

Composer and material in *musique concrète*

While a painting . . . is never more than the stating of an interpretation, a photograph is never less than the registering of an emanation (light waves reflected by objects) — a material vestige of its subject in a way no painting can be The further back we go in history . . . the less sharp is the distinction between images and things; in primitive societies, the thing and its image were simply two different . . . manifestations of the same energy or spirit. Hence the supposed efficacy of images in propitiating and gaining control over powerful presences. Those powers, those presences, were present in *them* . . . photography . . . revives something like the primitive status of images. Our irrepressible feeling that the photographic process is something magical has a genuine basis . . . A painting . . . only represents or refers. But a photograph is part of, an extension of that subject; and a potent means of acquiring it, of gaining control over it. [Susan Sontag, *On Photography* (New York: Farrar, Straus & Giroux, 1977), pp. 154-55.]

Thus Susan Sontag discusses the different relationships of painting and photography to their subjects. The magical power she ascribes to photography, this power of appropriation, can also be ascribed to recordings of sounds. A recording can inspire the same kind of awe that a photograph does: no matter how aware we might be of the fact that the recording is only a particular arrangement of magnetic particles, (or a particular string of numbers) we cannot avoid being affected by the way in which those particles or numbers re-create a particular slice of time, and thus form an emanation of the being or thing that made the sounds. For example, a recording of a person's voice is not a "representation" or "interpretation" of that voice; it *is* that voice, and as such, it *is* that person speaking to us.

This rather eerie relationship between a sound, the being or thing that produced it, and a recording of the sound is a potent force in *musique concrète*, in which these sonic traces of the real world are used to create a work of art. In such a tape piece, the real-world sounds are transformed into elements that make up some part of a musical experience, and this is a kind of appropriation of their identities. Sontag says that in a photograph "every subject is depreciated into an article of consumption, promoted into an item for aesthetic appreciation," [Sontag, p. 110.] and this is true, to a certain extent, of *musique concrète*. Because the sounds involved are extracted from the outside world, they are real and specific and carry all kinds of images and associations, sometimes completely extra-musical, and sometimes completely independent of the composer, to an extent that no purely electronic sound, or instrumental sound (even if it is an imitation of a real-world sound) can. Even in a piece in which the source sounds are so heavily processed as to be unrecognizable, even if the composer does not feel that their recognizability is important, the fact remains that specific sounds are being used, and by extension, the specific and unrepeatable moment in time when those sounds were produced and recorded. When viewed in this light, it seems clear that the use of *concrète* materials in a composition dramatically diminishes the comfortable separation between life and art. The way a composer acts with or towards his materials in any piece of music has significance; however, when the materials in question are "purely musical" there is a layer of abstraction between the music and the outside world. This abstraction is much harder to believe in when fragments of the outside world are put to explicitly musical use: there is a level at which the way a composer treats these fragments is an irrefutable and obvious statement of his relationship to the world. The musical and ethical connotations of this relationship cannot be separated.

Obviously, the nature of the sound in question—its origin, history and purpose outside of any composerly appropriation of it—makes a great deal of difference in determining what the nature of the appropriation will be. If one records sounds produced by western musical instrument and uses them to create a piece of western art music, the appropriation seems natural and justifiable. The sound might be processed and transformed; previously hidden aspects of it might be discovered and explored; its range and scope so hugely extended that it becomes an entirely new sonic phenomenon. However, the sound is still being used for the purpose for which it was intended. Thus, in a sense, its nature is being expanded rather than denied.

The use of recordings of pre-existing pieces of western art music to create new electronic western art music is another matter [This is, of course, leaving aside any consideration of the legal issues involved.] Certainly such a use of the recording is not totally foreign to its original purpose, and one could cite historical precedents for composers quoting from, and to various degrees transforming, other composers' works. However, when an actual recording is being used, it is not an abstraction which is in question; it is a specific, physical sonic manifestation of that piece of music, and of a particular performer's interpretation of it. Because the "borrowing" is not only of an idea, but of a reality, it requires particular care if it is to be congenial to that reality and thus musically effective.

Charles Dodge's *Any Resemblance is Purely Coincidental* (1980) for computer-generated tape and piano is based on such a borrowing. The piece opens with a straightforward "musical photograph": the beginning of Enrico Caruso's recording of Leoncavallo's "Vesti la giubba" from *I Pagliacci*. The first transformation of this photograph occurs suddenly, when the orchestral accompaniment drops out and the piano enters, playing essentially a piano reduction of the orchestral part beneath Caruso's continuing voice. It is only after the words "tu se Pagliaccio" that Dodge's intervention becomes obvious—the voice, now re-synthesized via LPC, sings various pitch transpositions of the word "recitar." This is followed by a section where the famous Caruso laugh is presented, but re-synthesized so that it follows rising and falling chromatic scales, which are imitated by the piano. The next section consists of Caruso's voice singing the aria accompanied, again, by a piano reduction of the orchestra part. After a few bars, the voice is suddenly comb filtered; the effect is of the voice becoming hugely reverberant, distant, and colored by the pitches to which the filters are tuned and their piercing timbre. The passage is repeated; here, at the same point, the voice disappears entirely, leaving only the piano and the twisted halo of comb filters to finish out the phrase. This is followed by a varied repeat of the "recitar" and "laugh" sections; then the Leoncavallo music reappears in the voice on piano and proceeds to the close of the aria, where the original recorded orchestra finally re-enters. The piano abruptly interrupts the orchestra, and the piece ends with Caruso's voice, again comb-filtered, repeating the close of the aria as if from an impossible distance.

There is certainly no attempt to hide the identity of the source material in *Any Resemblance is Purely Coincidental*—in fact, the piece hinges on our recognition of it. There are "photographic" sections, such as the opening, which is effective not only because we recognize the music and the singer, but because we can hear the ravages of time on the recording (the scratchy, muffled orchestra). Where Dodge's intervention is more obvious, we might consider the treatment to be more "painterly", but the appropriation is still obvious. It seems justified, however, because of the way that the composer treats the material. For example, there are deliberately comic effects, such as the "recitar" and "laugh" sections. These are put into context by the unprocessed singing of the aria, which is genuinely moving, both in the beauty of the original performance and in the sense that it gives us of the irretrievable nature of the past, represented by the Caruso recording. The comb-filtering of the voice heightens this poignance by leaving Leoncavallo's music intact, but making it sound distant and other-worldly. The juxtaposition of comic and tragic elements is perfectly in keeping with the intent and purpose of both Leoncavallo and Caruso; it amplifies the irony of the tragic clown inherent in the original, and sheds a very personal, late-20th-century light on a renowned musical vestige of the past.

The respect with which the material is treated, together with the fact that it is a part of Dodge's own musical tradition (western art music), justifies the use of the Caruso recording. In pieces where music from cultures other than the composer's own is used as *concrète* material, the act of appropriation is much more complicated. The composer's "right" to use the material is questionable; perhaps more importantly, it is very difficult to be sensitive to the subtle significances and nuances of music that one knows only as an outsider.

Karlheinz Stockhausen's *Telemusik* (1966) is such a piece. The composer claims to have used Japanese, Vietnamese, Balinese, African, Hungarian, Spanish, and Chinese musics (among others) to make *Telemusik*. The excerpts of this music that he uses are of many different types, and intended for many different purposes: religious, dramatic, folk songs, a lullaby, and others. These sounds are used in conjunction with purely electronic sounds (sine-wave glissandi, bursts of noise, and bell-like timbres, to name a few) of the composer's own devising. Many of the events in the piece are created by a process which Stockhausen calls "intermodulation", by which he means modulating *concrète* and electronic sounds by each other in order to create hybrids. [When Stockhausen says "modulation" he appears to mean, usually, ring modulation.] Generally, the result of a given modulation will then be further modulated by still another sound, and so forth, which results in extremely complex spectra.

Telemusik is made up of small sections, each of which is articulated by a percussive event—either wood-block or bell-like strokes. [Barry Schrader claims that these percussive sounds are recordings of Japanese temple instruments. (Barry Schrader *Introduction to Electro-Acoustic Music* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982), p. 97)] Within these sections, it is mainly the purely electronic or the heavily modulated *concrète* sounds which make up the texture. At certain points, snatches of the recorded music emerge, usually in the background. Even when the *concrète* sounds are fairly evident (at, for example, about 6 minutes, where the sound of large drums appears, followed by an obviously sped-up fragment of instrumental music), their appearance is relatively brief, until about 10 minutes into the piece, where a woman's voice is heard. This voice continues for some time, although it is almost immediately modulated; the effect is of the voice occasionally and almost accidentally coalescing and then being submerged again. Underneath this, a recording of a Buddhist responsorial chant appears: while the woman's voice eventually fades out, the chant continues to be present (either unprocessed in the far background, or clearly being used to shape synthetic events) beneath the prevailing texture of electronic sounds to the end of the piece.

Leaving aside for the moment any consideration of the composer's own statements about the piece, *Telemusik* presents a somewhat confusing and definitely disturbing model for the use of *concrète* sounds. In the first place, the piece seems to embody a completely unidirectional relationship between the composer and the *concrète* sounds: that of subject and object. One hears the composer's ideas—ideas about form, texture and structure—but not the sounds, for these ideas do not seem to

have developed in any way in response to the reality of the recorded music. And because the treatment of the *concrète* sound does not appear to be particularly cognizant of their nature, the composer's relationship to them seems prefabricated, sterile, and dead. With attentive listening, one is certainly aware of the fact that various different kinds of music are present, and one might even be able to identify particular instances. But one is always left with a sense of the *concrète* materials struggling against the electronic ones, and against each other. In particular, it is interesting to note that whenever largely unprocessed *concrète* sounds appear, they are usually treated as background to the electronic or "intermodulated" events. Admittedly, it is often clear that the electronic sounds are being shaped by natural sounds, and those natural sounds are, presumably, fragments of the recorded music. But it is largely impossible to tell which fragments, since so many layers of modulation have taken place that the sources are unrecognizable. Karl Wörner, in his essay on the piece, describes the section with the woman's voice as follows:

The melody of a Shipibo mother singing to her baby is modulated with the rhythm . . . of a sevilliano, and the product of this is in turn modulated with . . . electronic sounds composed by Stockhausen himself, the result being modulated by the dynamic curve of a priestly song recorded . . . during a Buddhist ceremony. [Karl H. Wörner, *Stockhausen: Life and Work*, Bill Hopkins, trans. (Berkeley: University of California Press, 1973), p. 143.]

From merely reading a description of this, it is clear that such heavy processing will greatly obscure the inputs—and this is perhaps one of the clearest sections of the piece, where some of the sources are at least marginally intelligible. The only sounds which escape this fate are the percussive events which articulate sections, and to a lesser degree, the chant at the very end of the piece, and thus it is only these sounds which retain any identity. The rest are treated equally as sonic raw material, with no individual characteristics. The choice of materials seems completely arbitrary because the destiny of each of these sounds is the same: to be processed by a pre-ordained compositional machine, regardless of whether or not such treatment is appropriate or congenial to the given sound.

Reading Stockhausen's notes on *Telemusik* only makes matters worse. He states that he is attempting to write "not my music but a music of the whole world"; that the piece is based on "a vision of sounds . . . technical processes, pictures of notation, human relationships—all at once . . . in *one* logical process." [Karlheinz Stockhausen, Liner notes to sound recording (Deutsch Grammophon 137012).] He goes on to say that the piece is "*not* a collage; rather, through the process of intermodulation . . . old *objets trouvés* and new sounds . . . are combined into a higher unity." [*Ibid.*] It is clear from these words that Stockhausen takes for granted the idea that "one-ness" is aesthetically (and even socially) desirable. Even if one accepts this premise at face value, however, it is clear that the kind of unification involved in *Telemusik* is achieved for the most part at the expense of the very nature of the *concrète* materials—a kind of "unification through annihilation." What is particularly remarkable about Stockhausen's description of his compositional process is that he seems to deny that the "unity" of the piece is of his own doing, or that it is a subjective compositional choice. ("I do not know how I did it . . . I was moonstruck . . ."). [*Ibid.*] The implication seems to be that the unification of materials in *Telemusik* is produced not by the composer, but by a force higher than him, bigger than all of the different cultures whose musics are involved: the force of Western Technology, as represented by the "intermodulation" process. Stockhausen's professed goal is that the various musics "feel 'at home' and not integrated by some administrative act, but rather, genuinely engaged in an untrammelled spiritual encounter." [*Ibid.*] However, it is the composer's administrative acts that we are most aware of in *Telemusik*; the processing, not the personalities of the *concrète* materials. For what, we might ask, does the lullaby have to do with the religious music, and what does it have to do with a Spanish folk dance, and why, if we are supposed to hear them interacting with each other, do we hear only the result of the composer acting upon them? There is little chance of hearing the juxtaposition of very different elements as being justified in any way, because the differences between the elements are never acknowledged. The differences are neutralized, and all fragments are made equally irrelevant—grist for the composer's techno-musical mill.

Finally, because their identities are negated, one can only assume that the composer feels that these musics are all basically the same. In his opinion they are "the exotic", and thus essentially identical; fair game to be manipulated and transformed into "a higher unity." Therefore, it does not seem to matter what the nature and purpose of a sound might be, nor does it matter what meaning a given music might have to its makers; in *Telemusik* it is only relevant as an exotic artifact among other exotic artifacts. This is perhaps why, in creating "music of the whole world" Stockhausen sees fit to exclude from his plan music from his own background, that is to say, masterpieces of western art music. Presumably, such music is on a higher plane, and thus not in need of "unification."

In *Telemusik*, then, it would appear that the composer's relationship to his material is entirely static, and centered upon a concept which has very little to do with the reality of the sounds in question. This treatment makes it seem as if the compos

is either unaware of, or does not care about, the meaning this music might have to its makers. The failure of *Telemusik* in this regard suggests that the more foreign the subject of the musical photograph is, the more care must be taken as to how it is used.

Sounds produced by non-human living beings—animal and insect sounds—and sounds produced by natural forces, such as waves and wind, present special problems in this regard. These are sounds which we might perceive as having musical characteristics, and yet are not "music" (assuming of course that our definition of music requires that whatever else music may or may not be, it is something which is in some way made by human beings). These sounds are not produced by inanimate objects which "belong" to us, by right of being created by us, such as instruments or machinery. They do not owe any human being for their existence but are in many ways completely foreign to us, and to any aesthetic designs we might have on them. Although we cannot hope to perceive them "objectively", although we can only know them from our human standpoint, it would be presumptuous and unreasonable to deny that they have an identity and character independent of human interpretations of them, and that in some ways they are forever unknowable to us. There can certainly be a relationship to these sounds, and it could exist in a piece of music, but it would require particularly delicate handling.

Jean Claude Risset's *Sud* (1985) is a piece which uses natural sounds in a compositional context. It is certainly a composer-directed musical experience in which the sounds of the ocean, of birds, and of insects, as well as recordings of wood and metal chimes and of piano music are present. These exist in the piece, processed and unprocessed, along with various computer-generated sounds. In his notes on the piece, Risset describes how the *concrète* materials are sometimes "hybridized", via cross-synthesis, to "impart to one sound the dynamic character of another." [Jean-Claude Risset, Program note for *Sud*, *Perspectives of New Music*, Vol. 25 (1987), p. 8.] He goes on to explain that

A major/minor pitch scale, first exposed by synthetic sounds, will gradually color various natural sounds . . . and become a harmonic grid, excited by birds or waves similarly to an aeolian harp. [*Ibid.*]

Sud is in three sections. The first, titled "Morning to noon" opens with an unprocessed seashore environment. Soon, it becomes noticeable that some bird songs are being filtered, and that electronic "bird-like" sounds are joining the texture. By the first entrance of the major/minor pitch collection (about 3 minutes into the piece), we hear mostly synthetic sounds. From this, chime and piano sounds emerge, which are shaped by the contour of the ocean waves. At about 6 minutes, a seagull and other birds are heard, while the ocean waves are filtered to glissando in pitch. Wood chimes and insects reappear, and the movement draws to a close with processed insect sounds. The second movement "Gale", consists mostly of bell timbres, and waves of "glissando ocean" sounds. Almost half-way through the movement, the aeolian harp effect (the pitch collection excited by the waves) appears for the first time, but it is quickly submerged by the waves, with which the movement ends. The third and final section "Afternoon, evening" begins with the sound of the ocean, which is filtered so that a series of octaves emerge, followed by the illusion of upper partials. This is joined by bells, insects, and brief instrumental gestures, as the aeolian harp enters and crescendoes. As it swells and subsides, we become aware of bird calls, in particular a seagull, which has a brief "solo." Finally the aeolian harp takes over completely until the end of the piece where it fades out, leaving only the sound of the unprocessed ocean.

Certainly one can say that Risset is appropriating natural sounds, and even from a description it is obvious that he is shaping them for musical ends. His cross-synthesis of sounds by each other is not really very different from Stockhausen's "intermodulation" idea, although it is certainly done with much more taste and finesse (admittedly, Risset had better equipment to work with). However, part of the "tastefulness" of Risset's treatment has to do with more than just better equipment or even technical proficiency. Stockhausen's treatment neutralizes the source sounds being used because it is overdone, and it is overdone because it is the processing which is important, not the sounds; in *Sud* obvious care is taken to preserve recognizable characteristics of the *concrète* materials at all times, so that their presence permeates the music in an almost visceral way. For example, the "aeolian harp" effect of imposing a pitch collection on the sound of the ocean is obviously a case of the composer manipulating the *concrète* material in order to achieve a desired musical effect. However, it is a musical idea that was clearly invented after on a careful consideration of the way that the ocean sounds. It is an effect designed to be perceived as an effect, certainly, but one that is congenial to the nature of the source material; one that shades the material, but leaves its identity intact. Because of this, one has a sense of the composer responding to the sounds, allowing the sound to guide him and the course of the composition. Certain events in *Sud* are less successful than others in this respect. For example, in the last movement, an instrumental gesture appears; later it reappears, cross-synthesized with a wave sound. Here the composer's presence, formal ideas, and skill, are too obvious; they completely take possession of the moment, so that the moment seems almost mechanical, and not particularly comfortable for either sound. But for the most part, the composer's work in *Sud* is interactive with the *concrète* material. It is as if he has created a glass through which to look at the real world, and

carefully colored portions of the glass, but the choice of colors, of where to shade the glass and where to leave it alone is based on what he sees, rather than a pre-determined idea of how the glass should look. Thus, the composition is a subjective musical response to nature: although the musical ideas dominate the experience, they are predicated on the natural sounds.

Risset's ideas about *Sud* are definitely pictorial—one might even say painterly. (He quotes Cézanne as an inspiration for the cross-synthesis techniques used in the piece). [*Ibid.*] This does not negate the photographic effect of his use of *concrète* material, because it is clear that acoustic slices of reality are being used to create a work of art. However, this painterly approach does explain the sense one might have on listening to *Sud* that it is an interpretation—that the desired effect is for us to hear these sounds through the filter of the composer's imagination and artistry. To paraphrase Sontag, it is the "subject" of *Sud*, (the sounds of a seashore in Southern France), that clearly dominates the composer's design and our perception of it; however, the composer's role as the creator of the experience is very much in the foreground, which is perhaps more like the role of a painter rather than that of a photographer.

Luc Ferrari's *Presque rien no. 1* (1970) presents a much more straightforwardly "photographic" use of *concrète* materials, many of which are sounds of nature. *Presque rien* opens with an unprocessed recording of a particular environment: "daybreak at the beach" (the piece's subtitle). Ambient sounds of water, bells, birds, and distant voices are heard, then footsteps gradually coming closer. The sound of a motor (a motor boat?) appears, then fades out, and this environment continues for about 7 minutes. At this point the motor reappears and crescendos, until it suddenly takes over the whole texture. At first imperceptible under this noise, the sound of insects begins to emerge. As the motor boat recedes into the distance, the insects become louder, although this effect is very subtly and carefully mixed in with the ambient sounds of the environment. From this point a noticeable change is evident in the piece: the composer's intervention becomes much more obvious and directive. For example, a child's cry is heard in the distance, and then repeated twice. The roar of the motor boat re-appears, but a clear connection is made between it and the chirping of the insects, which have become subtly more rhythmic. At about 14 minutes the motor boat again recedes, and we hear the sounds of a hammer and of water, closely miked so that they appear as the foreground event, with the continuing crickets in the background. After a few minutes of this texture, a man's voice singing is heard. Although the voice fits in seamlessly with the prevailing texture, it is continuous and stationary enough to give the impression of having been carefully mixed in. Meanwhile, the insect voices crescendo, gradually drowning out the song, and then all of the rest of the environment, until they are the only presence left. They continue thunderously for about a minute, then gradually fade out as the piece draws to a close.

In *Presque rien*, the composer's role is largely that which Sontag ascribes to a photographer: to "disclose" rather than "construct." While it is true that the *concrète* materials do undergo some processing, Ferrari's intent seems to be not so much to change the sounds as to change the listener's way of hearing them. For example, the effect of the close-miked hammering is very similar to the effect of a camera zooming in on an item: the item has not changed, but the perspective has. Even the treatment of the insect voices does not so much change the sound as it does our focus on it. The composer's formal ideas are certainly very evident at times, for example the treatment of the motor boat as a kind of articulation, or the gradually overwhelming presence of the insects. But these ideas fit comfortably into the environment because they seem to arise effortlessly and quite naturally from the character of the sounds in question. As in *Sud*, Ferrari's relationship to the material is clearly responsive; but he takes this responsiveness a step further than Risset by inviting the listener to develop a similar relationship to the sounds. In *Sud* we are reacting mostly to the composer's transformation of the sounds, and to the material themselves only through the filter of the composer's musical ideas. In *Presque rien*, the composer steps out of the way for the most part: his role is to select the materials, highlight aspects of them, and guide us through the environment, but it is the *concrète* materials themselves, not the composer acting upon them, which form the identity of the piece. By minimizing his interference with the sounds, he minimizes his interference with the listener, thus giving the listener a more active role in the music.

Since these sounds are being used in the context of a work of art, there is, of course, a sense in which they are appropriated by the composer. By the very act of presenting them in a composition Ferrari is "claiming" them, and we might question his right to do so. However, in that his treatment leaves the nature of the sounds intact, there is some justification for the appropriation, for the "art" of the piece lies in the way that one is led to perceive these sounds rather than in manipulations that are wrought upon them: they remain at the center of our experience of the piece. Since the borders between the composition and the real world are so slight in *Presque rien*, the fact that the sounds also exist beyond these borders is neither denied nor obscured; we always remain aware of their identity outside of the context of the piece. There is a certain honesty in this approach, for it does not attempt to deny the appropriation with artifice. In fact, because much of the piece is an unprocessed recording of a slice of reality, the appropriation aspect of the work is always before us. But since the composer does not negate the sounds by destroying their identity, or by pressing them into the service of a musical design derived apart from them, we are always aware of their inherent significance and dignity.

Because it is an area both unenlightened by and unburdened by a long-standing tradition of musical practice, the use of *concrète* sound in electronic compositions presents many problems, as well as many powerful possibilities. These sonic

photographs demand a certain respect, which really effective musical use of them acknowledges. Much of the challenge of creating a piece with them is whether or not the composer can deal with them in a way that does not diminish the sounds or himself. In achieving this goal the question is not simply whether or not the sounds are to be processed and transformed: after all, by merely using them in a piece they are being both processed and transformed. Rather, it is a matter of what kind of relationship the composer develops with them. If their only function in the piece is to fulfill a compositional directive wholly separate from them, then in a sense they are being negated by the composer. In that they are treated as inanimate objects whose function is merely to be acted upon, the relationship between them and the composer is inanimate. However, if the sounds are allowed in some way to remain themselves, if the composer allows them to shape his ideas, if he reacts to them and changes according to them, then it can be a living, evolving relationship. There is musical richness in this model, and the chance for the composer to grow and discover, because there is an "other" (the sounds) to respond to; rather than changing the material to suit his musical fancy, the composer can extend himself by this response. The possibilities for what the composition can be are not limited by the composer's own personal intellectual traps, because the nature of the *concrète* sounds and that of the composer jointly form it; the musical vision is the result not of the composer's control over the sounds but rather of his interaction with them.

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