

## Acoustic Counterpoint – Composing a Minimalist Piece

**Part 1:** You will first compose separate ‘Minimalist Ideas’ (on one musical score), using a different minimalist technique to compose each idea.

**Part 2:** To create your **Minimalist Composition**, you will then **reorder** and **repeat** your **Minimalist Ideas**, so that the structure of your composition is unique.

### Part 1: Minimalist Ideas

#### Getting Started

##### **(a) Instruments**

Choose between 6 and 10 instruments from the following lists:

<b>Clarinet 1 in B flat, Clarinet 2 in B flat, Bass Clarinet, Glockenspiel, Xylophone, Vibraphone, Marimba 1, Marimba 2, Violin 1, Violin 2, Cello, Synthesiser, Piano, Bass Guitar.</b>
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(These are instruments which typically make up the ‘Steve Reich Ensemble’)

<b>Flute, Soprano Saxophone, Alto Saxophone, Synthesiser 1, Synthesiser 2, Piano</b>
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(These are instruments which typically make up the ‘Philip Glass Ensemble’)

- **Include Piano** in your composition
- **Pairs** of the same (or similar) instruments work well.
- **Percussion instruments (including piano) are especially suitable:** they are capable of playing fast, angular, repetitive patterns and emphasise the syncopated rhythms which are typical of Minimalism.
- **Use woodwind instruments cautiously:** the length of woodwind phrases must be limited to allow time to breathe.
- **Use string instruments cautiously:** these are more suited to playing sustained notes than fast, angular, repetitive patterns.
- You can add or remove instruments later (remember, you must ‘exploit their potential to the full’).

##### **(b) Time signature**

Use one of the following time signatures:

<b>6/4</b>	<b>7/4</b>	<b>9/4</b>
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##### **(c) Key signature**

Use one of the following key signatures. The pentatonic scale of this key will feature prominently in your piece.

<b>E major / C# minor (4 sharps)</b>	<b>G major / E minor (1 sharp)</b>	<b>C major / A minor (no sharps/flats)</b>	<b>E flat major / C minor (3 flats)</b>	<b>A flat major / F minor (4 flats)</b>
<b>Pentatonic Scale: E F# G# B C#</b>	<b>Pentatonic Scale: G A B D E</b>	<b>Pentatonic Scale: C D E G A</b>	<b>Pentatonic Scale: Eb F G Bb C</b>	<b>Pentatonic Scale: Ab Bb C Eb F</b>

(The keys used by Steve Reich in Electric Counterpoint 3 are **G major/E minor** and **E flat major/C minor**)

##### **(d) Title**

Title: Acoustic Counterpoint

Composer: Your Full Name

##### **(e) Save**

Save As: **FirstName Surname Acoustic Counterpoint**

#### Minimalist Technique 1: Canon

(a) Select one instrument to begin the ostinato (e.g. piano). This will be called stave 1.

- The instruments which follow (e.g. marimba, xylophone, glockenspiel) will be called staves 2, 3, 4 etc.

(b) On Stave 1 write a memorable, syncopated rhythm, 1 bar long, at one pitch.

- Use mainly quavers and crotchets, with occasional pairs of semiquavers.

- Use frequent quaver and crotchet rests

- Check that it is memorable (‘catchy’) by clapping it as an ostinato.

(c) Use your syncopated rhythm to create an angular, pentatonic melody. This will be called the cell or motif.

- Move the notes of your rhythm up and down to notes of the correct pentatonic scale.

- Make sure that the melody is angular/disjunct (it jumps by wide leaps)

(d) On the same stave, copy the one-bar cell/motif into bar 2, 3, 4 etc. (Ctrl R) to create an ostinato.

- Keep going for about 16 bars.

(e) You will now compose a canon using the ostinato: the instruments will play the same pattern but beginning at different times so as to overlap.

- Instrument 2 will begin the ostinato in Bar 3, but one beat later than the original. In bar 3, add a crotchet rest, then copy and paste the ostinato.

- Repeat the process (for between 3 and 5 instruments in total) following this plan:

Bar number	1	2	3	4	5	6	7	8	9	Etc.
Instrument (stave) 4							RR R			
Instrument (stave) 3					R R					
Instrument (stave) 2			R							
Instrument (stave) 1										

R = 1 beat rest X = Ostinato

(f) Develop the texture of the music with one or more of the following ideas.

- Add one or more new lines of music with longer note lengths, based mainly (but not entirely) on the pentatonic scale.

- It might be **additive**: the line begins with a small number of notes (the cell). This cell is repeated, but an extra note is added to it each time.

- It might be a new bass line (played by a bass instrument), a new chord progression and/or a new descant countermelody (a melody above the main melody).

### Minimalist Technique 2: Additive Melody (Note Addition)

(a) Compose a short motif (4 notes long).

- Use pitches mainly from the pentatonic scale.

- Use short note values (semi-quavers are best, maybe occasional quavers).

(b) Repeat the motif 8 times in succession (Ctrl R)

(c) Copy the motif again, but now add an extra note to the end (making the motif 5 notes long)

(d) Copy the new motif 8 times.

(e) Repeat the process, adding one extra note each time.

(f) Develop the texture of the music with one or more of the following ideas.

- Add one or more new lines of music with longer note lengths, based mainly (but not entirely) on the pentatonic scale.

- It might also be **additive**: the line begins with a small number of notes (the cell). This cell is repeated, but an extra note is added to it each time.

- It might be a new bass line (played by a bass instrument), a new chord progression and/or a new descant countermelody (a melody above the main melody).

- The new countermelody might also be played in canon.

- The chords might be based on the notes of the additive melody.

### Minimalist Technique 3: Metamorphosis

(a) Compose a cell which is between one and three beats long. The cell might be played by more than one instrument, and might include:

- A melodic pattern, based on the pentatonic scale, using short note lengths, played by one instrument.

- A broken chord, using short note lengths, played by a different instrument.

- A chord (based on the same notes as the broken chord) played by a different instrument.

(b) Repeat the cell a fixed number of times in an ostinato (between 4 and 8 repetitions).

(c) Now repeat the cell one last time, but change the pitch of one note of the melody/broken chord/chord.

(d) Repeat this modified version of the cell the same, fixed number of times.

(e) Repeat this process, changing a different note of the melody/broken chord/chord each time. Eventually, the cell 'metamorphoses' from its original pitches to an entirely new combination of pitches.

### Minimalist Technique 4: Phase Shifting

Phase shifting is similar to Canon: two or more instruments play the same ostinato but beginning at different times so as to overlap. In Phase Shifting, however, the gap between the ostinatos played by the first and second instruments gradually increases over time. The instruments become increasingly 'out of phase'.

(a) Select one instrument to begin the ostinato (e.g. piano). This will be called stave 1.

- The instruments which follow (e.g. marimba, xylophone, glockenspiel) will be called staves 2, 3, 4 etc.

(b) On Stave 1 write a memorable, syncopated rhythm, 1 bar long, at one pitch.

- Use mainly quavers and crotchets, with occasional pairs of semiquavers.
  - Use frequent quaver and crotchet rests
  - Check that it is memorable ('catchy') by clapping it as an ostinato.
- (c) Use your syncopated rhythm to create an angular, pentatonic melody. This will be called the cell or motif.
- Move the notes of your rhythm up and down to notes of the correct pentatonic scale.
  - Make sure that the melody is angular/disjunct (it jumps by wide leaps)
- (d) On the same stave, copy the one-bar cell/motif into bar 2, 3, 4 etc. (Ctrl R) to create an ostinato.
- Keep going for about 16 bars.
- (e) You will now apply phase shifting to this ostinato.
- (f) To begin with, instrument 1 and instrument 2 will play exactly the same thing: copy the first four bars of the ostinato from stave 1 to stave 2.
- (g) Now the instruments will go 'out of phase' (instrument 2 will play one beat later than instrument 1). Add a one-beat rest to the instrument 2 stave, then copy the four-bar ostinato from instrument 1 to instrument 2.
- (h) When this ostinato is finished, add another one-beat rest to the instrument 2 stave. Copy the four-bar ostinato again.
- (i) Repeat this process: adding a 1-beat rest to instrument 2, then copying the 4-bar ostinato following this plan:

Instrument (stave) 2	Ostinato	R	Ostinato	R	Ostinato	R	Ost.
Instrument (stave) 1	Ostinato	Ostinato		Ostinato		Ostinato etc.	

- (j) This process could be repeated with more than 2 instruments.
- (k) Develop the texture of the music with one or more of the following ideas.
- Add one or more new lines of music with longer note lengths, based mainly (but not entirely) on the pentatonic scale.
  - It might be **additive**: the line begins with a small number of notes (the cell). This cell is repeated, but an extra note is added to it each time.
  - It might be a new bass line (played by a bass instrument), a new chord progression and/or a new descant counter melody (a melody above the main melody).

### **Minimalist Technique 5: Sudden Key Changes**

Apply this technique to any of the musical sections you have already composed.

- (a) Select the section of music to which you will apply sudden key changes.
- (b) First, make the section longer by immediately repeating part or all of it (e.g. the last 16, 24 or 32 bars).
- (c) Select part of the section of music to which you will apply the key change (perhaps 8 bars, like Electric Counterpoint).
- **Ctrl click** the first bar of the section
  - **Shift click** the last bar of the section
- (d) Now transpose it:
- Go to menu: Notes, Transpose, Transpose by key, then select a suitable key.
  - Go to menu: Create, Key Signature, then select the same suitable key.
- (e) Repeat this for other sections of music, modulating to the same key or a different key each time.
- (f) I recommend that, like Steve Reich's piece, your composition regularly returns to the original (tonic) key.

In Electric Counterpoint III, Steve Reich modulates from **E minor** to **C minor** (down a major third).

(Here, minor key may more accurately be described as Aeolian mode, but this is not relevant to this question).

Similar modulations include:

<b>E major / C# minor</b> (4 sharps)	<b>G major / E minor</b> (1 sharp)	<b>C major / A minor</b> (no sharps/flats)	<b>E flat major / C minor</b> (3 flats)	<b>A flat major / F minor</b> (4 flats)
<b>Modulates to</b>	<b>Modulates to</b>	<b>Modulates to</b>	<b>Modulates to</b>	<b>Modulates to</b>
<b>C major / A minor</b>	<b>E flat major / C minor</b>	<b>A flat major / F minor</b>	<b>B major / G# minor</b>	<b>E major / C# minor</b>

- You may wish to apply this to a small section or a whole section of music.