The Transcription of Electronic Music in *The Crying of Lot 49*

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Even if Pynchon refers in *The Crying of Lot 49* to electronic music only marginally, one may ask from a musicologist's perspective what motivates the contextualization of this phenomenon. In chapter 3, Oedipa and Metzger visit a bar called The Scope, where they are confronted with the "'Radio Cologne sound'" (48) in the form of a composition by Karlheinz Stockhausen. The first part of this essay analyzes the function of this episode in the novel, stressing the background against which the narrator revises the characteristics of electronic music. The second part focuses on the role of auditory perception in the novel, in which music and acoustic environments appear in ever different constellations.

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My analysis of Pynchon's transcription of electronic music is based Jäger's concept of Transkriptivität, transcriptivity. on Ludwia (Pynchon's literary appropriation of a musical form of expression can be explained only insufficiently in terms of intertextuality.) Jäger views transcription as the fundamental technique of producing and commenting on cultural semantics through media. According to Jäger, every culture produces various instances of transcription, since it perpetually tries to make surprising processes and events "readable." This way of "sense-making" always involves a transformation of meaning, because of the culture-constituting practices of transcoding (commentary, paraphrase) and the translation of one medial format into another. In Jäger's terminology, the specific cultural phenomenon of the Radio Cologne sound may be conceived as a pre-text, which Pynchon transcribes into prose and therefore subjects to a completely different mode of reading. It is this mode that has to be decoded against the background of his novel. Of course, the term pre-text should not be

^{&#}x27;Thanks are due to Bernd Herzogenrath for many hours spent in translating this text from German into English. Furthermore, I wish to thank Jan Simon Grintsch for his technical assistance in preparing the original lecture.

understood merely in terms of writing, since in Pynchon's novel music enters the frame—a medium different from literature, the acoustic realization of which does not depend on textual formation.

Before tracing Pynchon's references to electronic music and his recoding of this compositional tradition which was establishing itself in the mid-twentieth century, we will look closely at the specific passage mentioned above:

The Scope proved to be a haunt for electronics assembly people from Yoyodyne. The green neon sign outside ingeniously depicted the face of an oscilloscope tube, over which flowed an ever-changing dance of Lissajous figures. Today seemed to be payday, and everyone inside to be drunk already. Glared at all the way, Oedipa and Metzger found a table in back. A wizened bartender wearing shades materialized and Metzger ordered bourbon. Oedipa, checking the bar, grew nervous. There was this je ne sais quoi about the Scope crowd: they all wore glasses and stared at you, silent. Except for a couple-three nearer the door, who were engaged in a nose-picking contest, seeing how far they could flick it across the room.

A sudden chorus of whoops and yibbles burst from a kind of juke box at the far end of the room. Everybody quit talking. The bartender tiptoed back, with the drinks.

"What's happening?" Oedipa whispered.

"That's by Stockhausen," the hip graybeard informed her, "the early crowd tends to dig your Radio Cologne sound. Later on we really swing. We're the only bar in the area, you know, has a strictly electronic music policy. Come on around Saturdays, starting midnight we have your Sinewave Session, that's a live get-together, fellas come in just to jam from all over the state, San Jose, Santa Barbara, San Diego-"

"Live?" Metzger said, "electronic music, live?"

"They put it on the tape, here, live, fella. We got a whole back room full of your audio oscillators, gunshot machines, contact mikes, everything man. That's for if you didn't bring your ax, see, but you got the feeling and you want to swing with the rest of the cats, there's always something available." (47-48)

A first element that hints at the particularity of The Scope is its facade, where a green neon sign depicting an oscilloscope shows dancing Lissajous figures. Oscilloscopes are measuring instruments used in communications and audio technology to make periodic changes in electrical quantities visible.¹ With an oscilloscope, one can also visualize the type of oscillation analyzed systematically by French physicist Jules Antoine Lissajous in 1857. Two sinusoidal oscillations, one represented along the x-axis of an oscilloscope, the other along the

y-axis, produce a two-dimensional motion when added. The path they trace is called a Lissajous figure. If the periodic cycles of the oscillations correspond to small whole numbers, the oscilloscope shows static Lissajous figures matching pure interval proportions. However, if the frequency ratios deviate from their relation to the whole numbers, the figures deform and begin their—as Pynchon calls it—"ever-changing dance." Although this kind of imaging is used above all as an engineering tool in radio and communications technology, its aesthetic quality cannot be denied. This might be the reason Lissajous figures sometimes appeared in science-fiction movies of the 1950s and '60s, to add a futuristic look. (A particularly eye-catching example is the visual patterns in the opening credits of the TV series *The Outer Limits.*) This medial shift of emphasis sheds a comparable futuristic and bizarre light on Pynchon's bar.

Like Pynchon's fictional city of San Narciso, The Scope, located there, also represents a kind of counterworld. The narrator introduces San Narciso as an urban space where "[n]othing was happening" (24); but in that "strange bar known as The Scope" (45), something as progressive as Stockhausen's electronic music is played on the juke box. The transistor radio's circuit card to which Oedipa compares the dead face of San Narciso is opposed to the oscilloscope tube on which the Lissajous figures perform their vivid dance. In the bar, the bartender informs Metzger about the Sinewave Sessions each Saturday, when "fellas come in just to jam from all over the state, San Jose, Santa Barbara, San Diego," and thus break the state of inertia San Narciso is in, at least for a short moment. Pynchon combines the terminology of electronic music with the vocabulary of jazz. The Cologne Electronic Music of the 1950s was marked above all by its synthesis of sounds from combinations of elementary signals according to rigid serial organizing principles. In contrast, Jazz includes improvisation and jam, the casual get-together of musicians to make music by intuition. Yet Pynchon's bartender mentions "sinewaye" and "session" in one breath. He also takes pride in telling Metzger about the possibility of spontaneously joining the live experience: "We got a whole back room full of your audio oscillators, gunshot machines, contact mikes, everything man. That's for if you didn't bring your axe, see, but you got the feeling and you want to swing with the rest of the cats, there's always something available."

Pynchon's highly original liaison of Cologne Electronic Music, which, conceived as music for magnetic tape, has no need of a performing artist, and the musical practices of Jazz can be related to an innovation in electronic music-making—thus exceeding the purely literary context. This development is the live electronic music of the 1960s, which Pynchon might have become aware of through the texts of John Cage. In the liner notes to a recording of his *Cartridge Music* (1960), Cage refers to the potential "to make electronic music live." He adds, "There are many ways to do this. The one I here chose was to make a theatrical situation involving amplifiers and loud-speakers *and* live musicians" (qtd. in Kostelanetz 145). In a program note of 1964, on the occasion of the world premiere of an electro-acoustic version combining *Atlas Eclipticalis* (1961–1962) and *Winter Music* (1956–1957), Edward Downes quotes this description by Cage:

It is also an example of what may be called "live" electronic music. Most electronic music is dependent on magnetic tape for its performance and so becomes a recording. This music uses electronic circuits (microphones, amplifiers, loud-speakers) in connection with musical instruments. (qtd. in Kostelanetz 143)

This quotation points ahead to the practices of the many composers since the mid-1960s who combine instrumental or vocal sounds of musicians performing in real-time with electronic sounds, or use electroacoustic equipment which makes possible a live transformation of instruments or the human voice.

Cage, who had a lot of pioneering experience with electronic music for magnetic tape from the beginning of the 1950s on, criticized—like many of his fellow composers—the lack of spontaneity of pure loudspeaker music (Massow 2), and he opposed to it the concept of live electronics. Pynchon uses the terminology of this latter musical innovation by making the Scope's bartender use terms like "audio oscillators" and "contact mikes." In particular, the reference to the contact microphone (which is triggered by mechanical oscillations from any sound source and which, because of its low sensitivity to feedback, is especially appropriate for live electronic music) reminds one immediately of Cage's extensive use of this electro-acoustic converter. Besides, Cage's cautious choice of words, "what may be called 'live' electronic music," points to the avant-gardism of the phenomenon, for which a definitive term had yet to be found (Massow 2) but which already enjoys great popularity in the fictional Scope.

Thus Pynchon makes the pre-text "electronic music" readable heteromorphically by ascribing alien attributes to it. He does so through the stylistic merging of the Radio Cologne sound and Jazz, the paradoxical amalgamation of sinewave and session, serial music for magnetic tape and live performance. Pynchon takes the artificial electronic music out of the concert hall and places it in a strange Californian bar. Yet this scene is more than a poetic free-play with the musico-historical model of the Radio Cologne sound.

First of all, Oedipa's experience in The Scope-her "sensitizing" (45)-helps define her perception throughout the rest of the novel. Again, the bar may be read as a kind of counterworld to San Narcisomaybe even to Oedipa's mediocre existence as a housewife. This alternative world has at its disposal alternative means of communication, namely, the unofficial PPS mail system as well as the W.A.S.T.E. system. It also features electronic music, a somewhat alien element in relation to the trivial light music typical of such a place. "Alien" is not a value judgment: rather it reflects the historical reception of electro-acoustic music, which, because of the new auditory world it opened up, was, on the one hand, sometimes associated with the supernatural, and, on the other hand, popularized -- like Lissajous figures -by its occasional use in science-fiction movies.² Pioneers of Cologne Electronic Music, such as Robert Beyer, called this type of sound a "completely new make of music"; others, like Werner Meyer-Eppler, even talked of a "decisive step into a new musical territory" (qtd. in Stroh 2; my translations). Pynchon exaggerates these innovative characteristics by employing devices of estrangement and by referring, in addition, to the very latest development of live electronic music.³

Oedipa grows more and more nervous because of the bizarre ambience of The Scope. From the first moment on, she feels uncomfortable because the regulars in the bar observe her and Metzger quite suspiciously. When the Scope audience suddenly becomes silent following the first sounds of a Stockhausen composition, Oedipa's confusion is perfect. Pynchon creates this surreal environment as an appropriate background for Oedipa's first sight of the muted post horn and the initials W.A.S.T.E., which she comes across on the wall of the bar's ladies' room. From here, mysterious incidents concentrate around Oedipa and finally lead to her entrapment in the opaque world of the Trystero, which is already indicated by the opacity of The Scope.

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Another aspect of *The Crying of Lot 49* also relates, if less immediately obviously, to electro-acoustic music: a specific mode of listening, of perceiving the acoustic environment, characteristic of Oedipa in particular. Not only did the introduction of the parameter of space into musical composition by Stockhausen's *Gesang der Jünglinge* (1955–1956)—and other pieces conceived around that time—promote a multidimensional attitude toward listening; multi-track methods of

production and reproduction made real space a musical partner in its own right. The intentional spatial differentiation of singular sound-layers creates manifold constellations of experience which challenge the sense of hearing in ever new ways and provoke in listeners a concentration on sound details and transformation processes. Of course, the feasibility of such sound structures cannot be reduced to their medial conditions only, since the musical outcome depends crucially on the perceptual capabilities and the imagination of the composer. (A striking example is Francois Bayle, one of the major figures in French electroacoustic music, who transforms the ambient sounds of nature and everyday life into multi-spatial compositions. Growing up in the soundenvironment of Madagascar and the Comoro Islands sensitized Bayle to the acoustic multiplicity of nature, whose everyday sonic events he transcribes into abstract images of sound.⁴) Pynchon's descriptions of the processes of auditory perception are reminiscent of the spatial superimpositions of different layers so characteristic of this kind of music.

During Oedipa's meeting with Stanley Koteks at the Yoyodyne plant, the narrator describes a wealth of acoustic details: "the airconditioning hummed on, IBM typewriters chiggered away, swivel chairs squeaked, fat reference manuals were slammed shut, rattling blueprints folded and refolded, while high overhead the long silent fluorescent bulbs glared merrily" (87). Similar moments of heightened aural sensitivity often occur during ecstatic or chemically enhanced experiences. While first making love to Metzger, Oedipa curiously perceives the rock music of the Paranoids performing outside her motel room as "a fugue," "and she counted each electronic voice as it came in, till she reached six or so and recalled only three of the Paranoids played guitars" (42). Later, in chapter 5, Oedipa's wanderings through San Francisco are accompanied by "night's sonorous score" (117). Hoping to escape the labyrinth of indecipherable signs and inexplicable encounters in which she has been entangled ever since she first saw the muted post horn at The Scope, Oedipa aimlessly roams the streets. But instead of release, she finds herself surrounded by Trystero symbols and by manifold sounds.⁵

After Oedipa's nightlong exposure to this incessant flood of stimuli, the perceptual sensitivity ascribed to her so far shifts. Until she meets the old sailor in the stairwell of a rooming house, Oedipa's sense of hearing is extraordinarily sharp. Yet, in this key scene Pynchon shifts Oedipa's perceptual faculty into the sphere of pure imagination. Pondering the delirium tremens from which the old sailor suffers, Oedipa fantasizes, "DT's must give access to dt's of spectra beyond the known sun, music made purely of Antarctic loneliness and fright" (129). A similar case is the ball of the deaf-mute delegates, into which Oedipa stumbles a little later:

Each couple on the floor danced whatever was in the fellow's head: tango, two-step, bossa nova, slop. But how long, Oedipa thought, could it go on before collisions became a serious hindrance? There would have to be collisions. The only alternative was some unthinkable order of music, many rhythms, all keys at once, a choreography in which each couple meshed easy, predestined. Something they all heard with an extra sense atrophied in herself. (131)

Even if Oedipa is able somehow to imagine the strange music, she concludes that she has lost her own perceptual sensitivity. Being deprived of this extra sense, the deaf-mutes' mastery of which is the basis of their "mysterious consensus" (131), marks Oedipa's ultimate loss of security. Hanging limply in the clasp of her dancing-partner, she is an image of total resignation resulting from the events of the night before and her unsuccessful tailing of the W.A.S.T.E. mail carrier.

In the same measure that Oedipa loses her perceptual sharpness, her husband, Mucho, gains his. Inspired by some easy-listening tune in a pizzeria, Mucho tells Oedipa about his newfound analytical ability:

"Spectrum analysis, in my head. I can break down chords, and timbres, and words too into all the basic frequencies and harmonics, with all their different loudnesses, and listen to them, each pure tone, but all at once."

"It's like I have a separate channel for each one, . . . and if I need more I just expand. Add on what I need. I don't know how it works, but lately I can do it with people talking too." . . .

"I noticed it the other night hearing Rabbit do a commercial. No matter who's talking, the different power spectra are the same, give or take a small percentage. So you and Rabbit have something in common now. More than that. Everybody who says the same words is the same person if the spectra are the same only they happen differently in time, you dig? But the time is arbitrary. You pick your zero point anywhere you want, that way you can shuffle each person's time line sideways till they all coincide. Then you'd have this big, God, maybe a couple hundred million chorus saying 'rich, chocolaty goodness' together, and it would all be the same voice." (142)

In contrast to Oedipa's auditory experience during her "sexual crescendo" (42) with Metzger, this episode stresses her atrophy of perception. She is unable to fathom the consonance between the parts

and the whole, the mystery of which Mucho claims to grasp. The acoustic sphere functions here as a symbol, its visual equivalent being the muted post horn. A mute-sometimes called a muffler-is a device for diminishing the normal sound of a musical instrument. In Oedipa's case, the gradual damping of her aural sensitivity, foreshadowed in the innumerable manifestations of Trystero's muted horn, leads to eventual silence. Before her mental numbness sets in, when Oedipa still thinks she can fill the strange coincidences with meaning, it is, significantly, an acoustic event that promises coherence: "With coincidences blossoming these days wherever she looked, she had nothing but a sound, a word, Trystero, to hold them together" (109). However, Mucho's state of heightened consciousness, his overwhelming feeling of (mysterious) "consensus" (143), could never contribute to Oedipa's quest for revelation because the unity of ego evoked here is just a hallucinated one. His alleged perceptual-analytical faculty can be maintained only by taking LSD. Oedipa, whose moments of heightened sensitivity are related mostly to alcohol, believes that "[n]ow he would never be spooked again, not as long as he had the pills" (144). Thus she refuses to take the pills Mucho offers her.

The cross-linking in *The Crying of Lot 49* of music or sound with drugs and mind expansion has to be read against the cultural-historical background of the apperception of psychedelic and electro-acoustic music during the 1960s affected by drug experience. Recall the emergence of the term "head music" for a kind of rock music that should address the cerebral directly—often in connection with drug use —in order to replace usual perceptions with alternative forms. Thus it is no wonder Pynchon's description of Mucho's auditory acuity exhibits parallels to reports by the psychologist Timothy Leary, who carried out experiments with mind-altering drugs at Harvard University in the early 1960s. Leary comments on one of his trips,

You hear one note of a Bach sonata, and it hangs there, glittering, pulsating, for an endless length of time, while you slowly orbit around it. Then, hundreds of years later, comes the second note of the sonata, and again, for hundreds of years, you slowly drift around the two notes, observing the harmony and the discords, and reflecting on the history of music.

[...] You not only hear but see the music emerging from the speaker system, like dancing particles[....] You actually see the sound in multicolored patterns while you're hearing it. At the same time, you are the sound, you are the note, you are the string of the violin or the piano. And every one of your organs is pulsating, and having orgasms in rhythm with it. (Leary 10)

Even Stockhausen relates of the perception of his electronic music,

I remember that my personal assistant, an American, told me that he had listened to the extremely slowed down time in KONTAKTE for the first time under the influence of LSD. He heard things he had never experienced before, when he was a student in a class for composers. These drugs thus clearly expand the sharpness and depth of perception. They accelerate our time of perception, or they decelerate it. (Stockhausen 419;my translation)

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Notes

¹All technical details are taken from Eimert and Humpert.

²The most prominent example is the first exclusively electronic musical score, created by Louis and Bebe Barron for *Forbidden Planet* (1956).

³Recall Metzger's surprise, even though he seems not to be entirely ignorant of Electronic Music: "'Live? . . . electronic music, live?'"

⁴Many such sound images from various sources are fused in Bayle's musical epic L'Expérience Acoustique (1969–1972).

⁵"[Washing m]achines chugged and sloshed fiercely[, ...] and the fluorescent bulbs seemed to shriek whiteness[....T]ransistor radios play[ed] songs in the lower stretches of the Top 200, that would never become popular, whose melodies and lyrics would perish as if they had never been sung" (122).

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