Comments on Ted’s “Modulation” page

From Paul Vachon:
This page comes from Ted’s Private Music Studies papers, and was written only for him; it was not intended as a student hand-out, so it needs some explanation. On this page Ted was exploring various ways to modulate using a minor 6, augmented, dominant 7, and dominant 7b9 chords on different degrees of the new key – the “target” key.

It was difficult to try to determine an “order” for which the comments and lists should be laid out. Some of the comments may seem disjointed. We decided to put the listing of minor 6th chord modulators first, then add some of Ted’s comments about options after that, and lump all the rest at the end.

As mentioned in my “Editor’s note,” Ted used the minor 6 chords for the “pivot” chord or modulator, and placed it on various degrees of the new “target” key. These experiments allow one to hear how well the m6 chord can transition into the new key.

For the first list, Ted uses the bviim6. Remembering that the minor 6 is closely related to a dominant 9 built up a 4th, Ted has listed this option in parentheses. In #1, the pivot chord of bviim6 (bIII7) is Am6 (or D9) – or you could also think of it as an F#m7b5. Listen to that sound of starting in the key of C, then moving to the key of B using its bviim6. That is what he’s defining in #1.

In the #2 thru #10 the same pivot chord is used to get to the target key, but the relationship of the starting key and the pivot chord changes. I think a lot of these examples are for ear-training purposes: “How does this sound?”

In the next list he does a similar experiment but using a vim6 (II7) as the pivot chord. How does that sound? It might be wise to do these all with good voice-leading to really hear the voices move most effectively, logically, and musically.

In the listing of augmented chord Ted is confining his experiments to the use of augmented chords built on the I, V, IV, and II of the starting key. So, from a start in C, he’s using C+, G+, F+ and D+ to modulate to a variety of new keys. How does that sound? Work up some nice voice-leading on these.

Next, he tries using bIII²7 or bIII7 to all major keys and all minor keys.

This could be interpreted as using the bIII of the starting key, or the target key.

Starting key: C → Eb²7 → F (new major key) or to Fm (new minor key).
Starting key: C → Eb7 → F (new major key) or to Fm (new minor key).
Target key: C → Ab²7 → F (new major key) or to Fm (new minor key).
Target key: C → Ab7 → F (new major key) or to Fm (new minor key).

And of course, when you arrive in the new key, you don’t necessarily have to go directly to the I chord. You may instead play a progression in that key: C → Ab²7 → Gm7 → C7 → Fmaj7.

The section on dominant 7 pivot chords deals with just the III7 and the VII7 degrees of the target key.

For the section on progression using 7b9 chords, Ted wrote, “in C” but it seems that the examples are in more than just the key of C.

At the end of the transcribed page is a collection of ideas, reminders, etc., for Ted to further enhance these experiments/examples.

I hope this helps in getting some ideas from this page.

~ Paul Vachon.
Comments on Ted’s “Modulation” page

From James Hober:

Ted is investigating pivot chords that are not common and he’s trying to consider all possibilities. He’s being very concise in that he’s not writing confirmatory chords of a key.

So when he writes:
1) C…Am6 B…Abm6 Bb  etc.
It must mean something like, “Establish the key of C (with I IV V I or something), then play vim6 (= Am6) which becomes bviim6 in the new key of B, and then establish the key of B. Then you can chain this modulation: vim6 (= Abm6) in the key of B is viim6 in the key of Bb. And the “etc.” means that you can continue to chain with the key areas descending by half step: C to B to Bb to A and so on.

The second one:
2) C…Abm6 Bb…F#m6 Ab  etc.
has the key areas descending by whole step, and so on.

Now, I’m not hearing things as Ted apparently did. To me, C Am6 B sounds like C F#m7b5 B, and wants to go to Em and establish the key of Em. But as Ted is being extremely terse in writing for himself, my guess is that he would have written confirmatory chords in his target keys and may not even have intended his pivot chord to move directly to the target tonic chord. Maybe the pivot would move first to V in the target key or to some other chord.

As pointed out in Paul’s “Editor’s note,” the section heading “Using bviim6 (bIII7) as Pivot” must mean that the bviim6 has that function in the target key, not in the source key.

Ted definitely wanted to catalog all possible pivot chord modulations. Here he is in the process of that exploration. And I know he eventually had some discoveries along this line that he wanted to share with some students. He wanted to teach me something about interesting pivot chords in my lessons but we never got around to it. But looking at this page on “Modulation,” jogged my memory of the lesson I had with Ted. We were talking about minor 6 chords near the end of a lesson. I think I asked Ted to explain them to me better. I told him that I could hear i, the minor tonic chord, as a minor with an added 6. And similarly iv with an added 6. But I had trouble understanding and hearing any other uses. To me it usually sounded more like the homonyms: m7b5 or dominant 9 no root, when used in other circumstances.

So then Ted started talking about the m6 on the bVII degree and how this could be a pivot chord. That sounded bizarre to me. He said we would get back to discussing such pivot chords and the lesson ended. I don’t remember discussing it again, or maybe we did but I still didn’t understand it. To this day, the m6 chord eludes me. No doubt Ted thought about that chord in ways that I do not understand. Perhaps if I study this personal study page of his I will understand more. Maybe you will, too.

~ James
**Modulation**  
Ted Greene – 1974-02-12

**Using bviim6 (♭III7) as Pivot**  
[First chord given is the starting key, followed by the pivot chord, which is used to modulate to the new key. In the first example the Am6 is a bviim6 in relation to the target key of B. Then Abm6 is the pivot to Bb. –Editor’s note.]

1) C…Am6 B…Abm6 Bb etc.
2) C…Abm6 Bb…F#m6 Ab etc.
3) C…Gm6 A…Em6 Gb etc.
4) C…Fm6 G…Cm6 D etc.
5) C…Em6 F#…Bbm6 C etc.
6) C…Eb6m6 F…Abm6 Bb etc.
7) C…Dm6 E…F#m6 Ab etc.
8) C…Gm7 - C7 Gm7 - C#m6 Eb…Em6 Gb etc.
9) C…Cm6 D…Dm6 E etc.
10) C…Bbm6 C

**Using vim6 (II7) as Pivot**

1) C…G#m6 B…Gm6 Bb etc.
2) C…Gm6 Bb…Fm6 Ab etc.
3) C…Fm6 A…C#m6 E etc.
4) C…Em6 G…Bm6 D etc.
5) C…Eb6m6 Gb…Am6 C
6) C…Dm6 F…Gm6 Bb etc.
7) C…C#m6 E…Fm6 Ab etc.
8) C…Cm6 Eb…Eb6m6 Gb etc.
9) C…Bbm6 Db…Bm6 D etc.
10) C…Am6 C

vi, iv, ♭VI7 can be combined

**ivm6 as Pivot (♭VI17)**

1) C…Em6 B…D#m6 Bb etc.
2) C…Eb6m6 Bb…C#m6 Ab etc.
3) C…(preparation with Em F) Dm6 A…Bm6 Gb etc.
4) C…C#m6 Ab…Am6 E etc.
5) C…Cm6 G…Gm6 D etc.
6) C…Bbm6 F…Eb6m6 Bb etc.
7) C…Am6 E…C#m6 Ab etc.
8) C…Abm6 Eb…Bm6 Gb etc.
9) C…Gm6 D…Am6 E etc.
10) C…Fm6 C

Also to Cm, Gm, Fm (Em) (Dm, Em, Am)
im6 (im6 may be replaced with im7)
1) C…Bbm6 Bb etc.
2) C…Am6 A etc.
3) C…Abm6 Ab etc.
4) C…Gm6 G etc.
5) C…Fm6 F etc.
6) C…Em6 E etc.
7) C…Ebm6 Eb etc.
8) C…Dm6 D etc.
9) C…C#m6 C# etc.
10) C…Cm6 C
Also to Bbm, Am, Abm, Gm, Fm, Em, Ebm, Dm, C#m, and Cm

iiim6 to i
1) C…Em6 Cm6 to Cm
2) C…Ebm6 Bbm6 to Bbm
3) C…Dm6 Bm6
4) C…C#m6 Am6
5) C…Cm6 Abm6
6) C…Bbm6 F#m6
7) C…Am6 Fm6
8) C…Abm6 Em6
9) C…Gm6 Ebm6
10) C…Fm6 C#m6

biiim6 to i (Follow with bIII etc. in new key)
1) C…Eb#m6 Cm6
2) C…Dm6 Bm6
3) C…C#m6 Bbm6
4) C…Cm6 Am6
5) C…Bbm6 Gm6
6) C…Am6 F#m6
7) C…Abm6 Fm6
8) C…Gm6 Em6
9) C…Fm6 Dm6
10) C…Em6 C#m6
### bVim6 to i

1) C…Am6  Cm6
2) C…Abm6  Bm6
3) C…Gm6  Bbm6
4) C…Fm6  Abm6
5) C…Em6  Gm6
6) C…Ebm6  F#m6
7) C…Dm6  Fm6
8) C…C#m6  Em6
9) C…Cm6  Ebm6
10) C…Bbm6  C#m6

### bVim6 to i

1) C…Abm6  Cm(6)
2) C…Gm6  Bm(6)
3) C…Fm6  Am(6)
4) C…Em6  G#m(6)
5) C…Ebm6  Gm(6)
6) C…Dm6  F#m(6)
7) C…C#m6  Fm(6)
8) C…Cm6  Em(6)
9) C…Bbm6  Dm(6)
10) C…Am6  C#m(6)

Possible [embellishment] of minor keys with their bVim6

Use at least 3 functions in new key for maximum smoothness.

- Examples: 
  C  Cm7  Db7  Eb7  Ab
  C  Cm7  Db7  C#m7  Ab
  C  Cm6  Abm6  B7  Eb

(vm6 or 7 may be preceded with V7+)

II7  IV7  bVI7 in various combinations to all major and minor keys.

### iim6 (viiº) to iii vi ii V

Baroque: residual functions:

- C  Am7  D7  G  C#  F#  Bm….F#  etc.
- C or Am to Bb via Bb itself or Dm  F7
- (also to Gm)
I+, V+, IV+, II+ \( \leftrightarrow \) IV+ after IV II comes after V

1) C…G+ or C+ Cm or C
2) C…G+ or D+ Bm or B
3) C…F+ or D+ Bbm or Bb
4) C…F+ or C+ Am or A
5) C…C+ or G+ Abm or Ab
6) C…G+ or D+ Gm6 or G
7) C…D+ or F+ Gb or F#m
8) C…F+ or C+ F or Fm
9) C…C+ or G+ E or Em
10) C…G+ or D+ Eb or Ebm
11) C…D+ or F+ Dm or D
12) C…F+ or C+ Db or C#m

\( ^b \text{III(}A7)\text{)(7) to all major and minors; also IV(A7) to majors. Also } ^b\text{VII}, ^b\text{VI, v(6), } ^b\text{II.} \)

\( \text{III7} \)

1) C…Eb7 B
2) C…D7 Bb
3) C…C7 Ab
4) C…B7 G
5) C…Bb7 Gb
6) C…A7 F
7) C…Ab7 E
8) C…G7 Eb

\( \text{VII7} \)

1) C…G7 Ab
2) C…A7 Bb
3) C…D7 Eb

Also diatonic chords
Also many ii - V’s

Include iii6 to V as well as ii, iv, IV, V:
C Cm Eb7 to G, Ab, Db, Bb, etc.
C C#m6 C#m E7 to Ab, A, D, B, etc. and so forth.
Some progressions using 7b9s – in C:
F G7b9 C
F E7b9 Dm
F E7b9 E° A7 Dm
F B7b9 Bb94 D6 E7 Ab4
F Db7b9 Db76 Ab4

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F D7b9 C
F B7b9 (B° E7) Am
F F7b9 Eb
F Ab7b9 Cm(6) D7 Gm

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C F#7b9 (F#°) (B7) E or Em
C A7b9 A° D7 Gm
C A7b9 G
C C7b9 C° F7 Bbm
C D#7b9 D#° G#7 C#m E7 A C#m G#7 C

Am A7b9 Dm F#7b9 F#° B7 E

Beethoven (in Eb): C F G7b96 Dm6 4 G7b9 G7/6 C7 (Eb7) Gb7 Gb72 B

Connect any minor to a 7th chord (43) whose root is a minor 3rd up.
Connect any 7th to other 7ths whose roots are major or minor 3rds up or down. (C D7 B7 Ebm)
Convert any major into a R°7 by adding leading tone of destination.

I I°7+ or I7+ (also I°9+) III or bVI
I I7+ iiiim6

7b9 part of any R°7 can function as V or II7 of new key.
Also think in these terms to various keys:
   iii V7, iv bVII, bvi bII, vii III, i IV,
   biii bVI, #iv VII, vii II, i I,
   bviibIII, iii VI
   – either chord may be omitted from these pairs in minor keys.
   Use all ii V’s – that is on all degrees.

Use diatonic chords in new keys as “pullers”
Also chromatic alterations to old key to create new key.
IV iv I ala “Valentine” intro.
II9 bVI9 I

Compounds; Sym. Compounds (“Bouree”); Mixed Scales; Mod. Sequences;
Sym. Mod’s (include subdominant and dominant) in 4ths, b3rds, b2nds descending cycle progressions:
E A13 D13 G13 Gm7 C7 F.
Poly. Contr.; Chrom. Contr.; Direct (phrase); Rootacization; Bass line ascending and descending walks.