

## Circular Lines for string quartet

### About the Piece

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„Circular Lines“ was written for Fifty for the Future: The Kronos Learning Repertoire, between May and August 2016 in Zürich, Switzerland. It's an energetic, propulsive and highly rhythmic piece in one movement that lasts a little less than 11 minutes. It belongs to the post-minimalistic tradition of tonal and rhythmic music that aims to create maximum effect with minimum means.

The main idea of the quartet is based on a « 3 against 4 against 5 » polyrhythm where one instrument plays in 3/8, one in 4/8 and one in 5/8 while the fourth instrument (the « wild card ») either plays melodies on top of this continuum or supports one of the rhythmic layers. It is very important that the three rhythms interlock very tightly so that the rhythmic voices can breathe and groove together as one rhythmic unit. During the piece, every instrument has several opportunities to take each one of the four roles.

The melodies should be played very expressively to counterbalance the more disciplined, structural nature of the rhythms. They are perhaps slightly inspired by Eastern European music (Bartók) and can be phrased accordingly.

Harmonically, the piece starts in A minor and then shifts backwards through the circle of fifths until it reaches A minor again at the end. With respect to this harmonic movement and the thematic material, it can be divided into 4 parts and 14 sections :

1 <sup>st</sup> part :	Sections A1, D, G, C, F, Bb (bars 1 – 61)
2 <sup>nd</sup> part (middle part) :	Sections Eb, G#, C# (bars 62 – 80)
3 <sup>rd</sup> part (reprise of part 1) :	Sections F#, B, E (bars 81-101)
4 <sup>th</sup> part (coda in 4/4) :	Sections A2 and A3 (bars 102 - 196)

The tempo is constant throughout the whole piece and is ideally 159 beats per minute.

During the period in which the piece was composed, the dominant theme in Europe was the refugee crisis and how the selfish governments and people of Europe completely failed to find a compassionate way to deal with the unimaginable suffering of the refugees. The fact that I was constantly thinking about the crisis has surely found its way into the piece. Especially haunting for me was the image of people who would rather risk their lives getting into a ramshackled boat heading towards an unknown and potentially hostile future than stay in their home country. Yet still, despite all the suffering, many maintain hope and optimism, a fact which should come through in the interpretation of the piece.

### About the Composer

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Raised in Santa Rosa, California, Stephan Thelen is a composer, electric guitarist and mathematician based in Zürich, Switzerland. Aside from teaching mathematics, he is a member of the Swiss minimal-rock band SONAR (Cuneiform Records), a quartet that produces a unique blend of music that explores polymetrical structures and the harmonic possibilities of guitars tuned in tritones. In the words of John Schaefer, host of WNYC's New Sounds program, «*a really fascinating blend of art-rock, groove-based minimalism and abstract mathematical theory, all woven together to great effect*»

He studied mathematics and music at the University of Zürich where he obtained a PhD in mathematics in 1990. Other key factors in his musical education were several Guitar Craft seminars with Robert Fripp (founder of the band King Crimson) and intensive studies of the music of Béla Bartók (through the work of Ernő Lendvai) and Steve Reich.