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MUSIC THEORY for MUSICIANS and NORMAL PEOPLE

by Toby W. Rush

HELLO!

THIS FILE IS A COLLECTION OF ***INDIVIDUAL SHEETS*** COVERING A BUNCH OF LESSONS ON ***MUSIC THEORY.***

IT'S NOT A ***BOOK...*** YET. IT MIGHT BE SOMEDAY! BUT AS OF RIGHT NOW, IT'S ***INCOMPLETE.***

THE TRUTH IS, THEY WEREN'T ***INTENDED*** TO BE A ***SINGLE VOLUME*** WHEN I STARTED MAKING THEM... THEY WERE JUST ***REVIEW SHEETS*** FOR MY OWN ***THEORY STUDENTS.***

BUT THE MORE I ***MADE,*** THE MORE I REALIZED THEY COULD BE COLLECTED INTO A ***TEXTBOOK OF SORTS...*** EVENTUALLY!

I STILL HAVE A ***LOT OF WORK TO DO,*** BUT I'VE COLLECTED THE ONES I'VE MADE SO FAR INTO A ***SINGLE DOCUMENT*** TO MAKE IT EASIER FOR THE FOLKS WHO WANTED THEM ALL... BUT DIDN'T WANT TO DOWNLOAD EVERY FILE INDIVIDUALLY!

SO UNDERSTAND IT'S A ***WORK IN PROGRESS...*** THE PROGRESS IS ***SLOW*** SOMETIMES, BECAUSE I TEACH ***MUSIC THEORY*** AND ***AURAL SKILLS*** DURING THE DAY AT THE ***UNIVERSITY OF DAYTON*** IN ***DAYTON, OHIO,*** AND THEN HEAD HOME TO SPEND TIME WITH MY ***WIFE*** AND ***SIX KIDS!***

SO IF YOU'VE BEEN SENT THIS FILE BY SOMEONE, KNOW THAT THERE MIGHT BE A ***NEWER VERSION*** – OR ***MORE PAGES*** – AT ***TOBYRUSH.COM.***

BUT IF YOU ***LIKE*** THIS, OR FIND IT ***USEFUL, GREAT!*** FEEL FREE TO ***SHARE*** IT, ***COPY*** IT, AND ***USE*** IT.

NOW LET'S LEARN SOME ***MUSIC THEORY!***

JUST DON'T ***SELL*** IT, ***CHANGE*** IT, OR TELL OTHERS YOU ***MADE*** IT!*

What is Music Theory?

CHANCES ARE THERE'S A PIECE OF MUSIC THAT **MOVES** YOU IN A **PROFOUND WAY...**

A WAY THAT IS **FRUSTRATINGLY DIFFICULT** TO **DESCRIBE** TO SOMEONE ELSE!

LIKE OTHER FORMS OF ART, **MUSIC** OFTEN HAS THE CAPABILITY TO CREATE **EMOTIONAL REACTIONS** IN THE LISTENER THAT **TRANSCENDS OTHER FORMS OF COMMUNICATION.**

THOUGH A **SINGLE PIECE OF MUSIC** MAY ELICIT **DIFFERENT REACTIONS** FROM **DIFFERENT LISTENERS,** ANY LOVER OF MUSIC WILL TELL YOU THAT THOSE **FEELINGS** ARE **REAL!**

AND IF THEY'RE **REAL,** THEY'RE WORTHY OF **STUDY.**

SO THEN THE **BASSOON CHOIR** COMES IN LIKE **FLAMING HONEYDEW MELONS** FROM **ON HIGH**

PLEASE BRADLEY IT'S **LATE**

I'M **ALMOST DONE**

ONE OF THE **MOST VALUABLE** PARTS OF **MUSIC THEORY** IS GIVING **NAMES** TO MUSICAL STRUCTURES AND PROCESSES, WHICH MAKES THEM **EASIER** TO **TALK ABOUT!**

lead·ing tone (lē′dĭŋ tōn), *n.* [music] 1. That one note where it's all, like, NNGGG and you just want it to be like AHH yeah and when they don't, you're like UGH man you need to play the

COMING UP WITH **TERMINOLOGY** DOESN'T JUST HELP US **TALK TO OTHERS** ABOUT MUSIC, THOUGH... IT ACTUALLY **HELPS US LEARN!**

BUT WHILE IT'S AN IMPORTANT STEP, AND A GREAT PLACE TO START, MUSIC THEORY IS **MUCH MORE** THAN JUST **COMING UP WITH NAMES FOR THINGS!**

WHEN **COMPOSERS** WRITE **MUSIC** – WHETHER IT'S A **CLASSICAL-ERA SYMPHONY** OR A BIT OF **JAPANESE POST-SHIBUYA-KEI GLITCH TECHNO** – THEY ARE NOT FOLLOWING A **PARTICULAR SET OF RULES.** IF ANYTHING THEY ARE OFTEN TRYING TO **BREAK THEM!**

SO WHILE A LOT OF PEOPLE THINK MUSIC THEORY IS ABOUT LEARNING THE **RULES** FOR **HOW TO WRITE MUSIC,** THAT'S NOT QUITE RIGHT. MUSIC THEORISTS DON'T **CREATE RULES** FOR WRITING MUSIC; THEY LOOK FOR **PATTERNS** IN MUSIC THAT IS **ALREADY WRITTEN.**

COMPOSERS **CREATE...**

...THEORISTS ANALYZE!

WHICH LEADS TO THE **MOST IMPORTANT QUESTION...** THE ONE THAT, AS YOU STUDY MUSIC THEORY, YOU SHOULD BE **CONSTANTLY ASKING YOURSELF:**

WHY?

WHY **DISSECT** MUSIC? WHAT'S THE POINT OF FIGURING OUT **RULES** THAT **COMPOSERS THEMSELVES** WEREN'T EVEN WORRIED ABOUT?

BECAUSE SOMEWHERE IN THERE IS THE REASON WHY THAT PIECE OF MUSIC **MOVES** YOU.

MAYBE IT'S IN THE **NOTES.** MAYBE IT'S IN THE **SILENCE.** MAYBE IT'S **SOMEWHERE IN BETWEEN.**

THE REASON IT MAKES YOU **CRY,** GIVES YOU **CHILLS,** REMINDS YOU OF **HOME.**

IT MAY TAKE A **LONG TIME,** OR EVEN CREATE MORE **QUESTIONS** THAN **ANSWERS.**

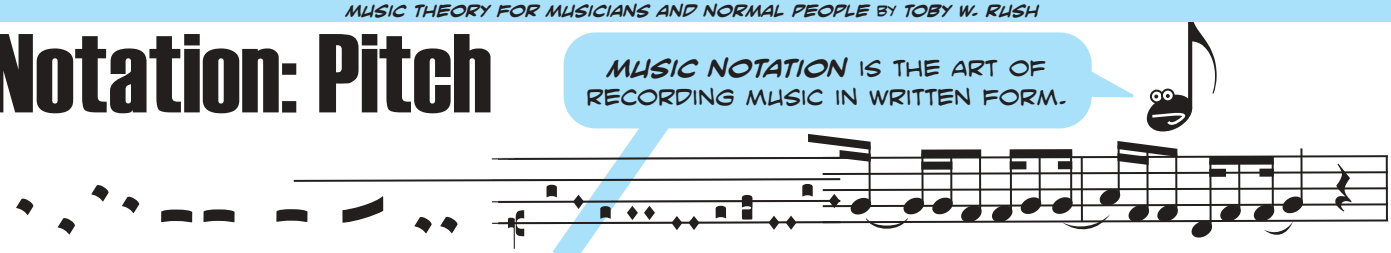
BUT MUSIC THEORISTS ARE GOING TO **FIND IT,** BECAUSE...

MUSIC THEORY IS FIGURING OUT WHAT MAKES MUSIC WORK.

AND **YOU** JUST **JOINED THE TEAM.** GRAB YOUR STUFF... **LET'S GO!**

Notation: Pitch

MUSIC NOTATION IS THE ART OF RECORDING MUSIC IN WRITTEN FORM.



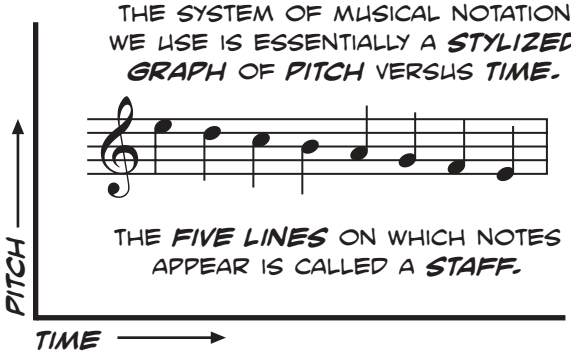
MODERN MUSIC NOTATION IS A PRODUCT OF **CENTURIES** OF TRANSFORMATION... AND IT IS NEITHER **EFFICIENT** NOR **INTUITIVE!**

PITCH IS THE HIGHNESS OR LOWNESS OF A SOUND.

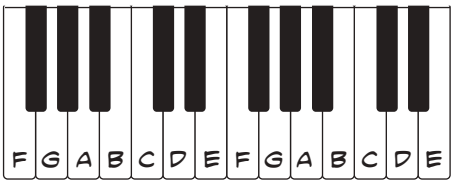
FOR EXAMPLE, A **FLUTE** HAS A **HIGH PITCH**, WHILE A **TUBA** HAS A **LOW PITCH**.

A **NOTE** IS A **WRITTEN REPRESENTATION** OF A PARTICULAR **PITCH**.

THE SYSTEM OF MUSICAL NOTATION WE USE IS ESSENTIALLY A **STYLIZED GRAPH** OF **PITCH** VERSUS **TIME**.



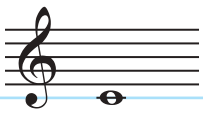
THE **FIVE LINES** ON WHICH NOTES APPEAR IS CALLED A **STAFF**.



NOTATION IS BASED ON THE **PIANO KEYBOARD**; **LINES** AND **SPACES** ON THE STAFF REPRESENT THE **WHITE NOTES** ON THE KEYBOARD.

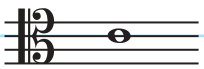
THE **WHITE NOTES** ON THE KEYBOARD ARE LABELED WITH LETTERS FROM **A** TO **G**.

TO DISPLAY NOTES **OUTSIDE** THE STAFF, WE USE SHORTENED STAFF LINES CALLED **LEDGER LINES**.

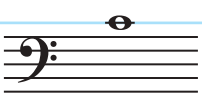


TREBLE CLEF

ALTO CLEF



TENOR CLEF



BASS CLEF

THE **CLEF** DETERMINES WHAT NOTES EACH STAFF LINE CORRESPONDS TO. THE **FOUR MODERN CLEFS** ARE SHOWN HERE; THE NOTE DISPLAYED ON EACH STAFF CORRESPONDS TO **MIDDLE C**.

MIDDLE C IS THE **C** THAT IS CLOSEST TO THE **MIDDLE** OF THE PIANO KEYBOARD.

TO NOTATE THE **BLACK NOTES** ON THE PIANO KEYBOARD, WE USE **ACCIDENTALS**, WHICH ALTER THE NOTE BY ONE OR TWO **HALF STEPS**.

A **HALF STEP** IS THE DISTANCE BETWEEN **TWO ADJACENT KEYS** ON THE PIANO KEYBOARD, REGARDLESS OF WHAT **COLOR** THE KEYS ARE.

THE **DOUBLE SHARP** RAISES THE NOTE BY TWO HALF STEPS.

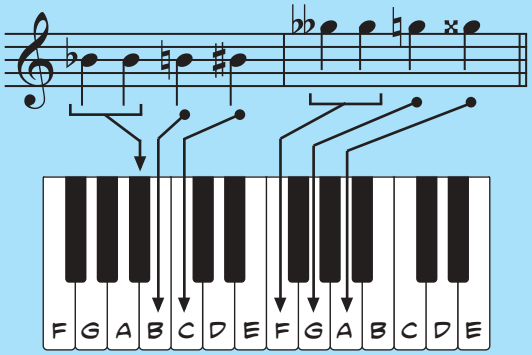
THE **SHARP** RAISES THE NOTE BY ONE HALF STEP.

THE **NATURAL** CANCELS OUT ANY PREVIOUS ACCIDENTAL.

THE **FLAT** LOWERS THE NOTE BY ONE HALF STEP.

THE **DOUBLE FLAT** LOWERS THE NOTE BY TWO HALF STEPS.

THESE SYMBOLS ARE PLACED TO THE **LEFT** OF THE NOTE THAT THEY AFFECT, AND THEY APPLY TO ALL THE NOTES ON THAT LINE OR SPACE FOR THE REST OF THE MEASURE.



TWO **NOTES** WHICH HAVE THE SAME **PITCH** (FOR EXAMPLE, **F SHARP** AND **G FLAT**) ARE CALLED **ENHARMONICS**.

Notation: Rhythm

WHILE **PITCH** IS PRETTY CLEARLY NOTATED ON A VERTICAL AXIS, **NOTE LENGTH** IS INDICATED USING A SOMEWHAT ARCANE SYSTEM INVOLVING **NOTEHEADS, STEMS AND FLAGS.**

DOUBLE WHOLE NOTE

WHOLE NOTE

HALF NOTE

QUARTER NOTE

EIGHTH NOTE

SIXTEENTH NOTE

THIRTY-SECOND NOTE

SIXTY-FOURTH NOTE

ONE-HUNDRED-TWENTY-EIGHTH NOTE

IN THIS CHART, EACH SUCCESSIVE TYPE OF NOTE IS **HALF AS LONG** AS THE NOTE TO ITS LEFT. NONE OF THESE NOTES HAS A **STANDARD LENGTH;** A HALF NOTE IN ONE PIECE MAY BE THE SAME LENGTH AS AN EIGHTH NOTE IN A DIFFERENT PIECE.

NOTE LENGTHS IN A PIECE ARE INDICATED BY THE **TEMPO MARKING** AT THE BEGINNING OF A PIECE OR SECTION.

DOUBLE WHOLE REST

WHOLE REST

HALF REST

QUARTER REST

EIGHTH REST

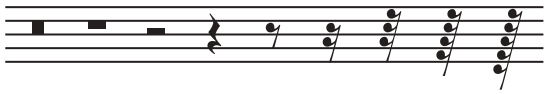
SIXTEENTH REST

THIRTY-SECOND REST

SIXTY-FOURTH REST

ONE-HUNDRED-TWENTY-EIGHTH REST

A **REST** IS A PERIOD OF **SILENCE** THE LENGTH OF WHICH CORRESPONDS TO A PARTICULAR NOTE.



USUALLY RESTS ARE PLACED ON THE STAFF AT A PARTICULAR VERTICAL POSITION AS SHOWN HERE.

THE **AUGMENTATION DOT** IS A DOT PLACED TO THE RIGHT OF A NOTEHEAD. THOUGH SMALL, THIS DOT WIELDS SOME **SERIOUS POWER:** IT ADDS HALF OF THE ORIGINAL NOTE'S LENGTH!

MULTIPLE DOTS CAN ALSO BE ADDED, EACH ONE ADDING HALF OF THE PREVIOUSLY ADDED VALUE.

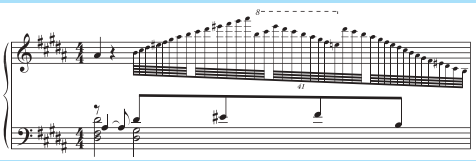
TIES ARE CURVED MARKS WHICH CONNECT TWO NOTES TOGETHER TO CREATE A **SINGLE, EXTENDED SOUND.**

TO TIE **MORE THAN TWO** NOTES TOGETHER, DRAW TIES BETWEEN **EACH NOTE;** DO NOT USE A SINGLE, EXTENDED TIE.

A **TUPLET** IS ANY NON-STANDARD DIVISION OF A NOTE. THESE ARE USUALLY WRITTEN AS A GROUP OF NOTES DELINEATED WITH A **BRACKET** AND A **NUMBER** SHOWING THE DIVISION BEING MADE.

MOST TUPLETS ARE SIMPLE DIVISIONS, LIKE THE **TRIPLETS** TO THE LEFT. BUT ANYTHING IS POSSIBLE! **CHOPIN,** FOR EXAMPLE, WOULD OFTEN **GO TO TOWN** WITH THESE THINGS.

FOR EXAMPLE, THESE AREN'T EXACTLY **QUARTER NOTES;** THEY ARE EACH A **THIRD** AS LONG AS A **HALF NOTE.**



WHA... **GAH!** CHOPIN, **NO!** **DOWN,** BOY!

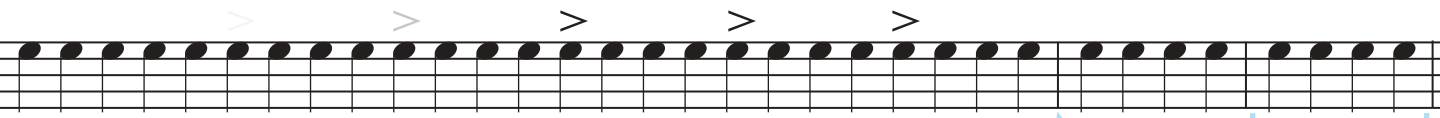
Notation: Meter

A FUNDAMENTAL FEATURE OF MOST PIECES OF MUSIC IS A ***CONSISTENT RHYTHMIC PULSE.*** THIS PULSE IS CALLED THE ***BEAT,*** AND A SINGLE PULSE IS CALLED A ***BEAT UNIT.***

THERE ARE ***TWO*** TYPES OF BEAT UNITS: THOSE CONTAINING ***TWO DIVISIONS,*** CALLED ***SIMPLE*** BEAT UNITS...

...AND THOSE CONTAINING ***THREE DIVISIONS,*** CALLED ***COMPOUND*** BEAT UNITS.

IN MUSIC, BEATS ARE ORGANIZED INTO PATTERNS OF ***ACCENTED*** AND ***UNACCENTED*** BEAT UNITS. IN FACT, IF YOU LISTEN TO A SEQUENCE OF REPEATED NOTES, YOUR BRAIN WILL PROBABLY START TO PERCEIVE THE NOTES AS GROUPS OF ***TWO, THREE,*** OR ***FOUR,*** EVEN IF NO ACCENTS ARE PRESENT!



THESE GROUPS ARE CALLED ***MEASURES,*** AND THEY ARE DELINEATED WITH ***BARLINES.***

BARLINE

MEASURE

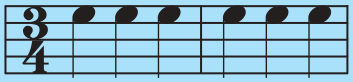
THE ORGANIZATION OF BEAT UNITS AND MEASURES IN A PIECE IS CALLED ***METER.*** METER IS DESCRIBED BY TWO NUMBERS PLACED AT THE BEGINNING OF THE PIECE: THE ***TIME SIGNATURE.***

SIMPLE TIME SIGNATURES ARE ***EASY.***

3
4

THE TOP NUMBER INDICATES THE ***NUMBER OF BEATS*** IN A MEASURE.

THE BOTTOM NUMBER INDICATES THE ***TYPE OF NOTE*** WHICH SERVES AS THE ***BEAT UNIT.***



THE CODE FOR THE BOTTOM NOTE IS PRETTY EASY: 4 REFERS TO A QUARTER NOTE, 8 TO AN EIGHTH NOTE, 16 TO A SIXTEENTH NOTE, AND SO ON.

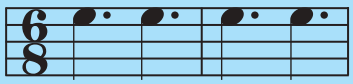
COMPOUND TIME SIGNATURES ARE KIND OF ***LYING TO YOU.***

6
8

THE TOP NUMBER INDICATES THE ***NUMBER OF DIVISIONS*** IN A MEASURE. TO GET THE NUMBER OF BEATS, DIVIDE IT BY ***THREE.***

THE BOTTOM NUMBER INDICATES THE ***TYPE OF NOTE*** WHICH SERVES AS THE ***DIVISION.*** TO GET THE ***BEAT UNIT,*** USE THE NOTE THAT IS EQUAL TO ***THREE*** OF THESE NOTES. IN A COMPOUND METER, THE BEAT UNIT IS ALWAYS A ***DOTTED NOTE!***

2.



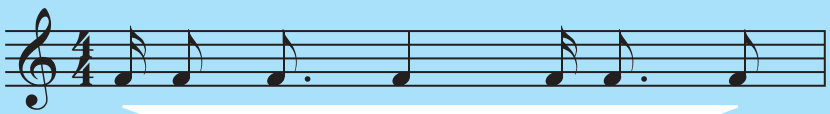
IN FACT, WOULDN'T ***THIS*** BE AN EASIER WAY TO NOTATE ***COMPOUND METERS?***

SORRY... THE ***MAN*** SAYS YOU HAVE TO DO IT THE ***OTHER WAY.***

BY LOOKING AT THE ***TOP NUMBER*** OF THE TIME SIGNATURE, YOU CAN TELL ***TWO*** THINGS ABOUT THE METER: WHETHER IT'S ***SIMPLE*** OR ***COMPOUND,*** AND HOW MANY ***BEATS*** ARE IN A ***MEASURE.***

BEATS PER MEASURE	SIMPLE	COMPOUND
2	2	6
3	3	9
4	4	12

NOTES THAT HAVE ***FLAGS*** CAN BE GROUPED TOGETHER BY USING ***BEAMS*** IN PLACE OF FLAGS.



HOWEVER, BEAMING IS ONLY USED TO GROUP NOTES ***WITHIN BEATS.*** FOR THE MOST PART, YOU SHOULDN'T ***BEAM*** NOTES ***BETWEEN*** BEATS, NOR SHOULD YOU ***TIE*** NOTES WITHIN ***BEATS.***

hey, it's kids! SPARKY THE MUSIC THEORY DOG!

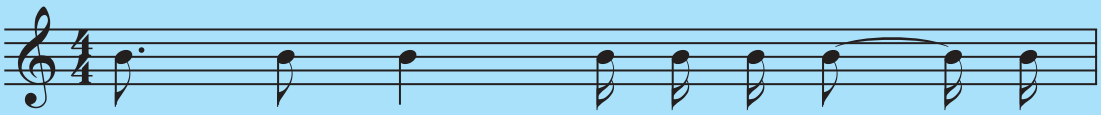
Q: Dear Sparky:
I understand that we're supposed to beam rhythms to show the organization of beats in the measure, but is there an easy way to beam complex rhythms?
--A.Y., Owatonna, MN

A: WOOF!*

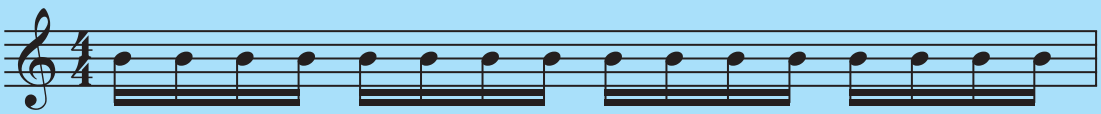
TRANSLATION:** NOTES SHOULD BE BEAMED IN GROUPS THAT ***ILLUSTRATE THE METER. FOR SIMPLE RHYTHMS, THIS IS PRETTY EASY TO DO; SIMPLY GROUP ANY NOTES THAT CAN BE BEAMED (EIGHTH NOTES AND SMALLER) INTO GROUPS THAT ARE ***EQUAL TO THE BEAT UNIT OF THE CURRENT METER.***

FOR ***COMPLEX RHYTHMS,*** HOWEVER, THINGS CAN GET COMPLICATED... WHEN A RHYTHM INCLUDES THINGS LIKE ***SYNCOPATIONS*** OR OTHER ***OFF-BEAT FIGURES,*** ILLUSTRATING THE METER MAY INVOLVE ***DIVIDING NOTES*** ACROSS BEAT UNITS WITH ***TIES.*** FORTUNATELY, THERE IS A ***STEP-BY-STEP SYSTEM*** FOR CORRECTLY BEAMING THESE COMPLICATED RHYTHMS!

FOR EXAMPLE, LET'S TAKE THIS RHYTHM, WHICH IS WRITTEN WITHOUT BEAMING.

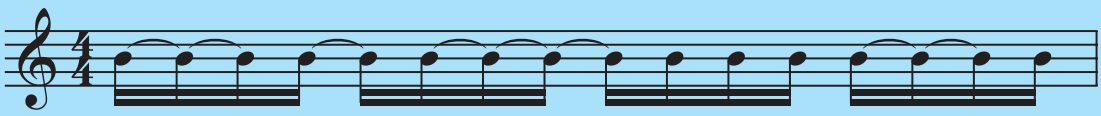


STEP 1: FIND THE SMALLEST NOTE VALUE USED, AND FILL A COMPLETE MEASURE WITH THIS TYPE OF NOTE, BEAMED IN GROUPS THAT ARE EQUAL TO A BEAT UNIT IN THE CURRENT METER.

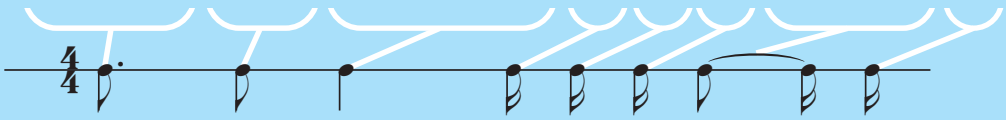


STEP 2: ADD TIES BETWEEN INDIVIDUAL NOTES TO RECREATE THE ORIGINAL RHYTHM. MAKE SURE THAT EACH TIED GROUP CORRESPONDS TO A NOTE IN THE RHYTHM YOU STARTED WITH!

YES, I KNOW IT LOOKS WEIRD... BUT WE'RE NOT DONE YET!

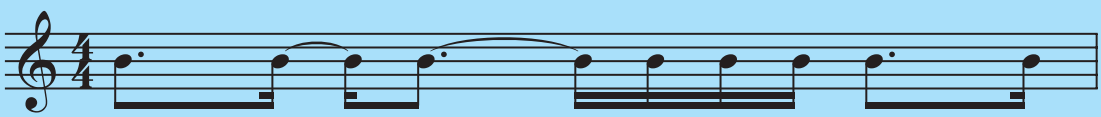


ORIGINAL RHYTHM:



STEP 3: FIND ***EVERY*** GROUP OF TWO OR MORE NOTES THAT ARE ***BOTH TIED TOGETHER AND BEAMED TOGETHER,*** AND REPLACE THEM WITH A ***SINGLE NOTE*** OF ***EQUIVALENT VALUE.***

IF YOU HAVE NOTES THAT ARE TIED ***OR*** BEAMED, BUT NOT ***BOTH,*** THEN LEAVE THEM ***ALONE!***



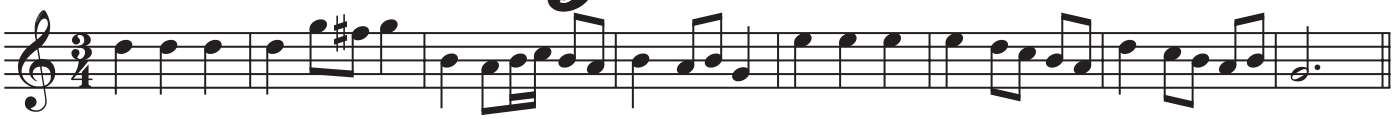
DON'T TOUCH! HANDS OFF! YES... SIMPLIFY IT!

A ***CORRECTLY BEAMED RHYTHM*** MAY INCLUDE ***TIES,*** BUT IT WILL ***VERY CLEARLY*** SHOW THE ***BEATS*** IN THE MEASURE... WHICH, IN TURN, MAKES IT ***EASIER FOR THE PERFORMER TO READ!***

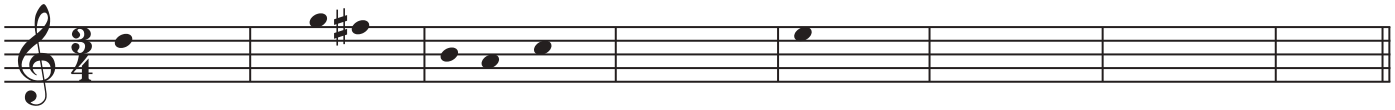
DOING STUFF THE SPARKY WAY IS ALWAYS FUN!

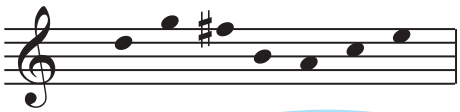
The Major Scale

ONE OF THE REASONS THAT A PARTICULAR PIECE OF MUSIC ***SOUNDS THE WAY IT DOES*** HAS TO DO WITH THE ***GROUP OF NOTES*** THE COMPOSER DECIDED TO USE.

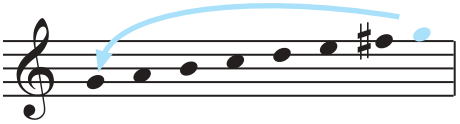


TAKE ***THIS MELODY,*** FOR EXAMPLE...
LET'S FIRST REMOVE ALL THE ***DUPLICATE NOTES,*** REGARDLESS OF WHICH ***OCTAVE*** THEY'RE IN.

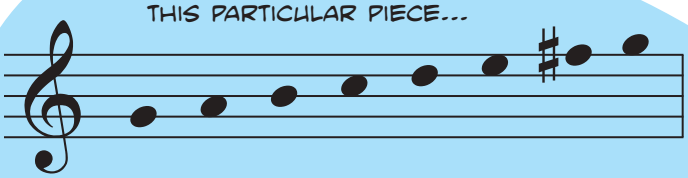




NEXT, LET'S PUT THE NOTES IN ***ALPHABETICAL ORDER,*** STARTING ON THE NOTE THAT THE MELODY SOUNDED LIKE IT WAS ***CENTERING*** ON.



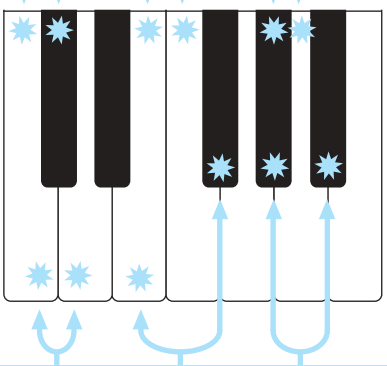
WHAT WE END UP WITH IS THE ***"PALETTE"*** FOR THIS PARTICULAR PIECE...



LIKE THE ***BOARD*** ON WHICH A PAINTER HOLDS THE ***BITS OF PAINT*** BEING USED IN THE PAINTING BEING CREATED.

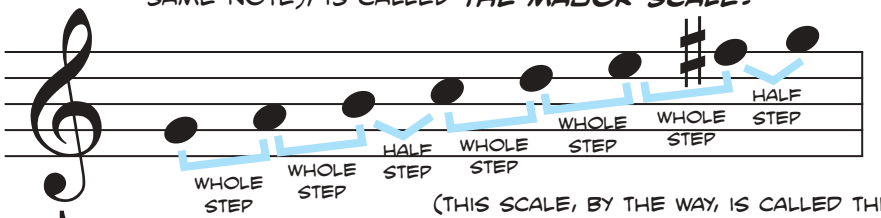
THERE ARE ACTUALLY MANY DIFFERENT ***TYPES*** OF SCALES, EACH WITH A DIFFERENT PATTERN OF ***WHOLE STEPS*** AND ***HALF STEPS.***

A ***HALF STEP*** IS THE DISTANCE BETWEEN ***TWO ADJACENT KEYS*** ON THE ***PIANO KEYBOARD,*** REGARDLESS OF ***COLOR.***



IN MUSIC, THIS "PALETTE" IS CALLED A ***SCALE.*** THOUGH WE USUALLY WRITE SCALES FROM ***LOW*** TO ***HIGH,*** THE ORDER IS ACTUALLY ***UNIMPORTANT;*** IT'S THE ***NOTES*** CONTAINED IN THE SCALE THAT HELP MAKE A PIECE SOUND THE WAY IT DOES.

THIS PARTICULAR ARRANGEMENT, WHERE HALF STEPS OCCUR BETWEEN STEPS ***THREE AND FOUR*** AND BETWEEN STEPS ***SEVEN AND EIGHT*** (OR BETWEEN SEVEN AND ***ONE***, SINCE EIGHT AND ONE ARE THE SAME NOTE), IS CALLED ***THE MAJOR SCALE.***

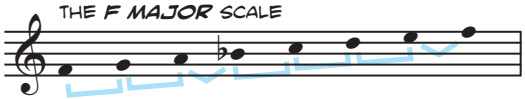


A ***WHOLE STEP*** IS THE EQUIVALENT OF ***TWO HALF STEPS.***

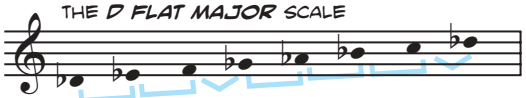
(THIS SCALE, BY THE WAY, IS CALLED THE ***G MAJOR SCALE,*** BECAUSE IT STARTS ON ***G.***)

KNOWING THIS FORMULA, YOU CAN CREATE A MAJOR SCALE ON ***ANY NOTE!***

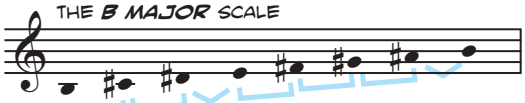
THE ***F MAJOR*** SCALE



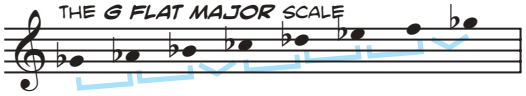
THE ***D FLAT MAJOR*** SCALE



THE ***B MAJOR*** SCALE



THE ***G FLAT MAJOR*** SCALE



BUT REMEMBER... WITH ***GREAT POWER*** COMES ***GREAT RESPONSIBILITY!***

Key Signatures

IF YOU START WRITING **MAJOR SCALES** AND PAY ATTENTION TO THE **ACCIDENTALS** THAT OCCUR, YOU ARE GOING TO START NOTICING A **PATTERN...**

FOR EXAMPLE LOOK AT THE FLAT KEYS, STARTING WITH THE KEY THAT HAS **ONE FLAT,** ALL THE WAY THROUGH THE KEY WITH **SEVEN FLATS:** THE FLATS ACCRUE IN A **SPECIFIC ORDER.** SAME WITH THE **SHARP KEYS!**

SO IF YOU LOOK FOR A KEY THAT HAS ONLY A **D FLAT,** YOU WON'T FIND IT: IF A KEY HAS A **D FLAT,** IT MUST ALSO HAVE A **B FLAT, AN E FLAT** AND AN **A FLAT!**

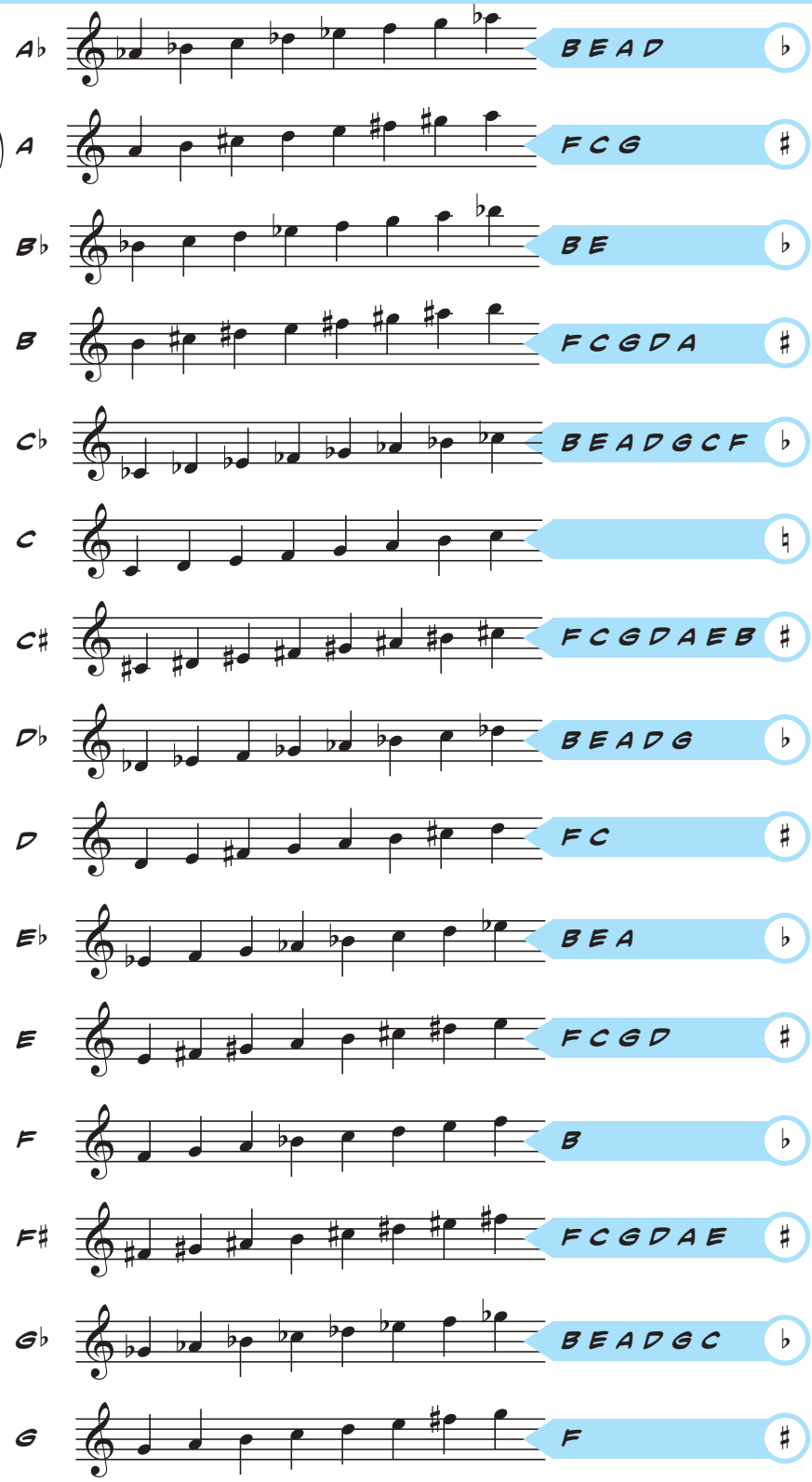
SINCE WRITING AN ENTIRE PIECE IN **C SHARP MAJOR** WOULD HAVE BEEN A SURE-FIRE WAY TO GET **CARPAL TUNNEL SYNDROME** WITH ALL THE SHARPS INVOLVED, COMPOSERS PRETTY QUICKLY CAME UP WITH A WAY TO SIMPLIFY THINGS: **KEY SIGNATURES.**

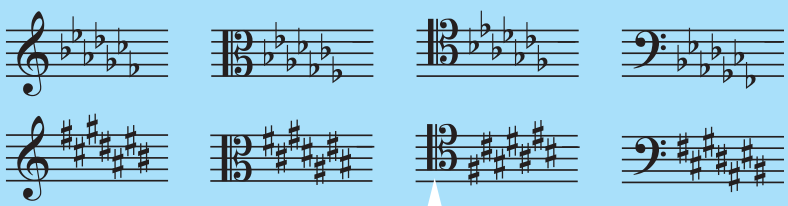
A **KEY SIGNATURE** IS A GROUP OF **ACCIDENTALS** PLACED AT THE BEGINNING OF EVERY LINE OF MUSIC, JUST TO THE RIGHT OF THE CLEF, THAT INSTRUCTS THE PERFORMER TO APPLY THOSE ACCIDENTALS TO **EVERY CORRESPONDING NOTE** IN THE PIECE UNLESS SPECIFIED OTHERWISE.

FOR EXAMPLE, **THIS** KEY SIGNATURE INDICATES THAT EVERY **F, C,** AND **G** IN THE PIECE SHOULD BE **SHARPED, REGARDLESS OF OCTAVE!**

OH, AND **ANOTHER THING:** THE ACCIDENTALS HAVE TO BE PLACED IN THE **CORRECT ORDER,** AND THEY NEED TO FOLLOW A **PARTICULAR PATTERN** OF **PLACEMENT** THAT **VARIES** SLIGHTLY DEPENDING ON THE **CLEF** BEING USED! IF YOU DEVIATE FROM THIS, YOU, AS A COMPOSER, WILL BE **MOCKED!**

TENOR CLEF SHARPS! WHAT'S YOUR **PROBLEM?** YOU NEED TO **CONFORM!**





HA HA... **NEVER!**

The Circle of Fifths

THEORISTS FIND IT **CONVENIENT** TO ORGANIZE ALL THE POSSIBLE **KEY SIGNATURES** INTO A **CHART** THAT SHOWS THEIR RELATIONSHIP TO ONE ANOTHER.

THIS CHART, CALLED **THE CIRCLE OF FIFTHS,** DISPLAYS EACH KEY AS A **SPOKE** ON THE CIRCLE, BEGINNING WITH **C MAJOR** AT THE **TOP** AND **ADDING ACCIDENTALS,** ONE AT A TIME, TO THE KEY SIGNATURES AROUND THE PERIMETER.

WE'LL **RETURN** TO THIS CHART AS WE CONTINUE LEARNING ABOUT HOW COMPOSERS USE **KEYS.**

C 0
G 1♯
D 2♯
A 3♯
E 4♯
B 5♭
F♯ 6♯
G♭ 6♭
D♭ 5♯
A♭ 4♭
E♭ 3♭
B♭ 2♭
F 1♭

AS YOU MOVE **CLOCKWISE** AROUND THE CIRCLE, YOU ADD **SHARPS** TO THE KEY SIGNATURE. AS YOU MOVE **COUNTERCLOCKWISE** AROUND, YOU ADD **FLATS** TO THE KEY SIGNATURE.

TO DETERMINE THE **KEY SIGNATURE** FOR A KEY, LOOK TO SEE WHICH **"SPOKE"** OF THE CIRCLE IT'S ON TO DETERMINE HOW MANY **FLATS** OR **SHARPS** IT HAS, AND ADD **ACCIDENTALS** TO THE KEY SIGNATURE APPROPRIATELY.

WHEN ADDING **FLATS** TO A KEY SIGNATURE, ADD THEM IN **THIS** ORDER:

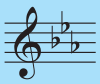
♭ →

BEADGCF

← ♯

WHEN ADDING **SHARPS,** USE THE **REVERSE** OF THE ORDER ABOVE.

FOR EXAMPLE, **E FLAT MAJOR** HAS **THREE FLATS,** SO IT SHOULD LOOK LIKE **THIS:**

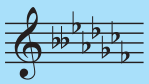


THE KEYS DOWN HERE LINE UP **ENHARMONICALLY...** FOR EXAMPLE, THE KEY OF **D FLAT MAJOR** WILL SOUND JUST LIKE THE KEY OF **C SHARP MAJOR.**

NOTICE HOW THAT **BEADGCF** PATTERN POPS UP **ALL OVER** THE CIRCLE OF FIFTHS?

WEIRD!

SO COULD YOU **CONTINUE** THE **ENHARMONIC** DEAL AND HAVE THE KEY OF **F FLAT MAJOR?** YES, IF YOU WANT A **DOUBLE FLAT** IN YOUR **KEY SIGNATURE:**

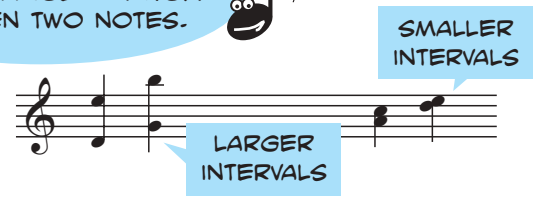


NOOOOO!

Diatonic Intervals

AN **INTERVAL** IS THE **DISTANCE** IN **PITCH** BETWEEN TWO NOTES.

THE MOST BASIC WAY WHICH WE **IDENTIFY** DIFFERENT INTERVALS IS BY **COUNTING THE STEPS** BETWEEN THE TWO NOTES.



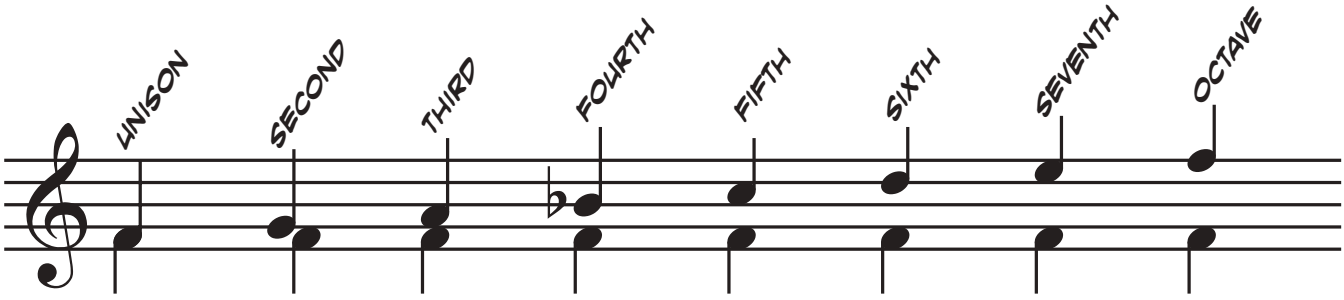
SPECIFICALLY, WE COUNT **SCALE DEGREES,** BUT THE **EASIEST** WAY TO DO IT IS TO COUNT **LINES AND SPACES** ON THE **STAFF.**

WHEN COUNTING, BEGIN WITH THE **BOTTOM NOTE** AS **ONE** AND COUNT UNTIL YOU REACH THE **TOP NOTE.**

THIS INTERVAL IS A **SEVENTH!**

WHEN COUNTING THE **LINES** AND **SPACES,** WE CAN SAFELY **IGNORE** ANY **ACCIDENTALS.**

THIS INTERVAL IS ALSO A **SEVENTH...** WE'LL DISCUSS HOW IT'S **DIFFERENT** VERY **SOON!**



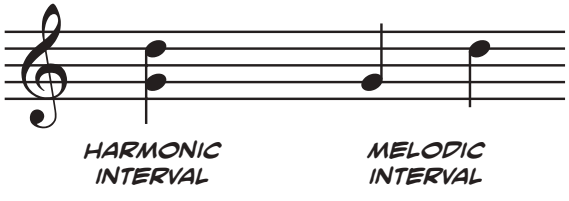
TWO NOTES ON THE SAME LINE OR SPACE IS CALLED A **UNISON.**

THAT'S **LATIN** FOR **"ONE SOUND"!**

AND **THAT'S** LATIN FOR **"EIGHT"!**

THE DISTANCE FROM A NOTE TO THE NEXT CLOSEST NOTE WITH THE SAME LETTER NAME IS CALLED AN **OCTAVE.**

WHEN WE ARE TALKING ABOUT INTERVALS WE SOMETIMES DISCUSS **HARMONIC INTERVALS** AND **MELODIC INTERVALS.**



A HARMONIC INTERVAL IS SIMPLY TWO NOTES PLAYED **SIMULTANEOUSLY;** A MELODIC INTERVAL IS **ONE NOTE PLAYED AFTER THE OTHER.**

AND WHEN YOU **SWAP** THE TWO NOTES (MOVE THE LOWER NOTE **UP** BY AN **OCTAVE** SO IT BECOMES THE **HIGHER** NOTE), THAT IS CALLED **INVERTING** THE INTERVAL.

IT'S HELPFUL TO REMEMBER THAT **SECONDS** ALWAYS INVERT TO **SEVENTHS, THIRDS** TO **SIXTHS,** AND SO FORTH...

THE FACT THAT EACH OF THESE PAIRS ADD UP TO **NINE** IS KNOWN TO THEORISTS AS **"THE RULE OF NINES."**

THE RULE OF NINES

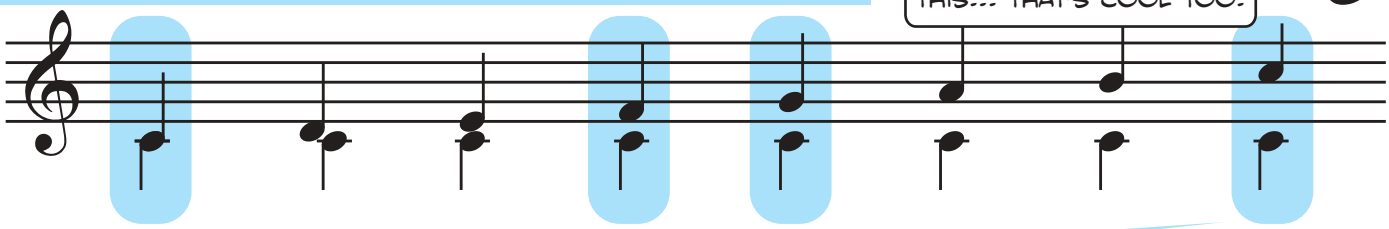
2ND	7TH
3RD	6TH
4TH	5TH
5TH	4TH
6TH	3RD
7TH	2ND

Perfect Intervals

THE **DISTANCE** OF AN INTERVAL IS **ONE** PART OF ITS NAME, BUT THERE'S **MORE:** EVERY INTERVAL HAS ANOTHER QUALITY TO IT, WHICH WE'LL CALL **INFLECTION.**

INFLECTION IS A BIT **HARDER** TO UNDERSTAND, PARTLY BECAUSE IT DEPENDS ON THE **TYPE** OF INTERVAL. SO LET'S START BY LOOKING AT **UNISONS, FOURTHS, FIFTHS** AND **OCTAVES.**

SOME THEORISTS USE THE TERM **QUALITY** FOR THIS... THAT'S COOL TOO.



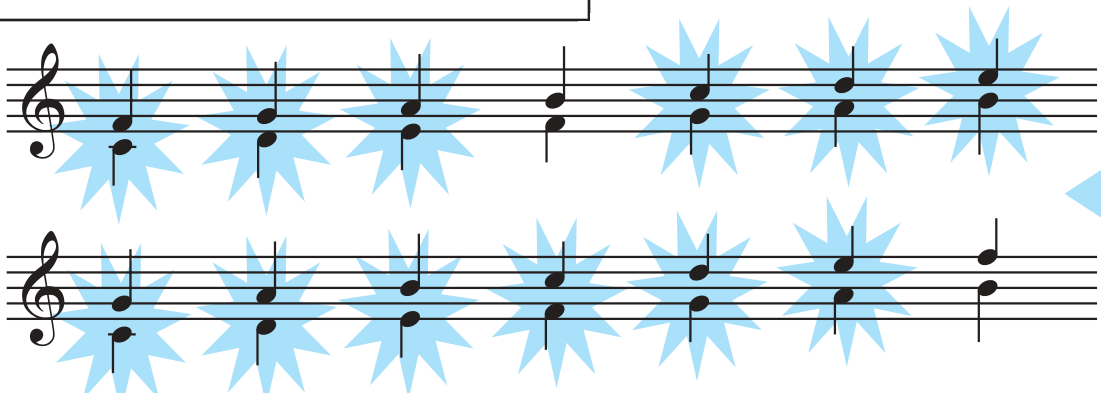
UNISONS AND OCTAVES

ARE THE EASIEST TO LABEL: IF THE TWO NOTES ARE THE **SAME** (FOR EXAMPLE, **B FLAT** AND **B FLAT**), THEN THE INFLECTION IS **PERFECT:** SUCH AN INTERVAL IS CALLED A **PERFECT UNISON** OR A **PERFECT OCTAVE.**

FOURTHS AND FIFTHS

REQUIRE A LITTLE MORE **EXPLAINING.**

IF YOU LOOK AT ALL THE FOURTHS AND FIFTHS YOU CAN CREATE USING ONLY THE **WHITE NOTES** ON THE PIANO KEYBOARD (IN OTHER WORDS, USING ONLY NOTES **WITHOUT ACCIDENTALS**):



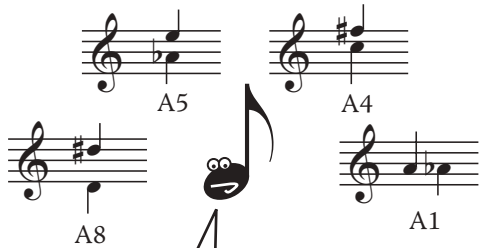
EACH ONE IS **PERFECT** EXCEPT FOR THOSE WHICH USE **F** AND **B!**

WAIT... WHY ARE THE **B** TO **F** INTERVALS **DIFFERENT?**

WELL, IF YOU WERE TO COUNT THE **HALF-STEPS** THAT MAKE UP EACH INTERVAL, YOU'D NOTICE THAT ALL THE OTHER ONES ARE **EQUAL IN SIZE,** BUT THE B TO F INTERVALS ARE NOT: **F** TO **B** IS A HALF-STEP **LARGER** THAN A PERFECT FOURTH, AND **B** TO **F** IS A HALF-STEP **SMALLER** THAN A PERFECT FIFTH.

WHICH RAISES THE **QUESTION:** IF THE INTERVAL IS NOT **PERFECT,** THEN WHAT **IS** IT?

AN INTERVAL THAT IS A HALF-STEP **LARGER** THAN PERFECT IS CALLED AN **AUGMENTED** INTERVAL.



YOU CAN GO **FURTHER,** TO **DOUBLY AUGMENTED** AND **DOUBLY DIMINISHED** INTERVALS, BUT... DO YOU REALLY **WANT** TO?

AUGMENTED

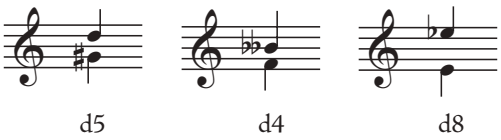
A

P

PERFECT

d

DIMINISHED



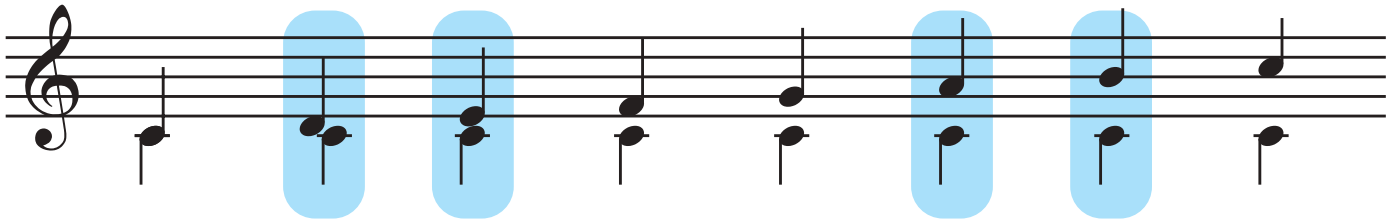
AND THERE'S **NO SUCH THING** AS A **DIMINISHED UNISON...**

JUST LIKE TWO THINGS CAN'T BE **NEGATIVE TWO FEET** AWAY FROM EACH OTHER!

AN INTERVAL THAT IS A HALF-STEP **SMALLER** THAN PERFECT IS CALLED A **DIMINISHED** INTERVAL.

Imperfect Intervals

WE'VE TALKED ABOUT **UNISONS, FOURTHS, FIFTHS** AND **OCTAVES**, BUT WHAT ABOUT THE REST? ARE THESE OTHER INTERVALS SOMEHOW **IMPERFECT?**



WELL, YES, BUT NOT BECAUSE THEY ARE SOMEHOW **INFERIOR** TO PERFECT INTERVALS... **SECONDS, THIRDS, SIXTHS** AND **SEVENTHS** JUST WORK A LITTLE **DIFFERENTLY!**

A AUGMENTED

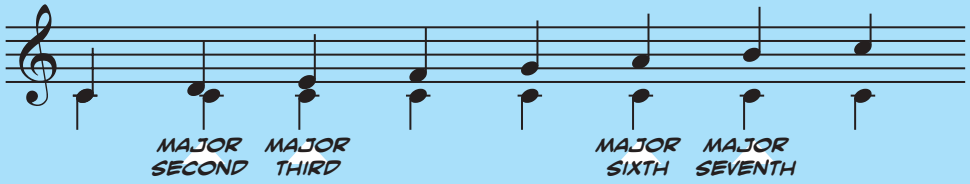
M MAJOR

m MINOR

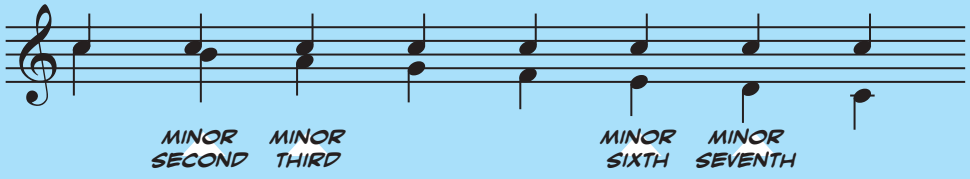
d DIMINISHED

FOR ONE THING, THE **INFLECTION** FOR THESE INTERVALS IS NEVER **PERFECT;** IT WILL BE EITHER **MAJOR** OR **MINOR.** MINOR INTERVALS ARE A HALF-STEP SMALLER THAN MAJOR INTERVALS. LIKE PERFECT INTERVALS, THOUGH, THEY CAN ALSO BE **AUGMENTED** OR **DIMINISHED;** AUGMENTED INTERVALS ARE A HALF-STEP LARGER THAN MAJOR, AND DIMINISHED INTERVALS ARE A HALF-STEP SMALLER THAN MINOR.

HOW DO WE KNOW IF AN INTERVAL IS **MAJOR** OR **MINOR?** WE CAN ACTUALLY USE THE **MAJOR SCALE** TO FIND OUT. NOTICE THAT, IN THE MAJOR SCALE, INTERVALS FROM THE **TONIC** UP TO ANOTHER SCALE DEGREE ARE **MAJOR.**

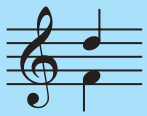


LIKEWISE, INTERVALS FROM THE TONIC **DOWN** TO ANOTHER SCALE DEGREE ARE **MINOR.**



KNOWING THIS, WHEN YOU ARE CONFRONTED WITH A **SECOND, THIRD, SIXTH** OR **SEVENTH,** YOU CAN FIND ITS INFLECTION BY THINKING ABOUT THE KEY SIGNATURE OF THE TOP AND/OR BOTTOM NOTE.

WE KNOW THIS IS A **MAJOR SIXTH** BECAUSE **D,** THE TOP NOTE, IS IN THE KEY OF **F MAJOR** (THE BOTTOM NOTE).



AND THIS IS A **MINOR SEVENTH** BECAUSE **B,** BOTTOM NOTE, IS IN THE KEY OF **A MAJOR** (THE TOP NOTE).

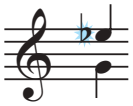
IF THE **TOP NOTE** IS IN THE MAJOR KEY OF THE **BOTTOM NOTE,** THE INTERVAL IS **MAJOR.** IF THE **BOTTOM NOTE** IS IN THE MAJOR KEY OF THE **TOP NOTE,** THE INTERVAL IS **MINOR.**

WHEN THE NOTES OF THE INTERVAL HAVE **ACCIDENTALS,** THE ASSOCIATED KEY SIGNATURES CAN BE MORE **COMPLICATED...** SO IT'S EASIEST TO **TEMPORARILY IGNORE** THE ACCIDENTALS, DETERMINE THE INTERVAL, AND THEN **ADD THE ACCIDENTALS BACK ONE AT A TIME** AND TRACK HOW THE INTERVAL CHANGES!

ACK! WHAT IS **THAT?** LET'S FIRST HIDE THE ACCIDENTALS...

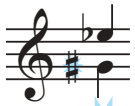
M6

E IS IN THE KEY OF **G,** SO WE KNOW THIS IS A **MAJOR** SIXTH.



m6

ADDING BACK THE **FLAT** MAKES THE INTERVAL **SMALLER,** SO IT'S NOW A **MINOR** SIXTH...



d6

ADDING BACK THE **SHARP** MAKES IT EVEN **SMALLER...** A **DIMINISHED SIXTH!**

hey, it's kids! SPARKY THE MUSIC THEORY DOG!

Q: Dear Sparky:
Since we are supposed to use different approaches for identifying perfect and imperfect intervals, can you summarize them all into one system?

--I.M., Staten Island, NY

A: WOOF!*

TRANSLATION:** THE FOLLOWING CHART SHOWS AN APPROACH FOR ***IDENTIFYING ANY INTERVAL. A SIMILAR APPROACH CAN BE USED WHEN YOU NEED TO ***WRITE*** A PARTICULAR INTERVAL ABOVE OR BELOW A ***GIVEN NOTE:*** FIRST, ADD A NOTE ABOVE OR BELOW THE GIVEN NOTE AT THE CORRECT ***DISTANCE,*** THEN FOLLOW STEPS 2 THROUGH 4 OF THIS CHART TO ***IDENTIFY*** IT. THEN, IF NECESSARY, ***ALTER*** THE NOTE YOU ADDED WITH AN ***ACCIDENTAL*** TO CREATE THE INTERVAL CALLED FOR.

STEP 1:

DETERMINE THE ***DISTANCE*** OF THE INTERVAL BY COUNTING ***LINES*** AND ***SPACES.***

COUNT THE ***BOTTOM NOTE*** AS ***ONE***, AND CONTINUE UNTIL YOU REACH THE ***TOP NOTE.***

STEP 2:

COVER UP ALL ***ACCIDENTALS.***

STEP 3:

DETERMINE THE ***INFLECTION*** OF THE INTERVAL IN FRONT OF YOU (THE ONE WITHOUT ACCIDENTALS!) AS FOLLOWS:

IF IT IS A ***UNISON*** OR ***OCTAVE:***

THE INTERVAL SHOWN IS A ***PERFECT UNISON*** OR ***PERFECT OCTAVE.***

REALLY. IT ***JUST IS.***

IF IT IS A ***FOURTH*** OR ***FIFTH:***

IF THE INTERVAL USES THE NOTES ***F*** AND ***B,*** IT IS EITHER AN ***AUGMENTED FOURTH*** OR A ***DIMINISHED FIFTH.***

OTHERWISE, THE INTERVAL IS ***PERFECT.***

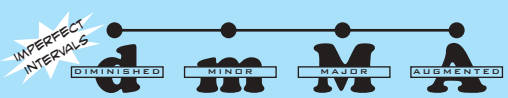
IF IT IS A ***SECOND, THIRD, SIXTH*** OR ***SEVENTH:***

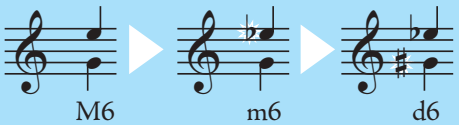
IF THE ***TOP NOTE*** IS IN THE MAJOR KEY OF THE ***BOTTOM NOTE,*** THE INTERVAL IS ***MAJOR.***

IF THE ***BOTTOM NOTE*** IS IN THE MAJOR KEY OF THE ***TOP NOTE,*** THE INTERVAL IS ***MINOR.***

STEP 4:

ADD THE ***ORIGINAL ACCIDENTALS*** BACK, ***ONE AT A TIME,*** AND TRACK HOW THE INTERVAL CHANGES INFLECTION.





REMEMBER: ACCIDENTALS CAN ***NEVER*** AFFECT THE ***DISTANCE*** OF AN INTERVAL... ALL THEY CAN EVER DO IS CHANGE THE ***INFLECTION!***

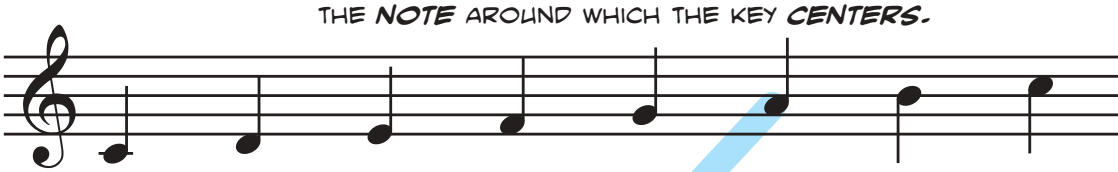
THIS METHOD MAY SEEM ***COMPLICATED*** AT FIRST, BUT IT BECOMES ***EASIER*** AND ***FASTER*** WITH ***PRACTICE...*** AND IT GIVES YOU THE ***CORRECT ANSWER EVERY TIME!***

DOING STUFF THE SPARKY WAY IS ALWAYS FUN!

The Minor Scales

THERE ARE ACTUALLY TWO THINGS THAT DEFINE A **KEY:** THE **KEY SIGNATURE** IS THE MOST OBVIOUS ONE, BUT ANOTHER IMPORTANT PART OF A KEY IS THE **TONIC...** THE **NOTE** AROUND WHICH THE KEY **CENTERS.**

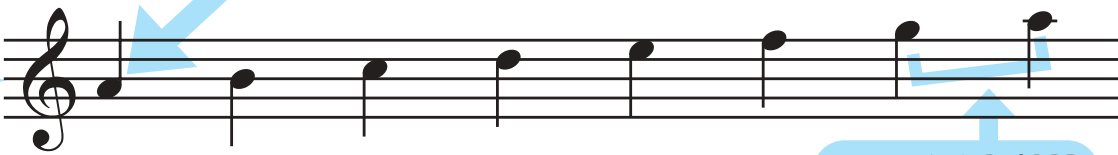
THIS KEY IS DEFINED BY A KEY SIGNATURE OF **NO SHARPS AND FLATS,** BUT ALSO BY THE FACT THAT IT CENTERS AROUND **C.**



BUT WHAT IF WE **CHANGE** THE **TONIC?** WHAT IF WE USE THE SAME NOTES FOR THE KEY SIGNATURE, BUT CHANGE THE **NOTE THAT THE KEY IS CENTERED AROUND?**

IF WE CENTER THE KEY AROUND THE **SIXTH SCALE DEGREE** OF THE MAJOR SCALE, WE GET A NEW SCALE: THE **MINOR SCALE.**

THE NATURAL MINOR SCALE

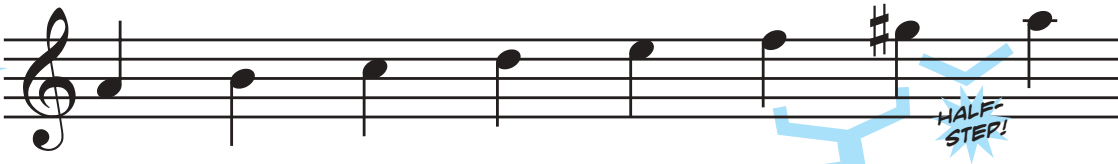


THE THING IS, **COMMON PRACTICE PERIOD** COMPOSERS WEREN'T ALL THAT CRAZY ABOUT THIS SCALE, BECAUSE IT LACKS SOMETHING THE **MAJOR SCALE** HAS: A HALF-STEP FROM **SEVEN** TO **ONE.**

THE **WHOLE STEP** HERE DIDN'T HAVE THE **TENSION** THEY LIKED GOING INTO THE **TONIC!**

SO HERE'S WHAT THEY DID: THEY **RAISED** THE LEADING-TONE BY A **HALF-STEP** WITH AN **ACCIDENTAL.** THIS GAVE THEM THE **TENSION** THEY WERE LOOKING FOR!

THE HARMONIC MINOR SCALE

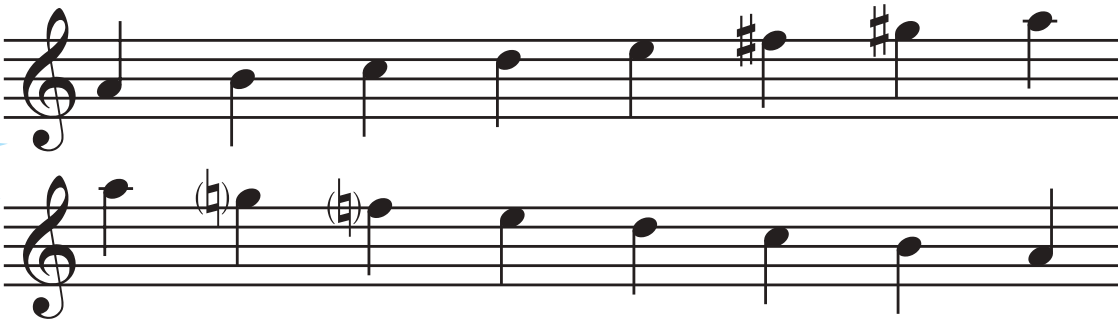


THIS SCALE IS GREAT FOR BUILDING **CHORDS,** SO WE REFER TO IT AS THE **HARMONIC MINOR SCALE.** HOWEVER, COMPOSERS DIDN'T USE IT FOR WRITING **MELODIES,** BECAUSE IT HAD A **PROBLEM:** AN **AUGMENTED SECOND** BETWEEN THE **SIXTH** AND **SEVENTH SCALE DEGREES.**

SO, FOR **MELODIES,** THEY MADE ANOTHER CHANGE: THEY ADDED **ANOTHER ACCIDENTAL** TO RAISE THE **SIXTH SCALE DEGREE** BY A HALF-STEP.

NOW WE ONLY HAVE **WHOLE STEPS** AND **HALF-STEPS!**

THE MELODIC MINOR SCALE



NOW, REMEMBER... THE REASON WE **RAISED** THE **LEADING TONE** IN THE FIRST PLACE WAS TO CREATE TENSION FROM THE **SEVENTH SCALE DEGREE** TO **TONIC.** BUT IN A MELODY, IF THE SEVENTH SCALE DEGREE IS FOLLOWED BY THE **SIXTH SCALE DEGREE,** WE DON'T NEED THAT TENSION, SO WE DON'T NEED TO RAISE THE LEADING-TONE AT ALL.

THE WAY WE ILLUSTRATE THIS IS BY DIFFERENTIATING BETWEEN **ASCENDING MELODIC MINOR** AND **DESCENDING MELODIC MINOR;** FOR DESCENDING MELODIC MINOR, WE DON'T RAISE **ANYTHING!**

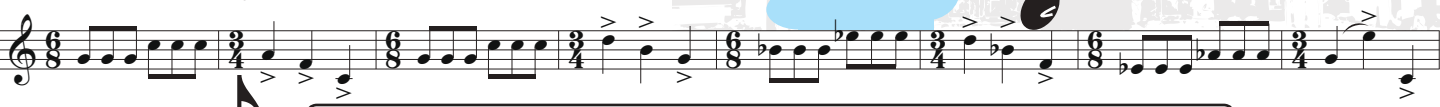
Complex Meter

SIMPLE METERS AND **COMPOUND METERS** ARE BOTH USED QUITE A BIT IN THE COMMON PRACTICE PERIOD, BUT THEY WERE RARELY FOUND **TOGETHER...** MOST PIECES EXCLUSIVELY USED **ONE OR THE OTHER!**

COMPOUND METER, COMPOUND METER, WHEREFORE ART THOU **COMPOUND?**

ON THE RARE OCCASION THAT THEY WERE COMBINED, IT WAS GENERALLY AS **MIXED METER,** WHEN THE METER CHANGES FROM ONE MEASURE TO THE NEXT.

UH, BECAUSE OF THIS **DOT...?**



CONSISTENT ALTERNATIONS LIKE THIS ARE OFTEN WRITTEN WITH **TWO TIME SIGNATURES** AT THE BEGINNING, LIKE THIS: $\frac{6}{8}\ \frac{3}{4}$

BUT **TWENTIETH-CENTURY COMPOSERS** - ESPECIALLY THOSE WHO WERE WORKING IN A STYLE CALLED **PRIMITIVISM,** WHICH FEATURED **PRIMAL, UNPREDICTABLE RHYTHMS** - WOULD TAKE THE **COMBINATION** OF **SIMPLE** AND **COMPOUND RHYTHMS** TO THE **NEXT LEVEL!**

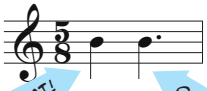
SIMPLE METER

BEAT UNIT DIVISIBLE BY **TWO**

BEAT SHOWN BY **UNDOTTED NOTE**

COMPLEX METER

INCLUDES **SIMPLE** AND **COMPOUND** BEATS



SIMPLE BEAT!

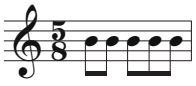
COMPOUND BEAT!

COMPOUND METER

BEAT UNIT DIVISIBLE BY **THREE**

BEAT SHOWN BY **DOTTED NOTE**

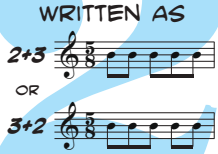
IN THESE METERS, THE BEATS WILL BE **UNEVEN!** THE NOTE THAT SERVES AS THE **DIVISION** OF THE BEAT REMAINS **CONSTANT** THROUGHOUT THE MEASURE.



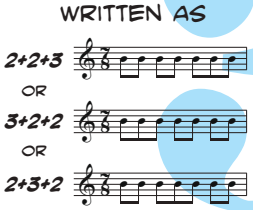
SO THESE **EIGHTH NOTES** SHOULD ALL BE THE **SAME LENGTH!**

LIKE **COMPOUND METERS,** THE **TIME SIGNATURE** FOR COMPLEX METERS IS BASED ON THE **DIVISION** OF THE BEAT. BUT, IN FACT, THESE METERS STILL HAVE **TWO, THREE** OR **FOUR** BEATS PER MEASURE!

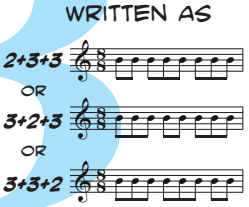
$\frac{5}{8}$ CAN BE WRITTEN AS



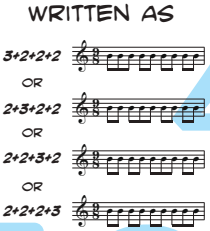
$\frac{7}{8}$ CAN BE WRITTEN AS



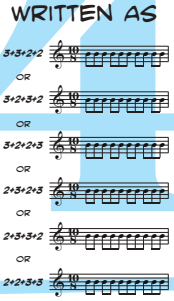
$\frac{8}{8}$ CAN BE WRITTEN AS



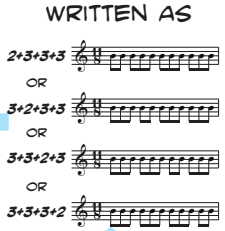
$\frac{9}{8}$ CAN BE WRITTEN AS



$\frac{10}{8}$ CAN BE WRITTEN AS



$\frac{11}{8}$ CAN BE WRITTEN AS



OF COURSE, WHILE USING **8** FOR THE **BOTTOM NUMBER** IS MOST COMMON IN **MODERN SCORES, ANY NOTE** CAN BE USED AS THE DIVISION!

LIKE $\frac{7}{16}$...

OR $\frac{11}{2}$!

Dynamics and Articulations

MUSIC IS MADE UP OF A LOT MORE THAN **PITCH** AND **RHYTHM!**

DYNAMICS ARE SYMBOLS THAT SHOW **HOW LOUD** TO PLAY OR SING.

fff	*ff*	*f*	*mf*	*mp*	*p*	*pp*	*ppp*	*n*
FORTISSISSIMO VERY VERY LOUD	**FORTISSIMO** VERY LOUD	**FORTE** LOUD	**MEZZO FORTE** MEDIUM LOUD	**MEZZO PIANO** MEDIUM SOFT	**PIANO** SOFT	**PIANISSIMO** VERY SOFT	**PIANISSISSIMO** VERY VERY SOFT	**NIENTE** INAUDIBLE

NOTATED MUSIC USES **ITALIAN TERMS** TO SHOW **RELATIVE VOLUME.**

SPECIFIC INTERPRETATION IS LEFT TO THE **PERFORMER!**

GRADUAL DYNAMIC CHANGES ARE INDICATED WITH **HAIRPIN SYMBOLS** OR THE ITALIAN TERMS **CRESCENDO** (INCREASE VOLUME) OR **DIMINUENDO** (DESCREASE VOLUME).

DYNAMICS ARE USUALLY PLACED **BELOW THE STAFF** ON INSTRUMENTAL PARTS, AND **ABOVE THE STAFF** FOR VOCAL PARTS... TO STAY OUT OF THE WAY OF THE **LYRICS!**

ARTICULATIONS ARE SYMBOLS THAT SHOW HOW TO TREAT SPECIFIC NOTES.

ACCENT	>	WITH ADDITIONAL EMPHASIS
STACCATO	•	SHORT AND DETATCHED
TENUTO	–	EMPHASIZED AND HELD FOR FULL VALUE
MARCATO	∧	SHORT AND ACCENTED
STACCATISSIMO	▾	VERY SHORT AND FORCEFUL
SFORZANDO	*sfz*	SUDDENLY LOUD AND ACCENTED
FERMATA	𝄐	HOLD LONGER THAN INDICATED
TREMOLO	𝅘𝅥𝅯𝅘𝅥𝅯	RAPIDLY ALTERNATE BETWEEN TWO NOTES
UP BOW	∨	(BOWED INSTRUMENTS) START AT TIP OF BOW
DOWN BOW	⊓	(BOWED INSTRUMENTS) START AT FROG OF BOW
TRILL	*tr*	RAPIDLY ALTERNATE TWO ADJACENT NOTES
ARPEGGIO	≀	"ROLL" CHORD: NOTES ADDED SEPARATELY

OTHER SYMBOLS AFFECT **GROUPS OF NOTES...**

ALL' OTTAVA: PLAY THE NOTES AN OCTAVE HIGHER OR LOWER, DEPENDING ON WHERE THE SYMBOL IS. (TWO OCTAVES IS 15^{ma}, AND THREE OCTAVES IS 22^{ma}!)

PEDALING: ON THE PIANO, THIS SYMBOL INDICATES WHEN THE **DAMPER PEDAL** SHOULD BE HELD DOWN, ALLOWING THE PIANO STRINGS TO RING FREELY. OLDER SCORES USE Ped. FOR **DOWN** AND ✻ FOR **UP.**

AND THEN THERE'S **THIS THING...**

A **SIMPLE SHAPE** WITH A **BUNCH** OF **DIFFERENT USES!**

IN MOST MUSIC IT'S A **SLUR,** GROUPING NOTES WHICH SHOULD BE PLAYED **SMOOTHLY** AND **CONNECTED!**

IN VOCAL PARTS, IT SHOWS **MELISMAS:** GROUPS OF NOTES SUNG ON A **SINGLE SYLLABLE!**

FOR BOWED STRINGS LIKE VIOLIN, IT'S A **BOW MARKING,** SHOWING NOTES THAT SHOULD BE PLAYED WITHOUT SWITCHING THE BOW'S **DIRECTION.**

IN ANY SCORE, IT CAN ALSO BE USED ON **LARGER GROUPS** OF NOTES, WHERE IT SERVES AS A **PHRASE MARKING...** HELPING THE PERFORMER SEE THE OVERALL SHAPE OF THE MUSIC!

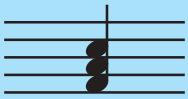
Triads

ALTHOUGH A **CHORD** IS TECHNICALLY **ANY** COMBINATION OF NOTES PLAYED SIMULTANEOUSLY, IN **MUSIC THEORY** WE USUALLY DEFINE CHORDS AS THE COMBINATION OF **THREE OR MORE NOTES.**

SECUNDAL HARMONY

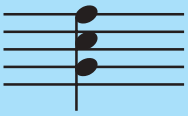
CHORDS BUILT FROM **SECONDS** FORM **TONE CLUSTERS,** WHICH ARE NOT **HARMONIC** SO MUCH AS **TIMBRAL.**

TERTIAL HARMONY



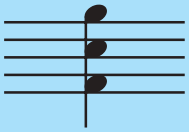
CHORDS BUILT FROM **THIRDS** (MORE SPECIFICALLY, FROM **MAJOR THIRDS** AND **MINOR THIRDS**) FORM THE BASIS OF MOST HARMONY IN THE **COMMON PRACTICE PERIOD.**

QUARTAL HARMONY



CHORDS BUILT FROM **PERFECT FOURTHS** CREATE A DIFFERENT SOUND, USED IN COMPOSITIONS FROM THE **EARLY 1900s** AND ONWARD.

QUINTAL HARMONY

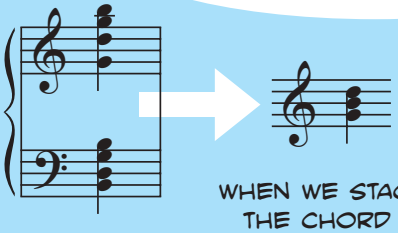


CHORDS BUILT FROM **PERFECT FIFTHS** CAN BE RESPELLED AS **QUARTAL CHORDS,** AND AS SUCH THEY DO NOT CREATE A SEPARATE SYSTEM OF HARMONY.

SEXTAL HARMONY? **SEPTAL** HARMONY? AS WITH QUINTAL HARMONY, THESE ARE THE SAME AS **TERTIAL** AND **SECUNDAL** HARMONY, RESPECTIVELY.

IS THE CHORD STILL **TERTIAL** IF IT IS BUILT FROM **DIMINISHED THIRDS** OR **AUGMENTED THIRDS?**

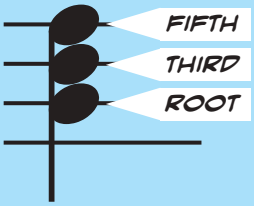
WELL, DIMINISHED THIRDS SOUND JUST LIKE **MAJOR SECONDS,** AND AUGMENTED THIRDS SOUND JUST LIKE **PERFECT FOURTHS,** SO... **NO.**



WHEN WE STACK THE CHORD IN **THIRDS** WITHIN **ONE OCTAVE,** WE GET WHAT IS CALLED THE **SIMPLE FORM** OF THE CHORD.

LET'S GET STARTED ON TERTIAL HARMONY WITH THE SMALLEST CHORD POSSIBLE: **THE TRIAD.**

THE **LOWEST** NOTE IN THE CHORD WHEN THE CHORD IS IN **SIMPLE FORM** IS CALLED THE **ROOT.** THE NAMES OF THE OTHER NOTES ARE BASED ON THEIR **INTERVAL** ABOVE THE ROOT.



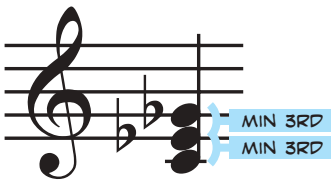
A TRIAD IS DEFINED AS A **THREE-NOTE CHORD,** BUT IN PRACTICE IT IS ALMOST ALWAYS USED TO REFER TO **TERTIAL** THREE-NOTE CHORDS.

INCIDENTALLY, **FOUR-NOTE CHORDS** ARE TECHNICALLY CALLED **TETRADS,** BUT WE USUALLY CALL THEM **SEVENTH CHORDS,** SINCE THEY ADD A **SEVENTH.**

THERE ARE **FOUR** WAYS TO CREATE A **TRIAD** USING **MAJOR** AND **MINOR THIRDS:**

THE DIMINISHED TRIAD

TWO **MINOR THIRDS** STACKED TOGETHER



C°

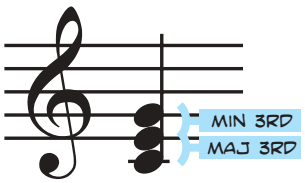
THE MINOR TRIAD

A **MAJOR THIRD** ON TOP
A **MINOR THIRD** ON BOTTOM

C

THE MAJOR TRIAD

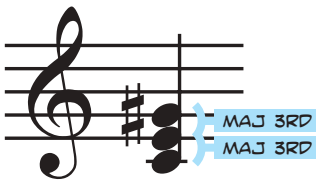
A **MINOR THIRD** ON TOP
A **MAJOR THIRD** ON BOTTOM



C

THE AUGMENTED TRIAD

TWO **MAJOR THIRDS** STACKED TOGETHER



C^{+}

WE LABEL TRIADS USING THEIR **ROOT** ("A **C MINOR TRIAD**"). THE ABBREVIATIONS SHOWN ABOVE, WHICH USE **UPPER CASE, LOWER CASE,** AND **SYMBOLS** TO SHOW CHORD TYPE, ARE CALLED **MACRO ANALYSIS.**

Triads in Inversion

LADIES AND GENTLEMEN, IT'S **FRANZ JOSEPH HAYDN!**

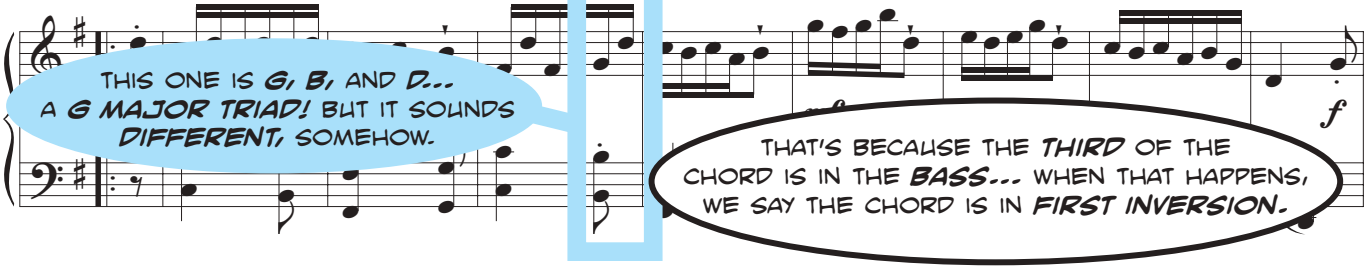
AND HE'S BROUGHT A MOVEMENT FROM HIS **1767 SONATA IN G MAJOR.**

THANK YOU FOR HAVING ME. IN THIS PIECE I USE QUITE A FEW **TRIADS.**

OOH! LET'S **SEE 'EM!**

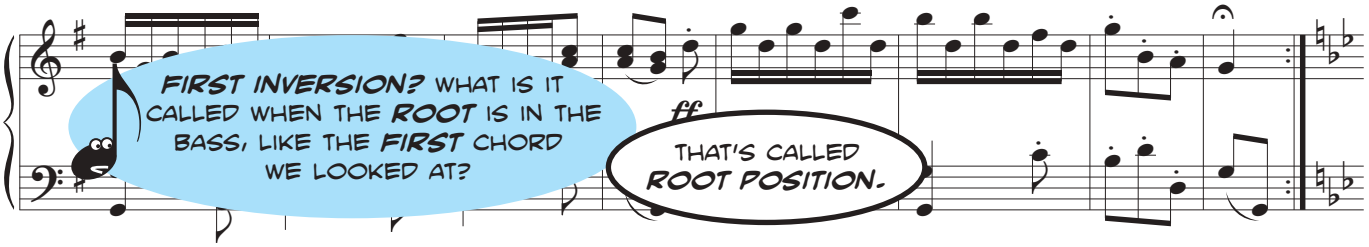
HERE'S ONE: IT HAS THE NOTES **C, E** AND **G.** IT'S A **C MAJOR TRIAD!** VERY NICE.

THANK YOU. SEE HOW THE NOTES ARE **SPREAD OUT,** AND NOT JUST **STACKED IN THIRDS?** IT'S STILL A **TRIAD,** THOUGH.



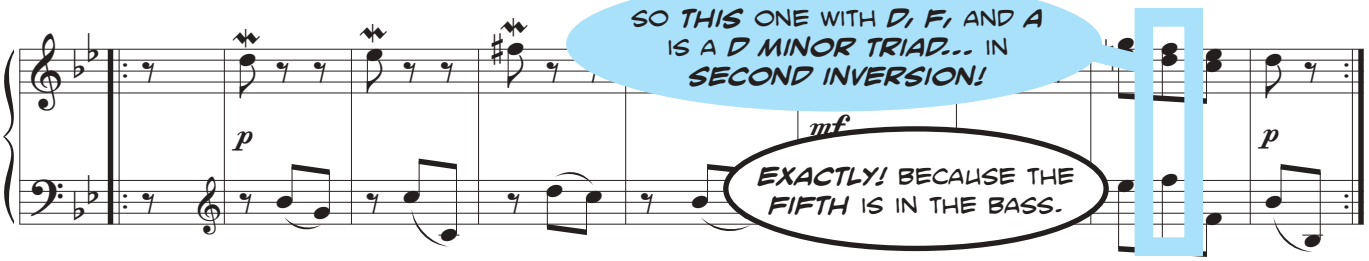
THIS ONE IS **G, B,** AND **D...** A **G MAJOR TRIAD!** BUT IT SOUNDS **DIFFERENT,** SOMEHOW.

THAT'S BECAUSE THE **THIRD** OF THE CHORD IS IN THE **BASS...** WHEN THAT HAPPENS, WE SAY THE CHORD IS IN **FIRST INVERSION.**



FIRST INVERSION? WHAT IS IT CALLED WHEN THE **ROOT** IS IN THE BASS, LIKE THE **FIRST** CHORD WE LOOKED AT?

THAT'S CALLED **ROOT POSITION.**



SO **THIS** ONE WITH **D, F,** AND **A** IS A **D MINOR TRIAD...** IN **SECOND INVERSION!**

EXACTLY! BECAUSE THE **FIFTH** IS IN THE BASS.

SO THE THING THAT MAKES A TRIAD **ROOT POSITION, FIRST INVERSION** OR **SECOND INVERSION** IS SIMPLY **WHICH NOTE IS IN THE BASS?**

IT'S HARD TO BELIEVE THAT THE SOUND OF THE CHORD CAN **CHANGE SO MUCH** JUST BECAUSE OF THE **BASS NOTE.**

THAT'S RIGHT! AND EACH ONE HAS ITS OWN **CHARACTER.**

I KNOW, RIGHT? IT'S **AWESOME.**

Figured Bass

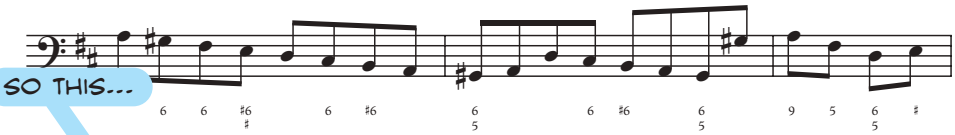
MUSICAL WORKS WRITTEN IN THE **BAROQUE ERA** WOULD OFTEN INCLUDE A PART CALLED THE **BASSO CONTINUO** WHICH WOULD CONSIST OF A **SINGLE BASS CLEF MELODIC LINE** WITH VARIOUS **NUMBERS** AND **ACCIDENTALS** PRINTED BENEATH THE NOTES.

Figure 1. The Basso Continuo

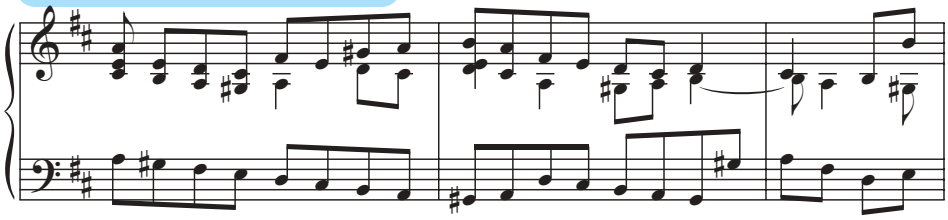
NO, NO, NO... THERE WASN'T AN ACTUAL **INSTRUMENT** CALLED A **BASSO CONTINUO!** THE PART WAS PLAYED BY **TWO INSTRUMENTS:** A BASS CLEF INSTRUMENT LIKE **CELLO** OR **BASSOON,** AND A KEYBOARD INSTRUMENT LIKE A **HARPSICHORD.**

IN PERFORMANCES, THE BASS CLEF INSTRUMENT WOULD SIMPLY PLAY THE **GIVEN NOTES,** BUT THE KEYBOARD PLAYER WOULD **IMPROVISE** A PART BASED ON THE **NOTES AND THE SYMBOLS BELOW THE PART!**

SO THIS...



COULD BE PLAYED AS **THIS!**

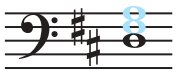


THE NUMBERS AND SYMBOLS PRINTED BELOW THE BASSO CONTINUO PART ARE CALLED THE **FIGURED BASS.** SO HOW DO YOU TURN FIGURED BASS INTO **CHORDS?**

FIRST OF ALL, IT'S IMPORTANT TO KNOW THAT THE **NOTE** GIVEN ON THE BASS CLEF PART IS ALWAYS THE **BASS NOTE OF THE CHORD.** AND REMEMBER: THE **BASS** IS NOT NECESSARILY THE **ROOT!**

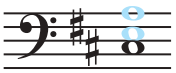
SECOND, THE **NUMBERS** REPRESENT **INTERVALS** ABOVE THE **BASS,** EVEN THOUGH SOME NUMBERS ARE USUALLY LEFT OUT.

NOTE THAT THE INTERVALS ARE ALWAYS **DIATONIC.** DON'T WORRY ABOUT **INFLECTION...** JUST USE THE NOTES FROM THE **KEY SIGNATURE!**



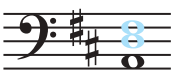
(5)
(3)

IF THERE ARE **NO NUMBERS,** ADD A **THIRD** AND A **FIFTH** ABOVE THE BASS... YOU GET A **ROOT POSITION TRIAD!**



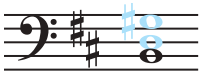
6
(3)

A **SIX** BY ITSELF INDICATES A **SIXTH** AND A **THIRD** ABOVE THE BASS, WHICH CREATES A **FIRST INVERSION TRIAD!**



6
4

A **SIX** AND A **FOUR** INDICATE A **SIXTH** AND A **FOURTH** ABOVE THE BASS, GIVING YOU A **SECOND INVERSION TRIAD!**



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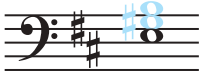
HERE, THE **SHARP** APPLIES TO THE **SIXTH** ABOVE THE BASS, SO WE ADD A SHARP TO THE **G.**



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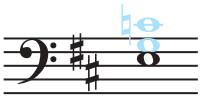
HERE, THERE IS **NO NUMBER** NEXT TO THE **SHARP,** SO WE APPLY IT TO THE **THIRD** ABOVE THE BASS NOTE.



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NOTE THAT THERE IS A **NATURAL,** NOT A **FLAT,** NEXT TO THE SIX... IF IT WERE A FLAT, WE WOULD WRITE A **C FLAT.**

LASTLY, **ACCIDENTALS** ARE APPLIED TO THE INTERVAL THEY APPEAR WITH. IF YOU HAVE AN ACCIDENTAL **BY ITSELF,** IT APPLIES TO THE **THIRD** ABOVE THE BASS.

DON'T **OVERTHINK** THESE: IF THE COMPOSER WANTS A NOTE **RAISED** BY A **HALF-STEP** AND IT'S **FLATTED** IN THE KEY SIGNATURE, THE FIGURED BASS WILL HAVE A **NATURAL,** NOT A **SHARP.**

BY THE TIME THE **CLASSICAL PERIOD** GOT GOING, COMPOSERS **STOPPED INCLUDING A BASSO CONTINUO PART,** AND SO FIGURED BASS FELL OUT OF USE... WITH ONLY ONE EXCEPTION: **MUSIC THEORY CLASSES!**

REALIZING FIGURED BASS (WRITING CHORDS GIVEN A FIGURED BASS LINE) MAKES FOR AN **EXCELLENT EXERCISE** FOR STUDENTS TO LEARN **HOW TO WRITE** IN THE **COMMON PRACTICE PERIOD STYLE!**

WOOO!

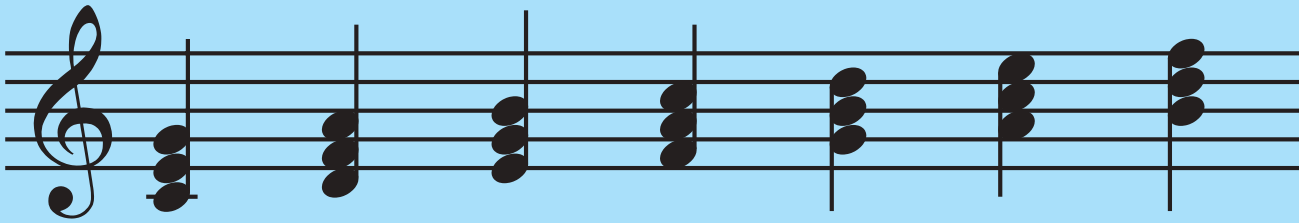
Triads Within Tonality

NOW THAT WE'RE FAMILIAR WITH HOW **TRIADS** WORK, IT'S TIME TO PUT THEM INTO THE CONTEXT OF A **KEY.**

SINCE WRITING MUSIC IN A PARTICULAR **KEY** MEANS USING THE NOTES **IN THAT KEY SIGNATURE,** IT STANDS TO REASON THAT MOST OF THE **CHORDS** WILL BE BUILT FROM **THOSE SAME NOTES!**

CHORDS WHICH USE NOTES FROM A PARTICULAR KEY SIGNATURE ARE SAID TO BE **DIATONIC** TO THAT KEY. DIATONIC MEANS **"FROM THE KEY..."** THAT MEANS **NO ACCIDENTALS!**

WE CAN QUICKLY SHOW ALL THE **DIATONIC TRIADS** IN A PARTICULAR KEY BY WRITING A **SCALE** IN THAT KEY AND BUILDING **TRIADS** ON **EACH NOTE,** USING ONLY THE NOTES **IN THAT KEY.**



I ii iii IV V vi vii°

WE REFER TO THESE CHORDS WITH **ROMAN NUMERALS** AS SHOWN HERE.

NOTICE HOW **CHORD TYPE** IS SHOWN BY **CAPITALS** OR **LOWER CASE?**

THESE CHORDS ARE ALSO SOMETIMES REFERRED TO BY THEIR **OFFICIAL NAMES!**

TONIC

SUPERTONIC

MEDIANT

SUBDOMINANT

DOMINANT

SUBMEDIANT

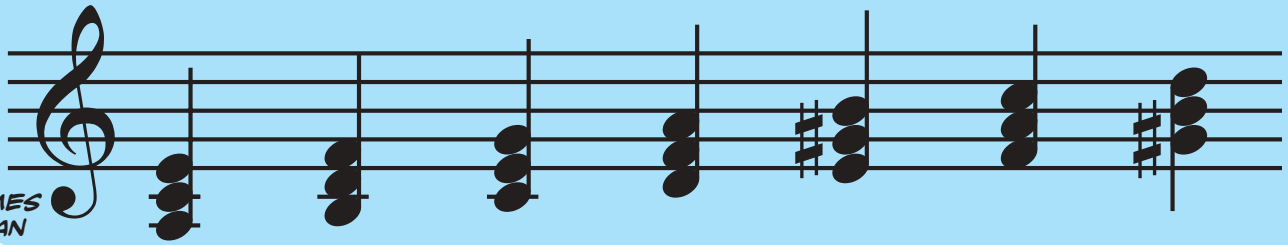
LEADING-TONE

THIS PATTERN OF **MAJOR, MINOR** AND **DIMINISHED** TRIADS IS THE **SAME** IN **EVERY MAJOR KEY!** THE **SUBDOMINANT TRIAD** IS ALWAYS **MAJOR,** AND THE **LEADING-TONE TRIAD** IS ALWAYS **DIMINISHED,** WHETHER YOU'RE IN **C MAJOR** OR **F SHARP MAJOR!**

WHY IS THE SIXTH CHORD CALLED THE **SUBMEDIANT?** WELL, JUST AS THE **MEDIANT** CHORD IS HALFWAY BETWEEN THE **TONIC** AND **DOMINANT** CHORDS, THE **SUBMEDIANT** CHORD IS HALFWAY BETWEEN THE **TONIC...** AND THE **SUBDOMINANT** A FIFTH **BELOW!**

BECAUSE THE **DOMINANT** AND **LEADING-TONE** TRIADS BOTH HAVE A STRONG TENDENCY TO RESOLVE TO **TONIC,** WE SAY THEY HAVE A **"DOMINANT FUNCTION."** THE **SUBDOMINANT** AND **SUPERTONIC** CHORDS BOTH TEND TO RESOLVE TO THE **DOMINANT,** SO WE SAY THEY BOTH HAVE A **"SUBDOMINANT FUNCTION."**

THE DIATONIC TRIADS IN **MINOR** WORK THE SAME WAY... SINCE WE'RE DEALING WITH **CHORDS,** WE USE THE **HARMONIC MINOR SCALE.** HOWEVER, IT'S IMPORTANT TO NOTE THAT COMMON PRACTICE PERIOD COMPOSERS **RAISED THE LEADING TONE** ONLY OVER **DOMINANT FUNCTION HARMONY:** THE **DOMINANT** AND **LEADING-TONE TRIADS!**



i ii° III iv V VI vii°

SAME **NAMES** AND **ROMAN NUMERALS...** DIFFERENT **CAPITALIZATION!**

Introduction to Part-Writing

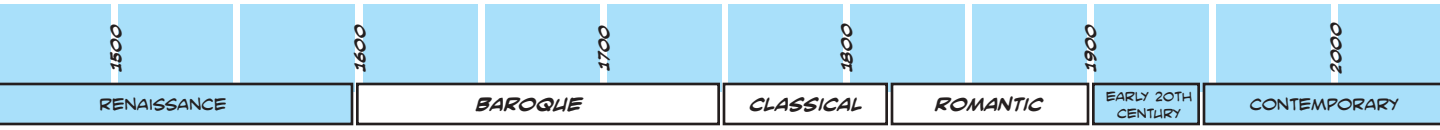
AS WE LOOK AHEAD, WE'RE CONFRONTED WITH AN ***UGLY TRUTH:***

THERE IS ***A LOT*** OF MUSIC IN THE HISTORY OF THE WORLD THAT IS WORTH STUDYING...

MUCH MORE THAN WE CAN HOPE TO COVER IN THE SPAN OF A FEW SEMESTERS.

SINCE WE CAN'T COVER IT ALL, WE HAVE TO CHOOSE A ***SPECIFIC MUSICAL LANGUAGE*** TO STUDY IN DEPTH.

LET'S START BY NARROWING THINGS DOWN TO THE ***COMMON PRACTICE PERIOD.***



THE COMMON PRACTICE PERIOD IS THE MUSIC OF THE ***BAROQUE, CLASSICAL AND ROMANTIC ERAS*** IN ***EUROPE*** AND ***AMERICA.*** THE NAME COMES FROM THE FACT THAT MOST COMPOSERS USED A ***COMMON MUSICAL LANGUAGE*** DURING THIS TIME.

IT'S ESPECIALLY WORTH STUDYING BECAUSE MOST OF THE PIECES COMMONLY PERFORMED IN CONCERT ARE FROM THIS PERIOD...

...AND THE LANGUAGE FORMS THE BASIS FOR THE MOST ***POPULAR*** MUSICAL STYLES TODAY.

BUT THERE IS A ***TON*** OF COMMON PRACTICE PERIOD MUSIC... MORE THAN WE CAN HOPE TO COVER. IS THERE A ***REPRESENTATIVE STYLE*** WE CAN SINK OUR ACADEMIC TEETH INTO?

FOUR-VOICE CHORALE WRITING IS A GOOD STYLE TO STUDY FOR ***SEVERAL REASONS:***

CHORALES HAVE A FAST ***HARMONIC RHYTHM,*** ALLOWING FOR A LARGER NUMBER OF CHORDS PER EXERCISE.

A LARGE PERCENTAGE OF COMMON PRACTICE PERIOD MUSIC CAN BE EASILY REDUCED TO ***FOUR-VOICE COUNTERPOINT.***

THE ***CANTATAS OF J.S. BACH*** PROVIDE US WITH A TREMENDOUS AMOUNT OF CONSISTENTLY-WRITTEN FOUR-VOICE CHORALES.

ONE OF THE CHANGES TO THE CATHOLIC CHURCH PROPOSED BY ***MARTIN LUTHER*** WAS TO ALLOW MEMBERS OF THE ***CONGREGATION*** TO PARTICIPATE IN THE ***SINGING OF THE LITURGY.***

OF COURSE, LUTHER WAS BRANDED A ***HERETIC*** FOR HIS PROPOSALS, AND BEGAN HIS ***OWN*** CHURCH IN WHICH TO IMPLEMENT HIS IDEAS.

MORE THAN TWO HUNDRED YEARS LATER, ***J.S. BACH*** WAS APPOINTED MUSICAL DIRECTOR AT THE ***ST. THOMAS CHURCH*** IN ***LEIPZIG, GERMANY*** AND, IN THE SPIRIT OF LUTHER, WROTE ***FIVE YEARS' WORTH*** OF ***LITURGICAL MUSIC.***

EACH OF THESE WORKS, CALLED ***CANTATAS,*** WERE BUILT AROUND A ***HYMN MELODY*** HARMONIZED IN ***FOUR PARTS*** FOR CONGREGATIONAL SINGING.

BY ANALYZING BACH'S CANTATAS, WE CAN CONSTRUCT A ***SET OF "RULES"*** FOR WRITING IN FOUR-VOICE COMMON PRACTICE PERIOD MUSICAL STYLE, ALLOWING US TO STUDY IT IN DEPTH.

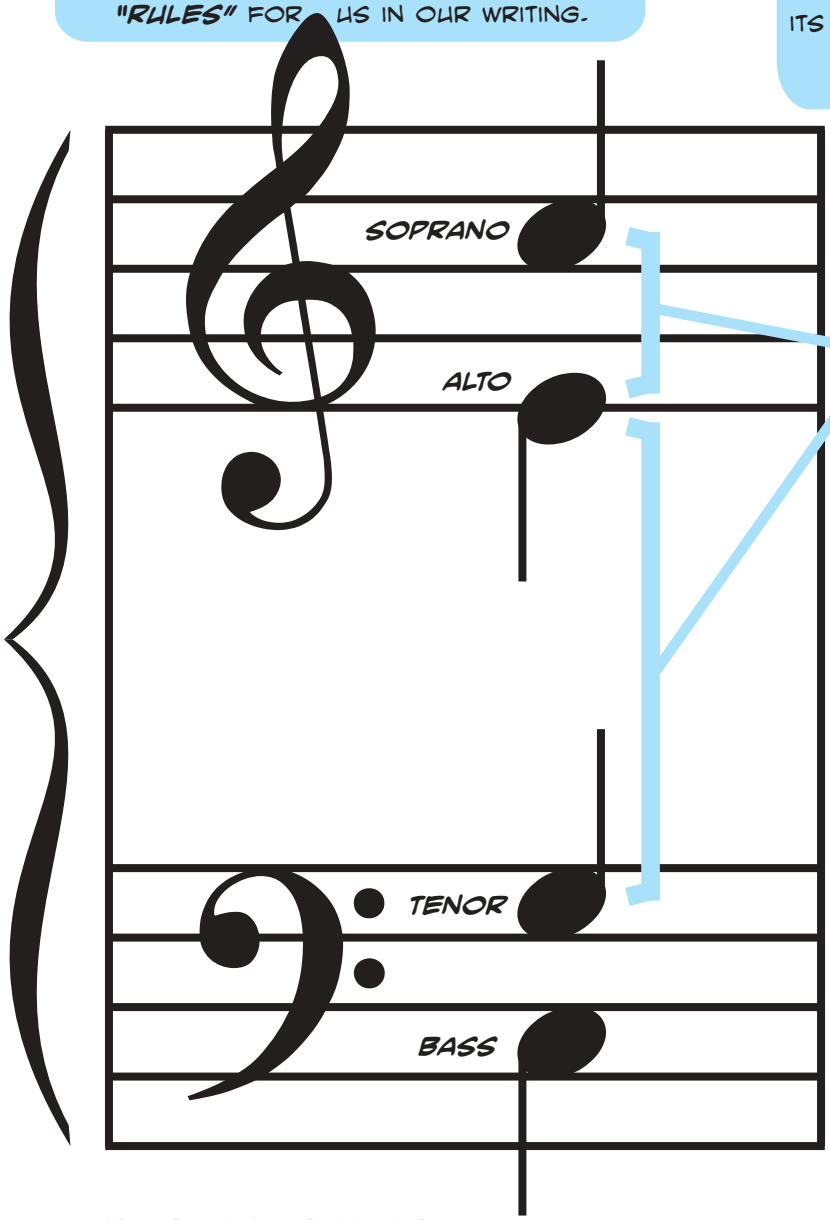
Part-Writing: The Vertical Rules

TO BEST UNDERSTAND HOW COMMON PRACTICE PERIOD COMPOSERS WROTE MUSIC, WE ARE GOING TO LEARN HOW TO ***WRITE MUSIC*** USING THEIR MUSICAL STYLE.

SO THE PATTERNS WE SEE IN THEIR MUSIC, THE THINGS THEY CONSISTENTLY ***DID*** OR ***DIDN'T DO,*** ARE GOING TO BECOME ***"RULES"*** FOR US IN OUR WRITING.

IT'S ***WRONG*** TO THINK THESE WERE "RULES" FOR THE COMPOSERS... THEY WERE JUST WRITING WHAT ***SOUNDED GOOD*** TO THEM.

NOR SHOULD WE TREAT THESE AS RULES FOR WRITING MUSIC IN ***GENERAL...*** EACH STYLE OF WRITING HAS ITS ***OWN*** SET OF PATTERNS, AND THUS ITS OWN ***"RULEBOOK."*** AS A COMPOSER, ***YOU*** GET TO WRITE ***YOUR OWN RULES*** FOR ***YOUR OWN STYLE!***



WE'RE GOING TO START WITH THE ***VERTICAL RULES...*** THAT IS, THE RULES THAT PERTAIN TO BUILDING A ***SINGLE CHORD*** IN ***FOUR-VOICE HARMONY.***

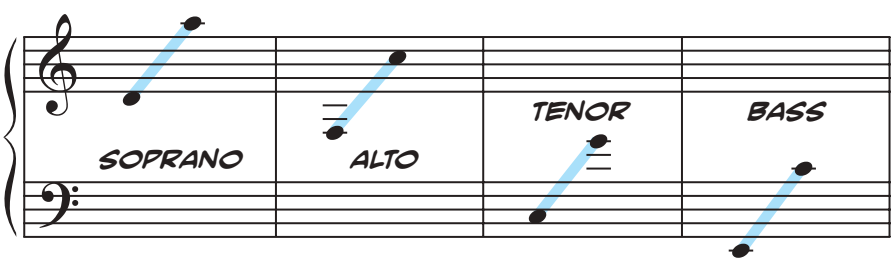
FIRST, THE DISTANCE BETWEEN ***SOPRANO AND ALTO*** AND BETWEEN ***ALTO AND TENOR*** MUST BE AN ***OCTAVE OR LESS.***

THE TENOR AND BASS CAN BE AS ***FAR APART*** AS YOU ***WANT!***

SECOND, THE VOICES MUST BE KEPT IN THEIR ***PROPER ORDER;*** FOR EXAMPLE, THE ***TENOR*** SHOULDN'T BE ***HIGHER*** THAN THE ***ALTO.*** (BACH DID THIS NOW AND THEN, BUT IT WAS ONLY WHEN HE WANTED TO INCORPORATE SOME ***SPECIAL MELODIC SHAPES.***)

THIRD, SINCE WE HAVE ***FOUR VOICES*** AND ONLY ***THREE NOTES*** IN A ***TRIAD,*** ONE OF THE NOTES SHOULD BE ***DOUBLED.*** FOR TRIADS IN ***ROOT POSITION,*** WE TYPICALLY DOUBLE THE ***ROOT*** OF THE CHORD UNLESS FORCED (BY OTHER RULES) TO DO OTHERWISE.

LASTLY, EACH VOICE SHOULD STAY IN ITS ***RANGE.*** THESE ARE ***CONSERVATIVE*** RANGES FOR ***MODERN SINGERS,*** BUT REMEMBER THAT BACH'S CHORALES WERE REALLY WRITTEN FOR ***AMATEURS:*** THE ***COMMON PEOPLE*** WHO ATTENDED ***CHURCH*** IN ***LEIPZIG!***



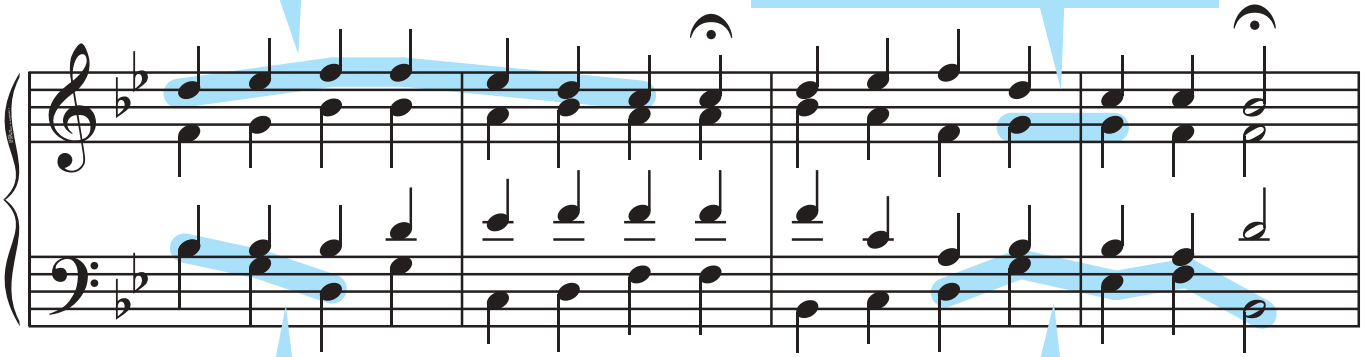
Part-Writing: The Horizontal Rules

THE ***SUPREME GOAL*** OF PART-WRITING IS ***GOOD VOICE LEADING...*** MAKING EACH INDIVIDUAL VOICE PART ***EASY TO SING*** BY AVOIDING ***AWKWARD INTERVALS*** OR ***LARGE LEAPS!***

BEFORE WE GET TO THE SPECIFIC ***DOS*** AND ***DON'TS,*** LET'S TAKE A LOOK AT SOME ***IMPORTANT CHARACTERISTICS*** OF FOUR-VOICE PART-WRITING:

NOTE HOW EACH VOICE MOVES AS ***LITTLE*** AS ***POSSIBLE,*** GOING TO THE ***NEAREST CHORD TONE*** IN EACH SUBSEQUENT CHORD!

IN SOME CASES, THE VOICE CAN SIMPLY STAY ON THE ***SAME NOTE.*** THIS IS CALLED ***KEEPING THE COMMON TONE,*** AND IT'S ***ALWAYS COOL!***



IT'S COMMON FOR THE BASS TO MOVE IN THE ***OPPOSITE DIRECTION*** OF THE ***UPPER THREE VOICES.*** THIS IS CALLED ***CONTRARY MOTION*** AND IT HELPS MAINTAIN ***VOICE INDEPENDENCE.***

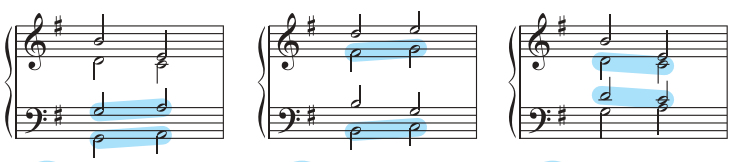
THE BASS LINE, SINCE IT PROVIDES THE ***FOUNDATION*** OF THE ***HARMONY*** IN EACH CHORD, TENDS TO INCLUDE ***LARGER LEAPS*** THAN THE OTHER THREE VOICES, BUT THAT'S OKAY.

VOICE INDEPENDENCE?

FOUR-VOICE HARMONY IS A FORM OF ***COUNTERPOINT,*** WHICH IS THE COMBINATION OF ***MORE THAN ONE MELODY*** PLAYED SIMULTANEOUSLY. IN COUNTERPOINT, EACH VOICE IS ***EQUALLY IMPORTANT;*** NO VOICE IS GIVEN A ROLE OF ACCOMPANIMENT TO ANOTHER VOICE.

IN COUNTERPOINT, IT IS IMPORTANT FOR EACH VOICE TO BE ***INDEPENDENT;*** THAT IS, NO TWO VOICES SHOULD BE DOING THE ***EXACT SAME THING.*** IF TWO (OR MORE) VOICES WERE MOVING IN ***PARALLEL,*** THE ***RICHNESS*** OF THE ***TEXTURE*** WOULD BE ***REDUCED.***

AS A RESULT, COMMON PRACTICE COMPOSERS WERE ***VERY CONSISTENT*** IN AVOIDING TWO OR MORE VOICES THAT MOVED IN ***PARALLEL PERFECT OCTAVES, PARALLEL PERFECT FIFTHS,*** OR ***PARALLEL PERFECT UNISONS!***



PARALLEL OCTAVES! ***PARALLEL FIFTHS!*** ***PARALLEL UNISONS!***

THERE ARE ALSO A FEW OTHER RULES THAT APPLY TO THIS STYLE:

WHEN YOU HAVE THE ***LEADING TONE*** IN AN ***OUTER VOICE*** (SOPRANO OR BASS) IT MUST RESOLVE TO THE ***TONIC*** IN THE NEXT CHORD.

YOU MAY NOT MOVE ***ANY*** VOICE BY AN INTERVAL OF AN ***AUGMENTED SECOND*** OR AN ***AUGMENTED FOURTH.***

THE ***GOOD NEWS:*** YOU CAN AVOID ALL THREE OF THESE BY DOING THE FOLLOWING ***WHENEVER POSSIBLE:***

1. ***KEEP THE COMMON TONE!***
2. ***MOVE TO THE NEAREST CHORD TONE!***
3. ***USE CONTRARY MOTION!***

Part-Writing: Using Inversions

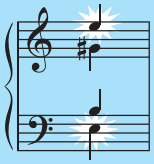
WHEN COMMON PRACTICE COMPOSERS USED **INVERTED CHORDS** IN FOUR-VOICE WRITING, THEY FOLLOWED SOME **GENERAL PATTERNS** REGARDING WHICH NOTE OF THE CHORD SHOULD BE **DOUBLED.**

ROOT POSITION

IN **ROOT POSITION** TRIADS, COMPOSERS USUALLY DOUBLED THE ROOT, WHICH IS IN THE

BASS

OF THE CHORD.



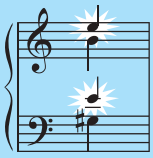
FIRST INVERSION

THE DOUBLING OF **FIRST INVERSION TRIADS** DEPENDS ON THE **TYPE** OF THE CHORD BEING WRITTEN.

IN **MAJOR** FIRST INVERSION TRIADS, COMPOSERS DOUBLED THE

SOPRANO

OF THE CHORD.



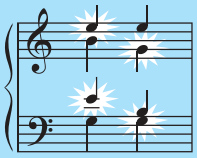
IN **MINOR** FIRST INVERSION TRIADS, COMPOSERS DOUBLED THE

BASS

OR

SOPRANO

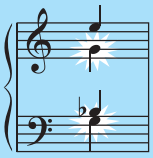
OF THE CHORD.



IN **DIMINISHED** FIRST INVERSION TRIADS, THEY DOUBLED THE

BASS

OF THE CHORD.

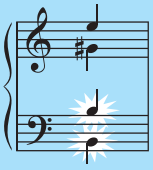


SECOND INVERSION

IN **SECOND INVERSION** TRIADS, COMPOSERS USUALLY DOUBLED THE FIFTH, WHICH IS IN THE

BASS

OF THE CHORD.



HERE'S **ANOTHER** WAY TO THINK OF IT: THE **ONLY** TIME YOU CAN'T DOUBLE THE **BASS** IS IN **FIRST INVERSION MAJOR TRIADS,** WHERE YOU SHOULD DOUBLE THE **SOPRANO** INSTEAD.

OKAY, WE KNOW **HOW** TO USE INVERSIONS IN FOUR-PART WRITING... BUT **WHEN** CAN WE USE THEM?

THE ONLY "RULE" REGARDING **ROOT POSITION TRIADS** AND **FIRST INVERSION TRIADS** IS THAT **DIMINISHED TRIADS** ARE ALWAYS PLACED IN **FIRST INVERSION.**

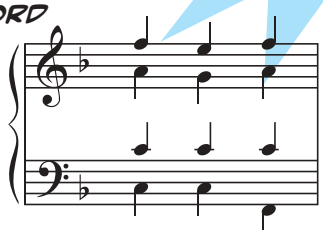
vii°6

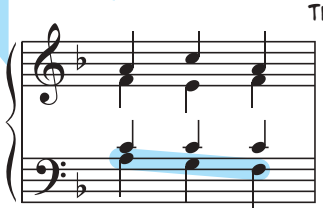
ii°6

OTHER THAN THAT, YOU CAN USE ROOT POSITION AND FIRST INVERSION ESSENTIALLY **WHENEVER YOU WANT!**

IT'S **SECOND INVERSION TRIADS** THAT HAVE THE **BIG RESTRICTIONS.**

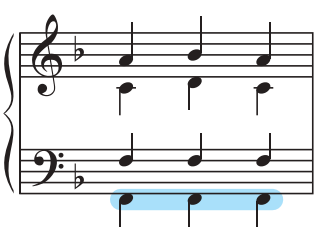
THE **CADENTIAL $\frac{6}{4}$ CHORD** IS A TONIC TRIAD IN SECOND INVERSION FOLLOWED BY A ROOT-POSITION **DOMINANT** CHORD AT A CADENCE.





THE **PASSING $\frac{6}{4}$ CHORD** IS A CHORD PLACED IN SECOND INVERSION WHERE THE BASS IS TREATED LIKE A **PASSING TONE:** THE MIDDLE NOTE OF A **STEPWISE LINE** MOVING **UP** OR **DOWN.**

THE **PEDAL $\frac{6}{4}$ CHORD** IS A SECOND INVERSION CHORD WHERE THE BASS IS TREATED LIKE A **PEDAL TONE:** A NOTE PRECEDED AND FOLLOWED BY THE **SAME NOTE.**



IF YOU WRITE A **SECOND INVERSION TRIAD** AND IT'S NOT ONE OF **THESE THREE SITUATIONS,** THEN YOU ARE **NOT** WRITING IN THE **COMMON PRACTICE PERIOD STYLE!** THE COMPOSERS OF THE STYLE JUST DIDN'T USE THESE CHORDS **WILLY-NILLY.**

Part-Writing: Melodic Minor

IN THE **COMMON PRACTICE PERIOD,** COMPOSERS USED **HARMONIC MINOR** BY DEFAULT. BUT WHEN **AUGMENTED SECONDS** OCCURRED, THEY TURNED TO A **HERO** FOR HELP: **MELODIC MINOR!**

SO ANYWAY, AFTER WE GOT HIM TRANSPOSED BACK TO TONIC, HE BEGAN TO MODULATE **AGAIN**, AND...

ATTENTION! ATTENTION! WE NEED ASSISTANCE WITH A **NEW PATIENT** IN EMERGENCY TREATMENT ROOM **3B... STAT!**

WHAT SEEMS TO BE THE **PROBLEM,** SIR?

OKAY, SURE. SO WHAT'S WRONG?

WELL, I THOUGHT I'D TRANSPOSE TO **MINOR,** YOU KNOW, TO SURPRISE THE FAMILY... SO I DID, AND THEN I RAISED ALL MY **LEADING TONES,** BECAUSE I'M A COMMON PRACTICE PERIOD PROGRESSION, RIGHT?

I'VE GOT **AUGMENTED SECONDS!**

GASP

PAGING... DR. MELODIC MINOR!

DOCTOR, WHAT CAN WE **DO?**

FOR THIS CASE OF **ASCENDING** AUGMENTED SECONDS, I PRESCRIBE A **RAISED SIXTH SCALE DEGREE!**

OOH... IT MAKES A **MAJOR IV CHORD!**

IV^6

AND THAT MAKES A **MINOR V CHORD!**

v

AND FOR THESE **DESCENDING** AUGMENTED SECONDS, WE'RE GOING TO USE AN **UNRAISED SEVENTH!**

MY AUGMENTED SECONDS... THEY'RE **CURED!**

ALL IN A **DAY'S WORK,** MY GOOD MAN. NOW LET'S TURN TO THE UNPLEASANT MATTER OF THE **BILL.**

CURE **YOUR** AUGMENTED SECONDS WITH **MELODIC MINOR TODAY!**

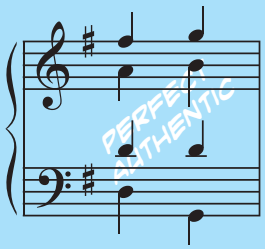
The Harmonic Cadences

A **CADENCE** IS GENERALLY CONSIDERED TO BE THE **LAST TWO CHORDS** OF A **PHRASE, SECTION OR PIECE.** THERE ARE **FOUR** TYPES OF CADENCES, EACH WITH THEIR OWN SPECIFIC **REQUIREMENTS** AND **VARIATIONS.**

AN **AUTHENTIC CADENCE** CONSISTS OF A **DOMINANT FUNCTION** CHORD (*V* OR *VII*) MOVING TO **TONIC.**

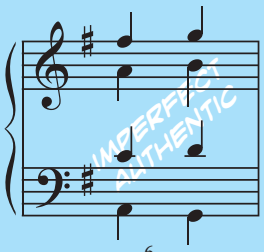
TO BE CONSIDERED A **PERFECT AUTHENTIC CADENCE,** A CADENCE MUST MEET **ALL** OF THE FOLLOWING CRITERIA:

- IT MUST USE A *V* CHORD (NOT A *VII*)
- BOTH CHORDS MUST BE IN **ROOT POSITION**
- THE SOPRANO MUST **END** ON THE **TONIC**
- THE SOPRANO MUST MOVE **BY STEP**

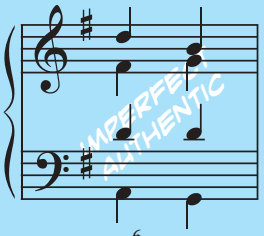


G: V I

IF THE CADENCE DOESN'T MEET **ALL** OF THOSE CRITERIA, IT'S CONSIDERED TO BE AN ***IMPERFECT AUTHENTIC CADENCE!***



G: vii^{o6} I

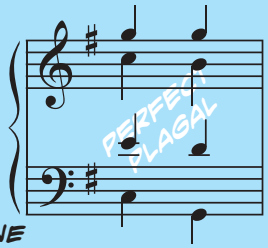


G: V^6_4 I

A **PLAGAL CADENCE** CONSISTS OF A **SUBDOMINANT FUNCTION** CHORD (*IV* OR *II*) MOVING TO **TONIC.**

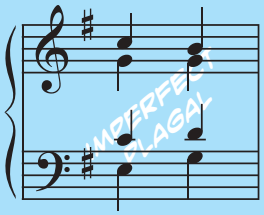
TO BE CONSIDERED A **PERFECT PLAGAL CADENCE,** A CADENCE MUST MEET **ALL** OF THE FOLLOWING CRITERIA:

- IT MUST USE A *IV* CHORD (NOT A *II*)
- BOTH CHORDS MUST BE IN **ROOT POSITION**
- THE SOPRANO MUST **END** ON THE **TONIC**
- THE SOPRANO MUST KEEP THE **COMMON TONE**

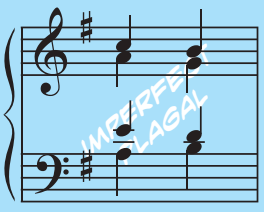


G: IV I

IF THE CADENCE DOESN'T MEET **ALL** OF THOSE CRITERIA, IT'S CONSIDERED TO BE AN ***IMPERFECT PLAGAL CADENCE!***

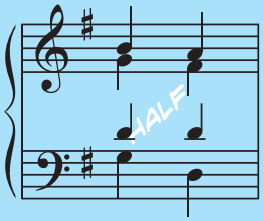


G: IV^6 I



G: ii I^6

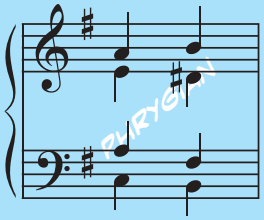
A **HALF CADENCE** IS **ANY** CADENCE THAT ENDS ON THE **DOMINANT CHORD (*V*).**



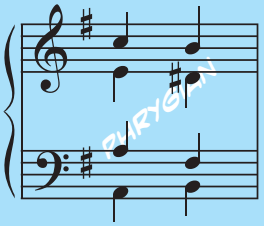
G: I V

A SPECIFIC TYPE OF HALF CADENCE IS THE ***PHRYGIAN CADENCE,*** WHICH MUST MEET THE FOLLOWING CRITERIA:

- IT OCCURS ONLY IN **MINOR**
- IT USES A *IV* CHORD MOVING TO *V*
- THE SOPRANO AND BASS MOVE **BY STEP** IN **CONTRARY MOTION**
- THE SOPRANO AND BASS BOTH END ON THE **FIFTH SCALE DEGREE**

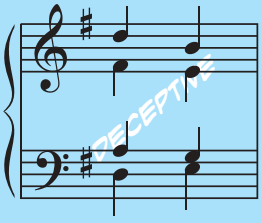


e: iv^6 V



e: iv V

A **DECEPTIVE CADENCE** IS A CADENCE WHERE THE **DOMINANT CHORD (*V*)** RESOLVES TO SOMETHING **OTHER THAN TONIC...** ALMOST ALWAYS THE **SUBMEDIANT CHORD (*VI*).**



G: V vi

REALLY, IT'S THE ***PSYCH-OUT CADENCE,*** IN THAT YOU **EXPECT** IT TO RESOLVE TO TONIC, BUT IT **DOESN'T.**

AND, IN FACT, IT'S MORE COMMON TO SEE THIS IN THE **MIDDLE** OF THE PHRASE RATHER THAN THE **END...** WHERE YOU MIGHT CALL IT A **"CADENCE-LIKE STRUCTURE"!**

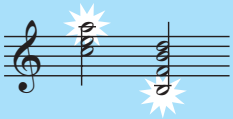
Harmonic Progression

HOW DID COMPOSERS OF THE **COMMON PRACTICE PERIOD** DECIDE WHICH ORDER TO PUT **CHORDS** IN? DID THEY JUST THROW THEM DOWN ON PAPER **HAPHAZARDLY?**

AS A MATTER OF FACT, THERE ARE CERTAIN CHORD PROGRESSIONS THAT APPEAR **MORE FREQUENTLY,** AND THERE ARE OTHERS THAT ARE **AVOIDED** PRETTY CONSISTENTLY. WHILE THE CHOICES WERE ALWAYS BASED ON WHAT **SOUNDED GOOD** TO THE COMPOSER, THEORISTS CAN FIND A **PATTERN** IN THEIR CHOICES THAT WE CAN USE TO EASILY REMEMBER WHICH CHORD PROGRESSIONS **WORK** AND WHICH ONES **DON'T.**

ONE WAY TO UNDERSTAND THIS PATTERN IS TO THINK IN TERMS OF **ROOT MOVEMENTS.** A ROOT MOVEMENT IS THE BASIC INTERVAL BETWEEN THE ROOT OF ONE CHORD AND THE ROOT OF THE NEXT CHORD. YOU DON'T HAVE TO WORRY ABOUT THE INTERVAL'S **INFLECTION,** JUST ITS **DISTANCE** AND **DIRECTION.**

FOR EXAMPLE, TO DETERMINE THE ROOT MOVEMENT HERE, WE LOOK AT THE **ROOT** (NOT **BASS**) OF EACH CHORD AND FIGURE THE **INTERVAL** BETWEEN THEM.

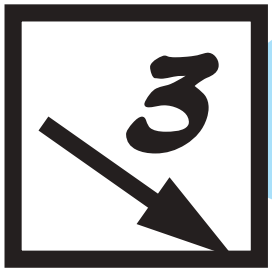


A TO **B** IS **DOWN A SEVENTH,** BUT SINCE OCTAVES DON'T MATTER, WE INVERT IT TO **UP A SECOND.**

SO HERE'S THE PATTERN: COMMON PRACTICE PERIOD COMPOSERS GENERALLY USED ROOT MOVEMENTS OF **UP A SECOND, DOWN A THIRD,** AND **DOWN A FIFTH!**

THAT'S NOT SAY THAT THEY **NEVER** USED OTHER ROOT MOVEMENTS, BUT IT DIDN'T HAPPEN VERY OFTEN.

REMEMBER... SINCE **INFLECTION** DOESN'T MATTER, WE CAN IGNORE **ACCIDENTALS** WHEN WE FIGURE THE ROOT MOVEMENTS.



SEQUENCES OF CHORDS THAT **DON'T** FOLLOW THIS PATTERN ARE CALLED **RETROGRESSIONS,** AND THEY ARE CONSIDERED **UNSTYLISTIC.**

"UNSTYLISTIC" IS A POLITE WAY OF SAYING "THE **COMPOSERS DIDN'T DO IT SO YOU SHOULDN'T DO IT EITHER"!**

SO, FOR EXAMPLE, A **G CHORD** TO AN **E CHORD** IS DOWN A THIRD, BUT SO IS **G** TO **E FLAT,** AND **G SHARP** TO **E FLAT!**

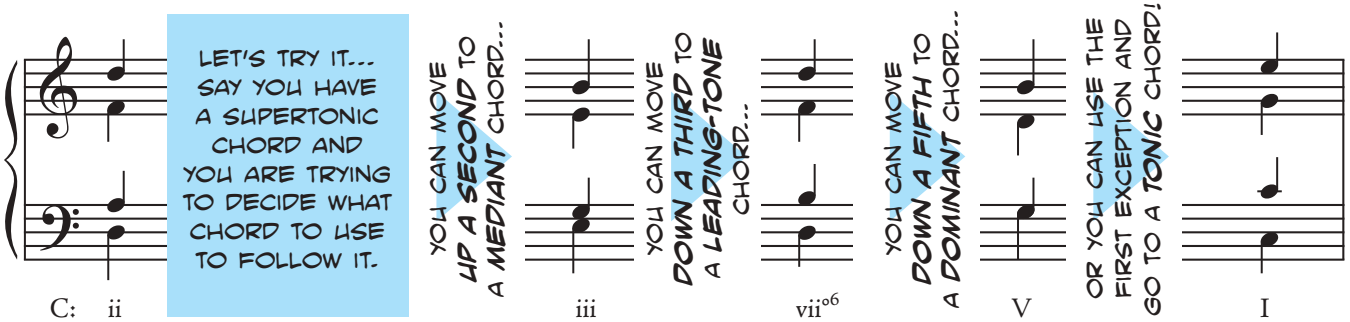
THERE ARE ALSO FOUR SIMPLE EXCEPTIONS TO THIS PATTERN:

ANY CHORD CAN MOVE TO TONIC,

TONIC CAN MOVE TO ANY CHORD,

ANY CHORD CAN MOVE TO DOMINANT,

AND THE LEADING-TONE TRIAD MUST MOVE TO TONIC.



Diatonic Common Chord Modulation

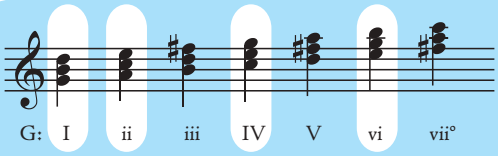
MODULATION IS THE PROCESS OF **CHANGING TO A DIFFERENT KEY** WITHIN A PIECE OF MUSIC.

THERE ARE SEVERAL DIFFERENT WAYS TO MODULATE; PERHAPS THE SIMPLEST IS THE **UNPREPARED MODULATION,** WHERE THE MUSIC PAUSES AND SUDDENLY CHANGES KEY, OFTEN UP A **HALF-STEP.**

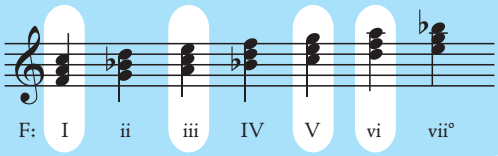
COMMON PRACTICE PERIOD COMPOSERS, HOWEVER, PREFERRED A PARTICULAR TYPE OF MODULATION THAT REQUIRED A LITTLE MORE PLANNING: THE **DIATONIC COMMON CHORD MODULATION.** AS THE NAME SUGGESTS, THIS USES A CHORD WHICH IS **DIATONIC** IN BOTH THE **OUTGOING KEY** AND THE **NEW KEY.**

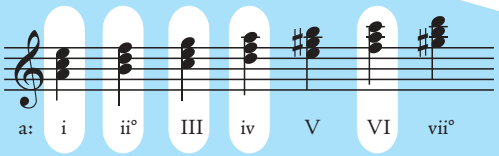
LET'S SAY WE'RE STARTING OFF IN **C MAJOR...** HERE IS A LIST OF ALL THE KEYS WHICH HAVE CHORDS **IN COMMON** WITH C MAJOR (THE SPECIFIC CHORDS ARE HIGHLIGHTED):

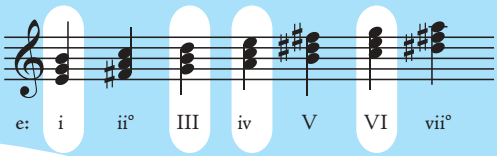
FOR INSTANCE, THE **I CHORD** IN **G MAJOR** IS **G-B-D...**



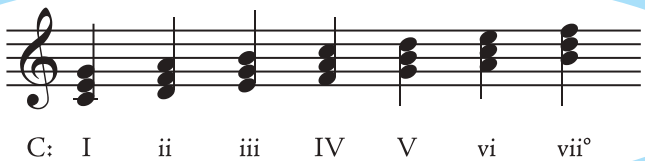
...WHICH IS THE **V CHORD** IN **C MAJOR!**



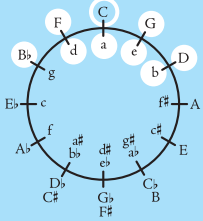


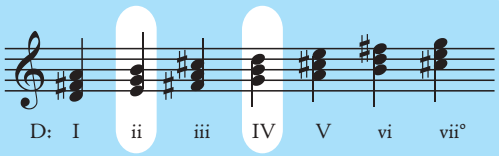


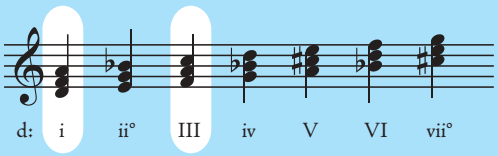
KEYS WHICH HAVE CHORDS IN COMMON LIKE THIS ARE CALLED **RELATED KEYS.**

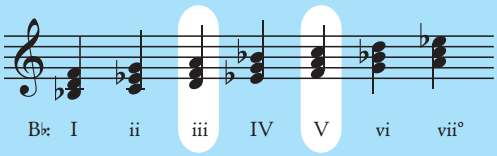


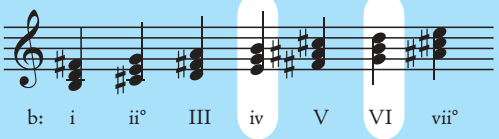
NOTICE HOW THESE KEYS ARE ALL CLOSE TO ONE ANOTHER ON THE **CIRCLE OF FIFTHS.**



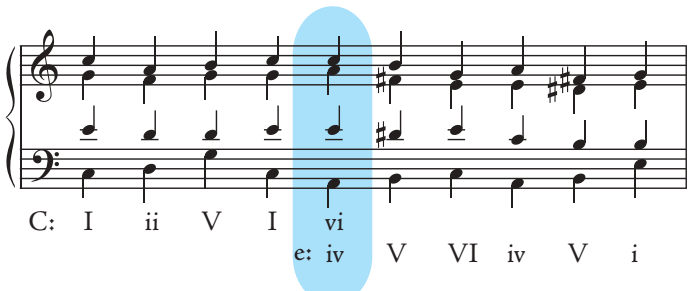








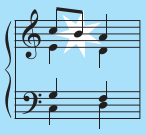
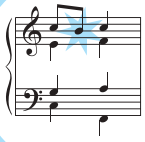
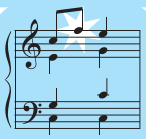
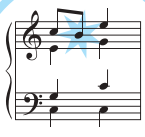
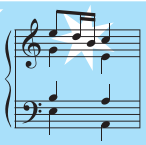
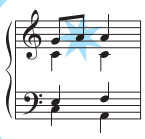
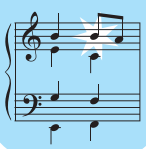
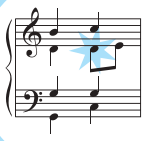
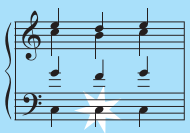
TO USE THIS TYPE OF MODULATION, A COMPOSER WOULD **PIVOT** THE HARMONY AROUND THE CHORD THAT FIT INTO BOTH KEYS. AS **THEORISTS,** WE SHOW THIS **PIVOT CHORD** BY ANALYZING THE CHORD IN **BOTH KEYS.**



NOTE THAT THE PIVOT CHORD IS **ALWAYS** THE **LAST CHORD** THAT CAN BE ANALYZED IN THE **OLD KEY...** THE FIRST ACCIDENTALS WILL ALWAYS OCCUR IN THE CHORD **IMMEDIATELY FOLLOWING** THE **PIVOT CHORD!**

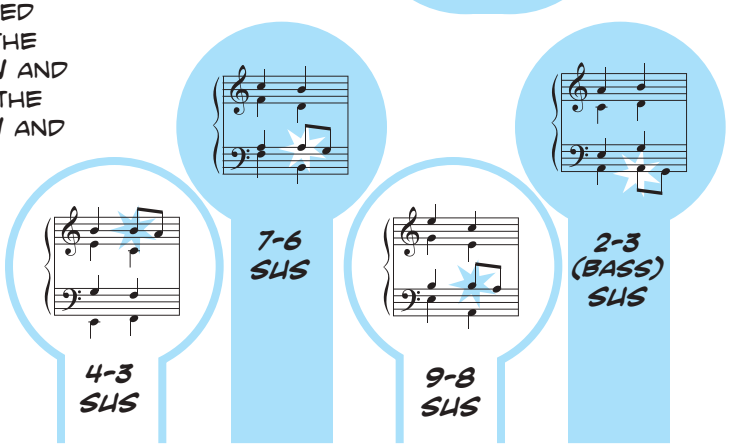
Non-Harmonic Tones

A **NON-HARMONIC TONE** IS A NOTE THAT DOESN'T FIT INTO A CHORD. WE CLASSIFY NON-HARMONIC TONES BY HOW THEY ARE **APPROACHED** AND **RESOLVED!**

NAME	ABBREVIATION	APPROACH	RESOLUTION	NOTES	EXAMPLE
PASSING TONE	PT	STEP	STEP	RESOLVES BY CONTINUING IN THE SAME DIRECTION AS THE APPROACH.	
NEIGHBORING TONE	NT	STEP	STEP	RESOLVES BY RETURNING TO THE NOTE PRECEDING THE NON-HARMONIC TONE.	
APPOGGIATURA	APP	LEAP	STEP	RESOLVES IN OPPOSITE DIRECTION FROM APPROACH.	
ESCAPE TONE	ET	STEP	LEAP	RESOLVES IN OPPOSITE DIRECTION FROM APPROACH.	
CHANGING TONES	CT	ANY	STEP	TWO NON-HARMONIC TONES ON EITHER SIDE OF THE NOTE OF RESOLUTION.	
ANTICIPATION	ANT	ANY	COMMON TONE	A CHORD TONE PLAYED BEFORE THE REST OF THE CHORD ARRIVES.	
SUSPENSION	SUS	COMMON TONE	STEP	A NOTE HELD OVER FROM A PREVIOUS CHORD AND RESOLVED DOWN.	
RETARDATION	RET	COMMON TONE	STEP	A NOTE HELD OVER FROM A PREVIOUS CHORD AND RESOLVED UP.	
PEDAL TONE	PED	COMMON TONE	COMMON TONE	A CHORD TONE WHICH TEMPORARILY BECOMES A NON-HARMONIC TONE.	

SUSPENSIONS ARE TYPICALLY FURTHER IDENTIFIED **BY NUMBER.** THE FIRST NUMBER REPRESENTS THE INTERVAL BETWEEN THE **NOTE OF SUSPENSION** AND THE **BASS.** THE SECOND NUMBER REPRESENTS THE INTERVAL BETWEEN THE **NOTE OF RESOLUTION** AND THE **BASS.**

THE EXCEPTION TO THIS RULE IS THE **2-3** OR **BASS** SUSPENSION, WHERE THE NUMBERS REPRESENT THE INTERVALS BETWEEN THE **BASS** (WHERE THE SUSPENSION OCCURS) AND WHICHEVER VOICE HAS THE NOTE WHICH IS A **SECOND** (NOT COUNTING OCTAVES) ABOVE THE BASS.

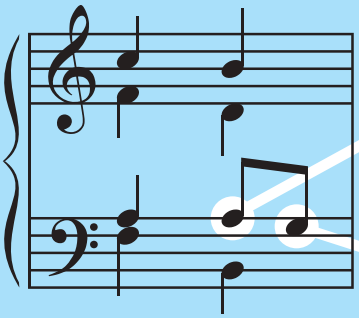


hey, it's kids! SPARKY THE MUSIC THEORY DOG!

Q: Dear Sparky:
Can you elaborate on why suspensions are identified by numbers? Also, what should one watch out for when writing suspensions in four-part harmony?
--S.S., Detroit, MI

A: WOOF!*

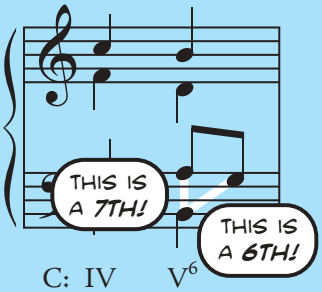
TRANSLATION:** WHEN ANALYZING SUSPENSIONS, IT IS IMPORTANT TO IDENTIFY BOTH THE ***NOTE OF SUSPENSION (THE NON-HARMONIC TONE ITSELF) AND THE ***NOTE OF RESOLUTION*** (THE NOTE THAT COMES RIGHT AFTER THE NON-HARMONIC TONE IN THE SAME VOICE).



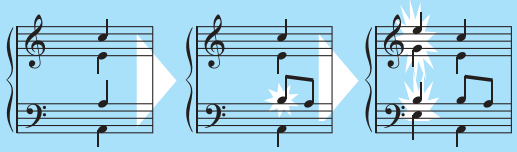
THIS *A* IS THE ***NOTE OF SUSPENSION***... IT DOESN'T BELONG IN THIS ***G MAJOR TRIAD.***

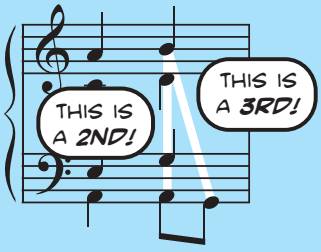
IT RESOLVES TO THIS *G*, WHICH ***DOES*** FIT IN THE CHORD. IT'S THE ***NOTE OF RESOLUTION!***

IN ALMOST EVERY CASE, THE SUSPENSION IS THEN LABELED USING TWO INTERVALS: THE INTERVAL BETWEEN THE ***NOTE OF SUSPENSION*** AND THE ***BASS,*** AND THE INTERVAL BETWEEN THE ***NOTE OF RESOLUTION*** AND THE ***BASS.***



WHEN ***WRITING*** AN EXAMPLE WHICH INCLUDES A SUSPENSION, IT IS VERY OFTEN USEFUL TO ***BEGIN*** BY WRITING THE CHORD THAT IS GOING TO CONTAIN THE SUSPENSION, ***THEN*** ADDING THE SUSPENSION, AND FINISHING BY WRITING THE ***CHORD OF APPROACH.***





THE ONLY EXCEPTION TO THIS IS THE ***2-3 SUSPENSION,*** WHERE THE SUSPENSION OCCURS IN THE ***BASS.*** FOR THIS ONE, WE LOOK AT THE INTERVAL BETWEEN THE NOTES OF SUSPENSION AND RESOLUTION AND THE ***NEAREST CHORD TONE,*** WHICHEVER VOICE IT MAY BE IN.

THE REAL TRICK, THOUGH, IS TO ***PLAN AHEAD...*** IF YOU ARE PLANNING TO WRITE A PARTICULAR TYPE OF SUSPENSION, YOU NEED TO THINK ABOUT THE ***INTERVAL THAT NEEDS TO BE PRESENT*** IN THE CHORD THAT INCLUDES YOUR SUSPENSION.

FOR THE ***9-8 SUSPENSION,*** THE SUSPENSION RESOLVES TO AN ***OCTAVE*** ABOVE THE BASS... THAT'S ***EASY,*** SINCE ***ANY*** CHORD CAN INCLUDE AN OCTAVE.

FOR THE ***7-6 SUSPENSION,*** THE SUSPENSION RESOLVES TO A ***SIXTH*** ABOVE THE BASS. THAT MEANS YOU CAN'T USE A CHORD IN ***ROOT POSITION,*** BECAUSE THEY HAVE A FIFTH AND A THIRD ABOVE THE BASS. YOU NEED A ***FIRST*** OR ***SECOND INVERSION*** TRIAD!

FOR THE ***4-3 SUSPENSION*** AND ***2-3 SUSPENSION,*** YOU NEED A CHORD WITH A ***THIRD*** ABOVE THE BASS... WHICH MEANS YOU CAN USE ANYTHING ***EXCEPT*** A ***SECOND INVERSION*** TRIAD.

DOING STUFF THE SPARKY WAY IS ALWAYS FUN!

Diatonic Seventh Chords

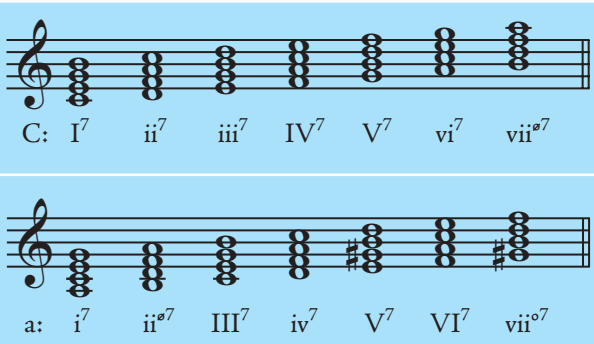
REMEMBER, DIATONIC MEANS "FROM THE KEY." SO A DIATONIC CHORD IS ONE THAT ONLY USES NOTES IN THE KEY SIGNATURE. NO ACCIDENTALS!

WHAT ARE THEY?

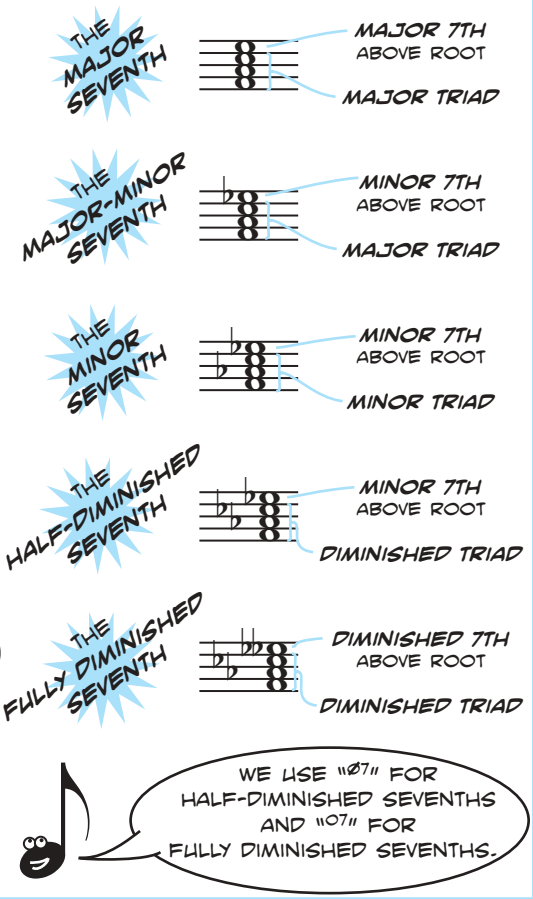
DIATONIC SEVENTH CHORDS ARE THE SEVENTH CHORDS YOU CAN CREATE USING ONLY THE NOTES IN A PARTICULAR KEY.

HERE THEY ARE IN MAJOR AND MINOR.

REMEMBER: WE ONLY RAISE THE LEADING-TONE OVER DOMINANT-FUNCTION HARMONY!

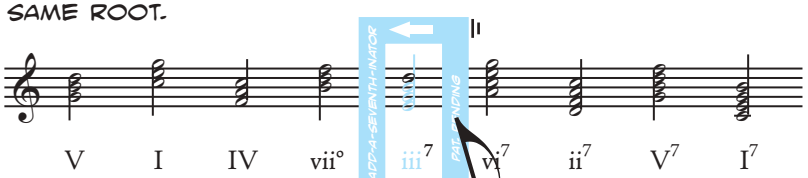


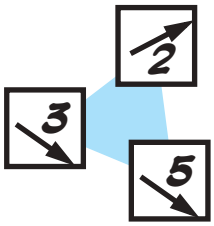
THERE ARE EIGHT POSSIBLE TYPES OF SEVENTH CHORDS IN TERTIAL HARMONY, BUT THE COMPOSERS OF THE COMMON PRACTICE PERIOD ONLY USED FIVE:



WE USE "Ø7" FOR HALF-DIMINISHED SEVENTHS AND "O7" FOR FULLY DIMINISHED SEVENTHS.

IN HARMONIC PROGRESSIONS, DIATONIC SEVENTHS CAN BE USED ANYWHERE YOU CAN USE A DIATONIC TRIAD WITH THE SAME ROOT.





IN FACT, THESE CHORDS CAN BE APPROACHED AND RESOLVED USING ANY OF THE SAME THREE ROOT MOVEMENTS AS TRIADS USE.

WITH THE DIATONIC SEVENTH CHORDS, WE ADD A FOURTH ROOT MOVEMENT: THE COMMON ROOT. HOWEVER, THIS ROOT MOVEMENT CAN ONLY BE USED TO INCREASE TENSION, SO GOING FROM A SEVENTH CHORD TO A TRIAD IS AVOIDED.

SEVENTH CHORDS HAVE FOUR NOTES, SO DOUBLING IN FOUR-PART HARMONY IS NOT AN ISSUE... BUT IF YOU NEED TO USE IRREGULAR DOUBLING, DOUBLE THE ROOT AND OMIT THE FIFTH.

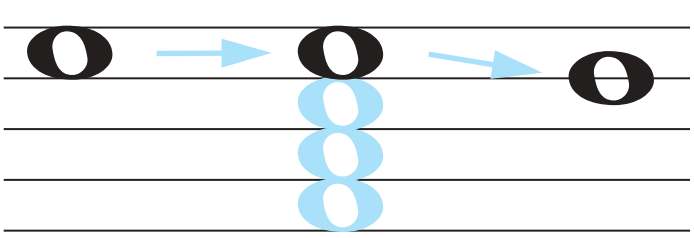
WHEN USING THESE CHORDS IN FOUR-PART WRITING – IN FACT, WHEN YOU USE ANY SEVENTH CHORD IN FOUR-PART WRITING, YOU MUST ALWAYS, ALWAYS REMEMBER TO...

RESPECT THE SEVENTH!

THE SEVENTH OF THE CHORD IS MOST OFTEN APPROACHED BY THE COMMON TONE.

HOWEVER, IT IS OKAY TO APPROACH THE SEVENTH FROM BELOW BY A STEP OR A LEAP, OR FROM ABOVE BY A STEP.

YOU MUST NEVER APPROACH THE SEVENTH BY A LEAP FROM ABOVE!



THE SEVENTH OF THE CHORD IS ALWAYS RESOLVED DOWN BY STEP. ALWAYS!

NO, I'M SERIOUS. DON'T EVER RESOLVE THE SEVENTH OF A SEVENTH CHORD ANY OTHER WAY.

DOING SO WILL CAUSE YOU CERTAIN DEATH!

The Dominant Seventh

THE **DOMINANT SEVENTH** IS THE **DIATONIC SEVENTH CHORD** BUILT ON THE **FIFTH SCALE DEGREE.** WE ALREADY DISCUSSED DIATONIC SEVENTH CHORDS... WHY GIVE **THIS ONE** ALL THIS SPECIAL ATTENTION?

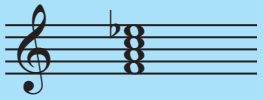
FOR ONE THING, THE DOMINANT SEVENTH IS, BY FAR, THE **MOST COMMON SEVENTH CHORD** USED BY THE COMPOSERS OF THE COMMON PRACTICE PERIOD.

BUT ANOTHER REASON FOR SPENDING A LITTLE EXTRA TIME WITH IT IS THE FACT THAT THERE ARE A FEW THINGS THAT APPLY TO **IT** THAT **DON'T APPLY** TO THE **OTHER** DIATONIC SEVENTH CHORDS.

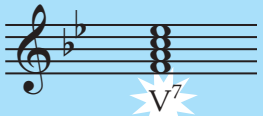
FIRST, A NOTE ON **TERMINOLOGY:**

THE TERMS "MAJOR-MINOR SEVENTH" AND "DOMINANT SEVENTH" ARE NOT INTERCHANGEABLE! "MAJOR-MINOR SEVENTH" IS THE CHORD'S **TYPE,** AND "DOMINANT SEVENTH" IS THE **ROLE** THE CHORD PLAYS IN THE **CONTEXT OF A PARTICULAR KEY.**

IT'S JUST A MAJOR-MINOR SEVENTH...



UNTIL IT'S PLACED IN A PARTICULAR KEY!

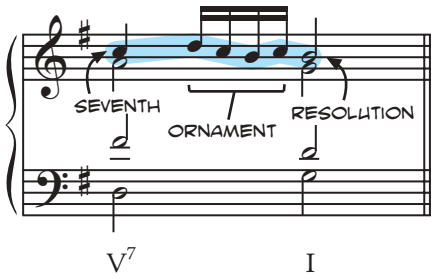


THE REASON THESE ARE OFTEN CONFUSED IS THAT IN **POPULAR AND JAZZ THEORY,** THE TERM "DOMINANT" IS USED TO LABEL THE CHORD **TYPE** INSTEAD OF THE CHORD'S **ROLE.**

THE OTHER IMPORTANT THING TO KNOW ABOUT THE DOMINANT SEVENTH CHORD IS THAT COMMON PRACTICE PERIOD COMPOSERS WOULD SOMETIMES USE SOME **NON-STANDARD** WAYS OF RESOLVING THE **SEVENTH!**

THE ORNAMENTAL RESOLUTION

IN THIS RESOLUTION, THE SEVENTH IS STILL RESOLVED **DOWN BY STEP,** BUT IT TAKES AN ORNAMENTAL **"DETOUR"** BEFORE GETTING THERE.

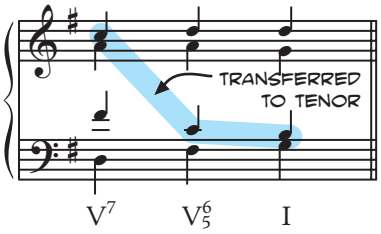


THE ORNAMENT CAN BE ANY SHAPE OR LENGTH, BUT IT **MUST** RESOLVE TO THE NOTE **DOWN A STEP** FROM THE SEVENTH OF THE SEVENTH CHORD.

THE TRANSFERRED RESOLUTION

THIS IS THE "HOT POTATO" RESOLUTION: INSTEAD OF BEING RESOLVED DOWN BY STEP IN THE SAME VOICE, THE SEVENTH IS **PASSED TO ANOTHER VOICE** IN ANOTHER DOMINANT SEVENTH CHORD.

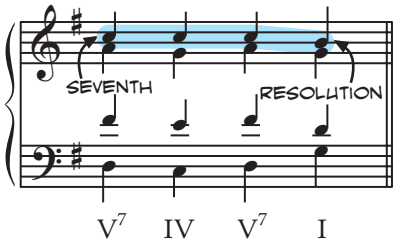
THE SEVENTH STILL NEEDS TO RESOLVE **DOWN BY STEP** BY WHATEVER VOICE IS THE LAST TO HAVE IT.



IF THE BASS VOICE GETS IT, HE **RESOLVES IT IMMEDIATELY,** ENDING THE FUN FOR EVERYONE.

THE DELAYED RESOLUTION

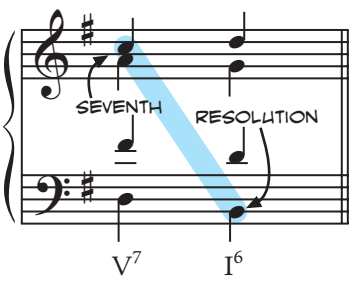
HERE, THE RESOLUTION OF THE SEVENTH IS **DELAYED** BY MOVING TO SOME OTHER CHORD (USUALLY THE **SUBDOMINANT**) AND HAVING THE SEVENTH OF THE CHORD **HOLD OUT** UNTIL THE DOMINANT SEVENTH RETURNS.



AFTER THE V7 **RETURNS,** THE VOICE THAT HAS THE SEVENTH SHOULD **STILL** RESOLVE IT APPROPRIATELY!

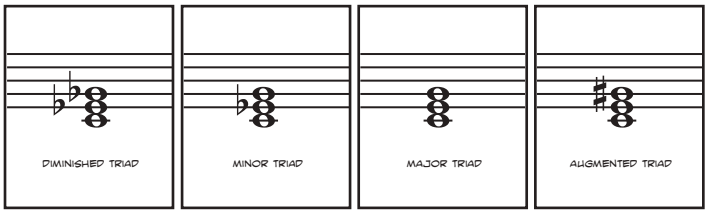
THE BASS RESOLUTION

IN THIS RESOLUTION, THE SEVENTH OF THE CHORD IS STILL RESOLVED **DOWN BY STEP,** BUT THE NOTE IT RESOLVES TO APPEARS IN THE **BASS VOICE.**



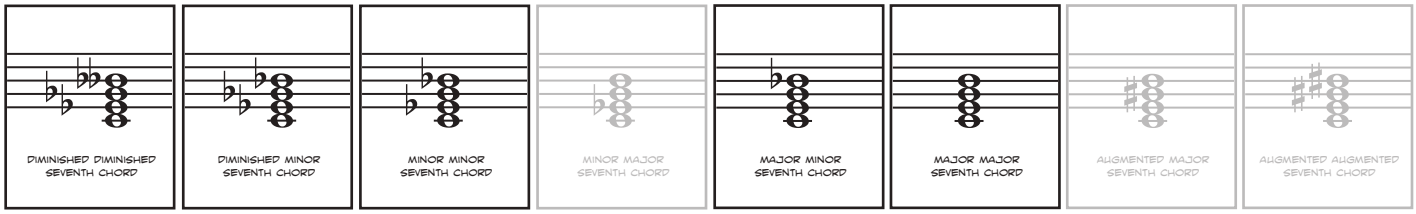
THE VOICE THAT **HAD** THE SEVENTH RESOLVES **UP,** USUALLY BY **STEP.**

Extended Harmonies



SO FAR, WE'VE TALKED ABOUT TWO TYPES OF TERTIAL CHORDS: ***TRIADS*** AND ***SEVENTH CHORDS***. REMEMBER, ***TERTIAL*** CHORDS ARE CHORDS CONSTRUCTED BY STACKING ***MAJOR*** AND ***MINOR THIRDS***!

NOW, THERE ARE ***FOUR*** TYPES OF ***TRIADS*** AND ***EIGHT*** TYPES OF ***SEVENTH CHORDS***, EVEN THOUGH COMMON PRACTICE PERIOD COMPOSERS ONLY USED ***FIVE*** OF THEM.

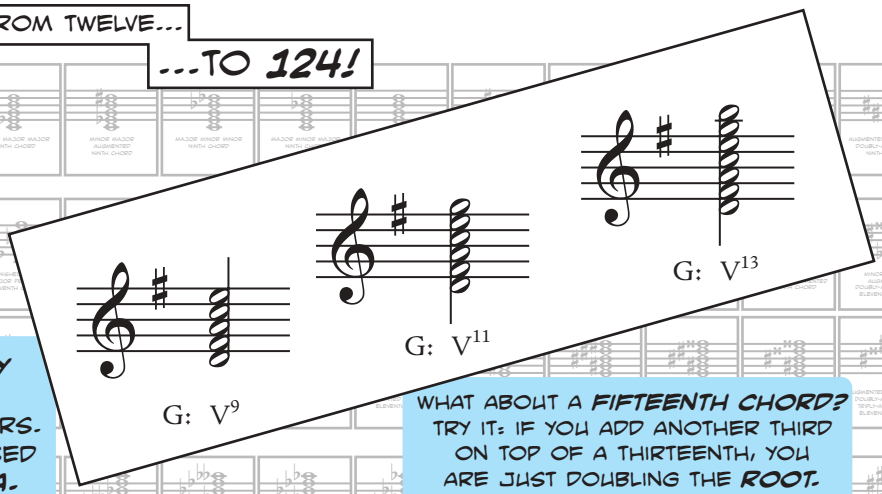


SO THAT MAKES FOR ***TWELVE*** CHORD TYPES SO FAR... BUT WHAT IF WE KEEP GOING? WHAT OTHER CHORD TYPES CAN WE MAKE BY STACKING MAJOR AND MINOR THIRDS? TERTIAL CHORDS WITH ***FIVE, SIX*** AND ***SEVEN*** NOTES ARE CALLED ***NINTH CHORDS, ELEVENTH CHORDS*** AND ***THIRTEENTH CHORDS*** RESPECTIVELY.

SUDDENLY THE POSSIBILITIES INCREASE FROM TWELVE...

...TO ***124!***

THE ***GOOD NEWS:*** COMMON PRACTICE PERIOD COMPOSERS ***ONLY*** USED THESE ***"EXTENDED HARMONIES"*** AS ***DIATONIC CHORDS*** ON THE ***DOMINANT.***



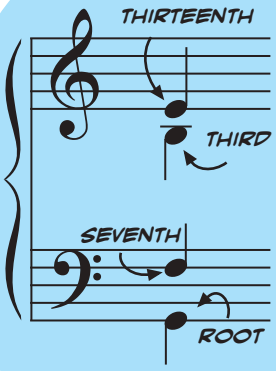
SERIOUSLY: THESE ARE THE ***ONLY*** EXTENDED HARMONIES USED BY COMMON PRACTICE PERIOD COMPOSERS. IN FACT, THE ***V11*** AND ***V13*** WEREN'T USED MUCH BEFORE THE ***ROMANTIC ERA.***

WHAT ABOUT A ***FIFTEENTH CHORD?*** TRY IT: IF YOU ADD ANOTHER THIRD ON TOP OF A THIRTEENTH, YOU ARE JUST DOUBLING THE ***ROOT.*** SO TERTIAL HARMONY STOPS AT ***13!***

NOW, WHEN WE PUT THESE CHORDS INTO ***FOUR-PART HARMONY,*** WE'VE GOT A PROBLEM: THEY ALL HAVE MORE THAN FOUR NOTES. SO WE HAVE TO MAKE THE TOUGH CALL: WHICH ONES DO WE CUT FROM THE TEAM?

WE NEED TO KEEP THE ***ROOT*** BECAUSE IT DEFINES THE CHORD. SIMILARLY, THE ***THIRD*** IS WHAT MAKES THE CHORD TERTIAL.

THE ***SEVENTH*** ACTS AS A ***BRIDGE*** TO THE EXTENDED HARMONY, PREVENTING THE CHORD FROM COMING ACROSS AS ***TWO SEPARATE HARMONIES*** PLAYED AT THE SAME TIME.



FINALLY, THE ***NINTH, ELEVENTH*** OR ***THIRTEENTH*** OF THE CHORD IS WHAT DEFINES IT AS A NINTH, ELEVENTH OR THIRTEENTH CHORD.

SO HOW DO YOU PUT THESE IN FOUR-PART HARMONY? ***OMIT THE FIFTH*** AND USE ***ONLY*** THE ***NINTH, ELEVENTH*** OR ***THIRTEENTH*** AS NECESSARY.

OH, AND IF YOU'RE WORRIED ABOUT INVERSIONS: ***STOP.*** IN THE COMMON PRACTICE PERIOD, EXTENDED HARMONIES ARE ALMOST ALWAYS FOUND IN ***ROOT POSITION.***

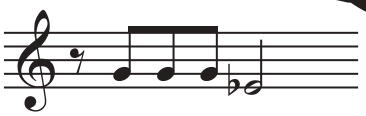
Motivic Development

WE'RE GOING TO TAKE A LITTLE BREAK FROM THE USUAL STUFF AND... HEY, IT'S **LUDWIG VAN BEETHOVEN!**

WHAT'S GOING **ON**, MAESTRO?

I'LL TELL YOU WHAT'S GOING ON: I'M **GRUMPY!** I BET ARCHDUKE RUDOLPH **20 GULDEN** THAT I COULD WRITE **500 MEASURES** OF MUSIC THIS WEEK AND SO FAR I'VE ONLY COME UP WITH **FOUR STINKIN' NOTES!**

ORIGINAL MOTIVE



HEY, IT'S **COOL**, MR. B... WE CAN USE THESE NOTES AS A **MOTIVE**, AND CREATE A **TON** MORE MUSIC BASED ON THEM. WATCH!

REPETITION

THE SIMPLEST FORM OF MOTIVIC DEVELOPMENT: REPEATING A PHRASE IMMEDIATELY GIVES YOU TWICE AS MUCH MUSIC!

SEQUENCE

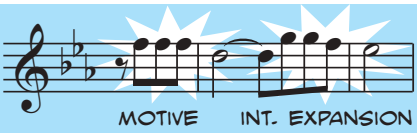
REPEATING A MOTIVE AT A HIGHER OR LOWER LEVEL PITCH. AS WITH ALL OF THESE, THE INTERVALS DON'T HAVE TO MATCH EXACTLY.

INVERSION

FLIPPING THE MOTIVE UPSIDE-DOWN: IF THE ORIGINAL MOTIVE LEAPS DOWNWARD, AN INVERSION WILL LEAP UPWARD.

INTERVAL CONTRACTION
INTERVAL EXPANSION

MAKING THE INTERVALS WITHIN THE MOTIVE SMALLER (CONTRACTION) OR LARGER (EXPANSION).



DIMINUTION
AUGMENTATION

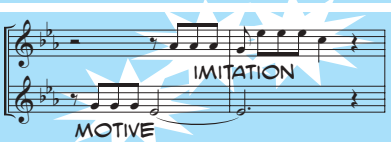
CHANGING THE SPEED OF THE MOTIVE SO IT IS PLAYED FASTER (DIMINUTION) OR SLOWER (AUGMENTATION).

RHYTHMIC METAMORPHOSIS

ANY CHANGE OF THE MOTIVE'S RHYTHM (OTHER THAN JUST CHANGING THE TEMPO, AS DESCRIBED ABOVE)

IMITATION

AN "ECHO" EFFECT BETWEEN DIFFERENT VOICES (BETWEEN INSTRUMENTS IN AN ENSEMBLE, FOR EXAMPLE, OR BETWEEN REGISTERS ON THE PIANO)

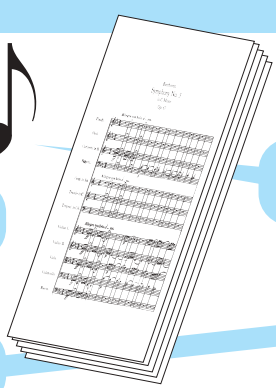


SO, HEH HEH.... THAT GETS US TO **253** MEASURES...

WAIT... WE ARE IN **4/4 TIME**, RIGHT?

UH, YEAH...

SO LET'S USE **2/4 TIME** INSTEAD!



YOU SLY FOX... **506 MEASURES!**

WOOOOT! READ IT AND **WEEP**, RUDY!

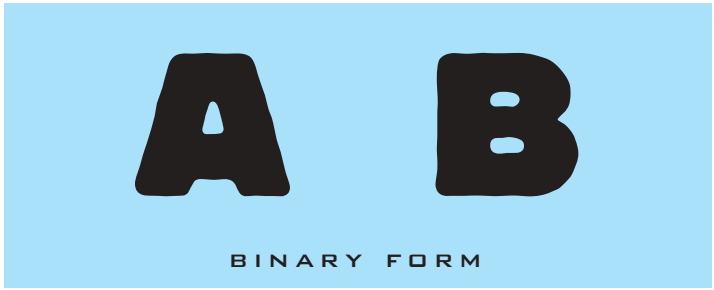
AW, DANG! LET'S GO **DOUBLE OR NOTHING!**

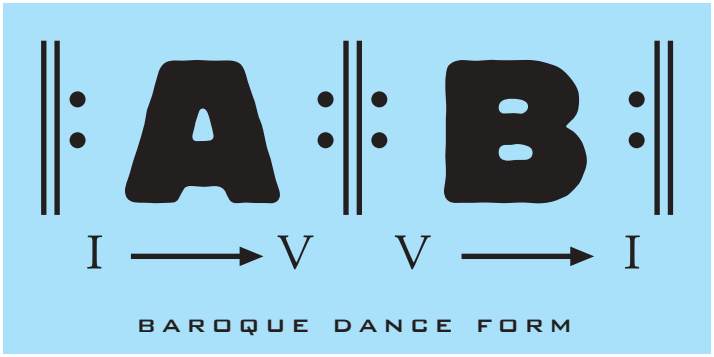
Binary Form

WHEN WE TALK ABOUT THE ***FORM*** OF A PIECE, WE ARE REFERRING TO THE LARGE-SCALE LAYOUT OF THE PIECE... SPECIFICALLY, THE ARRANGEMENT OF SECTIONS OF MUSIC, HOW AND WHEN THEY ARE REPEATED, AND WHAT KEYS ARE BEING USED.

ONE OF THE SIMPLEST FORMS IS ***BINARY FORM,*** WHICH CONSISTS OF ***TWO CONTRASTING SECTIONS.*** WE REFER TO THESE TWO SECTIONS AS ***A*** AND ***B.***

THE SECTIONS MIGHT BE CONTRASTING IN ***MOOD, TEMPO, KEY,*** OR EVEN IN A COMBINATION OF THESE CHARACTERISTICS.





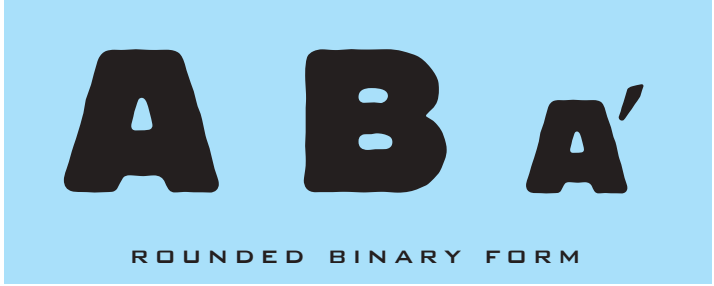
BINARY FORM IS USED IN ***BAROQUE DANCE SUITES*** IN A VERY SPECIFIC WAY. IN THESE PIECES, BOTH SECTIONS ARE REPEATED. THE ***A*** SECTION BEGINS IN THE PRIMARY KEY AND MODULATES TO THE ***KEY OF THE DOMINANT,*** AND THE B SECTION BEGINS IN THAT KEY AND MODULATES BACK TO THE ***ORIGINAL KEY.*** PERFORMERS OF THE TIME WOULD TYPICALLY IMPROVISE ORNAMENTATION WHEN REPEATING EACH SECTION.

BAROQUE DANCE SUITES WERE WRITTEN FOR VARYING INSTRUMENTATION; MANY WERE WRITTEN FOR ***KEYBOARD*** (USUALLY ***HARPSICHORD*** OR ***CLAVICHORD***), OTHERS WERE WRITTEN FOR CHAMBER GROUPS, AND SOME WERE EVEN WRITTEN FOR ***FULL ORCHESTRA.***

EACH MOVEMENT OF THESE SUITES WOULD BE WRITTEN IN THE STYLE OF A PARTICULAR BAROQUE DANCE: ***ALLEMANDE, GAVOTTE, BOUREE, COURANTE, SARABANDE, LOUREE, GIGUE,*** AND OTHERS, EACH OF WHICH HAD A SPECIFIC CHARACTER.

BECAUSE BAROQUE DANCE FORM IS SO COMMON IN BAROQUE INSTRUMENTAL MUSIC, WHEN THEORISTS AND MUSICOLOGISTS ARE TALKING ABOUT BAROQUE MUSIC AND SAY ***"BINARY FORM,"*** THEY ARE ACTUALLY REFERRING TO ***BAROQUE DANCE FORM.***

ANOTHER SOMEWHAT RARE VARIATION OF BINARY FORM IS ***ROUNDED BINARY FORM,*** WHERE THE ***A*** SECTION RETURNS AFTER THE END OF THE ***B*** SECTION. THIS REPRISE OF THE ***A*** SECTION, HOWEVER, IS ***SHORTENED,*** SO WE REFER TO IT AS ***"A PRIME."***



Ternary Form

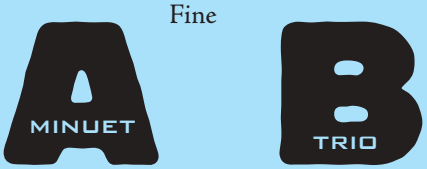
TERNARY FORM IS A THREE-PART FORM. RATHER THAN USING **THREE COMPLETELY DIFFERENT SECTIONS,** MOST PIECES IN TERNARY FORM CONSIST OF **TWO** SECTIONS, THE FIRST OF WHICH IS **REPRISED.**

IN TERNARY FORM, THE **A** SECTION APPEARS BOTH AT THE BEGINNING AND AT THE END; LIKE BINARY FORM, THE **B** SECTION IS **CONTRASTING** IN CHARACTER.

THE REPRISED **A** SECTION MAY BE AN EXACT REPEAT OF THE FIRST **A,** OR IT MAY BE SLIGHTLY DIFFERENT, BUT THE **LENGTH** OF THE **A** SECTIONS SHOULD BE SIMILAR.

TERNARY FORM

THIS IS DIFFERENT FROM **ROUNDED BINARY,** WHERE THE REPRISED **A** SECTION (WHICH WE CALLED **A PRIME**) IS **SIGNIFICANTLY SHORTER** THAN THE FIRST **A** SECTION.



MINUET & TRIO FORM

THE **MINUET AND TRIO** IS A VARIATION ON TERNARY FORM USED FOR INSTRUMENTAL MUSIC. INSTEAD OF WRITING OUT THE REPRISED **A** SECTION, THE SCORE WILL PLACE THE INSTRUCTION **"DA CAPO AL FINE"** AFTER THE **B** SECTION, WHICH MEANS TO RETURN TO THE BEGINNING, PLAY THROUGH THE **A** SECTION, AND END THE PIECE.

THIS SAME FORM IS COMMONLY USED IN BAROQUE AND CLASSICAL OPERA, WHERE IT IS CALLED A **DA CAPO ARIA.** IN BOTH MINUET & TRIO AND DA CAPO ARIA, ANY **REPEATS** ARE **IGNORED** WHEN PLAYING THROUGH THE REPRISED **A** SECTION.

IT'S WORTH MENTIONING THAT THERE IS A COMMON FORM THAT IS DESCENDED FROM **MINUET AND TRIO** FORM: THE **MILITARY MARCH FORM** FAVORED BY JOHN PHILIP SOUSA AND OTHER AMERICAN MARCH COMPOSERS.

MILITARY MARCH FORM

IN THE **MILITARY MARCH FORM,** THE A SECTION IS SPLIT INTO TWO SUBSECTIONS, CALLED THE **FIRST STRAIN** AND **SECOND STRAIN.** THE TRIO **ADDS A FLAT** (OR REMOVES A SHARP) FROM THE KEY SIGNATURE, MODULATING TO THE KEY OF THE **SUBDOMINANT.** MOST MARCHES BEGIN WITH A SHORT **FANFARE,** AND REPEAT THE TRIO, PLACING A SHORT, INTENSELY DRAMATIC PASSAGE BETWEEN REPETITIONS CALLED THE **DOGFIGHT** OR **BREAKSTRAIN.**

Sonata Allegro Form

SONATA ALLEGRO FORM IS A SPECIFIC FORM FIRST USED BY **EARLY CLASSICAL** COMPOSERS IN OPENING MOVEMENTS OF MULTI-MOVEMENT WORKS FOR SOLO, CHAMBER OR LARGE GROUPS.

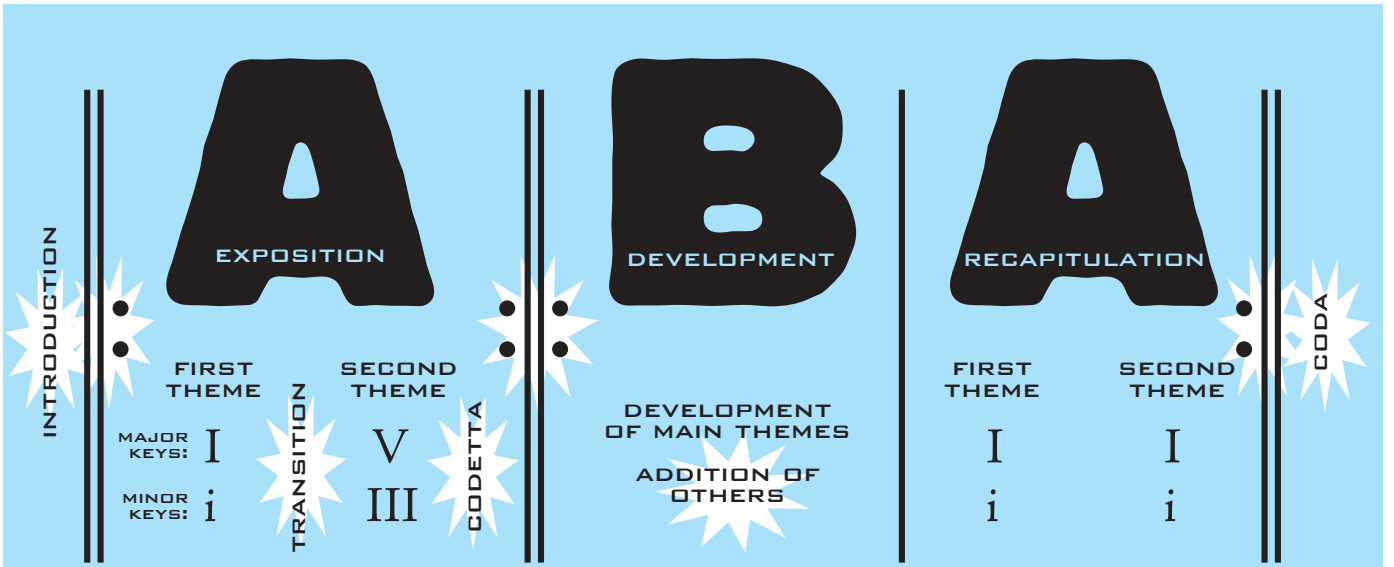
THE FORM ITSELF IS BASED FROM ***TERNARY FORM,*** IN THAT THE FIRST LARGE SECTION IS REPRISED AT THE END OF THE FORM.

IT WAS EVENTUALLY ADOPTED BY OTHER COMPOSERS OF THE CLASSICAL AND EARLY ROMANTIC ERAS.

SONATA ALLEGRO FORM

ONE OF THE MOST IMPORTANT FEATURES OF SONATA ALLEGRO FORM IS THE ***TWO PRIMARY THEMES*** THAT MAKE UP THE EXPOSITION. THESE TWO THEMES WILL BE ***CONSTRASTING IN CHARACTER*** AND, AT LEAST IN THE EXPOSITION, WILL BE IN ***DIFFERENT KEYS.*** IN A MAJOR WORK, THE SECOND THEME WILL BE IN THE KEY OF THE ***DOMINANT;*** IN A MINOR PIECE, THE SECOND THEME WILL BE IN THE ***RELATIVE MAJOR.*** IN THE ***RECAPITULATION,*** HOWEVER, ***BOTH*** THEMES ARE PLAYED IN THE ***TONIC!***

THE DIAGRAM ABOVE SHOWS THE ***REQUIRED ELEMENTS*** OF SONATA FORM; IN THE DIAGRAM BELOW, SEVERAL OTHER ELEMENTS, WHICH ARE ***OPTIONALLY*** INCLUDED, ARE ALSO SHOWN.



SONATA ALLEGRO FORM (WITH OPTIONAL ELEMENTS)

BEAR IN MIND THAT COMPOSERS DID WHAT THEY ***WANTED*** TO... SOME OF THE GREATEST PIECES WRITTEN IN SONATA ALLEGRO FORM FEATURE PLACES WHERE THE COMPOSER ARTFULLY ***BROKE*** THESE "RULES"!

Altered Chords

UP TO THIS POINT, ALL THE CHORDS WE'VE BEEN TALKING ABOUT HAVE BEEN BUILT USING ***ONLY*** THE NOTES IN THE ***CURRENT KEY.***

ESSENTIALLY, THIS MEANS ***NO ACCIDENTALS,*** WITH THE EXCEPTION OF THE RAISED ***SIXTH*** AND ***SEVENTH*** SCALE DEGREES IN ***MINOR,*** WHICH WE CONSIDER TO BE PART OF THE KEY.

DIATONIC
ALTERED (CHROMATIC)

NOW THAT WE'VE COVERED ALL THE POSSIBLE ***DIATONIC CHORDS*** IN TERTIAL HARMONY, IT'S TIME TO OPEN THE DOOR TO NOTES ***OUTSIDE THE KEY...***

THESE ***"ALTERED CHORDS"*** ADD A CERTAIN RICHNESS TO THE HARMONY BY USING ONE OR MORE NOTES THAT ARE ***NOT*** IN THE KEY SIGNATURE AND THUS REQUIRE ***ACCIDENTALS.***

WE'LL BE COVERING SEVERAL CATEGORIES OF ALTERED CHORDS, EACH OF WHICH HAVE THEIR OWN UNIQUE RULES FOR USE.

HOWEVER, THERE ARE A FEW THINGS THAT THEY ALL HAVE IN ***COMMON!***

BORROWED CHORDS

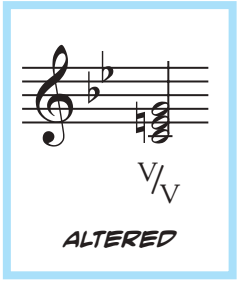
NEAPOLITAN 6

SECONDARY DOMINANTS

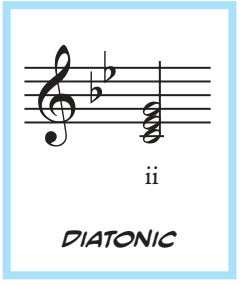
AUGMENTED SIXTHS

Secondary Subdominants

FIRST, EVERY ALTERED CHORD HAS TO HAVE AT LEAST ONE ***ACCIDENTAL...*** IF IT DOESN'T HAVE ANY ACCIDENTALS, THEN BY ***DEFINITION*** IT'S A ***DIATONIC CHORD!***

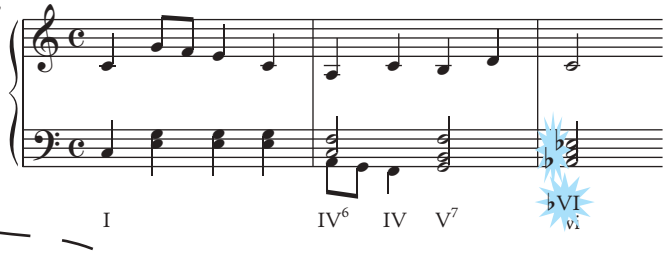


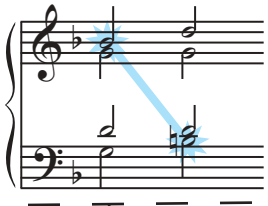
ALTERED



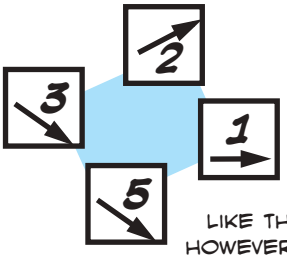
DIATONIC

SECOND, ALTERED CHORDS CAN BE EASILY USED IN PLACE OF THEIR DIATONIC COUNTERPARTS. IN OTHER WORDS, YOU CAN ADD SOME ***PIZAZZ*** TO A COMPOSITION BY REPLACING A ***DIATONIC CHORD*** WITH AN ***ALTERED CHORD*** THAT HAS THE ***SAME ROOT.***





IN GENERAL, AVOID ***CROSS RELATIONS.*** A CROSS RELATION OCCURS WHEN A NOTE APPEARS WITH ***TWO DIFFERENT ACCIDENTALS*** IN ***TWO CONSECUTIVE CHORDS,*** IN ***TWO DIFFERENT VOICES.***

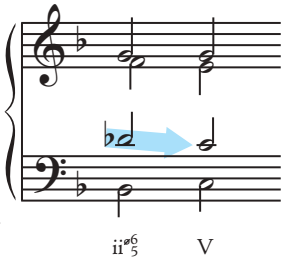


WITH FEW EXCEPTIONS, ALTERED CHORDS CAN USE THE SAME ***BASIC ROOT MOVEMENTS*** THAT WE'VE BEEN USING.

LIKE THE DIATONIC SEVENTHS, HOWEVER, THE ***COMMON ROOT*** SHOULD ONLY ***INCREASE TENSION...*** DON'T MOVE FROM AN ALTERED CHORD TO ITS DIATONIC COUNTERPART.

LASTLY, WHEN YOU USE THESE CHORDS IN ***PART-WRITING,*** YOU SHOULD, WHENEVER POSSIBLE, RESOLVE THE ***ALTERED TONES*** IN THE ***DIRECTION OF THEIR ALTERATION.***

SO IF A NOTE HAS A ***FLAT,*** TRY TO RESOLVE IT ***DOWN*** BY STEP OR BY LEAP.



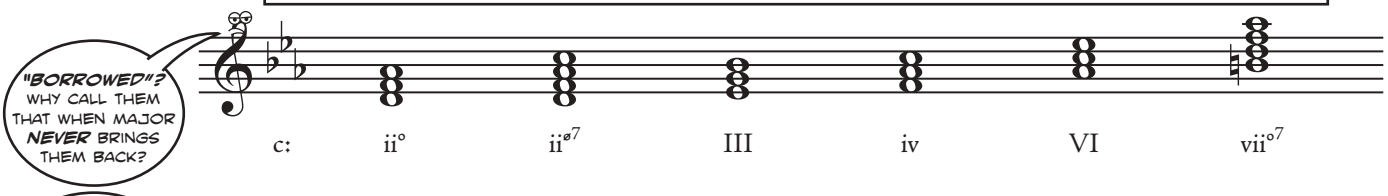
AND WE GENERALLY AVOID ***DOUBLING*** ALTERED NOTES, SINCE DOING SO WOULD TEND TO CAUSE ***PARALLEL OCTAVES.***

Borrowed Chords

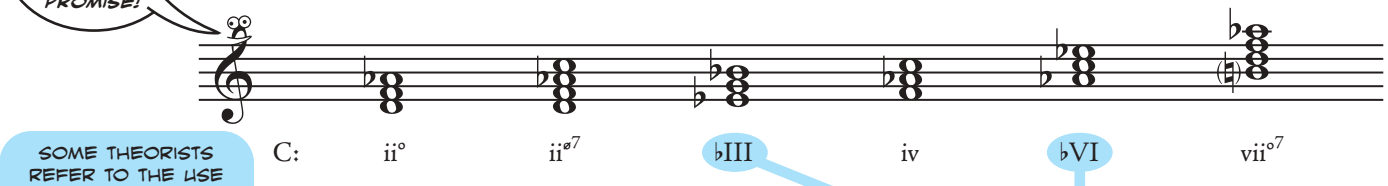
ALTERED CHORDS USE NOTES ***OUTSIDE THE SCALE*** AS A MEANS OF ADDING A ***DIFFERENT "COLOR"*** TO THE CHORD.

HOW DOES A COMPOSER DECIDE WHICH ALTERED NOTES TO USE? IN A ***MAJOR KEY,*** ONE POSSIBILITY IS USING NOTES AND CHORDS FROM THE ***PARALLEL MINOR.***

FOR EXAMPLE, THE FOLLOWING CHORDS ARE ***DIATONIC CHORDS*** IN ***C MINOR:***



BUT IF WE USE THEM IN A MAJOR KEY, THEY REQUIRE ***ACCIDENTALS*** AND ARE THEREFORE ***ALTERED CHORDS.*** WE CALL THESE ***BORROWED CHORDS*** BECAUSE THEY ARE ***BORROWED*** FROM THE ***PARALLEL MINOR.***



SOME THEORISTS REFER TO THE USE OF THESE CHORDS AS ***MODE MIXTURE.***

TWO OF THESE CHORDS, THE ***"FLAT THREE"*** AND ***"FLAT SIX,"*** HAVE ***ALTERED TONES*** AS ***ROOTS.*** WE PLACE A ***FULL-SIZED FLAT*** SYMBOL BEFORE THE ROMAN NUMERAL ITSELF TO INDICATE THIS ***ALTERED ROOT.***

AND, IN FACT, THESE SIX CHORDS ARE THE SIX MOST COMMONLY USED ***BORROWED CHORDS*** IN THE COMMON PRACTICE PERIOD. (ONE OF THEM, THE MAJOR TRIAD ON THE LOWERED MEDIANT, OR ***"FLAT THREE,"*** WAS NOT USED MUCH BY COMPOSERS BEFORE THE ***ROMANTIC ERA.***)

ALL THE USUAL PART-WRITING RULES APPLY TO THESE CHORDS. FOR EXAMPLE:

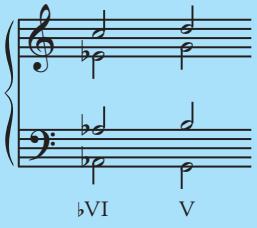
ii°6 — THE ***BORROWED SUPERTONIC*** IS A ***DIMINISHED TRIAD,*** AND IS THEREFORE ALWAYS USED IN ***FIRST INVERSION.***

THE BORROWED ***SEVENTH CHORDS*** CAN BE USED IN ANY INVERSION, BUT THE ***SEVENTH*** MUST BE ***APPROACHED*** AND ***RESOLVED*** PROPERLY. **ii⌀7** **vii°7**

♭III **♭VI** — IT'S USUALLY BEST TO RESOLVE ALTERED NOTES IN THE DIRECTION OF THEIR ALTERATION, BUT DOING SO IN THE TWO ***ALTERED ROOT*** CHORDS WON'T WORK.

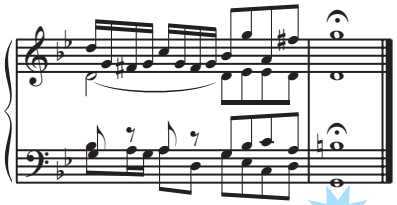
THE LEADING-TONE FULLY DIMINISHED SEVENTH IS THE ***KING*** OF ***DOMINANT FUNCTION.*** DON'T EVEN THINK OF RESOLVING IT TO ANYTHING BUT ***TONIC!*** **vii°7**

WAIT... ***WHY?*** SINCE WE DOUBLE THE ROOT, MOVING BOTH ROOTS THE SAME DIRECTION CAN OFTEN RESULT IN ***PARALLEL OCTAVES.***



IT'S MORE IMPORTANT TO AVOID PARALLELISM THAN TO RESOLVE THE NOTES A CERTAIN WAY, SO THIS USE OF ***CONTRARY MOTION*** IS BETTER.

THE ***PICARDY THIRD*** IS A ***MAJOR*** TONIC CHORD AT THE END OF A ***MINOR*** PIECE, SO MANY THEORISTS CONSIDER IT A ***BORROWED CHORD.*** REALLY, THOUGH, IT'S NOT ADDING ***CHROMATIC VARIETY...*** IT'S A ***LAST-MINUTE MODULATION!***



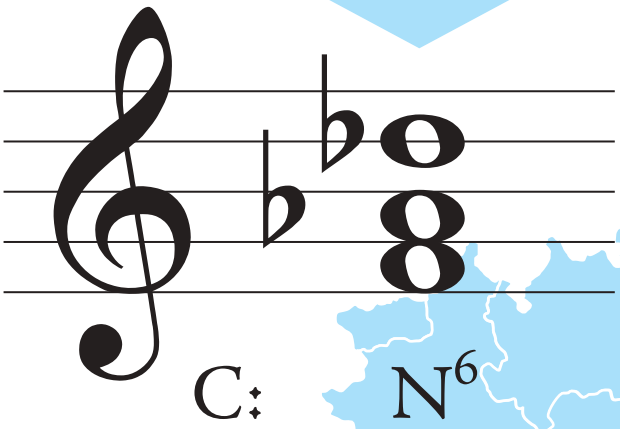
NAMED FOR 24TH-CENTURY EXPLORER ***JEAN-LUC PICARD!****

*NOPE.

The Neapolitan Six

IN ADDITION TO THE **ALTERED ROOT BORROWED CHORDS**, THERE IS ANOTHER **ALTERED ROOT CHORD** THAT FITS WELL WITH THE BORROWED CHORDS, EVEN THOUGH IT IS NOT ACTUALLY BORROWED FROM THE **PARALLEL MINOR**.

THAT CHORD IS A **MAJOR TRIAD** BUILT ON THE **LOWERED SECOND SCALE DEGREE**.



SINCE IT'S NOT A BORROWED CHORD, THIS CHORD CAN BE USED IN BOTH **MAJOR** AND **MINOR**.

THERE ARE A COUPLE OF INTERESTING THINGS ABOUT THIS CHORD. ONE IS THE FACT THAT IT IS **ALMOST EXCLUSIVELY** USED IN **FIRST INVERSION**.

SERIOUSLY! ALTHOUGH THIS CHORD IS **EXTREMELY COMMON** IN THE COMMON PRACTICE PERIOD, THERE ARE **VERY FEW** EXAMPLES OF IT USED IN **ROOT POSITION**. **SECOND INVERSION** IS EVEN **RARER**.

THE SECOND INTERESTING THING ABOUT THE CHORD IS ITS **NAME**: YOU MIGHT EXPECT IT TO BE CALLED A **"FLAT TWO,"** IN KEEPING WITH THE OTHER ALTERED ROOT CHORDS.

BUT, IN FACT, THIS IS THE FIRST OF A FEW CHORDS THAT HAVE SPECIAL NAMES. THIS PARTICULAR ONE IS CALLED THE **NEAPOLITAN CHORD**.

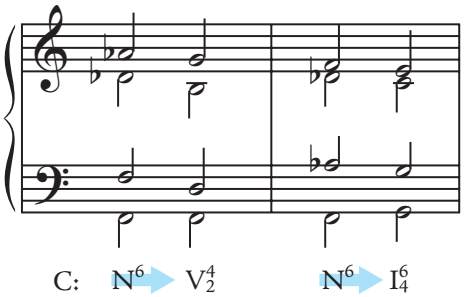
"NEAPOLITAN" MEANS **"FROM NAPLES,"** REFERRING TO THE CITY OF **NAPLES, ITALY**. THE CHORD ISN'T ACTUALLY **FROM** NAPLES, THOUGH; IT WAS JUST ASSOCIATED WITH THE OPERAS WRITTEN BY NEAPOLITAN COMPOSERS LIKE **ALESSANDRO SCARLATTI**.

NAPLES

FUNNY THING IS, THIS CHORD WAS USED PRETTY COMMONLY **BEFORE** SCARLATTI'S TIME, IN COMPOSITIONS FAR FROM THE COURTS OF ITALY.

IT'S ALSO WORTH NOTING THAT ALTHOUGH NEARLY EVERY THEORIST AND THEORY TEXTBOOK CALLS THE CHORD A "NEAPOLITAN **SIXTH** CHORD," IT IS MORE PROPERLY CALLED A "NEAPOLITAN **SIX** CHORD." THAT'S BECAUSE IN THE RARE SITUATIONS WHERE IT IS USED IN ROOT POSITION, IT IS SIMPLY CALLED THE **NEAPOLITAN CHORD**, AND WHEN IT IS FOUND IN SECOND INVERSION, IT'S CALLED THE **NEAPOLITAN SIX-FOUR**.

THE NEAPOLITAN SIX CHORD, SINCE IT IS BUILT ON A FORM OF THE **SUPERTONIC**, HAS SOME CHARACTERISTICS OF A **SUBDOMINANT FUNCTION CHORD** IN THAT IT OFTEN RESOLVES TOWARD A DOMINANT FUNCTION. IN FACT, IT IS VERY COMMON TO SEE THE NEAPOLITAN CHORD RESOLVE TO A **DOMINANT SEVENTH** IN **THIRD INVERSION**, OR TO A **CADENTIAL SIX-FOUR CHORD**.

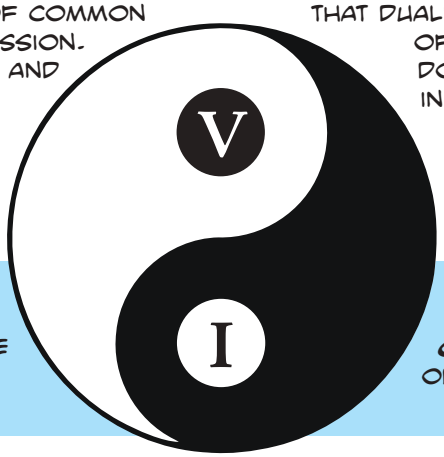


(EVEN THOUGH THE NEAPOLITAN CHORD HAS A LOT IN COMMON WITH OTHER SUBDOMINANT FUNCTION CHORDS, IT IS MOST OFTEN REFERRED TO AS PART OF A LARGER GROUP OF CHORDS CALLED **PREDOMINANTS**, AND THE LABEL OF "SUBDOMINANT FUNCTION" IS GENERALLY LIMITED TO THE **SUBDOMINANT** AND **SUPERTONIC** CHORDS AND THEIR VARIANTS.)

SINCE WE DON'T PRONOUNCE I^6 AS **"ONE SIXTH,"** WE SHOULDN'T SAY **"NEAPOLITAN SIXTH"** FOR N^6!

Secondary Dominants

THERE IS A ***DUALITY*** AT THE HEART OF COMMON PRACTICE PERIOD HARMONIC PROGRESSION. LIKE THE ANCIENT CONFLICT OF ***JEDI*** AND ***SITH,*** IT CONSISTS OF FORCES THAT, AT ONE LEVEL, WORK ***AGAINST*** EACH OTHER... BUT AT ANOTHER, HIGHER LEVEL, WORK ***TOGETHER,*** CREATING ENERGY THAT DRIVES ALL ELSE.



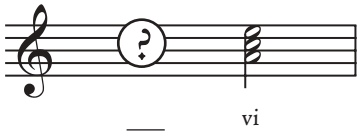
THAT DUALITY, OF COURSE, IS THE RELATIONSHIP OF ***DOMINANT FUNCTION*** AND ***TONIC.*** DOMINANT HARMONY TYPIFIES ***TENSION*** IN THE COMMON PRACTICE PERIOD, AND THE ***TONIC*** REPRESENTS RELEASE. ITS SIMPLEST FORM, THE ***AUTHENTIC CADENCE,*** HAS BEEN UBIQUITOUS IN WESTERN MUSIC FOR CENTURIES.

THE PROGRESSION OF DOMINANT MOVING TO TONIC IS SO STRONG, IT WOULD BE NICE TO BE ABLE TO USE IT TO PROVIDE MOTION TO CHORDS ***OTHER THAN TONIC.***

BUT THAT'S ***CRAZY TALK,*** THOUGH, ISN'T IT? I MEAN, HOW COULD WE ***CONTROL*** THAT MAGIC AND MAKE IT OBEY OUR ***COMPOSITIONAL WHIM?***

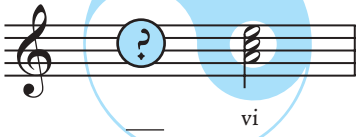
THE ANSWER, OF COURSE, IS WITH ***SECONDARY DOMINANTS.***

LET'S SAY WE WANTED TO APPROACH THIS ***VI*** CHORD.

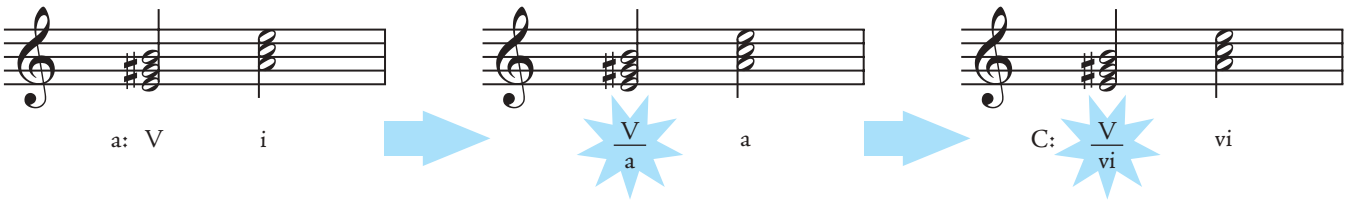


WE COULD USE ONE OF THE USUAL DIATONIC CHORDS, THE TONIC, THE SUBDOMINANT, THE MEDIANT... BUT WHAT IF WE'RE LOOKING FOR A BIT MORE ***TENSION AND RELEASE?***

WHAT IF WE WANTED TO USE THAT ***DOMINANT-TONIC*** MAGIC?



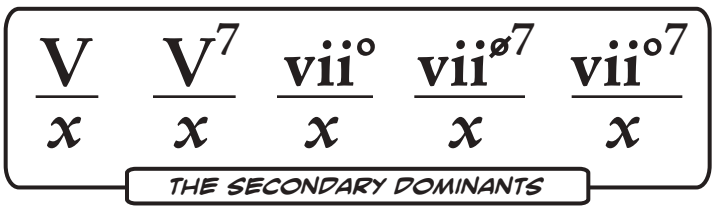
IF WE PRETEND FOR A MOMENT THAT THE CHORD WE'RE RESOLVING TO IS A ***TONIC*** CHORD, WHAT WOULD THE CORRESPONDING ***DOMINANT*** CHORD BE? ***ALTERED,*** YES, BUT WE'RE NOT AFRAID OF THOSE ANYMORE:



WHILE WE MIGHT HAVE ONCE CALLED THIS A SHORT ***MODULATION,*** IT IS REALLY MORE LIKE BORROWING ANOTHER KEY'S DOMINANT CHORD. IF WE THINK OF THE ***V*** CHORD IN THE KEY AS THE ***PRIMARY DOMINANT,*** V CHORDS OF RELATED KEYS ARE ***SECONDARY DOMINANTS.***

NOW, WE'RE NOT JUST LIMITED TO THE ***V*** CHORD: THERE ARE ***FIVE*** CHORDS WITH A DOMINANT FUNCTION!

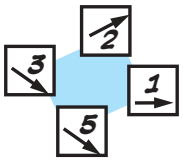
THAT GIVES US A HUGE LIST OF POSSIBILITIES!

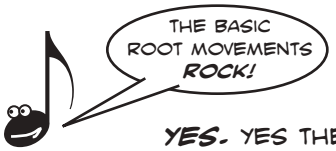


IN ***MAJOR KEYS,*** THE ***"X"*** ABOVE CAN BE ANY DIATONIC CHORD OTHER THAN ***TONIC*** (OBVIOUSLY) OR THE ***LEADING-TONE TRIAD.*** WHY? BECAUSE A ***DIMINISHED TRIAD*** HAS A HARD TIME ACTING LIKE A ***TEMPORARY TONIC CHORD.***

IN ***MINOR KEYS,*** THE COMPOSERS GENERALLY ONLY USED SECONDARY DOMINANTS OF ***IV*** AND OF ***V.***

THESE CHORDS OFTEN RESOLVE TO THE CHORD ***"UNDER THE SLASH,"*** BUT THEY CAN ACTUALLY BE APPROACHED AND RESOLVED USING THE ***BASIC ROOT MOVEMENTS!***

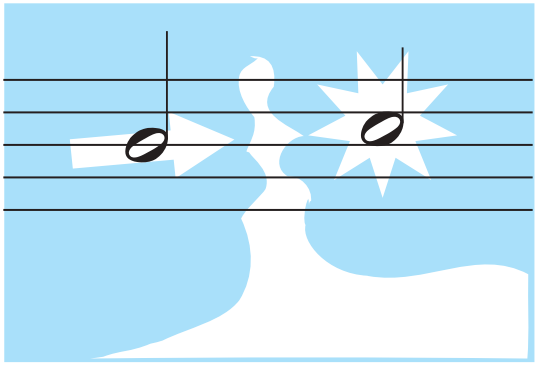




YES. YES THEY ***DO.***

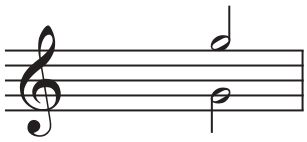
Augmented Sixth Chords

LIKE THAT MOMENT OF **INCREDIBLE TENSION** JUST BEFORE THE **HERO** FINALLY KISSES THE **LEADING LADY,** THE **HALF-STEP** IS THE **GO-TO INTERVAL** FOR CREATING **TENSION** IN MUSIC OF THE COMMON PRACTICE PERIOD. IT **DRIVES** THE **ENTIRE STYLE!**



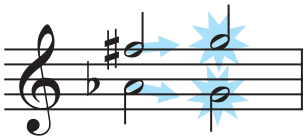
IF **ONE** HALF-STEP CAN CREATE SUCH STRONG TENSION, HOW ABOUT **TWO** HALF-STEPS SOUNDING **SIMULTANEOUSLY?** LET'S GET CREATIVE HERE FOR A MINUTE TO FIND A COOL NEW WAY TO APPROACH A DIATONIC CHORD. IN THIS CASE, WE'LL USE THEM TO APPROACH THE **DOMINANT TRIAD.**

FIRST, WE'LL START WITH THE DOUBLED ROOT OF A **V CHORD...**



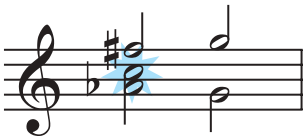
V

...AND **APPROACH** THAT OCTAVE WITH A HALF STEP **BELOW** THE TOP NOTE,



V

...AND A HALF STEP **ABOVE** THE BOTTOM NOTE...

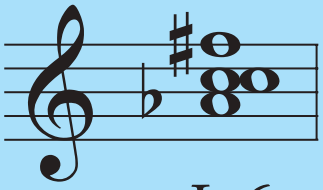


V

...AND, FINALLY, ADD THE TONIC AS THE THIRD NOTE.

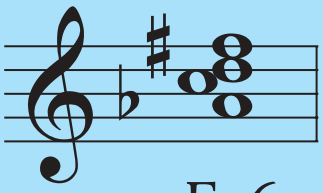
THE RESULT IS A NEW CHORD, ONE WE CALL THE **AUGMENTED SIXTH CHORD,** AFTER THE INTERVAL CREATED BY THE TOP AND BOTTOM NOTES.

IF WE JUST USE THREE NOTES AND DOUBLE THE TONIC, WE GET THE **ITALIAN** AUGMENTED SIXTH.



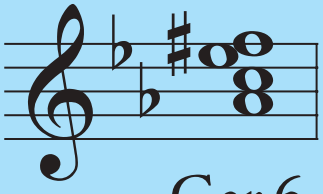
It.6

IF WE ADD THE SECOND SCALE DEGREE INSTEAD OF DOUBLING THE TONIC, WE GET THE **FRENCH** AUGMENTED SIXTH.



Fr.6

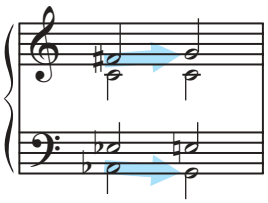
AND IF WE REPLACE THE SECOND SCALE DEGREE WITH THE LOWERED THIRD SCALE DEGREE, WE GET THE **GERMAN** AUGMENTED SIXTH.



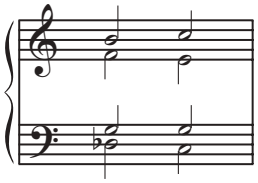
Ger.6

AUGMENTED SIXTH CHORDS ARE **PREDOMINANT** CHORDS, MEANING THEY ARE USED TO APPROACH DOMINANT CHORDS. THEY ARE USUALLY USED TO APPROACH DOMINANT **TRIADS,** NOT DOMINANT **SEVENTHS,** BECAUSE OF THE **DOUBLED ROOTS** PRESENT IN DOMINANT TRIADS.

HOWEVER, THEY ALSO OFTEN APPROACH **TONIC CHORDS** IN **SECOND INVERSION,** WHICH ALSO CONTAIN A **DOUBLED FIFTH SCALE DEGREE.**



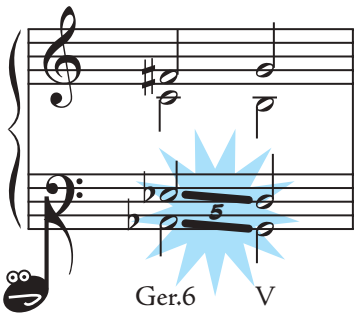
Ger.6 I^6_4



Fr.6 on ♭2 I

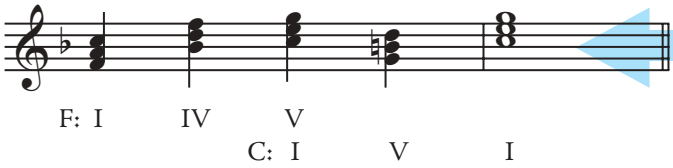
RARELY, AUGMENTED SIXTH CHORDS ARE FOUND **TRANSPOSED DOWN** A **PERFECT FIFTH,** ANALYZED AS **"ON FLAT TWO,"** AND USED TO APPROACH A **TONIC** CHORD IN **ROOT POSITION.**

AND, FINALLY, WHEN RESOLVING THE GERMAN AUGMENTED SIXTH CHORD TO A DOMINANT TRIAD, YOU MIGHT FIND YOURSELF WRITING **PARALLEL FIFTHS...** BUT IT'S **PERFECTLY OKAY!** **MOZART** DID IT **ALL THE TIME!**



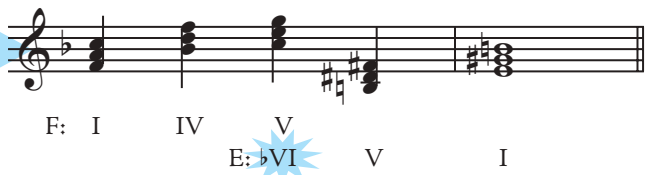
Ger.6 V

Altered and Enharmonic Modulation



ALTERED COMMON CHORD MODULATION IS EASY: REMEMBER DIATONIC COMMON CHORD MODULATION, WHERE WE USED A CHORD THAT WAS DIATONIC IN BOTH THE OLD AND NEW KEYS?

ALTERED COMMON CHORD MODULATION IS THE SAME THING, ONLY USING THE PIVOT CHORD AS AN ALTERED CHORD IN EITHER THE OLD KEY, THE NEW KEY, OR BOTH.



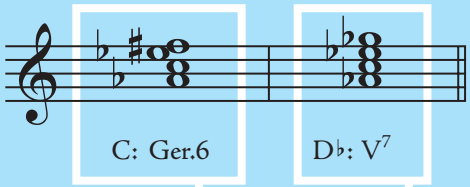
NOW, IN BOTH DIATONIC MODULATION AND ALTERED MODULATION, WE HAVE ONE CHORD THAT PLAYS TWO DIFFERENT ROLES, ONE FOR EACH KEY. BUT THE CHORD TYPE DOESN'T CHANGE... IF IT WAS A MAJOR CHORD IN THE OLD KEY, IT'S STILL A MAJOR CHORD IN THE NEW KEY.

...BUT WHAT IF THE CHORD TYPE DID CHANGE?

IN ENHARMONIC MODULATION, WE RESPELL A CHORD ENHARMONICALLY SO THE CHORD TYPE ITSELF IS DIFFERENT IN THE OLD AND NEW KEYS.

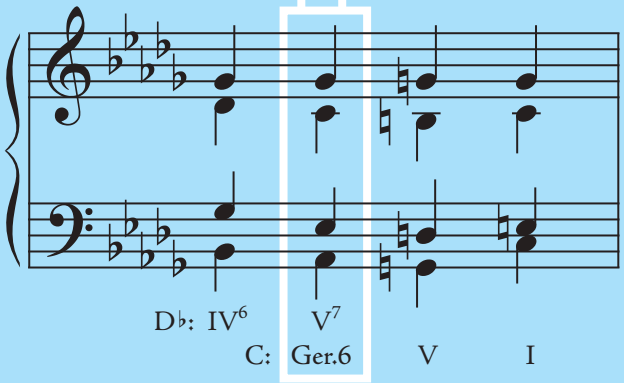
THIS TECHNIQUE IS SO - WELL, ODD - THAT THERE ARE ONLY TWO SPECIFIC WAYS TO DO IT.

EVER NOTICE THAT THE GERMAN AUGMENTED SIXTH CHORD IS JUST LIKE A MAJOR-MINOR SEVENTH CHORD WITH THE SEVENTH RESPELLED ENHARMONICALLY?



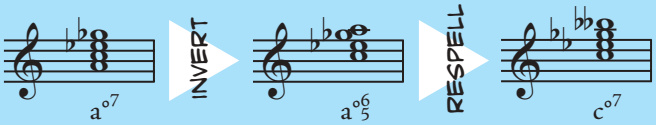
BEETHOVEN DID!

WE CAN TAKE ADVANTAGE OF THIS AND USE IT AS A PIVOT CHORD... WHERE IT ACTS LIKE A GERMAN AUGMENTED SIXTH IN ONE KEY BUT LIKE A V7 (OR A V7/X SECONDARY DOMINANT) IN THE OTHER KEY!

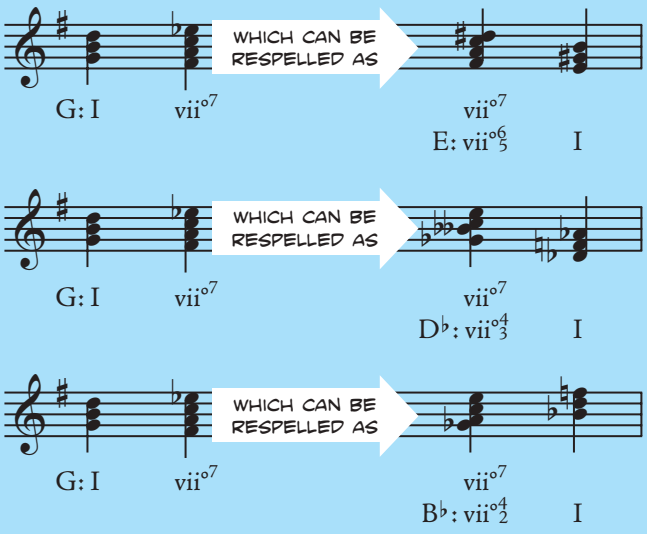


NOTE THAT THE PIVOT CHORD ABOVE IS APPROACHED LIKE A DOMINANT SEVENTH, BUT RESOLVED LIKE AN AUGMENTED SIXTH CHORD!

FULLY DIMINISHED SEVENTH CHORDS ARE COOL FOR A LOT OF REASONS, AND ONE OF THEM IS THAT THEY ARE EQUIDISTANT CHORDS: INVERTING A FULLY DIMINSHED SEVENTH YIELDS ANOTHER ROOT-POSITION FULLY DIMISHED SEVENTH CHORD.



MEANING THAT A FULLY DIMINISHED LEADING TONE SEVENTH CHORD CAN BE A PIVOT CHORD INTO THREE OTHER POSSIBLE KEYS:



Secondary Subdominants

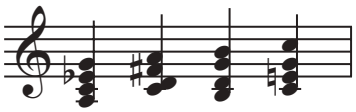
AFTER LEARNING ABOUT ***SECONDARY DOMINANTS***, YOU MIGHT WONDER IF IT'S POSSIBLE TO EXTEND THE CONCEPT TO ***OTHER CHORDS***.

FOR EXAMPLE, IF WE CAN USE A ***DOMINANT FUNCTION*** CHORD FROM A RELATED KEY, WHAT ABOUT A ***SUBDOMINANT FUNCTION CHORD*** FROM A RELATED KEY, LIKE ***IV OF V***?

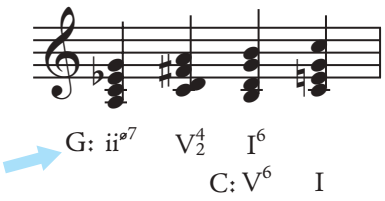
WELL, THE ANSWER IS ***YES***, AND THE CHORDS THAT RESULT ARE CALLED ***SECONDARY SUBDOMINANTS***. BUT BEFORE WE TALK ABOUT THEM, YOU NEED TO ***UNDERSTAND*** A FEW THINGS.

FIRST OF ALL, THE VERY ***EXISTENCE*** OF THESE CHORDS IS ***DEBATABLE***.

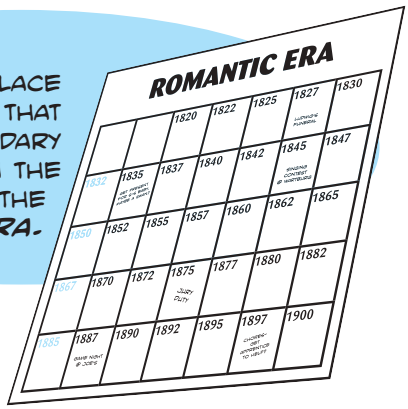
WHAT ONE THEORIST MIGHT CALL A ***SECONDARY SUBDOMINANT***:



ANOTHER MIGHT CALL A SHORT ***MODULATION***.



SECOND, THE ONLY PLACE WE FIND CHORDS THAT WE CAN ***CALL*** SECONDARY SUBDOMINANTS IS IN THE MUSIC OF THE ***ROMANTIC ERA***.



$\frac{\text{iv}}{\text{IV}}$ $\frac{\text{iv}}{\text{V}}$

LASTLY, SINCE THESE CHORDS ARE ALREADY PUSHING THE LIMITS OF TONALITY, COMPOSERS WOULD ONLY USE SECONDARY SUBDOMINANTS FROM ***CLOSELY RELATED KEYS***. IN OTHER WORDS, SECONDARY SUBDOMINANTS SHOULD ONLY BE ***"OF IV"*** AND ***"OF V."***

KEEPING THESE THINGS IN MIND, LET'S LOOK AT THE ***POSSIBILITIES***: WHAT ARE ALL THE ***SUBDOMINANT FUNCTION CHORDS*** WE'VE ENCOUNTERED?

FIRST, THERE ARE THE ***DIATONIC TRIADS***:

ii IV

NEXT, THE ***DIATONIC SEVENTH CHORDS***:

ii^7 IV^7

AND, LASTLY, A FEW ***BORROWED CHORDS***:

ii° $\text{ii}^{\text{ø}7}$ iv

$\frac{\text{ii}^{\text{ø}7}}{\text{IV}}$

SO A SECONDARY SUBDOMINANT CAN HAVE ANY ***SUBDOMINANT FUNCTION*** CHORD ***ABOVE*** THE SLASH, AND A ***IV*** OR ***V*** BELOW THE SLASH.

$\frac{\text{ii}^{\text{ø}7}}{\text{V}}$

HOWEVER, THE MOST COMMONLY FOUND SECONDARY SUBDOMINANTS ARE THOSE THAT USE THE ***HALF-DIMINISHED SUPERTONIC SEVENTH***.

TO ***APPROACH*** THESE CHORDS, USE ANY OF THE ***BASIC ROOT MOVEMENTS***.

WHICH ARE ***AWESOME***.

THE MOST COMMON WAY TO ***RESOLVE*** SECONDARY SUBDOMINANTS IS TO THE CORRESPONDING ***SECONDARY DOMINANT***.

$\frac{\text{ii}^{\text{ø}7}}{\text{V}} \rightarrow \frac{\text{V}^7}{\text{V}}$

Romantic Era Techniques

1500 | 1600 | 1700 | 1800 | 1900 | 2000

RENAISSANCE | BAROQUE | CLASSICAL | ROMANTIC | EARLY 20TH CENTURY | CONTEMPORARY

THE MUSIC OF THE **BAROQUE, CLASSICAL** AND **ROMANTIC** ERAS SHARE A CONSISTENT USE OF **HARMONY** AND **COUNTERPOINT,** ENOUGH TO CAUSE THEORISTS AND HISTORIANS TO GROUP THEM TOGETHER AS THE **"COMMON PRACTICE PERIOD."**

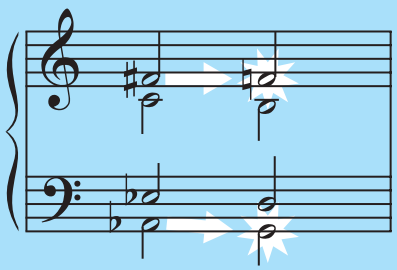
HOWEVER, THE MUSIC OF THE **ROMANTIC ERA** EMPLOYED SOME **INTERESTING TECHNIQUES** THAT SET IT APART FROM THE BAROQUE AND CLASSICAL ERAS...

...AND **FORESHADOW** SOME OF THE BIG CHANGES COMING IN THE **TWENTIETH CENTURY!**

V^{11} V^{13} $\flat III$

WE'VE ALREADY MENTIONED A FEW CHORDS THAT WERE SPECIFIC TO THE ROMANTIC ERA: **DOMINANT ELEVENTH** AND **THIRTEENTH CHORDS,** THE **"FLAT THREE"** BORROWED CHORD, AND **SECONDARY SUBDOMINANTS.**

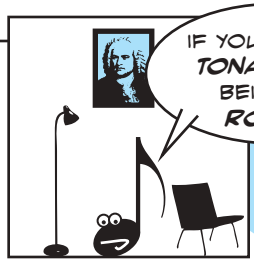
$\frac{ii^{\circ}}{IV}$ $\frac{ii^{\circ}}{V}$ $\frac{iv}{IV}$

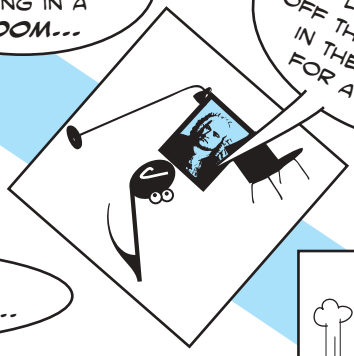


Ger.6 V^7

ANOTHER TECHNIQUE THAT IS UNIQUE TO THE ROMANTIC ERA IS THE RESOLUTION OF AN **AUGMENTED SIXTH CHORD** TO A **DOMINANT SEVENTH CHORD** RATHER THAN A DOMINANT TRIAD, CAUSING THE INTERVAL OF THE AUGMENTED SIXTH TO RESOLVE **OBLIQUELY** INSTEAD OF MOVING OUTWARD TO THE OCTAVE.

FINALLY, ROMANTIC ERA COMPOSERS WOULD SOMETIMES USE A PARTICULAR TYPE OF CHORD PROGRESSION THAT HAD THE EFFECT OF **SUSPENDING TONALITY** FOR A PORTION OF THE PIECE. BY TEMPORARILY REMOVING THE FEELING OF BEING IN A CERTAIN KEY, THE COMPOSER COULD EASILY **MODULATE** TO A DISTANT KEY!



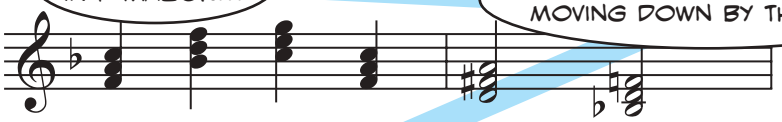


THIS TECHNIQUE IS CALLED **THIRD RELATIONS** BECAUSE IT INVOLVES MOVING BY ROOT MOVEMENTS OF A **MAJOR** OR **MINOR THIRD** WITHOUT RESPECT TO KEY SIGNATURE.

FOR EXAMPLE...

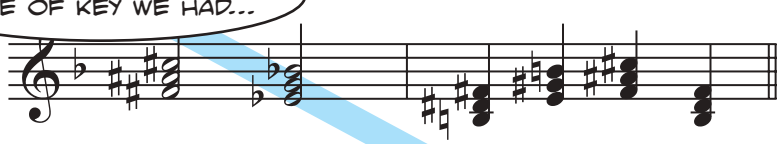
HERE, WE'RE IN F MAJOR...

...HERE, WE'RE JUST MOVING DOWN BY THIRDS...



F: I IV V I DM B♭M

...WHICH OBSCURES ANY SENSE OF KEY WE HAD...



F♯M E♭M B: I IV V I

...AND THEN TURNING THE GRAVITY **BACK ON...** BUT IN A **DIFFERENT DIRECTION!**

AND THEN WE LAND IN B MAJOR!

Introduction to Species Counterpoint

IN **1725,** AN AUSTRIAN COMPOSER AND THEORIST NAMED **JOHANN JOSEPH FUX** WROTE A THEORY TEXTBOOK CALLED **GRADUS AD PARNASSUM,** IN WHICH HE OUTLINED HIS METHOD OF TEACHING HOW TO WRITE **GOOD COUNTERPOINT.**

COUNTERPOINT IS THE COMBINATION OF **TWO OR MORE MELODIES,** EACH ONE AS **IMPORTANT** AND **INTERESTING** AS THE OTHER.

GRADUS AD PARNASSUM MEANS **"STEPS TO PARNASSUS."** PARNASSUS REFERRED TO THE **HIGHEST PEAK** IN **GREECE,** AND WAS USED AS A **METAPHOR** FOR **PERFECTION.**

GRADUS AD PARNASSUM WAS A **BIG HIT,** USED (OR AT LEAST PRAISED) BY COMPOSERS LIKE **MOZART, BEETHOVEN,** AND **HAYDN.** THE SYSTEM THAT FUX USED IS REFERRED TO AS **SPECIES COUNTERPOINT,** BECAUSE IT INVOLVES GOING THROUGH INCREASING **LEVELS** OF **RHYTHMIC COMPLEXITY** WHICH ARE LABELED AS **SPECIES I, SPECIES II,** AND **SO FORTH.**

1660-1741

1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950

1525-1594

INTERESTINGLY ENOUGH, THE **LANGUAGE** FUX WAS ADVOCATING WAS NOT THE COUNTERPOINT OF THE **COMMON PRACTICE PERIOD** TO WHICH HE BELONGED, BUT THE MORE **STRICT** RULES OF COUNTERPOINT USED BY COMPOSERS OF THE **RENAISSANCE** MORE THAN A **CENTURY EARLIER.**

SPECIFICALLY, FUX WAS A **STARRY-EYED ADMIRER** OF THE ITALIAN RENAISSANCE COMPOSER **GIOVANNI PIERLUIGI DA PALESTRINA,** WHO HE CONSIDERED TO REPRESENT THE **PEAK** OF **COMPOSITIONAL ARTISTRY...** SOMETHING HE FELT WAS BEING **LOST** OR EVEN **SQUANDERED** BY HIS **BAROQUE** AND **CLASSICAL CONTEMPORARIES.**

OF COURSE, IT'S WORTH **POINTING OUT** THAT FUX DIDN'T ACTUALLY **HAVE ACCESS** TO MUCH OF **MY MUSIC!**

RIGHT. SO THE LANGUAGE FUX IS **TEACHING** IS REALLY AN **INTERESTING IDEAL:** BASED PARTLY ON HIS PERCEPTIONS OF **PALESTRINA'S MUSICAL LANGUAGE** AS DELIVERED TO HIM THROUGH **ITALIAN THEORISTS,** AND PARTLY ON HIS **OWN IDEAS** OF WHAT HE THOUGHT THE LANGUAGE **SHOULD BE.**

BUT LET'S CUT FUX SOME **SLACK** HERE: AS THEORISTS, WE'RE **ALL** GUILTY OF THIS TO SOME DEGREE.

ANYWAY, **LET'S GET STARTED!** GOING THROUGH FUX'S STEPS FOR LEARNING COUNTERPOINT GIVES US A **GLIMPSE** OF HOW THE **MASTERS** LEARNED THEIR CRAFT AND A FEEL FOR THE **ENVIRONMENT** IN WHICH THEY DEVELOPED THEIR **OWN** MUSICAL LANGUAGES.

HURRAY! LET'S **GO,** GIOVANNI, AND BRING THE **BEAUTIFUL LIGHT** OF **PERFECT COMPOSITION** TO THESE **EAGER STUDENTS!**

YEAH, JOE, **ABOUT** THAT... YOU **DO** REALIZE THAT YOUR IDEA OF **PERFECT COMPOSITION** IS JUST A **BLISSFULLY AWESOME THING?**

YES, THAT'S JUST WHAT I WAS THINKING!

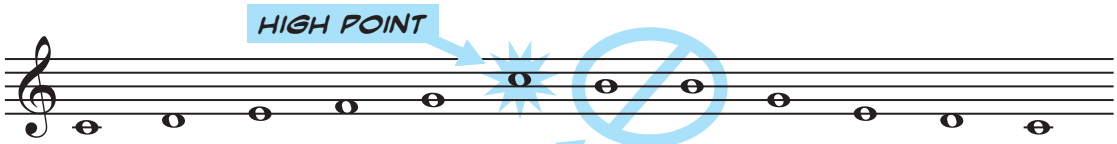
NO, I MEAN THAT IT'S **SUPER FUN? YAYYYY!!!!!**

Species Counterpoint: Melody

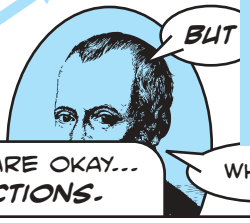
BEFORE WE START **COMBINING MELODIES,** WE NEED TO UNDERSTAND WHAT CONSTITUTES A **GOOD MELODY** IN THE SYSTEM OF SPECIES COUNTERPOINT.

AND REALLY, TO BE **FAIR,** THESE ARE GOOD GUIDELINES FOR **ANY MELODY...** IT'S JUST THAT **FUX** IS A LITTLE MORE **STRICT** ABOUT IT.

IN GENERAL, MELODIES SHOULD BE PRIMARILY **STEPWISE,** WITH A **SINGLE, DEFINITE HIGH POINT** OR **LOW POINT.** EFFECTIVE MELODIES TEND TO PROGRESS SLOWLY TOWARD THE HIGH OR LOW POINT AND THEN MOVE BACK TOWARD THE STARTING PITCH.



OH, AND DON'T **REPEAT NOTES** LIKE THIS. CONTRAPUNTAL MELODIES NEED TO BE **INTERESTING,** NOT **BORING.**



BUT

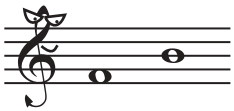
YEAH, YEAH, **PALESTRINA,** WE KNOW YOU REPEATED NOTES **ALL THE TIME.** BUT FUX WAS PURSUING AN **IDEAL.** MAYBE HE FELT YOU COULD DO... BETTER?

AS YOU CAN SEE ABOVE, OCCASIONAL **LEAPS** ARE OKAY... BUT THEY COME WITH A **BUNCH** OF **RESTRICTIONS.**

WHY, I

SHHHH. LET'S JUST MOVE ON.

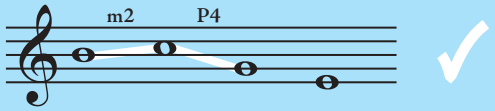
FIRST, LEAPS SHOULD BE NO LARGER THAN A **PERFECT FIFTH,** WITH TWO EXCEPTIONS: LEAPING BY A **PERFECT OCTAVE,** AND LEAPING **UPWARD** BY A **MINOR SIXTH.** DON'T DO THESE VERY OFTEN, THOUGH!



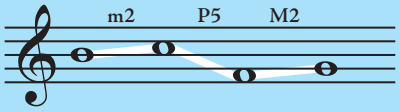
SECOND, FOR **HEAVEN'S SAKE,** AVOID THE **TRITONE!** THIS INTERVAL (AN **AUGMENTED FOURTH** OR **DIMINISHED FIFTH**) WAS ACTIVELY **AVOIDED** SO **CONSISTENTLY** THAT FUX AND HIS PALS CALLED IT THE **DIABOLUS IN MUSICA...** THE **"DEVIL IN MUSIC!"**

LEAPING BY A TRITONE IS BAD, BUT IT'S **ALSO** IMPORTANT TO AVOID THE TRITONE IN **OTHER** WAYS... FOR EXAMPLE, THIS PATTERN, WHERE A TRITONE IS **OUTLINED** IN THE **MELODIC LINE,** WOULD BE CONSIDERED INAPPROPRIATE.

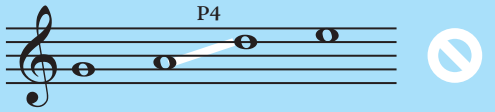
THIRD, LEAPS OF A PERFECT FOURTH NEED TO BE **PRECEDED** OR **FOLLOWED** BY **STEPWISE MOTION** IN THE **OPPOSITE DIRECTION,** TO **COUNTERBALANCE** THE LEAP. AND IF A LEAP IS **LARGER** THAN A PERFECT FOURTH, IT NEEDS TO BE COUNTERBALANCED BOTH **BEFORE AND AFTER!**



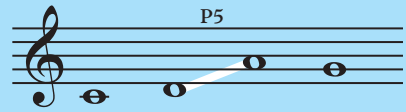
THIS **PERFECT FOURTH** IS COUNTERBALANCED BY THE STEP THAT OCCURS BEFORE THE LEAP.



THIS **PERFECT FIFTH** IS COUNTERBALANCED BY STEPS ON BOTH SIDES OF THE LEAP.



THIS **PERFECT FOURTH** IS SURROUNDED BY STEPS, BUT THEY AREN'T IN THE OPPOSITE DIRECTION.



THIS **PERFECT FIFTH** HAS STEPS ON BOTH SIDES, BUT THE FIRST ONE ISN'T IN THE OPPOSITE DIRECTION.

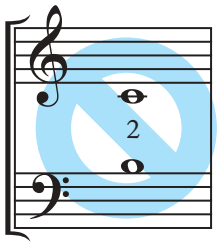
LASTLY, DON'T WRITE **THREE OR MORE LEAPS IN A ROW.** YOU CAN WRITE **TWO** LEAPS IN A ROW, BUT THEY NEED TO OUTLINE A **MAJOR** OR **MINOR TRIAD.** NO DIMINISHED TRIADS... THEY HAVE **TRITONES** IN THEM!

EVIL!

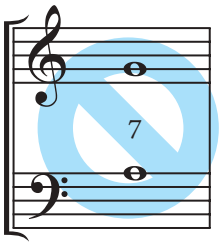
Species Counterpoint: Species I

"FIRST SPECIES" COUNTERPOINT IS THE MOST **RHYTHMICALLY SIMPLE** TYPE OF COUNTERPOINT: BOTH VOICES HAVE THE **EXACT SAME RHYTHM.** AS A RESULT, IT'S **ALL ABOUT THE INTERVALS!**

AND THAT TAKES US TO THE **FIRST RULE:** ONLY USE **CONSONANT INTERVALS.**

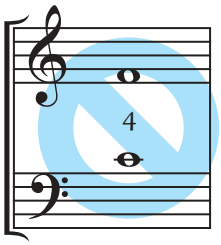


NO SECONDS!

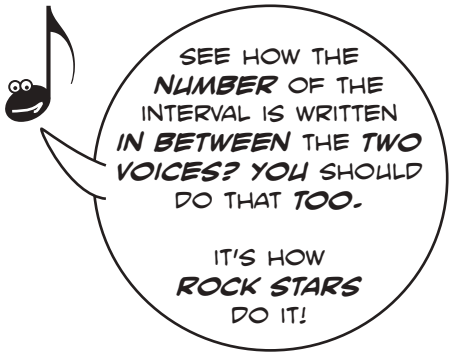


NO SEVENTHS!

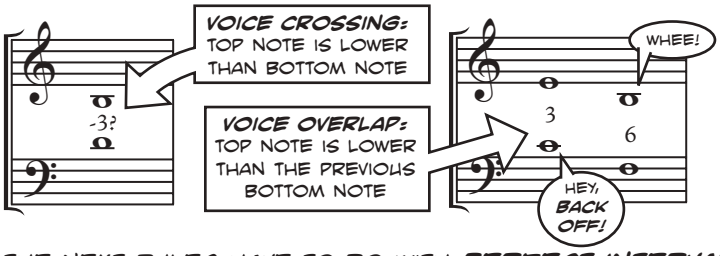
AND IT'S IMPORTANT TO KNOW THAT TO THE **SIXTEENTH-CENTURY EAR,** THE **PERFECT FOURTH** WAS ALSO DISSONANT!



NO FOURTHS!

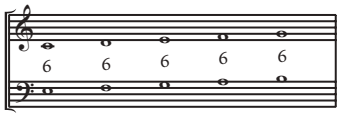


NEXT RULE: VOICES CAN'T **CROSS** OR **OVERLAP.**



AND THEN: **THIRDS** AND **SIXTHS** ARE FINE, BUT NO MORE THAN **THREE IN A ROW.**

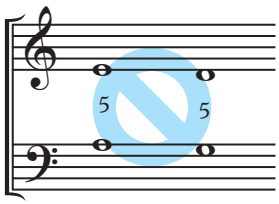
TOO MUCH **CONSONANCE,** AND THE NATIVES GET **RESTLESS.**

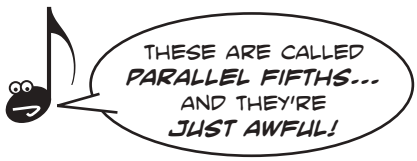


THE NEXT RULES HAVE TO DO WITH **PERFECT INTERVALS** (**P1, P5,** AND **P8**... REMEMBER, **P4** IS **DISSONANT!**), WHICH PLAY **IMPORTANT ROLES** AND REQUIRE SOME **SPECIAL TREATMENT.**

BECAUSE THEY ARE SUCH A **STRONG SONORITY** WHICH CAN **STOP** THE COUNTERPOINT **IN ITS TRACKS, UNISONS** CAN ONLY BE USED ON THE **FIRST** OR **LAST** NOTES OF AN EXERCISE.

ALL PERFECT INTERVALS MUST BE APPROACHED WITH CARE IN ORDER TO PRESERVE VOICE INDEPENDENCE. FIRST OF ALL, **NEVER REPEAT** A **PERFECT INTERVAL!**

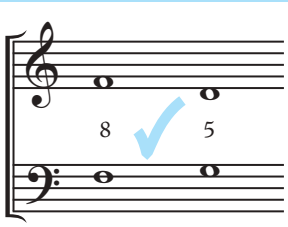


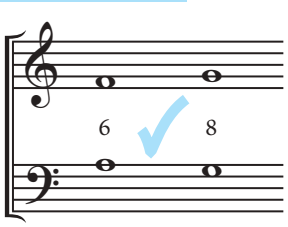


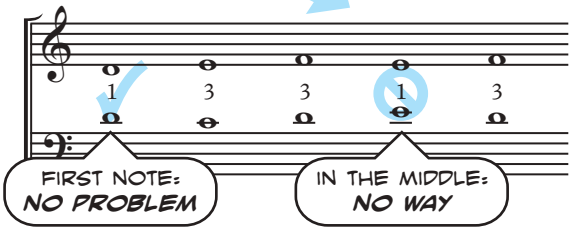
IN FACT, APPROACHING PERFECT INTERVALS WITH **BOTH VOICES** MOVING IN THE **SAME DIRECTION** IS **BAD,** EVEN IF IT'S FROM AN **IMPERFECT INTERVAL.**

PLUS, IT'S **ALSO** NOT OKAY TO APPROACH A PERFECT INTERVAL WITH **LEAPS** IN **BOTH VOICES!**

SO IT'S **EASIEST** TO REMEMBER WHAT YOU **CAN** DO: APPROACH PERFECT INTERVALS USING **CONTRARY MOTION,** WITH AT LEAST **ONE VOICE** MOVING **BY STEP.**







IN FACT, EACH EXERCISE MUST **BEGIN** AND **END** WITH A **PERFECT INTERVAL** WITH THE **TONIC** IN THE **LOWER VOICE.**

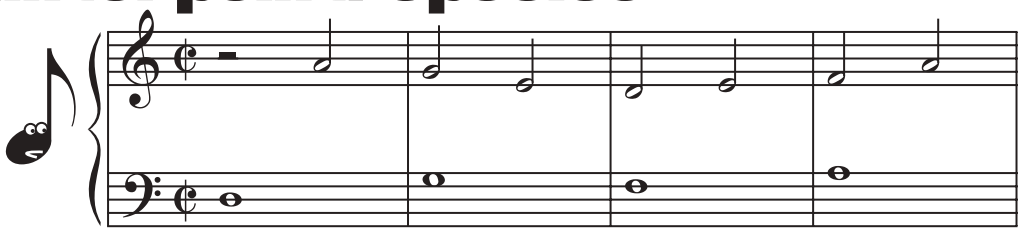
WAIT... WHY IS THAT **LAST BIT** IMPORTANT?

FOR THESE EXERCISES, YOU'LL BE WRITING A MELODY ABOVE OR BELOW AN **ALREADY-WRITTEN** MELODY, CALLED A **CANTUS FIRMUS.**

THE CANTUS FIRMUS WILL ALWAYS **START** AND **END** ON THE **TONIC NOTE...** SO IF YOU ARE WRITING COUNTERPOINT **BELOW** THE CANTUS FIRMUS, YOU CAN'T START WITH A **PERFECT FIFTH,** BECAUSE YOU'RE LOWER VOICE WON'T BE THE **TONIC.** YOU'LL HAVE TO START WITH A **UNISON** OR **OCTAVE** INSTEAD!

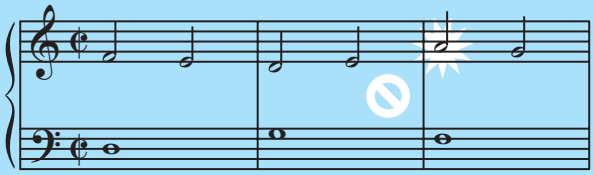
Species Counterpoint: Species II

SECOND SPECIES COUNTERPOINT ADDS A TOUCH MORE **COMPLEXITY:** THERE ARE **TWO NOTES** AGAINST EVERY **ONE** IN THE **CANTUS FIRMUS.**

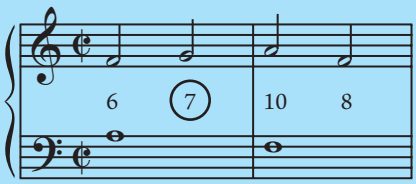
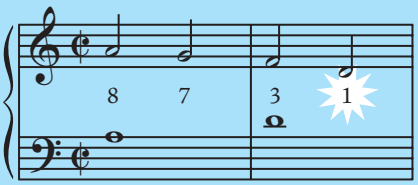
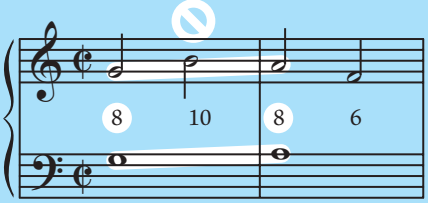


FORTUNATELY, THAT DOESN'T MAKE IT **TWICE AS DIFFICULT:** IN FACT, MOST OF THE **PREVIOUS RULES** STILL APPLY WITHOUT ANY CHANGES.

THERE ARE ONLY A FEW **EXCEPTIONS:**

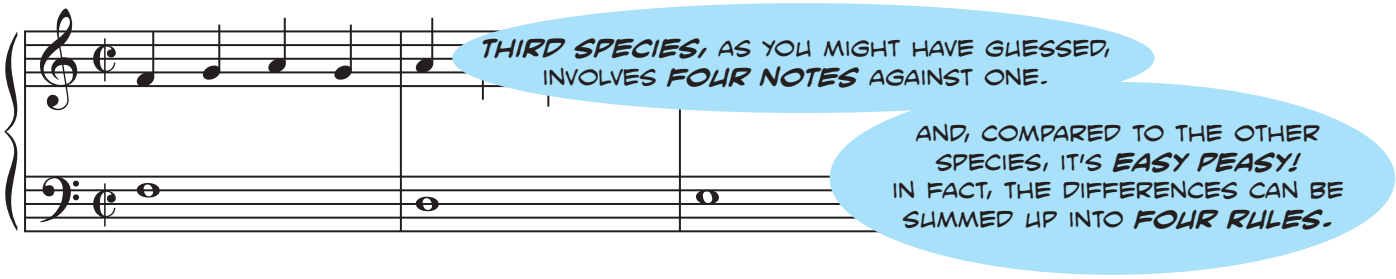
SPECIES I RULE:	SPECIES II RULE:
NO LEAPS LARGER THAN A PERFECT FIFTH*	LEAPS ARE STILL **FINE,** BUT DON'T LEAP TO A **NEW HIGH POINT** ON A **DOWNBEAT.**  THE **A** IN THE THIRD MEASURE IS A **NEW HIGH POINT** FOR THE LINE, SO LEAPING TO IT ON THE **DOWNBEAT** PUTS A LOT OF WEIGHT ON THAT **ONE NOTE,** MAKING IT **STICK OUT** OF THE TEXTURE.

*EXCEPTING, OF COURSE, **ASCENDING MINOR SIXTHS** AND **PERFECT OCTAVES,** BUT YOU ALREADY **KNEW** THAT.

ONLY USE CONSONANT INTERVALS.	STILL TRUE... FOR **DOWNBEATS.** FOR THE **UNACCENTED** BEATS, DISSONANT INTERVALS ARE **FINE,** AS LONG AS THEY HAPPEN AS **PASSING TONES:** NOTES THAT FILL IN A **THIRD** CREATED BY SURROUNDING NOTES.  OH, AND NOTICE HOW **DISSONANT INTERVALS** HAVE THEIR **NUMBERS** CIRCLED? **NICE,** HUH. **YOU** SHOULD DO IT TOO.
UNISONS CAN ONLY BE USED ON THE FIRST AND LAST NOTES.	 UNISONS **CAN** BE USED ON **UNACCENTED NOTES...** JUST BE CAREFUL ABOUT **CROSSING** OR **OVERLAPPING VOICES!**
APPROACH PERFECT INTERVALS USING CONTRARY MOTION WITH AT LEAST ONE VOICE MOVING BY STEP.	THIS RULE **STILL APPLIES:** IF YOU USE A PERFECT INTERVAL ON A **DOWNBEAT,** YOU NEED TO USE **CONTRARY MOTION** FROM THE IMMEDIATELY PRECEDING NOTES, AND AT LEAST **ONE VOICE** MUST MOVE BY **STEP.**  **HOWEVER,** YOU MUST ALSO BE CAREFUL NOT TO HAVE THE **SAME** PERFECT INTERVAL ON **TWO SUCCESSIVE DOWNBEATS.** THIS IS CALLED **PARALLEL PERFECT INTERVALS** AND IT'S GOING TO BE A **NO-NO** FOR A **GOOD LONG TIME.** (**IN FACT,** IT'S ALSO NOT OKAY TO HAVE PARALLEL PERFECT INTERVALS FROM THE **UNACCENTED BEAT** TO THE **DOWNBEAT,** BUT IF YOU ARE APPROACHING WITH **CONTRARY MOTION,** THAT WOULDN'T HAPPEN **ANYWAY.**)

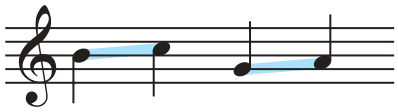
NOT TOO **BAD,** IS IT? YEAH! BRING ON **THIRD SPECIES!**

Species Counterpoint: Species III



FIRST: DON'T **LEAP** MORE THAN **ONCE** IN THE **SAME DIRECTION.**

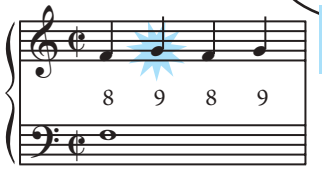
SECOND: **ALL** INTERVALS LARGER THAN A **THIRD,** INCLUDING **PERFECT FOURTHS,** MUST BE COUNTERBALANCED BY **STEPS** ON BOTH SIDES.

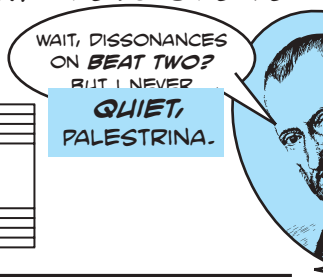


THIRD: AS USUAL, THE **FIRST** NOTE IN EACH MEASURE MUST BE **CONSONANT.** THE **THIRD** NOTE IN THE MEASURE IS ALSO USUALLY **CONSONANT,** BUT IT **CAN BE DISSONANT...** AS LONG AS IT'S THE **ONLY DISSONANT NOTE IN THE MEASURE.**

AS FOR THE **SECOND** AND **FOURTH** NOTES, THEY CAN BE DISSONANT, AS LONG AS THEY ARE **PASSING TONES** OR **NEIGHBOR TONES.**

A **NEIGHBOR TONE** IS A NOTE APPROACHED BY **STEP,** WHICH RESOLVES **BACK** TO THE NOTE IT CAME FROM.



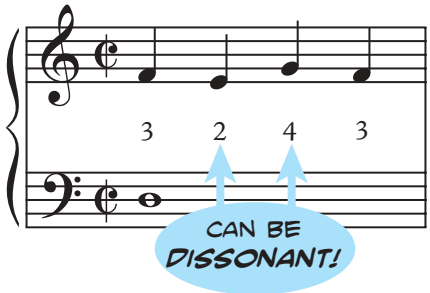


FOURTH: THERE ARE **TWO SPECIAL FIGURES** WHICH ACT AS **EXCEPTIONS** TO THE RULES ABOVE.

HEY, THAT MAKES **FIVE** RULES! NO FAIR!

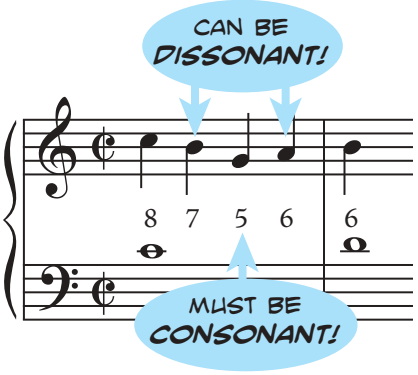
WELL, THEY'RE **KIND OF SIMILAR...**

THE **DOUBLE NEIGHBOR TONE** INVOLVES AN **UPPER NEIGHBOR** AND A **LOWER NEIGHBOR** PLAYED ONE AFTER ANOTHER, THEN RETURNING TO THE NOTE THAT **APPROACHED IT.**



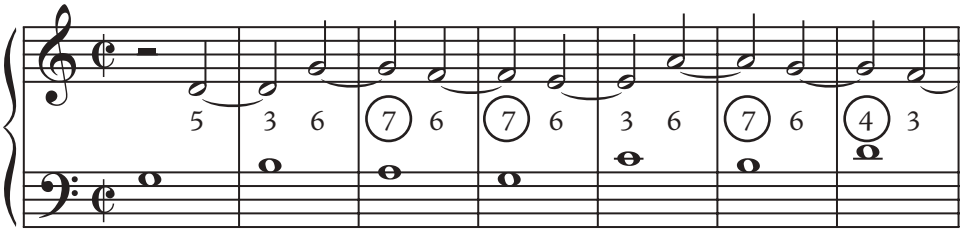
THIS FIGURE CAN BE **INVERTED,** SO THE **UPPER** AND **LOWER** NEIGHBORS **SWITCH PLACES.**

THE **NOTA CAMBIATA** (OR **CHANGING TONE**) FOLLOWS THE PATTERN OF A **STEP DOWN,** A **THIRD DOWN,** THEN **TWO STEPS UP.** THE **MIDDLE** NOTE OF THIS **FIVE-NOTE FIGURE** MUST BE **CONSONANT.**



Species Counterpoint: Species IV

WITH THE **FOURTH SPECIES,** WE STOP USING SMALLER NOTE VALUES AND **BACK UP A BIT** TO **SPECIES I.** BUT INSTEAD OF HAVING THE NOTES MOVE AT THE **SAME TIME,** SPECIES IV INVOLVES THE VOICES BEING **OFFSET FROM ONE ANOTHER.**

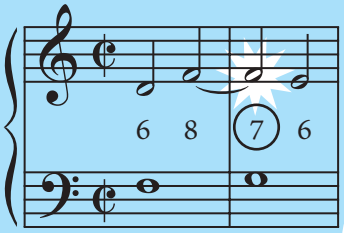


THE BIGGEST DIFFERENCE WITH **SPECIES IV** IS THE FACT THAT **DISSONANCES** ARE PERMITTED ON THE **DOWNBEAT.** BUT AS YOU MIGHT EXPECT, THEY HAVE TO FOLLOW CERTAIN **SPECIFIC RULES.**

OH YOU **DON'T SAY.**

DISSONANCES IN **SPECIES IV** MUST BE IN THE FORM OF **SUSPENSIONS.** A **SUSPENSION** IS A DISSONANT NOTE THAT IS **APPROACHED** BY BEING HELD OVER – **SUSPENDED** – FROM THE **PREVIOUS NOTE.**

ANOTHER **IMPORTANT DEFINING CHARACTERISTIC** IS THAT THE SUSPENSION **RESOLVES DOWN** BY **STEP.** IF IT DOESN'T RESOLVE DOWN BY STEP, IT'S **NOT A SUSPENSION!**



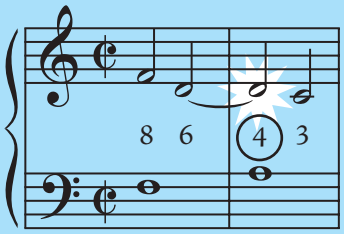
IN **THIS** CASE, THE SUSPENSION IS THE **F** ON THE **DOWNBEAT** OF THE **SECOND MEASURE.** IT'S **PREPARED** BY THE **F** IN THE **PREVIOUS MEASURE,** AND RESOLVES **DOWN** TO THE **E.**

7-6

WE **LABEL** SUSPENSIONS BY THE **INTERVALS** OF THE **SUSPENSION** AND **RESOLUTION,** SO THIS ONE WOULD BE CALLED A **7-6 SUSPENSION.**

SUSPENSIONS ARE **GREAT,** BY THE WAY, BUT DON'T USE THE **SAME ONE** MORE THAN **THREE TIMES IN A ROW,** OR **FUX** WILL **RELEASE THE HOUNDS.**

SIMILARLY, IN **THIS** EXAMPLE, THE **SUSPENDED NOTE** IS THE **D,** WHICH FORMS A **FOURTH** WITH THE **A.** IT MOVES TO A **C,** A **THIRD** ABOVE THE **BASS,** MAKING IT A **4-3 SUSPENSION.**

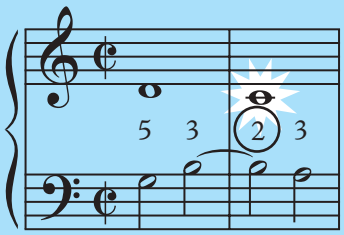


4-3

THE **7-6** AND **4-3** SUSPENSIONS ARE THE ONLY ONES FUX ALLOWS WHEN WRITING COUNTERPOINT **ABOVE** THE CANTUS FIRMUS.

THE ONLY SUSPENSION FUX ALLOWS WHEN WRITING COUNTERPOINT **BELOW** THE CANTUS FIRMUS IS THE **2-3 SUSPENSION,** IN WHICH THE SUSPENDED NOTE FORMS A **SECOND** WITH THE CANTUS FIRMUS, THEN RESOLVES **DOWN** TO A THIRD. (WHEN THIS SUSPENSION IS WRITTEN AN OCTAVE LOWER, IT IS SOMETIMES CALLED A 9-10 SUSPENSION.)

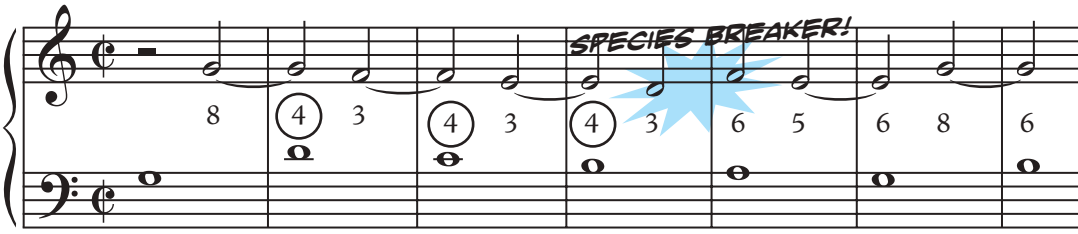
SEE HOW WE RESOLVE TO A **LARGER** INTERVAL, UNLIKE THE **7-6** OR **4-3?** WE'RE **BELOW** THE CANTUS FIRMUS, SO WE MOVE **AWAY** FROM IT. BECAUSE **SUSPENSIONS ALWAYS RESOLVE DOWN!**



2-3

IN **SPECIES IV,** YOU'RE DEALING WITH A LOT OF **LIMITATIONS** WITH **MELODY** AND **COUNTERPOINT,** SO YOU WILL SOMETIMES GET **TRAPPED** IN A SITUATION WHERE **NOTHING WILL WORK.** WHEN THIS HAPPENS, YOU ARE ALLOWED TO **"BREAK SPECIES":** FORGET THE **TIE** AND SLIP INTO **SPECIES II** FOR A COUPLE OF NOTES.

FOR EXAMPLE, HERE WE **BREAK SPECIES** SO WE CAN AVOID WRITING A **FUX-ENRAGING FOUR 4-3 SUSPENSIONS** IN A ROW!



DON'T GO **CRAZY** WITH THIS, THOUGH... SPECIES IV COUNTERPOINT SHOULD **EMBRACE** SUSPENSIONS, NOT **AVOID THEM.** IT'S BEST TO BREAK SPECIES ONLY **RARELY.** UNFORTUNATELY, SOMETIMES THAT MEANS **BACKING WAY UP** AND **CHOOSING A DIFFERENT STARTING PITCH** FOR YOUR COUNTERPOINT!

Species Counterpoint: Species V

FIFTH SPECIES COUNTERPOINT IS THE **CULMINATION** OF ALL THE OTHER SPECIES, AND IT'S THE CLOSEST FUX GETS TO PALESTRINA'S STYLE OF **FLORID COUNTERPOINT** THAT FUX THOUGHT WAS **SO AMAZINGLY AWESOME.**

THERE AREN'T A LOT OF **NEW RULES** FOR THIS SPECIES, AND THEY MAINLY DEAL WITH **COMBINING** THE **OTHER SPECIES.**

AND THEY'RE **ALL ABOUT RHYTHM!**

FIRST, AIM FOR A **GOOD MIX** OF **DIFFERENT SPECIES.** DON'T STAY TOO LONG WITH ANY PARTICULAR NOTE VALUE BEFORE SWITCHING TO **SOMETHING ELSE,** SO YOUR COUNTERPOINT REMAINS **RHYTHMICALLY INTERESTING.**

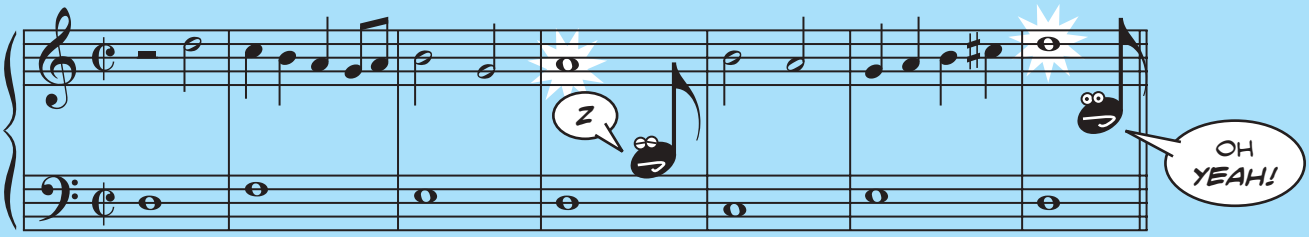
Species V Casserole

2 cups second species	½ cup first species
2 cups third species	3 tsp ties (fresh or frozen)
1-½ cups fourth species	dash eighth notes (optional)

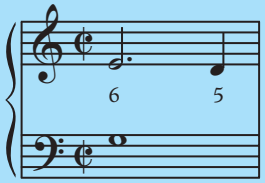
Combine all ingredients in a grand staff and mix well. Heat through to prevent unjustified dissonances from forming. Let cool and serve on period instruments.

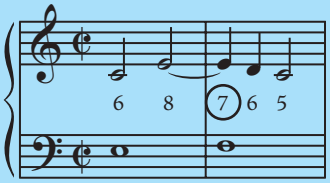
WHEN YOU'RE USING A PARTICULAR NOTE VALUE, FOLLOW THE RULES OF THE **CORRESPONDING SPECIES.** SO WHEN YOU ARE USING **HALF NOTES,** MAKE SURE YOU'RE OBEYING THE RULES OF **SPECIES II.** IF YOU TIE TWO HALF NOTES TOGETHER, KEEP THE LAWS OF **FOURTH SPECIES.**

LEAVE THE **WHOLE NOTES** OUT, THOUGH, UNTIL YOU GET TO THE **END** OF YOUR EXERCISE. IF YOU **GO ALL SPECIES I** IN THE MIDDLE, THINGS GET **REAL BORING REAL FAST.**



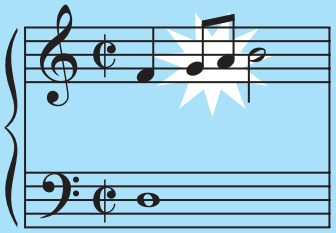
NEXT, **SPECIES III** AND **IV** CAN BE **COMBINED** BY USING **DOTTED HALF NOTES,** WHICH **ALWAYS** HAVE TO START ON A **STRONG BEAT.**





ANY **DISSONANCES** INVOLVED WITH THIS KIND OF FIGURE HAVE TO FOLLOW THE RULES OF **FOURTH SPECIES COUNTERPOINT:** THAT IS, THEY NEED TO BE **SUSPENSIONS** PREPARED AND EXECUTED BY THE **DOTTED HALF NOTE** AND **RESOLVED IMMEDIATELY AFTERWARD.**

LASTLY, YOU CAN INCLUDE **EIGHTH NOTES** TO ADD MORE **RHYTHMIC INTEREST,** AS LONG AS YOU FOLLOW A FEW **RESTRICTIONS:**



THEY HAVE TO OCCUR **IN PAIRS** ON **WEAK BEATS,**

BOTH NOTES MUST BE **APPROACHED** AND **RESOLVED** BY **STEP,**

ONLY **ONE PAIR** SHOULD BE USED IN **ANY GIVEN MEASURE!**

EIGHTH NOTES? I **LOVE** THOSE GUYS!

Species Counterpoint: Three Voices

LET'S HEAD BACK TO **SPECIES I** AGAIN, BUT ADD A **THIRD VOICE!**

UH... DO WE HAVE TO?

RELAX... IT ACTUALLY HELPS US SEE HOW THIS ALL RELATES TO THE **FOUR-VOICE CHORALE STYLE** OF OUR MAN **BACH...**

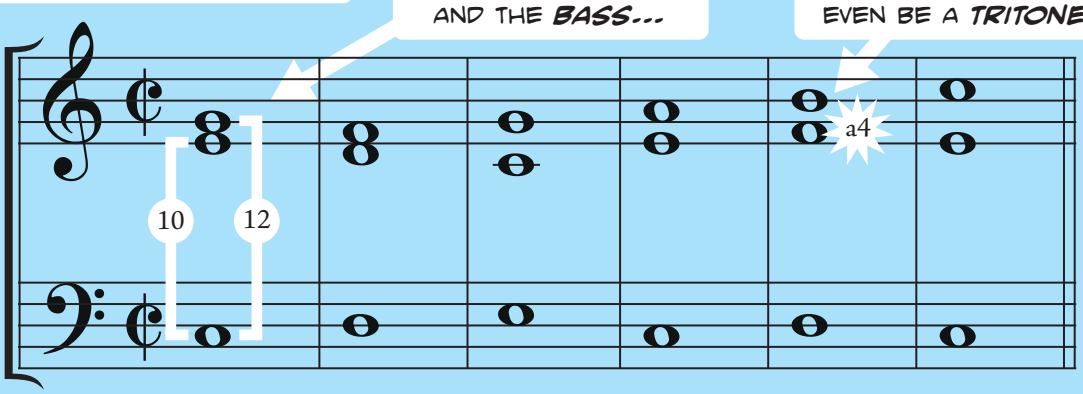
WOO!

...AND EVEN WITH ADDING **A WHOLE NEW SET OF INTERVALS** TO LOOK AT, IT'S REALLY **NOT THAT BAD!**

IN GENERAL, THE RULES FOR **MELODIES** AND **COUNTERPOINT** ARE THE SAME FOR **SPECIES I IN TWO VOICES.**

WE STILL NEED TO USE **ONLY CONSONANT INTERVALS** BETWEEN EACH **UPPER VOICE** AND THE **BASS...**

BUT THE INTERVAL **BETWEEN** THE **UPPER TWO VOICES** CAN BE **DISSONANT...** IT CAN EVEN BE A **TRITONE!**



THE CHORDS CREATED SHOULD BE **TRIADS.** YOU CAN FORM **INCOMPLETE TRIADS** OCCASIONALLY BY HAVING A **DOUBLED ROOT** AND A **THIRD,** BUT AVOID HAVING **OPEN FIFTHS** EXCEPT ON THE **FIRST** OR **LAST CHORD.**

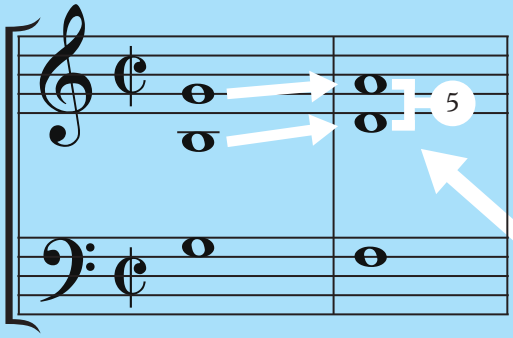
TECHNICALLY, THE TRIADS MUST BE **MAJOR** AND **MINOR** IN **ROOT POSITION** AND **FIRST INVERSION,** AND **DIMINISHED TRIADS** IN **FIRST INVERSION ONLY.**

BUT IF YOU FOLLOW THE RULES ABOVE ABOUT **CONSONANT** AND **DISSONANT INTERVALS,** IT **PREVENTS YOU** FROM USING THE **WRONG INVERSION!**

OOH! BECAUSE **SECOND-INVERSION TRIADS** AND **ROOT-POSITION DIMINISHED TRIADS** ALL HAVE **FOURTHS** ABOVE THE **BASS!**

AS WITH TWO-VOICE COUNTERPOINT, **PARALLEL PERFECT INTERVALS** ARE FORBIDDEN BETWEEN ANY VOICES!

AND **PERFECT INTERVALS** STILL NEED TO BE **APPROACHED** WITH **CARE:** YOU STILL CAN'T GO WRONG WITH **CONTRARY, STEPWISE MOTION!**



HOWEVER, IN **THREE VOICES,** PERFECT INTERVALS CAN ALSO BE APPROACHED WITH **BOTH VOICES MOVING IN THE SAME DIRECTION** IF THE **TOP VOICE MOVES BY STEP,** AND IF THE **THIRD VOICE** MOVES IN **CONTRARY MOTION** WITH THE OTHERS.

AVOIDING **PARALLEL PERFECT INTERVALS** AND **SECOND INVERSION TRIADS?** KEEPING DIMINISHED TRIADS IN **FIRST INVERSION?** THESE ARE ALL **FANTASTIC IDEAS!**

USE THEM, BACH! USE THEM **LIKE THE WIND!**

The Modern Modes

MODERN? WAIT, ISN'T THIS STUFF, LIKE, **100 YEARS OLD?**

YES, BUT WE ONLY CALL THEM **"MODERN"** BECAUSE WE NEED TO DIFFERENTIATE BETWEEN A BUNCH OF **UNRELATED THINGS** ACROSS MUSIC HISTORY THAT, EVER SO INCONVENIENTLY, USE THE **SAME NAMES!**

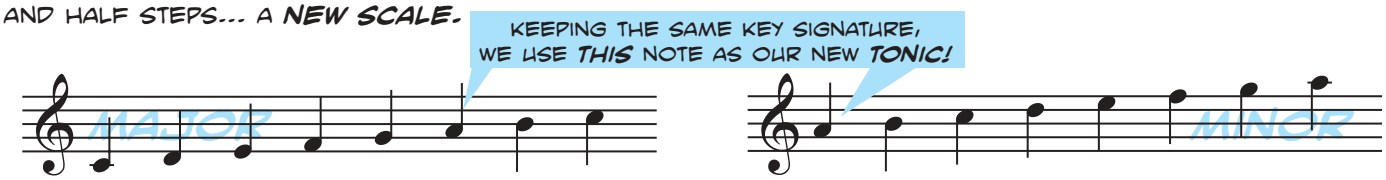
AND, TO MAKE MATTERS WORSE, **EACH** OF THESE THINGS USE THE NAMES TO REPRESENT **DIFFERENT CONCEPTS!** FORTUNATELY, RIGHT NOW, WE'RE ONLY WORRIED ABOUT THE **MODERN MODES.**

THESE MODES ARE USED A LOT... ESPECIALLY IN **FOLK MUSIC.** AS FOR STANDARD WESTERN REPERTOIRE, THEY ARE FIRST PROMINENTLY FEATURED IN THE **POST-ROMANTIC MUSIC** OF THE **EARLY TWENTIETH CENTURY BRITISH ISLES.**

ONE OF THE **PRIMARY CHARACTERISTICS** OF THESE **ENGLISH MODALISTS** IS THAT THEY TENDED TO AVOID THE **STRONG TENSIONS** OF THE **COMMON PRACTICE PERIOD...** FOR EXAMPLE, THEY AVOIDED CHORDS THAT USED A **TRITONE...** AND AVOIDED **RAISING** THE **LEADING TONE** IN MINOR KEYS!

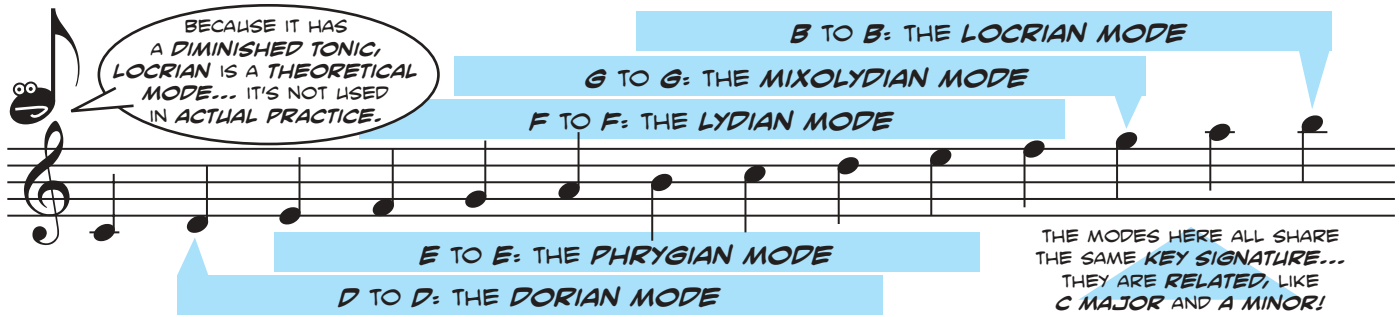
SO WHAT ARE THEY?

WELL, REMEMBER WHEN WE CREATED THE **NATURAL MINOR SCALE** BY STARTING WITH A **MAJOR SCALE,** BUT USING THE **SIXTH** NOTE OF THE SCALE AS THE TONIC? IT GAVE US A NEW PATTERN OF WHOLE STEPS AND HALF STEPS... A **NEW SCALE.**

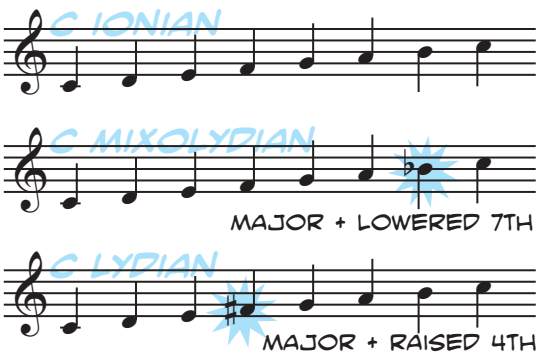


IN FACT, THESE ARE TWO OF THE SEVEN MODERN MODES: MAJOR IS THE **IONIAN MODE,** AND NATURAL MINOR IS THE **AEOLIAN MODE.**

BY STARTING ON THE **OTHER** NOTES OF THE MAJOR SCALE, WE GET THE OTHER FIVE MODES.



THE MODES HERE ALL SHARE THE SAME **KEY SIGNATURE...** THEY ARE **RELATED,** LIKE **C MAJOR** AND **A MINOR!**



A MORE **EFFECTIVE** METHOD OF KEEPING THE MODES STRAIGHT INVOLVES MEMORIZING EACH MODE'S **COLOR TONE:** THE SCALE DEGREE THAT MAKES IT UNIQUE FROM THE **MAJOR** OR **MINOR** SCALE WITH THE **SAME TONIC.**