



## Mimicry of Paul Hindemith's Series in Ether-Cosmos No. VI

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### Abstract

Ether-Cosmos comprises twenty pieces for piano. Each piece lasts approximately 1-3 minutes, except piece no. 18 which lasts longer than 12 minutes. *Ether-Cosmos No. 6* is about 1.40 minutes in length. *Ether-Cosmos No. 6*, using the same contrapuntal procedure technique as fugue and also imitating Paul Hindemith's Series 1 and 2 as the compositional materials. Though the two series, by which a pitch level organization of relationships between the twelve tones of the chromatic scales is called "Series 1" and the harmonic order of increasing tension of the intervals is called "Series 2," are applied, a one-single-note as the pitch centrality is still significant and is played in the Neotonality style of composition.

**Keywords:** *Hindemith's Series, Fugue, Contrapuntal, Ether-Cosmos*

### 1. Introduction

*Ether-Cosmos No. 6* is a musical composition within the "Ether-Cosmos Twenty Pieces for Piano" under the creative research project of "Ether-Cosmos: Piano Music Compositions for Analysis." The research was granted funding from the Thailand Research Fund (TRF) and the National Research Council of Thailand (NRCT) in 2015. Each piano piece in this set utilizes techniques and composition methods of the twentieth century. *Ether-Cosmos No. 6* mimics the composition techniques of the piano work "Ludus Tonalis" (1942), which was composed by Paul Hindemith and uses particularly his two series. Charles Burkhardt (2004, p. 490) explained that:

In Hindemith's theory, a "key" is a set of relationships among any group of tones in which one tone emerges as supreme. This tone is called the tonic (More recent theory would incorporate Hindemith's "tonic" under the term *center*.) Its supremacy can be established by various means. These do not necessarily include triadic harmony or diatonic scales ... Because "major" and "minor" do not denote separate tonics, only twelve keys exist—one for each pitch of the chromatic scale. Hindemith used no key signatures in his notation because of their traditional implications.

Ludus Tonalis (The Play of the Tones) is a series that comprises twelve fugues by using each pitch-class as a tonic for each fugue. The twelve fugues are separated by eleven interludes. Moreover, the whole work begins and ends with a prelude and a postlude, respectively. The fugues refer to the composition framework and idea of Bach's Preludes and fugues. Ludus Tonalis is "the renewed interest in counterpoint in this century that can also be seen in the collections of fugues composed after the model of The Well-Tempered Clavier (Kostka, 2006, p.151)." Stefan Kostka also stated that:

Instead of arranging his fugues in chromatic order, as Bach did in *The Well-Tempered Clavier*, Hindemith follows Series 1 from his *Craft of Musical Composition*, an ordering that he first derives when discussing tuning. Hindemith felt that this ordering represented a "diminished degree of relationship" with the beginning tonality of C: C – G – F – A – E – E $\flat$  – A $\flat$  – D – B $\flat$  – D $\flat$  – B $\natural$  – F $\sharp$ .



Hindemith's composition concept referred to the principle of harmonic fluctuation that he mentioned: "the mixing of consonant and dissonant chords and the process of eventual resolution of tension, which he believes are necessary for a desirable musical flow (Roig-Francoli, 2008, p. 136)." Hindemith explained that there are two directions for harmonization. Firstly, the pitch degree, in which twelve tones be placed in the form of harmonics series, will make the sound of G and C the most consonant whilst the sound of F# and C is the most dissonant. Secondly, an order of increasing tension of the intervals will gradually arise by the pitch level from Series 1 (cited in Dhamabutra, 2009, p. 89).

David Neumeier (cited in Roig-Francoli, 2008, p. 136) also described the five stages of Hindemith's composition process that:

Stage I refers to the level of interaction of tonal design and form. In other words, this is the stage of definition of tonal areas, of cadence, and of formal design. Stage II defines the pillar chords in the form of a long-range progression, which includes cadential sonorities and other structural chords. Stage III focuses on a significant melodic activity connecting the pillar chords from the previous stage. Stage IV refers to a surface harmonic activity, and Stage V to surface melodic activity. Melodic activity is best when ruled by step progression or arpeggiation.

## 2. Objectives

*Ether-Cosmos No. 6* mimics Hindemith's compositional concept, uses the same contrapuntal procedure technique as fugue, and also uses his two Series.

## 3. Result and Discussion

*Ether-Cosmos No. 6* is using the same contrapuntal procedure technique as fugue that consists of three statements, in which the composer applies Paul Hindemith's Series as the compositional materials (Example 1).

Series 1

Series 2

P8 P5 P4 M3 m6 m3 M6 M2 m7 m2 M7 TT

**Example 1** Hindemith's Series 1 and 2 (1970, p.96)



# Ether-Cosmos VI

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Andante ♩ = 76

The score derives from Trakulhun (2016), *Ether-Cosmos twenty piece for piano*, p 28.



ca. 1'40"  
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Figure 1 Contrapuntal Procedure of *Ether-Cosmos No. 6*

mm.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Upper							Statement (real)			Series 1	Series 1	2-part Series 2			
Middle	Statement			Counter-subject 1		C.S. 2									
Lower				Statement (real)			C.S. 1								
Key	C :			G :			F :			C	G	C :			G:
Cadence												vii <sup>o</sup>		I	
Structure	Exposition									Link		Middle Section			
Series	1											2			

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
2-part Series 2	Series 1	2-part Series 2				Statement								
						C.S. 2			C.S. 1		Statement			
						C.S. 1		Statement			(Dev. of C.S.)			
	F	F:				F:	G:		C:					
												IV-V	I	
Middle Section (cont.)						Final Section (Retrograde Exposition)								
2 (cont.)						1								



This 1.40-minute composition was written mainly in the polyphonic style with a few homophonic approaches. Hindemith's Series 1 and 2 are applied while the composer created a main statement by using the melodic sequence from Series 1 (Example 2). This composition has 3 sections as same as fugue (Figure 1), which consists of exposition, middle section, and final section.

Example 2 Main Statement (Serie 1 in order)

From the structural context of this composition, Hindemith's Series 1 and 2 are used in the "exposition" (measures 1-9), starting with C as pitch center and shifting the pitch center by transposing to G and F consecutively using the real imitation. Both pitch centers are the second and the third degrees from Series 1. Connecting with a short "link" in measures 10-11 where harmonic phenomenon occurred vertically (Example 3), there is a switching of harmonic sequence between the pitch degrees no. 7 and 8 (measure 10) and a shift of the pitch center to G in measure 11.

Example 3 Harmonic Phenomenon from Series 1 on 3 pitches center

The sequence of intervals from Series 2 appears in measures 12-14, 15-17, and 19-21 by making the intervals on the pitch centers C-G-F consecutively. Amid measures 18, the composer used the same vertical harmonization as measure 10 by transposing the pitch center to F. However, it is the first time that a clear cadence is heard in measures 14-15 (during the composition), which is called an authentic cadence  $vii^{\circ}-I$  (Example 4).



Series 2 on C Series 2 on G

P8 P5 P4 M3 m6 m3 M6 M2 m7 m2 M7 TT  
G : vii° I

**Example 4** The order of intervals from Series 2

In the Final Section (measures 22-30), the retrograde of the exposition is applied by adding countersubject in the last three measures for the left hand, starting with F# and ending together with C. Notably, in this last measure, the authentic cadence (IV)-V-I once again found.

#### 4. Conclusion

The structure of this composition and its contrapuntal procedure technique were derived from Fugue in F, Ludus Tonalis, by Paul Hindemith. The composer used the same contrapuntal procedure techniques as fugues on twelve tones corresponding to Paul Hindemith's Series 1 and 2, but a one-single-tone (pitch center) is important according to the Neotonicity. Moreover, Hindemith also believes that tonality is always necessary for the composition (Dhamabutra, 2009, p. 89). However, this composition was written in the shadow of works by several great composers from the classical period and earlier, except that romanticism is counted as "Neoclassicism," which was the trend of music in the twentieth century.

#### 5. World Premiere

*Ether-Cosmos Twenty Pieces for Piano* was presented as a lecture recital. The 20 compositions were premiered on August 31, 2016, at Auditorium Building 11, Rangsit University. *Ether-Cosmos No. 6* was performed by Assistant Professor Dr. Pimchanok Suwannathada.

#### 6. Acknowledgements

*Ether-Cosmos No. 6* is a musical composition of twenty pieces for piano that is under the creative research project, *Ether-Cosmos: Piano Music Compositions for Analysis*. The creative research was granted funding from the Thailand Research Fund (TRF) and National Research Council of Thailand (NRCT) under the Humanities Research Funds for the Arts (2015). The creative research received the National Outstanding Research Award from NRCT in 2017.

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