

Diferencias Familiares sobre las Cuerdas

(documentation copy)

a composition for solo acoustic metal-stringed guitar, tape, and electronics.

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dedicated to and edited by

Ferran Fages

***Diferencias Familiares sobre las Cuerdas* – performance notes**

Technical Information

Diferencias is written for acoustic metal-stringed guitar, played mostly with a pick. Though tunings are rather extreme, a normal set of strings (E-B-G-D-A-E) is employed. The piece may also be adapted for 8-string guitar, as the piece was originally conceived for its dedicatee. In this case only the top 6 strings (corresponding to those of a 6-string guitar) are used, and the bottom 2 strings are tuned A-C, to resonate sympathetically with the rest.

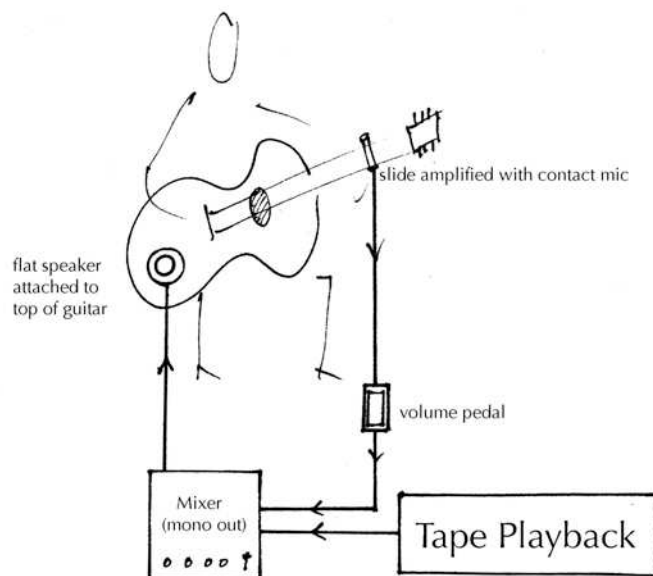
An ebow and slide are employed to extend the variety of attacks and resonances suggested by the tape and score. The performer may also include other objects in his or her personal repertoire (superballs, handheld fans, etc.) to achieve the same result. These should be placed on a pillow on a small stand to the performer's right for easy access.

A few electronic items are also necessary:

- 1 small mixer
- 1 flat speaker (such as those designed by NXT) or transducer
- 1 contact microphone (a simple piezo transducer will do)
- 1 volume pedal
- 1 personal computer or similar to reproduce the tape (digital audio files).

The contact mic is attached to the slide, and its signal sent to the volume pedal, allowing the guitarist to control the amount of slide noise sent to the mixer. The mixer sends this signal, as well as the tape, to a flat speaker attached to the top of the guitar such that the body amplifies both signals enough to cause the strings to resonate sympathetically and respond to percussive elements. When the volume pedal is engaged and the slide approaches the speaker (in the higher register of the fingerboard), controlled feedback should result. Feedback is only to be engaged during specific improvisations, but the same slide may be used in both amplified and non-amplified sections.

In concert, light amplification with one or two suitable directional microphones (e.g. Shure 81s) and a stereo PA is recommended for sound reinforcement.



Score

12 sections of tablature on 6 pages of rice paper form the principle material of *Diferencias*. Additionally, 7 "improvisations" and 9 short tape sections are also presented. They are played in sequence according to the timeline described in the Overall structure section of the performance notes.

Tablature

Hand-drawn lines in Chinese ink with silkscreened numbers are read as conventional tablature from left to right, with strings ordered from top line (highest string) to bottom (lowest). Left hand placement (numbers) and types of attack and sustain (lines) are described below.

Rhythm is qualitative and contextual. Profile should not be imposed, but rather discovered as a function of technique, (dis)continuity among events, physical distance on the page, and overall form. Likewise, tempo should be arrived at naturally rather than decided a priori. Traditional notions of gesture, flow, and contrast – in combination with considerations of resonance and more "abstract" sonorities – should be considered complementary forces in shaping the temporal aspects of the piece.

Numbers

There are 2 types of numbers: those sitting above the line, and those sitting within the line.

Numbers sitting above the line are interpreted as fretted notes, corresponding to the physical location of the left hand on the string. For example, 0 = open string, 1 = first fret, etc. Since the tuning of the piece changes often, the pitches resulting from a given number on a given string may change from one page to the next.

Numbers sitting within the line are interpreted as harmonics. They do NOT correspond to fret numbers, but rather to partial numbers (overtones), which may be played in a variety of physical locations. For example, on a string tuned to "C", 2 represents the second partial (an octave above the open string sounding "c", playable above the 12th fret), 3 represents the third (an octave and a perfect fifth above the open string sounding "g", playable above the 7th or 19th fret), 5 the fifth (two octaves and a major third above the open string sounding "e", playable above the 4th, 9th, or 16th fret), and so on.

Harmonics numbered 0 are played as percussive taps with the fingers or knuckles on the body of the guitar. Harmonics numbered 1 are played on the section of string between the nut and the tuning pegs. Both these elements should be integrated into their surrounding context as much as possible, even though their sonic character is distinct.

Numbers connected vertically by dots are played as a chord, either simultaneously or arpeggiated depending on the musical context.

Since the score prints are not standardized, number positions with respect to the line vary considerably, both from page to page and from score to score. This results in "in between" numbers whose identity as fretted notes or harmonics is unclear; this uncertainty may even extend to not knowing to which string a number pertains. In these cases the performer must intervene, and assign each number an identity. These decisions should always be made on musical grounds; one should not feel obligated to assign identities based on mathematical proximity, but rather on the events' relation to the whole.

Lines

The lines around which numbers are distributed represent each of the 6 strings on which events are played. They are drawn by hand in black Chinese ink and thus contain varying degrees of intensity and humidity. These parameters define the qualitative aspects of each event represented by the numbers assigned to the line.

The relative intensity of black represents intensity of attack (loudness). Solid black is equivalent to *fortissimo*, and light gray *pianissimo*, with all shades in between represented accordingly.

The relative humidity (wetness or dryness) of the stroke represents degrees of continuity with respect to surrounding events. If a line is solid and fluid, with no traces of brushhair, the events assigned to it should be as connected as possible, both with respect to each other and with events on other strings. This may be realized simply by playing *legato* or "pulling off" notes in sequence; however it may be also realized with accessories such as an ebow or slide, separately or in combination. Contrariwise, if a line is dry and patchy with perforated strokes, the events assigned to it should be as separate as possible. This may be realized simply by playing *staccato*, but may also include different types of muting or other subtle articulations.

When synthesizing these parameters, polyphonies and paradoxes may arise through intersections of an event's attack, string number, and/ or phrase location; here the performer should not be troubled, but rather take these elements into account without strong attachment to literal values. Overall motion and musical shape are primary, and those parameters which most robustly define a phrase or sequence should be prioritized.

Improvisations

A number of transitional "improvised" sections are called for in which the performer extends, comments on, or contradicts the surrounding material. These sections should recontextualize the sonorities included in the tape and written sections, creating connections among classes of sounds and events which might not otherwise materialize. Furthermore, they should – especially in the case of the solos after 3b and 5b – seek to take these sound worlds to new levels of presence and definition. In this sense, these sections are the heart of the piece.

In between each page, the guitar is retuned. These moments should be integrated thoughtfully into the texture of the improvisations, and the performer should take as much time as necessary to be precise. A summary of tunings may be found in [Overall Structure](#). Included with the performance notes are two pages containing indications for each improvisation and tuning. They should be cut and clipped to their corresponding location in the score, following the written section of the same number.

Tape

The tape consists of modified fragments of *Fantasia que contrahaze la harpa en la manera de Ludovico*, a piece for vihuela by 17th-century composer Alfonso Mudarra, mixed with fragments of an early recording by Delta Blues great John Lee Hooker. Percussive and pitched materials resonate the guitar strings through a flat speaker attached to the top of the instrument, creating a physical connection between tape and live instrumental materials. When the tape is not accompanied by live material, it should be strongly colored by the response of the instrument; when the performer accompanies the tape, one should hear natural acoustic interferences as well as occasional ambiguity between recorded and live sounds.

An assistant triggers the tape playback when indicated. Alternatively, a MAX/MSP patch may be used to allow the performer to trigger playback himself by means of a foot pedal.

Overall structure

Each page (1-6) contains an "A" section (top 6 lines), and a "B" section (bottom 6 lines). In every A section, the guitarist is to read through the tablature once, then RERead each string individually in sequence. For example, in section 1a, the rereading is as follows:

0.....2....0 (first string), then

3..2.....4..... (second string), then

3.....5..... (third string), etc.

These rereadings will naturally allow for greater accuracy in defining the parameters of the line, since it may be impossible to preserve the identity of individual events on different strings in the normal tablature readings. When notes in a chord appear in a rereading, the full chord should be played when passing the top and bottom notes.

*NOTE: In sections 2^a, only the top 3 strings are reread; in section 3^a, only the top string is reread.

B sections are not reread, but played only once as normal tablature. For this reason A sections should be interpreted more strictly than the B sections regarding rhythm and the parameters of the line. B sections (esp. in pages 1-3) should be played as lyrically as possible, almost as interludes or connective tissue between other blocks of less flexible material.

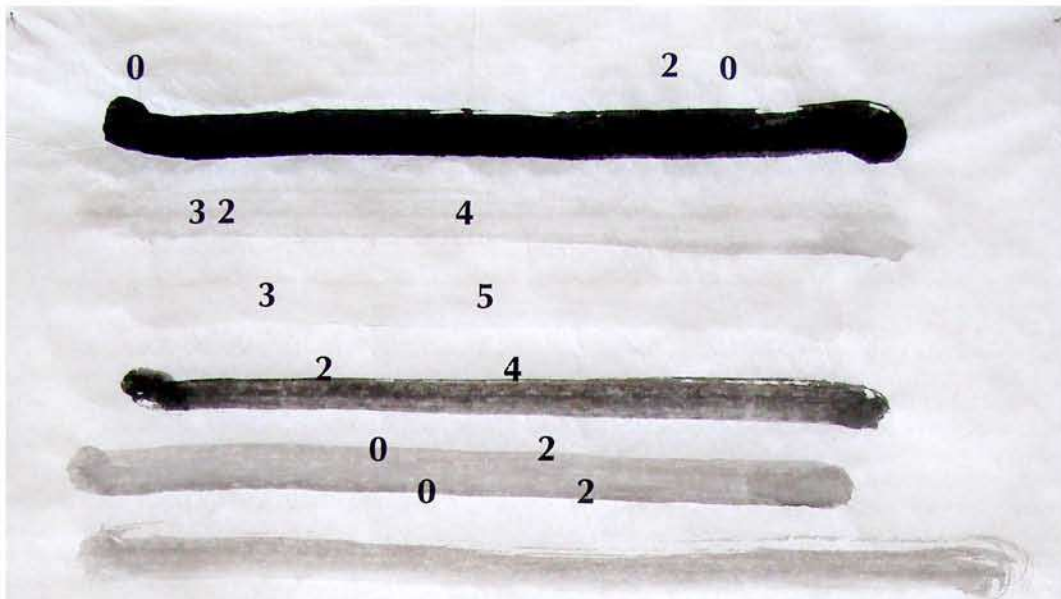
In pages 1-3, the tape is played after written sections, usually alongside improvisations. However, in pages 4-6 the tape is sometimes triggered during the performance of written material. In these sections, the performer should attempt to integrate the written material with the tape, playing with articulations and rhythm to create contrapuntal connections with the recorded material.

Timeline

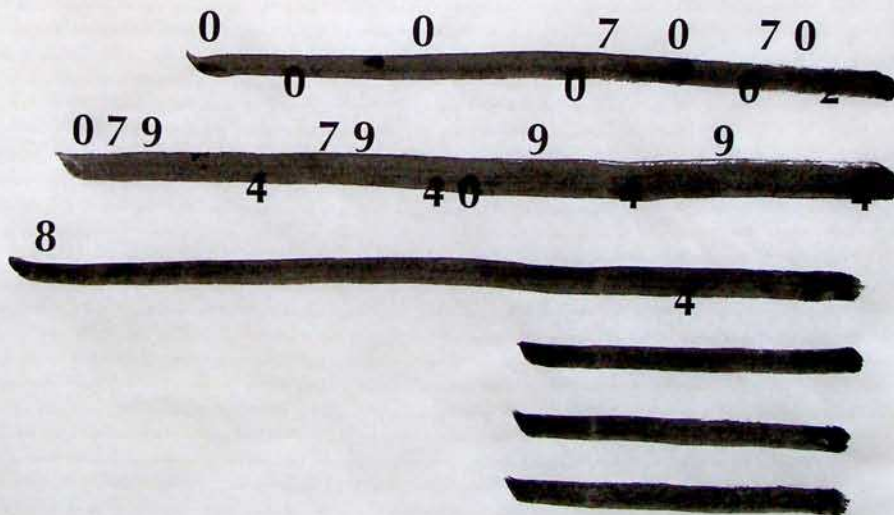
Initial tuning:

1 – C (below E), 2 – B, 3 – Bb (below G, tuned to the 7th partial of low C), 4 – A (below D), 5 –B, 6 –C

1a	Tablature	Reread string by string (all)	Tape + Improvisation
1b	Tablature	Tape + improvisation	Retune: 1 – Bb (one octave above 3)
2a	Tablature	Reread (top 3 strings only)	Tape + Improvisation
2b	Tablature	Tape + improvisation	Retune: 3 – Bb (1/8-tone sharp)
3a	Tablature	Reread (top string only)	Tape + Improvisation
3b	Tablature	Solo improvisation	Retune: 6 – B, 5- B (1/8-tone flat)
4a	Tablature	Reread (all) + Tape...	finish rereading and proceed
4b	Tablature	Tape A... Retune: 4 – B (1/4-tone flat)... Tape B... on last stomp proceed	
5a	Tablature	Reread (all) + Tape...	finish rereading and proceed
5b	Tablature	Solo improvisation	Retune: 2 - Bb
6a	Tablature	Reread (all) + Tape...	finish while Tape changes and proceed
6b	Tablature + Tape		

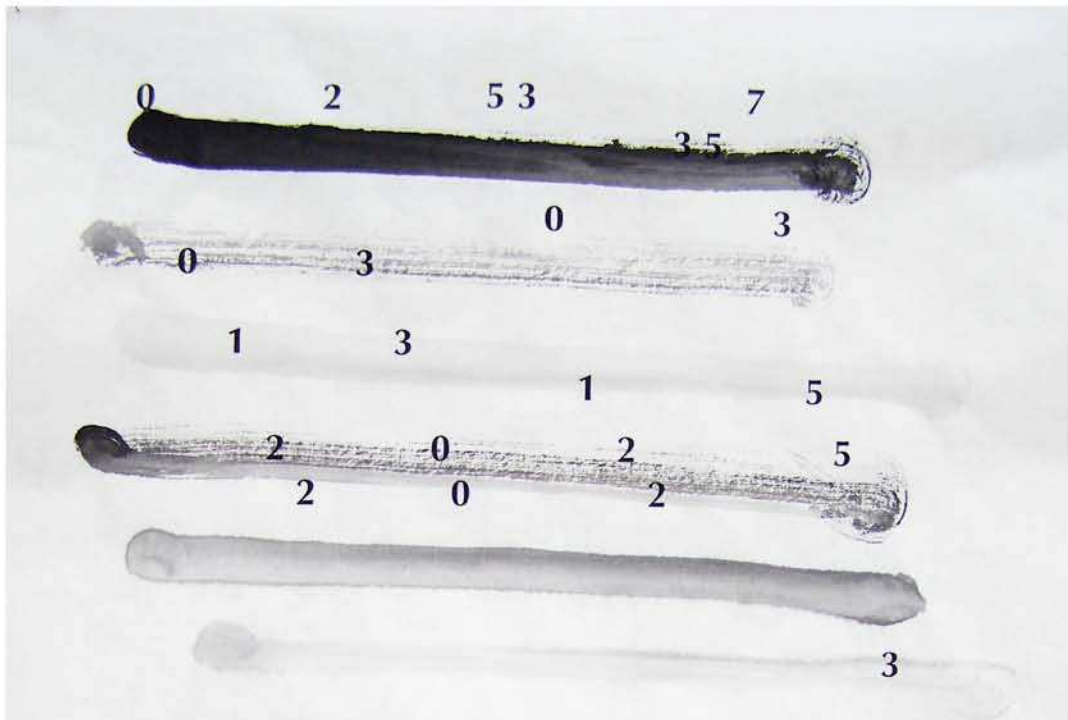


1a allow first stomp on tape to resonate; then color tape with light chords on lower strings with slide (no pedal).

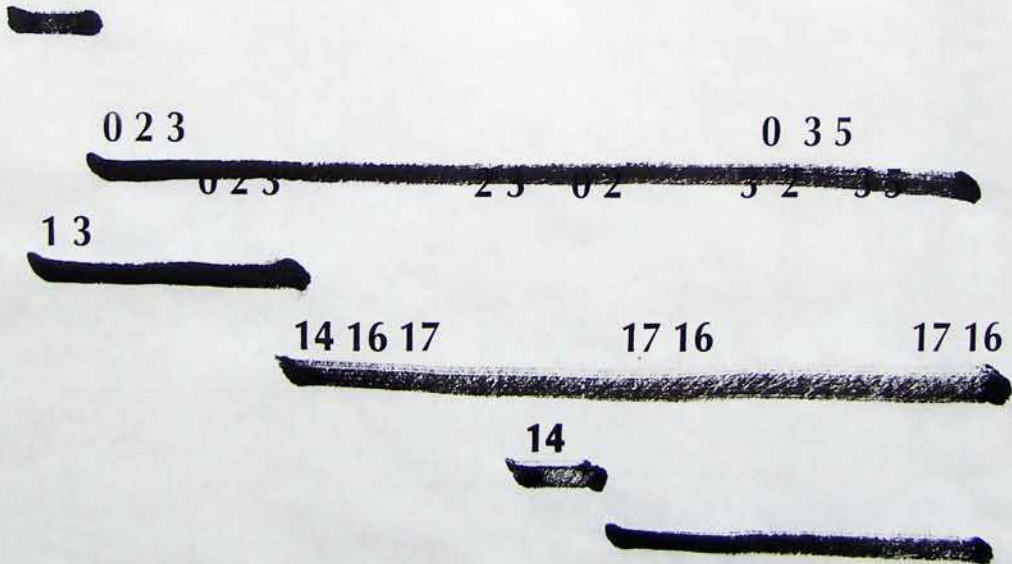


1b with ebow and slide, follow resonance of first tape phrase - B, and second - C; introduce pedal under following chords.

Tuning: 1 --> Bb (octave above 3)

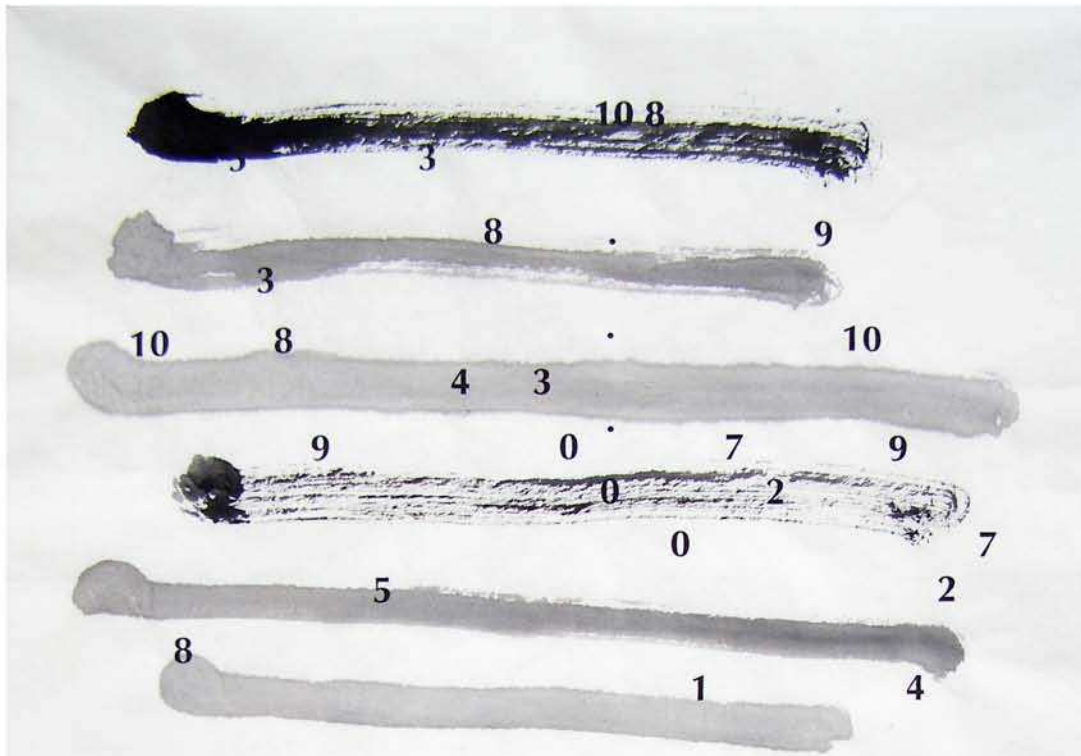


2a begin before tape with chords and rhythmic figures with harmonics around open A, playing with stomps as in tape 1a.

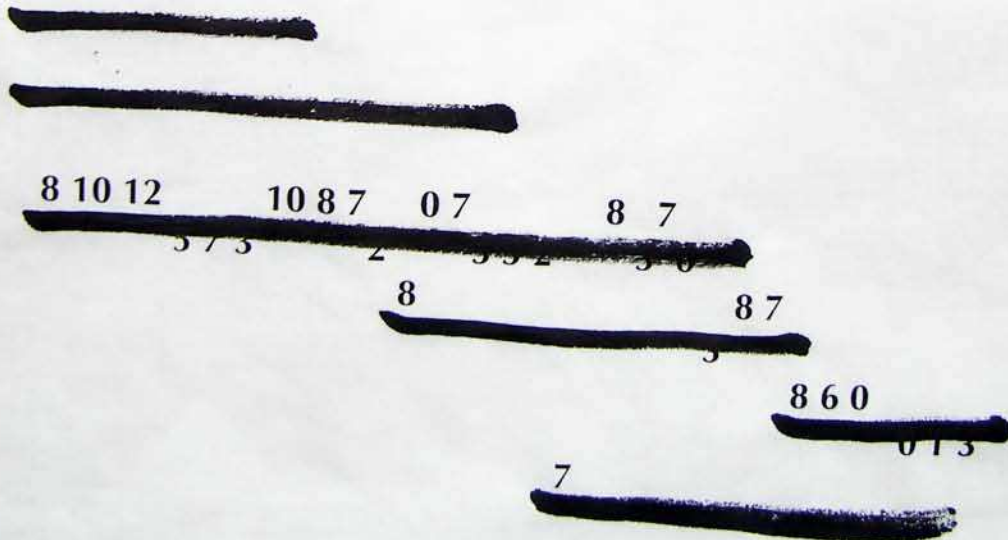


2b minimal gestures to integrate tuning – apply slide without pick, etc.

Tuning: 3 --> Bb (1/8-tone sharp)

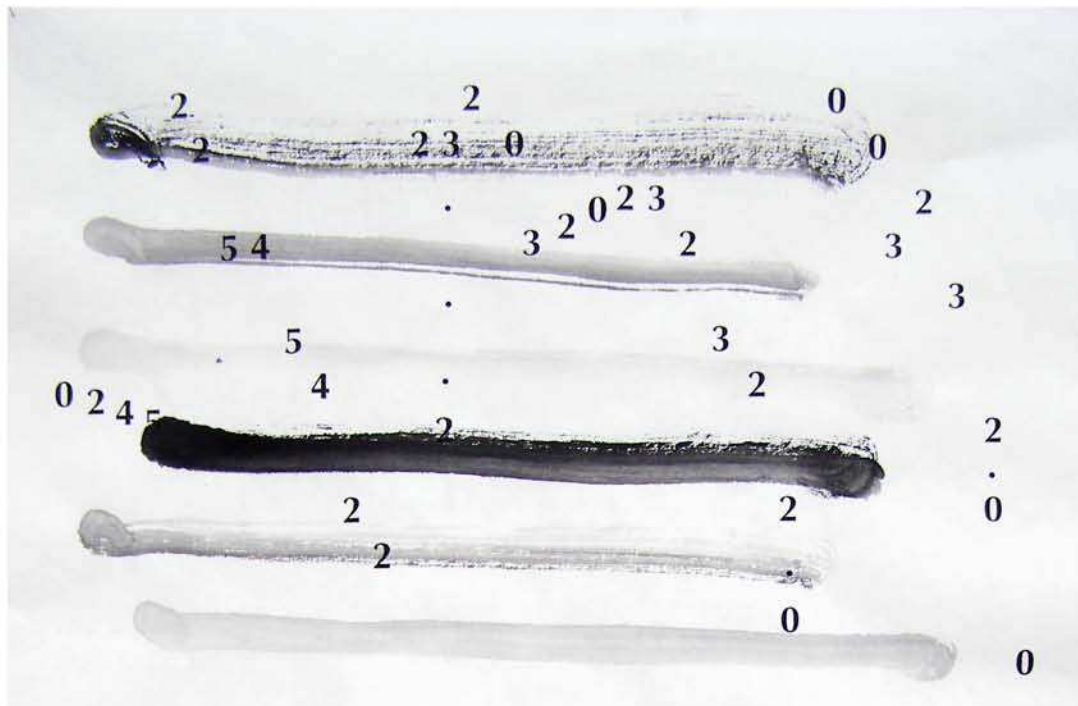


3a begin before and finish after tape, becoming more independent and active, adding amplified slide.

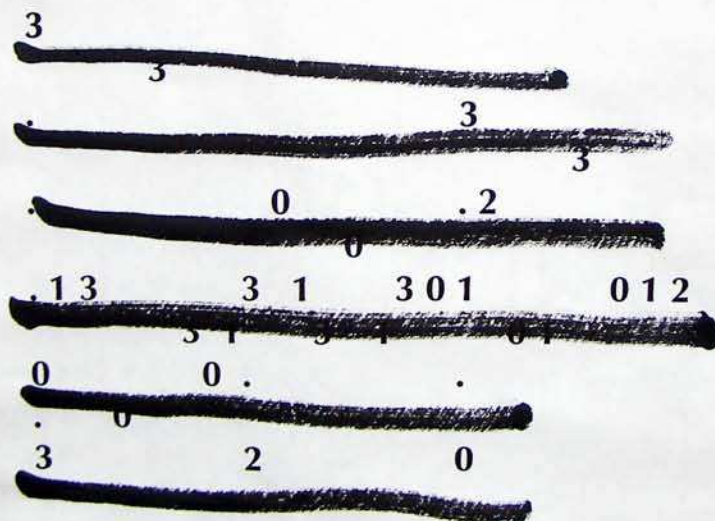


3b SOLO improvisation with amplified slide. Move from written material to more foreign gestures and sounds. Give amplified slide its own voice.

Tuning: 6 --> B, 5 --> B (1/8-tone flat)

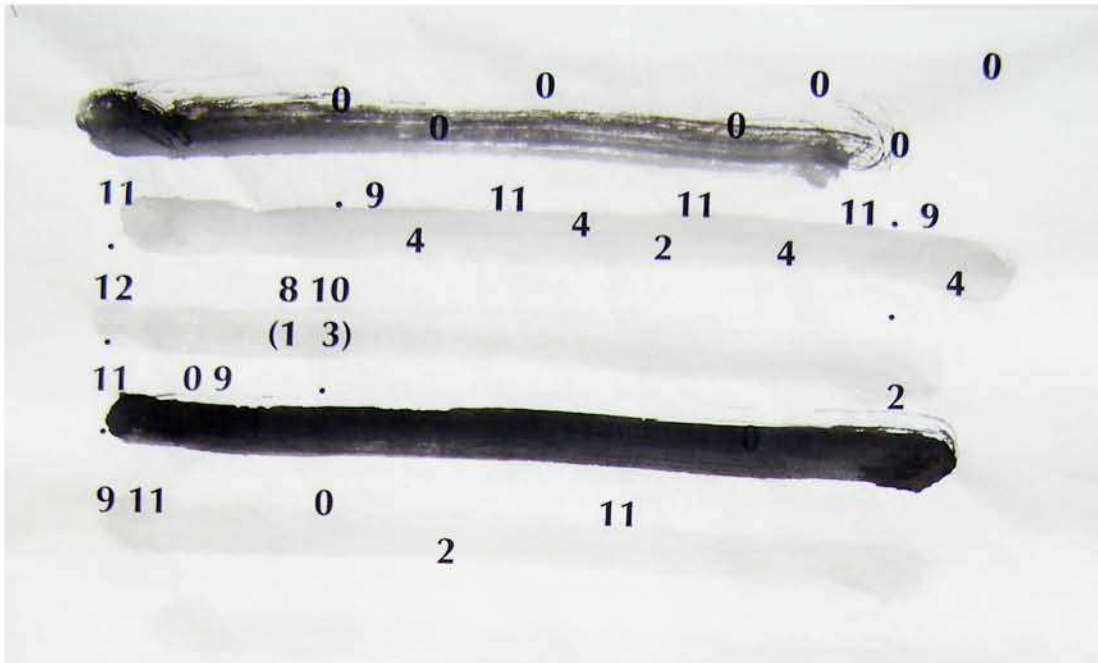


4a signal to trigger tape on first note of rereading; reread with tape; continue when tape finishes; and proceed to 4b.

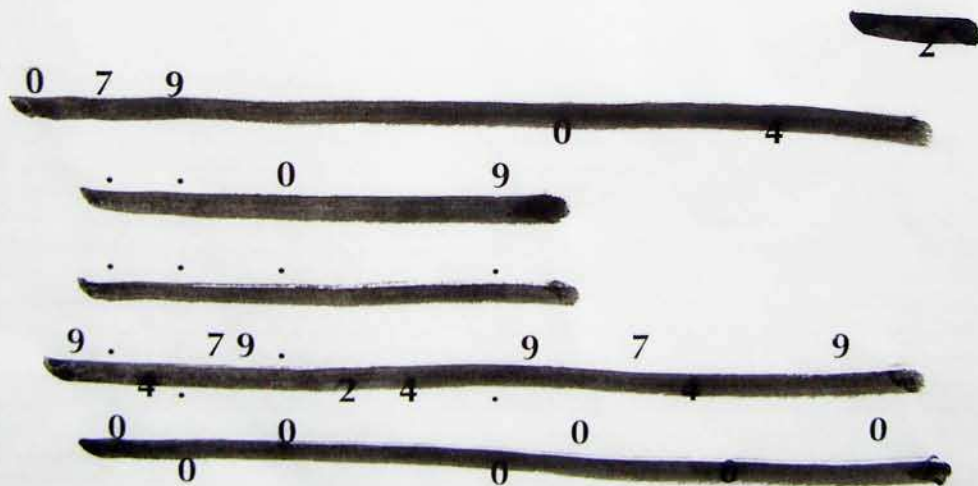


4b wait for first tape fragment without playing; tune during pause; wait for second tape fragment; and proceed to 5a on last stomp.

Tuning: 4 --> B/Bb (1/4-tone between)

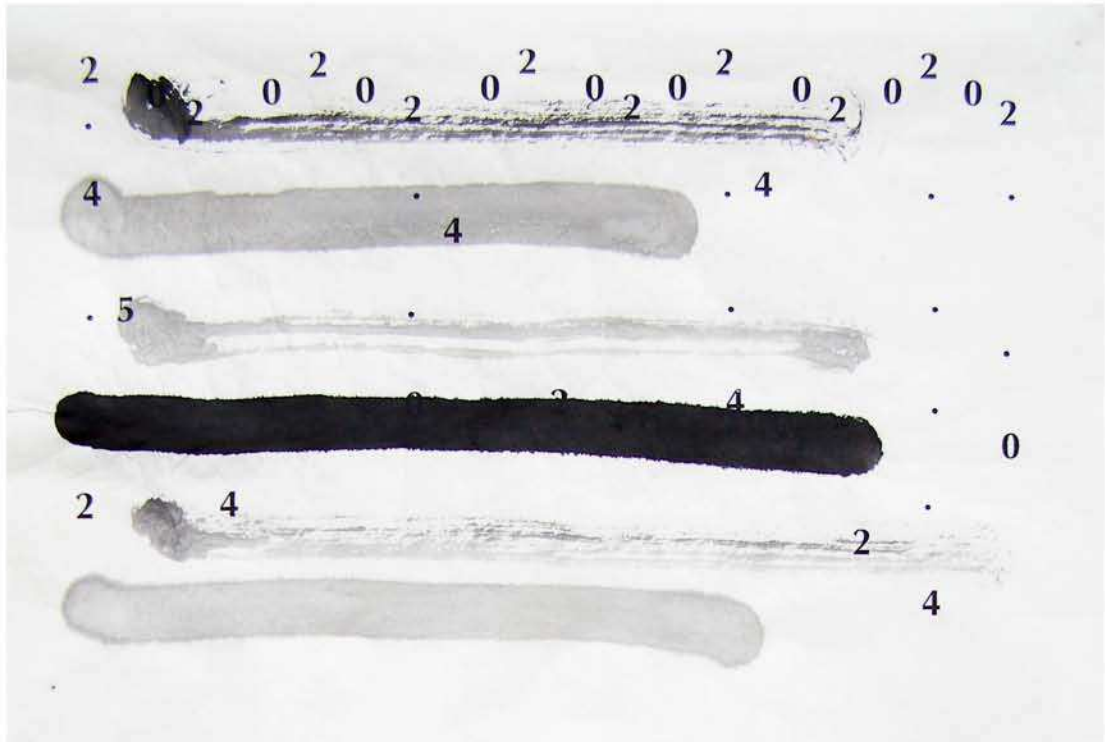


5a signal to trigger tape on one of the later chords of rereading; reread with tape; continue when tape finishes; and proceed to 5b



5b SOLO improvisation with amplified slide. Continue developments begun in 3b, eventually achieving a completely external perspective on sounds and gestures contained in written material.

Tuning: 2 --> Bb (tempered)



6a-b signal to trigger tape on first event of 4th string of rereading; continue rereading with tape 6a (JH) until it changes to 6b (guitar with ebows); and proceed directly to 6b with new tape.

