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Schaeffer Stands His Ground: *Orfée 53* and Evocative Sound

At the annual festival in Donaueschingen in October of 1953, Pierre Schaeffer and Pierre Henry debuted *Orfée 53*, a new *musique concrète* opera, based on Gluck's *Orpheus and Euridice*. The collaboration exhibited magnetic tape manipulations, a technique pioneered by Schaeffer experimenting with the creation of sound objects. *Orfée 53* featured a live female vocalist, a harpsichord, and evocative tape sound. This ambitious work scandalized the modern German listeners and characterized *Orfée 53* as a crime against the avant-garde.¹ Schaeffer's ideal of experimental music was part of the ongoing controversy between the *Elektronische* and *concrète* composers. I will argue that Schaeffer's compositions of 1953, especially *Orfée 53*, intended to cultivate a new era of musicality and research in the genre of *musique concrète*.

As in Schaeffer's works from 1949, repetitive characteristics of the sounds in *Orfée 53* helped to identify characteristics for the listener. In my opinion, Schaeffer's objective for the listener was to recognize some natural sounds mixed with abstract sounds to enhance the operatic form. Certainly, this

¹ Digital Music Archives-Electronic, Improvised, and World Music. <http://www.digital-music-archives.com>
Based on an article by Michel Chion in *Larousse de la Musique*, 1982.

can be shown in his use of recorded human breath and heart beat of *Orfée*'s Prologue.

TRACK 1

Schaeffer was not an academy-trained musician, but worked as an electrical engineer employed by Radiodiffusion Télévision Française (RTF) from the 1930's. As a radio-sound engineer turned composer, Schaeffer implemented new sounds to convey what a natural aesthetic could not demonstrate alone. From his first concert, *Suite For Fourteen Instruments* (1949), Schaeffer paved the way towards creating a syntax with recorded sound objects. Schaeffer's objective was to stir the listener beyond what the traditional score could offer without abandoning classical forms. The sounds exhibited in *Orfée 53* offered listeners a new way to understand sound as music with the creation of monster growls of the underworld, Orpheus' debate (recorded in German), and Euridice's live aria (sung in French). Despite the criticism of avant-garde German composers, Schaeffer displayed a willingness to push the boundaries of what was musical.

According to Michel Chion, Pierre Schaeffer did not create *musique concrète* as a music encompassing all sounds but as a music based on editing. The sound was taken from its natural home and made to have meaning out of its natural context. In *Orfée 53*, Chion maintains that Schaeffer dealt with the sound and meaning of the human voice not unlike the original connotations in the Greek myth "Orpheus" who when he was decapitated continued to sing. The

headless Orpheus takes natural sound out of context just as the editing of sounds in a sound studio removes them from their ordinary form as a decapitation. To explain this analogy further, Schaeffer often considered himself the underdog and a less qualified composer. In his low self-view, Schaeffer used the “decapitated Orpheus myth” to explain himself.²

Before continuing, I would like to briefly review the differences between *musique concrète* and the German *Elektronische Musik*, as it had developed. German *Elektronische Musik* featured precision controlled sound material that could be shaped or modulated by the composer. In *Elektronische Musik*, the source of sounds originate in an oscillator or wave generator and appear as sound for the first time with the loud speakers. With *musique concrète*, natural sounds were recorded, processed, manipulated, and then broadcast. Tim Hodgkinson maintains that the argument between *musique concrète* and *Elektronische Musik* that extended from 1950 to 1955 was a basic disagreement in the thinking about the task of compositions. “For *musique concrète*, the essential character of music as a human activity is such that a listening experience and the ‘ear’ are crucial things. For *Elektronische Musik*, the priority is the idea, the system, the perfection of control, of precise rationalization...to become scientific.”³ Schaeffer did not desire the control over his materials, and this is the fundamental disagreement between the two schools of music. Why did Schaeffer compose Orpheus’ Debate in the German language and Euridice’s

² Michel Chion. “Digital Music Archives” February 1986 <http://www.digital-music-archives.com>

³ Hodgkinson, 2.

aria in French? I hold that this is symbolic of the vast gulf between the two views, each idiom foreign to the other.

With the advent of magnetic tape in 1948, Schaeffer constructed many recorded works and was the first to use the word *concrète* in regards to music. As the medium's founder, he established the conceptual restraints and the future possibilities of *musique concrète*. Schaeffer found it necessary to differentiate between concepts in recorded sound; developing a *sofège*, cataloging musical traits for future publication, and implementing new taped sounds into useful orchestrations that would benefit other composers and establish a new genre. Schaeffer maintained the following point of view in 1948 and 1949:

I cannot overemphasize this deal you make with your conscience, which leads you to grab three dozens of objects in order to make noise, with no dramatic justification at all, with no preconceived idea at all, with no hope at all.⁴

Bruno Nettl points out the “quintessential importance” of the connection between compositions and the composer as a prime trait of Western classical music. Often, the *oeuvre* of the composer is highlighted in the form of a catalog, preserving the immortality and importance of the composer. Nettl asserts that a composer must publish a thematic catalog in order to be taken seriously as one of the “biggies.”⁵ Schaeffer created a library of disc recordings, sound effects, and music for the RTF. By 1966, the RTF collection was organized and

⁴ Pierre Schaeffer. “Introduction a la musique concrete.” *Polyphonie 6, La musique mecanisee*, (1949) 30-52.

⁵ Bruno Nettl. *Heartland Excursions: Ethnomusicological Reflections on Schools of Music* (Chicago: University of Illinois Press, 1995) 14.

categorized in Schaeffer's 600-page *Traits of Musical Objects*, in which he tried to classify all sounds. Even though this catalog was never complete to Schaeffer's satisfaction, it did confirm the notion that the expressive language of recorded sound could extend beyond the rigid avant-garde or the traditional note heads and staff lines on paper. The critic's objection lay precisely in that many of these sounds retained their original meaning, never breaking away from clear associations. Peter Manning states that Schaeffer's library of sounds is "More an essay on the activities of an apparently schizophrenic goods-yard than a creative study in sound to be appreciated on its own terms."⁶

At first, Schaeffer thought of his work as experimental research into sound objects on tape. By the time *Orfée 53* was created, Schaeffer had amassed an enormous quantity of *concrète* material. Both Schaeffer and Henry vied for a body of sound works that was large enough to avoid abstraction or generalization. It became necessary to develop an *orchestre concrète* based on the idea, or the supposed "limitation" in the words of the critics, that certain sounds would always retain their natural associations no matter how much they were manipulated. Schaeffer composed with recorded sound to his advantage, not disadvantage. Notated in a score similar to that used for conventional instruments, these orchestrated sound objects were treated as "pseudo instruments."⁷

⁶ Peter Manning. *Electronic and Computer Music* (London: Oxford University Press, 2004) 21.

⁷ Manning, 27.

Here are the things that Schaeffer was able to do with the initial use of these techniques. By 1953, Schaeffer controlled taped noise and extended the parameters of sound beyond his earlier works. He invented tape loops that used recorded materials in which the tape has been spliced and made into a loop. His echo and reverberation, created by using a two-channel recorder, produced a timed delay. He manipulated pitch by altering the speed of the playback. A slower playback resulted in a lowered pitch, whereas a sped up recording caused a higher pitched sound. Playing the taped sounds backwards occurred by reversing the reels and recording to another reel.⁸ Schaeffer and his engineer Jaques Poullin created the *Phonogene* and the *Morphophone* and used these machines in the construction of *Orfée 53*. The *Phonogene* was able to transpose a tape loop in 12 distinct steps from using a keyboard. The keyboard selected one of 12 capstans of different diameters, like changing gears on a bike. A two-speed motor was used for octave transposition. The *Morphophone* was a specialized loop deck. It had an erase head, record head, and ten playback heads with an adjustable filter for each to create special timbre effects.⁹

The use of modified, recorded sound was a concept that caught on quickly with other composers who then joined the work at the RTF. According to Carlos Palombini, a tendency to create serialized tape music became apparent with these composers between the years 1951 and 1953, although Schaeffer himself thought of Schoenberg's dodecaphony as dogmatic rather than expressive. The

⁸ Manning, 21.

⁹ "Musique Concrete" <http://csunix1.lvc.edu/~snyder/em/mc.html>

implementation of Schoenberg's serialism in the tape studio removed the control of how music would affect the listener. Carlos Palombini argues that the Group for Musical Research (GRM) under Schaeffer's supervision organized the First International Decade of Experimental Music in Paris in June of 1953 as a reaction to the assimilation of *musique concrète* into *Elektronische Musik*. "The GRM had reached an impasse. Since serialism presented itself as a denial of tonality, Schaeffer saw no point in applying serial method to concrete material: on the other hand, he saw no reason for not experimenting with tonic-dominant relations."¹⁰ I contend that Schaeffer created *Orfée 53* as a standing ground in his argument against the composers of the *Elektronische Musik*.

The "Debate d'Orfée" (track 6, 00:30 to 1:00) exemplifies traditional harmonic practices as the recognizable interval of a minor third is heard with percussive sounds in tape loops. As you can hear, Schaeffer used pitched sound. The *phonogene* creates a skittering of sound which is important in establishing a contrast to the upcoming melody. A female chorus sings a simple melody that is clearly tonal and establishes a tonic and dominant relationship, something the *Elektronische Musik* composers wished to eradicate.

TRACK 2

Many works composed by Henry after *Orfée 53* were based on a synthesis of both *concrète* and electronically generated sound, but for Schaeffer, *Orfée 53* marked the turning point toward a more evocative research. With *Orfée 53*,

¹⁰ Palombini, 1993, 18.

Schaeffer situated his work before the *Elektronische Musik* composers and demonstrated a musical language beyond the descriptions available in traditional music. Although Schaeffer never abandoned the forms of fugue, theme and variation, or aria and recitative, he leaned on the sound structures of *concrète* to express and control literary meaning for the listener.

Orfée 53 exemplified the culmination of experimentation with tape manipulation from 1942 to 1953 when these sonic bodies were in their infancy. The fact that *Orfée 53* incorporated aria, live voice, and classical form was problematic for the German *Elektronische* composers to say the least. Despite their harsh criticism, Schaeffer was proud of his technical advances with these sound structures. Brief *concrète* passages could take months of recording, cutting, and splicing to create. Manning maintains that Schaeffer, Henry, and Poullin had difficulty formulating just the right sounds for their collaborative works.¹¹

In *Orfée 53*, no visual elements were available for the audience. Schaeffer points out that “in fact, *musique concrète* apart, everything happened as at the Opera.”¹² Oliver Messiaen, Henry Michaux, and Claude Levy-Strauss, all advised Schaeffer to extract the full consequences of *musique concrète*, breaking ties with traditional music.¹³ As in Schaeffer’s works from 1949, repetitive characteristics of the sounds in *Orfée 53* helped to identify characteristics for the

¹¹ Manning, 27.

¹² Pierre Schaeffer. *À la recherche d’une musique concrète* (Paris: Seuil, 1952).

¹³ Carlos Palombini. 1993, 17.

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Orfée 53 created a scenic auditory landscape. In the fourth movement "The Monsters" (track 4, 01:06 to 01:35), the *concrète* sounds are psychological glimpses into the minds of Orpheus and Euridice in the underworld; underpinnings of whispers, flowing bell-like sonorances, and echo reverberations produce a scenic mysticism, like traveling into a dank and dark cave. Slowed-down recorded pitch tones create growls of monsters, and loud squawks rule in this auditory Hell. The *phonogene* creates the sound of horrible wings in flight. "The Monsters" is a culmination of achievements with sound effects in the studio.

TRACK 3

For *Orfée 53*, Schaeffer and Henry used two scores that could work hand-in-hand to realize the opera. The listening score was for the aural component, and the operative score was set in place for the manipulations of the recorded work. For example in the second movement (track 2, 00:24 to 00:52), *concrète* is played as accompaniment to the live aria. Euridice sings as a reaction to the manipulations. She sings with traditional melodic phrasing and ends her melody with a deceptive cadence to allow *musique concrète* musical forward motion.

TRACK 4

As an aside, Schaeffer first had the idea for recorded sound when listening to an Edith Piaf recording. The needle got stuck, and the repetitive noise

inspired him to pursue ‘the music in between’ to commit himself to this new science of rhythm and sound from a pitted groove in a ruined traditional recording.

In the “Debate d’Orfée” (track 6, 2:00 to 02:40), Orpheus speaks in German and is conflicted by his passion for Euridice as he argues as to whether or not he will turn around and look and see if she is following him out of Hell. In this section, the *concrète* acts as a ground bass for Orpheus’s recitative. In this example, the *concrète* is the musical accompaniment, whereas in “The Monsters” the *concrète* served as simply sound effects describing the Underworld.

TRACK 5

It is easy to understand how the opera caused an enormous riot among the avant-garde artists. The use of live soloists and traditional instruments on the stage with the loudspeakers caused a blurring of the lines between real life and art. This juxtaposition of conventional norms and new means of expression occur in a dialectic that resolves logically for Schaeffer. *Elektronische Musik* composers saw the technology of *concrète* as a means of galvanizing their objectives to improve and perfect traditional Western music rather than a tool of expression. For Schaeffer the implementation of new sounds allowed the

composition “to retransmit, in a certain manner, what we used to see or hear directly; to express, in a certain manner, what we used not to see or hear.”¹⁴

With the premiere of *Orfée 53* at Donaueschingen, Schaeffer and Henry demonstrated an expression that expanded what the traditional forms could offer. New avenues in sound technology paved the way for Schaeffer to devise *concrète* into a discipline with the objective of enhancing dramatic and musical narrative. This was never compromised by the criticisms of the *Elektronische Musik* composers; rather, Schaeffer advanced his new genre and convinced the technological institutions of France that his thinking was worthy of continued funding. His 600-page catalog of musical characteristics stands as a tribute to the ethic of enhanced musicality created by Schaeffer. *Orfée 53* represented the pinnacle of public experiments, and through this event, Schaeffer proved that his belief was not to be wavered.

¹⁴ Pierret, Marc. *Entretiens avec Pierre Schaeffer* (Paris: Belfond, 1969)

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Sketch Transcription of *Orfée 53* (75 Jahres Donaueschingen, Label: Col Legno)

***Orfée 53* Spectacle Lyrique 20:20**

Track

(01) Prolog 01:15

Breath/reversed breath, harpsichord arpeggio, heart beat loop	00:18
Sounds slowed, recorded and looped; loop of voice (longer tape)	
Two or three sounds looped and layered	
Backwards breath	00:44
Harpsichord recorded and reversed	00:48
Striking loop	00:51
Delayed echo of chord	01:09

(2) Premier air d'Orphée 02:01

Recorded thunder	00:00
Looped sounds and their reversal	
Aria sung live and in French over taped manipulations	00:54
Sounds in the background with aria	
Heart beat loop reversed recorded with aria	01:44

(3) Premier recitativo d'Orfée 03:20

Orfée speaks via recorded male voice with (phonogene)	00:14
Live voice aria	00:18
Monster sounds	00:27
Euridice sings aria while Orfée speaks as in a conversation	00:37
Reversed noise	00:58
Aria and speaking	01:09
Monster noises recorded manipulations	01:29
Orphée speaks recorded and reversed	01:36
Orphée speaks of Orpheus	01:43
Euridice sings as if in another place (Hades)	01:49
Orphée speaks in recitative	01:58
Phonogene	
Euridice and Orfée sing and speak together (live and recorded) with	
Loops of noise with singing and recitative	02:23
Back and forth between characters	
Backwards strike on loop	02:58
Orfée and phonogene	02:58
Short loop, modified short loop	03:09

(4) Les Monstres (sound effects) 03:23

Reversed sounds, pitch changes	00:00
Growl loop	00:08
Backwards strike	00:18
Reversed engine noise at higher pitch	00:22
Pitch and speed change with engine sounds	00:31
Reversed and amplified chord strike	00:31
Growl loop with monster squawk (slowed)	00:37
Loop of wavering drone	00:41
Growl and human voice moaning loop (separate loops)	00:43
Monster squawk	00:49
Voice	00:53
Chord fragmentation and reverberation (echo)	01:00
Loop of chains and monster voices, wind loop	01:04
Growl loop (a slowed down pitch)	01:20
Monster droning voice	01:23
Harpsichord manipulation of chord tone	01:28
Phonogene	01:30
Monster squawk, wind loop	01:34
Growl loop (slowed down pitch)	01:37
Short loop of harpsichord chord tone manipulation	01:50
Sound from phonogene recorded and manipulated	01:56
Electronic sound loop	02:00
Orfée sound is manipulated to indicate Hades	02:09
Ethereal voice loop of Euridice	02:19
Grown loop of monster squawk	02:27
Short voice loop	02:30
Lengthy Euridice ghost voice loop	02:33
Growl loop duration extended	02:50
Silence	03:03
Harpsichord with manipulated chord sound	03:09
Plucked strings loop	03:16
(5) Parade d'Eurydice	03:22
Reversed harpsichord chord, manipulated	00:03
Electronic noise	00:09
Blip loop and silence	00:20
Metal sawing on wood	00:30
Sped up sawing, sounds electric	00:36
High pitch, and high speed, and guitar chord played backwards	00:45
Strumming manipulation by echo	00:46
Chord (like a cadence point)	00:58
Monster squawk, manipulation of strumming	01:02
Monster squawk, striking loop with strumming loop	01:10
Reversed sound loop of strumming	01:18
Strumming strings	01:27
Harpsichord strings	01:31
Chord with tone duration extension	01:34
Orfée speaks	01:37
Plate echo recording of voice	01:50
Monster noises	02:03

Loop of three strums, one backwards, one shortened	02:15
Orfée speaking same recitative as earlier	02:27
Guitar strums and voice	02:50
Ambient noises of monsters	02:53
Eurydice's voice loop with high pitched plucking and backwards engine noise	03:08
leading up to a loud recorded chord	03:12
backwards sawing	03:13
(6) Debate d'Orfée (his conflict)	05:14
Popping sounds loop, short loop	00:00
Loops and altered loops	00:33
Hitting hollow object	00:35
Changed sounds and skittering strings	00:46
Sawing on wood blurred	00:49
Voices sing	01:00
Other voices join	01:11
Add loop of drone	01:23
Blurred piano string noise	01:30
Women singing with drone loop	01:40
Loop with no voice, blips and drone	01:45
Orfée speaks (the <i>concrète</i> now acts as accompaniment) with other voice loop	01:49
Drone of harmonic nature with techno blips	
Orfée, ambient drone with noises and psychological noise	
Landscape	02:21
Drone and voice	03:04
Heartbeat loop	03:17
Orphée speaks	03:33
Chord gets louder	03:50
Orphée talking with piano string reverberation	04:14
Female singing returns	04:27
Choir of women	
Heartbeat returns, hitting hollow object loop	04:50
Strinking sound loop	05:00
Hitting loop	05:10
(7) Rupture Finale	01:45
Horns, reversed recorded ending on forte	00:01
Thunder, rain	00:13
Bees swarming and breath	00:32
Insects	00:40
Monster squawk loop	00:49
Voice backwards	00:50
Female voice added	00:55
Two voices are clear, like natives singing	01:00
Low chord	
Woman's voice	01:08
Woman moaning	01:11

EMS : Electroacoustic Music Studies Network – Montréal 2005

Chord of piano striking	01:19
Wooden strike	01:23
Ambient drone	
Piano strings with echo delay and reverberation	01:32
Loop recording of delayed striking of piano chords	
Silence	01:43

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