

## The PDI method.

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What if one chooses only the pitch and duration of a single note and the whole composition is generated from the properties of that initial note?

I devised the PDI method in 1996 and used it to compose what some people say is my best work to date \*"Arabic Lessons ."

Although I used this method to compose the whole work - which is 40 minutes long - I abandoned this method shortly after - I found it too limiting for another composition.

The PDI method is simple and works as follows: There are 12 pitches in an octave numbered from 1 to 12: C=1, C#=2, D=3, etc.

There are 12 intervals numbered from 1 to 12 as well: Minor 2nd = 1, Major 2nd = 2, Minor 3rd = 3 ... Octave = 12.

There are also 12 durations numbered from 1 to 12.

The principle is this: Choose a pitch (P'), choose a duration (D'), add the pitch number to the duration number to get an interval number ( $P'+D'=I'$ ).

Use the interval that you got to find the next pitch ( $P'+I'=P''$ ). The duration of the next pitch will be the sum of the first interval plus the second pitch ( $I'+P''=D''$ ) and so you have the pitch and duration of the next note and you can calculate the interval to the note after ( $P''+D''=I''$ ) and so on. If the number you get at any point is higher than twelve then subtract 12 from it (modulo 12).

Prior to composing one must select a basic unit of duration in order to know what the duration number means musically. For example if the basic unit is a 16th note and  $D=4$  then the duration will be a quarter note.

Since using always a scale of 12 different durations makes the music rhythmically complicated. I also invented 6 different rhythmic groups so that I could choose how rhythmically varied I want the music to be at certain points. Rhythmic Group 'A' consists of all the 12 possible durations, Rhythmic Group (RG for short) 'B' divides the 12 by two to get 6 different possible durations (modulo 6). RG 'C' is modulo 4, RG 'D' is modulo 3, RG 'E' is modulo 2 and RG 'F' is modulo 1 (all durations are of equal length).

Example :

Basic unit is a 16th note.

Rhythm Group is 'A' (12 possible durations).

Initial pitch number is 1 ( $P'=1$ ). [Pitch 1 is C].

Initial duration 2 ( $D'=2$ ). [Duration 2 is an 8th note].

Generate the first interval:  $P'+D'=I'$  ( $1+2=3$ ). [Interval 3 is a minor 3rd].

Generate the next pitch  $P'+I'=P''$  ( $1+3=4$ ). [Pitch 4 is Eb].

Generate the duration of the next note  $I'+P''=D''$  ( $3+4=7$ ). [Duration 7 is a quarter note tied to a dotted 8th note].

Generate the second interval:  $P''+D''=I''$  ( $4+7=11$ ) [Interval 11 is a major 7<sup>th</sup>].

And so on.

This is the basic idea. Working with this process and expanding it in different ways I managed to create a wealth of material for the Arabic Lessons song cycle.