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## Heritage of Gérard Grisey in China Bai Zhao

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### **Abstract**

After World War II, some countries became the pioneers of the world in terms of culture, politics, science, technology and economy and exerted their influence on China. Among these influences, music and arts from France, Germany and North America were prominent in shaping the Chinese composers. After the end of the Chinese Cultural Revolution in 1976, young Chinese composers wanted to continue their studies overseas, studying new compositional techniques still foreign in China. Some of them came to study in France. Among them, were three Chinese students in composition at CNSMD de Paris, who had worked with Gérard Grisey (1946-1998), following an aesthetic born in 1970s, the most famous "French school" – Spectral Music. They are Xu Shuya (in France since 1988), Xu Yi (in France since 1988) and An Chengbi (in France since 1994). And now, they work most of the time as professors in China,

Gérard Grisey was interested in sound. His music focused on the sound's timbre and harmony, including microinterval, overtone and noise... However, our three Chinese composers have their own original cultures (even though they are Chinese, they are from differents areas of China). How did they adapt to this new approach/concept...? Among the works of these three Chinese composers, I will present and analyse a few music samples by them, such as Xu Shuya's mixed music in *The Great Void II*<sup>1</sup> which used microintervals<sup>2</sup> with Flute and Xiao<sup>3</sup>; one of Xu Yi's principal mixed<sup>4</sup> music works *Le Plein du Vide* written in 1997, in which she used the *I-Ching* that corresponds to the 64 hexagrams of the 192 quarters of tone of a full orchestra; and An Chengbi's mixed music *Saek. Gong*<sup>5</sup>, for flute, string quartet and fixed sounds. And I shall compare their music to Gérard Griseys'.

In this paper, I will address several issues: what sort of impact did Gérard Grisey leave on his Chinese students, in terms of inspiration? What are the inspiration impacts in the music of these Chinese students after their studies with Gérard Grisey? How does the Spectralism influence their works? How do these Chinese composers mix their culture with Grisey's<sup>6</sup>? Did they develop Spectral Music into their own language? What will come next in Chinese acoustic music?

<sup>&</sup>lt;sup>1</sup> Taiyi II, 1991.

<sup>&</sup>lt;sup>2</sup> The microinterval also exist in Chinese traditional music.

<sup>&</sup>lt;sup>3</sup> Chinese vertical end-blown flute.

<sup>&</sup>lt;sup>4</sup> Ensemble and electronics.

<sup>&</sup>lt;sup>5</sup> Space of colours, 2002.

<sup>&</sup>lt;sup>6</sup> He said "Spectral Music" had two levels: physical and cultural.

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### Introduction

The most famous French contemporary music movement after *Musique Concrète* is Spectral Music. Spectral Music began to emerge in the 1970s amongst the composers of Groupe de l'Itinéraire<sup>7</sup>, who were influenced by works of composers such as Maurice Ravel and Olivier Messiaen. Spectral music is based on the properties of sound acoustic. Among these composers, Gérard Grisey (1946-1998) was interested in sound and its transformations. He once said that "nous sommes des musiciens et notre modèle, c'est le son, non la littérature, le son, non les mathématiques, le son, non le théâtre, les arts plastiques, la théorie des quanta, la géologie, l'astrologie ou l'acupuncture". His music focuses on the sound's timbre and harmony, including microtone, overtone and noise.

### 1. Gérard Grisey: Spectral Music and I Ching9

Spectral music is a musical practice where compositional decisions are often informed by sonographic representations and mathematical analysis of sound spectra. The spectral approach focuses on manipulating the features identified through this analysis, interconnecting them, and transforming them. In this formulation, computer-based sound analysis and representations of audio signals are treated as being analogous to a timbral representation of sound.

Investigation into the components of sound will definitely lead to the concept of harmonic spectrum, hence the name of this movement. Just as a spectrum of colors is formed by the set of frequencies of the light waves (infrared to ultraviolet range), the spectrum of a sound is formed by a set of harmonic frequencies. Some aspects of spectral music: partials, harmonic spectra, frequencies, overtones, and microtones. In addition, spectral music focuses on sound color spectra as the harmony/timbre and the movement of sound masses in space.

Spectral music, according to Grisey, can be defined as:

- 1. Differential, because it attempts to integrate all types of sounds: hamonicity, inharmonicity and noise. Accepting different sound types can reveal their individual qualities without favoring any.
- 2. Liminal (from the Latin limen, the threshold), as it seeks to highlight the threshold where interactions between the sound parameters occur. Instrumental synthesis of the harmonics of a sound creates a perceptual ambiguity when agreements and individual sounds merge to form an overall sound color (a tone color).
- 3. Transient, because it is based on biological processes: birth / life / death, rest / inspiration / expiration. Musical form is a continuous transition from one state to another.

<sup>7</sup> The ensemble was founded in January 1973 by Michaël Lévinas, Tristan Murail, Hugues Dufourt, Gérard Grisey and Roger Tessier.

<sup>&</sup>lt;sup>8</sup> Gérard Grisey, *Écrits ou l'invention de la musique spectrale*, Guy Lelong (éd.) avec la collaboration d'Anne-Marie Réby, Éditions MF, collection "Répercussions", 2008; translation by Bai Zhao "We are musicians and our model is sound, not literature; sound, not mathematics; sound, not theater, visual arts, quantum theory, the geology, astrology or acupuncture."

Also known as the *Classic of Changes*, *Book of Changes*, *Zhouyi* and *Yijing*, is one of the oldest of the Chinese classic texts.

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Based on the last point "transient", we can think of his composition as the Chinese *I Ching* and Taoism. In *I Ching*, the elements combine and recombine, build and break in the natural instability of the passage of time. In Grisey's works, the transformations will first take place among only simple elements, then these simple elements transforme to the other more complicated elements, like the Dao engenders one; one engenders two; two engenders three; and three engenders a myriad of things.

### 2. Gérard Grisey: The disciples in China

After World War II, some countries became the pioneers of the world in terms of culture, politics, science, technology and economy, and they exerted their influences on China. Among these influences, music and arts from France, Germany and North America were prominent in shaping the Chinese composers. After the end of the Chinese Cultural Revolution in 1976, young Chinese composers wanted to continue their studies overseas, studying new compositional techniques that were still foreign in China. Some of them came to study in France. Among them were three Chinese composition students at CNSMD in Paris, who were associated with Gérard Grisey (1946-1998) in following an aesthetic born in the 1970s, namely spectral music. They are Xu Shuya (living in France since 1988), Xu Yi (living in France since 1988) and An Chengbi (living in France since 1994). All three hailed from Shanghai Conservatory before they arrived in France. Currently, they mainly work as professors in China.

### 2.1. Xu Shuya (许舒亚)

Xu Shuya (许舒亚) was born in 1961 in Changchun, China. In 1978, he was one of the first students who did his studies at the Shanghai Conservatory after the cultural revolution. In 1988, he received a French government scholarship to attend *École Normale de Musique de Paris*. In 1989 he was admitted to CNSMDP to study composition and electroacoustic music with Malec, Jolas, Grisey and Bancquart; he remained in Paris to work as an independent composer. Now he is the director of Shanghai Conservatory.

### Electronic works:

Taiyi II (1991), for flute & electroacoustic Récit sur la Vieille Route (1995), for vocal & electroacoustic Le Mirage de Lamu (2004), for ensemble & electroacoustic

Xu Shuya only followed an orchestration – not composition – class with Grisey at CNSMDP. First, we have to mention his main work, *Taiyi II* (1991), for magnetic tape and flute. The title *Taiyi*<sup>10</sup> was inspired by the ancient Taoist philosophy, such as "*qi*"<sup>11</sup>. Xu used atonality and microtones in this work. Two musical images are present in this music: the first part is the slow tempo and long phrasing, like the character of Chinese music; the second part is a fast and flowing tempo, with noise-based acoustic, like Western character. The process the first image being converted to the second is one kind of transformation.

<sup>&</sup>lt;sup>10</sup> There are 3 schools to interpret. They are Confucianism, Daoism and Buddhism.

<sup>&</sup>lt;sup>11</sup> Natural energy, life force, or energy flow. "Qi" gives birth to yin and yang, and yin and yang nature give birth in turn to all living things.

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This piece is the first electroacoustic work for the composer, as well as one of the first electroacoustic works<sup>12</sup> in China. All instruments were recorded, then transformed and synthetized. Program used were the GRM TOOLS. This in-depth exploration into electronic music is unusual for almost any Chinese composer of his generation.

Xu is one of the first<sup>13</sup> Chinese composers who came to France, and consequently compose contemporary music with the aid of computer. The sound color, time and space concepts in this work are more or less similar with Grisey's. Xu's composition followed the contemporary French style but he did not employ spectral techniques.

### 2.2. Xu Yi (徐仪)

Xu Yi (徐仪) was born in 1963 in Nanjing, China. She was admitted to the Shanghai Conservatory in 1980. She became a professor at the Shanghai Conservatory in 1985. She attended composition courses at IRCAM from 1990 to 1991. Then, she was admitted to CNSMDP to study with Gérard Grisey and Ivo Malec. She was the first Chinese to become a composer-in-residence at the Villa Médicis in Rome (from 1996 to 1998). She was also the first Chinese woman<sup>14</sup> electronic music composer.

Xu Yi's most famous electronic work, *le Plein du Vide*, for 14 instruments & electronic device spatialized eight tracks, also embraces a lot of elements of *I Ching*. *I Ching* is a set of oracular statements represented by 64 sets of six lines each called a hexagram ( $\sharp$ ), "guà"). Xu Yi used 192 tones in le *Plein du Vide* (some of which are ½ tones). So each hexagramme corresponds to 3 tones (64 x 3 = 192). She used microtones which are also utilized in Chinese traditional music.

Yin and Yang means full (plein) and empty (vide). The sky and the earth, through their interaction, are at the same time the space and the time.

In this work, the rhythm is developed from *I Ching*. The most important character in this work is the use of spatialisation<sup>15</sup>: the composer designed a center and 11 points, 8 speakers (each one can be heard as an orchestra) to diffuse the pre-recorded sounds. All these elements work together to make multiples sound mutations and transformations. But Xu Yi didn't use any sound synthesizer.

This work is can be linked to spectralism. The first chord was based on C harmonic spectra in bar 15, similar to what can be found in her professor's work, *Partiels*<sup>16</sup>. At the beginning of the music, the chord was based on E harmonic spectra.

### 2.3. An Chengbi (安成弼)

An Chengbi (安成弼), was born in 1967 in Heilongjiang, China. In 1986, he entered the department of composition and conducting of the Shanghai Conservatory of Music, and studied composition and music theory. In 1994, he studied at the CNSMDP in the

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<sup>&</sup>lt;sup>12</sup> Chinese electroacoustic music began in 80s'.

<sup>&</sup>lt;sup>13</sup> Zhang Xiaofu studied music electroacoustic at Ecole Normale de Musique de Paris (1988-1993) in France.

<sup>&</sup>lt;sup>14</sup> Kui Dong (董葵, born in 1966, Beijing, China) is a Chinese-American composer, musician, and teacher. She is currently Professor of Music at Dartmouth College. The first computer piece composed by Dong is *Flying Apples* (1994).

<sup>&</sup>lt;sup>15</sup> Spatialization is connected especially with electroacoustic music to denote the projection and localization of sound sources in physical or virtual space or sound's spatial movement in space.

<sup>&</sup>lt;sup>16</sup> It is a spectral music work which composed in 1975.

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composition class of Gérard Grisey. He graduated with a first prize in composition and electronic music in 1998.

An Chengbi is a Chinese Korean, so his social-cultural background is very different from that of Xu Shuya and Xu Yi, which consequently leads to the Buddhist elements in his works. He likes using micropolyphony to construct his music. His music links to oriental vision art and minimalism. He is interested in sound color and sound space, which are evident in his mixed work Saek. Gong (Space of Colours, 2002), for flute, string quartet and tape. In this work, An used the "transformation" idea to develop his acoustics, in which he believes that the sound is in the space and the sound's spatial movement can be transformed by space:

### Quoting from his website:

Here, saek ("colour"), indicates all of the material phenomena as they appear to our senses. Gong, on the other hand, means the vacuum, and a space of possibilities and changes, where anything can happen. Furthermore, in this work, the sound has the particular characteristic to be able to move without drifting, to get on the inside while remaining outside, without ever being limited to its only source, nor its cause. The union of these two concepts, feelings and unspecified spaces, creates an optical and mental reflection (reflection has two meanings in French: meditative thinking and the reflection of sounds on objects), like the meditative thinking of Buddhism on reality and appearance, a mental reflection on what is everlasting in spite of certain transformations. 17

In Gediao, 2006, writing for the piano solo and electronic disposal in 5.1 channels, An used the same idea of "sound and space". "The basic construction of this piece was based on an oriental art: in the centre of the piece, the composer used the sound to create a fantastic space of music, just like the minimalistic art". 18

And another mixed work Hyun.Oh, Le rêve d'un poisson au fond de la mer, son désir de lumière<sup>19</sup>, 1998, for piano, percussion and sound prerecorded, 16' 04". "A harmony without confusion nor fusion, free plan of the sounds in the time lived like space. Without the knowledge, without wanting it, an echo of René Char, 'the mysterious way go towards the interior'". <sup>20</sup>

Sound and space are often used in the term "spatialisation" with electroacoustic. "Transformation" is also an idea from his professor Grisey.

#### Conclusion

Xu Shuya, Xu Yi and An Chengbi belong to the first electronics music composer generation in China. Though the three Chinese composers have not fully followed the spectral music way of Gérard Grisey, they also share some similarities with their professor's spectralism idea, such as all of them focus on sound and space relationship and the sound "transformation". Why did they inherit these ideas in their works?

They share the same general Chinese philosophy culture background – Taoism, Confucianism and Buddhism, from which I Ching comes from and on which I Ching exert influences. So the "transformation" concept is very easy to be adopted and to be implemented by those

<sup>&</sup>lt;sup>17</sup> www.anchengbi.com/work detail.php?lang=fr&no=118 (last accessed 09/14). From his website, explication is written by François Picard.

<sup>18</sup> www.anchengbi.com/work detail.php?lang=fr&no=124 (last accessed 09/14).

<sup>&</sup>lt;sup>19</sup> Dream of one fish in the deep sea, who desires to see the lights.

<sup>&</sup>lt;sup>20</sup> www.anchengbi.com/work detail.php?lang=fr&no=124 (last accessed 09/14).

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Chinese composers. We could also expect that this concept would also develop in their future works.

Furthermore, in some Chinese religions ritual music, sound is defined by space and sound. Players move around during their performances changing the substance of the sound.

These three Chinese composers exercise western composition technique with a soul of Chinese culture which is close to Grisey's concept. After them, many Chinese composers went to foreign country to learn electronic music and new technology, which has gained a great development in China. New generation could create more and more works with Chinese identities.

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