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Colliding Resonances: The Music of Xiaoyong Chen

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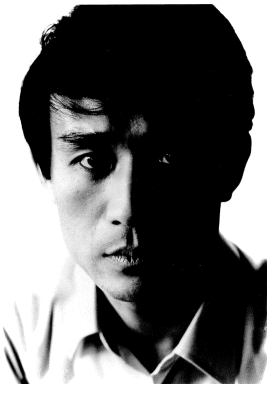

Xiaoyong Chen. © Friedrich Riehl

Following Ligeti's guidance, Xiaoyong Chen (b.1955) has consistently steered away from both the Chinese and the avant-garde establishments. His music explores the infinite richness of individual tones. The Duet for Violin and Zheng *(1989) employs microtonal tuning, and focuses on the inter-resonance of colliding sonorities and tuning systems.* Evapora *(for small chamber ensemble, 1996) demonstrates his interest in juxtaposing harmonic and/or non-harmonic fusion. With a minimum of means, his highly personal musical vocabulary reveals a pluralistic world of clashing tuning systems, modes and individual voices; it also captures both the integration and tension between contrasting cultural elements.*

Keywords: Xiaoyong Chen (b.1955); Duet*;* Evapora*; Spectra; Chinese Contemporary Music*

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Among overseas Chinese composers, Xiaoyong Chen (陳曉勇, last name Chen) occupies an artistically important yet peripheral position. His musical vocabulary and rhythmic gestures share little in common with those of his compatriots, and he demonstrates noticeable restraint in the use of derivative 'Chinese trademarks'. Consciously avoiding the exploitation of the traditional Chinese musical heritage by methods that oversimplify it, his music evokes an introspective atmosphere while using a minimum of means to do so. His art has an inventive precision, contemplative intimacy and poetic elegance—and by exploring the infinite richness of individual tones and their inter-resonance, Chen captures both the integration and tension between colliding sonorities, idioms and cultural sensitivities.

Born in 1955 in Beijing, Xiaoyong Chen studied composition with Su Xia at the Central Conservatory of Music in Beijing from 1980 – 1985. From 1985 – 1989, through the invitation and financial support of György Ligeti, he undertook postgraduate studies in composition at the Staatliche Hochschule für Musik und Theater in Hamburg. He made his European debut with his *String Quartet No. 1* (1986 – 1987) at the Donaueschinger Musiktage in 1987. Subsequent prizes include the Composition Award from the West-German Radio in Cologne (1992), a Kaske Award (shared with György Ligeti)[1] in Munich (1993) and a Bach Award (shared with Karlheinz Stockhausen)[2] from the Senate of the city of Hamburg (1995). He has received commissions from SWF (South-West German Radio), the Deutsche Kammer-Philharmonie Bremen, the Calouster Gulbenkian Foundation, the Silk Road Project Inc. and the AsianCultureLink Vienna, among other ensembles and organizations. In 2005, he was elected a member of the Freie Akademie der Künste Hamburg and he accepted a professorship at the Shanghai Conservatory of Music in the spring of 2006.

Xiaoyong Chen's studies with Ligeti were perhaps the most formative experience of his life as a composer. Ligeti's motto—'I would not allow myself to repeat, and I would not allow my students to repeat after me'—had a profound impact on Chen's creative outlook. Ligeti personally arranged his attendance at the Internationale Ferienkurse für Neue Musik at Darmstadt in 1986—that crucible in which new ideas were forged and latest compositions presented and examined. Ligeti advised Chen: 'You should be aware of the current developments and the progressive experiments that are taking place, yet you should never accept them as new strictures, and should evaluate them with searching scrutiny'. From his mentor, Chen adapted the skepticism and independence of a self-imposed outsider. One might say that Ligeti spelled out the direction that Chen consistently has pursued in the past two decades: to steer away both from the Chinese and the avant-garde establishments in order to beat his own path.

Ligeti's musical influence clearly found its way into Chen's output. Yet, it is with the music of Giacinto Scelsi that he has the most definite kinship. Like Scelsi, Chen's central interest is the inner world of a vibrating sound. Chen describes how a sound spreads across silence: 'Following an initial attack, the sound recedes into silence. During the decay, its resonance gradually approaches and crosses the threshold of a different realm—a completely new dimension reveals itself only moments before its

final disappearance'.[3] It is this quiet realm of shady and mysterious resonances that Chen attempts to confront and articulate.

Dissolving a Musical Fabric: *Duet*

The *Duet for Violin and Zheng* (1989) is a milestone in Chen's output: his first use of any Chinese instrument since his departure from Beijing in 1985. Having by then collaborated with numerous European ensembles, and having observed the performance practice of contemporary music at Darmstadt, Chen noticed a discrepancy between the sound he sought and the execution of his works by Western instrumentalists. The performance often seemed too 'angular'. He sought a pliable and elastic touch. Chen's interests in the local style reawakened, and he chose for this musical dialogue the violin and the *zheng* (*guzheng*)—a 21-stringed zither with movable bridges.

Chen's unusual choice of instruments has no immediate predecessor in China, as the *zheng* is commonly paired with a Chinese ensemble, or occasionally with a piano (as in a shorthand concerto setting). The character of this piece evokes an atmosphere more akin to the reclusive and introverted sound of the *qin* (a seven-stringed zither, also known as '*guqin*' or '*ch'in*') than the secular and alluring sound of the *zheng*. Being a *qin* player himself, and having recorded on the instrument,[4] Chen regards this ancient scholarly instrument as a means of cultivating a personal connection to Chinese musical heritage. However, Chen never composed for the *qin*. Instead, he chose the *zheng*—an instrument performed by his wife—to be the medium for a series of daring experimentations.

The *zheng* carries with it multiple lineages of performance tradition and a repertoire rich with regional inflections. Chen cautiously avoids the use of any technique that associates the instrument with a particular regional style or repertoire; instead, he confines himself to the most elemental sonic features, the timbral characteristics, of the instrument, and approaches the *zheng* by depriving it of its cliché associations, striving for a new vocabulary and fresh meaning. In a procedure not unlike that of the late Nono's fragmentary approach to conventional instruments (as in his string quartet, *Fragmente-Stille, an Diotima*), Chen 'dematerializes' the *zheng*'s traditional melodic and textural fabric, and chooses to concentrate on its sonic interior, thereby creating a hitherto unknown soundscape.

In this piece, the 21 open strings of the *zheng* are divided into four octaves, with D4 as the central axis. The first and third octaves are exact replicas of each other, as are the second and fourth. In the lowest and third octaves, the tempered notes D, G and C function as the core pitches; in the second and highest octaves, the notes E and A fulfill a similar role. The two sets of tempered notes combine to constitute the basic pentatonic scale. The other 11 open strings are tuned microtonally, each altered by being raised or lowered 23 or 50 cents.[5] The open strings interweave with their first harmonics (an octave higher), constituting a nine-tone scale in the upper three octaves (Figure 1).

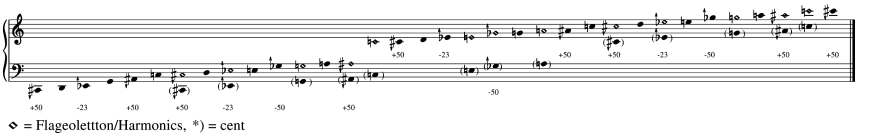

Figure 1 *Duet*, diagram of tuning. © 1989 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

It is erroneous, albeit commonplace, to assert that the pentatonic scale is the basis of all Chinese music. In actuality, Chinese music has since antiquity employed many forms of six-, seven- and eight-tone modes. For example, the 25 sacrificial bone flutes (*gudi*, 骨笛) unearthed in 1986–1987 at Jiahu archeological site in Wuyang county (Henan Province) date from about 7,000–5,800 BC. Fourteen of them have seven finger holes, producing six or seven scale tones (Wang, 2003, pp. 51–56). The bell chimes unearthed from the tomb of the Marquis Yi of *Zeng* (曾侯乙, 433 BC) consist of 64 bells that range from A1 to C4 in a seven-tone scale, with the middle three octaves complete in 12 semitones, corroborating the literary reference to a 12-tone chromatic gamut documented in *Guoyu* (國語, *Discourses on the State*, compiled c.400 BC). The *qin* composition *Jieshidiao Youlan* (碣石調幽蘭, *Orchid in Seclusion in Jieshi Mode*), which survives in a handwritten Tang Dynasty tablature manuscript that was said to be a copy of an original manuscript dated 550 CE, is possibly the world's oldest extant large-scale solo instrumental composition. It employs six-, seven- and eight-tone modes (Liang, 1985, pp. 92–93). The most common seven-tone scale includes two *bian* (變, 'altered') notes and was used in the latter art of the Zhou period (c.400 BC) and possibly earlier.

Moreover, the ancient Chinese developed various tuning theories, among these were just intonation, the adding-and-subtracting-by-one-third method (*sanfen sunyi fa*, 三分損益法), which resulted in the untempered *lülü* (律呂) system, and the equal temperament system calculated and first published by Zhu Zaiyu (朱載堉) in his *Lüli Rongtong* (律曆融通, 1581) (Yang, 1982, pp. 30–39). The *qin* intonation, in particular, has attracted the attention of theoreticians since the tenth century. Numerous treatises appeared from the eleventh century onward under the category of 'tuning the strings' (*tiaoxian*, 調弦). The main difference between a form of just intonation and a type of Pythagorean cycle-of-fifths system results in major third intervals of 384 cents or 408 cents, respectively (Chen, 2002, pp. 115–120). Fascinated by the microtonal frictions created by different tuning systems on the *qin*, Chen's use of the altered notes may be understood as an extension of the heightened awareness acquired through his personal experience in performing the *qin* repertoire.

Instead of choosing a uniform tuning system or scale, Chen simultaneously employs the tempered and untempered pitches, forcing the listener to respond to a multilayered acoustic space that at times seems intimately familiar, and at other times peculiarly alien. The presence of both tempered and untempered pitches offsets the

symmetry of the underlying design, as though microtones and timbral frictions are a ghostly encroachment upon a scattered pentatonic framework.

The composition is in two large sections, each beginning with an interval consisting of the central note D and a microtonally raised G below. The first section opens with the interval in its melodic form; the second, in its harmonic form. The quiet and elegantly paced opening five measures oscillate irregularly between the notes G, D and A, all in harmonics. These five measures become a fluid *ostinato*. As it recedes into the background during the following four statements (mm. 6 – 12, 13 – 19, 20 – 28, 29 – 38), it provides the backdrop for other notes to gradually surface in the foreground (Figure 2).

Having presented the opening three pitches in harmonics, Chen introduces the other pitches on either stopped or open strings. In this work, Chen thoroughly explores timbral possibilities by applying various modes of attack and modification during decay. Except for the few instances where subtle fluctuations occur, each note in the first section appears in a consistent form of execution, with nearly identical registers, dynamics and articulations. Therefore, every pitch is individualized by a distinct sonic envelope that comprises the modes of attack, sustain and decay. For example, the altered C4 is played on a stopped string, with a forceful attack and an

Figure 2 *Duet*, mm. 1 – 14. © 1989 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

immediate cutoff by dampening (mm. 6, 9, 11, etc., Figure 2). The tempered E5, on the other hand, is defined by a soft attack on the open string, either sustained (mm. 13, 15) or with a slight vibrato during its gradual decay (mm. 21, 30).

These meticulously defined pitches are ensconced in a musical time-space, and are immobile and stationary. Once activated, they issue forth with consistent and invariable sonic attributes. The isolation of the pitches tears apart the traditional musical syntax of the instrument as if dissolving its musical fabric, and forces it to depart from its conventional melodic unfolding. The beauty of such a passage lies in its musical ambiguity: although monophonic in texture, each sound thus projects a distinct 'personality' and together they yield a multiplicity of individual voices. As such, a seemingly simple succession of individual pitches—such as a natural harmonic, a dampened note, followed by a soft attack—becomes a dynamic discourse of multiple voices.

As the *zheng*'s sonority is reduced to isolated dots in the first section, the violin counterbalances it with sustained and fluidly gliding notes. The isolated and fluidly gliding, dampened and sustained, passive and dynamic, invariable and ever-changing—all reveal a world of complementary opposites of *yin* and *yang*. The section ends on a slow vibrato on the *zheng* in the lowest register—its gesture having been foreshadowed in m. 18.

In contrast to the tightly controlled first section, the second section of the duet is a mobile-like structure, based on eleven cycles of a *zheng* melodic fragment and four cycles of a violin melody. In this section, the two instruments proceed at different tempi: violin at mm. 80, *zheng* at 60. Apart from a few moments of coordination between the two instruments, they are rhythmically unrestricted and independent of one another (Figure 3).

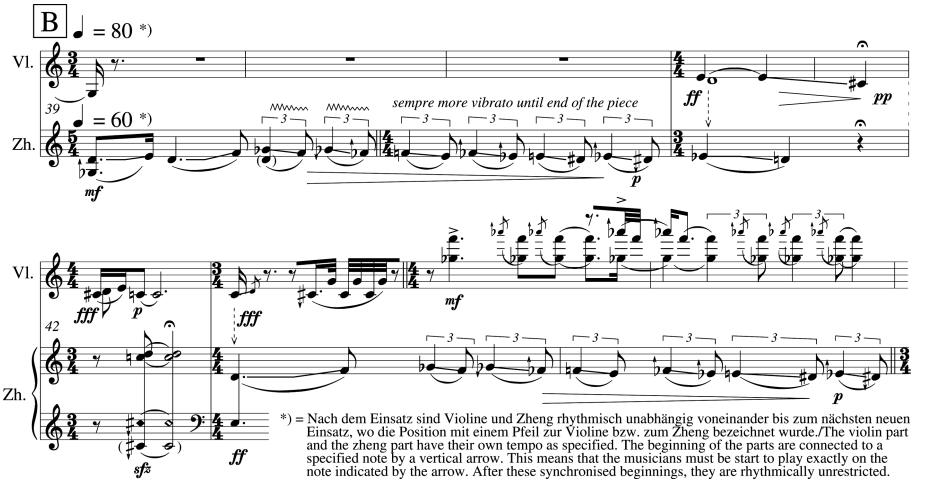

Figure 3 *Duet*, mm. 39 – 44. © 1989 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

The *zheng* melody slowly glides from G-flat4 (m. 39)[6] downward to D4—the pitches heard at the opening of the composition. This melodic fragment is confined to the same register in all cycles, except during the eighth statement where it is transposed to a higher octave, and in the penultimate statement where it is transposed an octave lower. The last statement concludes with D4—a final return to the designated axis. Simultaneously, the violin part unfolds in its own cycles at a slightly faster tempo. Its melodic fragments are grouped in two opposing registers. New material is inserted in m. 58 where the only moment of synchronicity between the two instruments occurs in this section. As if inadvertently, the two instruments play identical pitches—A (A5 harmonic on violin, A4 harmonic on *zheng*), and a microtonally raised A4—in synchronized rhythm. The brief moment of synchronicity dissolves quickly, as the two instruments drift apart in m. 58 (Figure 4).

An example of Chen's prudence in quoting traditional music is his careful avoidance of sweeping glissandi on the *zheng*—an expressive technique that tends to be overused in the contemporary repertoire. While applying this technique sparingly, Chen employs it to striking effect at the beginning of the last statement of the *zheng* melody (m. 75). Nevertheless, it merely hints at and signifies the large repertoire this instrument carries. Other than this fleeting moment, the *zheng* sounds rather as an unfamiliar instrument, as if deprived of its past (Figure 5). Similarly, the violin alludes to the Beijing opera in a three-note fragment earlier in the piece (m. 18).

The application of microtones in the *Duet* is a response to the extensive experiments with microtonality that Chen observed in Ligeti's class in the early and mid-1980s. In Chen's view, the rational procedure in systematizing microtonality has led to excessively theoretical preoccupations, and the application of microtonality in musical compositions suffers from a disregard for the cognitive capabilities of the listener. His solution is to secure the perceptibility of microtones by providing ample temporal space needed for perception, and to reinforce the impression in the listener's memory by selective repetition. In this piece, for example, altered pitches almost always appear in pairs with tempered pitches. This pairing helps to underline their differentiation in temperament.

For Chen, the *zheng* becomes the medium for further experimentations. The *Duet* is the first of a series of works featuring the *zheng*. A solo work from 1996, *Circuit*

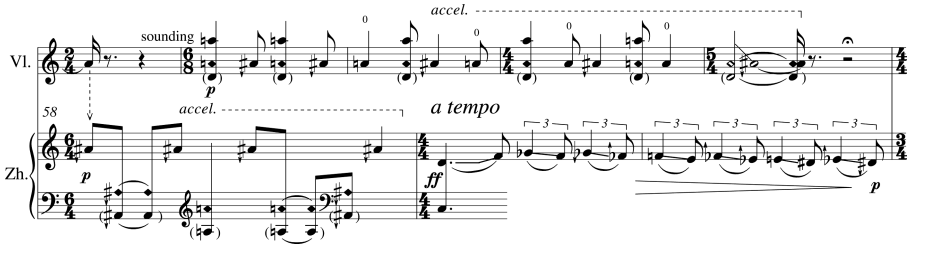

Figure 4 *Duet*, mm. 58 – 60. © 1989 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

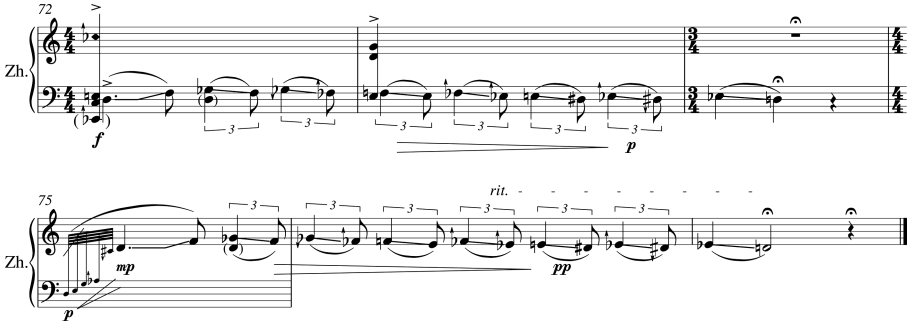

Figure 5 *Duet*, mm. 72–77. © 1989 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

involves extensive improvisation and the use of unusual playing techniques. *Invisible Landscapes* (for *zheng*, percussion, piano and ensemble) features the *zheng* as a soloist in a quasi-concerto setting. Other works that feature the *zheng* include *Yün* for soprano and 11 instruments (1991); *Fusion* for *sheng*, *zheng*, violin, cello, piano and percussion (2000); *Xi-Fusion III* for *zheng*, voice, *sheng* and temple bowls (2002); *Yang Shen* for soprano, three Chinese instruments and ensemble (2002); *Speechlessness, Clearness and Ease* (2003) for ensemble; and *Xi-II* for *zheng* solo (2005).

An Evolving Syntax: *Evapora*

In the early 1990s, Chen became fascinated by the music of Giacinto Scelsi. Inspired by Scelsi's chamber and orchestral works, he began exploring the spectral characteristics of pitched instruments. These works demonstrate an awareness of the acoustic properties of instrumental spectra. Scored for flute, oboe or clarinet, piano, violin and cello, the three-movement *Evapora* (1996) unfolds as a mini-concerto with the pianist as the soloist. The strings employ *scordatura* tuning, with the cello lowering the C string to F, a fifth below. As in Scelsi's *Anahit* and Xenakis's *Nomos Alpha* (both from 1965), such an extreme *scordatura* tuning calls for a radically altered color and a particular instrumental resonance. In live performance, the extremely low register on the cello is barely audible; it is more present as a physical vibration resonating with the listener's body.

With its materials rigorously reduced to the essential, the first movement of *Evapora* is based on two core pitches a perfect fifth apart: B-flat2 and F3—the opposing poles of a musical microcosm. Each pitch is conceived as a central pole, extending a minor second in both directions: from B-flat are derived the neighboring pitches A and B-natural, and from F, E and F-sharp. These neighboring notes function in effect as a resonance chamber to the core pitches. The first movement is a contemplative study of building harmonic and non-harmonic spectra by superimposing elementary components. When two or more pitches are aligned in a harmonic spectrum according to the harmonic series, they can easily be combined to

generate a single complex timbre that could be described as 'harmonious' or 'stable'; when they do not fuse with one another or when the relation between the components is complex, giving conflicting cues as to the fundamental of the sonority, they result in a non-harmonic spectra possessing varying degrees of harmonic tension that in some cases produce beats between them.[7]

The movement opens with the core pitches played on the piano. In mm. 2 – 24, the sustained low notes on the retuned cello function as an artificial pedal to the dampened piano; its quietly bustling sound both affirms and contradicts the core pitches. The cello first 'reassures' the B-flat with a stable and harmonious fusion (mm. 2 – 8), then 'questions' the given material (as dissonance in mm. 13 – 18; as a slow tremolo in mm. 19 – 24; as rhythmical wide-vibrato in mm. 28 – 32), resulting in a non-harmonic fusion (Figure 6).

While the cello centers round B-flat, the piano and flute focus on the other core pitch—F. A highly dissonant spectrum is created with the forceful G-flat (marked *fortissimo*) introduced on the piano in m. 25 (Figure 6), concealing the entrance of a barely perceptible F4 on the flute. The flute moves to E4 in m. 28, creating a dissonant major seventh with F3 on the piano. The tension caused by the collision is released gradually over the next measures, until G-flat reappears forcefully in m. 35 (Figure 7). At this moment, the cello joins the rest of the ensemble with the first harmonic of its lowest string (F). To create an organically vibrating cluster, Chen gracefully carves out their rhythmic correlation, cautiously avoiding simultaneity (m. 40). In the midst of the clashing dissonances, an F2 natural harmonic on the cello (mm. 35 – 38) softly reminds the listener of the core note.

After a momentary return of B-flat (mm. 43 – 47), three adjacent pitches (E, F and G-flat) in register-4 appear with increased dynamic intensity and in closer rhythmic proximity (mm. 47 – 48), reaching the climax of the movement in m. 52 where the cluster is played consecutively in rapid succession. A new pitch, B natural, is

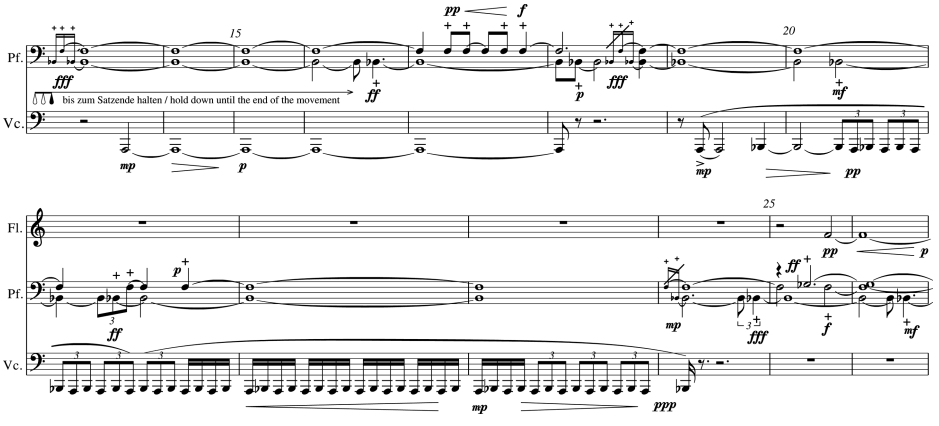

Figure 6 *Evapora*, mvt. I, mm. 13 – 26. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

introduced—first on the flute (m. 52), then on the piano (m. 55)—before the end of the movement. With the core pitches sustaining in the background, the conflicting sonority is left unresolved, as if posing an unanswered question (Figure 8).

The fast-moving second movement of *Evapora* is a study of horizontal and diagonal motions. Limiting the material to a five-note cluster (E, F, G-flat, G, A-flat) in the middle register, each melodic line is either a fast oscillation of pitches, or a chromatically rising line. When these lines are superposed, moments of tension and release arise from the calculated collision between their pitches and rhythmic pulsations. On the pitch level, the dissonance begins with two pitches (F and G in m. 5), and gradually expanding to a three-note cluster (F, G, A-flat in m. 8, Figure 9), followed by a fourth note (G-flat) on the flute in m. 15.

With the 16th note pulse as a constant factor, the composer varies its groupings throughout the work. They appear as dotted quarter notes in mm. 26 – 28 on the flute, as quartet notes alternating between flute and violin in mm. 29 – 30, as triplets on the piano in mm. 41 – 42, and as groups of five 16th notes on the violin in mm. 43 – 44 and so on. Furthermore, recurring accents create the illusion of larger units.

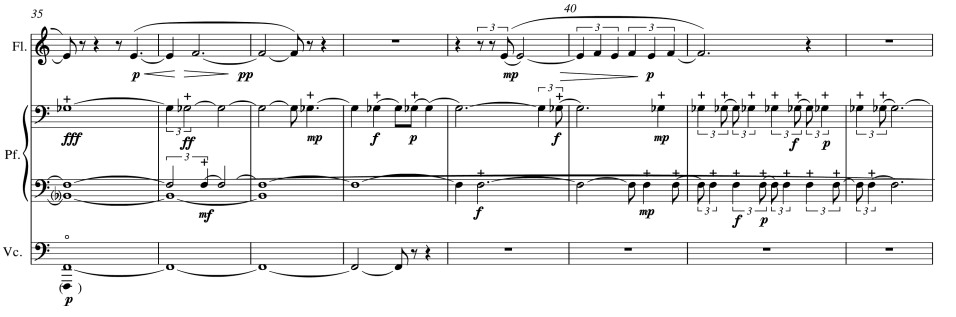

Figure 7 *Evapora*, mvt. I, mm. 35 – 42. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

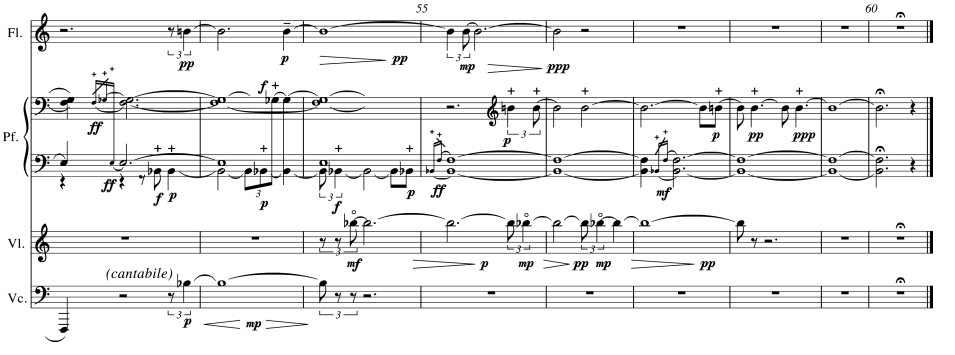

Figure 8 *Evapora*, mvt. I, mm. 52 – 60. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

For example, in m. 41, the accents are placed every five 8th note triplets; in m. 45, every three 16th notes; in mm. 49 – 50, every six 16th notes (Figure 10).

After the oscillating gesture is established, the diagonal motion makes its first appearance in m. 19 on the violin, sweeping chromatically from G3 to F-sharp4 in 16th notes. It is taken up by the flute in m. 26 rising from C4 to A-flat4. The diagonal movement of the pitches gradually builds up and replaces the horizontal oscillation as the predominant motion. At m. 69, following the first appearance of the note E4 (m. 65), the piano quietly begins its 'cadenza' as overlapped spirals of perpetually rising sweeps (Figure 11). This passage might remind the listener of the Penrose stairs in M. C. Escher's 1960 lithograph *Ascending and Descending*, or a deconstructed Shepard tone[8]—both works have profoundly fascinated Chen's mentor Ligeti.

As the diagonal motion unfolds in 15 cycles on the piano, it gradually expands downward, extending its lowest note in stepwise motion from A-sharp3 in m. 69 to E2 in m. 93. The highest note of the first 14 cycles remains A-flat5, adding to the pressure as each wave surges upwards. It finally gives way to a registral explosion in the last cycle, when the piano sweeps from E2 to E-flat6—the music 'evaporates' in a dramatic gesture. Following this sweeping motion, the listener is left with the echo of the five-note cluster sustained by the *sostenuto* pedal—an illusory return of the horizontal motion in distant resonances (Figure 12).

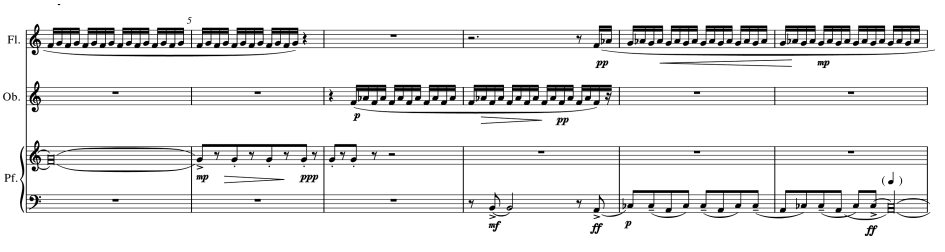

Figure 9 *Evapora*, mvt. II, mm. 4 – 9. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

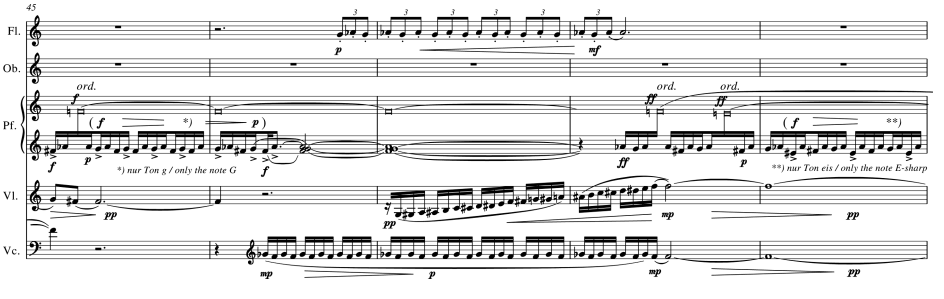

Figure 10 *Evapora*, mvt. II, mm. 45 – 49. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

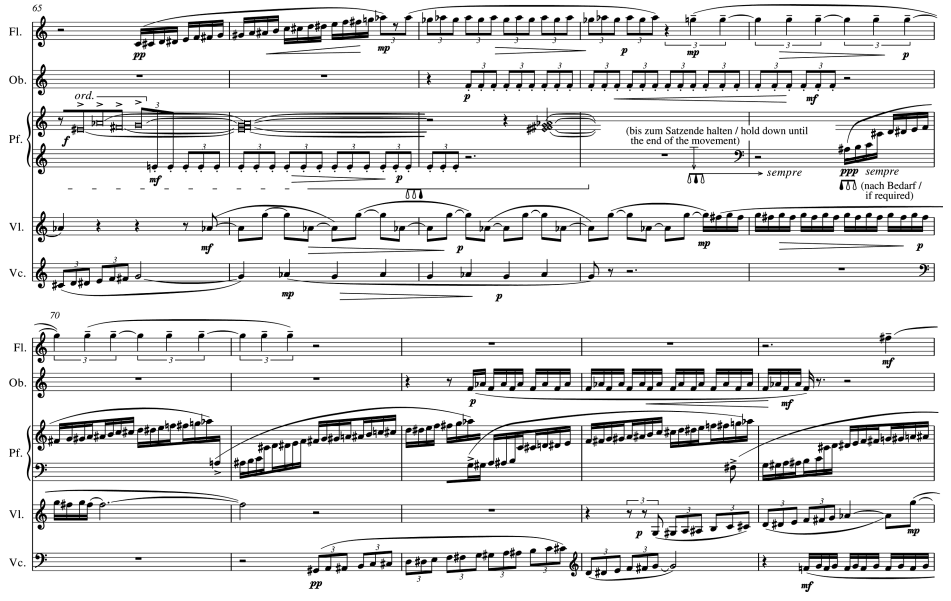

Figure 11 *Evapora*, mvt. II, mm. 65 – 74. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

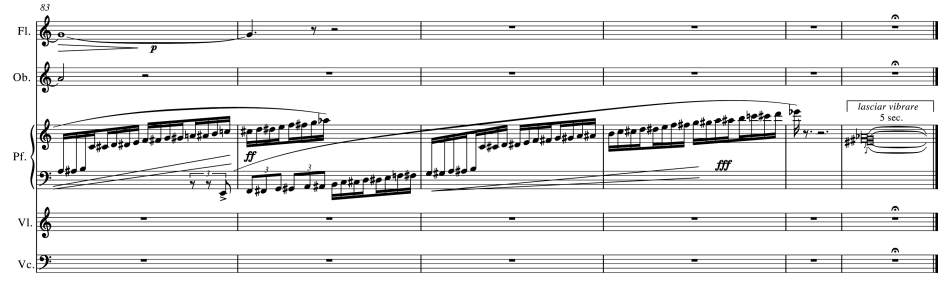

Figure 12 *Evapora*, mvt. II, mm. 93 – 98. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

The third movement of *Evapora* corresponds to the first movement in its quiet contemplation on the timbre of the piano and the clashing sonorities. The primary materials used in this movement are the intervals perfect fifth (as in m. 29 between piano, oboe and flute; m. 41 on cello, and between oboe and flute; m. 44 on oboe) and major third (as in m. 40 on flute and oboe). An intensely emotional moment occurs in m. 39 when the piano makes two downward semitone motions (B-flat-A, C-B)—the 'Bach' motive is pronounced with a tint of melancholy (Figure 13).

All three movements demonstrate Chen's tendency to eliminate unessential material in order to achieve greater efficiency. This highly economical use of musical materials allows him to concentrate on the complex inner workings of each sound.

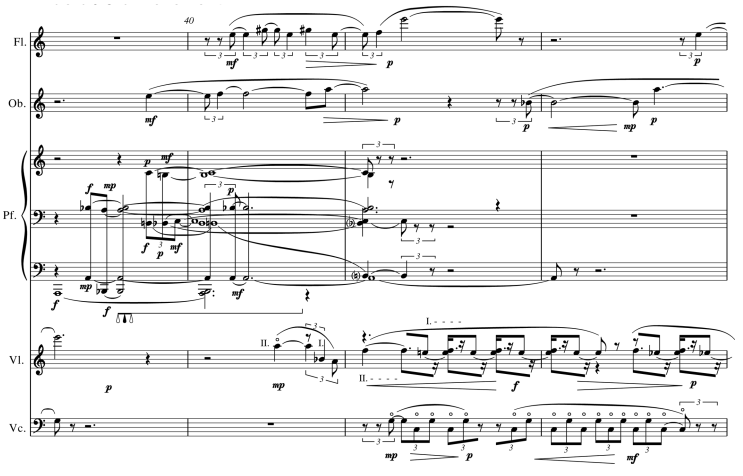

Figure 13 *Evapora*, mvt. III, mm. 39 – 42. © 1996 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

Chen does not employ extensively the techniques and procedures developed by the Spectral School of composers; however, his fascination with the beauty of elemental sonorities is revealed through an awareness of spectral fusion. These works constitute the syntax for his new personal vocabulary—a vocabulary that amalgamates the progressive experimentation of the West and the poetic sensitivity of the East.

Colliding Resonances

Chen's kinship with Scelsi cannot be fully appreciated without addressing its larger context. After all, Scelsi's meditation on single tones betrays direct links to Tibetan monastic practices; his musical imagination was stimulated by his visits to India and Nepal, as well as by his studies of Eastern mythology and philosophy. This musical hybrid took place against the backdrop of a dynamic cultural exchange. Scelsi's contemporary, the Dutch diplomat and sinologist Robert van Gulik comments eloquently on the *qin* in his 1940 publication, *The Lore of the Chinese Lute*:

> [The *qin*'s] beauty lies not so much in the succession of notes as in each separate note in itself. 'Painting with sounds' might be a way to describe its essential quality. Each note is an entity in itself, calculated to evoke in the mind of the hearer a special reaction. The timbre being thus of the utmost importance, there are very great possibilities of modifying the colouring of one and the same tone. In order to understand and appreciate this music, the ear must learn to distinguish subtle nuances: the same note, produced on a different string, has a different colour; the same string, when pulled by the fore finger or the middle finger of the right hand, has a different timbre. The technique by which these variations in timbre are effected is extremely complicated: of the vibrato alone there exist no less than 26

> varieties. The impression made by one note is followed by another, still another. There is thus a compelling, inevitable suggestion of a mood, an atmosphere, which impresses upon the hearer the sentiment that inspired the composer. (Van Gulik, 1940, pp. 1–2)

The compositional potential of single tones was explored by Chou Wen-chung in his pioneering musical works as well as his seminal essays, including 'Single Tones as Musical Entities: An Approach to Structured Deviations in Tonal Characteristics' (Chou, 1968). Envisioning a 're-merger' of the ancient East (exemplified by the *qin*) and the modern West (exemplified by the works of Varèse), Chou writes:

> Varèse's concept of music as 'organized sound' and of sound as 'living matter', which in itself is of historic consequence, is, again, a modern Western parallel of a pervasive Chinese concept: that each single tone is a musical entity in itself, that musical meaning lies intrinsically in the tones themselves, and that one must investigate sound to know tones and investigate tones to know music. This concept, often shrouded in poetic and mystic metaphors, is fundamental to many Asian musical cultures. It is manifest in the great emphasis placed on the production and control of tones, which often involves an elaborate vocabulary of articulations, modifications in timbre, inflections in pitch, fluctuations in intensity, vibratos and tremolos. Such concentration on the values of a single tone is the antithesis of traditional Western polyphonic concepts, in which the primacy of multilinearity and the acceptance of equal temperament make the application of such values limited and subordinate. (Chou, 1971)

Chou's contemporary, Isang Yun, who also straddled the aesthetic worlds of East and West, has said: '[T]he process of a single tone's emerging and disappearing has a pliable movement, which can also appear in various shapes and sounds such as vibratos or glissandi; then, the single tone is already a complete cosmos. Thus, a single tone is full of life which is embellished and developed' (quoted in Kim, 2004, pp. 182–183).

Influenced by his predecessors and informed by his own intimate knowledge of traditional Chinese music, Chen considers a single sound as sufficiently expressive. His compositional task is to provide the best temporal and contextual condition for a sound's deliverance. One of the features that perhaps distinguishes his approach from that of others is his radical fragmentation of sound. For example, in his recent work for mixed chamber orchestra *Speechlessness, Clearness and Ease* (2004), Chen transforms the sound of its text—five lines from Lao Zi (Lao Tzu)'s *Daodejing* (*Tao te-ching*)—and borrows the techniques of morpheme fragmentation from the traditional textual treatment used in the Beijing opera. The musical example in Figure 14 is the latter half of rehearsal letter F. The text of this section is '*zhi xu ji; shou jing du*' (致虛極守靜篤, 'Effect emptiness to the extreme; keep stillness whole', from *Daodejing*, Chapter 16). Here, the word '*shou*' (守, 'keep'), sung by the *dizi* (bamboo flute) player, is prolonged with an exaggerated 'falling-rising' intonation and re-articulated as a glottal fricative 'ho'—replacing the alveopalatal fricative 'sh'—followed by voiceless repetitions of the

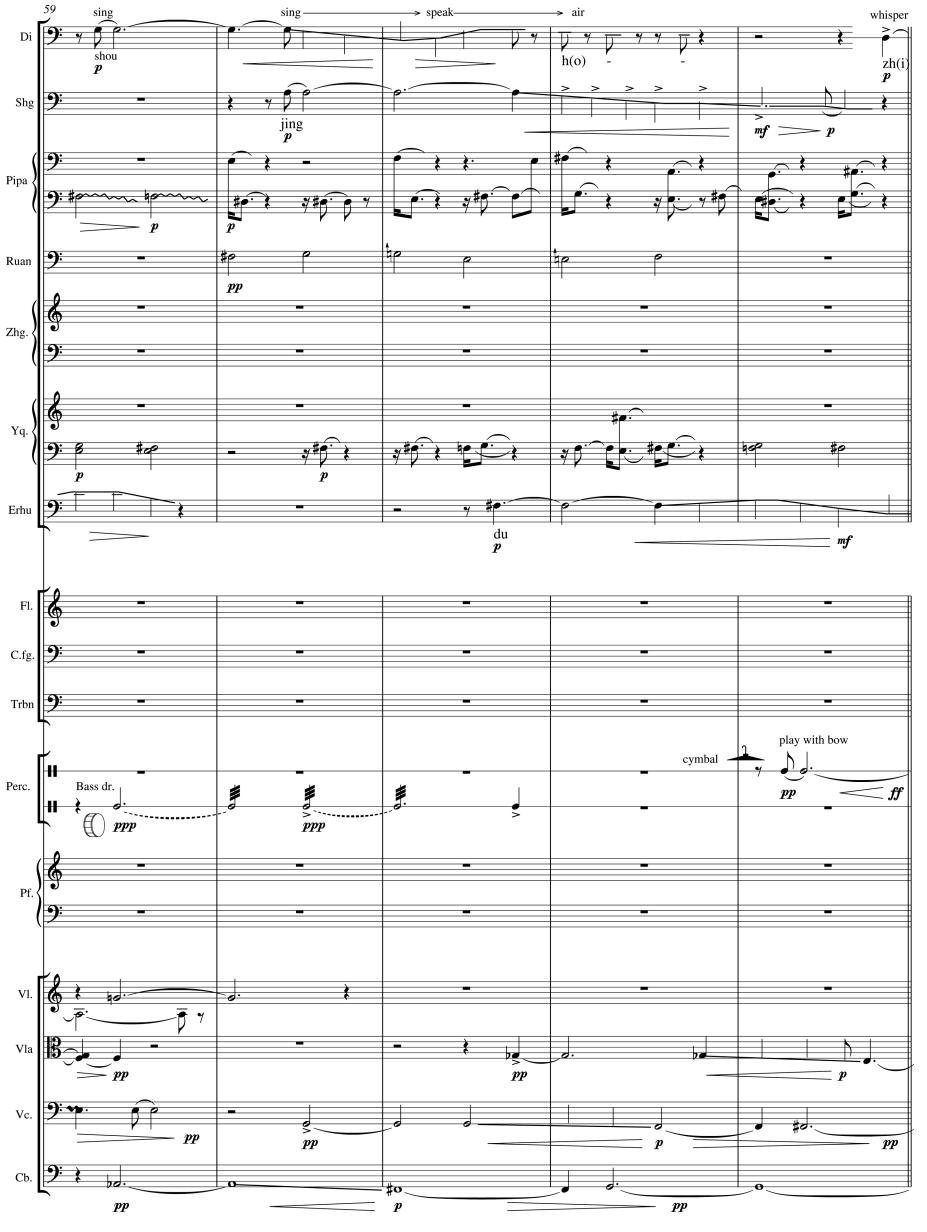

Figure 14 *Speechlessness, Clearness and Ease*, rehearsal letter F, mm. 59 – 63. © 2004 Sikorski. Used by permission of Musikverlag Hans Sikorski GmbH & Co. KG, Hamburg.

rounded vowel 'o'. Therefore, a monosyllabic word undergoes three phases of transformation: sing—speak—air (Figure 14).

This fragmentation of text is similar to the isolation of single notes in Chen's earlier instrumental works discussed above. It demonstrates his continual effort in

dissolving an instrumental or textual fabric in search of its primary and elemental components. When he imposes an extreme condition on an instrument, such as the radical *scordatura* on the cello in *Evapora*, a 'new instrument' emerges out of the 'familiar' one. Similarly, new materials arise when radical conditions are imposed on a sonic envelope, its mode of articulation and dynamics, and so on.

Chen's compositional procedure involves a kind of dialectic between the rational and the sensual. The former is thoroughly controlled in minute detail, while the latter is free, unrationalized and perhaps not precisely deliberate. The sensual element operates as a temporal procedure—the meticulous pacing of events that creates a most intimate space for a sound to deliver its utterance. An instrument, such as the *zheng* in his *Duet*, constitutes a 'space' in itself: a pluralistic world of clashing tuning systems, modes, spectra and individual voices that collide and co-exist in a dynamic musical time-space. In a sense, Chen's pluralism reflects the cultural convergence that Chou Wen-chung has called 'the confluence of musical cultures' (Chou, 1991, p. 177). His highly personal vocabulary emerges from the integration of Eastern and Western sensibilities, techniques and compositional methods. The result of this synthesis is not a stylistic collage, however, but a new sonic poetry. Savoring the disappearing resonances, as if trying to capture the faint memories of a vanishing world, Chen's journey is a musical one as well as a deeply spiritual one.

Notes

[1] The Kaske Award was presented to honor György Ligeti and one of his students. Ligeti nominated Chen to share the award with him.

[2] Chen was nominated by the senate of the city of Hamburg to share the Bach Award with Karlheinz Stockhausen.

[3] Based on a phone interview with the composer, 6 October 2006.

[4] Chen's recording of the *guqin* (*Orchidee: Traditional Chinese Zheng and Qin Music*) was released by Wergo in 1992.

[5] While raising or lowering a pitch by 50 cents results in quarter tones, Chen's choice of altering the notes by 23 cents is somewhat unusual. It was determined by experimenting with the microtones available on a Yamaha DX7 synthesizer. The syntonic comma of just intonation theory may account for the tuning of the pitches E and 'E-23 cents' in this piece. In just tunings, the syntonic comma (81:80, or about 21.5 cents) is the difference between a wide Pythagorean major third (81:64, or 408 cents) and the narrower, more mellow-sounding just major third (5:4, or 386 cents). If the regularly tuned E is taken as a Pythagorean major third above C, then the lowered pitch 'E-23 cents' closely approximates the just major third. In just tunings, it is not uncommon to have two different versions of a pitch—a practice that dates back to the Renaissance. The author consulted with Robert Hasegawa on microtonal tunings, and wishes to thank him for his input.

[6] I am using the measure numbers of the *zheng* part.

[7] For a technical explanation of spectral fusion, see Fineberg (2000, p. 91).

[8] Shepard tone is the auditory illusion of a tone that endlessly ascends yet ultimately seems to get no higher or lower. It was first published by Roger Shepard in 1964. For more information on Shepard tone, see Shepard (1999, pp. 125–127).

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