y and aesthetically

ugments all anticipatory
ıssie) avalanche advances
ıniversary and annual
rrives at an awesome

From: Text-Sound Texts ed Kostelanetz
Wm. Morrow, 1980

JONATHAN ALBERT

NOTES ON SOUND AND LANGUAGE

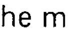
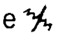
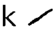
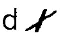
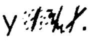
Spoken sound is movement, the movement of articulation and the movement of sound textures. Things (objects, concepts, emotions) can be perceived as qualities, and the qualities can be perceived as movements, textures, angles, curves, smoothness, harshness, the movements forward of desire and the movements away of fear. Spoken sound can be used to translate the movements of things and experiences into the movements of sounds.

Language has the extraordinary ability to combine the power of sound with the precision of semantics. Sound can capture movement and semantic meaning can focus the sound to a specific application. Sound can capture roundness, and semantics can identify it as the roundness of a baseball or an eyeball.

Sometimes the sounds of Standard English pronunciation reflect the movement of the thing designated. The sounds of "hope" move forward, and those of "woe" move backward. Often a word's sounds do not reflect the thing named. The sounds of "east" go north. I play with the sounds of words, altering the sounds so that their movements capture the desired qualities.

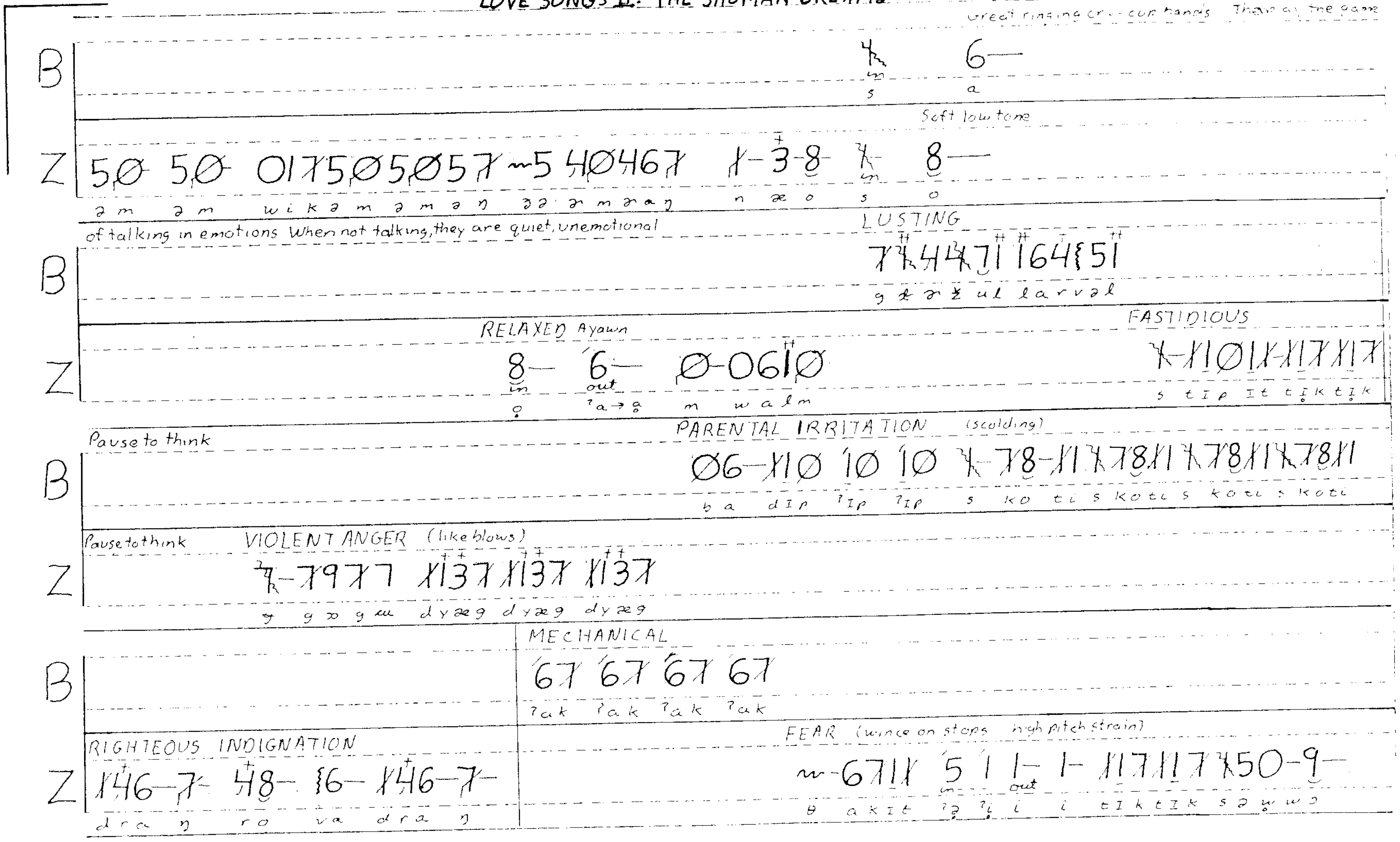
My present notational system is designed to reflect the movements of articulation. The system is based on the numbers 0 to 9 plus ten diacritical marks. Each number represents a region in the mouth. When the point of articulation is in a region, the appropriate number is used. 1 through 9 (in a three-by-three grid) represent regions behind the teeth, and 0 represents sounds made in front of the teeth. The numbers by themselves represent exhaled, voiceless unrounded vowels.

Diacritical marks indicate how the basic sound is changed. Some marks indicate variation from the focal point. Other marks add features, and still other marks indicate variation into new sound categories.

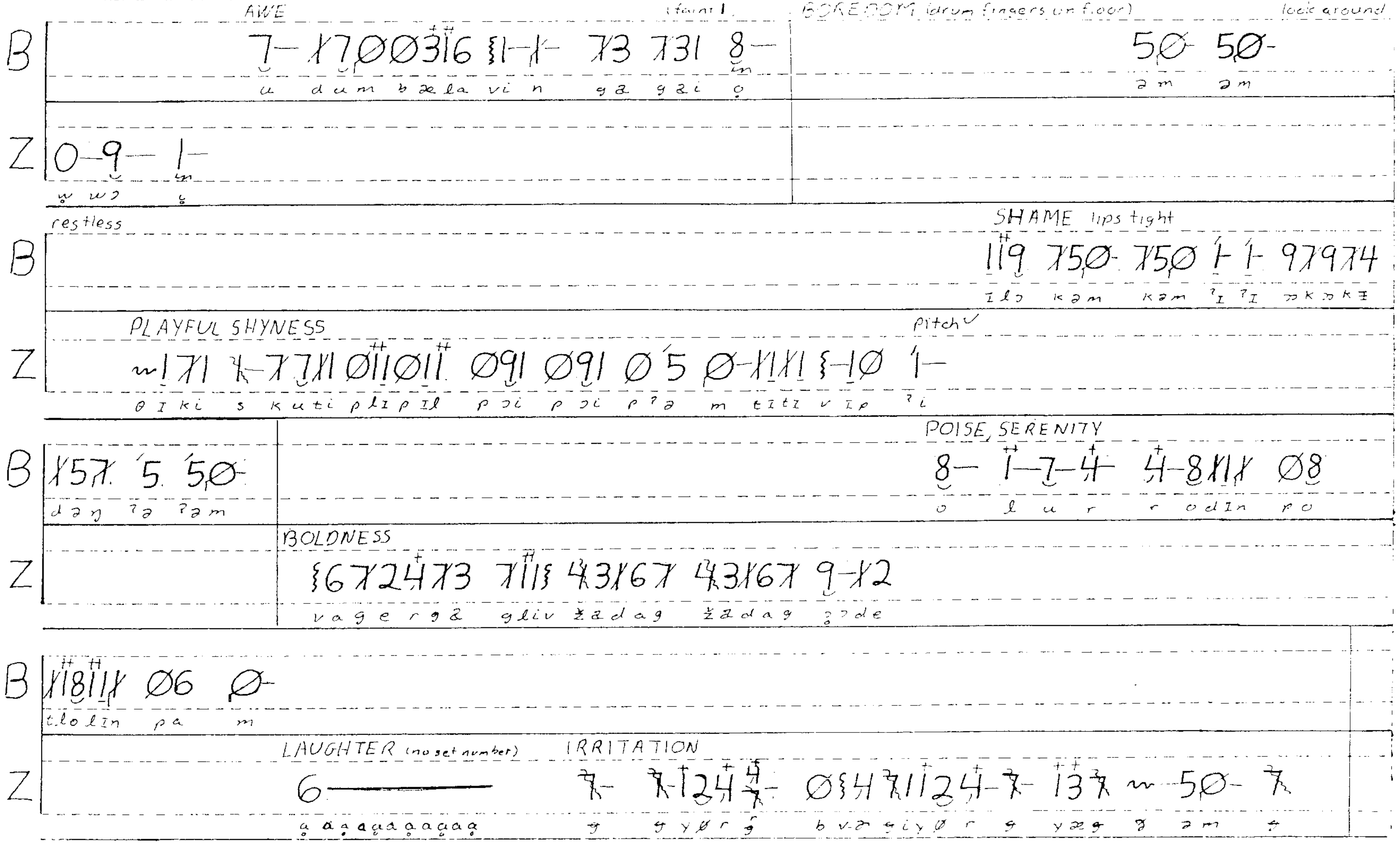
For example, / represents the high-front region. I designated the point of articulation for "ee" in "sweet" as the focal point. The / represents a whispered (voiceless) "ee". The is the voiced sound "ee". The mark  represents fricatives. The  represents a fricative made in the high-front region, the "s" of "see". The mark  represents the stop category, and  represents the high-front stop "t" of "tea". The sounds of "east" are represented by . All three symbols are variations of / ; they are three different kinds of sound in one region.

The diacritical marks can be combined to symbolize new sounds. And I add new marks when I encounter new features I want to work with.

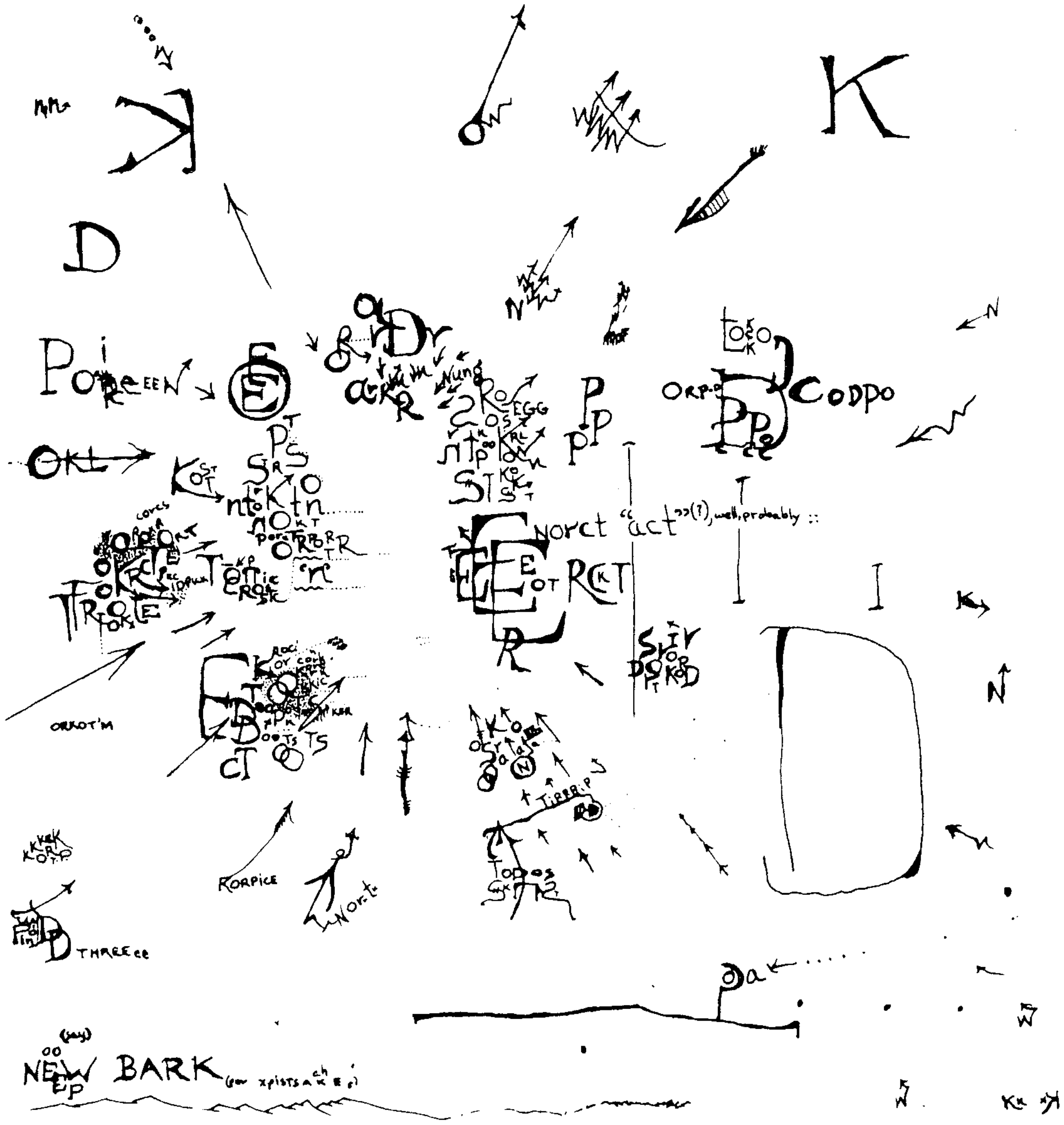
The accompanying score sheets are from LOVE SONGS II: THE SHUMAN DREAMS. It is a two-character theater piece. The B and Z on the left indicate the lines of the characters, a man named Boley Shuman and a woman named Zhing. The text is in the numeral system. Above each line are stage directions. Below each line is a translation of the text into the International Phonetic Alphabet. The I.P.A. is a good system for reading. Mine is a movement system; make the movements and discover the sound you have uttered.

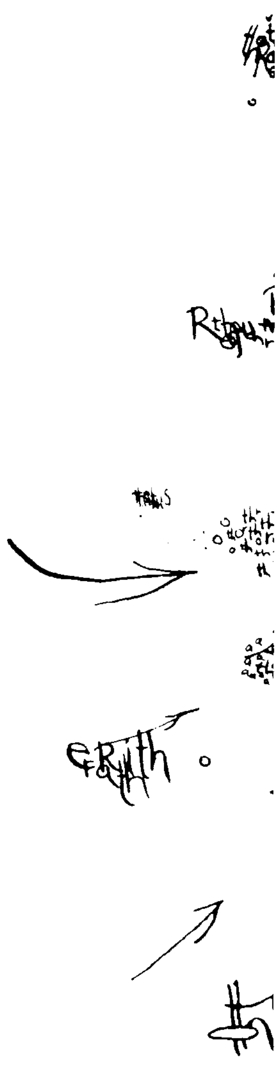

ureat ringing cr... cup hands Than at the game
B
Z
Soft low tone
5Ø 5Ø 0175Ø5Ø57 ~5 4Ø467 1-3-8 8—
ə m ə m w i k ə m ə m ə ŋ ə ə ə m ə ə ŋ n æ o s o
of talking in emotions When not talking, they are quiet, unemotional
LUSTING
g æ ə æ ul l a r v ə l
RELAXED Ayawn
8— 6— Ø-061Ø
in out
FASTIDIOUS
s t I p I t t I k t I k
Pause to think
PARENTAL IRRITATION (scolding)
Ø6-11Ø 1Ø 1Ø
b a d I p ʔI p ʔI p s k o t i s k o t i s k o t i s k o t i
Pause to think
VIOLENT ANGER (like blows)
d y æ g d y æ g d y æ g
MECHANICAL
67 67 67 67
ʔa k ʔa k ʔa k ʔa k
RIGHTEOUS INDIGNATION
d r a ŋ r o v a d r a ŋ
FEAR (wince on stops high pitch strain)
~6711 5 1 1— 1- 117117150-9—
in out
θ a k I t ʔ ʔ i i t I k t I k s ə w w ə

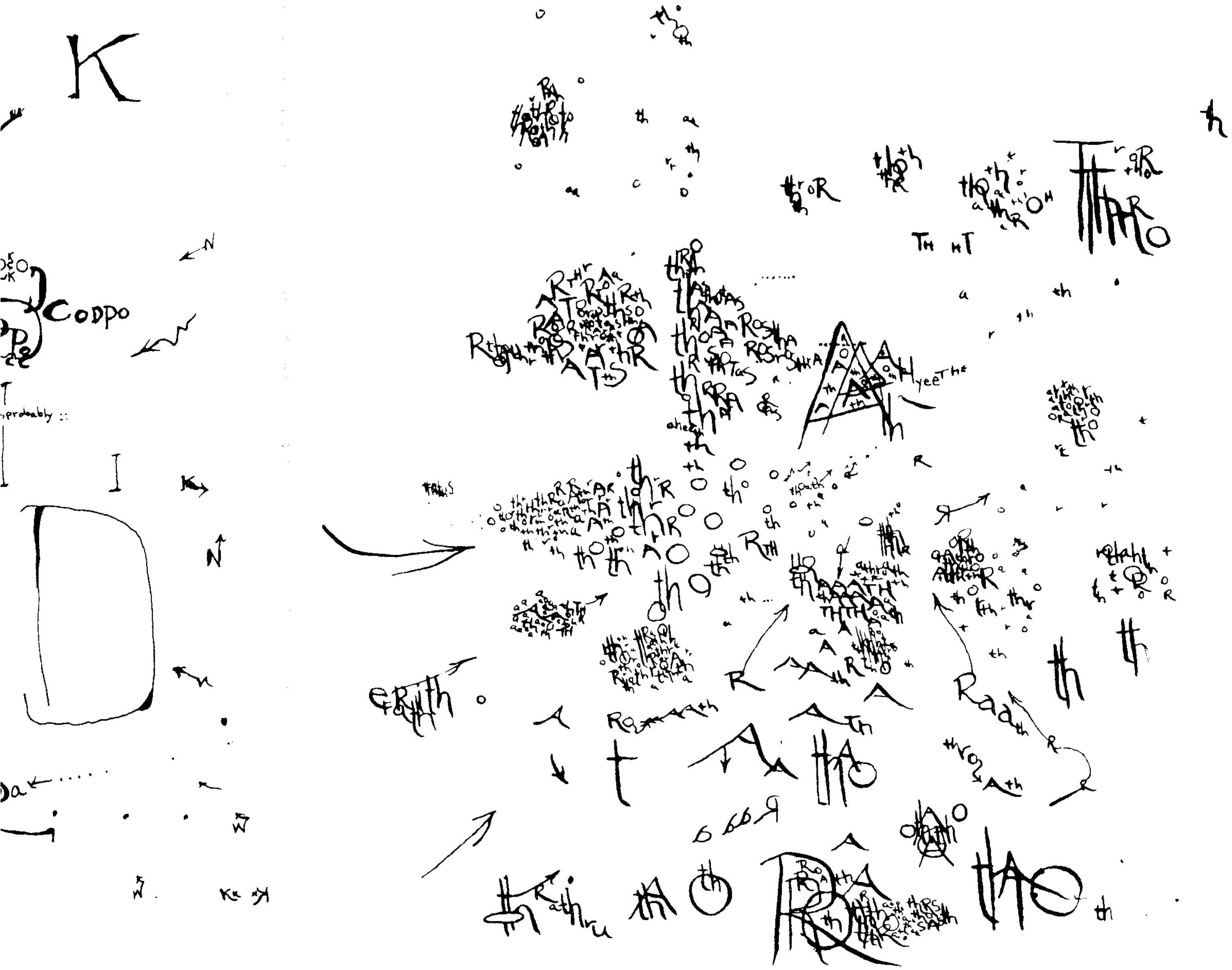
LOVE SONGS II: THE SHUMAN DREAMS


B
Z
AWE
(faint)
BOREDOM (drum fingers on floor)
look around
restless
SHAME lips tight
PLAYFUL SHYNESS
pitch✓
POISE, SERENITY
BOLDNESS
LAUGHTER (no set number)
IRRITATION

Charles Stein


K
K
D
Po
E
Dr
ORP.O
CODPO
OKL
norct "act"(?), well, probably ::
RCKT
I
D
ORROT'M
CT
TS
Topos
RORPICE
Norct
THREEee
Pa
NEW BARK



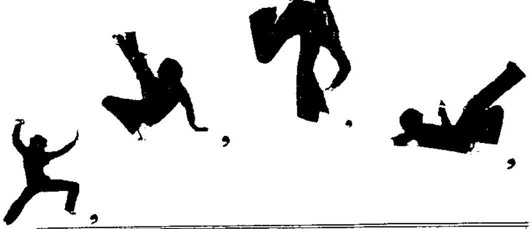

K
Coopo
probably
erith
Rada
thO
tho

DANTE'S JOYNTE

Kenneth Gaburo

LINGUA I [POEMS AND OTHER THEATERS] 6 shouting voices, overhead amber spot, 16mm film, 2-channel sound tape; 1968

A. PERFORMANCE INSTRUCTIONS: (1) The text is shared by 6 voices. (2) Each voice is given some ordered succession of text fragments. (3) Text fragments interlock as noted in the score. (4) The interlocking of text fragments preserves the linear order of the TEXT [cf. this page]. (5) Successive text fragments within each voice part are always separated from each other by some spacing, i.e. non-text. (6) Each text fragment [taken as a unit] is always shouted. (7) Each shout contains all of the sounds given in that text fragment. (8) All of the sounds in each text fragment are continuous and connected and thus, are 'within' each shout. (9) Each shout occurs only where a text fragment is provided in the score. (10) Each text fragment is to be shouted only by that voice with which it is associated. (11) Each shout is always accompanied by some vibrant, visible, physical gesture. In some fashion or another, the entire body should be energized. (12) A gesture and a shout are always synchronous, i.e. they initiate each other. (13) A succeeding gesture within a given voice part develops out of a preceding gesture in that part. (14) Gestures between and among voice parts are not to be imitated, but may be paraphrased. (15) Each gesture which synchronously accompanies a shout should be a single gesture. In effect: one shout at a time, one gesture at a time. A single gesture is difficult to specify. However, e.g., running is not a single gesture in this context, since it is made up of a series of single, repetitive gestures. A gesture is energized and fulfilled in a single stroke as it were. For instance, a stroke might be:

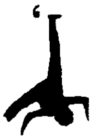


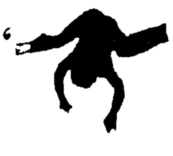
DANTE:
CANTO SIX
INFERNO

Al tornar de la mente, che si chiuse
dinanzi a la pieta' de' due cognati,
che di tristizia tutto mi confuse,
novi tormenti e novi tormentati
mi veggio intorno come ch'io mi mova
e ch'io mi volga e come ch'io mi guati.

Io sono al terzo cerchio, de la piova
eterna, maledetta, fredda e greve:
regola e qualita' mai non l'e' nova.

Grandine grossa, e acqua tinta, e neve
per l'aere tenebroso si riversa:
pute la terra che questo riceve.





(16) Thus, gesture is clearly pounded.

(17) At any given moment, the absence of a text fragment in a voice part is also the absence of some new gesture in that part. In every instance, the interaction of TEXT FRAGMENT/GESTURE is as follows: text fragment shouted: ON——OFF, ON—OFF, etc.
gesture: ON——HOLD——→ON——HOLD——→

Thus, the physical state of a given performer's current gesture is held [--maintained as if frozen, but energized] until the next instance in that performer's part. (18) Gestures between parts overlap, but shouts do not, e.g.:

part 1 shout ON—OFF,
gesture ON—HOLD——→
part 2 shout ON——OFF,
gesture ON—HOLD——→

(19) Each performer's part consists of an ordered series of static utterances [shout/gesture]. The static utterances as they interlock with each other, unfold a text/gesture continuity---a shared, composite composition. (20) To these general statements are appended the following nuances:

LINGUA PRESS

D

1 a Co
gene
mem

2 all e
heard
in Cl
excep

3 Ken
Ling
Comp
No.
197

©Ling

DWELL :[1]

[2··· N] [A M]
[A
R N]
OLD
SCHO
E [N]
BE R
G

/E
T/
i [?N
M]
E [?M
O R
i A]

/E
T/ !
[?N, A] [M]
-QU E
"i M'
[M']
E M'
O R [A']
T O R]3
U [M''···]

---

[1] a collection/collecting of generative grammars: (In memory: ARNOLD SCHOENBERG)

[2] all elements are to be heard/performed as in Classical Latin, except for: SCH

[3] KENNETH GABURO; Linguistic Composition No. 15; 1973

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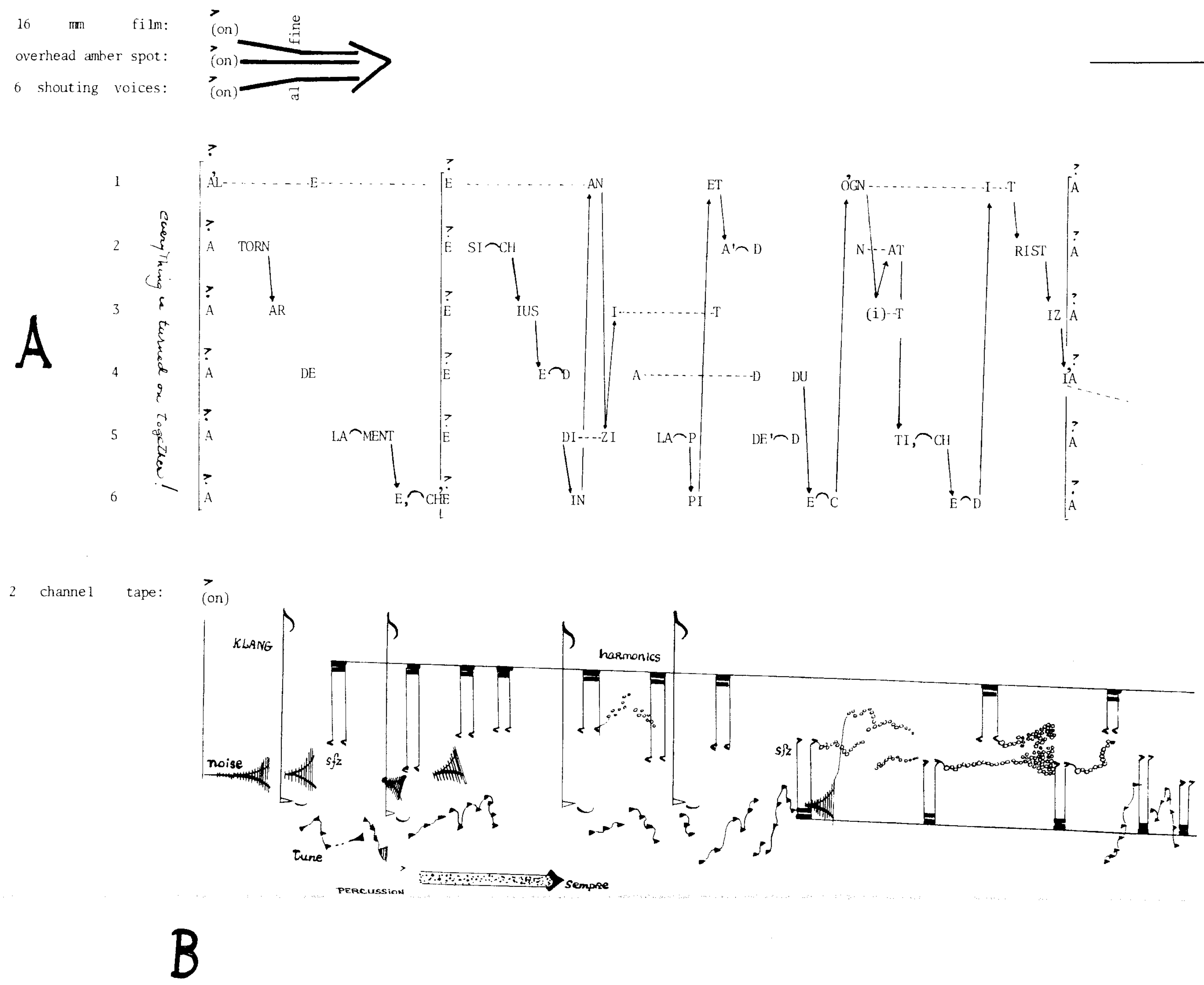
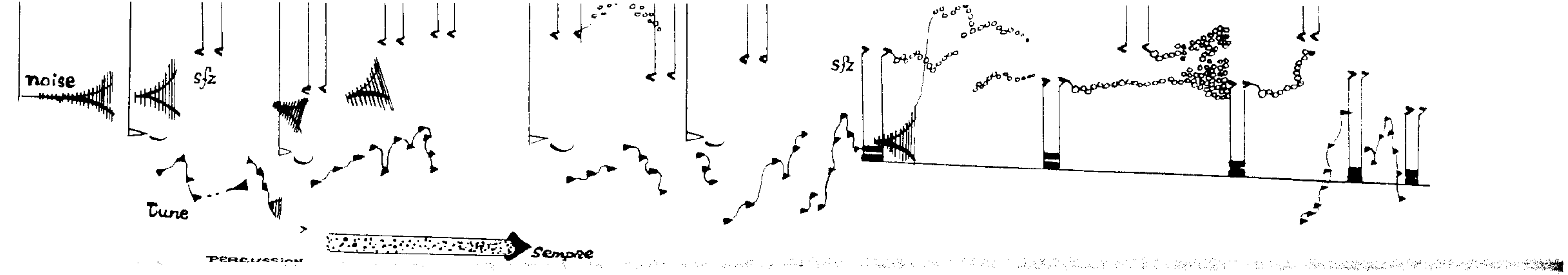
(17) At any given moment, the absence of a text fragment in a voice part is also the absence of some new gesture in that part. In every instance, the interaction of TEXT FRAGMENT/GESTURE is as follows: text fragment shouted: ON—OFF, ON—OFF, etc. gesture: ON—HOLD—→, ON—HOLD—→, Thus, the physical state of a given performer's current gesture is held [--maintained as if frozen, but energized] until the next instance in that performer's part. (18) Gestures between parts overlap, but shouts do not, e.g.:

part 1 shout ON—OFF,
gesture ON—HOLD——→
part 2 shout ON—OFF,
gesture ON—HOLD—→

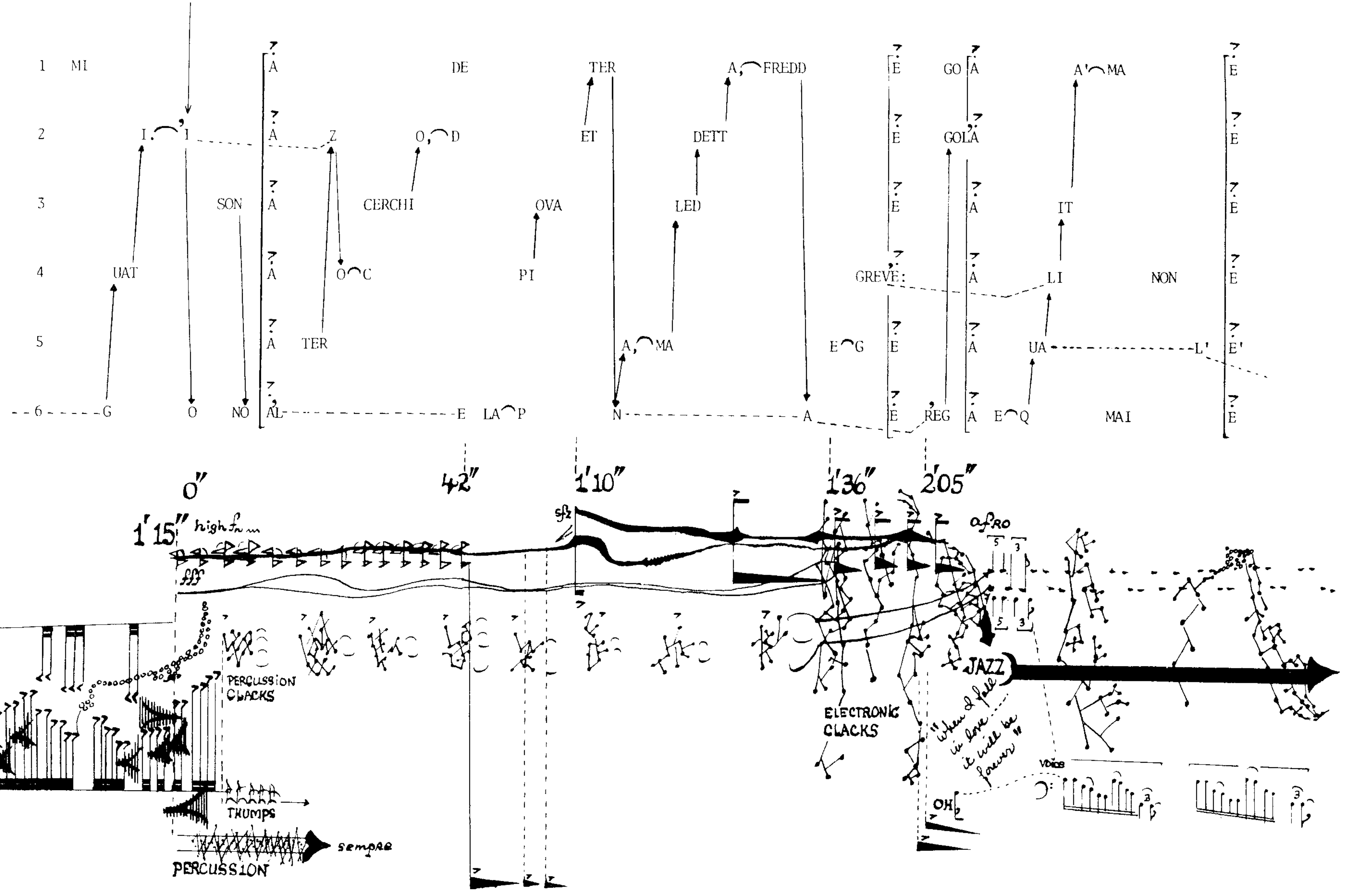
of an ordered series of static utterances [shout/gesture]. The static utterances as they

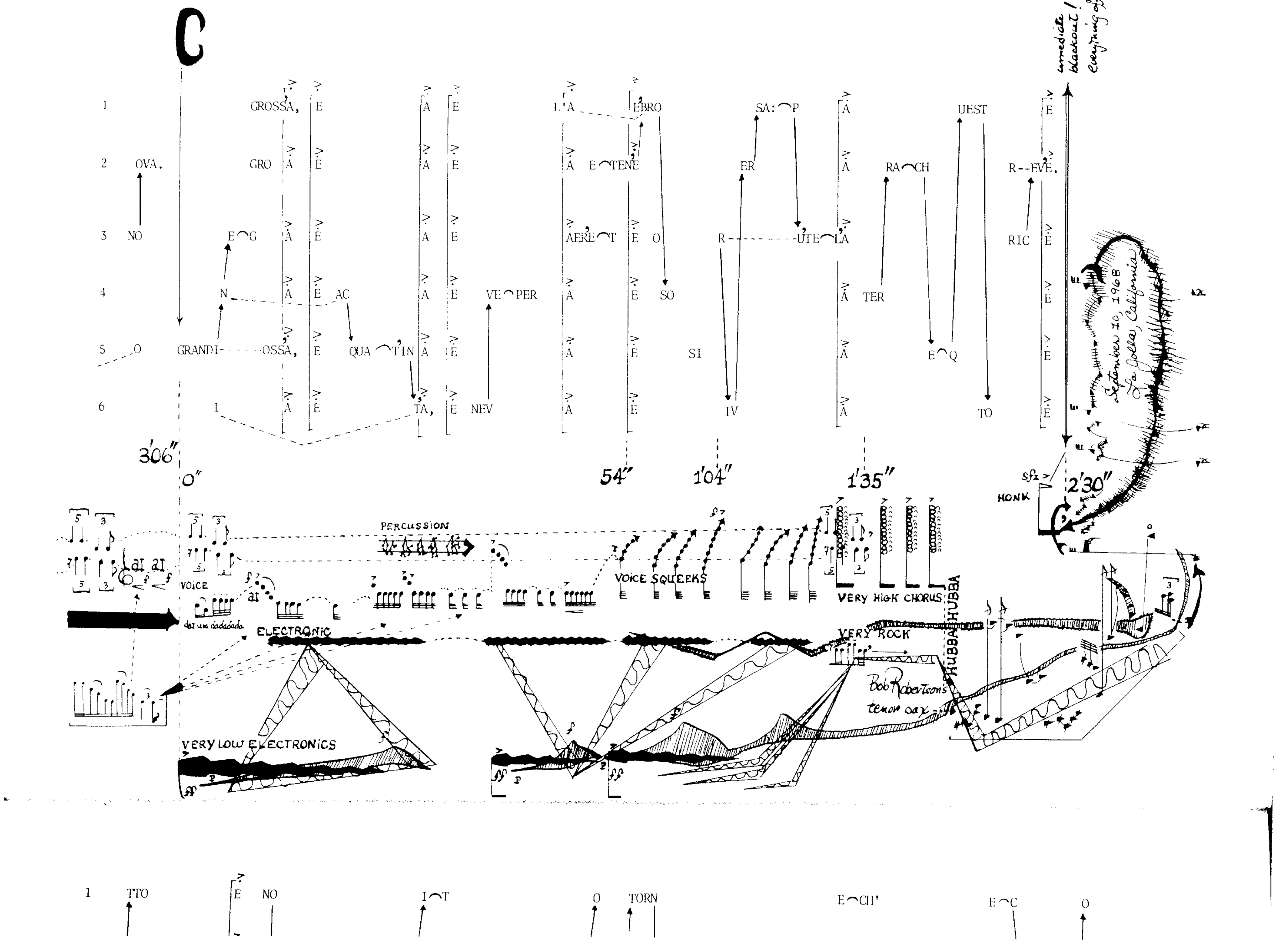
UA PRESS

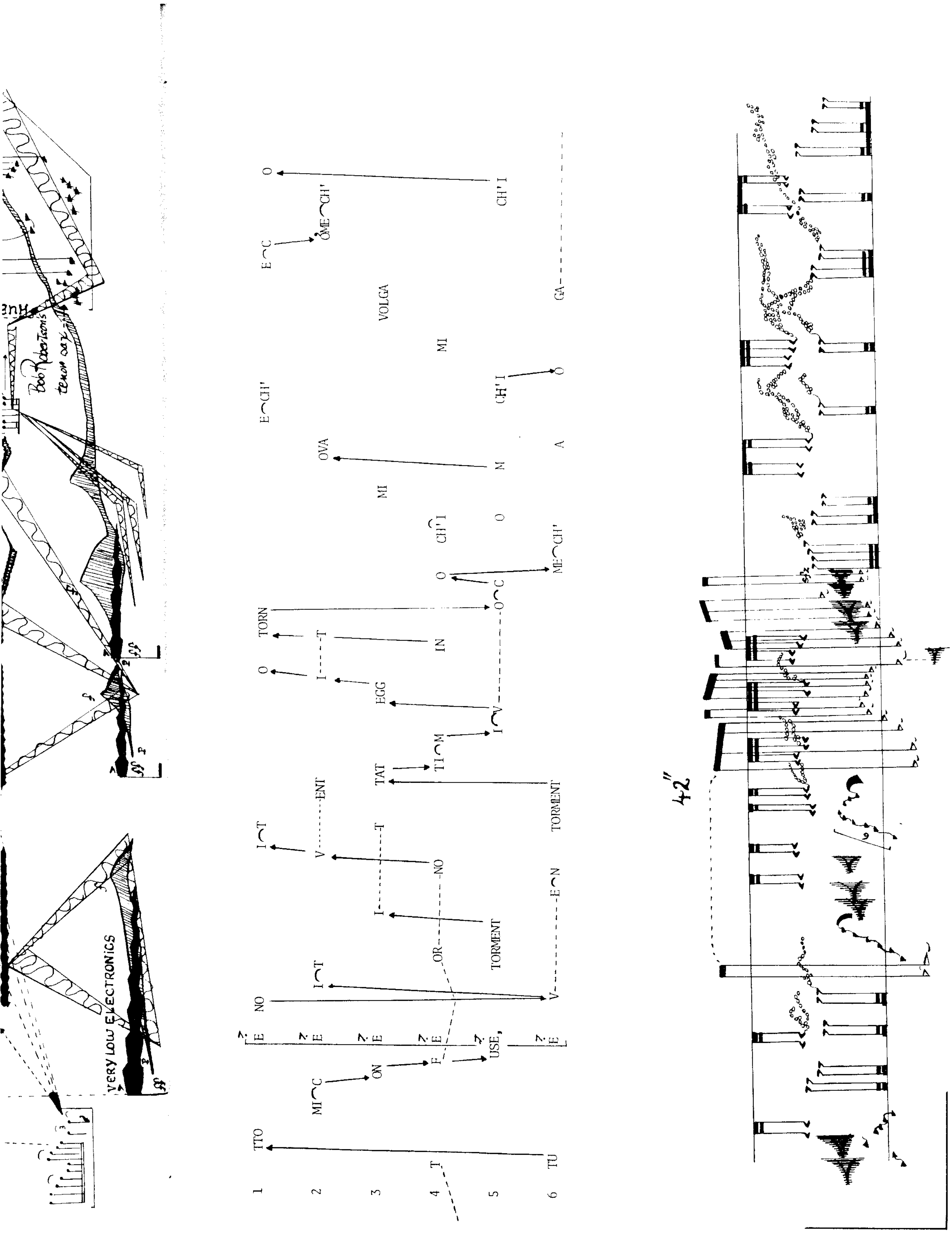

16 mm film: (on)
overhead amber spot: (on)
6 shouting voices: (on)
fine
al
A
everything is turned on together!
1
2
3
4
5
6
AL- - - - E - - - -
A TORN
A AR
A DE
A LA⁀MENT
A E,⁀CHE
E - - - - AN
E SI⁀CH
E IUS
E E⁀D
E DI- - -ZI
IN
I - - - - T
ET
A'⁀D
A - - - - D
LA⁀P
PI
DU
DE'⁀D
E⁀C
OGN - - - - I - - T
N - - AT
(i)- -T
TI,⁀CH
E⁀D
RIST
IZ
IA
A
2 channel tape: (on)
KLANG
noise
sfz
harmonics
tune
PERCUSSION
sempre
sfz
B


noise
sfz
tune
PERCUSSION
sempre
sfz

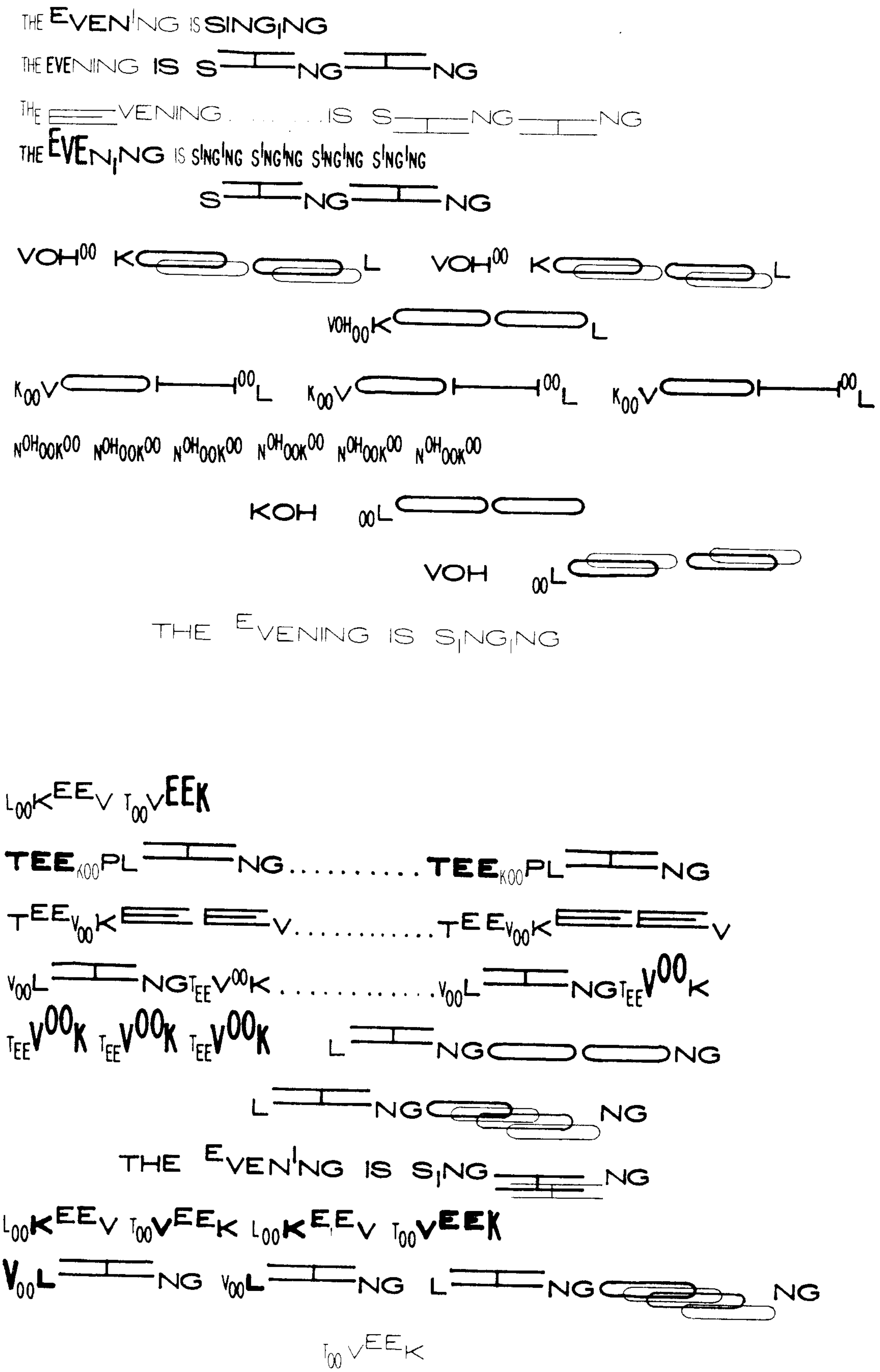
B


1 MI A DE TER A,⁀FREDD E GO A A'⁀MA E
2 I.⁀'I A Z O,⁀D ET DETT E GOLÀ E
3 SON A CERCHI OVA LED E A IT E
4 UAT A O⁀C PI GREVE: A LI NON E
5 A TER A,⁀MA E⁀G E A UA L' E'
6 G O NO AL E LA⁀P N A E REG A E⁀Q MAI E
0"
42"
1'10"
1'36"
2'05"
1'15"
high fr m
fff
sfz
afro
5
3
PERCUSSION CLACKS
ELECTRONIC CLACKS
JAZZ
"when I fall in love it will be forever"
OH
Voices
THUMPS
PERCUSSION
sempre


C
1
2
3
4
5
6
OVA.
NO
O
GRANDI- - - - - -OSSA,
E⌒G
N
I
GROSSA,
GRO
AC
QUA⌒TIN
TA,
VE⌒PER
NEV
L'A
E⌒TENE
AERE⌒T
EBRO
O
SO
SI
R- - - - - - - - -UTE⌒LA
IV
ER
SA:⌒P
TER
RA⌒CH
E⌒Q
UEST
TO
RIC
R--EVE.
3'06"
0"
54"
1'04"
1'35"
2'30"
immediate blackout! everything off!
September 10, 1968
La Jolla, California
sfz
HONK
PERCUSSION
VOICE
dai um dadadada
ai
VOICE SQUEEKS
VERY HIGH CHORUS
HUBBA HUBBA
ELECTRONIC
VERY ROCK
Bob Robertson's tenor sax
VERY LOW ELECTRONICS
ff
p
f
1
TTO
E
NO
I⌒T
O
TORN
E⌒CH'
E⌒C
O


Bob Robertson's tenor sax
VERY LOW ELECTRONICS
42''
1 TTO E NO I⌒T O TORN E⌒CH' E⌒C O
2 MI⌒C E I⌒T V-----ENT OVA ÒME⌒CH'
3 ON E I T TAT EGG MI VOLGA
4 T F E OR NO TI⌒M T O CH'I MI
5 USE, E TORMENT I⌒V IN O⌒C O M CH'I CH'I
6 TU E V E⌒N TORMENT ME⌒CH' O A GA
sfz
f
p
ff

THE EVENING IS SINGING



THE EVENING IS SINGING
THE EVENING IS S—I—NG—I—NG
THE ═VENING . . . . IS S—I—NG—I—NG
THE EVENING IS SINGING SINGING SINGING SINGING SINGING
S—I—NG—I—NG
VOHOO K L VOHOO K L
VOHOOK L
KOOV H OOL KOOV H OOL KOOV H OOL
NOHOOKOO NOHOOKOO NOHOOKOO NOHOOKOO NOHOOKOO NOHOOKOO
KOH OOL
VOH OOL
THE EVENING IS SINGING

LOOKEEV TOOVEEK
TEEKOOPL—I—NG . . . . TEEKOOPL—I—NG
TEEVOOK══ ══V . . . . TEEVOOK══ ══V
VOOL—I—NGTEEVOOK . . . . VOOL—I—NGTEEVOOK
TEEVOOK TEEVOOK TEEVOOK L—I—NG NG
L—I—NG NG
THE EVENING IS SING—I—NG
LOOKEEV TOOVEEK LOOKEEV TOOVEEK
VOOL—I—NG VOOL—I—NG L—I—NG NG
TOOVEEK

PLOONGAWVEEN PLOONGAWVEEN PLOONGAWVEEN PLOONGAWVEEN

PLOONGAWVEEN

ENGNOFRAWRENG

ENGNOFRAWRENG

OOVAW OOVAW OOVAW AWPLOON

OOVAW . . . . . AWPLOON

AHVAHOOAWNG AHVAHOOAWNG

OF THE BLUE MOTH THE BLUE MOTH THE BLUE MOTH

WEMMYLETTING SHE'S TELLING ME

OF THE **BLUE** MOTH THE BLUE MOTH

THE BLUE MOTH OF EVENING

OF EVENING

NEMMYLET NEMMYLET NEMMYLET NEMMYLET NEMMEELETTING

THE WAY SHE IS **SAY**ING

"THE EVNING IS SINGING"

THE EVENING IS SINGING

NEMMYLETTING WHEN SHE TELLS ME

THE EVNING IS SINGING

THE **EVE**NING IS SINGING

SINGING SINGING SINGING SINGING

SINGING

SINGING

A critique of cues for readers and speakers

The reader will notice that different poems are written in different print. Some compositions appear only in prosodynic print; other poems are presented in prosodynic orthography but are preceded by a version in standard English print. A third presentation is cued with prosodynes only here and there in short passages. A fourth group appears only in standard English print. These are the compositions that need no intensity, pause, pitch or time durational instruction because their phonetic patterns are cue-rich enough in acoustic dimensions for any native speaker of American English to hear the message in the standard print. The loud diphthong music in "The Voice of the Buoys," and the multi-dimensional phoneme music in "Lyric For a Flute" need no additional acoustic cues.

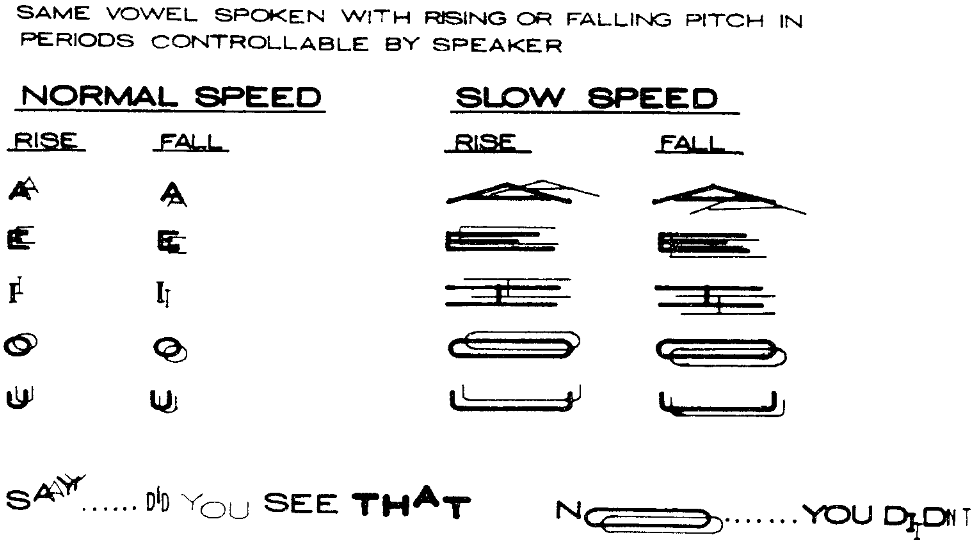
When a poem first appears in standard typography and then is presented in prosodynic print the double exposure is intended to give the reader an extra bit of information: the author's vocal intention, his ideal performance. The reader-speaker may then decide to accept or reject the author's model, but at least he knows the writer's intent in terms of what rendition the author prefers. Two script presentations are usually those poems whose images are associated with infrequent Occurrences such as astronomic images in "Transwhichics #1 and #2." Another criterion for double presentation is a poem with rhythm that violates the stress patterns of English for aesthetic-semantic reasons peculiar to the authors compositional design. Other grammatic cue determinants being absent, verbs in English are far more likely to be stressed than prepositions. Students trained in prosodynes marked "woodwinds" quite differently from the cued version of the refrain BLEW═I═N FLEW═I═N . Yet this is the formant music pattern the poet wrote into his theme. Another justification for a double typographic presentation is the need to acoustically sharpen the rhetorical style of a poem in order to transmit its theme with a finer flare. This purpose led to a dual script for "Stony River," "Pathways of the Suns," "Crows" and several other compositions.

The case of a partially cued script is "The Dirge of the Cold" where the low vowel diphthong music is sufficiently powerful to transmit its acoustic theme without additional cues. The animal cries throughout the poem are essential to the message of the theme; yet they are infrequent occurrences for urban readers. To compensate for the unfamiliarity of these happenings to so many potential readers, these passages were cast in cued script. It may interest some readers to know that even though the longer fluctuations of the loon's call does show in the print, the perturbations of the loon cry cannot be written with prosodynes. The duration of perturbations transpires in thousandths (milli) seconds which are too rapid for human speech to reproduce. It is a cardinal principle of this code not to instruct readers to speak the impossible. Consequently, only the valuable information of the longer waves appear in the script.

Where the theme of the poem depended more on suprasegmentals of speech than on any other set of cues no standard typography appears. Only the prosodynic script that carries the crucial information is presented. It is interesting to examine the linguistic conditions that render suprasegmental cues most informative. In "Hymn to a Rat Race" the sparse context of its pronouns and auxiliary verbs deprives these functional words of their identificational power and makes them quite meaningless. Their generality in non-contextual English must be cue-reinforced for the poem's theme to make any sense whatsoever. Therefor the poem is printed only in suprasegmentally cued script. Another instance of thematic dependency on suprasegmental speech is in "Soliloquy" where "phemes" such as (huh), (oo), (aw), (oh) acquire an attitudinal expression with and only with prosodynic script. Another poem to be enriched and written more reliably for the reader is "Voices in the Violins." The soft quiet middle section and the concentration of rapid and high pitched speech in the terminal passage could not be written without graphic cues.

These analyses show that considerable thought is required to justify the use of an independent set of cues in a cue-rich, 50% redundant, language such as English. The overlaps of multiple sets of cues at one moment give instructions to readers about the use of the language and the next moment tell the speakers to act in certain ways in the world outside of language and, continuously, operate as symbols that identify the recurrent events of human existence . . . these overlaps convert the problem of assessing the information load of any single set of cues into a question that is complicated and is more a matter of judgment than simplistic logic. For clarity we may summarize the criteria for writing more or less artificial cues into these poems. When English poetry *needs* acoustic messages to compensate for lack of context, then prosodynic cues are justified . . . otherwise they are superfluous. But isn't the justification of an art the creation of NEW CONTEXT? . . . out of its physical medium.

Cues for vowel pitch modulation


SAME VOWEL SPOKEN WITH RISING OR FALLING PITCH IN PERIODS CONTROLLABLE BY SPEAKER
NORMAL SPEED
SLOW SPEED
RISE
FALL
RISE
FALL
A
E
I
O
U
SAY...... DID YOU SEE THAT
NO....... YOU DIDN'T

SEE HER DO THE LOOP DE LOOP SHES A
FIRE BALL WHAT A SHOW DO YOU WANT
A BALLOON YEAH

ITS INCREDIBLE I NEVER THOUGHT HED EVEN
MAKE IT TO **FIRST** BASE YET THERE
HE IS LEADING THE PACK.......... WHAT CAME OVER HIM
WAS IT HORSE SHOES THEY SAY ITS BETTER TO BE LUCKY
THAN GOOD

THERES NO RETURN....... THAT CANT
BE HE WENT LIKE THAT IT WAS JUST **YES**TERDAY
I SAW HIM

Pro
DUR
Trace
Shor
Norm
Prolo
INTE
Whisp
Quiet
(f
Norr
(s
Maxi
(
Pr
PIT
Low
Mid
Higl
PAI
Intr
Inte
Pau
Pau

Prosodynes

DURATION

Trace	A E I O U THE of
Short	A E O I U W Y
Normal	A E I OU W Y
Prolonged	A E I O U J Y

INTENSITY

Whisper level	a e i o u w y
Quiet unaccented speech (first amplitude level)	A E I O U W Y
Normal conversational effort (second amplitude level)	A E I O U W Y
Maximum stress or intensity (third amplitude level)	**A E I O U W Y**

Prosodynes (continued)

PITCH

Lowest pitch - indicated by depressing the vowels	$M_{I}M$ $M_{O}M$ $M_{AW}M$ $M_{EE}M$
Middle pitch - indicated by normal position on line	MIM MOM MAWM MEEM
Highest pitch - indicated by elevating the vowels	$M^{I}M$ $M^{O}M$ $M^{AW}M$ $M^{EE}M$

PAUSES

Intra-phrase pause, articulatory: blank space 2 times height of tallest letter.

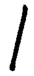
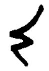
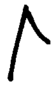
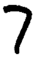
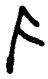
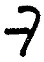
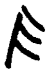
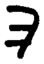
Inter-phrase, for breath and syntax: blank space 4 times height of tallest letter.

Pause of thought: line of dots varying from 1 cm. to 3 cm. with time for decision.

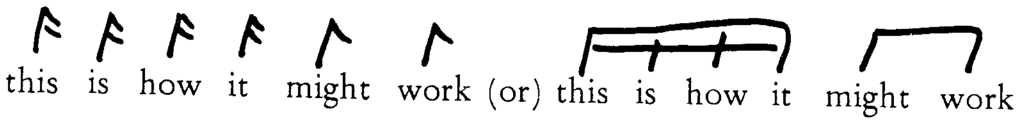
Pause allocations require some semantic judgment by the writer.

CHART OF MUSICAL VALUES

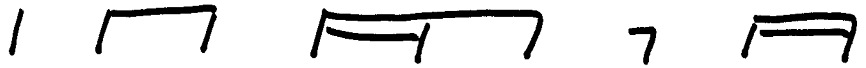
Most of the poems in Parts 1 & 3 are scored with musical notations. This is for the purpose of expressing the colors, rhythms and dynamics of language. For simplification I will work with the basic unit of one beat, and relate it to the various units of sound and silence.

		Sound		Silence (rests)
1 pulse or beat	=		=	
1/2 pulse or beat	=		=	
1/4 pulse or beat	=		=	
1/8 pulse or beat	=		=	

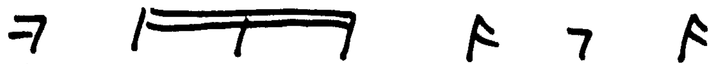
1. When 1/2, 1/4, or 1/8 beats are adjacent they may be separate or connected by a straight line at the top.


this is how it might work (or) this is how it might work

2. These sound pulses can be intermingled with rests as follows:

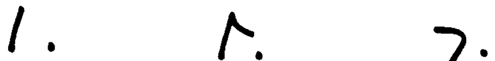


1 = 1/2 + 1/2 = 1/4 + 1/4 + 1/2 = 1/2 + 1/4 + 1/4 =



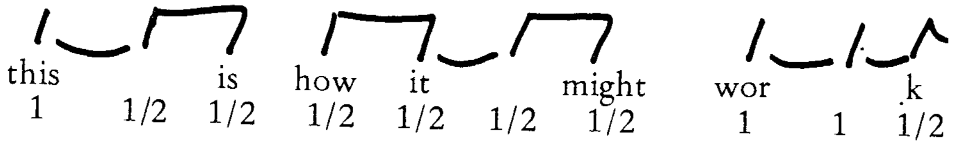
1/4 + 1/4 + 1/4 + 1/4 = 1/4 + 1/2 + 1/4

3. A dot (·) added to either sound or silence increases its duration by 1/2 its original value.



1 + 1/2   1/2 + 1/4   1/2 + 1/4

4. When a curving line connects two values it means to add them together.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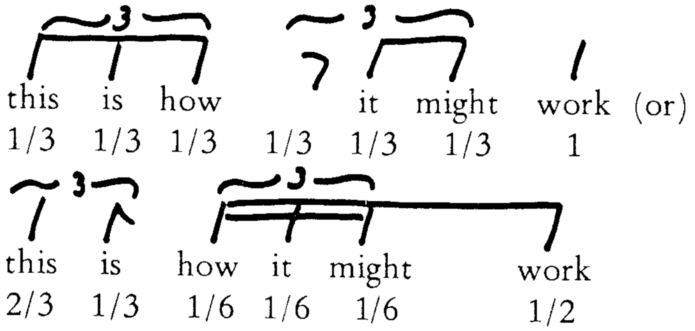
5. Triplets are three pulses (sound or silence) of equal value, usually occuring within a period of one beat. They are generally connected by a broken bracket on top with a number three written between.



6. The dynamic markings I have used are few and simple.

pp = very soft
p = moderately soft
f = moderately loud
ff = very loud

cresc. = increase the sound
dim. = decrease the sound
pitch up = raise the pitch
pitch down = lower the pitch

A wavering line 〰x following a pitch up, or pitch down direction indicates the pitch shall continue to rise or fall. An (x) at the end indicates a termination of direction.

𝄐 extend time pulse
> accent sound

rit: = slow the pace
(·) = staccato

The basic principles of musical notation cannot possibly be condensed into such limited space, but this will be a helpful guide, and along with the natural rhythms of words and their arrangement on the page, the general feeling will come through.