i c m l 4 l 3 c i m

Etude in F

Rich Eberlen

i 1 3 4 i m 3 4 i 1 3 4 i m 3 4 i 1 2 3 i m 2 3 i

1 2 3 i m 2 3 i 1 3 4 i a 3 4 i 1 3 4 i m 3 4 i 1 3 2 i m 3 2 i

m 3 4 i m 1 3 2 i m 3 2 i m 3 2 i m 3 2 1 2 3 i m 2 3 i

m 2 3 i m 2 3 i 1 3 4 i m 3 4 i 1 3 4 i m 3 4 i 1 3 2 i m 3 2 m

17

0 3 2 7 6 | 4 6 13 6 11 | 5 11 5 9 | 3 4 9 3 4 0

i 3 2 i m | 1 3 4 i m 3 4 m | 1 3 4 i m 3 4 m | 2 3 4 i m 3 4 m

21

3 2 0 0 | 5 10 5 | 5 10 5 | 3 10 3

7 | 3 5 10 5 7 | 3 5 10 5 10 | 2 3 10 3 | 10 10

2 3 1 m a | i | 1 3 4 i m 3 4 i | 1 3 4 i m 3 4 i | 1 2 3 i m 2 3 i

25

3 10 3 | 3 9 3 | 5 10 5 | 2 10 0

2 3 10 3 | 0 1 3 0 3 10 | 3 5 10 5 5 | 1 3 0 3 5

1 2 3 i m 2 | i | 1 3 4 i a 3 4 i | 1 3 4 i m 3 4 i | 1 3 2 i c a l 3

29

5 11 12 13 | 10 0 6 4 1

4 i a c | c i 4 1

The C Major Scale

Now let's try playing scales with the two-handed tapping technique. Each note of the scale is played by tapping and holding the note until the next note needs to be fingered. In the following exercise, each hand fingers an identical major scale pattern then alternates playing each scale pitch. In this way the scale is played in unison.

Exercise 14

3 5 2 3 5 2 4 5 | 4 2 5 3 2 5 3
 2 4 1 2 4 1 3 4 | 3 1 4 2 1 4 2

8 10 7 8 10 7 9 10 | 9 7 10 8 7 10 8
 m c i m c i a c a i c m i c m

8 3 10 5 7 2 8 3 | 10 5 7 2 9 4 10 5
 m 2 c 4 i 1 m 2 c 4 i 1 a 3 c 4

9 4 7 2 | 10 5 8 3 | 7 2 | 10 5 8 3
 a 3 i 1 c 4 m 2 | i 1 c 4 m 2

Now try playing the scale in thirds. First the right hand fingers the major scale starting on the first degree. Second, the left hand fingers the scale starting on the third degree. Then each hand alternates playing each note of the scale.

Exercise 15

8 10 7 8 10 7 9 10 | 9 7 10 8 7 10 8
 m c i m c i a c a i c m i c m

2 3 5 2 4 5 3 5 | 3 5 4 2 5 3 2
 1 2 4 1 3 4 2 4 2 4 3 1 4 2 1

2 3 7 5 8 2 | 4 7 5 9 10 5
 8 10 7 8 10 4 7 5 9 10 5
 m 1 c 2 i 4 m 1 c 3 i 4 a 2 c 4

3 7 5 4 2 | 7 5 3 2
 9 7 10 8 7 5 10 8
 a 2 i 4 c 3 m 1 i 4 c 2 m 1

2 3 5 2 4 5 3 5 | 3 5 4 2 5 3 2
 8 10 7 8 10 9 10 9 5 10 8 5 10 8
 m 2 4 1 3 4 2 4 2 4 3 1 4 2 1
 m c i m c i a c a i c m i c m

This next piece is an exercise in alternating left and right hand fingering.

Alternating

The exercise consists of six systems of music, each with a treble clef and common time signature. The notes are quarter notes, and the fingering is indicated by numbers 1-5 below the notes. The systems are as follows:

- System 1:** Notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Fingering: 8, 2, 7, 3, 10, 2, 7, 5, 8, 2, 7, 3, 10, 2, 7, 5, 8, 2, 5, 10, 8, 2, 5, 10.
- System 2:** Notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Fingering: 8, 2, 5, 8, 2, 5, 10, 8, 2, 7, 3, 10, 2, 7, 5, 8, 2, 7, 3, 10, 2, 7, 5.
- System 3:** Notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Fingering: 8, 3, 9, 4, 10, 5, 11, 6, 7, 2, 8, 3, 9, 4, 10, 5, 8, 2, 7, 3, 10, 2, 7, 5.
- System 4:** Notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Fingering: 8, 2, 7, 3, 10, 2, 7, 5, 8, 2, 5, 8, 2, 5, 10, 8, 2, 5, 10, 8, 2, 5, 10.
- System 5:** Notes: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Fingering: 10, 2, 10, 2, 10, 2, 8, 0, 3, 0, 3, 0, 1, m.

Now let's play the scale in tenths. First the left hand fingers the major scale starting on the first degree. Second, the right hand fingers the scale starting on the third degree.

Exercise 16

The musical score for Exercise 16 consists of four systems, each with a treble clef and a common time signature. The first system shows a scale starting on the first degree with fingerings: 1 3 0 1 3 0 2 3 | 2 0 3 1 0 3 1. The second system shows a scale starting on the third degree with fingerings: 7 8 10 7 9 10 7 9 | 7 10 9 7 10 8 7. The third system includes lyrics: i m c i a c i a i c a i c m i. The fourth system includes lyrics: i m l c 4 a 2 i 1 c 4 m 2 i. The score includes various fingerings and articulation marks.

Catch Me If You Can

Robert Schumann

10 12 9 5 7 4 4 5 7 12 11 9 7 6 4 11 9 12

m c i 2 4 1 i m c 1 2 4 c a i 4 3 1 a i c 3 1

7 10 12 9 5 7 4 4 5 7 12 11 9 7 6 4 11 9 12

4 m c i 2 4 1 i m c 1 2 4 c a i 4 3 1 a i c 3 1

7 7 9 6 3 5 2 6 7 9 2 3 5 9 6 7 5 2 3 8 9 6 3 5

4 m c i 2 4 1 i m c 1 2 4 c i m 4 1 2 a c i 2 4

2 3 5 2 2 3 1 2 4 5 6 7 9 5 7 4 4 5

1 2 4 1 3 1 2 1 2 4 4 4 m c i 2 4 1 i m c 1 2
c i m i m c m c i m m

7 12 11 9 7 6 4 6 4 7 5 7 4 10 12
 4 c a i 4 3 1 a i c 3 1 4 2 4 1 m c
 i a

9 4 5 7 9 10 12 5 4 2 10 9 7 4 2 5 9 7 10 3 5 2 3 4
 i 1 2 4 i m c 4 3 1 c a i 3 1 4 a i c 2 4 1 1 3
 2

5 4 6 7 5 7 8 7 9 10 7 9 10 2 3
 7 9 10 10 12 9 9 11 12
 4 i a c 1 3 4 m c i 1 3 4 i a c 1 3 4 1 3 4 1 2
 2 1 2 4

10 3 5 7 4 6 10 7 10 10 11 12
 7 4 7 5 6 9 7 10 12
 c 1 3 m 1 3 c 3 3 3
 i 2 i 2 i i m a
 a

i c i m c i m 3 4 i c m i 3 4
 1 3 4 1 3 4 1 3 4 1 3 4

i c m c 1 3 4 i c m c 1 3 4
 1 3 4 1 3 4 1 3 4 1 3 4

1 c i m 1 3 4 m i c m i 3 4
 1 3 4 1 3 4 1 3 4 1 3 4

m i c m c i c i m i
 1 3 4 1 3 4 1 3 4 1 3 4

12 10 9 10 12 9 | 10 | | |

1 3 4 1 3 4 | 1 3 4 | 1 3 3 | 1 3 4

c m i m c i m | | |

1 3 4 1 3 4 | 1 3 4 | 1 3 3 | 1 3 4

8 5 5 | 7 3 3 | 5 5 7 8 5 | 7 8 7 5 8

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

c i m c | | |

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

c i a m i a c a i c

7 5 7 8 5 7 | 8 3 3 | 7 5 3 | 7 3 3

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

a i a c i a c | | |

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

7 5 3 | 5 3 3 | 7 5 3 | 5 8 7 5 8

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

c m i | | |

1 3 4 | 1 3 4 | 1 3 4 | 1 3 4

c m i c a i c

7 5 7 8 5 7 | 8 3 3 | 10 9 12 10 | 9

a i a c i a c | m i c m i

1 3 4 1 3 4 | 1 3 4 1 3 4

1 3 3 | 1 3 3 | 10 9 12 9 10 12 | 9 10 12 9 10 12

m i c m c | c i m c i m c i m c

1 3 4 1 3 4 | 1 3 4 1 3 4

10 9 12 10 12 9 | 10 3 3 | 3 5 5 | 5

m i c m c i m | 3 4 1 3 4 | 4

1 3 4 1 3 4 | 1 3 4 1

5 3 3 | 3 3 3

4 3 1 | 4 3 1

Summary

In order for the Solene to be played to its fullest potential it is important to correctly position the instrument to maximize the mobility of the hands. It is equally important to identify any source of tension and to correct it as soon as possible. This will lead to more productive practice sessions and to the development of good technique.

By harmonizing the major scale we have gained an understanding of how various shapes can be combined to form arpeggios. The chord exercises in this manual are intended to inspire additional exercises.

I hope the ideas and exercises presented in this manual have been useful in learning how to play the instrument I have named the Solene. I also hope it has provided an understanding of the two-handed tapping technique.

